



**CWB**  
**Engineers, Inc.**

*Designing a Better Arkansas*

January 25, 2017

Mr. Alan Anderson  
Water Enforcement Branch  
Arkansas Department of Environmental Quality  
5301 Northshore Dr.  
North Little Rock, Arkansas 72118-5317

**Re: City Corporation-CAO**  
**Final Report SSES Phase II (Basins RV13, RV16, RV26)**  
**NPDES Permit No. AR0021768**  
**CAO LIS No. 09-146**  
**AFIN 58-00105**

Dear Mr. Anderson,

I am pleased to submit a copy of the attached SSES Phase II final Report for Basins RV13, RV16 & RV26 on behalf of City Corporation. The Phase II submittal shall fulfill the requirements of the Consent Administrative Order and the Corrective Action Plan dated May 28, 2010. The attached document is the final report prepared by RJN. Please review the document and respond with any concerns or comments.

RJN is currently working in Basins RV12, RV19 & RV24 as stated in the latest Milestone Schedule that was submitted with the March 31, 2016 CMOM update. Kajacs Contractors has completed construction on the City Mall Hydraulic Improvements project. Corgil Construction has completed the Manhole Rehab Phase I project. Horseshoe Construction is currently rehabbing Basins 7 & 14 Wastewater Improvements and 3, 5 & 6 Wastewater Improvements. City Corporation has continued to aggressively investigate and repair I/I issues throughout the system.

If you have any questions, you may contact me at email [cbell@cwbingineers.com](mailto:cbell@cwbingineers.com) or phone (501) 413-0861.

Sincerely,

Clint Bell, P.E.  
*CWB Engineers, Inc.*

Enclosure

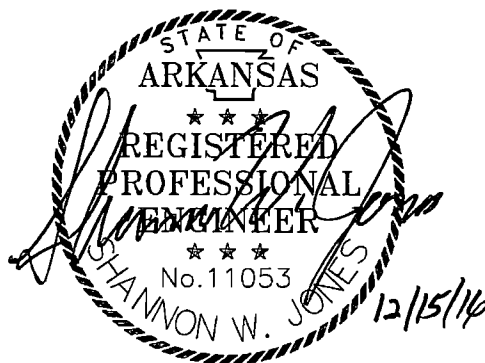
Russellville City Corporation  
Wastewater Collection System

SSES Phase 2 2015-2016

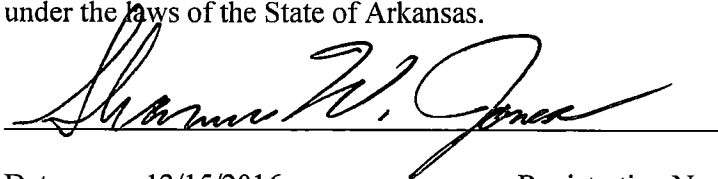
(Basins RV13, RV16, & RV26)

December 2016

City of Russellville  
Russellville, Arkansas



I hereby certify that this report was prepared under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Arkansas.



Date: 12/15/2016 Registration No.: 11053



# EXECUTIVE SUMMARY

RJN Group, Inc. was retained by Russellville City Corporation to provide Phase 2 Inflow and Infiltration (I/I) Reduction Services within the wastewater collection system in the prioritized Basins identified in the Phase 1 Report. It was recommended that a comprehensive evaluation study of the sewer system in each of the three (3) basins (RV13, RV16, and RV26) be implemented. The purpose of this study was to identify I/I sources and develop a recommended plan for the elimination of those sources. The study consisted of field investigations and analysis to develop a recommended plan to reduce I/I and improve the integrity of the collection system. Both Phase 1 and Phase 2 inspections and recommendations are included in this report.

The study area contains approximately 117,810 linear feet of wastewater mains ranging in size from 6 inches to 18 inches in diameter and approximately 495 structures. Field activities included:

- Mapping
- Manhole/Visual Pipe Inspections
- Smoke Testing
- Dyed Water Flooding
- TV Inspection (CCTV)
- Data Analysis/Recommendations

## **Manhole Inspections (Tables 2-A and 2-B)**

Manhole above/below ground and visual pipe inspections included the documentation of location and an evaluation of the physical conditions of each structure. A total of 494 structures were visited from the study area and completed inspections were performed on 476 structures.

## **Smoke Testing/Rainfall Simulation (Table 2-D and 2-E)**

Smoke testing was performed to identify sources of inflow such as defective cleanouts, service laterals, main lines, area drains and catch basins. A total of 114,975 linear feet of sewer was inspected by smoke testing in the study area. Approximately 3,444 linear feet of sewer was not tested due to recent and new construction.

## **Dyed Water Flooding (Table 2-F)**

Dyed water flooding was performed on potential main lines to further pinpoint defect locations identified during smoke testing. A total of 6 dyed water tests were performed in the study area.

## **Television Inspection and recommended Sewer Line Repairs (Table 2-G, 4-A thru 4-D)**

Closed circuit television inspection was performed on 11,795 linear feet of the sewer system in the study area. TV inspection was used to identify the exact location of defects identified from smoke testing and visual pipe inspection to document defects.

Recommended repairs are summarized in Tables 4-A (summary of CCTV results and recommendations), Table 4-B (lines recommended for cured in place pipe), and Table 4-C (complete line rehabilitation), and 4-D (sewer line point repair).

**Recommended Manhole Rehabilitation (Table 4-F)**

Manhole Inspection data was analyzed and rehabilitation was recommended for each manhole requiring repairs. A total of 320 manholes are recommended for rehabilitation.

**Recommended Service Line Inflow Removal (Table 4-H)**

Smoke testing data was analyzed and repairs for service line sources in the public and private sector are recommended. A total of 81 service line sources are recommended for repair.

**RECOMMENDED REPLACEMENT/REHABILITATION COST ESTIMATES**

<b>Repair Category</b>	<b>Quantity</b>	<b>Capital Cost (\$Million)</b>
<b>Sewer Line Rehabilitation</b>		
Main Sewer Replacement (Tables 4-B, 4-C)	38 Ea.	1.889
Public Sector Point Repairs (Table 4-A)	15 Ea.	0.101
Public Sector Main Line, Cross Connections, and Catch basins	13 Ea.	<u>0.068</u>
Subtotal		2.058
<b>Manhole and Smoke Defect Repairs</b>		
Manhole Repair (Table 5-D)	320 Ea.	0.600
Public and Private Sector Cleanout and Service Line Repairs (Table 5-B)	81 Ea.	<u>0.113</u>
Subtotal		<u>0.713</u>
<b>Total</b>	<b>467 Ea.</b>	<b>2.771</b>

**SUMMARY OF REDUCTION IN PEAK INFLOW AND INFILTRATION**

- The projected 1-year/60-minute inflow rate determined in the Phase 1 Report is approximately 1.751 mgd for this study area. The overall reduction which includes the recommended replacement and rehabilitation program included in this study is estimated to reduce the peak inflow by approximately 69 percent by a 1-year/60-minute inflow reduction rate of 1.209 mgd.
- The projected peak monitored infiltration determined in the Phase 1 Report for the study area was estimated to be 0.471 mgd. The overall reduction which includes the recommended replacement and rehabilitation program included in this study is estimated to reduce the peak infiltration rate by approximately 125 percent by a peak infiltration reduction rate of 0.588 mgd.

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- APPENDIX A – Manhole Inspection Report
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# INTRODUCTION

In February 2010, RJN Group, Inc. was retained by Russellville City Corporation of Russellville, Arkansas to perform a city-wide evaluation of the sanitary sewer collection system by means of flow monitoring, lift station evaluation, intensive field investigations and hydraulic modeling. This evaluation is to be conducted over several years in multiple phases. Phase 1 consisted of flow monitoring, lift station evaluations, hydraulic modeling and initial field investigations required to assist in the hydraulic modeling. Phase 1 also prioritized the sub-basins for additional investigation to identify Inflow/Infiltration (I/I) sources and develop sewer improvement recommendations.

Based on the results of the Phase 1 Study, the Russellville City Corporation retained RJN Group, Inc. to continue the Phase 2 Inflow and Infiltration (I/I) Reduction Study within Basins RV13, RV16, and RV26 which included manhole inspection, smoke testing, dyed water flooding, and television inspection. Both Phase 1 and Phase 2 inspections and recommendations located within the current study basins are discussed in this report. Study basins and the year of study can be found below in Table 1-A.

Year Studied	Study Basins
2010-2011	RV07, RV14, RV23
2011-2012	RV01, RV02, RV08, RV11
2012-2013	RV03, RV05, RV06, RV21
2013-2014	RV17, RV18, RV20
2014-2016	RV09, RV15, RV25
2015-2016 <sup>1/</sup>	RV13, RV16, RV26

*<sup>1/</sup> Study Basins covered in this report*



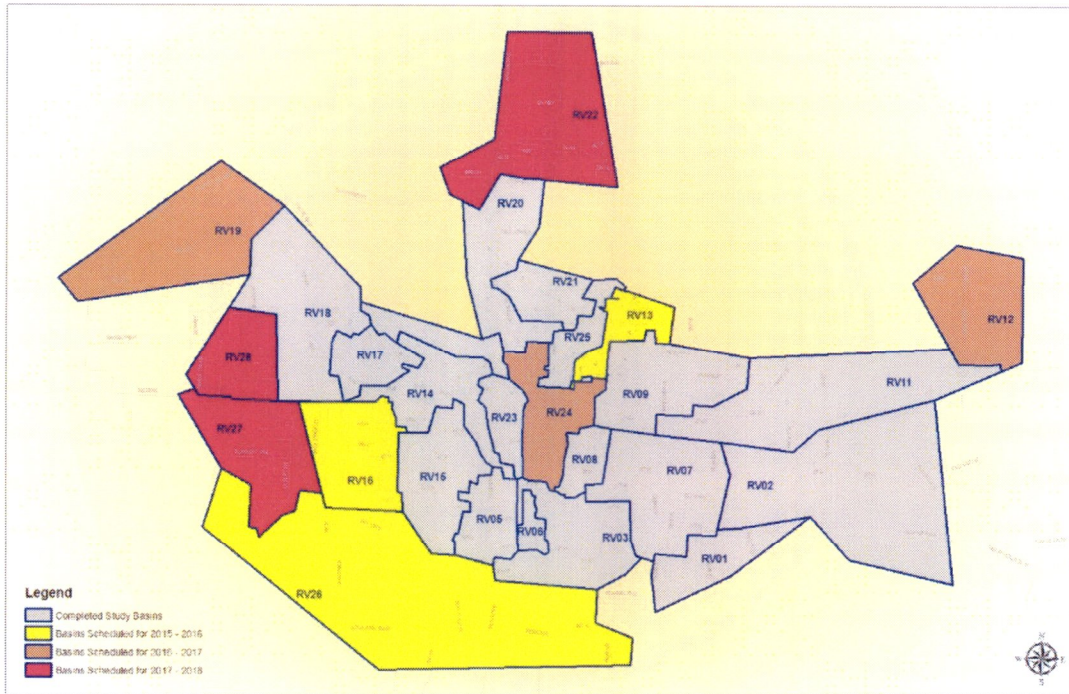


Figure 1.1

## OVERVIEW

Infiltration and Inflow may enter the sanitary sewer system during storm events. Infiltration occurs when groundwater enters sewer lines and manholes. Inflow occurs when storm water runoff enters the sanitary sewer system through both public sector and private sector sources. These sources include cross connections with storm sewers, main line defects, vented manhole covers, defective frame seals, defective cleanouts, and direct connections to the sanitary sewer from downspouts and/or area drains.

The data collected from the field investigations is thoroughly analyzed by engineers to generate a plan that can effectively reduce I/I, therefore, resulting in considerable savings in the transport and treatment costs to the City Corporation. Field investigations performed during this project include the following:

1. Manhole and Visual Pipe Inspections
2. Smoke Testing
3. Dyed Water Flooding
4. Television Inspection (CCTV) / Pipe Cleaning
5. Mapping
6. Data Analysis
7. Recommendations/Report

## DESCRIPTION OF THE STUDY AREA

The basins included in this study are comprised of residential neighborhoods, commercial, industrial, and remote areas. The study area includes three (3) drainage basins, an estimated 495 sanitary sewer structures, and approximately 117,810 linear feet of sewer pipe, which are owned and maintained by the Russellville City Corporation. The drainage basins included in the study area are shown on Exhibit 1.

## PROJECT APPROACH

The basins were studied to identify I/I sources and recommend a plan to improve the efficiency of the wastewater collection system. The project team employed the following project approach for the Phase 2 (2015-2016) Study:

### Field Investigations:

1. Manhole and Visual Pipe Inspections
2. Smoke Testing
3. Dye Testing
4. Television Inspection
5. Data Analysis

**Data Analysis and Recommendations:**

The recommended plan was arrived at after carefully reviewing the results achieved from the field investigations, and consists of the following:

1. Recommended I/I removal based on manhole inspections and smoke testing
2. Line replacements and point repairs based on CCTV
3. Maintenance issues based on CCTV and dyed water testing
4. Cost to implement the plan

**DEFINITIONS AND ABBREVIATIONS**

This section contains definitions and abbreviations commonly used throughout this report.

- (1) Infiltration (as defined by USEPA) – the water entering a sewer system and service connections from the ground through such means as, but not limited to, defective pipes, pipe joints, service connections, service laterals, or manhole walls.
- (2) Inflow (as defined by USEPA) – the water discharged into a sewer system, including service connections, from such sources as roof leaders; cellar, yard, and area drains; foundation drains; cooling water discharges; drains from springs and swampy areas; manhole covers; cross connections from storm sewers, combined sewers, or catch basins; storm waters; surface runoff; or drainage.
- (3) Excessive Infiltration and Inflow (I/I) – the extraneous clean water that enters the sanitary sewer system which can be eliminated on a cost-effective basis.
- (4) Base Flow – wastewater flow exclusive of infiltration or inflow. Generally determined from water records during months when most of the water consumption is returned to the wastewater collection system.
- (5) Permanent Infiltration – extraneous flow that enters the sewer system through the ground during periods of dry weather/low groundwater. Generally determined by subtracting base flow during winter months from the average daily dry-weather monitored flow.
- (6) Peak Infiltration – the maximum extraneous flow that enters the wastewater collection system during high groundwater conditions after the inflow effects of a rain event have ended. Generally determined by subtracting dry-weather/low-groundwater flow (average daily dry-weather monitored flow) from flow recorded during periods of high groundwater.
- (7) Average Daily Dry-Weather Flow – dry-weather/low-groundwater flow exclusive of dry-weather/high-groundwater (peak infiltration) and wet-weather (inflow) flow. Includes base flow and permanent infiltration only.
- (8) Average Daily Dry-Weather Flow Peaking Factor – the ratio between the peak hourly flow rate and the average daily flow.
- (9) 1-Year/60-Minute Storm – a storm event that produces 1.45 inches of rain per hour and is expected to occur once in any given year.

- (10) 2-Year/60-Minute Storm – a storm event that produces 1.78 inches of rain per hour and has a 50 percent probability of occurring in a given year.
- (11) 2-Year/24-Hour Storm – a storm event that produces 4.14 inches of rain in 24 hours and has a 50 percent probability of occurring in a given year.
- (12) Design Storm Event - a storm event selected for purposes of analyzing its effect on the wastewater collection system.
- (13) gpd – gallons per day.
- (14) mgd – million gallons per day.
- (15) idm – inch-diameter-miles. The product of sewer pipe diameter in inches and length of sewer in feet divided by 5,280 feet.
- (16) gpd/idm – gallons per day per inch-diameter-mile.
- (17) Surcharge Condition – When the sewer flow depth equals or exceeds the diameter of the discharging sewer lines. (WEF Manual of Practice FD-6)
- (18) Infiltration and Inflow (I/I) – A combination of infiltration and inflow wastewater volume in sanitary sewer.
- (19) Public Sector Cleanouts – Cleanouts that are approximately located within city easements or right-of-way.
- (20) Private Sector Cleanouts – Cleanouts that are approximately located on private property, such as homeowner’s yard.

## SYSTEM SURVEY

RJN conducted a Wastewater Collection System Study to identify sewer manhole defects and maintenance related issues, recommend repairs to reduce I/I, and increase the overall efficiency of the collection system.

### MAPPING AND STRUCTURE NUMBERING

Russellville City Corporation provided maps of the wastewater collection system in the study area at the initiation of the study. Manholes or other information found during the field investigations that were not shown on existing maps were assigned a number ending in the letter 'A' and were added to the collection system map. The maps were updated to include routing changes, new line segments, and manholes found during field investigations. Approximately 18 manholes were found during investigations within Basins RV13, RV16, and RV26 that were not on the GIS maps provided.

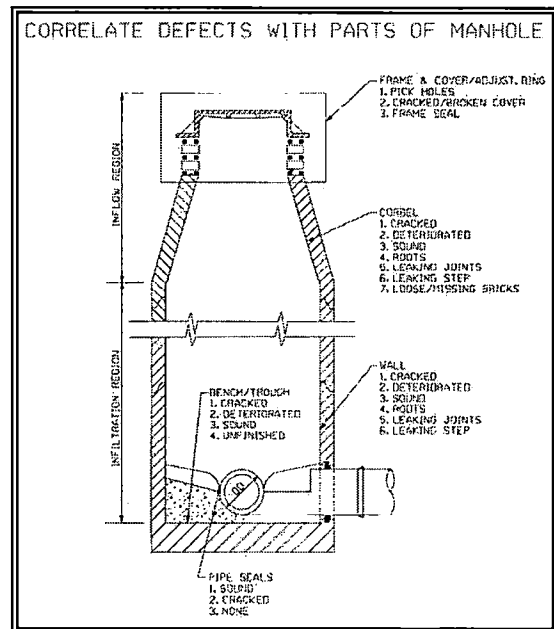
### FIELD INSPECTIONS

Field inspection activities included: manhole and visual pipe inspections, rainfall simulation, smoke testing, dyed water flooding, and CCTV inspection. The field inspections were performed across basins RV13, RV16, and RV26.

### MANHOLE AND VISUAL PIPE INSPECTIONS

Manhole inspection and visual pipe inspection is that part of the survey where the physical condition of the sewer system is visually evaluated. These inspections verified manhole location, condition, pipe size, pipe condition, and line segment continuity. A sectional elevation of a typical manhole is shown on the right.

The manhole inspection procedure included recording the following observations:



1. Location and identification number
2. Potential for ponding on manhole cover
3. Cover type, fit, description, segment length, distance above or below grade, and evidence of inflow
4. Frame adjustment, seal, and evidence of inflow
5. Corbel construction, condition, evidence of inflow
6. Wall construction, condition, evidence of infiltration
7. Bench/trough construction, condition, deposition, evidence of infiltration
8. Pipe seal condition, evidence of infiltration
9. Step conditions
10. Manhole inside diameter
11. Surcharging or evidence of surcharging
12. Indication of groundwater level

**FINDINGS: MANHOLE INSPECTIONS**

Inspections were attempted on 494 of the anticipated 495 manholes (99%) in the study basins. Access structures not inspected included: buried, not found, and inaccessible structures. Manholes that were not inspected are indicated on the manhole inspection report included in the Appendix A and are noted in Table 2-A.

Table 2-A

**ACCESS STRUCTURE INSPECTION SUMMARY  
PHASE 1 & 2**

<b>Basin</b>	<b>Total</b>	<b>Inspected</b>	<b>Not Found</b>	<b>Buried</b>	<b>Inaccessible</b>
RV13	101	99	0	0	2
RV16	233	228	4	0	1
<u>RV26</u>	<u>160</u>	<u>149</u>	<u>7</u>	<u>0</u>	<u>4</u>
<b>Total</b>	<b>494</b>	<b>476</b>	<b>11</b>	<b>0</b>	<b>7</b>



*Manhole with Severe Roots  
(RV26)8632*



*Defective Frame Seal  
(RV16)1420*

Manhole construction includes brick, precast, poured, and coated manholes. The manholes range in diameter from 6-inches to 18-inches, with the majority 48-inches in diameter. Manhole inspection resulted in identification of approximately 0.654 mgd of 1-year inflow and 0.470 mgd of infiltration. Major identified inflow sources included pick holes, cracked walls, defective frame seals, and corbel leaks. Overall, the most significant source of inflow from manholes was attributed to defective frame seals (119 ea) which are contributing approximately 0.256 mgd of inflow.



*Defective Pipe Seal  
(RV26)8640*



*Defective Pipe Seal  
(RV26)8001*

Inspections indicated defective pipe seals to be prime sources of infiltration. A total of 119 manholes with defective pipe seals contributing approximately 0.319 mgd of inflow and infiltration were discovered. The pictures above depicts defective pipe seals.

A manhole inspection summary is given in Table 2-A, while a summary of manhole defects is given in Table 2-B. A detailed summary of the manhole inspection is in the Appendix A. A total of 90 manholes located throughout the study area indicated evidence of surcharging. Maps depicting the manhole inspection status for the study area are shown on Exhibits 2 – 5 located in the Appendix at the back of this report.

Table 2-B

**SUMMARY OF MANHOLE DEFECTS**

Type of Defect	Number of Defects
<b><i>Inflow</i></b>	
Covers with Pick Holes	128
Defective Frame Seal	119
Offset Frame	2
Defective Corbel	33
<u>Broken Frame</u>	<u>27</u>
Subtotal	309
<b><i>Infiltration</i></b>	
Defective Manhole Wall	133
Defective Pipe Seals	119
<u>Defective Bench/Trough</u>	<u>66</u>
<u>Subtotal</u>	<u>318</u>
<b>Total</b>	<b>627</b>

**VISUAL PIPE INSPECTIONS**

Visual pipe inspection was also performed as part of the manhole inspection program with the following observations recorded:

1. Manhole identification numbers for connecting sewer lines
2. Flow direction in pipes
3. Pipe diameter and construction material
4. Amount of root growth percentage based
5. Amount and type of deposition
6. Structural condition and line/grade of pipe
7. Visible infiltration in pipe and/or from pipe seals

Visual pipe inspection verifies pipe diameter, continuity, and aids in identifying pipe defects near the collection system access structure.

**FINDINGS: VISUAL PIPE INSPECTIONS**

Sewer lines in the study area are mainly constructed of polyvinyl chloride (PVC), cast iron, concrete and vitrified clay. Table 2-C shows defects found during visual pipe inspection.



Table 2-C

**SUMMARY OF DEFECTS FOUND DURING VISUAL  
PIPE INSPECTION**

<b>Line Segment Defect</b>	<b>Quantity</b>
Root Growth	119
Cracked Pipe	90
Collapsed Pipe	6
Broken Pipe	1
Sag	3
<u>Offset</u>	<u>28</u>
<b>Total</b>	<b>247</b>

Examples of some of the defects are shown on the following page. A computer output report detailing the visual pipe inspection data is in Appendix B.



*Roots  
(RV13)1835-N In*



*Offset and Roots  
(RV13)4076-N In*

## RAINFALL SIMULATION

A major field task in sewer system evaluation studies is locating infiltration and inflow sources by rainfall simulation. Types of infiltration and inflow sources identified by rainfall simulation may include the following:

1. Roof downspouts, yard, and area drains
2. Defective building sewers, faulty connections, and defective cleanouts
3. Cross connections between sanitary sewers and storm sewers (indirect or direct)
4. Storm sewer sections, stream sections, ditch sections, and ponding areas which may cause infiltration and inflow
5. Structurally damaged sewers and manholes

Rainfall simulation can also be utilized with flow measurements to quantify infiltration and inflow from identified sources. Rainfall simulation techniques include smoke testing and dyed water flooding.

## SMOKE TESTING

Smoke testing is a quick method for detecting infiltration and inflow sources in a sanitary sewer system. This method is very effective in detecting sources such as roof downspouts, yard and area drains, defective building sewers, faulty connections, defective cleanouts, and storm sewer cross connections. It can also be utilized to detect infiltration sources in the sewer main. During testing, observations are recorded by line segment as follows:

1. Location of line segment
2. Location of observed smoke leaks recorded at the:
  - a. Curb
  - b. Sidewalk
  - c. Cleanout
  - d. Building laterals, front, side or rear yard
  - e. Driveway or area drain
  - f. Downspouts
  - g. Building interior (resident must inform inspector)
3. Location of smoke observed from stormwater conveyance systems
4. Location of smoke along a main sewer line



*Missing and Defective Cleanout  
Line Segment  
(RV26) 8013-8012*

Due to recent construction of a sanitary sewer line incoming from the north into Frankfort Lift Station, approximately 3,444 linear feet of sewer was not smoke tested with approval from City Corp. These segments are represented in table 2-D below.

Table 2-D	
<b>LINE SEGMENTS NOT SMOKE TESTED</b>	
Line Segment	Segment Length
(RV03)2523 - (RV26) 2522	411
(RV26)2522 - (RV26) 2521	403
(RV26) 2521 - (RV26) 2520	395
(RV26) 2520 - (RV26) 2519	403
(RV26) 2519 - (RV26) 2518	373
(RV26) 2518 - (RV26) 2517	166
(RV26) 2517 - (RV26) 2516	205
(RV26) 2516 - (RV26) 2515	350
(RV26) 2515 - (RV26) 2514	158
(RV26) 2514 - (RV26) 2513	152
(RV26) 2513 - (RV26) 2112	199
(RV26) 2112 - (RV26) 2511	152
(RV26) 2511 - (RV26) 2510	63
(RV26) 2510 - Frankfort Lift Station	14
<b>Total</b>	<b>3,444</b>

**SMOKE INSPECTION FINDINGS:**

Smoke testing was performed in each of the basins selected for additional SSES investigation. A total of 166 potential sources of I/I were identified from the 114,975 linear feet of sewer line that was smoke tested in the selected basins. A total of 80 I/I sources identified are from the private sector and 86 in the public sector. These sources are represented in the following pie chart and a summary of all sources is given in Table 2-E. A computer output report listing the findings of the smoke testing program is given in Appendix C.

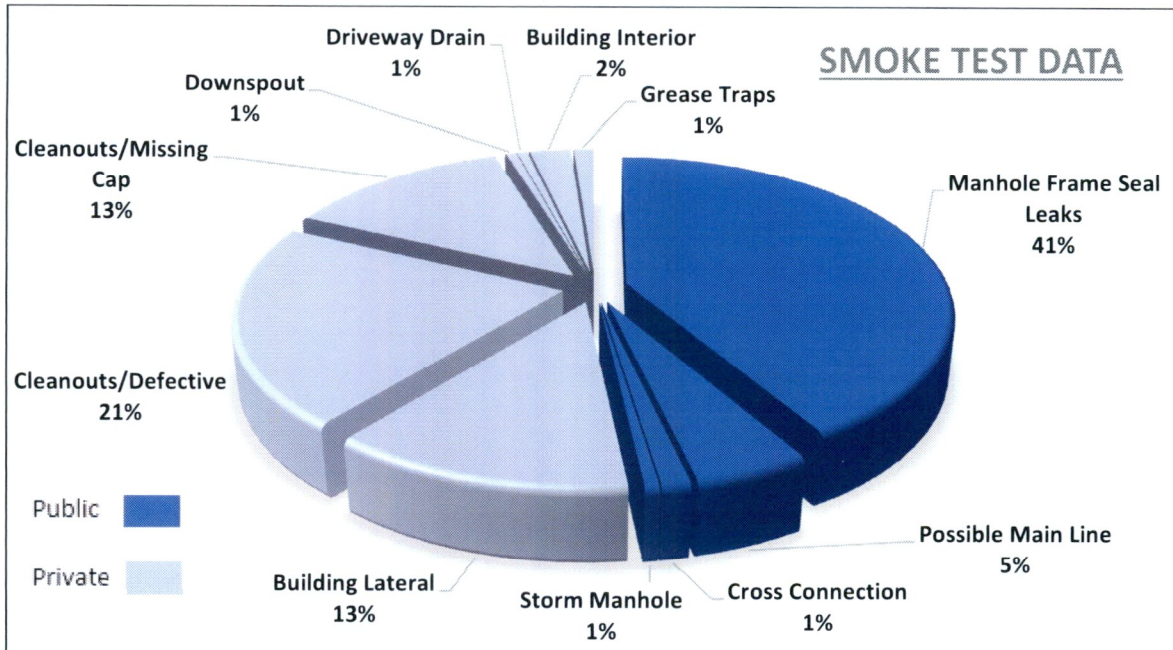


Table 2-E  
**SMOKE TEST DATA**

Type of Source	Quantity
<b>Public Sector</b>	
Possible Main Line	8
Cross Connection	2
Storm Manhole	1
Manhole Frame Seal Leaks	<u>69</u>
Subtotal	80
<b>Private Sector</b>	
Building Lateral	21
Cleanouts/Defective	35
Cleanouts/Missing Cap	22
Downspout	1
Area Drain	1
Building Interior	4
Grease Traps	<u>2</u>
Subtotal	<u>86</u>
<b>Total</b>	<b>166</b>

**PUBLIC SECTOR DYED WATER TESTING**

Public sector dyed water flooding was performed on potential main line, lateral, storm ditch, and catch basin defects identified during smoke testing. Dyed water testing was used to more accurately identify and quantify public sector inflow sources. A total of ten (10) line segments were identified. A total of six (6) dyed water flooding tests were completed of the ten (10) identified line segment inflow sources. Line segment 1478-8041 was unable to be tested due to unsafe access requirements. Line segments 1358-1357 and 1348A-1347 were unable to be tested due to non-conductive access locations within backyards.

During smoke testing, a mainline defect was observed from a guy wire puncturing the sewer main between 8043-8044. RJN informed City Corp of the severity of the defect, and it was addressed by City Corp. Therefore, this defect was not subjected to dyed water confirmation. The defect was quantified during analysis to reflect the attributed flow during the flow monitoring period. A summary can be found in the Appendix C.



*Mainline Defect  
(RV26)8043-8044*



*Mainline Defect  
(RV26)8043-8044*

Line segment 8036-8032 was subjected to dyed water testing at the locations where smoke was observed during smoke testing, displayed in the pictures below. Dyed water was introduced at these locations and no dye was observed at the manhole. Further service inspection is recommended for this segment due to the likelihood of a service connection defect from manhole 8032.



*Smoke Testing Defect  
(RV26)8036-8032*



*Smoke Testing Defect  
(RV26)8036-8032*

A total of three positive dye tests were observed. A summary of results is given below in Table 2-F and in Appendix D.



*Dye Testing - Area  
(RV13)4075-4073*



*Dye Testing – Topside - Positive  
(RV13)4075-4073*

Table 2-F

**PUBLIC SECTOR DYED WATER FLOODING**

<b>Line Segment</b>	<b>Defect Type</b>	<b>Result</b>
(RV13)4071 - (RV13)4070	Storm Ditch	Positive
(RV13)4075 - (RV13)4073	Lateral	Positive
(RV13)1674 - (RV13)1673	Catch Basin	Negative
(RV13)1368 - (RV13)1367	Mainline	Positive
(RV13)1433 - (RV13)1342	Driveway Drain	Negative
(RV13)1478 - (RV13)8041	Catch Basin	Unable to Test
(RV13)8036 - (RV13)8032	Lateral	Inconclusive
(RV13)1358 - (RV13)1357	Mainline	Unable to Test
(RV13)1348A - (RV13)1347	Mainline	Unable to Test
(RV13)8043 - (RV13)8044	Mainline	Unable to Test

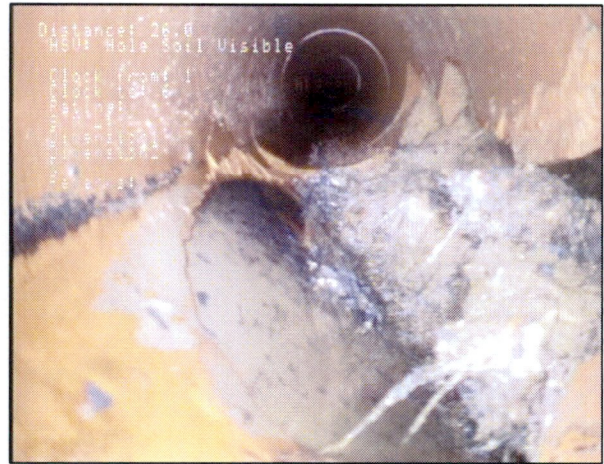
**TELEVISION INSPECTION**

RJN Group, Inc. performed a total of 11,795 linear feet of Closed Circuit Television (CCTV) inspection video. Sewer lines were recommended for CCTV inspection based on identified problems from smoke testing, dyed water flooding, visual pipe inspection, and lines recommended for inspection by City Corporation. A total of 11,504 lf of CCTV inspection video was completed by Ace Pipe Cleaning, and a total of 291 lf of was provided by Russellville City Corp.

A summary of segments televised is given in Table 2-G and a log of the findings during each inspection is included in Appendix E.



*Hinge Cracks  
Line Segment 1347-1346*



*Hole with Soil Visible  
Line Segment 1004-1004A*



*Active Infiltration  
Line Segment 1419-1417*



*Hole with Void Visible  
Line Segment 4070-4069*

Table 2-G

**SUMMARY OF LINE SEGMENTS TELEVISED**

<b>Line Segment</b>	<b>Pipe Diameter (in)</b>	<b>Segment Length (lf)<sup>3/</sup></b>	<b>Televised Length (lf)</b>	<b>Justification</b>
(RV13) 1679-1676	6	355	355	Circular Cracks
(RV13) 1833-1685	6	74	74	Circular Cracks
(RV13) 1834-1833	6	198	198	Circular Cracks
(RV13) 1835-1834	6	177	177	Circular Cracks
(RV13) 1840-1836 <sup>2/</sup>	6	291	291	Circular Cracks
(RV13) 4070-4069 <sup>1/</sup>	6	250	250	Offset Pipe
(RV13) 4071-4070	6	425	425	Offset Pipe
(RV13) 4074-4071	6	395	395	Circular Cracks
(RV13) 4076-4075	6	138	138	Circular Cracks
(RV13) 4077-4076	6	207	207	Circular Cracks
(RV16) 1004-1004A <sup>1/</sup>	8	127	127	Circular Cracks
(RV16) 1315-1332	8	325	325	Circular Cracks
(RV16) 1317-1316	6	304	304	Circular Cracks
(RV16) 1320-1322	8	151	151	Offset Pipe
(RV16) 1345-1344	8	30	30	Circular Cracks
(RV16) 1347-1346	8	76	76	No Visual
(RV16) 1348-1348A	8	228	228	Circular Cracks

*1/ Reverse setup performed*

*2/ CCTV Inspection video provided by Russellville City Corp*

*3/ Length based on Russellville City Corp GIS date.*



Table 2-G (cont.)

**SUMMARY OF LINE SEGMENTS TELEVISED**

<b>Line Segment</b>	<b>Pipe Diameter (in)</b>	<b>Segment Length (lf)<sup>3/</sup></b>	<b>Televised Length (lf)</b>	<b>Justification</b>
(RV16) 1350-1346	8	221	221	Offset Pipe
(RV16) 1351-1350	6	82	82	Circular Cracks
(RV16) 1353-1350	8	249	249	Circular Cracks
(RV16) 1354-1355	6	135	135	Longitudinal Cracks
(RV16) 1358-1357	8	217	217	Mainline
(RV16) 1359-1358	8	219	219	Circular Cracks
(RV16) 1361-1360	8	300	300	Circular Cracks
(RV16) 1363-1362	8	19	19	Circular Cracks
(RV16) 1368-1367	8	290	290	Mainline
(RV16) 1369-1368	8	311	311	Circular Cracks
(RV16) 1372-1371	6	204	204	Circular Cracks
(RV16) 1376-1340	8	239	239	Longitudinal Cracks
(RV16) 1377-1376	8	18	18	No Visual
(RV16) 1378-1376	8	181	181	Circular Cracks
(RV16) 1388-1381	8	223	223	Circular Cracks
(RV16) 1389-1388	8	59	59	No Visual
(RV16) 1398-1377	8	311	311	Circular Cracks

*1/ Reverse setup performed*

*2/ CCTV Inspection video provided by Russellville City Corp*

*3/ Length based on Russellville City Corp GIS date.*

Table 2-G (cont.)

**SUMMARY OF LINE SEGMENTS TELEVISED**

<b>Line Segment</b>	<b>Pipe Diameter (in)</b>	<b>Segment Length (lf)<sup>3/</sup></b>	<b>Televised Length (lf)</b>	<b>Justification</b>
(RV16) 1403-1402	8	219	219	Circular Cracks
(RV16) 1410-1408	8	365	365	Circular Cracks
(RV16) 1412-1410	8	314	314	Circular Cracks
(RV16) 1416-1406	8	295	295	Circular Cracks
(RV16) 1417-1416	8	140	140	Circular Cracks
(RV16) 1419-1417	8	267	267	Circular Cracks
(RV16) 1424-1423	6	174	174	Circular Cracks
(RV16) 1425-1437	6	277	277	Circular Cracks
(RV16) 1427-3404	8	246	246	Circular Cracks
(RV16) 1443-1427	8	234	234	Circular Cracks
(RV16) 1535-1344	6	227	227	Circular Cracks
(RV16) 1751-1371	6	252	252	Offset Pipe
(RV16) 2089-1434	6	194	194	Circular Cracks
(RV16) 2091-1315	8	309	309	Circular Cracks
(RV16) 2092-2091	6	163	163	Circular Cracks
(RV16) 2106-1349	6	210	210	Circular Cracks
(RV16) 2141-1317	6	401	401	Circular Cracks
(RV16) 3325-1346	6	236	236	Collapsed Pipe
(RV16) 3401-1367	8	185	185	Circular Cracks
(RV16) 1348A-1347	8	<u>57</u>	<u>57</u>	Mainline Defect
	<b>Total</b>	<b>11,795</b>	<b>11,795</b>	

*1/ Reverse setup performed*

*2/ CCTV Inspection video provided by Russellville City Corp*

*3/ Length based on Russellville City Corp GIS data.*

# I/I SOURCE DATA ANALYSIS

## DETERMINATION OF INFLOW

Inflow in a sanitary sewer system is defined as extraneous flow that is a direct result of stormwater runoff. Inflow may enter the sanitary sewer system through directly connected downspouts, area drains, cleanouts, and building sewers. Inflow may also enter the system through direct or indirect connections between sanitary sewers and storm drains or ditches, sewer line defects, and through defective manhole covers, frame seals, corbels and manhole walls.

The Phase 1 Study projected 2-year/60-minute inflow rates (1.78 inches/hour) for each of the sub basins. In order to compare identified source inflow with model predicted inflow, the modeled inflow rates were converted to 1-year/60-minute inflow rates (1.40 inches/hour). For reference, a summary listing of the modeled 1-year/60-minute inflow and 2-year/60-minute inflow for the selected Phase 2 (2015-2016) study basins is given in Table 3-A. Additionally, the unit inflow expressed in gallons per day per 1,000 linear feet of sewer is provided to show the relative magnitude of inflow amongst meter basins.

## INFLOW SOURCE QUANTIFICATION

### QUANTIFICATION PROCEDURE

Research and testing of typical inflow source defects was performed in the past by RJN Group Inc by means of dyed water flooding and observation of defects during actual storm events. The result of those tests has lead to the creation of standard inflow source rates that are used as a guideline when assigning the source rates.

#### 1. Manhole Inspections:

Defect Type	Rate (gpm)
a. Broken frame	- 1.5
b. Corbel*	-
i. Curb, gutter, ditch or subject to ponding with corbel cracked	- 1.0 – 1.5
ii. Center Street, paved easement or grassed easement with corbel cracked	- 0.2
iii. Curb, gutter, ditch or subject to ponding with evidence of inflow	- 1.0 – 1.5
iv. Center street, paved easement or easement with evidence of inflow	- 0.2
c. Frame seals	
i. Curb, gutter or ditch or subject to ponding	- 1.5 – 2.0
ii. Center street, paved easement or grass easement	- 0.4 – 0.6

\* High values, 2-3 gpm, could be justified for corbels in curb, gutter, ditch or subject to ponding in areas with watertight manhole covers that would tend to transfer the entry point for inflow farther down in the manhole.

In addition to the standard inflow source rates, direct inflow sources such as pick holes in a manhole cover are calculated utilizing the orifice equation. Measurements in the field are taken for the number of pick holes, diameter of the pick holes, and the height of the cover in relation to the ground.

**Orifice Equation:**      $Q = C_d A (5.37h)^{0.5}$

**Q = Flow**  
**C<sub>d</sub> = Coefficient of Discharge**  
**h = Height or head**

**2. Smoke Testing:**

Smoke testing inflow rates are typically determined by utilizing the rational equation, and the associated drainage area of each defect. The rational equation is as follows:

**Rational Equation:**      $Q = CiA$

**Q = Flow**  
**C = runoff coefficient**  
**i = Rainfall intensity**  
**A = Area**

Photos taken in the field assist engineers in the office to confirm the drainage area, the intensity of the smoke, and the ability of the defect to pond. If a defect is determined to have the capability of ponding the orifice equation can be used to determine the inflow rate. Typically the lowest inflow rate is assigned to the defect when comparing the orifice equation to the rational equation.

Smoking frame seals are not assigned a flow rate under the smoke inspection data. This defect is cross checked against the manhole inspection data and accounted for in the manhole source inflow. Smoke defects such as mainline defects, and storm sewer related defects such as catch basins and cross-connections are also not assigned an inflow rate. These defects are further investigated utilizing dyed water flooding.

**3. Dyed Water Flooding:**

Dyed water flooding inflow rates are typically determined by utilizing the Continuity equation using field measurements taken in the manhole for the velocity and depth.

**Continuity Equation:**      $Q = VA$

**Q = Flow**  
**V = Velocity**  
**A = Area**

Field Measurements are taken consisting of the velocity using a portable velocity meter (pvm) and the depth using a measuring ruler in the downstream manhole of the dye test location prior to dyed water flooding. Upon visually identifying dye water in the downstream manhole (a positive test) the field crew waits for a period of approximately 20 minutes for the area to fully saturate. A second velocity and depth measurement is taken at this time and the difference of velocity and depth is recorded for calculation use in the office.

At times when a positive test cannot be obtained but the defect is heavily suspect or known, inflow rates will still be assigned. The following table is used as a guideline for dyed water flooding.

<b>Defect Type</b>		<b>Rate (gpm)</b>
a.	Direct Connection to storm sewer	- 25.0 – 100.0
b.	Leak to Lateral	
	i. Trickle	- 1.0 – 2.0
	ii. 1/3 to 1/2 pipe	- 2.0 – 10.0
	iii. Full pipe “gusher”	- 10.0 – 20.0
c.	Cross-connections – main line	
	i. Trickle	- 1.0 – 2.0
	ii. 1/3 to 1/2 pipe	- 2.0 – 10.0
	iii. Full pipe “gusher”	- 10.0 – 40.0
d.	Cracked Manhole Wall	
	i. Trickle	- 1.0 – 2.0
	ii. Moderate	- 2.0 – 10.0
	iii. Severe	- 10.0 – 20.0

Default inflow rates and calculated rates as mentioned above are typically used to associate values for many defects since the inspections may not be performed during an actual high groundwater or storm event conditions. The default inflow rates are based on a 1-year/60-minute storm event. Engineering experience both in the field and from previous projects provides a value and a bench mark and at times the Engineer might deviate from the standard I/I rates due to his/her knowledge of the severity of the defect and the geographical location of the defect.

**QUANTIFICATION RESULTS**

The total quantified inflow from all sources identified within the study basins through field investigation was estimated to be approximately 1.209 mgd for the selected basins during a 1-year/60-minute design storm.

Table 3-A

**SUMMARY OF PROJECTED INFLOW RATES**

<b>Basin</b>	<b>Basin Size (lf)</b>	<b>Basin Peak 1-Year/60-Minute Discrete Inflow Rate (mgd)</b>	<b>Basin Peak 1-Year/60-Minute Discrete Inflow Rate (gpd/1,000 lf)</b>	<b>Basin Peak 2-Year/60-Minute Discrete Inflow Rate (mgd)</b>	<b>Basin Peak 2-Year/60-Minute Discrete Inflow Rate (gpd/1,000 lf)</b>	<b>Ranking<sup>1/2</sup></b>
RV13	30,709	0.142	4,624	0.174	5,666	9
RV16	52,144	0.637	12,216	0.782	14,995	19
RV26	<u>30,331</u>	<u>0.972</u>	<u>22,090</u>	<u>1.193</u>	<u>27,115</u>	16
<b>Total</b>	<b>113,184</b>	<b>1.751</b>	<b>12,977</b> <b>(average)</b>	<b>2.149</b>	<b>15,925</b> <b>(average)</b>	

*1/ Ranking from highest to lowest inflow rate with 1 being the highest rate of the thirty-one basins studied during the 2010 - 2011 SSES Phase 1 Study.*

*2/ Basins studied during Phase 2 analysis were identified from flow monitoring data. Once the hydraulic model for the system was completed a few rankings changed slightly.*

All inflow sources identified during manhole inspections and rainfall simulation were evaluated and quantified for Basins RV13, RV16, RV26. Quantification of individual sources was based on a 1-year/60-minute storm. The summary of inflow identified in the selected sub-basins by source type is given in Table 3-B and shown graphically on page 3-6.

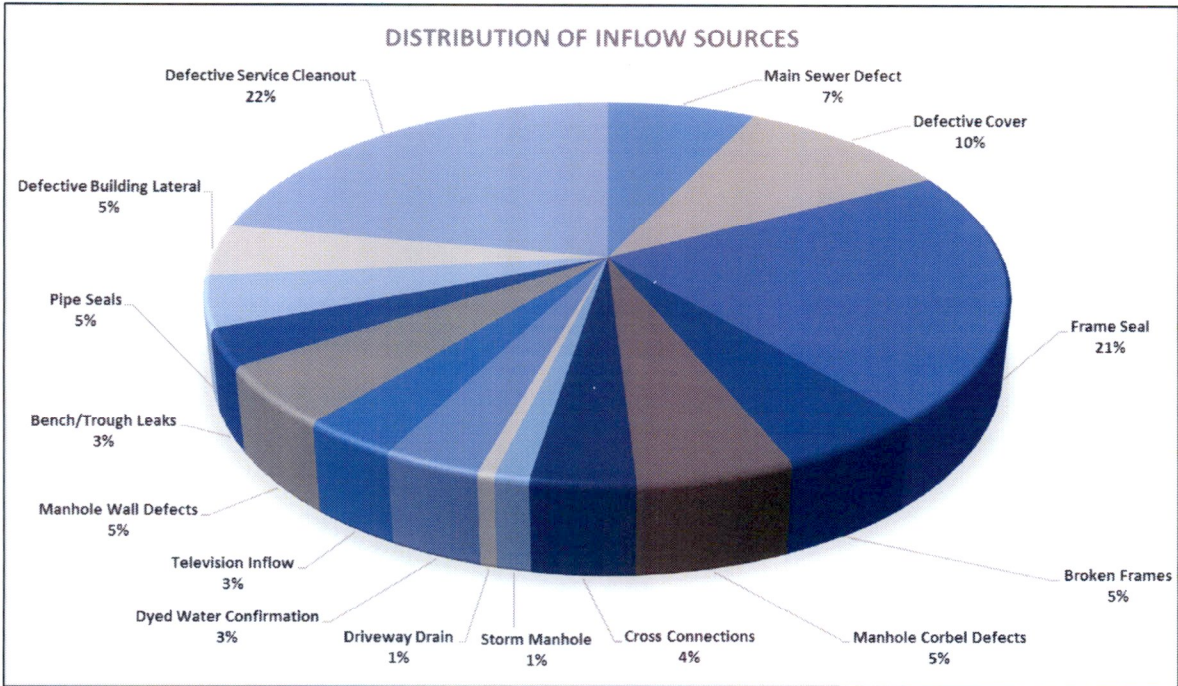
Active flow was observed on multiple defects throughout the study area. A total of 13 defects were observed during manhole inspections. A total of 3 significant defects were observed during CCTV inspection. Based on the location, surrounding soil conditions, and severity of the defect, a total of 13 defects were determined to be inflow related defects. These defects are included in Table 3-B below and the Inflow Source Report in Appendix F.

Table 3-B

**DISTRIBUTION OF INFLOW SOURCES SELECTED BASINS<sup>1/</sup>**

Source	Quantity	1-Year/60-Minute Projected Peak Inflow (gpd)	Percent of Inflow <sup>2/</sup>
<b><u>Public Sector Inflow</u></b>			
Main Sewer Defect	8	86,400	7.15%
Defective Cover	128	123,149	10.19%
Frame Seal	119	255,672	21.15%
Broken Frames	29	58,680	4.85%
Manhole Corbel Defects	33	65,160	5.39%
Cross Connections	2	43,200	3.57%
Storm Manhole	1	14,400	1.19%
Driveway Drain	1	7,200	0.60%
Dyed Water Confirmation	3	40,320	3.34%
<u>Television Inflow</u>	<u>3</u>	<u>40,320</u>	<u>3.34%</u>
Subtotal	327	734,501	60.75%
<b><u>Manhole Related Inflow</u></b>			
Manhole Wall Defects	5	60,480	5.00%
Bench/Trough Leaks	5	37,440	3.10%
<u>Pipe Seals</u>	<u>3</u>	<u>53,280</u>	<u>4.41%</u>
Subtotal	13	151,200	12.51%
<b><u>Private Sector Inflow</u></b>			
Defective Building Lateral	21	53,280	4.41%
<u>Defective Service Cleanout</u>	<u>58</u>	<u>270,000</u>	<u>22.33%</u>
<u>Subtotal</u>	<u>79</u>	<u>323,280</u>	<u>26.74%</u>
<b>Total</b>	<b>419</b>	<b>1,208,981</b>	<b>100%</b>

<sup>1/</sup> Based on identified infiltration for all defects identified in Basins RV13, RV16, and RV26.





## DETERMINATION OF INFILTRATION

Infiltration in a sanitary sewer system is defined as extraneous flow that enters the system through pipe joints, sewer line defects (including main sewer lines and building sewer lines), defective manhole walls, benches, and pipe seals. Two types of infiltration can be determined during a study, permanent infiltration and peak infiltration. Permanent infiltration is defined as extraneous flow that enters the system through the ground during periods of dry-weather and low-groundwater. Peak infiltration is defined as the maximum extraneous flow that enters the sewer system during high-groundwater conditions after the inflow effects of a rain event have ended. Peak infiltration was determined during the Flow Monitoring Study and used during field activities to evaluate the effects of infiltration on the sewer system.

Analyses of wastewater infiltration were based on flow monitoring data and I/I source data from field investigations, specifically manhole and visual pipe inspection, rainfall simulation, and internal television inspection of sewer lines.

## INFILTRATION SOURCE QUANTIFICATION

Each of the infiltration sources identified during field investigations was evaluated and quantified in reference to the corresponding basin and line segment. The infiltration rate was estimated based on the severity of the defect. A potential infiltration rate was estimated for each manhole and pipe defect that was observed but not actively leaking. The sum of all observed infiltration sources is referred to as total identified infiltration. The difference between total identified infiltration and peak monitored infiltration is total unidentified infiltration.

### QUANTIFICATION PROCEDURE

Research and testing of typical infiltration source defects was performed previously by RJN Group Inc. by means of injection dyed water flooding and observations during high groundwater periods. The results of those tests have lead to the creation of standard infiltration source rates that are used as a guideline when assigning the source rates.

#### 1. Manhole Inspections:

	<u>Defect Type</u>	<u>Rate (gpm)</u>
a.	Bench/trough leak	- 0.2
b.	Cracked or leaking walls	- 0.2
c.	Pipe seals	- 0.1 – 0.2

**2. Television Inspection:**

	<b>Defect Type</b>	<b>Rate (gpm)</b>
a.	Service with infiltration	- 0.05
b.	Break in service connection	- 0.15
c.	Roots in service	- 0.05
d.	Protruding Tap	- 0.05
e.	Joint with light roots	- 0.01
f.	Joint with moderate roots	- 0.02
g.	Joint with heavy roots	- 0.03
h.	Joint with Infiltration	- 0.05
i.	Slightly offset joint	- 0.01
j.	Moderately offset joint	- 0.05
k.	Severely offset joint	- 0.15
l.	Cracked joint	- 0.05
m.	Capped joint	- 0.05
n.	Mineral deposit	- 0.01
o.	Broken pipe	- 0.15
p.	Circular pipe crack	- 0.15
q.	Longitudinal pipe crack	- 0.15
r.	Collapsed pipe	- 0.45

**QUANTIFICATION RESULTS**

There are two types of infiltration that can be determined during a study, base infiltration and peak infiltration. Base infiltration is defined as extraneous flow that enters the sewer system through the ground during periods of dry-weather and low-groundwater. Peak infiltration is defined as the maximum extraneous flow that enters the sanitary sewer system during high-groundwater conditions after the inflow effects of a rain event have ended.

Flow monitoring was performed as part of the Phase 1 study in the year 2010. The flow monitoring period from March 15, 2010 to May 24, 2010. The total projected peak infiltration during the flow monitoring period for the study area was estimated to be 0.471 mgd.

Total identified infiltration in the Phase 2 study for the study area was quantified to be approximately 0.588 mgd. The sources identified can be contributory to both base and peak infiltration. Additionally, defects may have become more severe after the Phase 1 study was completed. The result is a Phase 2 infiltration value greater than 100% when compared to Phase 1 study.

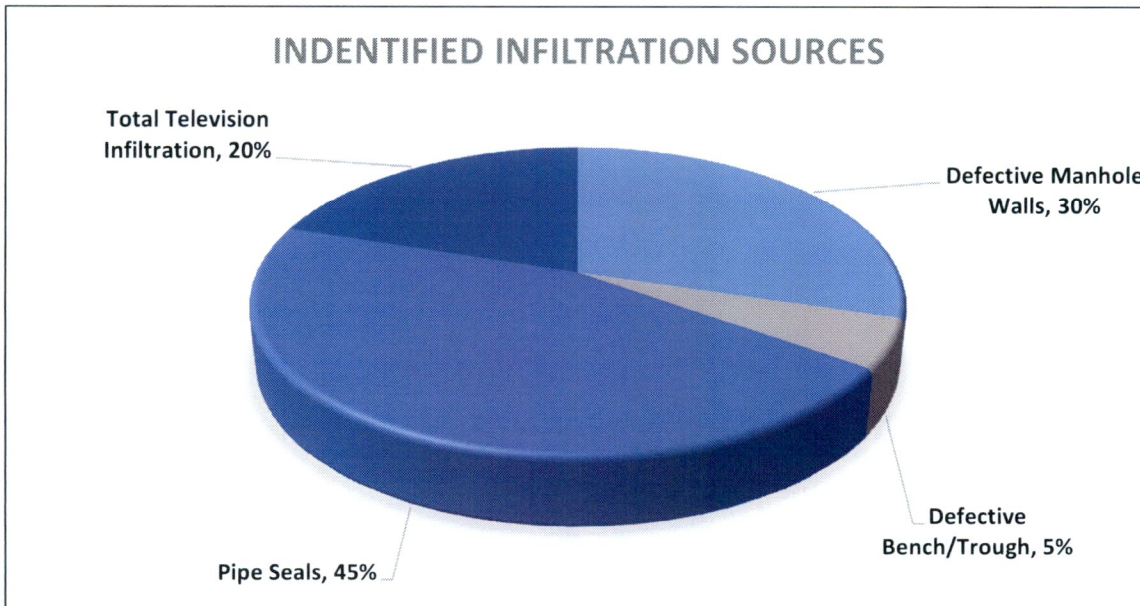
The total identified infiltration for the study basins is summarized by source type in Table 3-C and shown graphically on page 3-9. An infiltration source report can be found in Appendix G.

Table 3-C

**DISTRIBUTION OF IDENTIFIED INFILTRATION SOURCES<sup>1/</sup>**

Source	Quantity	Estimated Infiltration Rate (gpd)	Percent of Total Infiltration
<b><u>Manhole Defects</u></b>			
Defective Manhole Walls	128	174,658	29.72%
Defective Bench/Trough	61	29,952	5.10%
<u>Pipe Seals</u>	<u>116</u>	<u>265,262</u>	<u>45.13%</u>
Subtotal	305	469,872	79.95%
<b><u>Television Infiltration</u></b>			
<u>Total Television Infiltration</u>	<u>468</u>	<u>117,850</u>	<u>20.05%</u>
<u>Subtotal</u>	<u>468</u>	<u>117,850</u>	<u>20.05%</u>
<b>Total Identified Infiltration</b>	<b>773</b>	<b>587,722</b>	<b>100%</b>

<sup>1/</sup> Based on identified infiltration for all defects identified in Basins RV13, RV16, and RV26.



## RECOMMENDED REHABILITATION

Once the I/I sources have been identified and data analysis is completed, recommended rehabilitation methods are determined. The recommended methods are focused within three aspects of the sewer collection system: sanitary sewer line, manhole, and service line sources.

### SEWER REPLACEMENT/REHABILITATION

Television inspection data was evaluated for repair of specific I/I and maintenance defects. I/I defects are those where smoke was visible along a mainline or at a storm sewer and dyed water flooding concurrent with television inspection confirmed the defect. Maintenance defects are those defects that would justify repair or replacement based on their potential to cause future maintenance problems in the sewer system. Maintenance defects include sections of broken or cracked pipe and sections of pipe with sags, root intrusion, or other defects. The maintenance defects are not significant sources of I/I and would not be recommended for repair based on I/I removal alone, but recommended for repair to improve system reliability. The television inspection data was evaluated to determine if a sewer segment should be completely replaced or if a point repair should be made.

RJN Group, Inc. reviewed television inspection (CCTV) on 55 sanitary sewer line segments (11,795 lf) based on the evaluation of the visual pipe, and smoke testing. A summary of results and recommendations for CCTV inspections are represented in Table 4-A. Sewer lines recommended for Cured in Place Pipe (CIPP) lining are represented in Table 4-B. Sewer lines recommended for complete line rehabilitation are represented in Table 4-C. Sewer lines recommended for point repair are represented in Table 4-D. A list of typical rehabilitation methods and associated costs are represented in Table 4-E.

Based on review of television inspection observations recorded by RJN Group, Inc., CIPP lining is recommended on 11 line segments (1,984 lf) at an estimated construction cost of \$178,524. Complete Line Rehabilitations are recommended on 27 line segments (5,928 lf) at an estimated construction cost of \$1,274,606. Point repairs are recommended for 15 line segments (3,569 lf) at an estimated construction cost of \$78,000.

All sewer line segments submitted for CCTV inspection were accessible and review. Recommended rehabilitation are represented graphically in exhibits 6 – 9.

Table 4-A

**SUMMARY OF CCTV RESULTS AND RECOMMENDATIONS**

<b>Recommended Rehabilitation</b>	<b>Quantity</b>	<b>Total Length (lf)</b>	<b>Total Inflow (gpd)</b>	<b>Estimated Infiltration Rate (gpd)</b>	<b>Estimated Construction Cost<sup>1/</sup> (\$)</b>
CIPP	11	1,984	0	7,142	178,524
Line Replacement	27	5,928	28,800	80,621	1,274,606
Point Repair	<u>15</u>	<u>3,569</u>	<u>11,520</u>	<u>30,160</u>	<u>78,000</u>
<b>Total</b>	<b>53</b>	<b>11,481</b>	<b>40,320</b>	<b>117,923</b>	<b>1,531,130</b>

*1/ Estimated construction cost is based upon open cut construction methods. If trenchless construction methods are utilized, construction costs are anticipated to decrease.*

**Table 4-B**  
**Lines Recommended for Cured In Place Pipe (CIPP) Rehabilitation**

<b>Basin</b>	<b>Line Segment</b>	<b>Existing Diameter (in)</b>	<b>Length (lf)</b>	<b>Total Inflow (gpd)</b>	<b>Total Infiltration (gpd)</b>	<b>Estimated Construction Cost (\$)</b>
RV13	1833 - 1685	6	74	0	356	6,660
RV13	1834 - 1833	6	198	0	164	17,847
RV16	1363 - 1362	8	19	0	27	1,737
RV16	1368 - 1367	8	290	0	739	26,118
RV16	1369 - 1368	8	311	0	1,915	27,999
RV16	1377 - 1376	8	18	0	137	1,647
RV16	1389 - 1388	8	59	0	492	5,337
RV16	1417 - 1416	8	140	0	82	12,591
RV16	2091 - 1315	8	309	0	3,762	27,792
RV16	2092 - 2091	6	163	0	164	14,706
RV16	2141 - 1317	6	<u>401</u>	<u>0</u>	<u>424</u>	<u>36,090</u>
		<b>Total</b>	<b>1,984</b>	<b>0</b>	<b>8,263</b>	<b>178,524</b>

**Table 4-C**  
**Recommendations of Complete Line Rehabilitation**

<b>Basin</b>	<b>Line Segment</b>	<b>Existing Diameter (in)</b>	<b>Length (lf)</b>	<b>Total Inflow (gpd)</b>	<b>Total Infiltration (gpd)</b>	<b>Estimated Construction Cost (\$)</b>		
RV13	4070	-	4069	6	250	0	10,500	53,729
RV13	4071	-	4070	6	425	1,440	4,338	91,440
RV13	4074	-	4071	6	395	0	20,712	85,011
RV13	4076	-	4075	6	138	0	330	29,627
RV13	4077	-	4076	6	207	0	1,918	44,591
RV16	1004	-	1004A	8	127	0	8,385	27,262
RV16	1315	-	1332	8	325	0	5,580	69,811
RV16	1317	-	1316	6	304	0	1,694	65,317
RV16	1320	-	1322	8	151	0	1,606	32,551
RV16	1345	-	1344	8	30	0	972	6,364
RV16	1347	-	1346	8	76	0	2,326	16,233
RV16	1348	-	1348A	8	228	0	1,410	49,085
RV16	1350	-	1346	8	221	0	1,493	47,451
RV16	1354	-	1355	6	135	0	1,458	28,982
RV16	1358	-	1357	8	217	0	3,198	46,720
RV16	1359	-	1358	8	219	0	1,672	46,999
RV16	1361	-	1360	8	300	0	1,302	64,522
RV16	1378	-	1376	8	181	0	42	38,980
RV16	1398	-	1377	8	311	0	1,708	66,758
RV16	1416	-	1406	8	295	0	247	63,318
RV16	1427	-	3404	8	246	0	589	52,933
RV16	1443	-	1427	8	234	0	314	50,310
RV16	1535	-	1344	6	227	0	5,528	48,741
RV16	2106	-	1349	6	210	27,360	1,410	45,193
RV16	3325	-	1346	6	236	0	1,656	50,783
RV16	3401	-	1367	8	185	0	233	39,668
RV16	1348A	-	1347	8	<u>57</u>	<u>0</u>	<u>0</u>	<u>12,234</u>
<b>Total</b>				<b>5,928</b>	<b>28,800</b>	<b>80,621</b>	<b>1,274,606</b>	

Table 4-D

Recommendations of Sewer Line Point Repair

Basin	Line Segment	Existing Diameter (in)	Length (lf)	Total Inflow (gpd)	Total Infiltration (gpd)	Repair Location <sup>1/</sup>	Estimated Construction Cost (\$)
RV13	1679 - 1676	6	355	11,520	7,402	2+05-2+15	6,000
RV13	1835 - 1834	6	177	0	151	1+28-1+33	6,000
RV13	1840 - 1836	6	291	0	0	2+81-2+91	6,000
RV16	1351 - 1350	6	82	0	14	0+77-0+83	6,000
RV16	1353 - 1350	8	249	0	468	1+10-1+15, 1+80-1+85	6,000
RV16	1372 - 1371	6	204	0	1,247	1+99-2+05	6,000
RV16	1376 - 1340	8	239	0	3,020	2+30-2+40	6,000
RV16	1388 - 1381	8	223	0	889	1+23-1+28	6,000
RV16	1403 - 1402	8	219	0	370	0+00-0+05	6,000
RV16	1410 - 1408	8	365	0	822	0+68-0+78	6,000
RV16	1419 - 1417	8	267	0	4,650	0+00-0+10, 2+00-2+05	6,000
RV16	1424 <sup>2/</sup> - 1423	6	174	0	698	0+00-0+10	0
RV16	1425 - 1437	6	277	0	2,669	2+72-2+77	6,000
RV16	1751 - 1371	6	252	0	878	2+45-2+52	6,000
RV16	2089 <sup>2/</sup> - 1434	6	194	0	6,882	1+89-1+94	0
		<b>Total</b>	<b>3,569</b>	<b>11,520</b>	<b>30,160</b>		<b>78,000</b>

<sup>1/</sup> Repairs are noted from USMH.

<sup>2/</sup> Point Repair at manhole is included in Manhole Rehabilitation



Table 4-E

**TYPICAL REHABILITATION/REPLACEMENT  
CONSTRUCTION COSTS FOR SEWER LINES<sup>1/</sup>**

<b>Description</b>	<b>Unit</b>	<b>Estimated Construction Cost (\$)</b>
CIPP 6" to 12"	LF	90 <sup>2/</sup>
CIPP 14" to 18"	LF	120 <sup>2/</sup>
Pipe Bursting 6" to 10"	LF	150 <sup>2/</sup>
Pipe Bursting 12" to 18"	LF	175 <sup>2/</sup>
Open Cut 6" to 12"	LF	215 <sup>2/</sup>
Open Cut 14" to 18"	LF	275 <sup>2/</sup>
Point Repair	EA	6000 <sup>2/</sup>

*1/ Construction costs are based on recent bids in the area.*

*2/ Unit cost may vary with ancillary items such as line depth and required surface restoration.*

**RECOMMENDED MANHOLE REHABILITATION**

Manhole I/I defects identified during field investigations were analyzed together to obtain recommendations for rehabilitation on each manhole and a cost to perform rehabilitation work. The recommended rehabilitation on each manhole addresses both inflow and infiltration defects identified within each manhole. Of the 476 manholes studied, a total of 320 manholes were identified as requiring rehabilitation. A summary of the recommended manhole rehabilitation is shown in Table 4-F. Individual manhole rehabilitation recommendations are included in Appendix H. The recommended manhole rehabilitation is also shown graphically in Exhibits 10-13.

A list of typical rehabilitation methods for manholes and associated construction costs for both inflow and infiltration defects is given in Table 4-G.

Table 4-F

**RECOMMENDED MANHOLE REHABILITATION**

<b>Rehabilitation Description<sup>2/</sup></b>	<b>Number of Manholes</b>	<b>Estimated Inflow <sup>1/</sup> (gpd)</b>	<b>Estimated Infiltration (gpd)</b>	<b>Construction Cost (\$)</b>
Cementitious Coating	24	11,520	31,320	\$24,153.00
Cementitious Coating and Install External Chimney Seal	5	20,448	6,624	\$6,428.00
Cementitious Coating and Install Internal Chimney Seal	1	2,880	360	\$1,100.00
Cementitious Coating and Replace Cover/Frame/Frame Seal	27	86,396	62,324	\$66,090.00
Cementitious Coating and Replace Cover/Frame/Frame Seal and Adjustment	2	8,424	1,080	\$6,637.00
Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover	15	59,904	62,468	\$36,318.00
Complete Manhole Rehab w/ New Cover	2	1,224	0	\$3,009.00
Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment	7	43,301	21,600	\$22,897.00
Complete Manhole Rehab w/ New Frame and Cover	14	48,197	28,728	\$34,238.00
Complete Manhole Rehab w/o New Frame and Cover	21	17,856	78,452	\$35,485.00
Complete Manhole Rehab, Internal Chimney Seal w/o New Frame and Cover	2	3,240	12,960	\$3,859.00
Complete Manhole Rehab, Internal Chimney Seal, and New Cover	1	2,016	4,320	\$2,436.00
Grout Lower 18" of Manhole and Repair Bench/Trough	38	43,200	88,101	\$38,000.00
Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal	14	32,255	20,434	\$20,550.00
Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal	10	15,264	34,474	\$13,000.00
Grout Lower 18" of Manhole, Repair Bench/Trough, and Repair Corbel	1	504	7,920	\$1,500.00
Grout Lower 18" of Manhole, Repair Bench/Trough, and Replace Cover/Frame/Frame Seal and Adjustment	2	34,344	360	\$5,000.00
Grout Pipe Seals and Replace Cover/Frame/Frame Seal and Adjustment	1	3,168	1,440	\$2,000.00
Grout Walls/Joints	7	0	3,889	\$3,544.00

Table 4-F (cont.)

**RECOMMENDED MANHOLE REHABILITATION**

<b>Rehabilitation Description<sup>2/</sup></b>	<b>Number of Manholes</b>	<b>Estimated Inflow <sup>1/</sup> (gpd)</b>	<b>Estimated Infiltration (gpd)</b>	<b>Construction Cost (\$)</b>
Grout Walls/Joints and Install External Chimney Seal	1	864	864	\$996.00
Install External Chimney Seal and Repair Corbel	4	10,944	0	\$4,000.00
Realign Frame and Install Internal Chimney Seal	1	720	0	\$350.00
Repair Corbel	4	3,528	0	\$2,000.00
Repair Corbel and Replace Cover/Frame/Frame Seal and Adjustment	3	11,549	0	\$6,000.00
Replace Adjustment, Realign Frame , and Install External Chimney Seal	1	720	0	\$1,200.00
Replace Bench/Trough	3	0	0	\$3,000.00
Replace Bench/Trough and Replace Cover	4	936	0	\$4,600.00
Replace Cover/Frame/Frame Seal	84	128,109	720	\$81,600.00
Replace Cover/Frame/Frame Seal and Adjustment	<u>21</u>	<u>62,354</u>	<u>1,440</u>	<u>\$31,500.00</u>
<b>Total</b>	<b>320</b>	<b>653,865</b>	<b>469,878</b>	<b>\$461,490.00</b>

Table 4-G

**TYPICAL MANHOLE REHABILITATION  
CONSTRUCTION COSTS<sup>1/</sup>**

Description	Estimated Construction Cost (\$)
Replace Cover/Frame/Frame Seal	925-1,350
Install Bolts/Gasket for Bolted Cover	100
Repair Frame Seal	700-1,100
Seal Corbel Only	500
Seal Corbel & Replace cover/Frame/Frame Seal	1,450-1,700
Seal Corbel & Replace Frame Seal	1,200-1,600
Seal Wall Only	150 <sup>2/</sup>
Coat Manhole and Grout Lower 18"	650 <sup>2/</sup>
Grout Lower 18" of Manhole	500
Complete Manhole Rehab w/ New Frame and Cover	1,525-1,775 <sup>2/</sup>
Complete Manhole Rehab w/o New Frame and Cover	1,175-1,475 <sup>2/</sup>
Replace Cover/Frame/Frame Seal & Grout Lower 18"	1,450-1,850
Replace Cover/Frame/Frame Seal & Seal Wall	1,175-1,500 <sup>2/</sup>
Replace Cover/Frame/Frame Seal & coat Manhole & Grout Lower 18"	1,725-2,050
Install Bolts/Gasket for Bolted Cover & Seal Walls	250 <sup>2/</sup>
Install Bolts/Gasket for Bolted Cover & Coat Manhole & Grout Lower 18"	750 <sup>2/</sup>
Install Bolts/Gasket for Bolted Cover & Seal Corbel	600
Install Bolts/Gasket for Bolted Cover & Repair Frame Seal	800-1,200
Install Bolts/Gasket for Bolted Cover & Grout Lower 18" of Manhole	600
Repair Frame Seal & Grout Lower 18" of Manhole	1,100-1,600
Coat Manhole	200 <sup>2/</sup>
Coat Manhole and Grout Lower 18" of Manhole	700

<sup>1/</sup> Construction costs are based on recent bids in the area.

<sup>2/</sup> Unit cost will vary per vertical foot.

**STRUCTURAL CONDITION**

Based on the structural condition code (NASSCO: MACP and PACP guidelines in 2008) for each manhole component recorded by the RJN crew during manhole inspection, a total numerical code was assigned to each manhole and used for prioritization. O&M issues and I/I defects found during the inspection were also used to prioritize the manholes. A summary of the structural grade prioritization is shown in the following table.

The structural code for each manhole component was assigned a corresponding numerical value with defects in the top half having a greater impact on the manholes structural integrity. The numerical values were combined to assign each manhole a structural rating and grade.

The manhole structural rating system is used as an additional tool to identify the remaining useful life (RUL) of each manhole. This tool can assist with the prioritizing of a manhole rehabilitation plan as it identifies manholes close to failure and is considered separate from the

I/I prioritization. The assigned rating and grade for every manhole recommended for rehabilitation is shown in the Manhole Rehabilitation Recommendations Report located in the Appendix.

<b>SUMMARY OF STRUCTURAL GRADE PRIORIZATION</b>			
<b>Structural Grade</b>	<b>Grade Description</b>	<b>Lower Limit</b>	<b>Upper Limit</b>
A	Manhole unlikely to fail in the foreseeable future.	0	10
B	Manhole unlikely to fail for at least 20 years.	10.1	30
C	Manhole may fail in 10-20 years.	30.1	50
D	Manhole will most likely fail in 5-10 years.	50.1	75
F	Manhole has failed or likely will fail within the next 5 years.	70.1	10000

**RECOMMENDED INFLOW REMOVAL FROM SERVICE LINE SOURCES**

A total of 81 service line inflow sources identified during the field survey investigations are recommended for removal from the selected basins. The indicated sources consist of 81 private sector sources which will be eliminated through rehabilitation. This will remove approximately 0.342 mgd of 1-year/60-minute inflow. A summary of recommended service line inflow removal is given in Table 4-H and a detailed report is included in Appendix I. The recommended service line inflow removal is also shown graphically in Exhibits 14 - 17.

A list of typical rehabilitation methods for service line sources and associated construction costs for both inflow and infiltration defects is given in Table 4-I.

Table 4-H

**SUMMARY OF RECOMMENDED INFLOW REMOVAL  
FROM SERVICE LINE SOURCES**

Source	Quantity	1-Year/60- Minute Projected Peak Inflow (gpd)	2-Year/60- Minute Projected Peak Inflow (gpd)	Estimated Construction Cost (\$)
<b>Private Sector</b>				
Defective Building Lateral	22	64,800	79,445	67,000
Defective Service Cleanout	58	270,000	331,020	<u>16,575</u>
Area Drain	<u>1</u>	<u>7,200</u>	<u>8,827</u>	<u>3,400</u>
<b>Total</b>	<b>81</b>	<b>342,000</b>	<b>419,292</b>	<b>86,975</b>

Table 4-I

**TYPICAL REHABILITATION/REPLACEMENT  
CONSTRUCTION COSTS FOR SERVICE LINE SOURCES<sup>1/</sup>**

Description	Rehabilitation	Estimated Construction Cost (\$)
<b><u>I/I Source Rehabilitation</u></b>		
Cross Connection	Replace Pipe (Point Repair)	4,000-5,000 <sup>2/</sup>
Broken Pipe	Replace Pipe (Point Repair)	4,000-5,000 <sup>2/</sup>
Downspouts	Redirect Downspouts	300
Area Drains	Disconnect Drains	1,200-1,500 <sup>3/</sup>
Building Sewer Point Repair	Replace Defective Pipe	1,200-1,500
Building Sewer Replacement	Replace Building Sewer	2,500
Building Sewer Cleanouts	Repair Cleanouts	200

<sup>1/</sup> Construction costs are based on recent bids in the area.

<sup>2/</sup> Unit cost will vary with pipe diameter, depth, and required surface restoration.

<sup>3/</sup> Unit cost will vary based on location of redirect.

## SUMMARY OF RECOMMENDED PLAN

The recommended rehabilitation plan consists of work to be performed in the public and private sector of the collection system. The plan includes inflow repairs, infiltration repairs, sewer line replacement/rehabilitation, maintenance repairs, and routine maintenance. The costs to perform the recommended plan is given in capital cost which includes construction cost and a 30 percent additional cost which includes administrative cost, legal fees, engineering fees, and contingencies. The recommended plan is discussed in the following sections.

### RECOMMENDED LINE REHABILITATION

Sewer line rehabilitation is recommended for 27 line segments, point repairs are recommended on 15 sewer line segments, and CIPP lining is recommended for 11 line segments. The recommended repair plan for both replacements and point repairs will eliminate approximately 0.040 mgd of 1-year/60-minute inflow and 0.118 mgd of 1-year/60-minute infiltration at an estimated capital cost of \$1.990 million. A detailed discussion of the recommended plan for sewer line repair is included in Chapter 4. A summary of sewer replacement and repairs are given in Table 5-A. A detailed list of line segments that are recommended for replacement, point repairs, and additional investigation are included in Tables 4-B thru 4-D.

Table 5-A

### SUMMARY OF RECOMMENDED SEWER REPLACEMENT/REPAIRS (STUDY BASINS)

Item	Quantity	Inflow Reduction (gpd)	Infiltration Reduction (gpd)	Estimated Capital Cost <sup>1/</sup> (\$ Million)
CIPP	11	0	7,142	0.232
Line Replacement	27	28,800	80,621	1.657
Point Repair	15	11,520	30,160	0.101
<b>Total</b>	<b>53</b>	<b>40,320</b>	<b>117,923</b>	<b>1.990</b>

<sup>1/</sup> Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.

## RECOMMENDED MANHOLE REHABILITATION (I/I REMOVAL)

The recommended manhole rehabilitation plan includes the rehabilitation of 320 manholes contributing approximately 0.654 mgd of 1-year/60-minute inflow and 0.470 mgd of infiltration. The estimated capital cost would be approximately \$0.600 million.

The manholes recommended for rehabilitation are presented in the computer printout in Appendix H. An 11" x 17" map is provided for all manhole rehabilitation within Exhibits 10 - 13.

## RECOMMENDED INFLOW REMOVAL FROM SERVICE LINE SOURCES

The recommended plan for service line inflow removal includes the repair of 81 sources identified through field procedures. Each area of rehabilitation is addressed in the following sections.

There are 81 identified private sector sources contributing 0.342 mgd of 1-year/60-minute inflow recommended for repair. The capital cost to remove these sources is approximately \$0.113 million. A computer printout of the inflow sources recommended for repair is provided in Appendix G. A summary of the recommended plan for inflow reduction is given in Table 5-B.

The projected inflow reduction is based on the assumption that comprehensive rehabilitation repairs will be completed for the identified I/I sources and that the repairs will effectively eliminate I/I from those identified sources.

Table 5-B

### SUMMARY OF RECOMMENDED PLAN FOR SERVICE LINE SOURCES INFLOW REMOVAL

Item	Quantity of Sources	1-Year Inflow Elimination (mgd)	Estimated Capital Cost <sup>1/</sup> (\$ Million)
Private Sector	81	0.342	0.113
<b>Total</b>	<b>81</b>	<b>0.342</b>	<b>0.113</b>

<sup>1/</sup> Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.



**SUMMARY OF RECOMMENDED PLAN**

The recommended plan includes repairing 81 inflow sources, 320 manholes recommended for rehabilitation, replacing or repairing 38 sewer lines (7,912 lf), and point repairs within 15 sewer lines (3,569 lf). Approximately 1.797 mgd of inflow and infiltration will be eliminated by implementation of the recommended plan.

The total capital cost to implement the recommended plan is approximately \$2.771 million. The total capital cost consists of \$0.113 million for service line inflow removal from the public sector, \$0.600 million for manhole rehabilitation, and \$1.990 million for main sewer replacement and repair. A summary of the recommended plan is given in Table 5-C.

Table 5-C

**SUMMARY OF RECOMMENDED PLAN**

Item	I/I Reduction		Estimated Construction Cost (\$ Million)	Estimated Capital Cost <sup>2/</sup> (\$ Million)
	Inflow <sup>1/</sup> (mgd)	Infiltration (mgd)		
Sewer Replacement/Repairs	0.213	0.118	1.584	2.058
Manhole Rehabilitation	0.654	0.470	0.461	0.600
Service Line Rehabilitation	<u>0.342</u>	<u>N/A</u>	<u>0.087</u>	<u>0.113</u>
<b>Total</b>	<b>1.209</b>	<b>0.588</b>	<b>2.132</b>	<b>2.771</b>

<sup>1/</sup> Based on projected 1-year/60-minute inflow.

<sup>2/</sup> Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.

**RECOMMENDED REHABILITATION BY CATEGORY**

The recommendation for rehabilitation was divided into two main groups. The first group consists of public sector repairs and includes all manhole repairs, main sewer point repairs, and public sector service line repairs. The second group includes private sector repairs that would be the responsibility of the private property owners. A summary of the rehabilitation by category is given in Table 5-D.

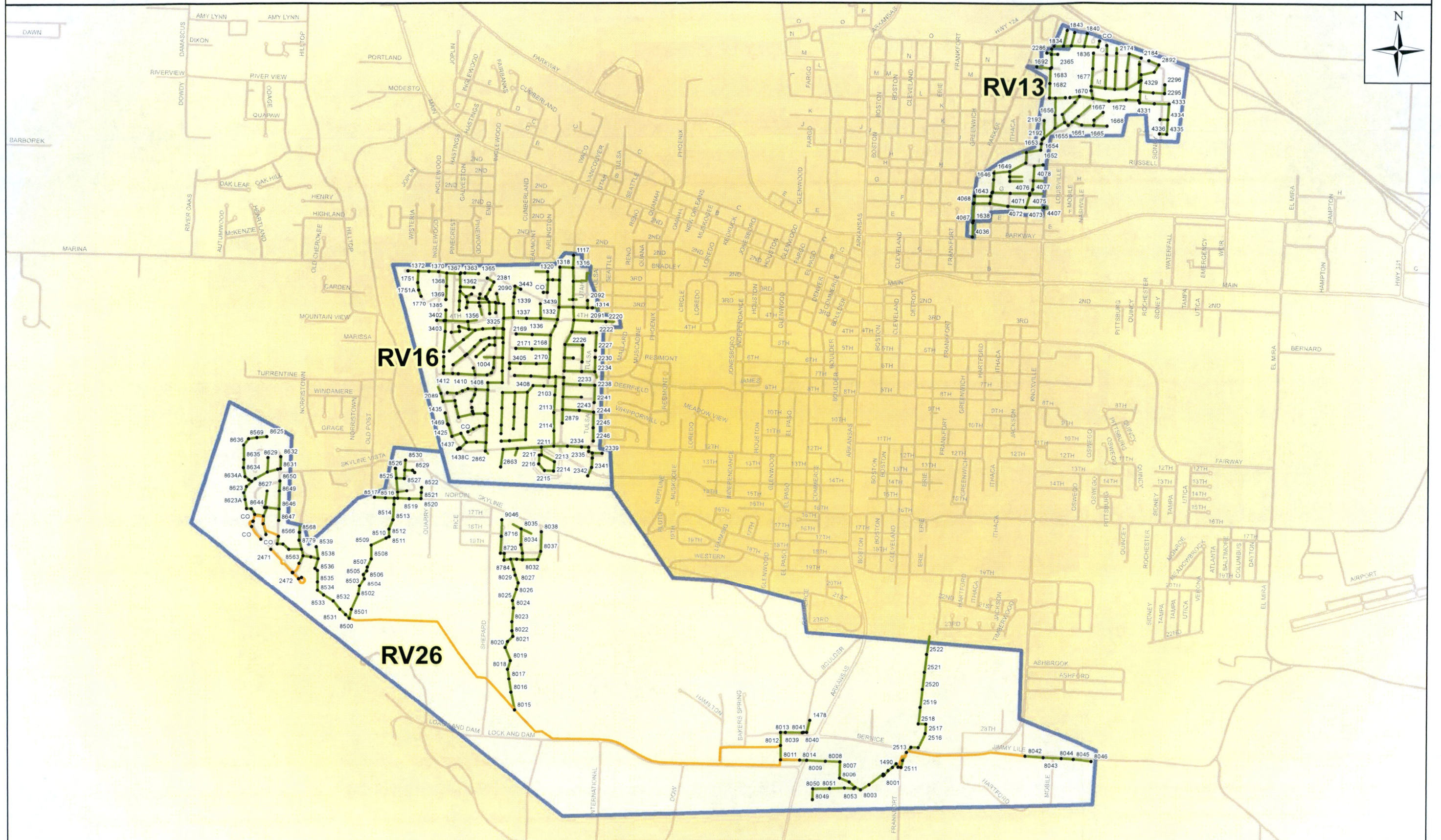
Table 5-D

### SUMMARY OF REHABILITATION BY CATEGORY

Repair Category	Quantity	1-Year Inflow Reduction (mgd)	Infiltration Reduction (mgd)	Estimated Construction (\$ Million)	Cost Capital <sup>1/</sup> (\$Million)
<b><u>Public Sector Repairs</u></b>					
Manhole Rehabilitation	320	0.654	0.470	0.461	0.600
Public Sector Point Repairs	15	0.012	0.030	0.078	0.101
Public Sector Line Replacements	27	0.029	0.081	1.275	1.657
Public Sector CIPP	11	N/A	0.007	0.179	0.232
Public Main Line, Cross Connections, and Catch Basins	<u>13</u>	<u>0.173</u>	<u>N/A</u>	<u>0.052</u>	<u>0.068</u>
Subtotal	386	0.867	0.588	2.045	2.658
<b><u>Private Sector Repairs</u></b>					
Cleanout and Service Line Repairs	<u>81</u>	<u>0.342</u>	<u>N/A</u>	<u>0.087</u>	<u>0.113</u>
Subtotal	<u>81</u>	<u>0.342</u>	<u>N/A</u>	<u>0.087</u>	<u>0.113</u>
<b>Total</b>	<b>467</b>	<b>1.209</b>	<b>0.588</b>	<b>2.132</b>	<b>2.771</b>

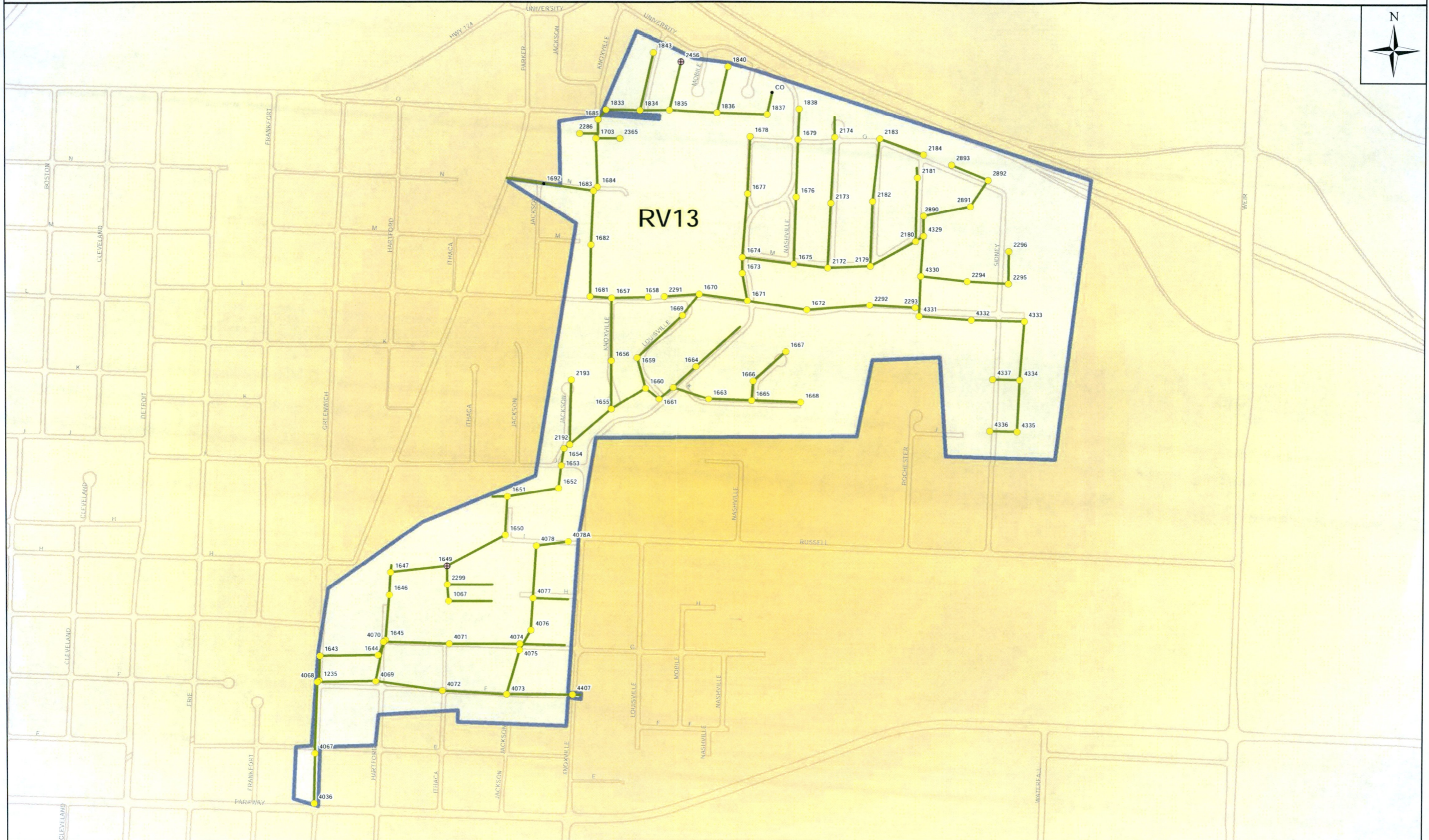
*1/ Includes estimated construction cost plus a 30 percent engineering service fee, contingency fees, and legal fees.*

# City of Russellville, Arkansas



- Manholes
- FM
- GRAVITY
- ▭ Basins
- Streets

# City of Russellville, Arkansas



- Inspection Status**
- Inspected
  - ⊕ Inaccessible
  - Not Found
  - Force Main
  - Gravity
  - Streets
  - Basins

CITY OF RUSSELLVILLE, ARKANSAS  
 PHASE 2 2015-2016 SSES  
 MANHOLE INSPECTION BASIN RV13  
 EXHIBIT: 2



# City of Russellville, Arkansas



RV16

RV26



- Inspection Status**
- Inspected
  - Force Main
  - Streets
  - Not Found
  - Gravity
  - Basins
  - ⊕ Inaccessible

CITY OF RUSSELLVILLE, ARKANSAS  
 PHASE 2 2015-2016 SSES  
 MANHOLE INSPECTION BASIN RV16  
 EXHIBIT: 3



# City of Russellville, Arkansas



RV26



**Inspection Status**

- Inspected
- Inaccessible
- Not Found
- Force Main
- Gravity
- Streets
- Basins

CITY OF RUSSELLVILLE, ARKANSAS  
 PHASE 2 2015-2016 SSES  
 MANHOLE INSPECTION BASIN RV26-EAST  
 EXHIBIT: 4



# City of Russellville, Arkansas



# City of Russellville, Arkansas



RV13



# City of Russellville, Arkansas



RV16

RV26



- Manholes
- Recommend Line Rehabilitation
- Force Main
- Gravity
- Streets
- Basins

CITY OF RUSSELLVILLE, ARKANSAS  
 PHASE 2 2015-2016 SSES  
 SEWER LINE REHABILITATION BASIN RV16  
 EXHIBIT: 7



# City of Russellville, Arkansas



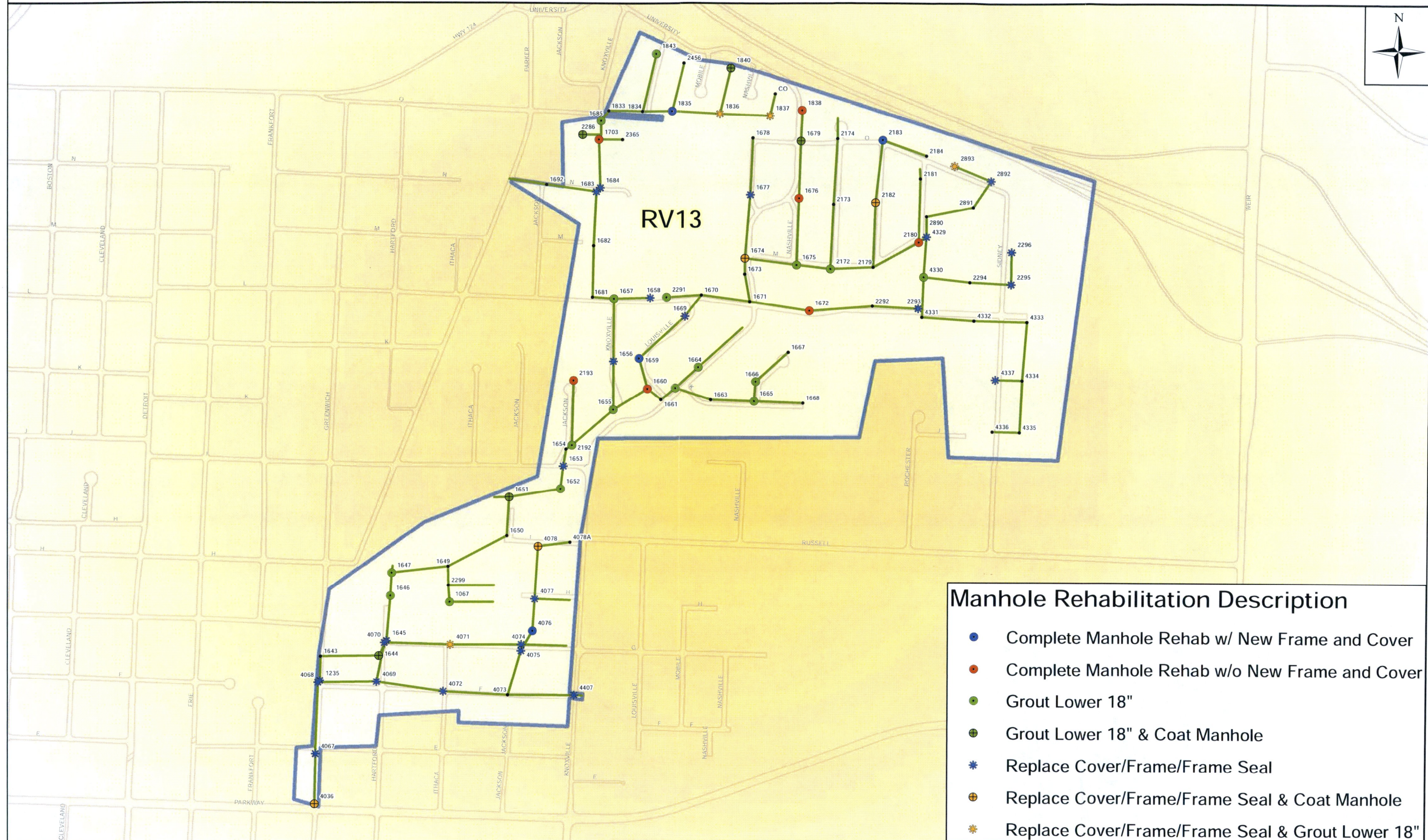
RV26

# City of Russellville, Arkansas



- Manholes
- Recommend Line Rehabilitation
- Force Main
- Streets
- Recommend Point Repair
- Gravity
- Basins

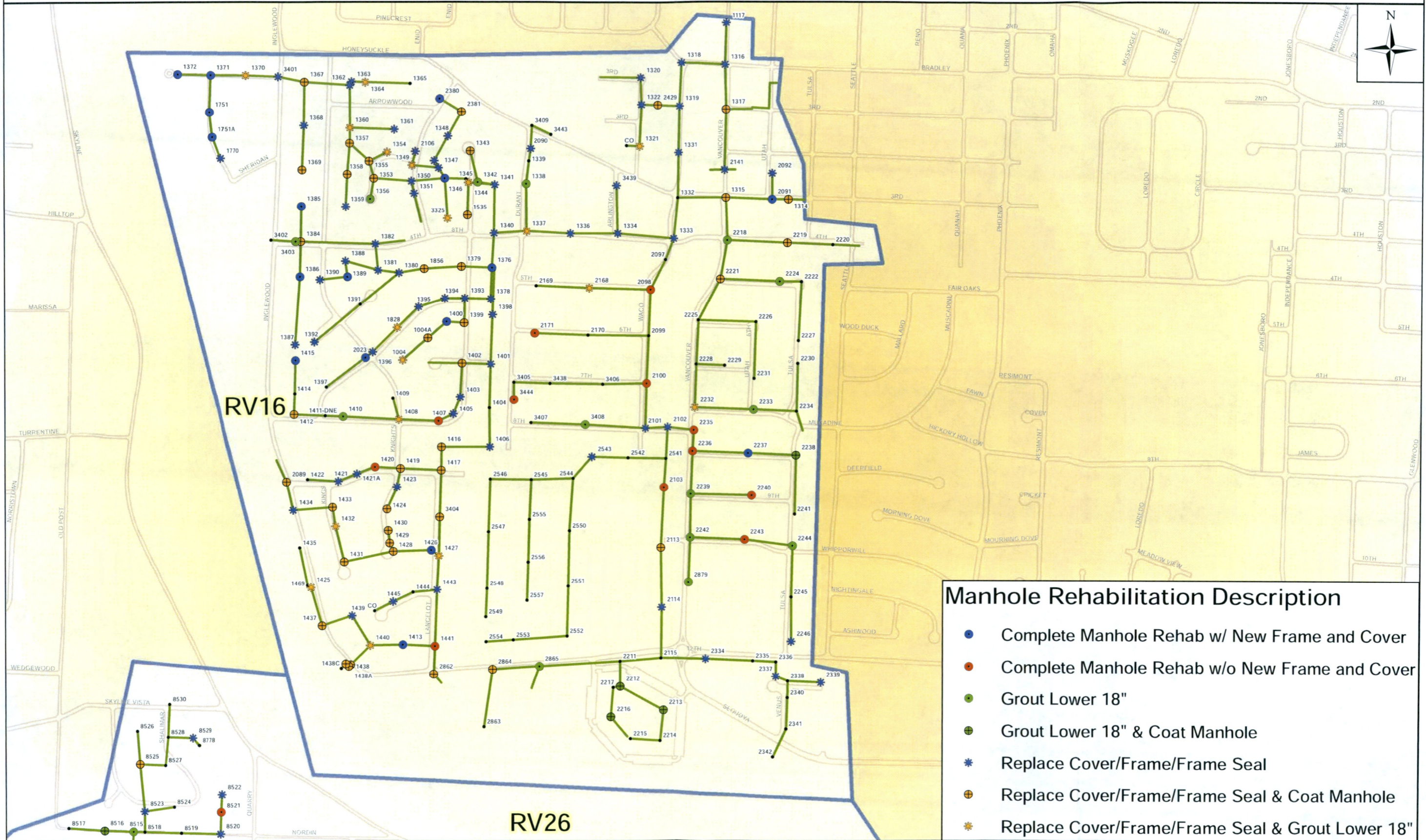
# City of Russellville, Arkansas



### Manhole Rehabilitation Description

- Complete Manhole Rehab w/ New Frame and Cover
- Complete Manhole Rehab w/o New Frame and Cover
- Grout Lower 18"
- Grout Lower 18" & Coat Manhole
- ★ Replace Cover/Frame/Frame Seal
- ★ Replace Cover/Frame/Frame Seal & Coat Manhole
- ★ Replace Cover/Frame/Frame Seal & Grout Lower 18"

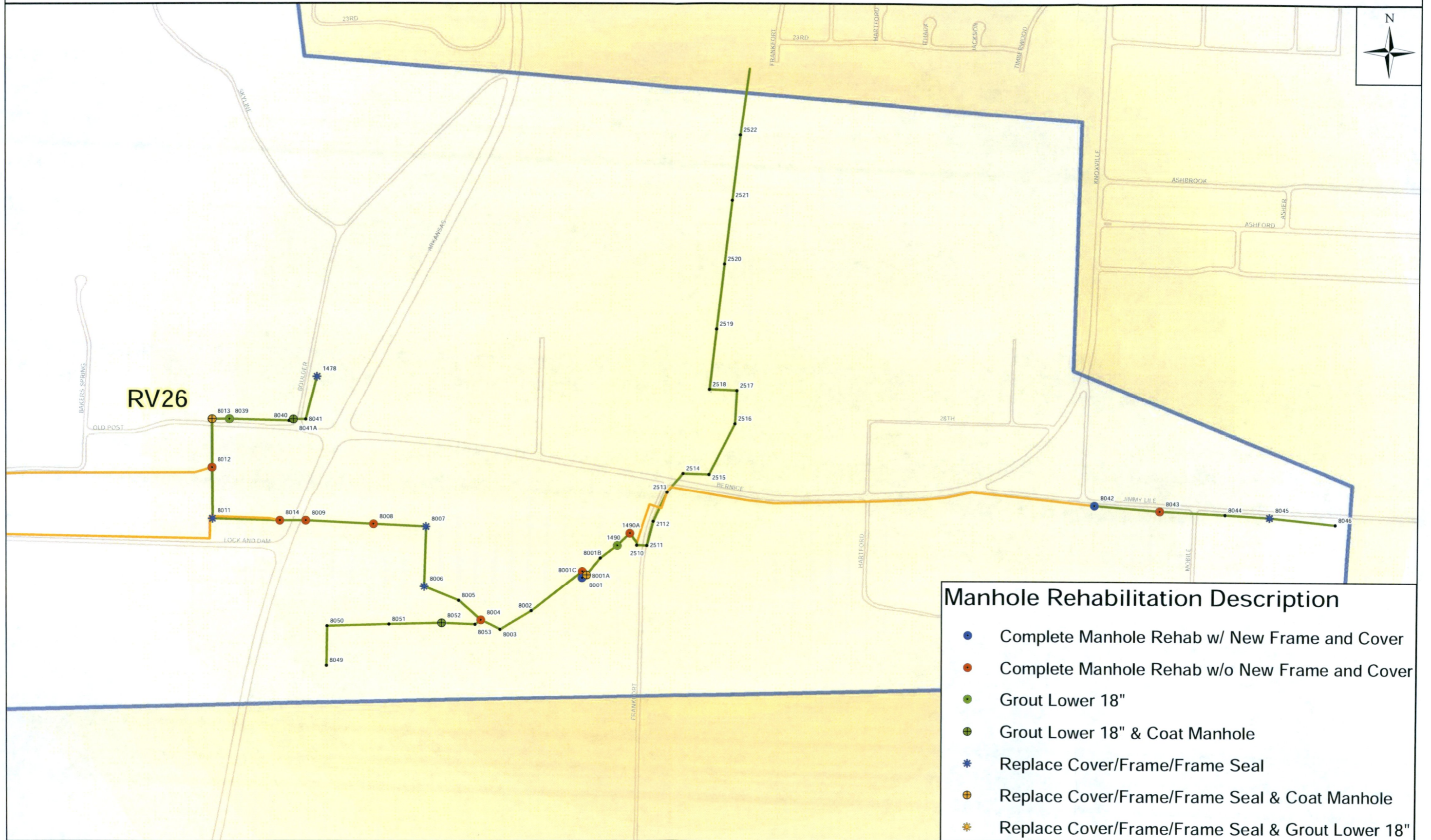
# City of Russellville, Arkansas



- ### Manhole Rehabilitation Description
- Complete Manhole Rehab w/ New Frame and Cover
  - Complete Manhole Rehab w/o New Frame and Cover
  - Grout Lower 18"
  - Grout Lower 18" & Coat Manhole
  - ★ Replace Cover/Frame/Frame Seal
  - ⊕ Replace Cover/Frame/Frame Seal & Coat Manhole
  - ★ Replace Cover/Frame/Frame Seal & Grout Lower 18"

● Manholes   
 — Force Main   
 — Streets  
— Gravity   
 ▭ Basins

# City of Russellville, Arkansas



- ### Manhole Rehabilitation Description
- Complete Manhole Rehab w/ New Frame and Cover
  - Complete Manhole Rehab w/o New Frame and Cover
  - Grout Lower 18"
  - Grout Lower 18" & Coat Manhole
  - Replace Cover/Frame/Frame Seal
  - Replace Cover/Frame/Frame Seal & Coat Manhole
  - Replace Cover/Frame/Frame Seal & Grout Lower 18"

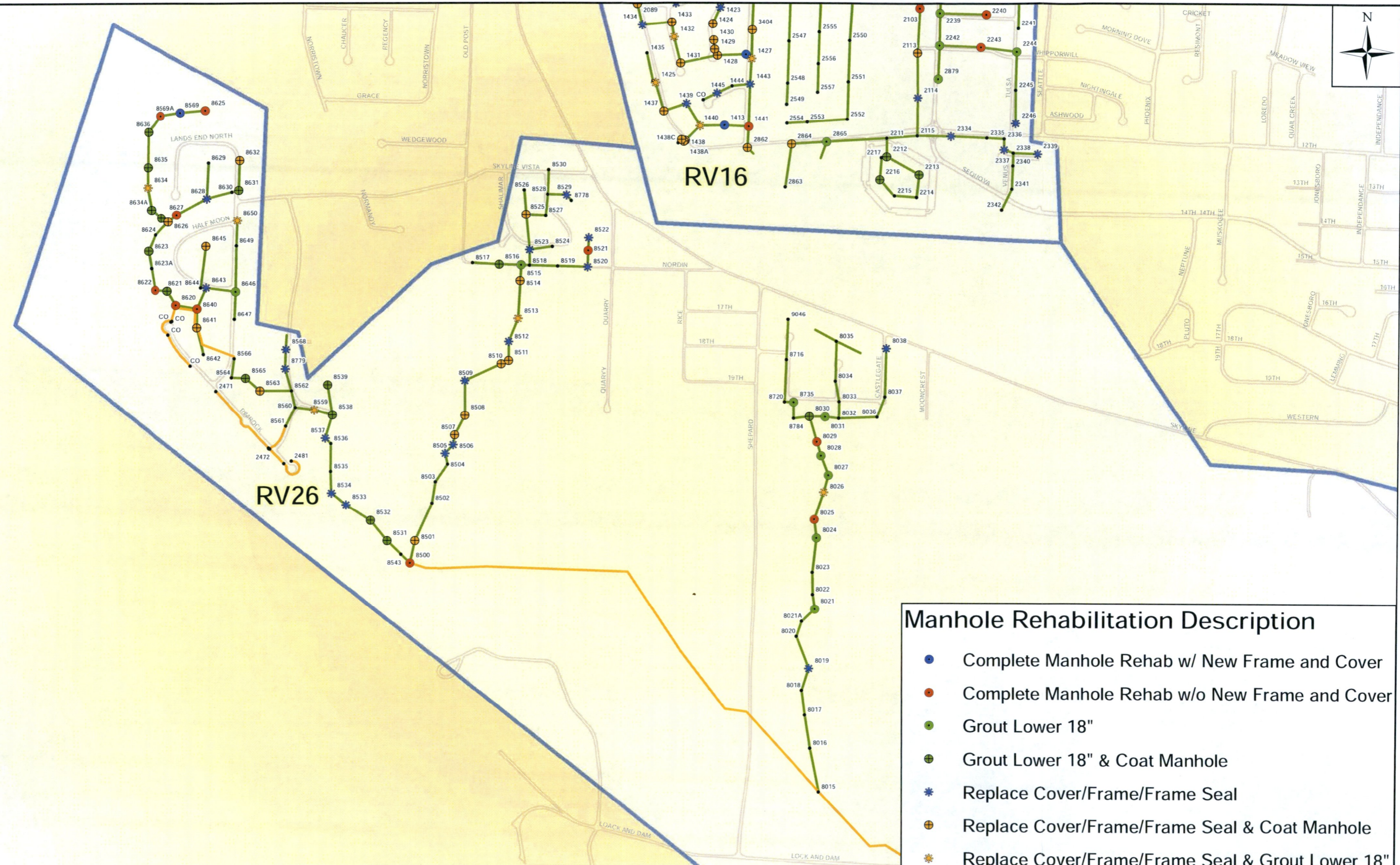
The Choice for Collection System Solutions

- Manholes
- Force Main
- Streets
- Gravity
- Basins

CITY OF RUSSELLVILLE, ARKANSAS  
 PHASE 2 2015-2016 SSES  
 MANHOLE REHABILITATION BASIN RV26-EAST  
 EXHIBIT: 12

RUSSELLVILLE WATER & SEWER

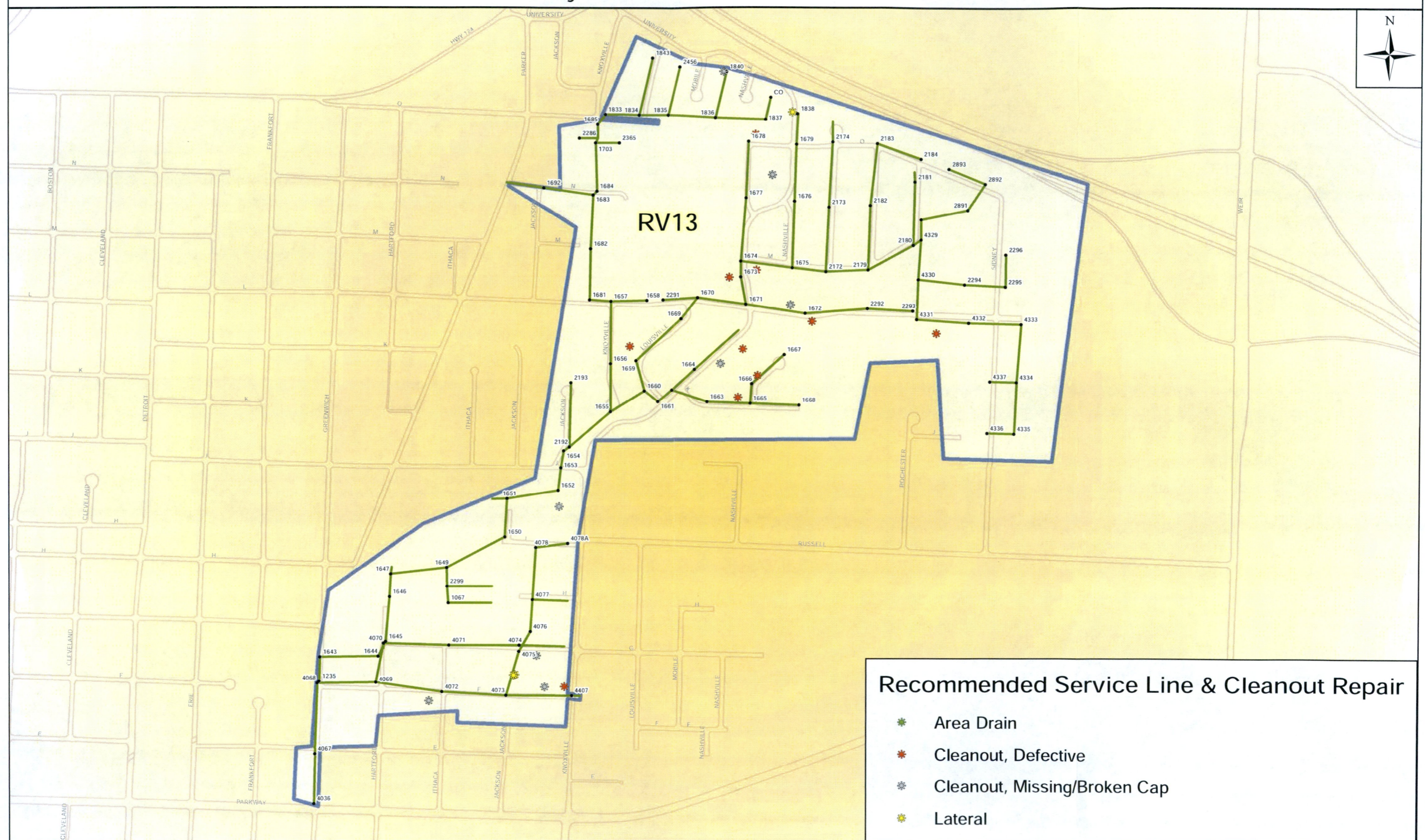
# City of Russellville, Arkansas







### Manhole Rehabilitation Description

- ★ Complete Manhole Rehab w/ New Frame and Cover
- Complete Manhole Rehab w/o New Frame and Cover
- Grout Lower 18"
- ⊕ Grout Lower 18" & Coat Manhole
- ★⊕ Replace Cover/Frame/Frame Seal
- ⊕ Replace Cover/Frame/Frame Seal & Coat Manhole
- ★⊕ Replace Cover/Frame/Frame Seal & Grout Lower 18"

# City of Russellville, Arkansas



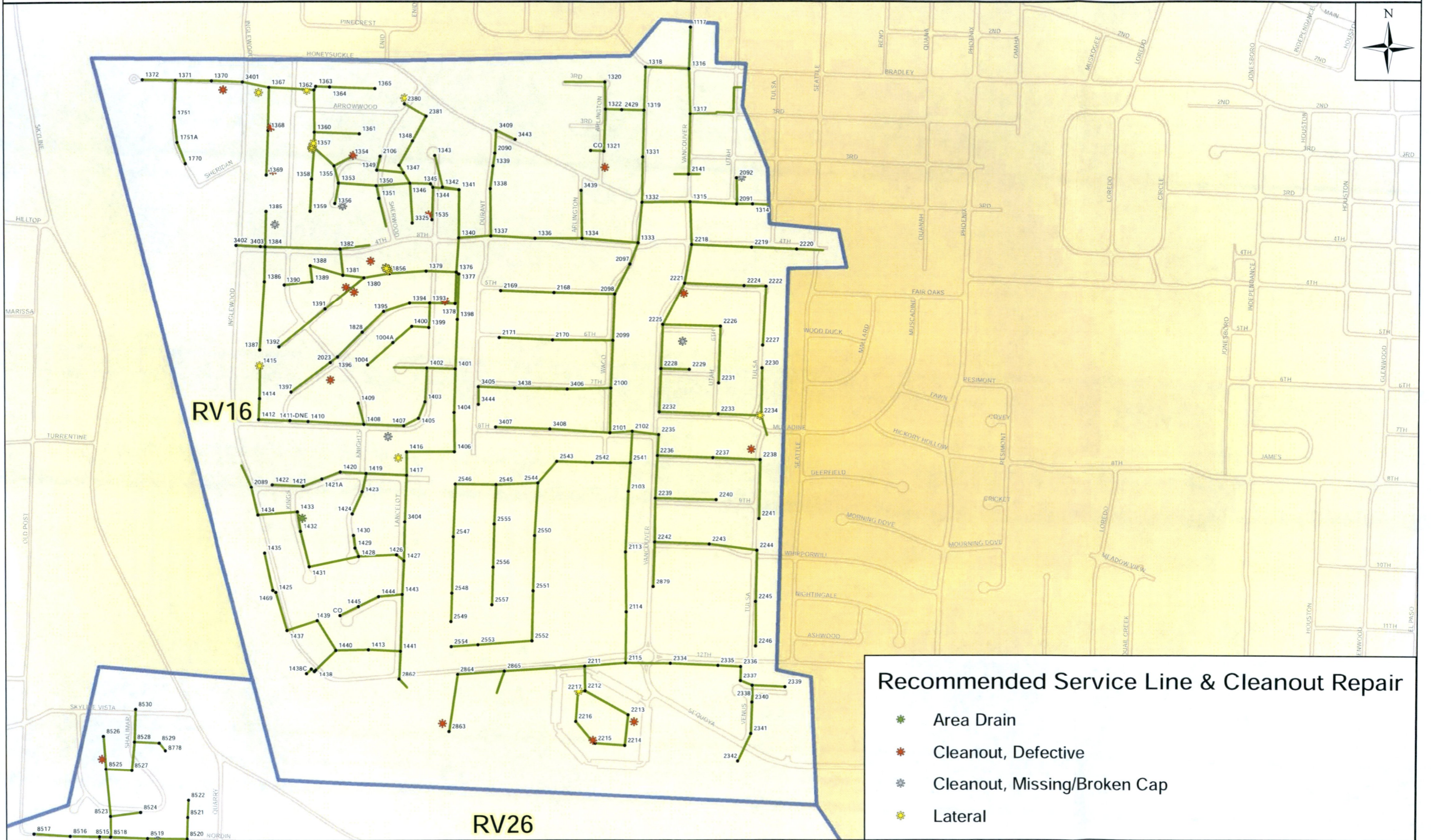
## Recommended Service Line & Cleanout Repair

-  Area Drain
-  Cleanout, Defective
-  Cleanout, Missing/Broken Cap
-  Lateral


-  Manholes
-  Force Main
-  Basins
-  Streets
-  Gravity



# City of Russellville, Arkansas



### Recommended Service Line & Cleanout Repair

-  Area Drain
-  Cleanout, Defective
-  Cleanout, Missing/Broken Cap
-  Lateral

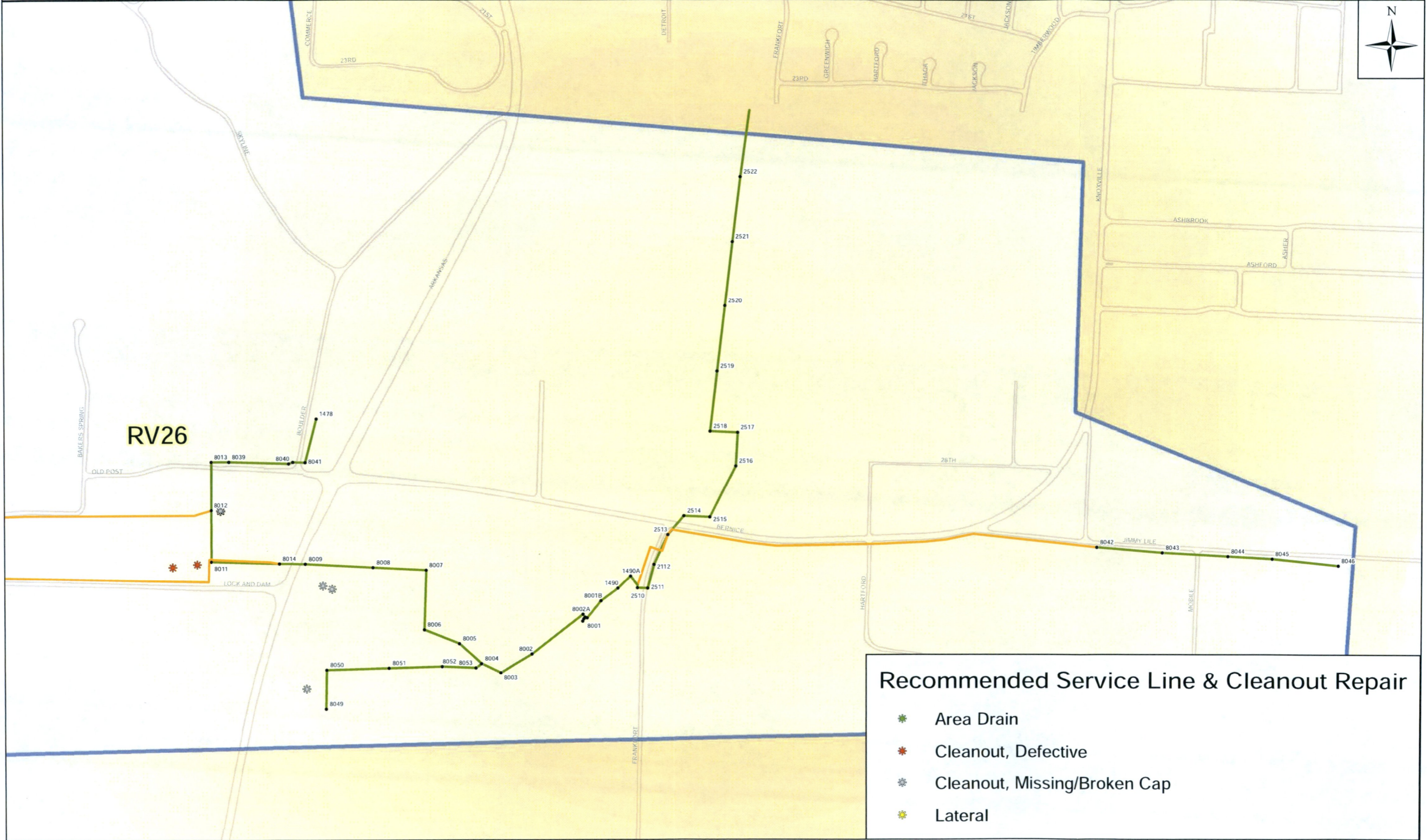
 Manholes    
  Force Main    
  Streets  
 Gravity    
  Basins



CITY OF RUSSELLVILLE, ARKANSAS  
 PHASE 2 2015-2016 SSES  
 SERVICE LINE INFLOW REMOVAL BASIN RV16  
 EXHIBIT: 15







# City of Russellville, Arkansas

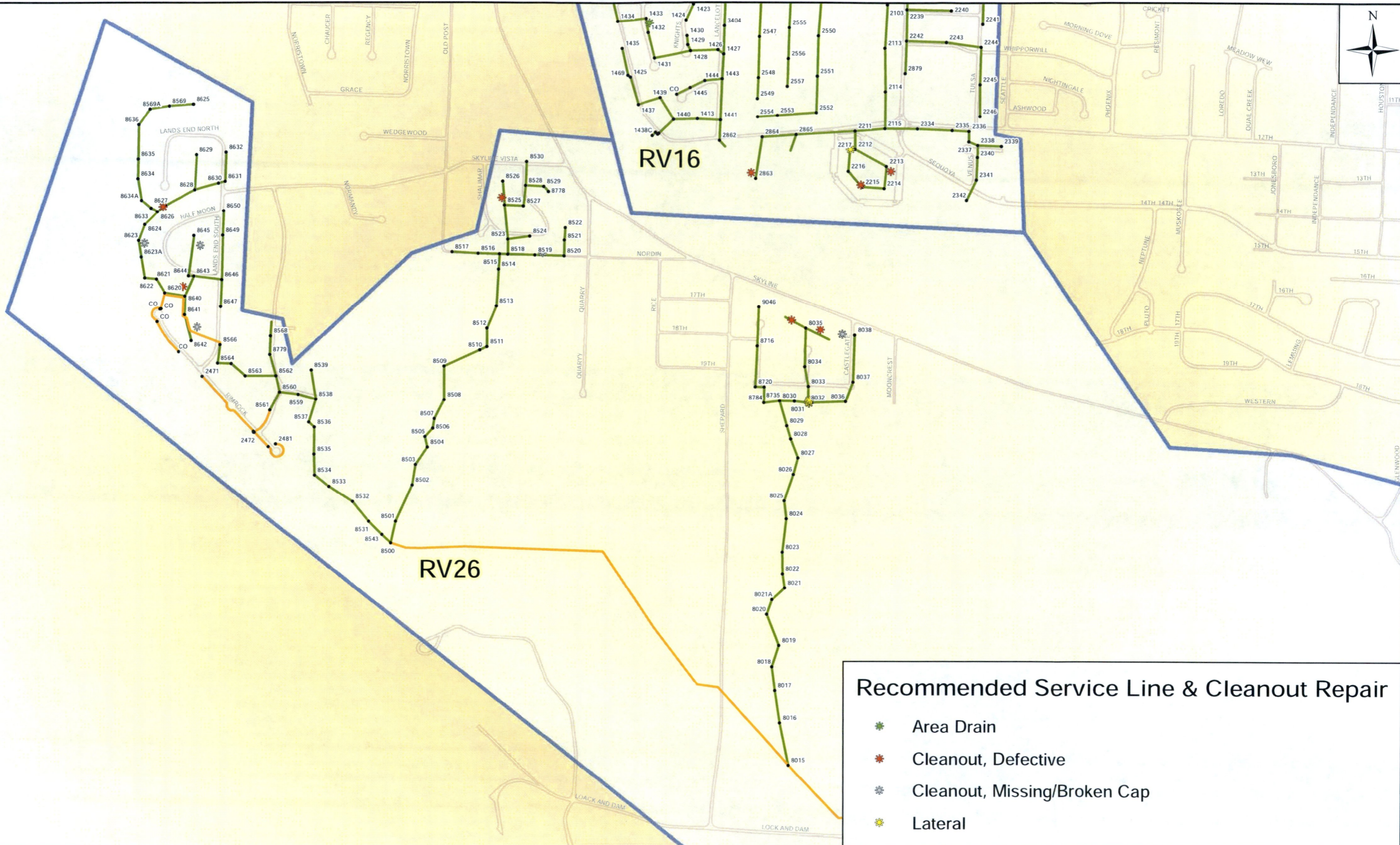


RV26

## Recommended Service Line & Cleanout Repair

-  Area Drain
-  Cleanout, Defective
-  Cleanout, Missing/Broken Cap
-  Lateral

# City of Russellville, Arkansas



### Recommended Service Line & Cleanout Repair

- Area Drain
- Cleanout, Defective
- Cleanout, Missing/Broken Cap
- Lateral

- Manholes
- Force Main
- Basins
- Gravity
- Streets

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**APPENDIX A**

**Manhole Inspection Report**



# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Subj. Cover Depth (ft.)	Pond. Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV13)1067	903 E G ST	Grass Easement	48	2.8	Yes Concealed	Precast	Sound	Yes	1,037	
(RV13)1235	521 N GREENWICH AV	Center Street	48	7.0	Yes Concealed	Poured	Sound	Yes		2,160
(RV13)1643	603 N GREENWICH AV	Center Street	48	4.7	No Concealed	Poured	Sound	Yes		
(RV13)1644	607 N HARTFORD AVE	Center Street	48	11.1	No Concealed	Poured	Cracked	Yes	1,080	
(RV13)1645	715 N HARTFORD AVE	Center Street	48	9.4	No Concealed	Poured	Sound	Yes		1,728
(RV13)1646	715 E G ST	Grass Easement	48	5.6	No Concealed	Poured	Sound	Yes	1,440	
(RV13)1647	715 E G ST	Grass Easement	48	5.0	No Concealed	Poured	Sound	No	1,037	
(RV13)1649	809 E G ST	Not Found	N/A	N/A	No N/A	N/A	N/A	No		
(RV13)1650	915 N JACKSON AVE	Grass Easement	48	8.6	No Concealed	Poured	Sound	Yes		
(RV13)1651	902 E J ST	Grass Easement	48	7.6	No Concealed	Poured	Cracked	No	4,320	
(RV13)1652	1006 N JACKSON AVE	Grass Easement	48	6.7	No Concealed	Poured	Sound	No	1,440	
(RV13)1653	1018 E J ST	Center Street	48	7.4	No Concealed	Poured	Sound	No		720
(RV13)1654	1001 N JACKSON CT	Center Street	48	6.5	No Concealed	Poured	Sound	No		
(RV13)1655	1101 N KNOXVILLE AVE	Grass Easement	48	6.4	Yes Concealed	Poured	Sound	Yes	1,440	
(RV13)1656	1107 N KNOXVILLE AVE	Center Street	48	7.9	No Concealed	Poured	Sound	No		2,160
(RV13)1657	1106 E L ST	Grass Easement	48	9.3	No Concealed	Poured	Sound	No	7,200	
(RV13)1658	1109 E L ST	Grass Easement	48	4.1	No Concealed	Rehab	Sound	No		1,037
(RV13)1659	1111 N LOUISVILLE AVE	Grass Easement	48	7.2	No Concealed	Rehab	Roots	Yes	1,584	3,168
(RV13)1660	1105 N LOUISVILLE AVE	Grass Easement	48	11.4	No Concealed	Rehab	Cracked	No	4,320	14,400
(RV13)1661	1011 N LOUISVILLE AVE	Grass Easement	48	7.0	No Concealed	Poured	Sound	No		
(RV13)1662	1101 UNIVERSITY DR	Grass Easement	48	8.7	No Concealed	Poured	Sound	No	0	
(RV13)1663	1307 E K ST	Paved Easement	48	4.3	No Concealed	Poured	Sound	No		
(RV13)1664	1105 UNIVERSITY DR	Grass Easement	48	8.5	No Concealed	Poured	Sound	No	2,880	
(RV13)1665	1319 E K ST	Grass Easement	48	6.8	No Concealed	Poured	Sound	No		14,400
(RV13)1666	1107 N NASHVILLE CT	Grass Easement	48	5.4	No Concealed	Poured	Sound	No	4,320	

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV13)1667	1123 N NASHVILLE CT	Grass Easement	48	6.8	No	Concealed	Poured	Sound	Yes		
(RV13)1668	1330 E K ST	Grass Easement	48	6.9	No	Concealed	Poured	Sound	No		
(RV13)1669	112 N LOUISVILLE AVE	Grass Easement	48	6.0	No	Concealed	Rehab	Sound	No		1,728
(RV13)1670	1201 E L ST	Grass Easement	48	5.9	No	Concealed	None	N/A	Yes		
(RV13)1671	1217 UNIVERSITY DR	Grass Easement	48	9.5	No	Concealed	Precast	Sound	No		
(RV13)1672	1318 E L ST	Grass Easement	48	6.6	No	Concealed	Poured	Sound	No	2,880	2,880
(RV13)1673	1201 UNIVERSITY DR	Grass Easement	48	3.2	No	Concealed	Rehab	Sound	Yes		
(RV13)1674	1205 UNIVERSITY DR	Grass Easement	48	3.8	No	Concealed	Rehab	Sound	Yes		0
(RV13)1675	1308 E M ST	Grass Easement	48	5.2	No	Concealed	Rehab	Leaking Joints	Yes	15,840	
(RV13)1676	1214 N NASHVILLE PL	Paved Easement	48	6.3	No	Concealed	Rehab	Leaking Step/Lifting Hole	No	10,080	360
(RV13)1677	1305 N NASHVILLE AVE	Paved Easement	48	3.3	No	Concealed	Rehab	Sound	No		3,600
(RV13)1678	1417 E O ST	Paved Easement	48	5.1	No	Concealed	Rehab	Sound	No		
(RV13)1679	1500 E O ST	Center Street	48	5.3	No	Concealed	Rehab	Cracked	Yes	2,880	
(RV13)1681	1015 E L ST	Grass Easement	48	8.4	Yes	Concealed	Poured	Sound	No		
(RV13)1682	1098 E M ST	Grass Easement	48	9.1	No	Concealed	Poured	Sound	No		
(RV13)1683	1210 E N ST	Grass Easement	48	6.4	No	Concealed	Poured	Sound	No		2,160
(RV13)1684	1207 E N ST	Center Street	48	7.1	No	Concealed	Rehab	Sound	No		1,440
(RV13)1685	1312 E O ST	Grass Easement	48	8.4	No	Concealed	Poured	Sound	No	4,320	
(RV13)1703	1316 N JACKSON AVE	Grass Easement	48	8.1	No	Concealed	Rehab	Roots	No	11,520	
(RV13)1833	1502 E O ST	Grass Easement	48	7.7	No	Concealed	Rehab	Sound	No		
(RV13)1834	1503 N LOUISVILLE AVE	Grass Easement	48	6.5	No	Concealed	Rehab	Sound	No		
(RV13)1835	1502 E O ST	Grass Easement	48	5.5	No	Concealed	Rehab	Roots	No	2,520	3,600
(RV13)1836	1502 N MOBILE CV	Grass Easement	48	5.6	No	Concealed	Rehab	Sound	No	1,440	1,440
(RV13)1837	1504 N NASHVILLE AVE	Grass Easement	48	4.6	No	Concealed	Rehab	Sound	No	1,440	1,080
(RV13)1838	1508 UNIVERSITY DR	Grass Easement	48	7.2	No	Concealed	Rehab	Roots	Yes	2,520	

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Subj. Cover Depth (ft.)	Pond. Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV13)1840	1512 N MOBILE AVE	Grass Easement	48	7.2	No Concealed	Rehab	Roots	No	2,880	
(RV13)1843	1511 N LOUISVILLE AVE	Grass Easement	48	6.1	No Concealed	Rehab	Sound	No	1,440	
(RV13)2172	1418 E M ST	Grass Easement	48	4.4	No Concealed	None	N/A	No	0	
(RV13)2173	1411 N OSWEGO AVE	Grass Easement	48	5.0	No Concealed	Poured	Sound	No		
(RV13)2174	1505 N OSWEGO AVE	Grass Easement	48	4.2	No Concealed	Poured	Sound	No		
(RV13)2179	1516 E M ST	Paved Easement	48	4.6	No Concealed	Poured	Sound	Yes		
(RV13)2180	1616 E M ST	Grass Easement	48	5.6	No Concealed	Poured	Roots	Yes	4,680	
(RV13)2181	1211 N QUINCY AVE	Grass Easement	48	4.9	No Concealed	Poured	Sound	Yes		
(RV13)2182	1411 N PITTSBURG AVE	Paved Easement	48	6.3	No Concealed	Poured	Leaking Joints	No	1,440	
(RV13)2183	1511 E O ST	Grass Easement	48	6.1	No Concealed	Poured	Cracked	No		9,504
(RV13)2184	1703 E O ST	Grass Easement	48	5.8	No Concealed	Poured	Sound	No		
(RV13)2192	1004 N JACKSON CT	Grass Easement	48	7.1	No Concealed	Poured	Sound	Yes		28,800
(RV13)2193	1020 N JACKSON CT	Grass Easement	48	4.8	No Concealed	Poured	Cracked	No	1,800	
(RV13)2286	1206 E O ST	Paved Easement	48	6.3	No Concealed	Rehab	Cracked	No	360	
(RV13)2291	1109 E L ST	Paved Easement	36	3.7	No Concealed	None	N/A	No	7,200	
(RV13)2292	1511 E L ST	Grass Easement	48	4.6	No Concealed	Poured	Sound	No		
(RV13)2293	1615 E L ST	Grass Easement	48	4.6	No Concealed	Poured	Sound	No		173
(RV13)2294	1101 N SIDNEY AVE	Grass Easement	48	8.4	No Concealed	Poured	Sound	No		
(RV13)2295	1106 N SIDNEY AVE	Grass Easement	48	9.3	No Concealed	Poured	Sound	No		173
(RV13)2296	1110 N SIDNEY AVE	Grass Easement	48	6.5	No Concealed	Poured	Sound	Yes		864
(RV13)2299	809 E G ST	Grass Easement	48	2.9	No Concealed	Precast	Sound	Yes		
(RV13)2365	1316 N JACKSON AVE	Grass Easement	48	7.0	No Concealed	Poured	Sound	No		
(RV13)2456-DNI	1711 UNIVERSITY DR	Not Found	N/A	N/A	No N/A	N/A	N/A	No		
(RV13)2890	1203 N QUINCY AVE	Grass Easement	48	7.4	No Concealed	Precast	Sound	Yes		
(RV13)2891	1802 E O ST	Grass Easement	48	4.3	No Concealed	Precast	Sound	No		

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole		Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
			Diam. (in.)	Depth (ft.)							
(RV13)2892	1703 E O ST	Paved Easement	48	5.1	No	Concealed	Precast	Sound	No		3,600
(RV13)2893	1703 E O ST	Paved Easement	48	6.4	No	Concealed	Precast	Sound	Yes	2,160	1,080
(RV13)4036	619 N GREENWICH AV	Center Street	48	13.6	No	Pick	Rehab	Cracked	No	7,200	4,320
(RV13)4067	620 N GREENWICH AV	Center Street	48	13.0	No	Pick	Rehab	Sound	No		6,048
(RV13)4068	517 N GREENWICH AV	Paved Easement	48	7.5	No	Pick	Rehab	Sound	Yes		2,880
(RV13)4069	607 N HARTFORD AVE	Grass Easement	39	7.2	No	Pick	Rehab	Sound	Yes		72
(RV13)4070	802 E G ST	Center Street	48	5.0	No	Pick	Rehab	Sound	No		288
(RV13)4071	901 E G ST	Center Street	42	3.4	No	Pick	None	N/A	No	4,320	288
(RV13)4072	812 E F ST	Center Street	48	6.7	No	Pick	Rehab	Sound	Yes		1,728
(RV13)4073	920 E F ST	Center Street	23	1.7	No	Concealed	Rehab	Sound	No		
(RV13)4074	1001 E G ST	Paved Easement	48	3.8	No	Pick	None	N/A	Yes		288
(RV13)4075	1002 E G ST	Grass Easement	41	6.6	No	Pick	Rehab	Sound	No		2,160
(RV13)4076	1001 E G ST	Grass Easement	48	6.6	Yes	Pick	Block	Roots	No	1,800	2,520
(RV13)4077	1002 E H ST	Grass Easement	35	2.8	No	Pick	None	N/A	No		288
(RV13)4078	1004 E I ST	Paved Easement	23	N/A	No	Pick	None	N/A	No	0	288
(RV13)4078A	1008 E I ST	Center Street	48	2.6	No	Concealed	Precast	Sound	No		
(RV13)4329	1201 N QUINCY AVE	Grass Easement	48	5.8	No	Concealed	Poured	Sound	Yes		7,560
(RV13)4330	1615 E L ST	Grass Easement	48	4.5	No	Concealed	Poured	Sound	No	2,880	
(RV13)4331	1616 E L ST	Grass Easement	48	5.1	No	Concealed	Poured	Sound	No		
(RV13)4332	1714 E L ST	Grass Easement	48	8.4	No	Concealed	Poured	Sound	No		
(RV13)4333	1710 E L ST	Grass Easement	48	7.0	No	Concealed	Poured	Sound	No		
(RV13)4334	922 N SIDNEY AVE	Grass Easement	48	6.1	No	Concealed	Poured	Sound	No		
(RV13)4335	922 N SIDNEY AVE	Grass Easement	48	3.1	No	Concealed	None	N/A	No		
(RV13)4336	921 N SIDNEY AVE	Grass Easement	48	5.1	No	Concealed	Poured	Sound	No		
(RV13)4337	1007 N SIDNEY AVE	Grass Easement	48	4.9	No	Concealed	Poured	Sound	No		1,440



# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV13)4407	1009 E F ST	Center Street	32	4.2	No	Pick	Rehab	Sound	No		1,440

Totals for Basin RV13

125,698 133,862

Total Manholes	101
Manholes Inspected	99
Manholes Not Inspected	2
Manholes Buried	0
Manholes Not Found	0
Manholes Inaccessible	2
Location Not Specified	2

Percent:	
Inspected	98.02%
Not Inspected	1.98%
Buried	0.00%
Not Found	0.00%
Inaccessible	1.98%

Evidence of Surcharge	29
Subject to Ponding	5
Subject to Sheeting	48

Surcharge	28.71%
Ponding	4.95%
Sheeting	47.52%

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole		Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
			Diam. (in.)	Depth (ft.)							
(RV16)1004	916 EASTWOOD DR	Grass Easement	48	5.8	Yes	Pick	Rehab	Sound	No	1,440	3,168
(RV16)1004A	918 EASTWOOD DR.	Grass Easement	48	6.2	No	Pick	Rehab	Cracked	No	360	288
(RV16)1117	226 S VANCOUVER AV	Center Street	48	10.8	No	Concealed	Rehab	Sound	No		720
(RV16)1314	2005 W 3RD CT	Grass Easement	48	14.8	No	Pick	Brick	Cracked	No	1,440	12,312
(RV16)1315	335 S VANCOUVER AV	Center Street	48	5.0	No	Concealed	Rehab	Cracked	Yes	360	2,880
(RV16)1316	2230 BRADLEY LN	Center Street	48	10.6	No	Pick	Rehab	Sound	No		288
(RV16)1317	300 S VANCOUVER AV	Center Street	48	8.2	No	Pick	Rehab	Cracked	No	1,440	288
(RV16)1318	2220 BRADLEY LN	Center Street	48	16.0	Yes	Pick	Rehab	Sound	Yes		14,400
(RV16)1319	304 S WACO AVE	Center Street	48	12.2	No	Pick	Rehab	Sound	Yes	0	6,048
(RV16)1320	2404 W 3RD ST	Center Street	48	4.1	No	Pick	Rehab	Sound	No		6,048
(RV16)1321	407 S ARLINGTON AVE	Grass Easement	48	4.6	No	Pick	Rehab	Sound	No	1,440	288
(RV16)1322	401 S ARLINGTON AVE	Center Street	48	6.1	No	Pick	Rehab	Sound	No		288
(RV16)1331	310 S WACO AVE	Center Street	48	10.3	No	Pick	Rehab	Sound	Yes		288
(RV16)1332	325 HONEYSUCKLE LN	Grass Easement	48	12.4	No	Concealed	Rehab	Sound	Yes		
(RV16)1333	329 S WACO AVE	Center Street	48	8.0	No	Pick	Rehab	Sound	Yes		1,440
(RV16)1334	519 S ARLINGTON AVE	Grass Easement	42	6.0	No	Pick	Rehab	Sound	Yes		288
(RV16)1336	2434 W 4TH ST	Center Street	36	4.8	No	Pick	Rehab	Sound	No		288
(RV16)1337	2437 W 4TH ST		30	10.8	No	Pick	Rehab	Sound	No	1,037	288
(RV16)1338	509 S DURANT AVE	Grass Easement	38	2.6	No	Concealed	None	N/A	No	2,160	
(RV16)1339	505 S DURANT AVE	Grass Easement	48	4.6	No	Concealed	Rehab	Sound	No		
(RV16)1340	1302 W 4TH ST	Grass Easement	38	9.9	No	Pick	Rehab	Sound	No		288
(RV16)1341	1310 RIDGEWOOD DR	Grass Easement	48	4.4	No	Pick	Poured	Sound	Yes		72
(RV16)1342	1310 RIDGEWOOD DR	Grass Easement	48	6.2	No	Concealed	Poured	Sound	No	1,440	
(RV16)1343	1317 RIDGEWOOD DR	Grass Easement	48	6.5	No	Pick	Rehab	Leaking Step/Lifting Hole	No	3,168	288
(RV16)1344	1309 RIDGEWOOD DR	Grass Easement	48	5.2	No	Pick	Rehab	Sound	No	1,440	288

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV16)1345	1309 RIDGEWOOD DR	Grass Easement	48	5.6	No	Concealed	Rehab	Sound	No		
(RV16)1346	1313 RIDGEWOOD DR	Grass Easement	48	8.5	No	Pick	Rehab	Roots	No	6,480	2,016
(RV16)1347	311 SHERWOOD DR	Grass Easement	34	4.7	No	Pick	Rehab	Sound	Yes		3,168
(RV16)1348	305 SHERWOOD DR	Grass Easement	29	4.1	No	Pick	Rehab	Sound	No		288
(RV16)1348A	311 SHERWOOD DR	Grass Easement	36	4.1	No	Pick	Rehab	Sound	No		288
(RV16)1349	401 SHERWOOD DR	Grass Easement	36	5.6	No	Pick	None	N/A	No	1,440	288
(RV16)1350	410 SHERWOOD DR	Grass Easement	30	7.1	No	Pick	Rehab	Sound	No		288
(RV16)1351	412 SHERWOOD DR	Grass Easement	36	5.3	No	Pick	Rehab	Sound	Yes		288
(RV16)1353	304 BRIARWOOD CT	Grass Easement	28	10.6	No	Pick	Rehab	Roots	No	2,045	288
(RV16)1354	301 BRIARWOOD CT	Grass Easement	48	5.3	No	Pick	Rehab	Sound	No	1,440	72
(RV16)1355	307 BRIARWOOD CT	Grass Easement	30	11.9	Yes	Pick	Rehab	Cracked	No	2,520	288
(RV16)1356	400 BRIARWOOD CT	Grass Easement	48	5.4	No	Concealed	Rehab	Sound	No	1,037	
(RV16)1357	204 ARROWWOOD LN	Grass Easement	48	12.5	Yes	Pick	Rehab	Cracked	No	1,440	10,969
(RV16)1358	309 BRIARWOOD CT	Grass Easement	48	10.7	No	Pick	Rehab	Roots	No	360	1,152
(RV16)1359	319 TANGLEWOOD DR	Grass Easement	48	5.4	Yes	Pick	Rehab	Sound	No		1,728
(RV16)1360	206 ARROWWOOD LN	Grass Easement	48	8.5	No	Pick	Rehab	Sound	Yes	360	72
(RV16)1361	210 ARROWWOOD LN	Grass Easement	48	4.6	No	Pick	Rehab	Sound	Yes		288
(RV16)1362	201 ARROWWOOD LN	Paved Easement	34	3.0	No	Pick	None	N/A	No		288
(RV16)1363	205 ARROWWOOD LN	Grass Easement	46	2.7	No	Pick	None	N/A	No		72
(RV16)1364	203 ARROWWOOD LN	Grass Easement	44	2.7	No	Pick	None	N/A	No	1,440	288
(RV16)1365-DNI	209 ARROWWOOD LN	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV16)1367	303 S INGLEWOOD AV	Grass Easement	48	4.2	No	Pick	Rehab	Cracked	No	1,800	288
(RV16)1368	307 S INGLEWOOD AV	Grass Easement	48	7.9	No	Pick	Rehab	Sound	No		72
(RV16)1369	308 TANGLEWOOD DR	Grass Easement	48	11.1	No	Pick	Rehab	Roots	No	1,397	72
(RV16)1370	3103 HONEYSUCKLE LN	Center Street	44	6.9	No	Pick	Rehab	Sound	No	2,160	2,592

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole		Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
			Diam. (in.)	Depth (ft.)							
(RV16)1371	901 ROLLING HILLS D	Center Street	48	8.0	No	Pick	Rehab	Deteriorated	No	4,320	2,016
(RV16)1372	3112 HONEYSUCKLE LN	Center Street	40	8.3	No	Pick	Rehab	Roots	No	2,880	7,488
(RV16)1376	530 S DURANT AVE	Grass Easement	48	8.9	Yes	Pick	Rehab	Roots	No	5,760	2,448
(RV16)1377	530 S DURANT AVE	Grass Easement	48	8.6	No	Concealed	Rehab	Sound	No		
(RV16)1378	1202 RIDGEWOOD DR	Grass Easement	43	5.8	No	Pick	Rehab	Sound	No		288
(RV16)1379	1205 RIDGEWOOD DR	Grass Easement	40	5.2	No	Pick	Rehab	Cracked	No	1,397	288
(RV16)1380	505 DALEWOOD CT	Grass Easement	48	4.6	No	Pick	Rehab	Sound	No		72
(RV16)1381	505 DALEWOOD CT	Grass Easement	48	5.3	No	Pick	Rehab	Sound	No		72
(RV16)1382	2812 W 4TH ST	Grass Easement	48	6.6	No	Pick	Rehab	Sound	No		288
(RV16)1384	3002 W 4TH ST	Grass Easement	48	9.0	No	Pick	Rehab	Sound	No	0	72
(RV16)1385	409 S INGLEWOOD AV	Grass Easement	48	11.4	No	Pick	Rehab	Cracked	No	4,320	72
(RV16)1386	422 TANGLEWOOD DR	Grass Easement	48	7.2	No	Pick	Rehab	Roots	No	4,320	576
(RV16)1387	511 S INGLEWOOD AV	Grass Easement	48	2.4	No	Pick	None	N/A	Yes	0	648
(RV16)1388	427 TANGLEWOOD DR	Grass Easement	48	4.4	No	Pick	Rehab	Sound	No		72
(RV16)1389	429 TANGLEWOOD DR	Grass Easement	48	4.2	No	Pick	Rehab	Deteriorated	No	0	72
(RV16)1390	422 TANGLEWOOD DR	Grass Easement	48	6.4	No	Pick	Rehab	Sound	No		288
(RV16)1391	502 DALEWOOD CT	Center Street	48	3.8	No	Concealed	Rehab	Sound	Yes		
(RV16)1392	605 DALEWOOD CT	Grass Easement	48	7.2	No	Pick	Rehab	Sound	No		288
(RV16)1393	1203 RIDGEWOOD DR	Center Street	48	5.7	No	Pick	Rehab	Sound	No		1,440
(RV16)1394	925 EASTWOOD DR	Grass Easement	48	6.1	No	Pick	Rehab	Sound	No		288
(RV16)1395	921 EASTWOOD DR	Grass Easement	48	11.8	No	Pick	Rehab	Sound	No		288
(RV16)1396	535 TANGLEWOOD DR	Grass Easement	48	4.5	No	Pick	Rehab	Sound	No		288
(RV16)1397	921 EASTWOOD DR	Grass Easement	48	11.8	No	Concealed	Rehab	Sound	No		
(RV16)1398	548 S DURANT AVE	Grass Easement	48	8.1	No	Pick	Rehab	Sound	Yes		72
(RV16)1399	1103 RIDGEWOOD DR	Grass Easement	48	6.3	No	Pick	Rehab	Sound	No	0	288

# Manhole Information Report

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Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Subj. Depth (ft.)	Cover Pond. Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV16)1400	920 EASTWOOD DR	Grass Easement	48	5.6	No Pick	Rehab	Cracked	No	720	1,008
(RV16)1402	1013 RIDGEWOOD DR	Center Street	48	8.7	No Concealed	Rehab	Leaking Step/Lifting Hole	Yes	317	
(RV16)1403	1011 RIDGEWOOD DR	Grass Easement	48	6.4	No Pick	Rehab	Sound	No		288
(RV16)1404-DNI	704 S DURANT AVE	Not Found	N/A	N/A	No N/A	N/A	N/A	No		
(RV16)1405	1009 RIDGEWOOD DR	Grass Easement	48	8.7	Yes Pick	Rehab	Sound	Yes		11,037
(RV16)1406	802 S DURANT AVE	Grass Easement	46	3.4	No Pick	None	N/A	No		72
(RV16)1407	1005 RIDGEWOOD DR	Grass Easement	48	6.3	No Concealed	Rehab	Cracked	No	1,800	
(RV16)1408	1001 TANGLEWOOD DR	Center Street	48	6.8	No Pick	Rehab	Sound	No		10,368
(RV16)1409	638 TANGLEWOOD DR	Grass Easement	48	8.8	No Concealed	Rehab	Sound	Yes		
(RV16)1410	901 RIDGEWOOD DR	Grass Easement	48	7.4	No Concealed	Rehab	Sound	No	1,440	
(RV16)1411-DNE	801 EASTWOOD DR	Not Found	N/A	N/A	No N/A	N/A	N/A	No		
(RV16)1412	803 RIDGEWOOD DR		48	9.0	No Pick	Rehab	Cracked	No	2,880	72
(RV16)1413	1105 PRINCESS CT	Grass Easement	48	11.1	No Pick	Rehab	Roots	No	1,800	2,520
(RV16)1414-DNE	803 RIDGEWOOD DR	Not Found	N/A	N/A	No N/A	N/A	N/A	No		
(RV16)1415	609 DALEWOOD CT	Grass Easement	48	9.2	No Pick	Rehab	Cracked	No	4,320	288
(RV16)1416	1004 RIDGEWOOD DR	Grass Easement	48	8.1	No Pick	Rehab	Sound	No		1,829
(RV16)1417	2710 CAMELOT DR	Grass Easement	48	6.3	No Pick	Rehab	Sound	No		3,168
(RV16)1419	2804 KNIGHTS CT	Center Street	48	8.1	No Pick	Rehab	Cracked	No	0	21,888
(RV16)1420	2900 CAMELOT DR	Grass Easement	48	6.4	No Concealed	Rehab	Cracked	No	1,397	2,592
(RV16)1421	3000 CAMELOT DR.	Grass Easement	48	5.5	No Pick	Rehab	Sound	No		2,016
(RV16)1421A	2904 CAMELOT DR	Grass Easement	48	4.6	No Pick	Rehab	Sound	No		2,232
(RV16)1422	3002 CAMELOT DR	Grass Easement	48	5.3	No Concealed	Rehab	Sound	No		
(RV16)1423	801 KNIGHTS CT	Grass Easement	48	7.5	No Pick	Rehab	Sound	No		288
(RV16)1424	803 KNIGHTS CT	Grass Easement	48	7.3	No Pick	Rehab	Leaking Step/Lifting Hole	Yes	2,160	1,152
(RV16)1425	914 S INGLEWOOD AV	Grass Easement	48	5.1	No Concealed	Poured	Sound	No	1,440	864

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Manhole Number	Address /Street	Location	Manhole		Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
			Diam. (in.)	Depth (ft.)							
(RV16)1426	908 LANCELOT DR	Grass Easement	48	8.7	No	Pick	Rehab	Cracked	Yes	360	1,656
(RV16)1427	907 LANCELOT DR	Grass Easement	48	7.6	No	Pick	Rehab	Sound	No	360	5,832
(RV16)1428	807 KNIGHTS CT	Grass Easement	48	7.9	No	Pick	Rehab	Cracked	No	8,640	288
(RV16)1429	807 KNIGHTS CT	Grass Easement	48	7.7	No	Pick	Rehab	Leaking Step/Lifting Hole	No	1,080	288
(RV16)1430	805 KNIGHTS CT	Grass Easement	48	7.6	No	Pick	Rehab	Cracked	No	360	288
(RV16)1431	909 KINGS CT	Grass Easement	48	10.5	No	Pick	Rehab	Roots	No	1,080	72
(RV16)1432	903 KINGS CT	Grass Easement	48	9.9	No	Pick	Rehab	Sound	No	0	28,512
(RV16)1433	903 KINGS CT	Grass Easement	48	7.8	No	Pick	Rehab	Leaking Joints	No	317	288
(RV16)1434	804 S INGLEWOOD AV	Ditch	48	5.6	Yes	Pick	Rehab	Sound	No		21,672
(RV16)1435	914 S INGLEWOOD AV	Grass Easement	48	4.2	No	Concealed	Poured	Sound	No		
(RV16)1437	920 S INGLEWOOD AV	Ditch	48	12.1	No	Pick	Rehab	Roots	No	720	7,272
(RV16)1438	1103 S INGLEWOOD AV	Paved Easement	48	5.7	No	Concealed	Rehab	Sound	No		504
(RV16)1438A	1120 S INGLEWOOD AV	Paved Easement	48	8.5	No	Concealed	Rehab	Sound	No		2,160
(RV16)1438B	1120 S INGLEWOOD AV	Paved Easement	48	6.3	No	Pick	Rehab	Cracked	No	1,800	288
(RV16)1438C	1120 S INGLEWOOD AV	Paved Easement	48	4.8	No	Concealed	Rehab	Sound	No		
(RV16)1439	1001 S INGLEWOOD AV	Ditch	48	7.4	Yes	Pick	Rehab	Sound	No		72
(RV16)1440	1103 S INGLEWOOD AV	Grass Easement	48	9.9	No	Pick	Rehab	Sound	No	1,440	288
(RV16)1441	1017 LANCELOT DR	Grass Easement	48	9.6	No	Concealed	Rehab	Roots	No	2,880	864
(RV16)1443	1011 LANCELOT DR	Grass Easement	48	12.0	No	Pick	Rehab	Sound	No		288
(RV16)1444	1104 PRINCESS CT	Grass Easement	48	7.0	No	Concealed	Rehab	Sound	No		
(RV16)1445	1106 PRINCESS CT	Grass Easement	48	7.6	No	Concealed	Rehab	Sound	No		1,728
(RV16)1469-DNI	914 S INGLEWOOD AV	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV16)1535	1305 RIDGEWOOD DR	Grass Easement	30	2.2	No	Pick	None	N/A	No	0	288
(RV16)1751	904 ROLLING HILLS D	Center Street	48	6.1	No	Pick	Rehab	Roots	Yes	3,600	792
(RV16)1751A	904 ROLLING HILLS D	Center Street	48	6.9	No	Pick	Rehab	Roots	Yes		16,128

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Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV16)1770	911 ROLLING HILLS D	Center Street	30	6.7	No	Pick	Rehab	Sound	No		2,592
(RV16)1828	919 EASTWOOD DR	Grass Easement	48	9.8	No	Pick	Rehab	Sound	No	1,440	15,119
(RV16)1856	2807 CEDARWOOD CT	Grass Easement	30	4.8	No	Pick	Rehab	Roots	No	2,880	288
(RV16)2023	810 EASTWOOD DR	Grass Easement	48	4.4	No	Pick	Rehab	Cracked	No	2,880	1,944
(RV16)2089	718 S INGLEWOOD AV	Ditch	48	3.9	Yes	Pick	Rehab	Sound	No		6,552
(RV16)2090	503 S DURANT AVE	Grass Easement	48	5.8	No	Concealed	Rehab	Sound	No	1,440	1,037
(RV16)2091	2005 W 3RD CT	Grass Easement	48	11.2	No	Pick	Rehab	Cracked	No	2,520	288
(RV16)2092	315 S UTAH AVE	Grass Easement	42	2.5	No	Pick	None	N/A	Yes		288
(RV16)2097	409 S WACO AVE	Center Street	48	10.8	No	Concealed	Poured	Sound	Yes		
(RV16)2098	501 S WACO AVE	Grass Easement	48	9.6	No	Concealed	Poured	Deteriorated	Yes	1,440	2,304
(RV16)2099	511 S WACO AVE	Paved Easement	48	9.1	No	Concealed	Poured	Sound	Yes		
(RV16)2100	611 S WACO AVE	Grass Easement	48	6.9	Yes	Concealed	Poured	Leaking Joints	Yes	1,757	2,880
(RV16)2101	2208 W 8TH ST	Center Street	48	5.7	No	Concealed	Poured	Sound	No		5,040
(RV16)2102	2208 W 8TH ST	Grass Easement	48	6.3	No	Concealed	Poured	Sound	No		1,728
(RV16)2103	810 S VANCOUVER AV	Grass Easement	48	6.1	No	Concealed	Poured	Roots	No	2,880	
(RV16)2106	306 SHERWOOD DR	Grass Easement	30	5.3	No	Pick	Rehab	Sound	No		288
(RV16)2113	1002 S VANCOUVER AV	Grass Easement	48	6.3	No	Concealed	Poured	Sound	No		4,320
(RV16)2114	1100 S VANCOUVER AV	Grass Easement	48	6.1	Yes	Concealed	Poured	Sound	No		3,456
(RV16)2115	2502 W 12TH ST	Grass Easement	48	7.0	No	Concealed	Poured	Sound	No		
(RV16)2141	309 S VANCOUVER AV	Center Street	36	3.5	No	Pick	Rehab	Sound	No		288
(RV16)2168	2317 W 5TH ST	Grass Easement	48	6.0	No	Concealed	Precast	Sound	No	1,440	2,160
(RV16)2169	2411 W 5TH ST	Grass Easement	48	7.3	No	Concealed	Precast	Sound	No		
(RV16)2170	2311 W 6TH ST	Grass Easement	48	4.8	No	Concealed	Precast	Sound	No		
(RV16)2171	2415 W 6TH ST	Grass Easement	48	4.6	No	Concealed	Precast	Cracked	No	10,080	
(RV16)2211	2510 W 12TH ST	Grass Easement	48	9.6	No	Concealed	Poured	Sound	No		

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(RV16)2212	2601 W 12TH ST	Grass Easement	48	8.1	No	Concealed	Poured	Roots	Yes	720	
(RV16)2213	2601 W 12TH ST	Grass Easement	48	7.1	No	Concealed	Poured	Cracked	No	360	
(RV16)2214	2601 W 12TH ST	Grass Easement	48	6.9	No	Concealed	Poured	Sound	No		
(RV16)2215	2601 W 12TH ST	Grass Easement	48	4.3	No	Concealed	Poured	Sound	No		
(RV16)2216	2601 W 12TH ST	Grass Easement	48	5.7	No	Concealed	Poured	Roots	No	864	
(RV16)2217	2601 W 12TH ST	Grass Easement	48	6.9	No	Concealed	Poured	Sound	No		
(RV16)2218	404 S VANCOUVER AV		48	5.9	No	Concealed	Poured	Sound	Yes	1,440	
(RV16)2219	320 S UTAH AVE	Grass Easement	48	8.2	Yes	Concealed	Poured	Leaking Joints	No	3,600	173
(RV16)2220	400 S SEATTLE AVE	Grass Easement	48	6.2	No	Concealed	Poured	Sound	No		
(RV16)2221	2103 W 5TH ST	Center Street	48	6.4	No	Concealed	Poured	Leaking Joints	Yes	317	
(RV16)2222	2006 W 5TH ST	Center Street	48	4.9	No	Concealed	Poured	Sound	No		
(RV16)2224	2011 W 5TH ST	Grass Easement	48	4.3	No	Concealed	Poured	Sound	No	1,440	
(RV16)2225	514 WOOD DUCK LN	Grass Easement	48	4.6	Yes	Concealed	Poured	Sound	Yes		
(RV16)2226	802 WOOD DUCK LN	Center Street	48	9.2	No	Concealed	Poured	Sound	No		
(RV16)2227	605 S TULSA AVE	Grass Easement	48	3.6	No	Concealed	Poured	Sound	No		
(RV16)2228	515 W 6TH ST	Grass Easement	48	5.8	No	Concealed	Poured	Sound	No		
(RV16)2229	1120 W 6TH ST	Grass Easement	48	5.7	No	Concealed	Poured	Sound	No		
(RV16)2230	607 S TULSA AVE	Grass Easement	48	3.6	No	Concealed	Poured	Sound	No		
(RV16)2231	603 S UTAH AVE	Grass Easement	48	5.0	No	Concealed	Poured	Sound	No		
(RV16)2232	910 S VANCOUVER AV	Grass Easement	48	8.1	No	Concealed	Poured	Sound	No	2,880	864
(RV16)2233	605 S UTAH AVE	Grass Easement	48	9.2	No	Concealed	Poured	Sound	No	1,440	
(RV16)2234	717 S TULSA AVE	Paved Easement	48	4.5	No	Concealed	Poured	Sound	No		
(RV16)2235	706 S VANCOUVER AV	Grass Easement	48	6.1	No	Concealed	Poured	Cracked	No	1,397	
(RV16)2236	802 S VANCOUVER AV	Grass Easement	48	6.2	No	Concealed	Poured	Cracked	No	1,800	
(RV16)2237	2012 W 8TH ST	Grass Easement	48	6.8	No	Concealed	Poured	Cracked	No	720	1,037



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(RV16)2238	725 S TULSA AVE	Grass Easement	48	4.1	No	Concealed	Poured	Cracked	No	7,920	504
(RV16)2239	810 S VANCOUVER AV	Grass Easement	48	7.9	No	Concealed	Poured	Sound	No	1,037	
(RV16)2240	2010 W 9TH ST	Grass Easement	48	5.5	No	Concealed	Poured	Cracked	No	360	
(RV16)2241	901 S TULSA AVE	Paved Easement	48	3.2	No	Concealed	Poured	Sound	No		
(RV16)2242	908 S VANCOUVER AV	Grass Easement	48	7.0	No	Concealed	Poured	Sound	No	1,037	
(RV16)2243	1210 WHIPPORWILL LN	Grass Easement	48	6.0	No	Concealed	Poured	Cracked	No	720	
(RV16)2244	909 S TULSA AVE	Grass Easement	48	11.8	No	Concealed	Poured	Sound	No	1,037	
(RV16)2245	1009 S TULSA AVE	Grass Easement	48	5.7	No	Concealed	Poured	Sound	No		
(RV16)2246	1109 S TULSA AVE	Grass Easement	48	3.8	No	Concealed	Poured	Sound	No		2,304
(RV16)2334	1916 W 12TH ST	Grass Easement	48	8.4	No	Concealed	Poured	Sound	No		1,037
(RV16)2335	1916 W 12TH ST	Grass Easement	48	7.9	No	Concealed	Poured	Sound	No		
(RV16)2336	1916 W 12TH ST	Grass Easement	48	5.8	No	Concealed	Poured	Sound	No		
(RV16)2337	1916 W 12TH ST	Grass Easement	48	5.4	No	Concealed	Poured	Sound	No		173
(RV16)2338	1912 W 12TH ST	Grass Easement	48	6.6	No	Concealed	Poured	Sound	No		
(RV16)2339	1900 W 12TH ST	Grass Easement	48	7.4	No	Concealed	Poured	Sound	No		1,037
(RV16)2340	1905 W 12TH ST	Grass Easement	48	7.2	No	Concealed	Poured	Sound	No		
(RV16)2341	1313 SEQUOYAH WAY	Grass Easement	48	8.3	No	Concealed	Poured	Sound	No		
(RV16)2342	1313 SEQUOYAH WAY	Grass Easement	48	11.8	No	Concealed	Poured	Sound	No		
(RV16)2380	202 SHERWOOD DR	Grass Easement	30	4.4	No	Pick	Rehab	Roots	No	2,880	2,880
(RV16)2381	2815 HONEYSUCKLE LN	Grass Easement	40	6.1	No	Pick	Rehab	Roots	Yes	7,200	288
(RV16)2429	403 S ARLINGTON AVE	Grass Easement	48	6.2	No	Pick	Rehab	Roots	No	2,880	288
(RV16)2511	3102 S FRANKFORT AV	Ditch	48	5.3	No	Concealed	Poured	Sound	No		
(RV16)2541	802 S VANCOUVER AV	Grass Easement	48	5.5	No	Concealed	Poured	Sound	No		
(RV16)2542	2303 W 8TH ST	Grass Easement	48	5.8	No	Concealed	Poured	Sound	No		
(RV16)2543	2311 W 8TH ST	Grass Easement	48	4.4	No	Concealed	Poured	Sound	No		1,037

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(RV16)2544	208 PROMENADE CIR	Grass Easement	48	6.3	No Concealed	Poured	Sound	No		
(RV16)2545	2411 W 8TH ST	Grass Easement	48	6.9	No Concealed	Poured	Sound	No		
(RV16)2546	802 S DURANT AVE	Grass Easement	48	7.7	No Concealed	Poured	Sound	No		
(RV16)2547	301 PROMENADE CIR	Grass Easement	48	8.2	Yes Concealed	Poured	Sound	No		
(RV16)2548	309 PROMENADE CIR	Grass Easement	48	9.5	No Concealed	Poured	Sound	No		
(RV16)2549	315 PROMENADE CIR	Grass Easement	48	5.7	No Concealed	Poured	Sound	No		
(RV16)2550	116 PROMENADE CIR	Grass Easement	48	6.6	No Concealed	Poured	Sound	No		
(RV16)2551	108 PROMENADE CIR	Grass Easement	48	7.0	No Concealed	Poured	Sound	No		
(RV16)2552	102 PROMENADA CIR	Grass Easement	48	7.2	No Concealed	Poured	Sound	No		
(RV16)2553	2407 LOGAN CT	Grass Easement	48	7.0	No Concealed	Poured	Sound	No		
(RV16)2554	2409 LOGAN CT	Grass Easement	48	6.8	No Concealed	Poured	Sound	No		
(RV16)2555	901 LINDSEY LANE	Grass Easement	48	7.1	No Concealed	Poured	Sound	No		
(RV16)2556	1001 LINDSEY LANE	Grass Easement	48	7.7	No Concealed	Poured	Sound	No		
(RV16)2557	1103 LINDSEY LANE	Grass Easement	48	6.8	No Concealed	Poured	Sound	No		
(RV16)2862	2711 W 12TH ST	Grass Easement	48	3.5	No Concealed	None	N/A	No		2,592
(RV16)2863	1215 TOWN AND COUN	Grass Easement	48	11.9	No Concealed	Poured	Sound	No		
(RV16)2864	1201 TOWN AND COUN	Grass Easement	48	8.4	Yes Pick	Poured	Cracked	No	1,080	15,609
(RV16)2865	2607 W 12TH ST	Grass Easement	48	5.9	No Concealed	Poured	Sound	No	1,440	
(RV16)2879	1010 S VANCOUVER AV	Grass Easement	48	6.6	No Concealed	Poured	Sound	No	1,440	
(RV16)3325	419 SHERWOOD DR	Grass Easement	28	2.3	No Pick	None	N/A	No	1,440	288
(RV16)3401	3100 HONEYSUCKLE LN	Center Street	30	5.4	No Pick	Rehab	Sound	Yes		288
(RV16)3402	416 S INGLEWOOD AV	Grass Easement	48	6.4	No Concealed	Poured	Sound	No		
(RV16)3403	3002 W 4TH ST	Grass Easement	48	4.1	No Concealed	Poured	Sound	No	0	
(RV16)3404	903 LANCELOT DR	Grass Easement	48	6.9	No Concealed	Rehab	Sound	Yes		864
(RV16)3405	2415 W 7TH ST	Grass Easement	48	6.6	No Concealed	Poured	Sound	No		

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Manhole Depth (ft.)	Subj. Pond.	Cover Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
(RV16)3406	2311 W 7TH ST	Grass Easement	48	7.9	No	Concealed	Poured	Sound	No		
(RV16)3407	2414 W 8TH ST	Grass Easement	48	6.1	No	Concealed	Poured	Sound	No		
(RV16)3408	2314 W 8TH ST	Grass Easement	48	5.2	No	Concealed	Poured	Sound	No	1,440	
(RV16)3409	2808 HONEYSUCKLE LN	Grass Easement	48	5.8	No	Concealed	Precast	Sound	No		
(RV16)3438	2411 W 7TH ST	Grass Easement	48	8.8	No	Concealed	Poured	Sound	No		
(RV16)3439	2315 S ARLINGTON AVE	Center Street	48	5.7	No	Pick	Rehab	Sound	No		288
(RV16)3443	2808 HONEYSUCKLE LN	Grass Easement	48	4.2	No	Concealed	Poured	Sound	No		
(RV16)3444	704 S DURANT AVE	Grass Easement	48	5.6	No	Concealed	Poured	Cracked	No	2,232	

Totals for Basin RV16

183,427 326,780

Total Manholes	233
Manholes Inspected	228
Manholes Not Inspected	5
Manholes Buried	0
Manholes Not Found	4
Manholes Inaccessible	1
Location Not Specified	5

<b>Percent:</b>	
Inspected	97.85%
Not Inspected	2.15%
Buried	0.00%
Not Found	1.72%
Inaccessible	0.43%

Evidence of Surcharge	34
Subject to Ponding	16
Subject to Sheeting	131

Surcharge	14.59%
Ponding	6.87%
Sheeting	56.22%

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(RV26)1401	602 S DURANT AVE	Grass Easement	48	4.3	No	Pick	Rehab	Sound	Yes		1,325
(RV26)1478	2750 S BOULDER AVE	Grass Easement	48	6.6	No	Concealed	Poured	Sound	No		720
(RV26)1490	3102 S FRANKFORT AV	Grass Easement	48	15.6	No	Concealed	Poured	Sound	No	2,160	
(RV26)1490A	3102 S FRANKFORT AV	Grass Easement	48	16.1	No	Concealed	Poured	Roots	No	2,304	864
(RV26)2112	3102 S FRANKFORT AV	Ditch	48	5.2	Yes	Concealed	Poured	Sound	Yes		
(RV26)2510	3102 S FRANKFORT AV	Grass Easement	48	5.8	No	Concealed	Poured	Sound	No		
(RV26)2513	3324 S FRANKFORT AV	Grass Easement	48	7.7	No	Concealed	Poured	Sound	Yes		
(RV26)2514	3324 BERNICE AVE	Grass Easement	48	10.1	No	Concealed	Poured	Sound	No		
(RV26)2515	3324 BERNICE AVE	Grass Easement	48	8.6	No	Concealed	Poured	Sound	No		
(RV26)2516	3324 BERNICE AVE	Grass Easement	48	6.3	No	Concealed	Poured	Sound	No		
(RV26)2517	3324 BERNICE AVE	Grass Easement	48	9.5	No	Concealed	Poured	Sound	No		
(RV26)2518	3324 BERNICE AVE	Grass Easement	48	12.1	No	Concealed	Poured	Sound	No		
(RV26)2519	3324 BERNICE AVE	Grass Easement	48	10.8	No	Concealed	Poured	Sound	Yes		
(RV26)2520	3324 BERNICE AVE	Grass Easement	48	14.5	No	Concealed	Poured	Sound	Yes		
(RV26)2521	2306 S FRANKFORT AV	Grass Easement	48	10.3	No	Concealed	Poured	Sound	Yes		
(RV26)2522	2306 S FRANKFORT AV	Grass Easement	48	10.1	No	Concealed	Poured	Sound	No		
(RV26)8001	3102 S FRANKFORT AV	Grass Easement	72	11.9	No	Concealed	Poured	Deteriorated	Yes	20,160	5,760
(RV26)8001A	3102 S FRANKFORT AV	Grass Easement	48	12.6	Yes	Concealed	Poured	Cracked	No	1,800	14,400
(RV26)8001B	3102 S FRANKFORT AV	Grass Easement	48	14.6	No	Concealed	Poured	Sound	No		
(RV26)8001C	3102 S FRANKFORT AV	Grass Easement	48	11.7	Yes	Pick	Poured	Deteriorated	No	0	28,973
(RV26)8002A	3102 S FRANKFORT AV	Grass Easement	48	11.0	Yes	Concealed	Poured	Deteriorated	Yes	3,917	28,800
(RV26)8002B-DNI	3102 S FRANKFORT AV	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8002-DNI	3102 S ARKANSAS AVE	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8003-DNI	3102 S ARKANSAS AVE	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8004	3007 S ARKANSAS AVE	Grass Easement	48	12.9	No	Concealed	Poured	Deteriorated	Yes	7,200	

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(RV26)8005	3007 S ARKANSAS AVE	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8006	3007 S ARKANSAS AVE	Grass Easement	48	12.1	No	Concealed	Poured	Sound	No		864
(RV26)8007	2911 S ARKANSAS AVE	Grass Easement	48	15.1	No	Concealed	Poured	Sound	No		864
(RV26)8008	2911 S ARKANSAS AVE	Grass Easement	48	13.1	No	Concealed	Poured	Leaking Step/Lifting Hole	No	5,357	
(RV26)8009	2911 S ARKANSAS AVE	Grass Easement	48	8.6	No	Concealed	Poured	Deteriorated	Yes	1,800	864
(RV26)8011	230 LOCK AND DAM R	Grass Easement	48	5.7	No	Concealed	Poured	Sound	No		864
(RV26)8012	2804 S ARKANSAS AVE	Grass Easement	48	8.4	No	Concealed	Poured	Roots	Yes	5,040	864
(RV26)8013	2804 KOVEL CT	Grass Easement	48	12.4	No	Concealed	Poured	Leaking Step/Lifting Hole	No	317	
(RV26)8014	104 LOCK AND DAM R	Grass Easement	48	7.8	No	Concealed	Poured	Deteriorated	Yes	1,728	864
(RV26)8015-DNI	1266 LOCK AND DAM R	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8016	901 SHEPARD DR	Grass Easement	48	4.5	No	Concealed	Poured	Sound	Yes		
(RV26)8017	901 SHEPARD DR	Grass Easement	48	4.6	No	Concealed	Poured	Sound	Yes		
(RV26)8018	901 SHEPARD DR	Grass Easement	48	4.4	No	Concealed	Poured	Sound	No		
(RV26)8019	901 SHEPARD DR	Grass Easement	48	7.0	No	Pick	Poured	Sound	No		288
(RV26)8020-DNI	901 SHEPARD DR	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8021	901 SHEPARD DR	Grass Easement	48	6.3	No	Concealed	Poured	Sound	No	1,800	
(RV26)8021A-DNI	901 SHEPARD DR	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8022	901 SHEPARD DR	Grass Easement	48	6.1	No	Concealed	Poured	Sound	No		
(RV26)8023	901 SHEPARD DR	Ditch	48	6.3	No	Concealed	Poured	Sound	No		
(RV26)8024	200 RIVERSTONE ST	Ditch	48	5.7	No	Concealed	Poured	Sound	No	1,037	
(RV26)8025	200 RIVERSTONE ST	Ditch	48	5.9	No	Concealed	Poured	Cracked	No	3,024	
(RV26)8026	200 RIVERSTONE ST	Ditch	48	4.6	No	Concealed	Poured	Sound	No	1,037	1,728
(RV26)8027	200 RIVERSTONE ST	Ditch	48	6.1	No	Concealed	Poured	Sound	No	1,800	
(RV26)8028	200 RIVERSTONE ST	Ditch	48	6.3	No	Concealed	Poured	Sound	No	1,440	
(RV26)8029	506 CASTLEGATE LOO	Ditch	48	6.1	No	Concealed	Poured	Roots	No	1,757	

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			Diam. (in.)	Depth (ft.)							
(RV26)8030	402 CASTLEGATE LOO	Ditch	48	7.8	No	Concealed	Poured	Roots	No	1,800	
(RV26)8031	506 CASTLEGATE LOO	Grass Easement	48	6.0	No	Concealed	Poured	Sound	No	1,037	
(RV26)8032	506 CASTLEGATE LOO	Grass Easement	48	9.6	No	Concealed	Poured	Sound	No		
(RV26)8033	506 CASTLEGATE LOO	Grass Easement	48	9.7	No	Concealed	Poured	Sound	No		
(RV26)8034	408 BENT TREE CT	Grass Easement	48	7.7	No	Concealed	Poured	Sound	No		
(RV26)8035	415 BENT TREE CT	Grass Easement	48	7.7	No	Concealed	Poured	Sound	No		
(RV26)8036	606 CASTLEGATE LOO	Ditch	48	11.2	No	Concealed	Poured	Sound	No		
(RV26)8037	621 CASTLEGATE LOO	Grass Easement	48	5.8	No	Concealed	Poured	Sound	No		
(RV26)8038	710 CASTLEGATE LOO	Grass Easement	48	4.3	No	Concealed	Poured	Sound	No		1,440
(RV26)8039	2804 KOVEL CT	Grass Easement	48	6.5	No	Concealed	Poured	Sound	No	3,600	
(RV26)8040	2810 S BOULDER AVE	Ditch	48	5.7	Yes	Concealed	Poured	Sound	Yes		
(RV26)8041	2750 S BOULDER AVE	Grass Easement	48	8.1	No	Concealed	Poured	Sound	No		
(RV26)8041A	2750 S BOULDER AVE	Grass Easement	48	8.0	No	Concealed	Precast	Cracked	No	2,304	
(RV26)8042	2809 JIMMY LYLE RD	Grass Easement	60	5.2	No	Storm/Vent	Poured	Deteriorated	No	0	1,152
(RV26)8043	2809 JIMMY LYLE RD	Grass Easement	48	6.6	No	Concealed	Poured	Deteriorated	No	0	2,592
(RV26)8044	404 JIMMY LYLE RD	Grass Easement	48	6.6	No	Concealed	Poured	Sound	No		
(RV26)8045	404 JIMMY LYLE RD	Grass Easement	48	6.6	No	Concealed	Poured	Sound	No		1,037
(RV26)8046	404 JIMMY LYLE RD	Grass Easement	48	7.2	No	Concealed	Poured	Sound	No		
(RV26)8049	3023 S ARKANSAS AVE	Grass Easement	48	5.0	No	Concealed	Poured	Sound	No		
(RV26)8050	3023 S ARKANSAS AVE	Grass Easement	48	3.7	No	Concealed	Poured	Sound	No		
(RV26)8051	3023 S ARKANSAS AVE	Grass Easement	48	4.6	Yes	Concealed	Poured	Sound	No		
(RV26)8052	3023 S ARKANSAS AVE	Ditch	48	9.6	Yes	Concealed	Poured	Cracked	No	864	
(RV26)8053	3007 S ARKANSAS AVE	Grass Easement	48	12.8	No	Concealed	Poured	Sound	No		
(RV26)8500	38 RIM ROCK RD	Grass Easement	48	7.0	No	Concealed	Precast	Roots	No	1,584	
(RV26)8501	38 RIM ROCK RD	Grass Easement	48	5.0	No	Concealed	Precast	Roots	No	360	3,456

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(RV26)8502	315 NORDIN LN	Grass Easement	48	6.2	No Concealed	Precast	Sound	No		
(RV26)8503	315 NORDIN LN	Grass Easement	48	5.4	No Concealed	Precast	Sound	No		
(RV26)8504	315 NORDIN LN	Ditch	48	5.7	Yes Concealed	Precast	Sound	No		
(RV26)8505	315 NORDIN LN	Grass Easement	48	5.0	No Concealed	Precast	Leaking Joints	Yes	720	864
(RV26)8506	315 NORDIN LN	Grass Easement	48	4.3	No Concealed	Precast	Sound	No		1,728
(RV26)8507	315 NORDIN LN	Grass Easement	48	3.8	No Concealed	Precast	Roots	No	720	864
(RV26)8508	315 NORDIN LN	Grass Easement	48	7.4	No Concealed	Precast	Leaking Joints	No	864	864
(RV26)8509	315 NORDIN LN	Grass Easement	48	5.7	Yes Concealed	Precast	Sound	No		8,640
(RV26)8510	317 NORDIN LN	Grass Easement	48	3.8	No Concealed	Poured	Sound	No		1,584
(RV26)8511	317 NORDIN LN	Grass Easement	48	3.7	No Concealed	Precast	Sound	No		2,448
(RV26)8512	317 NORDIN LN	Grass Easement	48	5.9	No Concealed	Precast	Sound	No		864
(RV26)8513	317 NORDIN LN	Grass Easement	48	3.6	No Concealed	Precast	Roots	No	11,520	4,320
(RV26)8514	317 OLD POST RD	Grass Easement	48	3.8	No Concealed	Precast	Leaking Joints	No	317	
(RV26)8515	315 OLD POST RD	Grass Easement	48	7.1	Yes Concealed	Precast	Sound	No	1,037	
(RV26)8516	315 OLD POST RD	Grass Easement	48	3.7	No Concealed	Precast	Roots	No	360	
(RV26)8517	609 OLD POST RD	Center Street	48	2.8	No Concealed	Precast	Sound	No		
(RV26)8518	315 NORDIN LN	Grass Easement	48	5.1	No Concealed	Precast	Sound	No		
(RV26)8519	1419 SHALIMAR CIR	Grass Easement	48	5.0	Yes Concealed	Poured	Sound	No		
(RV26)8520	120 No OLD POST RD	Grass Easement	48	4.8	No Concealed	Precast	Sound	No		864
(RV26)8521	112 QUARRY RD	Grass Easement	48	6.9	No Concealed	Precast	Roots	No	2,160	864
(RV26)8522	112 QUARRY RD	Grass Easement	48	3.2	No Concealed	Precast	Sound	No		2,592
(RV26)8523	1419 SHALIMAR CIR	Grass Easement	48	4.8	No Concealed	Poured	Sound	No		864
(RV26)8524	1417 SHALIMAR CIR	Grass Easement	48	3.9	No Concealed	Precast	Sound	No		
(RV26)8525	1424 SHALIMAR CIR	Grass Easement	48	7.3	No Concealed	Precast	Leaking Joints	No	317	
(RV26)8526-DNI	1432 SHALIMAR CIR	Not Found	N/A	N/A	No N/A	N/A	N/A	No		

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(RV26)8527	1406 SHALIMAR CIR	Grass Easement	48	4.9	No	Concealed	Precast	Sound	No		
(RV26)8528	107 SHALIMAR CIR	Grass Easement	48	4.2	No	Concealed	Precast	Sound	No		
(RV26)8529	107 SKYLINE VISTA LN	Grass Easement	48	4.3	No	Concealed	Precast	Sound	No		2,592
(RV26)8530	200 SKYLINE VISTA LN	Grass Easement	48	4.5	No	Concealed	Precast	Sound	No		
(RV26)8531	38 RIM ROCK RD	Grass Easement	48	5.3	Yes	Concealed	Precast	Roots	No	360	3,168
(RV26)8532	38 RIM ROCK RD	Grass Easement	48	7.4	No	Concealed	Precast	Roots	No	2,880	4,320
(RV26)8533	38 RIM ROCK RD	Grass Easement	48	3.9	No	Concealed	Precast	Sound	No		864
(RV26)8534	38 RIM ROCK RD	Grass Easement	48	5.3	No	Concealed	Precast	Sound	No		4,320
(RV26)8535	99 RIM ROCK RD	Grass Easement	48	3.8	No	Concealed	Precast	Sound	No		
(RV26)8536	105 SKYRIDGE RD	Grass Easement	48	8.3	No	Concealed	Precast	Sound	No		
(RV26)8537	105 SKYRIDGE RD	Grass Easement	48	4.3	Yes	Concealed	Precast	Sound	No		7,200
(RV26)8538	1521 SKYLINE VISTA CT	Grass Easement	48	9.2	No	Concealed	Precast	Roots	No	720	
(RV26)8539	1521 SKYLINE VISTA CT	Grass Easement	48	7.1	Yes	Concealed	Precast	Roots	No	1,080	
(RV26)8543	38 RIM ROCK RD	Ditch	48	3.8	Yes	Concealed	Precast	Sound	No		
(RV26)8559	1521 SKYLINE VISTA CT	Grass Easement	48	5.4	No	Concealed	Precast	Sound	No	1,037	864
(RV26)8560	102 SKYLINE VISTA CT	Center Street	48	5.6	No	Concealed	Precast	Sound	Yes		
(RV26)8561	106-17 SKYRIDGE RD	Grass Easement	48	8.8	No	Concealed	Precast	Sound	No		
(RV26)8562	1521 SKYLINE VISTA CT	Center Street	48	5.9	No	Concealed	Precast	Sound	Yes		
(RV26)8563	15 RIM ROCK RD	Grass Easement	48	8.3	No	Concealed	Precast	Leaking Joints	Yes	864	
(RV26)8564	11 RIM ROCK RD	Grass Easement	48	7.7	No	Concealed	Precast	Sound	Yes		
(RV26)8565	1509 LANDS END S POI	Grass Easement	48	7.5	No	Concealed	Precast	Cracked	No	360	
(RV26)8566	1506 LANDS END S POI	Grass Easement	48	3.3	No	Concealed	Precast	Sound	No		
(RV26)8568	1506 SKYLINE VISTA CT	Grass Easement	48	7.2	No	Concealed	Precast	Sound	No		2,592
(RV26)8569	1412 LANDS END N POI	Grass Easement	48	3.9	No	Concealed	Precast	Roots	No	864	2,592
(RV26)8569A	1412 LANDS END N POI	Grass Easement	48	4.8	No	Concealed	Precast	Roots	No	5,184	



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(RV26)8620	3314 HALF MOON LN	Grass Easement	48	6.1	No	Concealed	Precast	Cracked	Yes	10,800	864
(RV26)8621	3314 HALF MOON LN	Ditch	48	5.4	No	Concealed	Precast	Leaking Joints	No	864	3,168
(RV26)8622	3312 HALF MOON LOOP	Grass Easement	48	3.2	No	Concealed	Poured	Roots	No	2,765	1,728
(RV26)8623	3310 HALF MOON LN	Grass Easement	48	5.4	No	Concealed	Precast	Roots	No	864	864
(RV26)8624	3308 HALF MOON LN	Grass Easement	48	3.8	No	Concealed	Precast	Sound	No		
(RV26)8625	1410 LANDS END N POI	Grass Easement	48	3.8	No	Concealed	Precast	Roots	No	2,189	
(RV26)8626	3308 HALF MOON LN	Grass Easement	48	6.9	No	Concealed	Precast	Roots	No	864	864
(RV26)8627	3306 HALF MOON LN	Grass Easement	48	5.9	No	Concealed	Precast	Roots	No	6,048	3,456
(RV26)8628	1403 LANDS END N POI	Grass Easement	48	3.3	No	Concealed	Precast	Sound	No		864
(RV26)8629	1417 LANDS END N POI	Not Found	N/A	N/A	No	N/A	N/A	N/A	No		
(RV26)8630	1402 LANDS END N POI	Grass Easement	48	3.8	No	Concealed	Poured	Sound	No		
(RV26)8631	1403 LANDS END N POI	Grass Easement	48	2.8	No	Concealed	Precast	Roots	No	2,160	
(RV26)8632	1402 LANDS END N POI	Grass Easement	48	3.0	No	Concealed	Precast	Roots	No	4,320	14,400
(RV26)8633	1424 LANDS END N POI	Grass Easement	48	3.7	No	Concealed	Precast	Roots	No	720	
(RV26)8634	1422 LANDS END N POI	Grass Easement	48	3.3	No	Concealed	Precast	Sound	No	1,037	864
(RV26)8634A	1424 LANDS END N POI	Grass Easement	48	3.8	No	Concealed	Precast	Roots	No	720	
(RV26)8635	1420 LANDS END N POI	Grass Easement	48	3.2	No	Concealed	Precast	Roots	No	1,080	
(RV26)8636	1414 LANDS END N POI	Grass Easement	48	2.7	No	Concealed	Precast	Roots	No	720	
(RV26)8640	3316 HALF MOON LN	Ditch	48	4.8	No	Concealed	Precast	Roots	No	4,320	7,200
(RV26)8641	5 RIM ROCK RD	Grass Easement	48	5.9	No	Concealed	Precast	Cracked	No	360	864
(RV26)8642	9 RIM ROCK RD	Grass Easement	48	3.5	No	Concealed	Precast	Sound	No		
(RV26)8643	3316 HALF MOON LN	Grass Easement	48	6.0	No	Concealed	Precast	Sound	No		864
(RV26)8644	3316 HALF MOON LN	Paved Easement	48	4.1	No	Concealed	Precast	Sound	Yes		
(RV26)8645	3307 HALF MOON LN	Grass Easement	48	5.9	No	Concealed	Precast	Roots	Yes	360	1,037
(RV26)8646	1411 LANDS END S POI	Grass Easement	48	3.7	No	Concealed	Precast	Sound	No	2,160	

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(RV26)8647	1503	LANDS END S POI	Grass Easement	48	5.8	No	Concealed	Precast	Sound	Yes	
(RV26)8649	1407	LANDS END S POI	Grass Easement	48	2.8	No	Concealed	Precast	Sound	No	
(RV26)8650	1405	LANDS END S POI	Grass Easement	48	3.2	No	Concealed	Precast	Roots	No	10,080 1,728
(RV26)8716	304	CASTLEGATE LOO	Grass Easement	48	6.5	No	Concealed	Poured	Sound	No	
(RV26)8720-DNI	402	CASTLEGATE LOO	Not Found	N/A	N/A	No	N/A	N/A	N/A	No	
(RV26)8735	402	CASTLEGATE LOO	Grass Easement	48	7.6	No	Concealed	Poured	Sound	No	1,728
(RV26)8778-DNI	1407	SHALIMAR CIR	Not Found	N/A	N/A	No	N/A	N/A	N/A	No	
(RV26)8779	1510	SKYLINE VISTA CT	Grass Easement	48	4.9	No	Concealed	Precast	Sound	No	864
(RV26)8784	402	CASTLEGATE LOO	Grass Easement	48	8.2	No	Concealed	Poured	Sound	No	
(RV26)9046	204	CASTLEGATE LOO	Grass Easement	48	5.2	No	Concealed	Poured	Sound	No	

Totals for Basin RV26

160,747 193,219

Total Manholes	160
Manholes Inspected	149
Manholes Not Inspected	11
Manholes Buried	0
Manholes Not Found	7
Manholes Inaccessible	4
Location Not Specified	11

<b>Percent:</b>	
Inspected	93.13%
Not Inspected	6.88%
Buried	0.00%
Not Found	4.38%
Inaccessible	2.50%

Evidence of Surcharge	24
Subject to Ponding	15
Subject to Sheeting	90

Surcharge	15.00%
Ponding	9.38%
Sheeting	56.25%

# Manhole Information Report

Project No. 18-2873-00 Russellville City Corporation

Manhole Number	Address /Street	Location	Manhole Diam. (in.)	Subj. Depth (ft.)	Cover Pond.Type	Wall Const.	Wall Condition	Surcharge Evidence	Infiltr. (gpd)	Inflow (gpd)
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**Totals for All Basins**

Total Manholes	494
Manholes Inspected	476
Manholes Not Inspected	18
Manholes Buried	0
Manholes Not Found	11
Manholes Inaccessible	7
Location Not Specified	18

<b>Percent:</b>	
Inspected	96.36%
Not Inspected	3.64%
Buried	0.00%
Not Found	2.23%
Inaccessible	1.42%

Total Infiltration =	469,872
Total Inflow =	653,861

Evidence of Surcharge	87
Subject to Ponding	36
Subject to Sheeting	269

Surcharge	17.61%
Ponding	7.29%
Sheeting	54.45%

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**APPENDIX B**

**Visual Pipe Inspection Report**



# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam		Root Growth	Type	Depth (in.)			Depth	Velocity (fps)	
			(in.)	Construction								
(RV13) 1067	(RV13) 2299	1. N-Out	8	PVC	No	N/A	N/A	Good	0	0.2	0.1	2.8
	(RV13) EOL-1067	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.1	2.7
	(RV13) SVC	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
(RV13) 1235	(RV13) 1643	2. N-In	10	N/A	No	N/A	N/A	Good	0	2.0	1.2	7.0
	(RV13) 4068	1. SW-Ou	10	N/A	No	N/A	N/A	Good	0	2.0	1.2	7.1
(RV13) 1430	(RV13) 1429	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.6
	(RV13) SVC	2. SE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.6
(RV13) 1643	(RV13) 1235	1. S-Out	10	N/A	No	N/A	N/A	Good	0	4.0	2.0	4.7
	(RV13) 1644	2. E-In	10	N/A	No	N/A	N/A	Good	0	4.0	2.0	4.7
(RV13) 1644	(RV13) 1643	1. SW-Ou	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	11.1
	(RV13) 1645	2. NE-In	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	11.0
(RV13) 1645	(RV13) 1644	1. SW-Ou	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	9.6
	(RV13) 1646	2. N-In	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	9.3
(RV13) 1646	(RV13) 1645	1. S-Out	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	5.7
	(RV13) 1647	3. N-In	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	5.6
	(RV13) SVC	2. W-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.5	0.0
(RV13) 1647	(RV13) 1646	1. S-Out	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	5.1
	(RV13) 1649	3. NE-In	10	N/A	No	N/A	N/A	Good	0	3.0	2.0	4.9
	(RV13) EOL-1647	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.0
(RV13) 1650	(RV13) 1649	1. SW-Ou	10	N/A	No	N/A	N/A	Good	0	4.0	2.5	8.7
	(RV13) 1651	3. N-In	10	N/A	No	N/A	N/A	Good	0	4.0	2.5	8.5
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.6
(RV13) 1651	(RV13) 1650	1. S-Out	10	N/A	No	N/A	N/A	Good	0	3.0	2.5	7.7

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Type	Depth (in.)			Depth (in.)	Velocity (fps)	
(RV13) 1651	(RV13) 1652	3. NE-In	10	N/A	No	N/A	N/A	Good	0	3.0	2.5	7.6
	(RV13) EOL-1651	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.4
(RV13) 1652	(RV13) 1651	1. SW-Ou	10	N/A	No	N/A	N/A	Good	0	5.0	2.5	6.8
	(RV13) 1653	2. N-In	8	N/A	No	N/A	N/A	Good	0	3.0	2.5	6.6
	(RV13) SVC	5. S-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.4
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.5
	(RV13) SVC	3. NE-In	4	PVC	No	N/A	N/A	Future	0	0.2	1.5	3.0
	(RV13) SVC	3. NE-In	4	PVC	No	N/A	N/A	Future	0	0.2	1.5	3.0
(RV13) 1653	(RV13) 1652	1. S-Out	8	N/A	No	N/A	N/A	Good	0	3.0	2.0	7.5
	(RV13) 1654	2. N-In	8	N/A	No	N/A	N/A	Good	0	3.0	2.0	7.4
(RV13) 1654	(RV13) 1653	1. S-Out	8	N/A	No	N/A	N/A	Good	0	3.0	2.0	6.7
	(RV13) 2192	2. NE-In	8	N/A	No	N/A	N/A	Good	0	3.0	2.0	6.6
(RV13) 1655	(RV13) 1656	2. N-In	8	N/A	No	N/A	N/A	Good	0	4.0	1.5	6.6
	(RV13) 1660	3. NE-In	8	Vitrified Clay	No	N/A	N/A	Good	0	4.0	2.8	5.8
	(RV13) 2192	1. SW-Ou	8	N/A	No	N/A	N/A	Good	0	6.0	3.0	6.6
(RV13) 1656	(RV13) 1655	1. S-Out	8	N/A	No	N/A	N/A	Good	0	1.5	2.0	8.0
	(RV13) 1657	3. N-In	8	N/A	No	N/A	N/A	Good	0	1.5	2.0	7.8
	(RV13) SVC	2. W-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	5.0
(RV13) 1657	(RV13) 1656	1. S-Out	8	N/A	No	N/A	N/A	Good	0	2.0	3.0	9.6
	(RV13) 1658	3. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.0	8.2
	(RV13) 1681	2. W-In	8	N/A	No	N/A	N/A	Good	0	2.0	2.5	9.1
(RV13) 1658	(RV13) 1657	1. W-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	N/A	4.1
	(RV13) Plugged-1658	2. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	3.2
(RV13) 1659	(RV13) 1660	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	2.0	7.3

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV13) 1659	(RV13) 1669	4. NE-In	8	Vitrified Clay	No	N/A	N/A	Good	0	4.0	2.0	7.2
	(RV13) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	0.2	1.0	4.5
	(RV13) SVC	3. W-In	4	PVC	No	N/A	1.3	Good	0	0.1	0.1	0.0
	(RV13) SVC	5. NE-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.0	5.0
	(RV13) SVC	6. SE-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	6.6
(RV13) 1660	(RV13) 1655	1. SW-Ou	8	Vitrified Clay	No	N/A	N/A	Good	0	4.0	1.8	11.7
	(RV13) 1659	2. NW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	1.8	9.2
	(RV13) 1661	4. SE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.8	7.0
	(RV13) SVC	3. NE-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	0.0
(RV13) 1661	(RV13) 1660	1. NW-Ou	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.8	7.2
	(RV13) 1662	2. NE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.8	7.1
	(RV13) SVC	5. SE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.0
	(RV13) SVC	4. SE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.2
	(RV13) SVC	3. E-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV13) 1662	(RV13) 1661	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	1.0	1.5	9.0
	(RV13) 1663	4. SE-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.8	7.1
	(RV13) 1664	3. NE-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.7	7.1
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.8	8.6
(RV13) 1663	(RV13) 1662	1. NW-Ou	6	PVC	No	N/A	N/A	Good	0	1.5	1.0	4.4
	(RV13) 1665	3. E-In	6	PVC	No	N/A	N/A	Good	0	1.5	1.0	4.3
	(RV13) SVC	5. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
	(RV13) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV13) 1664	(RV13) 1662	1. SW-Ou	6	PVC	Yes	N/A	N/A	Collapsed Pipe	0	0.5	1.0	8.7
	(RV13) EOL-1664	3. NE-In	6	PVC	Yes	N/A	N/A	Circular Cracks	0	0.3	1.0	6.8
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.1	6.6
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.4	6.5
(RV13) 1665	(RV13) 1663	1. W-Out	6	PVC	No	N/A	N/A	Good	0	2.0	1.0	6.9
	(RV13) 1666	2. N-In	6	PVC	No	N/A	N/A	Good	0	1.0	1.5	6.8
	(RV13) 1668	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	6.8
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.7
	(RV13) SVC	5. S-In	4	PVC	No	N/A	N/A	Good	0	1.0	1.8	6.7
(RV13) 1666	(RV13) 1665	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	5.5
	(RV13) 1667	3. NE-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.3	5.4
	(RV13) SVC	4. NE-In	4	PVC	No	N/A	N/A	Good	0	0.3	0.5	5.2
	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.3	5.4
(RV13) 1667	(RV13) 1666	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9
	(RV13) SVC	3. NE-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	6.7
	(RV13) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.7
(RV13) 1668	(RV13) 1665	1. W-Out	6	PVC	No	N/A	N/A	Good	0	1.0	1.0	7.1
	(RV13) EOL-1668	3. E-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
	(RV13) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
	(RV13) SVC	4. S-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.8	6.8
(RV13) 1669	(RV13) 1659	1. SW-Ou	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	2.0	6.2
	(RV13) 1670	3. NE-In	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	2.0	6.2
	(RV13) SVC	5. SE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.8	5.4

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection



# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)		
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)	
(RV13) 1669	(RV13) SVC	4. E-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.3	
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.8	5.8	
(RV13) 1670	(RV13) 1669	1. SW-Ou	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.5	6.0	
	(RV13) 1671	5. E-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.5	5.8	
	(RV13) 2291	2. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.8	
	(RV13) SVC	4. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.4	
	(RV13) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.1	5.3	
	(RV13) 1671	(RV13) 1670	1. W-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	2.5	9.6
(RV13) 1671	(RV13) 1672	4. E-In	8	PVC	No	N/A	N/A	Good	0	0.5	2.5	6.3	
	(RV13) 1673	3. NW-In	8	PVC	No	N/A	N/A	Good	0	2.5	2.0	9.4	
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9	
	(RV13) 1672	(RV13) 1671	1. NW-Ou	8	PVC	No	N/A	N/A	Good	0	0.5	1.0	6.7
	(RV13) 2292	3. NE-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.5	6.6	
(RV13) 1672	(RV13) SVC	4. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.4	
	(RV13) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.4	
	(RV13) 1673	(RV13) 1671	1. SE-Out	8	Cast Iron	No	N/A	N/A	Good	0	2.5	2.0	3.3
	(RV13) 1674	3. N-In	8	PVC	No	N/A	N/A	Good	0	2.5	2.0	3.2	
(RV13) 1673	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.7	
	(RV13) 1674	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	1.8	3.8	
	(RV13) 1675	4. E-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	3.8	
(RV13) 1674	(RV13) 1677	3. N-In	6	PVC	No	N/A	N/A	Good	0	2.0	1.0	3.8	
	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.6	
	(RV13) 1675	(RV13) 1674	1. NW-Ou	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	2.5	5.4

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV13) 1675	(RV13) 1676	2. N-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.8	5.1
	(RV13) 2172	3. SE-In	6	PVC	No	N/A	N/A	Good	0	1.0	2.0	5.2
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	3.1
(RV13) 1676	(RV13) 1675	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.5	6.3
	(RV13) 1679	3. N-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	1.8	6.2
	(RV13) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.3	5.6
	(RV13) SVC	4. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	1.5	4.8
(RV13) 1677	(RV13) 1674	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	3.3
	(RV13) 1678	3. N-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.8	3.2
	(RV13) SVC	2. W-In	4	Vitrified Clay	No	N/A	N/A	Future	0	0.3	1.0	2.5
	(RV13) SVC	4. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	1.0	2.8
(RV13) 1678	(RV13) 1677	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.8	5.4
	(RV13) SVC	3. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.8	3.9
	(RV13) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.2	3.9
(RV13) 1679	(RV13) 1676	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.8	5.4
	(RV13) 1838	3. N-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	5.3
	(RV13) SVC	2. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	4.0
	(RV13) SVC	4. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	4.0
(RV13) 1681	(RV13) 1657	1. E-Out	8	N/A	No	N/A	N/A	Good	0	3.0	2.0	8.6
	(RV13) 1682	2. N-In	8	N/A	No	N/A	N/A	Good	0	1.5	1.8	8.3
(RV13) 1682	(RV13) 1681	1. S-Out	8	N/A	No	N/A	N/A	Good	0	2.0	2.0	9.1
	(RV13) 1683	3. N-In	8	N/A	No	N/A	N/A	Good	0	2.0	2.0	9.2
	(RV13) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.8	4.4

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam		Root Growth	Type	Depth (in.)			Depth (in.)	Velocity (fps)	
			(in.)	Construction								
(RV13) 1683	(RV13) 1682	1. S-Out	8	N/A	No	N/A	N/A	Good	0	1.0	2.0	6.8
	(RV13) 1684	3. NE-In	8	N/A	No	N/A	N/A	Good	0	3.0	1.8	6.5
	(RV13) 1692	2. W-In	10	N/A	No	N/A	N/A	Good	0	0.5	1.0	6.4
(RV13) 1684	(RV13) 1683	1. SW-Ou	8	N/A	No	N/A	N/A	Good	0	3.0	1.8	7.2
	(RV13) 1703	2. N-In	8	N/A	No	N/A	N/A	Good	0	2.0	2.0	7.1
(RV13) 1685	(RV13) 1703	1. S-Out	8	N/A	No	N/A	N/A	Good	0	1.0	0.8	8.5
	(RV13) 1833	2. NE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	8.2
(RV13) 1703	(RV13) 1684	1. S-Out	10	N/A	No	N/A	N/A	Good	0	1.0	1.5	8.1
	(RV13) 1685	3. NE-In	10	N/A	No	N/A	N/A	Future	0	1.0	1.0	8.1
	(RV13) 2286	2. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.2	7.5
	(RV13) 2365	4. E-In	8	PVC	No	N/A	N/A	Future	0	0.3	1.0	6.6
	(RV13) SVC	5. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.1
(RV13) 1833	(RV13) 1685	1. SW-Ou	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	1.5	7.7
	(RV13) 1834	2. E-In	6	Vitrified Clay	Yes	N/A	N/A	Future	0	1.0	1.5	7.0
(RV13) 1834	(RV13) 1833	1. W-Out	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	1.0	6.6
	(RV13) 1835	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	6.5
	(RV13) 1843	2. NE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	6.1
(RV13) 1835	(RV13) 1834	1. W-Out	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	1.0	5.5
	(RV13) 1836	3. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	5.3
	(RV13) 2456	2. N-In	6	Vitrified Clay	Yes	N/A	0.2	Circular Cracks	0	0.2	0.5	5.1
(RV13) 1836	(RV13) 1835	1. W-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.2	5.7
	(RV13) 1837	4. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(RV13) 1840	3. N-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.1	0.3	5.2

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth (in.)	Velocity (fps)	
(RV13) 1836	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
(RV13) 1837	(RV13) 1836	1. W-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.8
	(RV13) CO-1837	2. NE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.5
	(RV13) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.9
(RV13) 1838	(RV13) 1679	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.8	0.3	7.3
	(RV13) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.3	3.8
	(RV13) SVC	4. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.3
	(RV13) SVC	2. W-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	0.0
	(RV13) SVC	5. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
(RV13) 1840	(RV13) 1836	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.5	7.4
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	4.0
	(RV13) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.5	6.1
(RV13) 1843	(RV13) 1834	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	6.2
	(RV13) SVC	2. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.2	1.0	5.2
	(RV13) SVC	3. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.2	1.0	5.2
(RV13) 2172	(RV13) 1675	1. NW-Ou	6	PVC	No	N/A	N/A	Good	0	3.0	1.5	4.5
	(RV13) 2173	2. N-In	6	PVC	No	N/A	N/A	Good	0	2.0	1.3	4.4
	(RV13) 2179	3. NE-In	8	PVC	No	N/A	N/A	Good	0	1.0	1.8	4.4
	(RV13) SVC	4. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
(RV13) 2173	(RV13) 2172	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.1	0.4	5.1
	(RV13) 2174	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.1	0.4	4.9
(RV13) 2174	(RV13) 2173	1. S-Out	6	Concrete	No	N/A	N/A	Good	0	0.1	0.2	4.4
	(RV13) EOL-2174	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.1	0.2	4.1

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV13) 2179	(RV13) 2172	1. W-Out	8	PVC	No	N/A	N/A	Good	0	3.0	1.5	4.7
	(RV13) 2180	3. NE-In	8	PVC	No	N/A	N/A	Good	0	3.0	1.5	4.6
	(RV13) 2182	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.8	4.6
(RV13) 2180	(RV13) 2179	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	3.0	1.0	5.6
	(RV13) 2181	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.1	0.5	4.7
	(RV13) 4329	3. NE-In	8	PVC	No	N/A	N/A	Good	0	3.0	1.0	5.6
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.4
(RV13) 2181	(RV13) 2180	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.1	0.5	5.0
	(RV13) EOL-2181	3. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.9
	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.5	4.9
(RV13) 2182	(RV13) 2179	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	6.3
	(RV13) 2183	2. N-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	6.3
(RV13) 2183	(RV13) 2182	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	2.0	6.3
	(RV13) 2184	4. SE-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1
	(RV13) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.8	5.0
	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	1.0	0.5	6.0
(RV13) 2184	(RV13) 2183	1. NW-Ou	6	PVC	No	N/A	N/A	Good	0	2.0	0.1	5.9
	(RV13) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	1.0	0.1	5.9
	(RV13) SVC	3. SE-In	6	PVC	No	N/A	N/A	Good	0	2.0	0.1	5.9
(RV13) 2192	(RV13) 1654	1. SW-Ou	8	N/A	No	N/A	N/A	Good	0	6.0	1.5	7.2
	(RV13) 1655	4. NE-In	8	N/A	No	N/A	N/A	Good	0	6.0	1.5	7.2
	(RV13) 2193	3. N-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.1
	(RV13) SVC	5. SE-In	6	Cast Iron	No	N/A	N/A	Good	0	0.1	0.1	3.0

1. "SVC"-Service Lateral/Building Lateral Connection  
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type			Depth (in.)	Depth		Velocity (fps)
(RV13) 2192	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	2.0	0.3	6.8
(RV13) 2193	(RV13) 2192	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.2	0.5	5.0
	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.8
	(RV13) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.0
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.8
(RV13) 2286	(RV13) 1703	1. E-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.3	6.2
	(RV13) SVC	3. W-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	0.2	0.3	6.2
	(RV13) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.2
(RV13) 2291	(RV13) 1670	1. E-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.6	3.7
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.5	0.2	3.7
(RV13) 2292	(RV13) 1672	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	1.5	0.1	4.6
	(RV13) 2293	4. E-In	8	PVC	No	N/A	N/A	Good	0	0.1	0.2	4.6
	(RV13) SVC	5. S-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	0.1	0.2	4.2
	(RV13) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.2	4.2
	(RV13) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.2	4.3
(RV13) 2293	(RV13) 2292	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.5	N/A	5.8
	(RV13) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.8
(RV13) 2294	(RV13) 2295	2. E-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	8.4
	(RV13) 4330	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.8	1.8	8.5
	(RV13) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	8.0
	(RV13) SVC	4. SW-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	8.0
(RV13) 2295	(RV13) 2294	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	9.5
	(RV13) 2296	2. N-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.5	9.2

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL"-End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Type	Depth (in.)			Depth	Velocity (fps)	
			(in.)	Construction								
(RV13) 2295	(RV13) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.8	8.7
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.5	8.8
(RV13) 2296	(RV13) 2296	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.5	6.6
	(RV13) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	6.4
	(RV13) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	6.4
	(RV13) SVC	4. NE-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	6.6
(RV13) 2299	(RV13) 1067	3. S-In	8	PVC	No	N/A	N/A	Good	0	0.2	0.3	2.8
	(RV13) 1649	1. N-Out	8	PVC	No	N/A	N/A	Good	0	0.2	0.3	2.9
	(RV13) EOL-2299	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.3	2.8
(RV13) 2365	(RV13) 1703	1. W-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.1
	(RV13) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
	(RV13) SVC	4. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
	(RV13) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9
(RV13) 2890	(RV13) 2891	2. NE-In	8	PVC	No	N/A	N/A	Good	0	0.8	1.8	7.4
	(RV13) 4329	1. S-Out	8	PVC	No	N/A	N/A	Good	0	1.0	1.5	7.6
(RV13) 2891	(RV13) 2890	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	4.4
	(RV13) 2892	2. NE-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	4.3
(RV13) 2892	(RV13) 2891	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	5.2
	(RV13) 2893	2. NE-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	5.0
	(RV13) SVC	4. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	4.7
	(RV13) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	5.4
(RV13) 2893	(RV13) 2892	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	6.6
	(RV13) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.8	5.8

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Type	Depth (in.)			Depth	Velocity (fps)	
(RV13) 2893	(RV13) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.8	5.9
(RV13) 4036	(RV13) 4067	2. N-In	10	Vitrified Clay	No	N/A	N/A	Good	0	3.0	2.5	13.6
	(RV24) 4033	1. S-Out	10	Vitrified Clay	No	N/A	N/A	Good	0	3.0	2.5	13.6
(RV13) 4067	(RV13) 4036	1. S-Out	10	Vitrified Clay	No	N/A	N/A	Good	0	3.0	2.5	13.1
	(RV13) 4068	2. N-In	10	Vitrified Clay	No	N/A	N/A	Good	0	3.0	2.5	12.9
(RV13) 4068	(RV13) 1235	2. NE-In	10	Concrete	No	N/A	N/A	Good	0	2.0	2.5	7.4
	(RV13) 4067	1. S-Out	10	Vitrified Clay	No	N/A	N/A	Good	0	2.0	2.5	7.7
	(RV13) 4069	3. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.5	4.3
(RV13) 4069	(RV13) 4068	1. SW-Out	6	Concrete	No	N/A	N/A	Good	0	2.0	2.0	7.3
	(RV13) 4070	2. NE-In	6	Vitrified Clay	Yes	N/A	N/A	Future	0	1.0	0.3	7.2
	(RV13) 4072	3. E-In	6	Concrete	No	N/A	N/A	Good	0	1.0	2.0	6.6
(RV13) 4070	(RV13) 4069	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.8	5.0
	(RV13) 4071	3. E-In	6	Vitrified Clay	Yes	N/A	N/A	Future	0	1.0	0.8	5.0
	(RV13) SVC	2. W-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	4.3
(RV13) 4071	(RV13) 4070	1. W-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	3.4
	(RV13) 4074	2. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	3.3
(RV13) 4072	(RV13) 4069	1. W-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.5	2.0	6.8
	(RV13) 4073	2. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.5	2.0	6.7
(RV13) 4073	(RV13) 4072	1. W-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.0	1.8
	(RV13) 4075	2. NE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	1.7
	(RV13) 4407	3. NE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	2.0	0.5	1.8
(RV13) 4074	(RV13) 4071	1. W-Out	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.2	0.2	3.9
	(RV13) EOL-4074	3. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	3.8

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV13) 4074	(RV13) SVC	2. N-In	6	Cast Iron	No	N/A	N/A	Good	0	N/A	N/A	3.7
(RV13) 4075	(RV13) 4073	1. SW-Ou	6	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.4	6.6
	(RV13) 4076	2. NE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.4	6.7
(RV13) 4076	(RV13) 4075	1. SW-Ou	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.3	0.1	6.3
	(RV13) 4077	2. N-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.3	0.1	6.6
(RV13) 4077	(RV13) 4076	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.4	2.8
	(RV13) 4078	2. N-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.4	2.8
	(RV13) EOL-4077	3. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.3	2.8
(RV13) 4078	(RV13) 4077	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.5	1.1
	(RV13) 4078A	2. NE-In	8	Polyethylene	No	N/A	N/A	Good	0	1.0	0.5	1.2
(RV13) 4078A	(RV13) 4078	1. W-Out	8	Cast Iron	No	N/A	N/A	Good	0	N/A	N/A	2.8
	(RV13) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.6
(RV13) 4329	(RV13) 2180	1. SW-Ou	8	N/A	No	N/A	6.5	Future	0	7.0	0.1	5.9
	(RV13) 2890	2. N-In	8	PVC	No	N/A	1.0	Good	0	3.0	0.1	5.6
	(RV13) 4330	3. S-In	8	N/A	No	N/A	7.0	Future	0	1.0	0.1	5.9
(RV13) 4330	(RV13) 2294	2. E-In	8	PVC	No	N/A	N/A	Good	0	1.0	1.0	4.5
	(RV13) 4329	1. N-Out	8	PVC	No	N/A	N/A	Good	0	2.0	1.0	4.4
	(RV13) 4331	4. S-In	8	PVC	No	N/A	N/A	Good	0	3.0	0.8	4.7
	(RV13) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.5	3.6
(RV13) 4331	(RV13) 4330	1. N-Out	8	PVC	No	N/A	N/A	Good	0	1.0	1.0	5.3
	(RV13) 4332	2. E-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.8	5.2
	(RV13) SVC	3. S-In	4	PVC	No	N/A	N/A	Future	0	0.5	0.2	4.9
(RV13) 4332	(RV13) 4331	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.8	2.0	8.5

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)			Depth	Velocity	
(RV13) 4332	(RV13) 4333	2. E-In	8	PVC	No	N/A	N/A	Good	0	1.0	1.5	8.4
	(RV13) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	8.1
	(RV13) SVC	4. SW-In	4	PVC	No	N/A	N/A	Good	0	0.3	2.0	8.1
(RV13) 4333	(RV13) 4332	1. W-Out	8	PVC	No	N/A	N/A	Good	0	3.0	2.5	7.2
	(RV13) 4334	2. S-In	8	PVC	No	N/A	N/A	Good	0	1.0	2.5	7.1
	(RV13) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	0.5	2.0	6.8
(RV13) 4334	(RV13) 4333	1. N-Out	8	PVC	No	N/A	N/A	Good	0	2.0	0.2	6.1
	(RV13) 4335	2. S-In	8	PVC	No	N/A	N/A	Good	0	1.0	N/A	6.0
	(RV13) 4337	4. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.5	5.9
	(RV13) SVC	3. SW-In	4	PVC	No	N/A	N/A	Future	1.5	0.3	1.5	5.6
(RV13) 4335	(RV13) SVC	5. NW-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.0	5.6
	(RV13) 4334	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.2
	(RV13) 4336	3. W-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.1
(RV13) 4336	(RV13) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.0
	(RV13) 4335	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.3	5.1
	(RV13) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.3	4.8
(RV13) 4337	(RV13) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.8
	(RV13) 4334	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.5	5.2
	(RV13) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.8	4.9
(RV13) 4407	(RV13) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	0.1	1.5	4.8
	(RV13) 4073	1. W-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.2
	(RV13) EOL-4407	2. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.1

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr.	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
		<u>Structural Condition</u>										
Total Segments	321	Good	292	Long Crack	0	Collapsed	1					
Total Footage		Broken	0	Circular Crac	15	N/A	0					
(RV16) 1004	(RV16) 1004A	1. NE-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	6.1
	(RV16) SVC	3. W-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	5.1
	(RV16) SVC	2. S-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	4.8
(RV16) 1004A	(RV16) 1004	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.3
	(RV16) 1400	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.5
	(RV16) SVC	3. W-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(RV16) SVC	4. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
(RV16) 1117	(RV16) 1107	1. N-Out	10	Vitrified Clay	No	N/A	N/A	Good	0	7.0	1.3	10.8
	(RV16) 1316	4. S-In	10	Vitrified Clay	No	N/A	N/A	Good	0	6.5	1.3	10.9
	(RV16) SVC	5. NW-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.2	0.1	4.7
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	1.0	6.6
	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.1	5.4
(RV16) 1314	(RV16) 2091	1. W-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	0.1	14.8
	(RV16) SVC	5. SW-In	4	Vitrified Clay	No	N/A	N/A	Collapsed Pipe	0	N/A	N/A	9.1
	(RV16) SVC	4. SE-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	3.3
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.5
	(RV16) SVC	3. SE-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	9.2
(RV16) 1315	(RV16) 1332	1. W-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.3	1.0	5.1
	(RV16) 2091	2. E-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.6	5.0
	(RV16) 2218	3. S-In	8	PVC	No	N/A	N/A	Good	0	1.0	1.3	4.8
(RV16) 1316	(RV16) 1117	1. N-Out	10	Vitrified Clay	No	N/A	N/A	Good	0	2.0	2.0	10.8

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Type	Depth (in.)			Depth (in.)	Velocity (fps)	
(RV16) 1316	(RV16) 1317	2. S-In	6	Vitrified Clay	No	N/A	N/A	Circular Cracks	0	0.5	1.5	7.8
	(RV16) 1318	3. W-In	10	Vitrified Clay	No	N/A	N/A	Good	0	4.0	1.8	10.2
(RV16) 1317	(RV16) 1316	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	8.3
	(RV16) 2141	3. S-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.5	1.0	8.2
	(RV16) EOL-1317	2. E-In	6	Vitrified Clay	No	N/A	N/A	Future	0	0.2	0.1	5.6
	(RV16) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.7
(RV16) 1318	(RV16) 1316	1. E-Out	10	Vitrified Clay	No	N/A	N/A	Good	0	5.0	2.0	16.3
	(RV16) 1319	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	1.8	15.8
(RV16) 1319	(RV16) 1318	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	1.5	12.3
	(RV16) 1331	3. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	1.5	12.2
	(RV16) 2429	4. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.5	0.0
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV16) 1320	(RV16) 1322	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.0	4.3
	(RV16) EOL-1320	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.0	4.1
	(RV16) SVC	3. NE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.2	2.5
(RV16) 1321	(RV16) 1322	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.1	4.7
	(RV16) CO-1321	4. W-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.5	0.3	4.5
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.6
	(RV16) SVC	3. S-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	4.4
(RV16) 1322	(RV16) 1320	4. N-In	8	Vitrified Clay	Yes	N/A	N/A	Future	0	0.5	0.5	6.2
	(RV16) 1321	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.8	0.3	6.1
	(RV16) 2429	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.3	6.2
	(RV16) SVC	3. W-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	0.5	6.0

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1331	(RV16) 1319	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	1.5	10.3
	(RV16) 1332	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	1.5	10.3
(RV16) 1332	(RV16) 1315	3. E-In	8	Vitrified Clay	No	N/A	N/A	Circular Cracks	0	1.0	1.8	11.7
	(RV16) 1331	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	3.0	12.6
(RV16) 1333	(RV16) 1333	4. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	4.0	3.0	12.3
	(RV16) SVC	5. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.9
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	1.0	5.3
	(RV16) 1332	1. N-Out	8	Concrete	No	N/A	N/A	Good	0	4.0	2.0	8.1
	(RV16) 1334	5. SW-In	8	Concrete	No	N/A	N/A	Good	0	3.5	1.5	8.0
	(RV16) 2097	4. S-In	10	PVC	No	N/A	N/A	Good	0	1.8	1.5	7.6
(RV16) 1334	(RV16) SVC	2. E-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.7
	(RV16) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	1.6
	(RV16) 1333	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	2.0	6.1
	(RV16) 1336	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	2.0	6.1
	(RV16) 3439	4. N-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.6	5.6
(RV16) 1336	(RV16) SVC	2. S-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	5.5
	(RV16) 1334	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	3.0	4.9
	(RV16) 1337	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	3.0	4.8
	(RV16) SVC	4. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
(RV16) 1337	(RV16) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
	(RV16) 1336	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	4.0	3.0	11.0
	(RV16) 1338	4. N-In	6	PVC	No	N/A	N/A	Good	0	1.0	1.5	9.5
(RV16) 1340	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	3.0	9.8	

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam		Root Growth	Type	Depth (in.)			Depth	Velocity (fps)	
			(in.)	Construction								
(RV16) 1337	(RV16) SVC	5. N-In	6	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	10.5
	(RV16) SVC	2. S-In	6	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	10.5
(RV16) 1338	(RV16) 1337	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	2.7
	(RV16) 1339	3. N-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	2.7
(RV16) 1339	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.6
	(RV16) 1338	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.5	4.6
	(RV16) 2090	3. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.8	4.3
	(RV16) SVC	4. NE-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	4.2
(RV16) 1340	(RV16) SVC	2. W-In	4	PVC	No	N/A	2.0	Good	0	N/A	N/A	4.5
	(RV16) 1337	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	5.0	1.5	10.2
	(RV16) 1341	3. N-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.3	1.5	8.4
	(RV16) 1376	2. S-In	8	Vitrified Clay	No	N/A	N/A	Longitudinal Cracks	0	2.0	1.5	9.4
(RV16) 1341	(RV16) 1340	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	1.0	4.9
	(RV16) 1342	3. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.5	4.5
	(RV16) 1344	2. W-In	8	PVC	No	N/A	N/A	Good	0	3.0	1.0	4.8
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.4
(RV16) 1342	(RV16) 1341	1. E-Out	6	PVC	Yes	N/A	N/A	Circular Cracks	0	1.0	1.0	6.3
	(RV16) 1343	2. NW-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.8	5.8
(RV16) 1343	(RV16) 1342	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.1	6.7
	(RV16) SVC	2. NW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.2	0.1	5.8
	(RV16) SVC	3. NW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV16) 1344	(RV16) 1341	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.0	5.3
	(RV16) 1345	4. NW-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.3	1.8	4.6

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1344	(RV16) 1535	2. S-In	6	Vitrified Clay	Yes	N/A	N/A	Collapsed Pipe	0	0.3	1.0	4.5
	(RV16) SVC	3. W-In	8	Vitrified Clay	Yes	N/A	1.0	Circular Cracks	0	0.3	1.0	5.1
(RV16) 1345	(RV16) 1344	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	2.0	5.7
	(RV16) 1346	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	2.0	5.3
	(RV16) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.0
(RV16) 1346	(RV16) 1345	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	1.0	8.6
	(RV16) 1347	5. NW-In	8	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	8.5
	(RV16) 1350	4. W-In	8	Vitrified Clay	No	N/A	N/A	Future	0	1.5	1.5	6.8
	(RV16) 3325	2. S-In	8	Vitrified Clay	Yes	N/A	N/A	Collapsed Pipe	0	0.2	2.0	6.2
(RV16) 1347	(RV16) SVC	3. W-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	2.9
	(RV16) 1346	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.1	4.8
	(RV16) 1348A	3. NW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.1	4.7
	(RV16) 1349	2. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.1	4.7
(RV16) 1348	(RV16) 1348A	1. SW-Ou	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.8	4.1
	(RV16) 2381	3. NE-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.8	4.0
	(RV16) SVC	2. NW-In	4	Vitrified Clay	Yes	N/A	4.0	Future	0	N/A	N/A	2.7
(RV16) 1348A	(RV16) 1347	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	4.2
	(RV16) 1348	3. NE-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	2.0	0.3	4.2
	(RV16) SVC	2. W-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	3.2
(RV16) 1349	(RV16) 1347	1. E-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(RV16) 2106	3. NE-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	5.6
	(RV16) SVC	2. W-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	5.7
(RV16) 1350	(RV16) 1346	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.3	2.0	7.1

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)			Depth	Velocity (fps)	
(RV16) 1350	(RV16) 1351	2. S-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	0.5	6.2
	(RV16) 1353	4. W-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.3	2.0	7.0
	(RV16) SVC	3. SW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	2.7
(RV16) 1351	(RV16) 1350	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	5.3
	(RV16) EOL-1351	2. S-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.8	5.2
	(RV16) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
(RV16) 1353	(RV16) 1350	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.3	1.0	10.8
	(RV16) 1355	5. N-In	8	Vitrified Clay	No	N/A	N/A	Future	0	1.0	1.0	10.6
	(RV16) 1356	3. SW-In	8	Vitrified Clay	No	N/A	2.0	Good	0	0.1	0.1	5.7
	(RV16) SVC	4. W-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.1	0.1	4.3
	(RV16) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	2.9
	(RV16) SVC	6. NE-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.1	0.1	5.2
	(RV16) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	2.9
(RV16) 1354	(RV16) 1355	1. SW-Ou	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.4
	(RV16) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.3
	(RV16) SVC	2. N-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	3.4
(RV16) 1355	(RV16) 1353	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	0.1	11.9
	(RV16) 1354	5. NE-In	6	Vitrified Clay	Yes	N/A	N/A	Longitudinal Cracks	4	0.1	0.1	7.1
	(RV16) 1357	4. NW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	3.0	0.1	12.0
	(RV16) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	5.2
	(RV16) SVC	2. W-In	3	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.3
	(RV16) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2
(RV16) 1356	(RV16) 1353	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.4
	(RV16) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2
	(RV16) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1357	(RV16) 1355	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.8	12.5
	(RV16) 1358	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	6.6
	(RV16) 1360	4. N-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.8	12.4
	(RV16) SVC	3. W-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	3.0
(RV16) 1358	(RV16) 1357	1. N-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.5	0.5	10.7
	(RV16) 1359	2. S-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	0.8	10.7
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.2
	(RV16) SVC	3. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	9.7
(RV16) 1359	(RV16) 1358	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.1	5.4
	(RV16) SVC	3. W-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.1	0.1	4.2
	(RV16) SVC	2. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.1	0.1	4.5
(RV16) 1360	(RV16) 1357	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	0.3	8.6
	(RV16) 1361	6. E-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.1	0.1	8.0
	(RV16) 1362	4. N-In	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	0.3	8.5
	(RV16) SVC	3. NW-In	4	Vitrified Clay	Yes	N/A	2.0	Circular Cracks	0	N/A	N/A	7.1
	(RV16) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	0.0
	(RV16) SVC	5. NE-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.1	0.1	7.2
(RV16) 1361	(RV16) 1360	1. W-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	4.7
	(RV16) SVC	2. NE-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	3.7
(RV16) 1362	(RV16) 1360	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.0	3.0
	(RV16) 1363	3. NE-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	1.0	2.7
	(RV16) 1367	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	3.0
	(RV16) SVC	4. E-In	6	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	2.8

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Type	Depth (in.)	Structural Condition		Depth (in.)	Velocity (fps)	
			(in.)	Construction								
(RV16) 1363	(RV16) 1362	1. SW-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	0.3	2.7
	(RV16) 1364	4. E-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.1	2.7
	(RV16) SVC	3. NE-In	4	Vitrified Clay	No	N/A	4.0	Future	0	N/A	N/A	0.0
	(RV16) SVC	2. NW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	2.3
(RV16) 1364	(RV16) 1363	1. W-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	2.7
	(RV16) 1365	3. E-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.1	2.7
	(RV16) SVC	4. SE-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	2.4
	(RV16) SVC	2. NE-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	0.1	0.1	2.4
(RV16) 1367	(RV16) 1362	1. E-Out	8	Vitrified Clay	No	N/A	1.0	Good	0	1.0	1.0	4.1
	(RV16) 1368	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	3.4
	(RV16) 3401	3. NW-In	8	Vitrified Clay	No	N/A	1.0	Good	0	2.0	0.5	4.2
(RV16) 1368	(RV16) 1367	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	8.2
	(RV16) 1369	3. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.7	7.4
	(RV16) SVC	4. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	7.1
	(RV16) SVC	2. SE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	7.2
(RV16) 1369	(RV16) 1368	1. N-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	11.1
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.5
	(RV16) SVC	4. SW-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	10.4
	(RV16) SVC	3. SE-In	4	Vitrified Clay	No	N/A	4.0	Future	0	N/A	N/A	10.4
(RV16) 1370	(RV16) 1371	3. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.5	6.9
	(RV16) 3401	1. E-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.5	6.9
	(RV16) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	0.0
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	5.3

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV16) 1371	(RV16) 1370	1. E-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.5	8.1
	(RV16) 1372	3. W-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	1.0	8.0
	(RV16) 1751	2. S-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.5	1.5	6.7
	(RV16) SVC	4. N-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	7.3
(RV16) 1372	(RV16) 1371	1. E-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	8.5
	(RV16) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.9
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.4
(RV16) 1376	(RV16) 1340	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	2.5	2.0	9.1
	(RV16) 1377	3. SE-In	8	Vitrified Clay	No	N/A	N/A	Future	0	1.0	2.0	8.0
	(RV16) 1378	4. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	8.0
	(RV16) 1379	7. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	5.2
	(RV16) SVC	2. E-In	4	PVC	No	N/A	1.0	N/A	0	N/A	N/A	4.3
	(RV16) SVC	6. NW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	3.8
	(RV16) SVC	5. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	1.7
(RV16) 1377	(RV16) 1376	1. NW-Ou	8	Vitrified Clay	No	N/A	N/A	Future	0	1.3	2.0	8.7
	(RV16) 1398	2. S-In	8	Vitrified Clay	Yes	N/A	N/A	Future	0	1.8	1.0	8.6
(RV16) 1378	(RV16) 1376	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	6.0
	(RV16) 1393	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	5.7
	(RV16) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	1.6
(RV16) 1379	(RV16) 1376	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	5.2
	(RV16) 1856	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.5	4.8
	(RV16) SVC	2. S-In	4	PVC	Yes	N/A	N/A	Future	0	0.2	0.5	4.7
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.7

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1380	(RV16) 1381	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.6	4.7
	(RV16) 1391	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	4.7
	(RV16) 1856	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.8	4.7
(RV16) 1381	(RV16) 1380	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.8	5.3
	(RV16) 1382	4. N-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.8	5.3
	(RV16) 1388	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.5	5.3
	(RV16) SVC	3. NW-In	3	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	4.8
(RV16) 1382	(RV16) 1381	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.5	6.6
	(RV16) 1384	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.8	6.9
	(RV16) EOL-1382	4. E-In	8	Vitrified Clay	No	N/A	N/A	Circular Cracks	0	0.3	N/A	6.6
	(RV16) SVC	3. NW-In	4	Vitrified Clay	No	N/A	N/A	Circular Cracks	0	N/A	N/A	5.6
(RV16) 1384	(RV16) 1382	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	9.2
	(RV16) 1385	6. N-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.7	9.0
	(RV16) 1386	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	9.1
	(RV16) 3403	3. W-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.5	6.3
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
	(RV16) SVC	7. NE-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	0.0
	(RV16) SVC	5. NW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	8.4
(RV16) 1385	(RV16) 1384	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	11.5
	(RV16) SVC	3. NE-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	0.0
	(RV16) SVC	2. NW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	10.4
(RV16) 1386	(RV16) 1384	1. N-Out	7	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	7.3
	(RV16) 1387	2. S-In	8	Vitrified Clay	No	N/A	3.0	Future	0	0.3	0.5	3.1

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1386	(RV16) SVC	3. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	6.7
(RV16) 1387	(RV16) 1386	1. N-Out	8	Vitrified Clay	No	N/A	6.0	Future	0	6.0	N/A	2.6
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	2.0	Future	0	2.0	N/A	2.3
(RV16) 1388	(RV16) 1381	1. E-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	0.8	4.8
	(RV16) 1389	2. S-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.5	0.5	4.6
	(RV16) SVC	4. W-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	3.9
	(RV16) SVC	3. W-In	3	PVC	Yes	N/A	N/A	Future	0	N/A	N/A	4.3
	(RV16) SVC	5. NW-In	3	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
(RV16) 1389	(RV16) 1388	1. NW-Ou	8	Vitrified Clay	No	N/A	N/A	Circular Cracks	4	1.0	0.5	4.3
	(RV16) 1390	4. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.5	4.1
	(RV16) SVC	2. S-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	3.9
	(RV16) SVC	3. S-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.2	0.3	3.7
(RV16) 1390	(RV16) 1389	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.4
	(RV16) SVC	3. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.2
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.0
(RV16) 1391	(RV16) 1380	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV16) 1392	3. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	3.9
	(RV16) SVC	4. W-In	4	Vitrified Clay	No	N/A	0.3	Future	0	N/A	N/A	3.6
	(RV16) SVC	2. S-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	3.5
(RV16) 1392	(RV16) 1391	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.2
	(RV16) SVC	2. W-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.0
(RV16) 1393	(RV16) 1378	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	5.7
	(RV16) 1394	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	5.7

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1393	(RV16) 1399	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	5.4
	(RV16) SVC	4. NW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	5.3
(RV16) 1394	(RV16) 1393	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.4	6.2
	(RV16) 1395	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.2	6.1
	(RV16) SVC	4. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.2	4.6
	(RV16) SVC	3. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.2
(RV16) 1395	(RV16) 1394	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	12.2
	(RV16) 1828	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	7.6
	(RV16) SVC	4. W-In	4	PVC	Yes	N/A	N/A	Future	0	N/A	N/A	11.0
	(RV16) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.6
(RV16) 1396	(RV16) 1828	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.3	4.6
	(RV16) 2023	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.3	3.5
(RV16) 1397	(RV16) 2023	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	12.0
	(RV16) Svc	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.1	7.5
	(RV16) Svc	4. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
	(RV16) Svc	3. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	11.7
	(RV16) Svc	5. W-In	4	Concrete	No	N/A	N/A	Good	0	N/A	N/A	10.8
(RV16) 1398	(RV16) 1377	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.8	1.0	8.2
	(RV16) 1401	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.8	1.0	8.2
	(RV16) SVC	3. W-In	6	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	7.0
(RV16) 1399	(RV16) 1393	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.1	6.3
	(RV16) 1400	4. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.1	6.3
	(RV16) SVC	5. NW-In	4	PVC	Yes	N/A	N/A	Future	0	N/A	N/A	5.4

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1399	(RV16) SVC	2. S-In	8	Vitrified Clay	No	N/A	1.5	Future	0	2.0	N/A	6.3
	(RV16) SVC	3. SW-In	4	PVC	Yes	N/A	N/A	Future	0	N/A	N/A	5.2
(RV16) 1400	(RV16) 1004A	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	5.6
	(RV16) 1399	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	5.7
(RV16) 1402	(RV16) SVC	3. NW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	4.4
	(RV16) 1401	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.8	8.8
(RV16) 1403	(RV16) 1403	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.8	8.8
	(RV16) EOL-1402	4. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.8	7.2
	(RV16) SVC	3. SW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	6.7
	(RV16) SVC	5. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.8
(RV16) 1405	(RV16) 1402	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Circular Cracks	0	1.0	0.5	6.4
	(RV16) 1405	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.5	6.4
(RV16) 1407	(RV16) 1403	1. NE-Out	10	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	8.8
	(RV16) 1407	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	7.3
	(RV16) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
(RV16) 1406	(RV16) 1404	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.3	3.5
	(RV16) 1416	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.3	3.4
(RV16) 1408	(RV16) 1405	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.8	6.4
	(RV16) 1408	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.8	6.3
	(RV16) SVC	4. NW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	0.0
	(RV16) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	0.2	0.1	0.0
(RV16) 1409	(RV16) 1407	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	6.9
	(RV16) 1409	5. N-In	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.7

1. "SVC"-Service Lateral/Building Lateral Connection  
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1408	(RV16) 1410	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.5	6.9
	(RV16) SVC	4. NW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	0.2	0.2	5.4
	(RV16) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	0.0
(RV16) 1409	(RV16) 1408	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	8.8
	(RV16) SVC	2. NW-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	6.6
	(RV16) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	0.0
(RV16) 1410	(RV16) 1408	1. E-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	0.3	7.5
	(RV16) 1412	3. W-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	0.3	7.4
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.2
	(RV16) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV16) 1412	(RV16) 1410	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.3	9.2
	(RV16) 1414	4. N-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.3	6.8
	(RV16) SVC	3. NW-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	7.2
	(RV16) SVC	2. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	0.0
(RV16) 1413	(RV16) 1440	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.8	10.9
	(RV16) 1441	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.8	11.2
	(RV16) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.5
(RV16) 1415	(RV16) 1414	1. S-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	9.4
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.1
(RV16) 1416	(RV16) 1406	1. E-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	1.2	8.3
	(RV16) 1417	2. S-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	1.2	8.2
	(RV16) SVC	3. SW-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	0.3	1.0	7.3
(RV16) 1417	(RV16) 1416	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	1.5	6.4

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1417	(RV16) 1419	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.0	6.1
	(RV16) 3404	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.8	6.3
(RV16) 1419	(RV16) 1417	1. E-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	1.8	8.1
	(RV16) 1420	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.8	8.1
	(RV16) 1423	2. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.0	7.7
(RV16) 1420	(RV16) 1419	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	6.5
	(RV16) 1421	3. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	6.1
	(RV16) SVC	2. S-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.5	5.3
(RV16) 1421	(RV16) 1421A	1. E-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.3	5.6
	(RV16) 1422	2. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.3	5.6
(RV16) 1421A	(RV16) 1420	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.8	4.8
	(RV16) 1422	3. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.8	3.7
	(RV16) SVC	2. S-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.2	0.8	4.0
(RV16) 1422	(RV16) 1421	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.4
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2
(RV16) 1423	(RV16) 1419	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.5	7.7
	(RV16) 1424	2. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.5	7.4
(RV16) 1424	(RV16) 1423	1. N-Out	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.2	0.1	7.4
	(RV16) SVC	2. SE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.1	6.3
	(RV16) SVC	3. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.2	0.1	6.3
(RV16) 1425	(RV16) 1437	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.1
	(RV16) 1469	3. NW-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2
	(RV16) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1426	(RV16) 1427	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	8.9
	(RV16) 1428	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	8.6
(RV16) 1427	(RV16) 1426	3. NW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	7.4
	(RV16) 1443	2. S-In	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.5	0.5	7.6
(RV16) 1428	(RV16) 3404	1. N-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	1.0	1.0	7.6
	(RV16) 1426	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.3	8.0
(RV16) 1429	(RV16) 1429	3. NW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.7
	(RV16) 1431	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.3	7.8
	(RV16) 1428	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.7
(RV16) 1431	(RV16) 1430	2. NW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.6
	(RV16) 1428	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.3	10.6
(RV16) 1432	(RV16) 1432	5. NW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.5	10.2
	(RV16) SVC	4. SW-In	4	Vitrified Clay	No	N/A	1.5	Future	0	0.2	0.1	9.6
	(RV16) SVC	3. S-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	9.9
	(RV16) SVC	2. SE-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	9.5
(RV16) 1433	(RV16) 1431	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.3	10.1
	(RV16) 1433	2. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.3	9.9
(RV16) 1434	(RV16) 1432	1. SW-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	8.0
	(RV16) 1434	2. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	7.8
	(RV16) SVC	3. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.2
(RV16) 1434	(RV16) 1433	1. NE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.3	5.6
	(RV16) 2089	3. NW-In	6	Vitrified Clay	No	N/A	N/A	Future	0	0.3	1.5	4.6
	(RV16) SVC	2. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.7

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV16) 1435	(RV16) 1469	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.4
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
(RV16) 1437	(RV16) 1425	2. NW-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	12.1
	(RV16) 1439	1. NE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	12.1
(RV16) 1438	(RV16) 1438A	2. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	0.0
	(RV16) 1440	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	5.8
(RV16) 1438A	(RV16) 1438	1. NE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.1	8.6
	(RV16) 1438B	2. NW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.1	7.5
(RV16) 1438B	(RV16) 1438A	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	6.4
	(RV16) 1438C	2. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	6.3
(RV16) 1438C	(RV16) 1438B	1. NE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	4.8
	(RV16) SVC	4. NW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.6
	(RV16) SVC	3. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.6
	(RV16) SVC	2. SE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	4.6
(RV16) 1439	(RV16) 1437	2. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	1.0	5.7
	(RV16) 1440	1. SE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.2	1.0	7.5
	(RV16) SVC	4. N-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	6.4
	(RV16) SVC	3. W-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.5
(RV16) 1440	(RV16) 1413	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.5	10.1
	(RV16) 1438	3. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.5	0.0
	(RV16) 1439	5. NW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.2	1.5	9.8
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.8
	(RV16) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 1441	(RV16) 1413	4. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	9.4
	(RV16) 1443	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	9.7
	(RV16) 2862	3. S-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.3	2.1
	(RV16) SVC	2. SE-In	4	Vitrified Clay	No	N/A	N/A	Circular Cracks	2	0.2	0.5	8.9
(RV16) 1443	(RV16) 1427	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	12.1
	(RV16) 1441	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	11.9
	(RV16) 1444	3. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.8	11.8
(RV16) 1444	(RV16) 1443	1. NE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.2	7.2
	(RV16) 1445	3. SW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.9
	(RV16) SVC	2. S-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	0.2	0.2	6.1
	(RV16) SVC	4. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.3
(RV16) 1445	(RV16) 1444	1. NE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	7.7
	(RV16) CO-1445	3. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	0.0
	(RV16) SVC	4. W-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	6.6
	(RV16) SVC	2. S-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	6.9
(RV16) 1535	(RV16) 1344	1. N-Out	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	2.3
	(RV16) SVC	2. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	2.0
(RV16) 1751	(RV16) 1371	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.5	5.9
	(RV16) 1751A	2. S-In	6	Vitrified Clay	No	N/A	N/A	Good	0	2.0	0.2	6.1
	(RV16) SVC	3. SW-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	4.8
(RV16) 1751A	(RV16) 1751	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	1.0	0.2	6.9
	(RV16) 1770	3. SE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	6.0
	(RV16) SVC	4. SW-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	2.9

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV16) 1751A	(RV16) SVC	2. E-In	4	PVC	Yes	N/A	N/A	Future	0	N/A	N/A	5.6
(RV16) 1770	(RV16) 1751A	1. NW-Ou	6	Vitrified Clay	No	N/A	2.0	Future	0	N/A	N/A	6.6
	(RV16) SVC	4. W-In	4	Vitrified Clay	No	N/A	4.0	Future	0	N/A	N/A	0.0
	(RV16) SVC	2. E-In	4	Vitrified Clay	No	N/A	4.0	Future	0	N/A	N/A	0.0
	(RV16) SVC	3. SE-In	6	Vitrified Clay	Yes	N/A	2.0	Collapsed Pipe	0	N/A	N/A	5.3
(RV16) 1828	(RV16) 1395	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.1	9.9
	(RV16) 1396	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.1	9.9
	(RV16) SVC	3. N-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	9.5
(RV16) 1856	(RV16) 1379	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.0	4.8
	(RV16) 1380	2. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.8	1.0	4.4
	(RV16) SVC	3. NW-In	4	Vitrified Clay	No	N/A	N/A	Future	0	N/A	N/A	2.4
	(RV16) SVC	4. NE-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	2.4
(RV16) 2023	(RV16) 1396	1. NE-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.1	4.6
	(RV16) 1397	2. SW-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.1	4.9
	(RV16) SVC	3. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.8
(RV16) 2089	(RV16) 1434	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.1	4.0
	(RV16) EOL-2089	3. NW-In	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	3.9
	(RV16) SVC	2. SW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.2	0.1	3.1
(RV16) 2090	(RV16) 1339	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.5	5.9
	(RV16) 3409	3. N-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	5.0
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.2	1.0	5.8
(RV16) 2091	(RV16) 1314	3. E-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.0	11.3
	(RV16) 1315	1. W-Out	8	Vitrified Clay	No	N/A	N/A	Circular Cracks	0.1	1.0	1.0	11.2

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type	Structural Condition		Depth (in.)	Velocity (fps)		
(RV16) 2091	(RV16) 2092	2. N-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	1.0	10.1
(RV16) 2092	(RV16) 2091	1. S-Out	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	2.6
	(RV16) SVC	2. N-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	2.5
(RV16) 2097	(RV16) 1333	1. NE-Out	10	PVC	No	N/A	N/A	Good	0	2.0	2.0	10.9
	(RV16) 2098	4. SW-In	10	PVC	No	N/A	N/A	Good	0	2.0	2.0	9.3
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.1
	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	N/A	0	N/A	N/A	3.4
	(RV16) SVC	5. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.0
(RV16) 2098	(RV16) 2097	1. NE-Out	10	PVC	No	N/A	N/A	Good	0	1.5	2.5	9.9
	(RV16) 2099	4. S-In	10	PVC	No	N/A	N/A	Good	0	1.5	2.5	9.4
	(RV16) 2168	5. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.5	8.6
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.0
	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
(RV16) 2099	(RV16) 2098	1. N-Out	10	PVC	No	N/A	N/A	Good	0	1.5	2.5	9.3
	(RV16) 2100	3. S-In	10	PVC	No	N/A	N/A	Good	0	1.5	2.5	9.1
	(RV16) 2170	4. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.5	6.6
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.2
(RV16) 2100	(RV16) 2099	1. N-Out	10	N/A	No	N/A	N/A	Good	0	1.0	1.5	7.0
	(RV16) 2101	3. S-In	10	N/A	No	N/A	N/A	Good	0	1.0	1.8	6.8
	(RV16) 3406	4. W-In	6	PVC	No	N/A	6.0	Future	0	0.3	0.5	0.0
	(RV16) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	0.3	0.5	4.4
(RV16) 2101	(RV16) 2100	1. N-Out	6	PVC	No	N/A	N/A	Good	0	2.0	1.0	5.9
	(RV16) 2102	2. E-In	10	PVC	No	N/A	N/A	Good	0	1.0	1.0	5.7

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Type	Depth (in.)			Depth	Velocity (fps)	
(RV16) 2101	(RV16) 3408	4. W-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.9
	(RV16) SVC	3. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.5
(RV16) 2102	(RV16) 2101	1. W-Out	12	Concrete	No	N/A	N/A	Good	0	1.0	1.5	6.5
	(RV16) 2235	2. E-In	6	PVC	No	N/A	N/A	Good	0	2.0	0.5	6.0
	(RV16) 2541	3. S-In	10	Cast Iron	No	N/A	N/A	Good	0	0.8	1.5	6.2
(RV16) 2103	(RV16) 2113	3. S-In	10	PVC	No	N/A	N/A	Good	0	1.0	1.5	6.1
	(RV16) 2541	1. N-Out	10	PVC	No	N/A	N/A	Good	0	1.0	1.5	6.1
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.1	4.1
(RV16) 2106	(RV16) 1349	1. SW-Ou	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	5.3
	(RV16) SVC	2. NW-In	4	Vitrified Clay	Yes	N/A	N/A	Future	0	N/A	N/A	3.3
(RV16) 2113	(RV16) 2103	1. N-Out	10	PVC	No	N/A	N/A	Good	0	0.5	1.5	6.6
	(RV16) 2114	2. S-In	10	PVC	No	N/A	N/A	Good	0	0.5	1.5	6.1
(RV16) 2114	(RV16) 2113	1. N-Out	10	PVC	No	N/A	N/A	Good	0	1.0	1.5	6.1
	(RV16) 2115	2. S-In	10	PVC	No	N/A	N/A	Good	0	1.0	1.5	6.1
(RV16) 2115	(RV16) 2114	1. N-Out	10	PVC	No	N/A	N/A	Good	0	0.3	1.0	7.0
	(RV16) 2211	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	7.0
	(RV16) 2334	2. E-In	8	PVC	No	N/A	N/A	Good	0	0.2	0.2	6.3
(RV16) 2141	(RV16) 1317	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.0	3.6
	(RV16) EOL-2141	3. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.5	0.5	3.3
	(RV16) EOL-2141	2. SE-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.8	0.5	3.5
(RV16) 2168	(RV16) 2098	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.2	6.8
	(RV16) 2169	3. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.2	6.5
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Type	Depth (in.)			Depth (in.)	Velocity (fps)	
			(in.)	Construction								
(RV16) 2168	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.5
(RV16) 2169	(RV16) 2168	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.6
	(RV16) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.5
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.7
	(RV16) 2099	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.5	0.2	4.9
(RV16) 2170	(RV16) 2171	3. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.2	4.9
	(RV16) SVC	4. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.9
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.7
	(RV16) 2170	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.7
(RV16) 2171	(RV16) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.5
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.6
	(RV16) 2115	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.5	1.5	9.6
(RV16) 2211	(RV16) 2212	2. S-In	6	PVC	No	N/A	N/A	Good	0	2.0	0.3	9.6
	(RV16) 2865	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.5	9.6
	(RV16) 2211	1. NW-Ou	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	8.3
(RV16) 2212	(RV16) 2213	2. E-In	6	PVC	No	N/A	N/A	Good	0	1.5	1.0	8.2
	(RV16) 2217	3. SW-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.5	8.2
	(RV16) 2212	1. NW-Ou	6	PVC	No	N/A	N/A	Good	0	1.0	0.2	7.1
(RV16) 2213	(RV16) 2214	3. S-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.2	7.2
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.3	0.3	6.8
	(RV16) 2213	1. N-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.9
(RV16) 2214	(RV16) 2215	3. W-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.3

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 2215	(RV16) 2214	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
	(RV16) SVC	2. S-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	4.3
(RV16) 2216	(RV16) 2217	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(RV16) EOL-2216	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.6
(RV16) 2217	(RV16) 2212	1. NE-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.3	6.9
	(RV16) 2216	2. S-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.5	7.0
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	6.9
	(RV16) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	0.3	0.3	6.9
(RV16) 2218	(RV16) 1315	1. NW-Ou	8	PVC	No	N/A	N/A	Good	0	1.3	1.5	6.0
	(RV16) 2219	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.2	5.8
	(RV16) 2221	4. SW-In	6	PVC	No	N/A	N/A	Good	0	1.0	1.8	5.7
	(RV16) SVC	5. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.4	5.7
(RV16) 2219	(RV16) 2218	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.4
	(RV16) 2220	2. E-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.2
	(RV16) SVC	3. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.5
(RV16) 2220	(RV16) 2219	1. W-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.3
	(RV16) EOL-2220	2. E-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.3
	(RV16) SVC	3. S-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	6.2
(RV16) 2221	(RV16) 2218	1. N-Out	6	PVC	No	N/A	N/A	Good	0	2.0	0.8	6.4
	(RV16) 2224	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	6.2
	(RV16) 2225	4. S-In	6	PVC	No	N/A	N/A	Good	0	2.0	0.5	6.5
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Type	Depth (in.)			Depth (in.)	Velocity (fps)	
			(in.)	Construction								
(RV16) 2221	(RV16) SVC	5. W-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	6.2
(RV16) 2222	(RV16) 2224	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.2	1.0	5.2
	(RV16) 2227	3. S-In	6	PVC	No	N/A	N/A	Good	0	0.2	1.0	4.3
	(RV16) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	0.5	N/A	5.0
(RV16) 2224	(RV16) 2221	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	4.3
	(RV16) 2222	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.3
	(RV16) SVC	4. S-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.1	4.3
	(RV16) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
(RV16) 2225	(RV16) 2221	1. NE-Out	6	PVC	No	N/A	N/A	Good	0	1.5	1.5	4.7
	(RV16) 2226	2. E-In	6	PVC	No	N/A	N/A	Good	0	1.0	1.8	4.5
	(RV16) 2228	3. S-In	6	PVC	No	N/A	N/A	Good	0	1.5	1.5	4.6
	(RV16) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.4
(RV16) 2226	(RV16) 2225	1. W-Out	6	PVC	No	N/A	N/A	Good	0	1.0	1.3	9.4
	(RV16) 2231	3. S-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.8	4.4
	(RV16) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	9.2
(RV16) 2227	(RV16) 2222	1. N-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	3.7
	(RV16) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.0	3.7
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.6
(RV16) 2228	(RV16) 2225	1. N-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.5	5.8
	(RV16) 2229	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.2	1.0	5.8
	(RV16) 2232	4. S-In	6	PVC	No	N/A	N/A	Good	0	2.0	0.8	5.9
	(RV16) SVC	5. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.6
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.7

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 2229	(RV16) 2228	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.2	0.3	5.9
	(RV16) SVC	3. S-In	4	PVC	No	N/A	N/A	Good	0	0.3	N/A	5.9
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.3	5.6
(RV16) 2230	(RV16) 2234	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV16) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.6
(RV16) 2231	(RV16) 2226	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.1
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.0
	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.9
(RV16) 2232	(RV16) 2228	1. N-Out	6	PVC	No	N/A	N/A	Future	0	0.5	1.5	8.3
	(RV16) 2233	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.5	6.0
	(RV16) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.2	6.4
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.3
(RV16) 2233	(RV16) 2232	1. W-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	9.3
	(RV16) 2234	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	9.2
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.3	0.0
(RV16) 2234	(RV16) 2230	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.5	4.4
	(RV16) 2233	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	4.7
	(RV16) EOL-2234	4. SE-In	6	PVC	No	N/A	N/A	Good	0	1.5	0.3	4.7
	(RV16) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
(RV16) 2235	(RV16) 2102	1. W-Out	6	PVC	No	N/A	N/A	Good	0	1.0	1.5	6.3
	(RV16) 2236	3. S-In	6	PVC	No	N/A	N/A	Good	0	1.0	1.5	5.8
	(RV16) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	0.0
(RV16) 2236	(RV16) 2235	1. N-Out	6	PVC	No	N/A	N/A	Good	0	1.5	0.8	6.2

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam		Root Growth	Type			Depth (in.)	Depth (in.)		Velocity (fps)
			(in.)	Construction								
(RV16) 2236	(RV16) 2237	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	5.5
	(RV16) 2239	3. S-In	6	PVC	No	N/A	N/A	Good	0	2.0	0.5	6.3
(RV16) 2237	(RV16) 2236	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.9
	(RV16) 2238	3. E-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.5	6.8
(RV16) 2238	(RV16) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.5	6.8
	(RV16) 2237	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.5	0.8	4.2
	(RV16) 2241	3. S-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.5	3.7
(RV16) 2239	(RV16) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV16) 2236	1. N-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.1
	(RV16) 2240	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.5	5.3
(RV16) 2240	(RV16) 2242	3. S-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	7.8
	(RV16) 2239	1. W-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	2.0	Good	0	N/A	N/A	5.4
(RV16) 2241	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
	(RV16) 2238	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
	(RV16) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
(RV16) 2242	(RV16) 2239	1. N-Out	6	PVC	No	N/A	N/A	Good	0	0.8	0.8	7.2
	(RV16) 2243	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.8	6.9
	(RV16) 2879	3. S-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.2	6.9
(RV16) 2243	(RV16) 2242	1. W-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	6.2
	(RV16) 2244	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.8	5.9
	(RV16) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.9
	(RV16) SVC	4. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV16) 2244	(RV16) 2243	1. NW-Ou	6	PVC	No	N/A	N/A	Good	0	0.5	0.8	11.9
	(RV16) 2245	4. S-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.5	11.9
	(RV16) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	11.6
(RV16) 2245	(RV16) 2244	1. N-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	5.8
	(RV16) 2246	4. S-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.5	5.7
	(RV16) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.6
	(RV16) SVC	6. W-In	4	PVC	No	N/A	2.0	Good	0	N/A	N/A	0.0
	(RV16) SVC	5. W-In	4	PVC	No	N/A	N/A	Good	0	0.8	0.8	5.7
	(RV16) SVC	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
(RV16) 2246	(RV16) 2245	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV16) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
(RV16) 2334	(RV16) 2115	1. W-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.5
	(RV16) 2335	2. E-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.5
(RV16) 2335	(RV16) 2334	1. W-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.1
	(RV16) 2336	2. E-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.9
(RV16) 2336	(RV16) 2335	1. W-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.0
	(RV16) 2337	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.9
	(RV16) SVC	4. SW-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	5.5
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	5.5
(RV16) 2337	(RV16) 2336	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
	(RV16) 2338	2. SE-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.4

1. "SVC"-Service Lateral/Building Lateral Connection  
 2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam			Type	Depth (in.)	Structural Condition		Depth (in.)	Velocity (fps)		
			(in.)	Construction									
(RV16) 2338	(RV16) 2337	1. NW-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.6	
	(RV16) 2339	3. E-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.6	
	(RV16) 2340	4. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.6	
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	6.2	
(RV16) 2339	(RV16) 2338	1. W-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.6	
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	7.3	
(RV16) 2340	(RV16) 2338	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.3	
	(RV16) 2341	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.3	
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	6.8	
	(RV16) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.0	
(RV16) 2341	(RV16) 2340	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.3	
	(RV16) 2342	3. SW-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.3	
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	8.1	
(RV16) 2342	(RV16) 2341	1. NE-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	12.0	
(RV16) 2380	(RV16) 2381	1. SE-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.4	
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7	
(RV16) 2381	(RV16) 1348	1. SW-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	2.0	0.1	6.0	
	(RV16) 2380	2. NW-In	6	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	2.8	
	(RV16) SVC	4. E-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.2	0.1	5.3	
	(RV16) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	1.6	
(RV16) 2429	(RV16) 1319	1. E-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.0	1.5	6.2	
	(RV16) 1322	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.0	6.2	
	(RV16) SVC	4. NW-In	4	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.2	0.2	4.3	

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth (in.)	Velocity (fps)	
(RV16) 2429	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.7
(RV16) 2511	(RV16) 2112	2. NE-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	5.2
	(RV16) 2510	1. W-Out	8	PVC	No	N/A	N/A	Good	0	4.0	0.8	5.2
(RV16) 2541	(RV16) 2102	1. N-Out	10	PVC	No	N/A	N/A	Good	0	2.5	1.3	5.5
	(RV16) 2103	2. S-In	10	PVC	No	N/A	N/A	Good	0	1.5	1.5	5.6
	(RV16) 2542	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	0.3	4.3
(RV16) 2542	(RV16) 2541	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.5	0.1	5.8
	(RV16) 2543	2. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	0.3	5.8
(RV16) 2543	(RV16) 2542	1. E-Out	8	PVC	No	N/A	N/A	Good	0	1.5	0.3	4.6
	(RV16) 2544	2. SW-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.2	4.5
(RV16) 2544	(RV16) 2543	1. NE-Out	8	PVC	No	N/A	N/A	Good	0	1.0	0.5	6.4
	(RV16) 2545	4. W-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.1	6.4
	(RV16) 2550	3. S-In	8	PVC	No	N/A	N/A	Good	0	2.0	0.3	6.4
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV16) 2545	(RV16) 2544	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	0.1	7.1
	(RV16) 2546	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.5	0.1	6.9
	(RV16) 2555	2. S-In	8	PVC	No	N/A	N/A	Good	0	0.3	N/A	7.0
(RV16) 2546	(RV16) 2545	1. E-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.8
	(RV16) 2547	2. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.7
	(RV16) SVC	5. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.6
	(RV16) SVC	5. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.6
	(RV16) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.5
(RV16) 2547	(RV16) 2546	1. N-Out	8	PVC	No	N/A	N/A	Good	0	0.2	N/A	8.4

1. "SVC"-Service Lateral/Building Lateral Connection
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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV16) 2547	(RV16) 2548	3. S-In	8	PVC	No	N/A	N/A	Good	0	0.3	N/A	8.3
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.9
	(RV16) SVC	4. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.0
(RV16) 2548	(RV16) 2547	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	9.7
	(RV16) 2549	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.4
	(RV16) SVC	4. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	9.3
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	9.3
(RV16) 2549	(RV16) 2548	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.8
	(RV16) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
(RV16) 2550	(RV16) 2544	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.7
	(RV16) 2551	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.6
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV16) 2551	(RV16) 2550	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.0
	(RV16) 2552	2. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.2
(RV16) 2552	(RV16) 2551	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.3
	(RV16) 2553	3. SW-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.1
	(RV16) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
(RV16) 2553	(RV16) 2552	1. NE-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.1
	(RV16) 2554	2. SW-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.1
(RV16) 2554	(RV16) 2553	1. NE-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.0
	(RV16) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection



# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Type	Depth (in.)			Depth (in.)	Velocity (fps)	
(RV16) 2555	(RV16) 2545	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.2
	(RV16) 2556	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.1
	(RV16) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
(RV16) 2556	(RV16) 2555	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.8
	(RV16) 2557	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.8
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.6
	(RV16) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.5
(RV16) 2557	(RV16) 2556	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1
	(RV16) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.7
	(RV16) SVC	3. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9
(RV16) 2862	(RV16) 1441	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	0.7	3.6
	(RV16) EOL-2862	2. SE-In	6	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.3	0.7	3.5
(RV16) 2863	(RV16) 2864	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	12.0
(RV16) 2864	(RV16) 2863	2. SW-In	8	PVC	No	N/A	N/A	Good	0	0.2	0.1	2863.0
	(RV16) 2865	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.2	0.1	8.5
(RV16) 2865	(RV16) 2211	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	0.3	6.0
	(RV16) 2864	3. W-In	8	PVC	No	N/A	N/A	Future	0	0.2	0.2	3.8
	(RV16) EOL-2865	2. SW-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.2	5.0
(RV16) 2879	(RV16) 2242	1. N-Out	6	PVC	No	N/A	N/A	Good	0	0.5	0.1	6.8
	(RV16) SVC	3. S-In	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	5.7
	(RV16) SVC	2. E-In	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	5.8
(RV16) 3325	(RV16) 1346	1. N-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	2.4

1. "SVC"-Service Lateral/Building Lateral Connection  
 2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Depth Type	Structural Condition		Depth (in.)	Velocity (fps)		
(RV16) 3325	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.2
(RV16) 3401	(RV16) 1367	1. SE-Out	8	Vitrified Clay	Yes	N/A	N/A	Circular Cracks	0	0.5	1.3	5.4
	(RV16) 1370	3. W-In	6	Vitrified Clay	No	N/A	N/A	Good	0	0.3	1.5	5.4
	(RV16) SVC	4. NW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	0.1	0.4	0.0
	(RV16) SVC	2. SW-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.8
(RV16) 3402	(RV16) 3403	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.4
	(RV16) SVC	4. N-In	6	PVC	No	N/A	1.0	Good	0	N/A	N/A	6.4
	(RV16) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.3
	(RV16) SVC	2. S-In	6	PVC	Yes	N/A	2.0	Future	0	N/A	N/A	6.3
(RV16) 3403	(RV16) 1384	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.1
	(RV16) 3402	2. W-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.0
(RV16) 3404	(RV16) 1417	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.0	6.9
	(RV16) 1427	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	1.0	7.1
(RV16) 3405	(RV16) 3438	1. E-Out	6	PVC	No	N/A	N/A	Good	0	1.0	N/A	6.8
	(RV16) 3444	2. S-In	6	PVC	No	N/A	N/A	Good	0	1.0	N/A	6.7
	(RV16) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	1.0	N/A	6.7
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	1.0	N/A	6.8
(RV16) 3406	(RV16) 2100	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	8.0
	(RV16) 3438	3. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	7.9
	(RV16) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.9
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.8
(RV16) 3407	(RV16) 3408	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.2
	(RV16) SVC	3. NW-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	6.0

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Type	Depth (in.)			Depth	Velocity (fps)	
			(in.)	Construction								
(RV16) 3407	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV16) 3408	(RV16) 2101	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.1	0.3	5.3
	(RV16) 3407	2. W-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2
(RV16) 3409	(RV16) 2090	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.5	0.2	5.9
	(RV16) 3443	3. SE-In	8	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	5.4
	(RV16) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	0.3	0.5	5.6
(RV16) 3438	(RV16) 3405	3. W-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.5	8.9
	(RV16) 3406	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	8.8
	(RV16) SVC	4. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.8
	(RV16) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.8
(RV16) 3439	(RV16) 1334	1. S-Out	6	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	5.8
	(RV16) SVC	2. W-In	4	Vitrified Clay	No	N/A	N/A	Good	0	N/A	N/A	4.6
(RV16) 3443	(RV16) 3409	1. NW-Ou	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.4
	(RV16) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
	(RV16) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
(RV16) 3444	(RV16) 3405	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.6
	(RV16) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.6
<u>Structural Condition</u>												
Total Segments	751	Good	589	Long Crack	2	Collapsed	4					
Total Footage		Broken	0	Circular Crac	70	N/A	0					
(RV26) 1401	(RV26) 1398	1. N-Out	8	Vitrified Clay	No	N/A	N/A	Good	0	2.0	1.8	4.4
	(RV26) 1402	3. W-In	8	Vitrified Clay	No	N/A	N/A	Good	0	0.5	1.8	4.0
	(RV26) 1404	2. S-In	8	Vitrified Clay	No	N/A	N/A	Good	0	1.5	0.5	4.3
(RV26) 1478	(RV26) 8041	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	1.3	6.8

1. "SVC"-Sevice Lateral/Building Lateral Connection  
 2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Type	Depth (in.)			Depth (in.)	Velocity (fps)	
			(in.)	Construction								
(RV26) 1478	(RV26) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	1.0	1.5	2.7
	(RV26) SVC	2. N-In	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	6.4
(RV26) 1490	(RV26) 1490A	1. NE-Out	18	Polyethylene	No	N/A	N/A	Good	0	8.0	1.0	15.6
	(RV26) 8001B	3. SW-In	18	Polyethylene	No	N/A	N/A	Good	0	8.0	1.0	15.7
	(RV26) Force main	2. SE-In	8	Polyethylene	No	N/A	N/A	Good	0	1.0	1.3	10.3
(RV26) 1490A	(RV26) 1490	2. SW-In	18	PVC	No	N/A	N/A	Good	0	3.5	1.3	16.1
	(RV26) S Frankfort P	1. SE-Out	18	Cast Iron	No	N/A	N/A	Good	0	3.5	1.3	16.2
(RV26) 2112	(RV26) 2511	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	2.2	1.2	5.3
	(RV26) 2513	2. NE-In	8	PVC	No	N/A	N/A	Good	0	2.6	1.2	5.2
(RV26) 2510	(RV26) 2511	2. E-In	8	PVC	No	N/A	N/A	Good	0	2.0	0.8	5.8
	(RV26) S Frankfort P	1. N-Out	8	PVC	No	N/A	N/A	Good	0	1.0	1.5	5.9
(RV26) 2513	(RV26) 2112	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	2.0	2.0	7.8
	(RV26) 2514	2. NE-In	8	PVC	No	N/A	N/A	Good	0	2.0	2.0	7.8
(RV26) 2514	(RV26) 2513	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	10.3
	(RV26) 2515	2. E-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	10.2
(RV26) 2515	(RV26) 2514	1. W-Out	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	8.7
	(RV26) 2516	2. NE-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	8.6
(RV26) 2516	(RV26) 2515	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	1.8	1.8	6.4
	(RV26) 2517	2. N-In	8	PVC	No	N/A	N/A	Good	0	1.8	1.8	6.4
(RV26) 2517	(RV26) 2516	1. S-Out	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	9.6
	(RV26) 2518	2. W-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	9.6
(RV26) 2518	(RV26) 2517	1. E-Out	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	12.2
	(RV26) 2519	2. N-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	12.1

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL"-End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV26) 2519	(RV26) 2518	1. S-Out	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	10.9
	(RV26) 2520	2. N-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	10.8
(RV26) 2520	(RV26) 2519	1. S-Out	8	PVC	No	N/A	N/A	Good	0	1.5	3.0	14.8
	(RV26) 2521	2. N-In	8	PVC	No	N/A	N/A	Good	0	2.0	1.8	13.4
(RV26) 2521	(RV26) 2520	1. S-Out	8	PVC	No	N/A	N/A	Good	0	1.5	3.0	10.6
	(RV26) 2522	2. N-In	8	Cast Iron	No	N/A	N/A	Good	0	2.0	2.0	5.3
(RV26) 2522	(RV26) 2521	1. S-Out	8	PVC	No	N/A	N/A	Good	0	1.5	3.0	10.3
	(RV26) 2523	2. N-In	8	PVC	No	N/A	N/A	Good	0	2.0	2.0	9.6
(RV26) 6190-d	(RV26) 6191	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	0.5	10.2
	(RV26) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.4	10.1
	(RV26) SVC	4. N-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.4	10.1
	(RV26) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	10.0
(RV26) 6191-d	(RV26) 6190	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.4
	(RV26) 6192	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.5
	(RV26) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.5
	(RV26) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.0
(RV26) 6192-d	(RV26) 6191	3. W-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.2	8.4
	(RV26) 6193	1. E-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.3	8.5
	(RV26) SVC	4. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.4	8.0
	(RV26) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	0.5	0.1	8.4
(RV26) 6193-d	(RV26) 6192	3. W-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.3	8.4
	(RV26) 6194	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.5
	(RV26) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.3

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV26) 6193-d	(RV26) SVC	5. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.4
	(RV26) SVC	4. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.3
(RV26) 6194-d	(RV26) 6193	2. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.0
	(RV26) 6195	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.0
(RV26) 8001	(RV26) 8001A	1. E-Out	18	PVC	No	N/A	N/A	Good	0	4.5	1.0	11.9
	(RV26) 8001C	2. SW-In	8	Cast Iron	No	N/A	N/A	Good	0	4.5	0.2	12.0
	(RV26) 8002B	3. NE-In	10	Cast Iron	Yes	N/A	N/A	Circular Cracks	0	2.0	2.0	11.8
(RV26) 8001A	(RV26) 8001	2. W-In	18	PVC	No	N/A	8.0	Good	0	5.0	1.0	12.3
	(RV26) 8001B	1. NE-Out	18	PVC	No	N/A	2.0	Good	0	10.0	0.5	12.8
(RV26) 8001B	(RV26) 1490	1. NE-Out	18	PVC	No	N/A	N/A	Good	0	4.5	1.0	14.6
	(RV26) 8001A	2. SW-In	18	PVC	No	N/A	N/A	Good	0	4.5	1.0	14.5
(RV26) 8001C	(RV26) 8001	1. N-Out	8	Cast Iron	No	N/A	N/A	Good	0	6.0	0.1	11.8
	(RV26) SVC	3. S-In	8	Cast Iron	No	N/A	N/A	Good	0	2.5	0.5	11.6
	(RV26) SVC	2. SE-In	8	Cast Iron	No	N/A	N/A	Good	0	N/A	N/A	7.4
(RV26) 8002A	(RV26) 8002	2. SW-In	10	N/A	No	N/A	N/A	Good	0	2.0	1.8	10.9
	(RV26) 8002B	1. SE-Out	10	N/A	No	N/A	N/A	Good	0	2.0	1.8	11.3
(RV26) 8004	(RV26) 8003	1. SE-Out	10	N/A	No	N/A	N/A	Good	0	5.0	1.2	12.9
	(RV26) 8005	3. NW-In	10	N/A	No	N/A	N/A	Good	0	4.0	1.3	12.9
	(RV26) 8053	2. SW-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.0	12.6
(RV26) 8006	(RV26) 8005	1. SE-Out	10	N/A	No	N/A	N/A	Good	0	7.0	3.1	12.3
	(RV26) 8007	2. N-In	10	N/A	No	N/A	N/A	Good	0	8.5	2.6	12.4
(RV26) 8007	(RV26) 8006	1. S-Out	10	N/A	No	N/A	N/A	Good	0	8.0	3.5	15.1
	(RV26) 8008	2. W-In	10	N/A	No	N/A	N/A	Good	0	8.5	3.0	15.1

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV26) 8008	(RV26) 8007	1. E-Out	10	N/A	No	N/A	N/A	Good	0	0.5	1.0	13.4
	(RV26) 8009	2. W-In	10	N/A	No	N/A	N/A	Good	0	0.5	1.0	12.9
	(RV26) SVC	3. N-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.1
(RV26) 8009	(RV26) 8008	1. E-Out	10	N/A	No	N/A	N/A	Good	0	0.5	0.8	8.8
	(RV26) 8014	2. W-In	10	N/A	No	N/A	N/A	Future	0	0.5	0.8	8.6
(RV26) 8011	(RV26) 8012	4. N-In	8	Concrete	No	N/A	N/A	Good	0	0.5	0.3	5.7
	(RV26) 8014	1. SE-Out	8	Concrete	No	N/A	N/A	Good	0	0.5	0.3	58.0
	(RV26) Svc	3. W-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
	(RV26) Svc	2. SW-In	2	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7
(RV26) 8012	(RV26) 8011	1. S-Out	6	PVC	No	N/A	N/A	Future	0	1.0	1.0	8.4
	(RV26) 8013	3. N-In	6	PVC	No	N/A	N/A	Good	0	0.8	1.5	6.6
	(RV26) SVC	2. NW-In	2	PVC	No	N/A	N/A	Good	0	N/A	N/A	0.0
	(RV26) SVC	4. NE-In	4	PVC	No	N/A	N/A	Good	0	0.2	0.5	5.6
(RV26) 8013	(RV26) 8012	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.2	12.4
	(RV26) 8039	3. E-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.2	10.1
	(RV26) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.5
(RV26) 8014	(RV26) 8009	1. E-Out	10	N/A	No	N/A	N/A	Good	0	2.0	0.5	7.8
	(RV26) 8011	3. W-In	8	N/A	No	N/A	N/A	Good	0	1.0	1.0	7.7
	(RV26) Force Main-8	2. W-In	10	N/A	No	N/A	N/A	Good	0	N/A	N/A	6.3
	(RV26) SVC	5. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7
	(RV26) SVC	4. N-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	3.4
(RV26) 8016	(RV26) 8015	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.6
	(RV26) 8017	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.4

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV26) 8017	(RV26) 8016	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.6
	(RV26) 8018	2. N-In	8	PVC	No	N/A	N/A	Good	0	0.5	0.8	4.6
(RV26) 8018	(RV26) 8017	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.5	1.5	4.5
	(RV26) 8019	2. NE-In	8	PVC	No	N/A	N/A	Good	0	1.0	1.0	4.4
(RV26) 8019	(RV26) 8018	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	7.0
	(RV26) 8020	2. N-In	8	PVC	No	N/A	N/A	Good	0	1.5	0.1	7.0
(RV26) 8021	(RV26) 8021A	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.4
	(RV26) 8022	2. N-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.3
(RV26) 8022	(RV26) 8021	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.8	6.3
	(RV26) 8023	2. N-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.8	6.0
(RV26) 8023	(RV26) 8022	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	6.4
	(RV26) 8024	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	4.4
(RV26) 8024	(RV26) 8023	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	5.8
	(RV26) 8025	2. N-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.8	4.8
(RV26) 8025	(RV26) 8024	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.1
	(RV26) 8026	2. NE-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.7
(RV26) 8026	(RV26) 8025	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.7
	(RV26) 8027	2. NE-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	3.7
(RV26) 8027	(RV26) 8026	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.3
	(RV26) 8028	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.1
(RV26) 8028	(RV26) 8027	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.5
	(RV26) 8029	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.2
(RV26) 8029	(RV26) 8028	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	0.3	0.5	6.3

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV26) 8029	(RV26) 8030	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.3	0.5	6.0
(RV26) 8030	(RV26) 8029	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	1.0	0.1	7.9
	(RV26) 8031	3. E-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.8
	(RV26) 8784	2. W-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.4	5.6
(RV26) 8031	(RV26) 8030	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.3	0.3	6.2
	(RV26) 8032	3. E-In	8	PVC	No	N/A	N/A	Good	0	0.3	0.3	5.5
	(RV26) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
(RV26) 8032	(RV26) 8031	1. SW-Out	8	PVC	No	N/A	N/A	Good	0	0.2	0.2	9.7
	(RV26) 8033	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.2	0.2	9.5
	(RV26) 8036	4. E-In	8	PVC	No	N/A	N/A	Good	0	0.5	N/A	9.7
	(RV26) Svc	3. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.4
(RV26) 8033	(RV26) 8032	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.2	0.2	9.9
	(RV26) 8034	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.2	0.2	8.3
(RV26) 8034	(RV26) 8033	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	0.1	0.1	7.8
	(RV26) 8035	3. N-In	8	PVC	No	N/A	N/A	Good	0	0.1	0.1	7.8
	(RV26) SVC	4. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.5
	(RV26) SVC	2. W-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	7.5
(RV26) 8035	(RV26) 8034	1. S-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.8
	(RV26) EOL-8035	2. NW-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.7
	(RV26) EOL-8035	4. E-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.7
	(RV26) SVC	3. N-In	3	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.9
(RV26) 8036	(RV26) 8032	1. W-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	11.3
	(RV26) 8037	2. NE-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	11.1

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV26) 8037	(RV26) 8036	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.0
	(RV26) 8038	3. N-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.7
	(RV26) SVC	4. E-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	5.7
	(RV26) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.7
(RV26) 8038	(RV26) 8037	1. S-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.7
	(RV26) SVC	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
	(RV26) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
(RV26) 8039	(RV26) 8013	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.8	1.5	6.6
	(RV26) 8040	2. E-In	8	PVC	No	N/A	N/A	Good	0	0.8	1.5	6.2
(RV26) 8040	(RV26) 8039	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.8	1.4	5.8
	(RV26) 8041a	2. NE-In	8	PVC	No	N/A	N/A	Good	0	0.8	1.4	5.8
(RV26) 8041	(RV26) 1478	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	N/A	8.0
	(RV26) 8041A	1. W-Out	6	PVC	No	N/A	N/A	Good	0	4.0	0.2	8.1
	(RV26) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	0.5	1.4	3.3
(RV26) 8041A	(RV26) 8040	1. SW-Ou	8	PVC	No	N/A	N/A	Good	0	0.8	1.2	7.9
	(RV26) 8041	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.8	1.2	7.7
(RV26) 8042	(RV26) 8043	1. E-Out	15	N/A	No	N/A	N/A	Good	0	N/A	N/A	5.5
	(RV26) S Frankfort P	2. W-In	14	Cast Iron	No	N/A	N/A	Good	0	N/A	N/A	5.2
(RV26) 8043	(RV26) 8042	3. W-In	15	N/A	No	N/A	N/A	Good	0	0.3	1.0	6.6
	(RV26) 8044	1. E-Out	15	N/A	No	N/A	N/A	Good	0	0.3	1.0	6.6
	(RV26) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.3	2.6
(RV26) 8044	(RV26) 8043	3. W-In	15	N/A	No	N/A	N/A	Good	0	1.5	0.5	6.7
	(RV26) 8045	1. E-Out	15	N/A	No	N/A	N/A	Good	0	1.5	0.5	6.7

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type			Depth (in.)	Depth (in.)		Velocity (fps)
(RV26) 8044	(RV26) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.8
(RV26) 8045	(RV26) 8044	2. W-In	15	N/A	No	N/A	N/A	Good	0	2.0	0.5	6.5
	(RV26) 8046	1. E-Out	15	N/A	No	N/A	N/A	Good	0	1.0	1.0	6.8
(RV26) 8046	(RV26) 8045	2. W-In	15	N/A	No	N/A	N/A	Good	0	1.5	3.0	7.1
	(RV26) 8047	1. E-Out	15	N/A	No	N/A	N/A	Good	0	1.5	3.0	7.3
(RV26) 8049	(RV26) 8050	1. N-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2
	(RV26) SVC	2. SW-In	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	5.1
(RV26) 8050	(RV26) 8049	3. S-In	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7
	(RV26) 8051	1. E-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV26) SVC	2. SE-In	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	3.7
(RV26) 8051	(RV26) 8050	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	0.1	4.7
	(RV26) 8052	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	0.1	4.6
	(RV26) SVC	2. S-In	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	4.4
(RV26) 8052	(RV26) 8051	3. W-In	8	PVC	No	N/A	N/A	Good	0	0.3	0.5	9.6
	(RV26) 8053	1. E-Out	8	PVC	No	N/A	N/A	Good	0	0.3	0.5	9.7
	(RV26) SVC	2. S-In	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	9.5
(RV26) 8053	(RV26) 8004	1. NE-Out	8	PVC	No	N/A	N/A	Good	0	1.0	0.1	12.9
	(RV26) 8052	2. W-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.2	12.9
(RV26) 8500	(RV26) 8501	3. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.7	5.3
	(RV26) 8543	2. NW-In	12	PVC	No	N/A	N/A	Good	0	2.0	1.0	5.0
	(RV26) Lost Corner Li	1. E-Out	12	PVC	No	N/A	N/A	Good	0	1.0	2.3	7.1
(RV26) 8501	(RV26) 8500	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.5	4.9
	(RV26) 8502	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.5	5.1

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# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth (in.)	Velocity (fps)	
(RV26) 8502	(RV26) 8501	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	1.0	1.5	6.5
	(RV26) 8503	2. N-In	6	PVC	No	N/A	N/A	Good	0	1.0	1.5	5.2
(RV26) 8503	(RV26) 8502	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.7	5.5
	(RV26) 8504	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.8	1.5	5.4
(RV26) 8504	(RV26) 8503	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.5	0.9	5.8
	(RV26) 8505	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.8	0.5	4.1
(RV26) 8505	(RV26) 8504	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.8	0.9	5.0
	(RV26) 8506	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	5.0
(RV26) 8506	(RV26) 8505	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.3	1.3	4.4
	(RV26) 8507	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	4.4
(RV26) 8507	(RV26) 8506	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.3	3.8
	(RV26) 8508	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.3	3.7
(RV26) 8508	(RV26) 8507	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	7.5
	(RV26) 8509	2. NW-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	7.5
(RV26) 8509	(RV26) 8508	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.3	5.7
	(RV26) 8510	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.3	4.5
(RV26) 8510	(RV26) 8511	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.8	3.7
(RV26) 8511	(RV26) 8510	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	3.8
	(RV26) 8512	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	3.7
(RV26) 8512	(RV26) 8511	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.8	6.0
	(RV26) 8513	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.3	4.1
(RV26) 8513	(RV26) 8512	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.5	1.2	3.8
	(RV26) 8514	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.2	3.2

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Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV26) 8514	(RV26) 8513	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	3.8
	(RV26) 8515	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	3.7
(RV26) 8515	(RV26) 8514	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.5	0.2	7.3
	(RV26) 8516	2. W-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
	(RV26) 8518	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	7.2
(RV26) 8516	(RV26) 8515	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV26) 8517	2. W-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV26) SVC	3. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.4
(RV26) 8517	(RV26) 8516	1. E-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.9
	(RV26) SVC	2. SW-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	2.7
	(RV26) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.7
(RV26) 8518	(RV26) 8515	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.5	0.5	5.1
	(RV26) 8519	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	0.1	5.0
	(RV26) 8523	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.0
(RV26) 8519	(RV26) 8518	1. W-Out	8	PVC	No	N/A	N/A	Good	0	0.2	0.2	5.0
	(RV26) 8520	2. E-In	8	PVC	No	N/A	N/A	Good	0	0.2	0.2	3.6
(RV26) 8520	(RV26) 8519	1. W-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.9
	(RV26) 8521	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.9
	(RV26) SVC	3. SE-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	4.7
(RV26) 8521	(RV26) 8520	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9
	(RV26) 8522	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.9
	(RV26) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.6
(RV26) 8522	(RV26) 8521	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Type	Depth (in.)			Depth	Velocity	
			(in.)	Construction								
(RV26) 8522	(RV26) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.0
	(RV26) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.0
(RV26) 8523	(RV26) 8518	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	0.3	0.3	4.9
	(RV26) 8524	4. NE-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.2	4.8
	(RV26) 8525	3. NW-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.3	4.7
	(RV26) Svc	2. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.0
(RV26) 8524	(RV26) 8523	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.1	0.1	3.8
	(RV26) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.1	2.9
(RV26) 8525	(RV26) 8523	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	0.5	0.6	7.5
	(RV26) 8525-CO	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.1	0.1	5.9
	(RV26) 8527	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.9	7.2
(RV26) 8527	(RV26) 8525	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.5	0.4	5.0
	(RV26) 8528	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.1
(RV26) 8528	(RV26) 8527	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.3
	(RV26) 8529	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.3
	(RV26) 8530	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.2	0.5	3.5
(RV26) 8529	(RV26) 8528	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.1	0.3	4.4
	(RV26) 8778	3. SE-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
	(RV26) SVC	2. N-In	4	PVC	No	N/A	N/A	Good	0	0.1	0.3	4.0
(RV26) 8530	(RV26) 8528	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.6
	(RV26) SVC	3. E-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.6
	(RV26) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.3
(RV26) 8531	(RV26) 8532	2. NW-In	12	PVC	No	N/A	N/A	Good	0	1.0	1.8	4.7

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV26) 8531	(RV26) 8543	1. SE-Out	12	PVC	No	N/A	N/A	Good	0	1.0	1.8	5.5
(RV26) 8532	(RV26) 8531	1. SE-Out	12	PVC	No	N/A	N/A	Good	0	2.0	1.5	7.5
	(RV26) 8533	2. NW-In	12	PVC	No	N/A	N/A	Good	0	2.0	1.5	7.5
(RV26) 8533	(RV26) 8532	1. SE-Out	12	PVC	No	N/A	N/A	Good	0	2.0	1.5	3.9
	(RV26) 8534	2. NW-In	12	PVC	No	N/A	N/A	Good	0	2.3	1.3	3.9
(RV26) 8534	(RV26) 8533	1. SE-Out	12	PVC	No	N/A	N/A	Good	0	3.0	0.8	5.4
	(RV26) 8535	2. NE-In	12	PVC	No	N/A	N/A	Good	0	2.0	1.5	5.4
(RV26) 8535	(RV26) 8534	1. S-Out	10	PVC	No	N/A	N/A	Good	0	2.3	1.3	3.9
	(RV26) 8536	2. N-In	10	PVC	No	N/A	N/A	Good	0	2.5	1.8	4.0
(RV26) 8536	(RV26) 8535	1. S-Out	12	PVC	No	N/A	N/A	Good	0	2.0	1.5	8.4
	(RV26) 8537	2. NW-In	12	PVC	No	N/A	N/A	Good	0	2.0	1.5	8.3
(RV26) 8537	(RV26) 8536	1. SE-Out	10	PVC	No	N/A	N/A	Good	0	5.0	1.8	4.4
	(RV26) 8538	2. NE-In	10	PVC	No	N/A	N/A	Good	0	2.0	2.3	4.3
(RV26) 8538	(RV26) 8537	1. SW-Ou	12	PVC	No	N/A	N/A	Good	0	1.0	1.0	9.3
	(RV26) 8539	3. N-In	12	PVC	No	N/A	N/A	Good	0	0.8	1.2	8.4
	(RV26) 8559	2. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.2	5.0
(RV26) 8539	(RV26) 8538	1. S-Out	12	PVC	No	N/A	N/A	Good	0	1.0	1.5	7.3
	(RV26) 8540	3. NW-In	12	PVC	No	N/A	N/A	Good	0	1.0	1.5	5.9
	(RV26) SVC	2. SW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.1
(RV26) 8543	(RV26) 8500	1. SE-Out	12	PVC	No	N/A	N/A	Good	0	1.0	3.0	4.1
	(RV26) 8531	2. NW-In	12	PVC	No	N/A	N/A	Good	0	1.5	2.0	3.9
(RV26) 8559	(RV26) 8538	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.3	0.4	5.4
	(RV26) 8560	3. W-In	6	PVC	No	N/A	N/A	Good	0	0.1	1.0	5.4

1. "SVC"-Sevice Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam			Depth (in.)	Type			Depth (in.)	Velocity (fps)	
			(in.)	Construction								
(RV26) 8559	(RV26) SVC	2. S-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2
(RV26) 8560	(RV26) 8559	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	5.6
	(RV26) 8561	2. SW-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.2	5.6
	(RV26) 8562	3. NW-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.5	5.5
(RV26) 8561	(RV26) 2473-Force M	3. SW-In	4	PVC	No	N/A	N/A	Good	0	0.3	1.0	8.7
	(RV26) 8560	1. NE-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	9.0
	(RV26) SVC	4. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	8.4
	(RV26) SVC	2. S-In	2	PVC	No	N/A	N/A	Good	0	N/A	N/A	0.0
(RV26) 8562	(RV26) 8560	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.0
	(RV26) 8563	2. W-In	6	PVC	No	N/A	N/A	Good	0	0.2	1.0	5.9
	(RV26) 8779	3. NW-In	6	PVC	No	N/A	N/A	Good	0	0.2	1.0	5.3
(RV26) 8563	(RV26) 8562	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.2	1.5	8.3
	(RV26) 8565	2. NW-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.1	8.1
(RV26) 8564	(RV26) 8565	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.1	0.3	7.8
	(RV26) 8566	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.1	0.3	4.1
(RV26) 8565	(RV26) 8563	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	1.0	0.1	7.7
	(RV26) 8564	2. W-In	8	PVC	No	N/A	N/A	Good	0	0.2	1.0	7.5
(RV26) 8566	(RV26) 8564	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.1	0.3	3.3
	(RV26) Rim Rock Lift	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.1	0.3	3.3
	(RV26) SVC	3. NE-In	4	PVC	No	N/A	N/A	N/A	0	N/A	N/A	2.5
(RV26) 8568	(RV26) 8779	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	7.5
	(RV26) EOL-8568	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
(RV26) 8569	(RV26) 8569A	1. W-Out	8	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.9

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection



# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth (in.)	Type			Depth (in.)	Velocity (fps)	
(RV26) 8569	(RV26) 8625	2. E-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
	(RV26) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.5
(RV26) 8569A	(RV26) 8569	2. E-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.0
	(RV26) 8636	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.9
	(RV26) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.6
(RV26) 8620	(RV26) 8621	4. NW-In	8	PVC	No	N/A	N/A	Good	0	0.5	1.0	6.1
	(RV26) 8640	5. E-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	6.2
	(RV26) Force Main-8	2. SW-In	2	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.4
	(RV26) Force Main-8	6. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.8
	(RV26) Rim Rock Lift	1. S-Out	8	Cast Iron	No	N/A	N/A	Good	0	1.0	1.0	6.1
	(RV26) SVC	3. W-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.7
	(Rv26) 8621	(Rv26) 8620	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	0.8	1.0
(RV26) 8622	(Rv26) 8622	2. NW-In	8	PVC	No	N/A	N/A	Good	0	1.0	0.8	5.4
	(Rv26) SVC	3. NE-In	4	PVC	No	N/A	4.0	Future	0	N/A	N/A	0.0
	(RV26) 8621	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	0.2	0.1	3.2
(RV26) 8623	(RV26) 8623	2. NW-In	8	PVC	No	N/A	N/A	Good	0	0.2	0.1	3.2
	(RV26) 8622	1. SE-Out	8	PVC	No	N/A	N/A	Good	0	1.0	1.2	5.5
	(RV26) 8624	2. NE-In	8	PVC	No	N/A	N/A	Good	0	1.3	0.8	5.4
(RV26) 8624	(RV26) SVC	3. SE-In	4	PVC	No	N/A	N/A	Good	0	0.2	1.0	4.9
	(RV26) 8623	1. S-Out	8	PVC	No	N/A	N/A	Good	0	0.5	1.0	3.8
	(RV26) 8626	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.4	3.7
(RV26) 8625	(RV26) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
	(RV26) 8569	1. W-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8

1. "SVC"-Service Lateral/Building Lateral Connection  
 2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV26) 8625	(RV26) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.6
(RV26) 8626	(RV26) 8624	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	7.0
	(RV26) 8627	3. NE-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.7
	(RV26) 8633	2. NW-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	6.9
(RV26) 8627	(RV26) 8626	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	5.9
	(RV26) 8628	2. NE-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	3.9
	(RV26) SVC	4. SE-In	4	PVC	Yes	N/A	N/A	Collapsed Pipe	0	N/A	N/A	5.6
	(RV26) SVC	3. NE-In	6	PVC	Yes	N/A	N/A	Broken Pipe	0	N/A	N/A	6.0
(RV26) 8628	(RV26) 8627	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.3	0.6	3.4
	(RV26) 8629	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
	(RV26) 8630	3. NE-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.6	3.4
(RV26) 8630	(RV26) 8628	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.1	0.6	4.0
	(RV26) 8631	2. E-In	6	PVC	No	N/A	N/A	Good	0	0.1	0.6	3.7
(RV26) 8631	(RV26) 8630	1. SW-Ou	6	PVC	No	N/A	N/A	Good	0	0.3	0.6	2.8
	(RV26) 8632	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.6	2.8
	(RV26) SVC	3. E-In	4	PVC	No	N/A	4.0	Future	0	N/A	N/A	2.5
(RV26) 8632	(RV26) 8631	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.1
	(RV26) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.0
(RV26) 8633	(RV26) 8626	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	0.3	0.5	3.8
	(RV26) 8634A	2. NW-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.5	3.8
	(RV26) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.5
(RV26) 8634	(RV26) 8634A	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
	(RV26) 8635	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.2

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL"-End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Deposition			Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)	
		Dir.	Diam (in.)	Construction	Root Growth	Type	Depth (in.)		Structural Condition	Depth (in.)		Velocity (fps)
(RV26) 8634	(RV26) SVC	3. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
(RV26) 8634A	(RV26) 8633	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.2	3.8
	(RV26) 8634	2. NW-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.2	3.8
(RV26) 8635	(RV26) SVC	3. NE-In	4	PVC	Yes	N/A	N/A	Future	0	N/A	N/A	3.6
	(RV26) 8634	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.2
(RV26) 8636	(RV26) 8636	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
	(RV26) 8569A	2. NE-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
(RV26) 8640	(RV26) 8635	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.8
	(RV26) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.5
	(RV26) 8620	1. W-Out	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.8
	(RV26) 8641	5. S-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.8
	(RV26) 8643	3. N-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.0	4.8
(RV26) 8641	(RV26) SVC	2. NW-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.4
	(RV26) SVC	4. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.4
	(RV26) 8640	1. N-Out	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	5.9
(RV26) 8642	(RV26) 8642	3. S-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.0	3.5
	(RV26) SVC	2. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.5
	(RV26) 8641	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.6
(RV26) 8643	(RV26) SVC	2. SE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.3
	(RV26) 8640	1. S-Out	6	PVC	No	N/A	N/A	Good	0	1.0	1.0	6.0
(RV26) 8644	(RV26) 8644	2. W-In	6	PVC	No	N/A	N/A	Good	0	0.5	1.5	5.8
	(RV26) 8646	3. E-In	6	PVC	No	N/A	N/A	Good	0	0.3	1.3	4.2
	(RV26) 8643	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.2

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Depth Type	Depth (in.)			Depth	Velocity (fps)	
(RV26) 8644	(RV26) 8645	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.8
(RV26) 8645	(RV26) 8644	1. SW-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.4
	(RV26) SVC	2. NE-In	4	PVC	No	N/A	4.0	Future	0	N/A	N/A	5.6
(RV26) 8646	(RV26) 8643	1. W-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7
	(RV26) 8647	4. S-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7
	(RV26) 8649	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.7
	(RV26) SVC	3. E-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	3.4
(RV26) 8647	(RV26) 8646	1. N-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.0
	(RV26) SVC	3. SE-In	4	PVC	No	N/A	4.0	Future	0	N/A	N/A	0.0
	(RV26) SVC	2. E-In	4	PVC	No	N/A	4.0	Future	0	N/A	N/A	0.0
(RV26) 8649	(RV26) 8646	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.9
	(RV26) 8650	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.9
(RV26) 8650	(RV26) 8649	1. S-Out	6	PVC	No	N/A	N/A	Future	0	N/A	N/A	3.3
	(RV26) SVC	2. NE-In	4	PVC	No	N/A	N/A	Good	0	N/A	N/A	2.9
(RV26) 8716	(RV26) 8720	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	6.7
	(RV26) 9046	2. N-In	6	PVC	No	N/A	N/A	Good	0	1.5	N/A	6.7
(RV26) 8735	(RV26) 8720	2. W-In	6	PVC	No	N/A	N/A	Good	0	1.0	0.1	7.6
	(RV26) 8784	1. S-Out	6	PVC	No	N/A	N/A	Good	0	0.3	0.4	7.8
	(RV26) SVC	3. N-In	4	PVC	Yes	N/A	N/A	Circular Cracks	0	N/A	N/A	6.4
(RV26) 8779	(RV26) 8562	1. SE-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.0
	(RV26) 8568	2. N-In	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	4.9
(RV26) 8784	(RV26) 8030	1. E-Out	6	PVC	No	N/A	N/A	Good	0	0.3	0.3	8.4
	(RV26) 8735	2. N-In	6	PVC	No	N/A	N/A	Good	0	0.3	0.3	6.7

1. "SVC"-Service Lateral/Building Lateral Connection
2. "EOL" -End of Line or Line has no Structure Connection

# Visual Pipe Advanced

Project No. 18-2873-00 Russellville City Corporation

Structure Number	Connecting Line Segment	-----PIPE-----			Root Growth	Deposition		Structural Condition	Visual Infiltr. (gpm)	Observed		Rim to Invert (ft.)
		Dir.	Diam (in.)	Construction		Type	Depth (in.)			Depth (in.)	Velocity (fps)	
(RV26) 9046	(RV26) 8716	1. S-Out	6	PVC	No	N/A	N/A	Good	0	N/A	N/A	5.2
	(RV26) SVC	3. NE-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	5.2
	(RV26) SVC	2. NW-In	4	PVC	No	N/A	N/A	Future	0	N/A	N/A	5.2
<u>Structural Condition</u>												
Total Segments	398	Good	372	Long Crack	0	Collapsed	1					
Total Footage		Broken	1	Circular Crac	3		N/A	0				
<hr/>												
<u>Report Totals</u>												
Total Segments	1470	Good	1253	Long Crack	2	Collapsed	6					
Total Footage		Broken	1	Circular Crac	88		N/A	0				

1. "SVC"-Service Lateral/Building Lateral Connection  
 2. "EOL" -End of Line or Line has no Structure Connection

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**APPENDIX C**

**Smoke Testing Report**



# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Source</i>	<i>Recommend Dyed Water Flooding</i>	<i>Smoke Intensity</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV13)1067 - (RV13)2299		E G ST	No Building Leaks	No	N/A		168
(RV13)1235 - (RV13)4068		N GREENWICH AVE	No Building Leaks	No	N/A		15
(RV13)1643 - (RV13)1235		N GREENWICH AVE	No Building Leaks	No	N/A		145
(RV13)1644 - (RV13)1643		E G ST	No Building Leaks	No	N/A		370
(RV13)1645 - (RV13)1644		E G ST	No Building Leaks	No	N/A		100
(RV13)1646 - (RV13)1645		N HARTFORD AVE	No Building Leaks	No	N/A		278
(RV13)1647 - (RV13)1646		N HARTFORD AVE	No Building Leaks	No	N/A		140
(RV13)1649 - (RV13)1647		E G ST	No Building Leaks	No	N/A		354
(RV13)1650 - (RV13)1649		E I ST	No Building Leaks	No	N/A		405
(RV13)1651 - (RV13)1650		N JACKSON AVE	No Building Leaks	No	N/A		235
(RV13)1652 - (RV13)1651	905	N JACKSON AVE	Cleanout/Missing Cap, Private	No	Medium	2,160	327
(RV13)1653 - (RV13)1652		E J ST	No Building Leaks	No	N/A		143
(RV13)1654 - (RV13)1653		E J ST	No Building Leaks	No	N/A		110
(RV13)1655 - (RV13)2192		N JACKSON CT	No Building Leaks	No	N/A		335
(RV13)1656 - (RV13)1655		N LOUISVILLE AVE	No Building Leaks	No	N/A		283
(RV13)1657 - (RV13)1656		N LOUISVILLE AVE	No Building Leaks	No	N/A		390
(RV13)1658 - (RV13)1657		E L ST	No Building Leaks	No	N/A		222
(RV13)1659 - (RV13)1660		N LOUISVILLE AVE	No Building Leaks	No	N/A		189
(RV13)1660 - (RV13)1655		N LOUISVILLE AVE	No Building Leaks	No	N/A		242
(RV13)1661 - (RV13)1660		N LOUISVILLE AVE	No Building Leaks	No	N/A		99
(RV13)1662 - (RV13)1661		UNIVERSITY DR	No Building Leaks	No	N/A		127
(RV13)1663 - (RV13)1662		E K ST	No Building Leaks	No	N/A		212
(RV13)1664 - (RV13)1662		UNIVERSITY DR	No Building Leaks	No	N/A		188
(RV13)1665 - (RV13)1663	1319	E K ST	Cleanout/Defective, Private	No	Heavy	12,960	274
(RV13)1666 - (RV13)1665		N NASHVILLE CT	No Building Leaks	No	N/A		121

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV13)1667 - (RV13)1666	1111	N NASHVILLE CT	Cleanout/Defective, Private	No	Light	2,880	261
(RV13)1668 - (RV13)1665		E K ST	No Building Leaks	No	N/A		303
(RV13)1669 - (RV13)1659	1115	N LOUISVILLE AVE	Cleanout/Defective, Private	No	Heavy	5,760	387
(RV13)1670 - (RV13)1669		N LOUISVILLE AVE	No Building Leaks	No	N/A		150
(RV13)1671 - (RV13)1670		E L ST	No Building Leaks	No	N/A		310
(RV13)1672 - (RV13)1671	1317	E L ST	USMH	No	Light	0	357
	1313	E L ST.	Cleanout/Missing Cap, Private	No	Light	5,760	357
(RV13)1673 - (RV13)1671		UNIVERSITY DR	No Building Leaks	No	N/A		171
(RV13)1674 - (RV13)1673	1201	UNIVERSITY DR	Cleanout/Defective, Private	No	Heavy	2,160	105
	1201	UNIVERSITY DR	Catch Basin	No	Light	0	105
(RV13)1675 - (RV13)1674	1203	UNIVERSITY DR	DSMH	No	Light	0	309
	1302	UNIVERSITY DR	Cleanout/Defective, Private	No	Light	3,600	309
(RV13)1676 - (RV13)1675	1212	N NASHVILLE PL	USMH	No	Light	0	399
(RV13)1677 - (RV13)1674		UNIVERSITY DR	No Building Leaks	No	N/A		378
(RV13)1678 - (RV13)1677	1407	E O ST	Cleanout/Defective, Private	No	Heavy	1,440	355
(RV13)1679 - (RV13)1676	1401	UNIVERSITY DR	Cleanout/Missing Cap, Private	No	Medium	8,640	355
(RV13)1681 - (RV13)1657		E L ST	No Building Leaks	No	N/A		140
(RV13)1682 - (RV13)1681		E L ST	No Building Leaks	No	N/A		324
(RV13)1683 - (RV13)1682		E N ST	No Building Leaks	No	N/A		331
(RV13)1684 - (RV13)1683		E N ST	No Building Leaks	No	N/A		32
(RV13)1685 - (RV13)1703		E O ST	No Building Leaks	No	N/A		85
(RV13)1692 - (RV13)1683		E N ST	No Building Leaks	No	N/A		306
(RV13)1703 - (RV13)1684		E N ST	No Building Leaks	No	N/A		297
(RV13)1833 - (RV13)1685		E O ST	No Building Leaks	No	N/A		79
(RV13)1834 - (RV13)1833		E O ST	No Building Leaks	No	N/A		200

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.



# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV13)1835 - (RV13)1834		E O ST	No Building Leaks	No	N/A		177
(RV13)1836 - (RV13)1835		N MOBILE AVE	No Building Leaks	No	N/A		290
(RV13)1837 - (RV13)1836		N NASHVILLE AVE	No Building Leaks	No	N/A		285
(RV13)1838 - (RV13)1679	1505	UNIVERSITY DR	Lateral, Private Building	No	Light	1,440	193
(RV13)1840 - (RV13)1836	1512	N MOBILE AVE	Cleanout/Missing Cap, Private	No	Medium	2,160	291
(RV13)1843 - (RV13)1834		N LOUISVILLE AVE	No Building Leaks	No	N/A		358
(RV13)2172 - (RV13)1675		E M ST	No Building Leaks	No	N/A		214
(RV13)2173 - (RV13)2172		N OSWEGO AVE	No Building Leaks	No	N/A		396
(RV13)2174 - (RV13)2173		N OSWEGO AVE	No Building Leaks	No	N/A		405
(RV13)2179 - (RV13)2172		E M ST	No Building Leaks	No	N/A		255
(RV13)2180 - (RV13)2179		N PITTSBURG AVE	No Building Leaks	No	N/A		305
(RV13)2181 - (RV13)2180		N QUINCY AVE	No Building Leaks	No	N/A		388
(RV13)2182 - (RV13)2179		N PITTSBURG AVE	No Building Leaks	No	N/A		394
(RV13)2183 - (RV13)2182		N PITTSBURG AVE	No Building Leaks	No	N/A		384
(RV13)2184 - (RV13)2183		E O ST	No Building Leaks	No	N/A		304
(RV13)2192 - (RV13)1654		N JACKSON CT	No Building Leaks	No	N/A		39
(RV13)2193 - (RV13)2192		N JACKSON CT	No Building Leaks	No	N/A		402
(RV13)2286 - (RV13)1703	1402	E O ST	USMH	No	Light	0	110
(RV13)2291 - (RV13)1670	1109	E L ST	USMH	No	Light	0	208
(RV13)2292 - (RV13)1672	1406	E L ST	Cleanout/Defective, Private	No	Heavy	5,760	386
(RV13)2293 - (RV13)2292		E L ST	No Building Leaks	No	N/A		277
(RV13)2294 - (RV13)4330		E L ST	No Building Leaks	No	N/A		280
(RV13)2295 - (RV13)2294	1200	N SIDNEY AVE	USMH	No	Light	0	242
(RV13)2296 - (RV13)2295		N SIDNEY AVE	No Building Leaks	No	N/A		187
(RV13)2299 - (RV13)1649		E I ST	No Building Leaks	No	N/A		117

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV13)2365 - (RV13)1703		E O ST	No Building Leaks	No	N/A		128
(RV13)2456 - (RV13)1835		N MOBILE AVE	No Building Leaks	No	N/A		349
(RV13)2582 - (RV13)1692		E N ST	No Building Leaks	No	N/A		227
(RV13)2890 - (RV13)4329		N QUINCY AVE	No Building Leaks	No	N/A		120
(RV13)2891 - (RV13)2890		E O ST	No Building Leaks	No	N/A		296
(RV13)2892 - (RV13)2819	1703	E O ST	USMH	No	Medium	0	192
(RV13)2893 - (RV13)2892	1703	E O ST	USMH	No	Medium	0	235
(RV13)4067 - (RV13)4036		N GREENWICH AVE	No Building Leaks	No	N/A		303
(RV13)4068 - (RV13)4067		N GREENWICH AVE	No Building Leaks	No	N/A		426
(RV13)4069 - (RV13)4068		E F ST	No Building Leaks	No	N/A		366
(RV13)4070 - (RV13)4069		N HARTFORD AVE	No Building Leaks	No	N/A		255
(RV13)4071 - (RV13)4070	809	E G ST	Mainline	No	Light	0	397
(RV13)4072 - (RV13)4069	812	E F ST	Cleanout/Missing Cap, Private	No	Light	4,320	397
(RV13)4073 - (RV13)4072		E F ST	No Building Leaks	No	N/A		393
(RV13)4074 - (RV13)4071		E G ST	No Building Leaks	No	N/A		438
(RV13)4075 - (RV13)4073	1001	E F ST	Lateral, Private Building	No	Light	1,440	278
	1001	E F ST	Lateral, Private Building	No	Light	1,440	278
(RV13)4076 - (RV13)4075		E G ST	No Building Leaks	No	N/A		151
(RV13)4077 - (RV13)4076		E H ST	No Building Leaks	No	N/A		201
(RV13)4078 - (RV13)4077		E I ST	No Building Leaks	No	N/A		320
(RV13)4078A - (RV13)4078		E I ST	No Building Leaks	No	N/A		196
(RV13)4329 - (RV13)2180	1201	N QUINCY AVE	USMH	No	Light	0	64
(RV13)4330 - (RV13)4329	1703	E L ST	USMH	No	Light	0	250
(RV13)4331 - (RV13)4330		E L ST	No Building Leaks	No	N/A		245
(RV13)4332 - (RV13)4331	1710	E L ST	Cleanout/Defective, Private	No	Heavy	2,880	324

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Source</i>	<i>Recommend Dyed Water Flooding</i>	<i>Smoke Intensity</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV13)4333 - (RV13)4332		E L ST	No Building Leaks	No	N/A		311
(RV13)4334 - (RV13)4333		N SIDNEY AVE	No Building Leaks	No	N/A		350
(RV13)4335 - (RV13)4334		N SIDNEY AVE	No Building Leaks	No	N/A		329
(RV13)4336 - (RV13)4335		N SIDNEY AVE	No Building Leaks	No	N/A		174
(RV13)4337 - (RV13)4334	901	N SIDNEY AVE	USMH	No	Light	0	166
(RV13)4407 - (RV13)4073	1005	E G ST	Cleanout/Missing Cap, Private	No	Heavy	5,760	405
	1009	E G ST	Cleanout/Defective, Private	No	Heavy	2,880	405
(RV13)CO - (RV13)1837		N NASHVILLE AVE	No Building Leaks	No	N/A		138
(RV13)EOL - (RV13)1067		E G ST	No Building Leaks	No	N/A		270
(RV13)EOL - (RV13)1647		N HARTFORD AVE	No Building Leaks	No	N/A		50
(RV13)EOL - (RV13)1651		N JACKSON AVE	No Building Leaks	No	N/A		100
(RV13)EOL - (RV13)1664	1110	UNIVERSITY DR	Cleanout/Missing Cap, Private	No	Medium	2,160	360
	1118	UNIVERSITY DR	Cleanout/Defective, Private	No	Heavy	2,160	360
(RV13)EOL - (RV13)2299		E G ST	No Building Leaks	No	N/A		275
(RV13)EOL - (RV13)4074	1004	E G ST	Cleanout/Missing Cap, Private	No	Medium	5,760	275
(RV13)EOL - (RV13)4077		E H ST	No Building Leaks	No	N/A		200
(RV13)EOL - (RV13)4407		E F ST	No Building Leaks	No	N/A		50
(RV16)1004 - (RV16)1004A		EASTWOOD DR.	No Building Leaks	No	N/A		113
(RV16)1004A - (RV16)1400		EASTWOOD DR.	No Building Leaks	No	N/A		166
(RV16)1314 - (RV16)2091		W 3RD CT	No Building Leaks	No	N/A		111
(RV16)1315 - (RV16)1332		W 3RD CT	No Building Leaks	No	N/A		322
(RV16)1316 - (RV16)1117		S VANCOUVER AVE	No Building Leaks	No	N/A		325
(RV16)1317 - (RV16)1316		S VANCOUVER AVE	No Building Leaks	No	N/A		302
(RV16)1318 - (RV16)1316		S VANCOUVER AVE	No Building Leaks	No	N/A		290
(RV16)1319 - (RV16)1318		S WACO AVE	No Building Leaks	No	N/A		284

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Source</i>	<i>Recommend Dyed Water Flooding</i>	<i>Smoke Intensity</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV16)1320 - (RV16)1322		S ARLINGTON AVE.	No Building Leaks	No	N/A		153
(RV16)1321 - (RV16)1322	406	S ARLINGTON AVE	Building Interior	No	Medium	0	304
	406	S ARLINGTON AVE	Disconnected Downspout	No	Heavy	28,800	304
	409	S ARLINGTON AVE	Cleanout/Defective, Private	No	Light	2,880	304
(RV16)1322 - (RV16)2429		S ARLINGTON AVE	No Building Leaks	No	N/A		119
(RV16)1331 - (RV16)1319		S WACO AVE	No Building Leaks	No	N/A		300
(RV16)1332 - (RV16)1331		S WACO AVE	No Building Leaks	No	N/A		326
(RV16)1333 - (RV16)1332		S WACO AVE	No Building Leaks	No	N/A		225
(RV16)1334 - (RV16)1333		W 4TH ST	No Building Leaks	No	N/A		370
(RV16)1336 - (RV16)1334		W 4TH ST	No Building Leaks	No	N/A		300
(RV16)1337 - (RV16)1336		W 4TH ST	No Building Leaks	No	N/A		299
(RV16)1338 - (RV16)1337		S DURANT AVE	No Building Leaks	No	N/A		314
(RV16)1339 - (RV16)1338		S DURANT AVE	No Building Leaks	No	N/A		143
(RV16)1340 - (RV16)1337		W 4TH ST	No Building Leaks	No	N/A		219
(RV16)1341 - (RV16)1340		W 4TH ST	No Building Leaks	No	N/A		329
(RV16)1342 - (RV16)1341		RIDGEWOOD DR	No Building Leaks	No	N/A		112
(RV16)1343 - (RV16)1342		RIDGEWOOD DR	No Building Leaks	No	N/A		196
(RV16)1344 - (RV16)1341		RIDGEWOOD DR	No Building Leaks	No	N/A		175
(RV16)1345 - (RV16)1344		RIDGEWOOD DR	No Building Leaks	No	N/A		31
(RV16)1346 - (RV16)1345		RIDGEWOOD DR	No Building Leaks	No	N/A		139
(RV16)1347 - (RV16)1346		RIDGEWOOD DR	No Building Leaks	No	N/A		75
(RV16)1348 - (RV16)1348A	307	SHERWOOD DR.	Building Interior	No	Medium	0	231
(RV16)1348A - (RV16)1347	311	SHERWOOD DR.	USMH	No	Medium	0	57
	311	SHERWOOD DR.	Mainline	No	Light	0	57
	311	SHERWOOD DR.	Mainline	No	Light	0	57

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV16)1348A - (RV16)1347	311	SHERWOOD DR.	Mainline	No	Light	0	57
(RV16)1349 - (RV16)1347		SHERWOOD DR	No Building Leaks	No	N/A		176
(RV16)1350 - (RV16)1346		SHERWOOD DR	No Building Leaks	No	N/A		223
(RV16)1351 - (RV16)1350		SHERWOOD DR	No Building Leaks	No	N/A		83
(RV16)1353 - (RV16)1350		BRIARWOOD CT.	No Building Leaks	No	N/A		237
(RV16)1354 - (RV16)1355	301	BRIARWOOD CT.	Cleanout/Defective, Private	No	Medium	4,320	125
(RV16)1355 - (RV16)1353		BRIARWOOD CT.	No Building Leaks	No	N/A		119
(RV16)1356 - (RV16)1353	308	BRIARWOOD CT.	Cleanout/Missing Cap, Private	No	Heavy	7,200	176
(RV16)1357 - (RV16)1355	311	TANGLEWOOD DR.	USMH	No	Medium	0	181
(RV16)1358 - (RV16)1357	311	TANGLEWOOD DR.	Lateral, Private Building	No	Medium	2,880	215
	311	TANGLEWOOD DR.	Mainline	No	Light	0	215
	311	TANGLEWOOD DR.	Lateral, Private Building	No	Light	2,880	215
	311	TANGLEWOOD DR.	Mainline	No	Medium	0	215
	313	TANGLEWOOD DR.	Lateral, Private Building	No	Light	2,880	215
(RV16)1359 - (RV16)1358		TANGLEWOOD DR.	No Building Leaks	No	N/A		220
(RV16)1360 - (RV16)1357		TANGLEWOOD DR.	No Building Leaks	No	N/A		99
(RV16)1361 - (RV16)1360		TANGLEWOOD DR.	No Building Leaks	No	N/A		302
(RV16)1362 - (RV16)1360		ARROWWOOD LN.	No Building Leaks	No	N/A		279
(RV16)1363 - (RV16)1362		ARROWWOOD LN.	No Building Leaks	No	N/A		21
(RV16)1364 - (RV16)1363		ARROWWOOD LN.	No Building Leaks	No	N/A		109
(RV16)1365 - (RV16)1364		ARROWWOOD LN.	No Building Leaks	No	N/A		299
(RV16)1367 - (RV16)1362	201	ARROWWOOD LN.	Lateral, Private Building	No	Light	1,440	304
(RV16)1368 - (RV16)1367	303	S INGLEWOOD AVE.	Mainline	No	Light	0	293
	308	TANGLEWOOD DR.	Cleanout/Defective, Private	No	Heavy	4,320	293
(RV16)1369 - (RV16)1368	314	S INGLEWOOD AVE.	Cleanout/Defective, Private	No	Heavy	8,640	305

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Source</i>	<i>Recommend Dyed Water Flooding</i>	<i>Smoke Intensity</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV16)1370 - (RV16)3401	3101	HONEYSUCKLE LN.	Cleanout/Defective, Private	No	Heavy	7,200	212
(RV16)1371 - (RV16)1370		HONEYSUCKLE LN.	No Building Leaks	No	N/A		230
(RV16)1372 - (RV16)1371		HONEYSUCKLE LN.	No Building Leaks	No	N/A		202
(RV16)1376 - (RV16)1340		RIDGEWOOD DR.	No Building Leaks	No	N/A		239
(RV16)1377 - (RV16)1376		RIDGEWOOD DR.	No Building Leaks	No	N/A		20
(RV16)1378 - (RV16)1376	1206	RIDGEWOOD DR.	DSMH	No	Light	0	202
(RV16)1379 - (RV16)1376		RIDGEWOOD DR.	No Building Leaks	No	N/A		208
(RV16)1380 - (RV16)1856	2809	W 4TH ST.	Cleanout/Defective, Private	No	Heavy	14,400	155
	2809	W 4TH ST.	USMH	No	Light	0	155
(RV16)1381 - (RV16)1380		W 4TH ST.	No Building Leaks	No	N/A		140
(RV16)1382 - (RV16)1381		W 4TH ST.	No Building Leaks	No	N/A		177
(RV16)1384 - (RV16)1382		W 4TH ST.	No Building Leaks	No	N/A		523
(RV16)1385 - (RV16)1384	407	S INGLEWOOD AVE.	USMH	No	Medium	0	229
	320	TANGLEWOOD DR.	Cleanout/Missing Cap, Private	No	Heavy	1,440	229
(RV16)1386 - (RV16)1384		S INGLEWOOD AVE.	No Building Leaks	No	N/A		262
(RV16)1387 - (RV16)1386	511	S INGLEWOOD AVE.	USMH	No	Light	0	463
(RV16)1388 - (RV16)1381		W 4TH ST.	No Building Leaks	No	N/A		232
(RV16)1389 - (RV16)1388		W 4TH ST.	No Building Leaks	No	N/A		102
(RV16)1390 - (RV16)1389		TANGLEWOOD DR.	No Building Leaks	No	N/A		186
(RV16)1391 - (RV16)1380	504	DALEWOOD CT.	Cleanout/Defective, Private	No	Heavy	5,760	354
	505	DALEWOOD CT.	Cleanout/Defective, Private	No	Heavy	2,880	354
(RV16)1392 - (RV16)1391		DALEWOOD CT.	No Building Leaks	No	N/A		346
(RV16)1393 - (RV16)1378	1202	RIDGEWOOD DR.	Cleanout/Defective, Private	No	Medium	4,320	172
	1202	RIDGEWOOD DR.	Cleanout/Defective, Private	No	Heavy	4,320	172
(RV16)1394 - (RV16)1393		EASTWOOD DR.	No Building Leaks	No	N/A		128

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV16)1395 - (RV16)1394		EASTWOOD DR.	No Building Leaks	No	N/A		185
(RV16)1396 - (RV16)1828		EASTWOOD DR.	No Building Leaks	No	N/A		236
(RV16)1397 - (RV16)2023	810	EASTWOOD DR.	Cleanout/Defective, Private	No	Heavy	4,320	330
(RV16)1398 - (RV16)1377		S DURANT AVE.	No Building Leaks	No	N/A		311
(RV16)1399 - (RV16)1393		RIDGEWOOD DR.	No Building Leaks	No	N/A		166
(RV16)1400 - (RV16)1399		RIDGEWOOD DR.	No Building Leaks	No	N/A		112
(RV16)1401 - (RV16)1398		S DURANT AVE.	No Building Leaks	No	N/A		332
(RV16)1402 - (RV16)1401		RIDGEWOOD DR.	No Building Leaks	No	N/A		191
(RV16)1403 - (RV16)1402		RIDGEWOOD DR.	No Building Leaks	No	N/A		224
(RV16)1404 - (RV16)1401		S DURANT AVE.	No Building Leaks	No	N/A		295
(RV16)1405 - (RV16)1403		RIDGEWOOD DR.	No Building Leaks	No	N/A		126
(RV16)1406 - (RV16)1404		S DURANT AVE.	No Building Leaks	No	N/A		261
(RV16)1407 - (RV16)1405		RIDGEWOOD DR.	No Building Leaks	No	N/A		107
(RV16)1408 - (RV16)1407	1004	RIDGEWOOD DR.	Cleanout/Missing Cap, Private	No	Heavy	2,160	268
(RV16)1409 - (RV16)1408		TANGLEWOOD DR.	No Building Leaks	No	N/A		157
(RV16)1410 - (RV16)1408		RIDGEWOOD DR.	No Building Leaks	No	N/A		375
(RV16)1412 - (RV16)1410		RIDGEWOOD DR.	No Building Leaks	No	N/A		324
(RV16)1413 - (RV16)1441		12TH ST	No Building Leaks	No	N/A		205
(RV16)1415 - (RV16)1412	603	S INGLEWOOD AVE.	Lateral, Private Building	No	Light	1,440	379
(RV16)1416 - (RV16)1406		CAMELOT DR.	No Building Leaks	No	N/A		316
(RV16)1417 - (RV16)1416		CAMELOT DR.	No Building Leaks	No	N/A		144
(RV16)1419 - (RV16)1417	2800	CAMELOT DR.	Building Interior	No	Medium	0	274
	2800	CAMELOT DR.	Building Interior	No	Medium	0	274
	2800	CAMELOT DR.	Lateral, Private Building	No	Light	2,160	274
(RV16)1420 - (RV16)1419		CAMELOT DR.	No Building Leaks	No	N/A		165

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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Project Number 18-2873-00 Russellville City Corporation

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(RV16)1421 - (RV16)1421A		CAMELOT DR.	No Building Leaks	No	N/A		136
(RV16)1421A - (RV16)1420		CAMELOT DR.	No Building Leaks	No	N/A		127
(RV16)1422 - (RV16)1421		CAMELOT DR.	No Building Leaks	No	N/A		200
(RV16)1423 - (RV16)1419		KNIGHTS CT.	No Building Leaks	No	N/A		119
(RV16)1424 - (RV16)1423		KNIGHTS CT.	No Building Leaks	No	N/A		173
(RV16)1425 - (RV16)1437		S INGLEWOOD AVE	No Building Leaks	No	N/A		264
(RV16)1426 - (RV16)1427		LANCELOT AVE	No Building Leaks	No	N/A		58
(RV16)1427 - (RV16)3404		LANCELOT DR.	No Building Leaks	No	N/A		254
(RV16)1428 - (RV16)1426		KNIGHTS CT	No Building Leaks	No	N/A		247
(RV16)1429 - (RV16)1428		KNIGHTS CT	No Building Leaks	No	N/A		56
(RV16)1430 - (RV16)1429		KNIGHTS CT	No Building Leaks	No	N/A		75
(RV16)1431 - (RV16)1428		KINGS CT	No Building Leaks	No	N/A		334
(RV16)1432 - (RV16)1431		KINGS CT.	No Building Leaks	No	N/A		250
(RV16)1433 - (RV16)1432	903	KINGS CT.	Driveway Drain	Yes	Heavy	7,200	132
(RV16)1434 - (RV16)1433	804	S INGLEWOOD AVE.	USMH	No	Light	0	259
(RV16)1435 - (RV16)1469		S INGLEWOOD AVE	No Building Leaks	No	N/A		253
(RV16)1437 - (RV16)1439		S INGLEWOOD AVE	No Building Leaks	No	N/A		187
(RV16)1438 - (RV16)1440	1120	S INGLEWOOD AVE	USMH	No	Medium	0	173
(RV16)1438A - (RV16)1438	1120	S INGLEWOOD AVE	USMH	No	Medium	0	15
(RV16)1439 - (RV16)1440		S INGLEWOOD AVE	No Building Leaks	No	N/A		211
(RV16)1440 - (RV16)1413		12TH ST	No Building Leaks	No	N/A		201
(RV16)1441 - (RV16)1443		LANCELOT AVE	No Building Leaks	No	N/A		373
(RV16)1443 - (RV16)1427		LANCELOT AVE	No Building Leaks	No	N/A		218
(RV16)1444 - (RV16)1443		PRINCESS CIR	No Building Leaks	No	N/A		145
(RV16)1445 - (RV16)1444		PRINCESS CIR	No Building Leaks	No	N/A		139

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.



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(RV16)1469 - (RV16)1425		S INGLEWOOD AVE	No Building Leaks	No	N/A		30
(RV16)1535 - (RV16)1344	1305	RIDGEWOOD DR	Cleanout/Defective, Private	No	Medium	2,160	228
(RV16)1751 - (RV16)1371		ROLLING HILLS DR.	No Building Leaks	No	N/A		253
(RV16)1751A - (RV16)1751		ROLLING HILLS DR.	No Building Leaks	No	N/A		168
(RV16)1770 - (RV16)1751A		ROLLING HILLS DR.	No Building Leaks	No	N/A		156
(RV16)1828 - (RV16)1395		EASTWOOD DR.	No Building Leaks	No	N/A		189
(RV16)1856 - (RV16)1379	2805	W 4TH ST.	Lateral, Private Building	No	Medium	1,440	252
	2807	W 4TH ST.	Lateral, Private Building	No	Light	1,440	252
	2807	W 4TH ST.	Lateral, Private Building	No	Medium	1,440	252
	2807	W 4TH ST.	Lateral, Private Building	No	Light	1,440	252
(RV16)2023 - (RV16)1396		EASTWOOD DR.	No Building Leaks	No	N/A		61
(RV16)2089 - (RV16)1434		S INGLEWOOD AVE.	No Building Leaks	No	N/A		196
(RV16)2090 - (RV16)1339		S DURANT AVE	No Building Leaks	No	N/A		100
(RV16)2091 - (RV16)1315		W 3RD CT	No Building Leaks	No	N/A		311
(RV16)2092 - (RV16)2091	309	S UTAH AVE	Cleanout/Missing Cap, Private	No	Light	2,880	165
(RV16)2097 - (RV16)1333		S WACO AVE	No Building Leaks	No	N/A		189
(RV16)2098 - (RV16)2097	511	S WACO AVE	USMH	No	Light	0	224
(RV16)2099 - (RV16)2098	409	S WACO AVE	USMH	No	Light	0	310
(RV16)2100 - (RV16)2099		S WACO AVE	No Building Leaks	No	N/A		324
(RV16)2101 - (RV16)2100	611	S WACO AVE	DSMH	No	Light	0	304
(RV16)2102 - (RV16)2101	707	W 8TH ST	DSMH	No	Medium	0	143
(RV16)2103 - (RV16)2541		S VANCOUVER AVE	No Building Leaks	No	N/A		200
(RV16)2106 - (RV16)1349		SHERWOOD DR	No Building Leaks	No	N/A		208
(RV16)2113 - (RV16)2103		S VANCOUVER AVE	No Building Leaks	No	N/A		394
(RV16)2114 - (RV16)2113		S VANCOUVER AVE	No Building Leaks	No	N/A		398

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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(RV16)2115 - (RV16)2114		S VANCOUVER AVE	No Building Leaks	No	N/A		345
(RV16)2141 - (RV16)1317		S VANCOUVER AVE	No Building Leaks	No	N/A		403
(RV16)2168 - (RV16)2098	2311	W 5TH ST	USMH	No	Light	0	412
(RV16)2169 - (RV16)2168		W 5TH ST	No Building Leaks	No	N/A		343
(RV16)2170 - (RV16)2099		W 6TH ST	No Building Leaks	No	N/A		408
(RV16)2171 - (RV16)2170		W 6TH ST	No Building Leaks	No	N/A		346
(RV16)2211 - (RV16)2115		W 12TH ST	No Building Leaks	No	N/A		275
(RV16)2212 - (RV16)2211		W 12TH ST	No Building Leaks	No	N/A		170
(RV16)2213 - (RV16)2212		W 12TH ST	No Building Leaks	No	N/A		330
(RV16)2214 - (RV16)2213	2201	W 12TH ST	Cleanout/Defective, Private	No	Heavy	2,880	205
(RV16)2215 - (RV16)2214		W 12TH ST	No Building Leaks	No	N/A		200
(RV16)2216 - (RV16)2217	2201	W 12TH ST	Lateral, Private Building	No	Light	1,440	201
(RV16)2217 - (RV16)2212		W 12TH ST	No Building Leaks	No	N/A		50
(RV16)2218 - (RV16)1315		S VANCOUVER AVE	No Building Leaks	No	N/A		280
(RV16)2219 - (RV16)2218		W 4TH ST	No Building Leaks	No	N/A		345
(RV16)2220 - (RV16)2219		W 4TH ST	No Building Leaks	No	N/A		398
(RV16)2221 - (RV16)2218		S VANCOUVER AVE	No Building Leaks	No	N/A		258
(RV16)2222 - (RV16)2224		W 5TH ST	No Building Leaks	No	N/A		142
(RV16)2224 - (RV16)2221		W 5TH ST	No Building Leaks	No	N/A		401
(RV16)2225 - (RV16)2221	2107	S VANCOUVER AVE	Cleanout/Defective, Private	No	Medium	1,440	322
(RV16)2226 - (RV16)2225	512	WOOD DUCK LN	Cleanout/Missing Cap, Private	No	Medium	1,440	389
(RV16)2227 - (RV16)2222		S TULSA AVE	No Building Leaks	No	N/A		396
(RV16)2228 - (RV16)2225		S VANCOUVER AVE	No Building Leaks	No	N/A		291
(RV16)2229 - (RV16)2228	512	W 6TH ST	USMH	No	Light	0	223
(RV16)2230 - (RV16)2234		S TULSA AVE	No Building Leaks	No	N/A		318

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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(RV16)2231 - (RV16)2226		S UTAH AVE	No Building Leaks	No	N/A		355
(RV16)2232 - (RV16)2228	910	MUSCADINE LN	USMH	No	Light	0	290
(RV16)2233 - (RV16)2232		MUSCADINE LN	No Building Leaks	No	N/A		398
(RV16)2234 - (RV16)2233		MUSCADINE LN	No Building Leaks	No	N/A		278
(RV16)2235 - (RV16)2102		W 8TH ST	No Building Leaks	No	N/A		181
(RV16)2236 - (RV16)2235		S VANCOUVER AVE	No Building Leaks	No	N/A		145
(RV16)2237 - (RV16)2236		W 8TH ST	No Building Leaks	No	N/A		370
(RV16)2238 - (RV16)2237	2008	S TULSA AVE	Cleanout/Defective, Private	No	Medium	2,880	321
	725	S TULSA AVE	USMH	No	Medium	0	321
(RV16)2239 - (RV16)2236		S VANCOUVER AVE	No Building Leaks	No	N/A		286
(RV16)2240 - (RV16)2239		W 9TH ST	No Building Leaks	No	N/A		402
(RV16)2241 - (RV16)2238	901	S TULSA AVE	USMH	No	Medium	0	403
(RV16)2242 - (RV16)2239		S VANCOUVER AVE	No Building Leaks	No	N/A		291
(RV16)2243 - (RV16)2242		WHIPPOORWILL LN	No Building Leaks	No	N/A		368
(RV16)2244 - (RV16)2243		WHIPPOORWILL LN	No Building Leaks	No	N/A		323
(RV16)2245 - (RV16)2244		S TULSA AVE	No Building Leaks	No	N/A		342
(RV16)2246 - (RV16)2245		S TULSA AVE	No Building Leaks	No	N/A		272
(RV16)2334 - (RV16)2115		W 12TH ST	No Building Leaks	No	N/A		301
(RV16)2335 - (RV16)2334		W 12TH ST	No Building Leaks	No	N/A		322
(RV16)2336 - (RV16)2335		W 12TH ST	No Building Leaks	No	N/A		148
(RV16)2337 - (RV16)2336		SEQUOYAH WAY	No Building Leaks	No	N/A		100
(RV16)2338 - (RV16)2337		SEQUOYAH WAY	No Building Leaks	No	N/A		85
(RV16)2339 - (RV16)2338		SEQUOYAH WAY	No Building Leaks	No	N/A		215
(RV16)2340 - (RV16)2338		SEQUOYAH WAY	No Building Leaks	No	N/A		115
(RV16)2341 - (RV16)2340		SEQUOYAH WAY	No Building Leaks	No	N/A		200

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(RV16)2342 - (RV16)2341		SEQUOYAH WAY	No Building Leaks	No	N/A		200
(RV16)2380 - (RV16)2381	202	SHERWOOD DR.	Lateral, Private Building	No	Medium	1,440	170
(RV16)2381 - (RV16)1348		SHERWOOD DR.	No Building Leaks	No	N/A		171
(RV16)2429 - (RV16)1319		S ARLINGTON AVE	No Building Leaks	No	N/A		141
(RV16)2541 - (RV16)2102		W 8TH ST	No Building Leaks	No	N/A		214
(RV16)2542 - (RV16)2541		S VANCOUVER AVE	No Building Leaks	No	N/A		250
(RV16)2543 - (RV16)2542		PROMENADE CIR	No Building Leaks	No	N/A		242
(RV16)2544 - (RV16)2543		PROMENADE CIR	No Building Leaks	No	N/A		187
(RV16)2545 - (RV16)2544		PROMENADE CIR	No Building Leaks	No	N/A		280
(RV16)2546 - (RV16)2545		W 12TH ST	No Building Leaks	No	N/A		265
(RV16)2547 - (RV16)2546		PROMENADE CIR	No Building Leaks	No	N/A		358
(RV16)2548 - (RV16)2547		PROMENADE CIR	No Building Leaks	No	N/A		373
(RV16)2549 - (RV16)2548		PROMENADE CIR	No Building Leaks	No	N/A		192
(RV16)2550 - (RV16)2544		PROMENADE CIR	No Building Leaks	No	N/A		362
(RV16)2551 - (RV16)2550		PROMENADE CIR	No Building Leaks	No	N/A		368
(RV16)2552 - (RV16)2551		PROMENADE CIR	No Building Leaks	No	N/A		330
(RV16)2553 - (RV16)2552		LOGAN CT	No Building Leaks	No	N/A		364
(RV16)2554 - (RV16)2553		LOGAN CT	No Building Leaks	No	N/A		170
(RV16)2555 - (RV16)2545		LINDSEY LANE	No Building Leaks	No	N/A		271
(RV16)2556 - (RV16)2555		LINDSEY LANE	No Building Leaks	No	N/A		284
(RV16)2557 - (RV16)2556		LINDSEY LANE	No Building Leaks	No	N/A		253
(RV16)2862 - (RV16)1441		LANCELOT AVE	No Building Leaks	No	N/A		172
(RV16)2863 - (RV16)2864	1216	TOWN AND COUNTRY L	Cleanout/Defective, Private	No	Heavy	1,440	392
(RV16)2864 - (RV16)2865		W 12TH ST	No Building Leaks	No	N/A		320
(RV16)2865 - (RV16)2211		W 12TH ST	No Building Leaks	No	N/A		541

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV16)3325 - (RV16)1346		RIDGEWOOD DR	No Building Leaks	No	N/A		271
(RV16)3401 - (RV16)1367	303	S INGLEWOOD AVE.	Lateral, Private Building	No	Light	2,160	184
	303	S INGLEWOOD AVE.	DSMH	No	Light	0	184
(RV16)3402 - (RV16)3403		W 4TH ST.	No Building Leaks	No	N/A		167
(RV16)3403 - (RV16)1384		W 4TH ST.	No Building Leaks	No	N/A		25
(RV16)3404 - (RV16)1417		LANCELOT DR.	No Building Leaks	No	N/A		314
(RV16)3405 - (RV16)3438	2411	W 7TH ST	DSMH	No	Light	0	238
(RV16)3406 - (RV16)2100		W 7TH ST.	No Building Leaks	No	N/A		290
(RV16)3407 - (RV16)3408	2410	W 8TH ST	USMH	No	Light	0	357
(RV16)3408 - (RV16)2101		W 8TH ST	No Building Leaks	No	N/A		399
(RV16)3409 - (RV16)2090		S DURANT AVE	No Building Leaks	No	N/A		146
(RV16)3438 - (RV16)3406		W 7TH ST	No Building Leaks	No	N/A		351
(RV16)3439 - (RV16)1334		S ARLINGTON	No Building Leaks	No	N/A		329
(RV16)3443 - (RV16)3409		HONEYSUCKLE LANE	No Building Leaks	No	N/A		139
(RV16)3444 - (RV16)3405	2415	S DURANT AVE	USMH	No	Light	0	119
(RV16)CO - (RV16)1321		S ARLINGTON AVE	No Building Leaks	No	N/A		88
(RV16)Co - (RV16)1445		PRINCESS CIR	No Building Leaks	No	N/A		131
(RV16)EOL - (RV16)1314		W 3RD CT	No Building Leaks	No	N/A		102
(RV16)EOL - (RV16)1317		W 3RD ST	No Building Leaks	No	N/A		502
(RV16)EOL - (RV16)1320		S ARLINGTON AVE	No Building Leaks	No	N/A		266
(RV16)EOL - (RV16)1351		SHERWOOD DR	No Building Leaks	No	N/A		197
(RV16)EOL - (RV16)1382		W 4TH ST	No Building Leaks	No	N/A		196
(RV16)EOL - (RV16)1402		FOREST DR.	No Building Leaks	No	N/A		221
(RV16)EOL - (RV16)2089		S INGLEWOOD AVE.	No Building Leaks	No	N/A		160
(RV16)EOL - (RV16)2141		S VANCOUVER AVE	No Building Leaks	No	N/A		49

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV16)EOL - (RV16)2216	2601	W 12TH ST	Cleanout/Defective, Private	No	Heavy	2,160	170
(RV16)EOL - (RV16)2220		W 4TH ST	No Building Leaks	No	N/A		174
(RV16)EOL - (RV16)2234	717	S TULSA AVE	Lateral, Private Building	No	Medium	0	135
(RV16)EOL - (RV16)2242		S VANCOUVER AVE	No Building Leaks	No	N/A		137
(RV16)EOL - (RV16)2862		12TH ST	No Building Leaks	No	N/A		75
(RV16)EOL - (RV16)2865		W 12TH ST	No Building Leaks	No	N/A		150
(RV26)1478 - (RV26)8041	2750	BLOUDER AVE	Catch Basin	No	Medium	0	338
	2750	BLOUDER AVE.	Private San MH (Grease Trap)	No	Light	7,200	338
	2750	S BLOUDER AVE.	Storm MH	No	Light	0	338
(RV26)1490 - (RV26)1490A	3807	SMARKANSAS AVE.	DSMH	No	Medium	0	108
(RV26)1490A - (RV26)LS		S FRANKFORT AVE	No Building Leaks	No	N/A		52
(RV26)8001 - (RV26)8001A	3807	BERNICE AVE.	Private San MH (Grease Trap)	No	Medium	8,640	13
(RV26)8001A - (RV26)8001B	3807	S ARKANSAS AVE.	USMH	No	Heavy	0	126
(RV26)8001B - (RV26)1490		BERNICE AVE.	No Building Leaks	No	N/A		128
(RV26)8001C - (RV26)8001		S FRANKFORT AVE	No Building Leaks	No	N/A		16
(RV26)8002 - (RV26)8002A	3807	S ARKANSAS AVE.	DSMH	No	Heavy	0	395
(RV26)8002A - (RV26)8002B		BERNICE AVE.	No Building Leaks	No	N/A		27
(RV26)8002B - (RV26)8001	3807	S ARKANSAS AVE.	DSMH	No	Heavy	0	9
(RV26)8003 - (RV26)8002		BERNICE AVE.	No Building Leaks	No	N/A		223
(RV26)8004 - (RV26)8003		BERNICE AVE.	No Building Leaks	No	N/A		129
(RV26)8005 - (RV26)8004	2911	S ARKANSAS AVE.	DSMH	No	Medium	0	183
(RV26)8006 - (RV26)8005		S ARKANSAS AVE.	No Building Leaks	No	N/A		226
(RV26)8007 - (RV26)8006		S ARKANSAS AVE.	No Building Leaks	No	N/A		374
(RV26)8008 - (RV26)8007	2911	S ARKANSAS AVE.	DSMH	No	Medium	0	338
(RV26)8009 - (RV26)8008	2911	S ARKANSAS AVE.	Cleanout/Missing Cap, Private	No	Medium	5,760	342

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV26)8009 - (RV26)8008	2911	S ARKANSAS AVE.	Cleanout/Missing Cap, Private	No	Heavy	5,760	342
	2911	S ARKANSAS AVE.	DSMH	No	Light	0	342
(RV26)8011 - (RV26)8014	104	LOCK AND DAM RD.	DSMH	No	Medium	0	396
(RV26)8012 - (RV26)8011	236	LOCK AND DAM RD.	Cleanout/Defective, Private	No	Medium	5,760	313
	238	LOCK AND DAM RD.	DSMH	No	Light	0	313
	238	LOCK AND DAM RD.	Cleanout/Defective, Private	No	Heavy	4,320	313
(RV26)8013 - (RV26)8012	2810	S BOULDER AVE.	Cleanout/Defective, Private	No	Heavy	5,760	308
	2810	S BOULDER AVE.	Cleanout/Missing Cap, Private	No	Heavy	8,640	308
(RV26)8014 - (RV26)8009		S ARKANSAS AVE.	No Building Leaks	No	N/A		182
(RV26)8016 - (RV26)8015		SHEPARD DR.	No Building Leaks	No	N/A		400
(RV26)8017 - (RV26)8016		SHEPARD DR.	No Building Leaks	No	N/A		312
(RV26)8018 - (RV26)8017		SHEPARD DR.	No Building Leaks	No	N/A		226
(RV26)8019 - (RV26)8018		SHEPARD DR.	No Building Leaks	No	N/A		205
(RV26)8020 - (RV26)8019		SHEPARD DR.	No Building Leaks	No	N/A		292
(RV26)8021 - (RV26)8021A		SHEPARD	No Building Leaks	No	N/A		143
(RV26)8021A - (RV26)8020		SHEPARD	No Building Leaks	No	N/A		140
(RV26)8022 - (RV26)8021		SHEPARD RD.	No Building Leaks	No	N/A		195
(RV26)8023 - (RV26)8022		SHEPARD RD.	No Building Leaks	No	N/A		200
(RV26)8024 - (RV26)8023		SHEPARD RD.	No Building Leaks	No	N/A		310
(RV26)8025 - (RV26)8024		SHEPARD RD.	No Building Leaks	No	N/A		170
(RV26)8026 - (RV26)8025		SHEPARD RD.	No Building Leaks	No	N/A		257
(RV26)8027 - (RV26)8026		SHEPARD	No Building Leaks	No	N/A		158
(RV26)8028 - (RV26)8027		SHEPARD	No Building Leaks	No	N/A		188
(RV26)8029 - (RV26)8028		SHEPPARD	No Building Leaks	No	N/A		128
(RV26)8030 - (RV26)8029		SHEPARD	No Building Leaks	No	N/A		240

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV26)8031 - (RV26)8030		CASTLEGATE LP.	No Building Leaks	No	N/A		138
(RV26)8032 - (RV26)8031	506	CASTLEGATE LP.	DSMH	No	Light	0	125
(RV26)8033 - (RV26)8032	506	CASTLEGATE LOOP	Lateral, Private Building	No	Heavy	5,760	154
	506	CASTLEGATE LOOP	Lateral, Private Building	No	Light	2,880	154
(RV26)8034 - (RV26)8033	499	BENT TREE CT.	USMH	No	Medium	0	171
	506	CASTLEGATE LP.	DSMH	No	Light	0	171
(RV26)8035 - (RV26)8034		BENT TREE	No Building Leaks	No	N/A		356
(RV26)8036 - (RV26)8032	506	CASTLEGATE LP.	Lateral, Private Building	No	Light	8,640	342
	506	CASTLEGATE LP.	Lateral, Private Building	No	Medium	5,760	342
(RV26)8037 - (RV26)8036		CASTLEGATE	No Building Leaks	No	N/A		194
(RV26)8038 - (RV26)8037	711	CASTLEGATE LOOP	Cleanout/Missing Cap, Private	No	Medium	2,160	403
(RV26)8039 - (RV26)8013		KOVEL CT.	No Building Leaks	No	N/A		89
(RV26)8040 - (RV26)8039		KOVEL CT.	No Building Leaks	No	N/A		376
(RV26)8041 - (RV26)8041A		S BOULDER AVE.	No Building Leaks	No	N/A		78
(RV26)8041A - (RV26)8041		KOVEL CT.	No Building Leaks	No	N/A		27
(RV26)8042 - (RV26)8043		JIMMY LILE RD.	No Building Leaks	No	N/A		393
(RV26)8043 - (RV26)8044	3001	MOBLIE AVE.	Mainline	No	Heavy	86,400	401
(RV26)8044 - (RV26)8045	3001	S MOBILE AVE.	USMH	No	Light	0	273
(RV26)8045 - (RV26)8046		JIMMY LILE RD.	No Building Leaks	No	N/A		403
(RV26)8049 - (RV26)8050	3015	S ARKANSAS AVE.	Cleanout/Missing Cap, Private	No	Medium	4,320	243
(RV26)8050 - (RV26)8051		S ARKANSAS AVE.	No Building Leaks	No	N/A		378
(RV26)8051 - (RV26)8052		S ARKANSAS AVE.	No Building Leaks	No	N/A		320
(RV26)8052 - (RV26)8053		S ARKANSAS AVE.	No Building Leaks	No	N/A		200
(RV26)8053 - (RV26)8004		S ARKANSAS AVE.	No Building Leaks	No	N/A		43
(RV26)8501 - (RV26)8500	317	NORDIN LN.	USMH	No	Medium	0	204

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV26)8502 - (RV26)8501		NORDIN LN.	No Building Leaks	No	N/A		371
(RV26)8503 - (RV26)8502	317	NORDIN LN.	DSMH	No	Light	0	192
(RV26)8504 - (RV26)8503		NORDIN LN.	No Building Leaks	No	N/A		192
(RV26)8505 - (RV26)8504		NORDIN LN.	No Building Leaks	No	N/A		99
(RV26)8506 - (RV26)8505	317	NORDIN LN.	USMH	No	Light	0	101
(RV26)8507 - (RV26)8506		NORDIN LN.	No Building Leaks	No	N/A		89
(RV26)8508 - (RV26)8507		NORDIN LN.	No Building Leaks	No	N/A		198
(RV26)8509 - (RV26)8508		NORDIN LN.	No Building Leaks	No	N/A		310
(RV26)8510 - (RV26)8509		NORDIN LN.	No Building Leaks	No	N/A		360
(RV26)8511 - (RV26)8510	317	NORDIN LN.	DSMH	No	Light	0	72
(RV26)8512 - (RV26)8511		NORDIN LN.	No Building Leaks	No	N/A		167
(RV26)8513 - (RV26)8512		NORDIN LN.	No Building Leaks	No	N/A		217
(RV26)8514 - (RV26)8513		NORDIN LN.	No Building Leaks	No	N/A		340
(RV26)8515 - (RV26)8514		NORDIN LN.	No Building Leaks	No	N/A		137
(RV26)8516 - (RV26)8515		NORDIN	No Building Leaks	No	N/A		186
(RV26)8517 - (RV26)8516		NORDIN	No Building Leaks	No	N/A		241
(RV26)8518 - (RV26)8515		NORDIN	No Building Leaks	No	N/A		83
(RV26)8519 - (RV26)8518		NORDIN LN.	No Building Leaks	No	N/A		122
(RV26)8520 - (RV26)8519	1415	SHALIMAR CIR.	Cleanout/Missing Cap, Private	No	Medium	2,160	402
(RV26)8521 - (RV26)8520	112	QUARRY RD.	USMH	No	Light	0	154
(RV26)8522 - (RV26)8521		NORDIN	No Building Leaks	No	N/A		101
(RV26)8523 - (RV26)8518		SHALIMAR CIR.	No Building Leaks	No	N/A		128
(RV26)8524 - (RV26)8523		SHALIMAR CIR.	No Building Leaks	No	N/A		195
(RV26)8525 - (RV26)8523		SHALIMAR CIR.	No Building Leaks	No	N/A		316
(RV26)8526 - (RV26)8525		SHALIMAR CIR.	No Building Leaks	No	N/A		221

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

<i>Structure</i>	<i>Address</i>	<i>Street Name</i>	<i>Smoke Source</i>	<i>Recommend Dyed Water Flooding</i>	<i>Smoke Intensity</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>
(RV26)8527 - (RV26)8525		SHALIMAR CIR.	No Building Leaks	No	N/A		170
(RV26)8528 - (RV26)8527	1428	SHALIMAR CIR.	Cleanout/Defective, Private	No	Heavy	2,880	191
(RV26)8529 - (RV26)8528		SKYLINE VISTA LN.	No Building Leaks	No	N/A		181
(RV26)8530 - (RV26)8528	200	SKYLINE VISTA LN.	USMH	No	Light	0	224
(RV26)8531 - (RV26)8543		SKYLINE VISTA CT.	No Building Leaks	No	N/A		340
(RV26)8532 - (RV26)8531		SKYLINE VISTA CT.	No Building Leaks	No	N/A		87
(RV26)8533 - (RV26)8532		SKYLINE VISTA CT.	No Building Leaks	No	N/A		256
(RV26)8534 - (RV26)8533		SKYLINE VISTA CT.	No Building Leaks	No	N/A		169
(RV26)8535 - (RV26)8534		SKYLINE VISTA CT.	No Building Leaks	No	N/A		249
(RV26)8536 - (RV26)8535		SKYLINE VISTA CT.	No Building Leaks	No	N/A		158
(RV26)8537 - (RV26)8536	1521	SKYLINE VISTA CT.	DSMH	No	Light	0	68
(RV26)8538 - (RV26)8537		SKYLINE VISTA CT.	No Building Leaks	No	N/A		220
(RV26)8539 - (RV26)8538	1521	SKYLINE VISTA CT.	DSMH	No	Light	0	274
	1521	SKYLINE VISTA CT.	USMH	No	Light	0	274
(RV26)8543 - (RV26)8500		SKYLINE VISTA CT.	No Building Leaks	No	N/A		134
(RV26)8559 - (RV26)8538		SKYLINE VISTA CT.	No Building Leaks	No	N/A		145
(RV26)8560 - (RV26)8559		SKYLINE VISTA CT.	No Building Leaks	No	N/A		183
(RV26)8561 - (RV26)8560		SKYRIGDE	No Building Leaks	No	N/A		244
(RV26)8562 - (RV26)8560		SKYRIDGE	No Building Leaks	No	N/A		143
(RV26)8563 - (RV26)8562		SKYLINE VISTA CT.	No Building Leaks	No	N/A		275
(RV26)8564 - (RV26)8565		LANDS ENDS PT. S	No Building Leaks	No	N/A		177
(RV26)8565 - (RV26)8563		SKYLINE VISTA CT.	No Building Leaks	No	N/A		122
(RV26)8566 - (RV26)8564		LAND ENDS PT. S	No Building Leaks	No	N/A		190
(RV26)8568 - (RV26)8779		SKYLINE VISTA CT.	No Building Leaks	No	N/A		140
(RV26)8569 - (RV26)8569A	1414	LANDS END PT. N	DSMH	No	Light	0	184

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV26)8569A - (RV26)8636		LANDS END PT. N	No Building Leaks	No	N/A		193
(RV26)8621 - (RV26)8620	3310	HALF MOON LANE	USMH	No	Light	0	148
(RV26)8622 - (RV26)8621	3312	HALF MOON LN.	USMH	No	Light	0	71
(RV26)8623 - (RV26)8623A	3310	HALF MOON LN.	USMH	No	Medium	0	156
	3310	HALF MOON LN.	Cleanout/Missing Cap, Private	No	Heavy	3,600	156
(RV26)8623A - (RV26)8622	3312	HALF MOON LN.	USMH	No	Heavy	0	192
(RV26)8624 - (RV26)8623	3308	HALF MOON LN.	USMH	No	Light	0	159
(RV26)8625 - (RV26)8569		LANDS END PT.N	No Building Leaks	No	N/A		202
(RV26)8626 - (RV26)8624		HALF MOON LN.	No Building Leaks	No	N/A		140
(RV26)8627 - (RV26)8626	3306	HALF MOON LN.	Cleanout/Defective, Private	No	Medium	5,760	135
(RV26)8628 - (RV26)8627		LANDS END PT. N	No Building Leaks	No	N/A		313
(RV26)8629 - (RV26)8628	1417	LANDS END PT N	USMH	No	Light	0	260
(RV26)8630 - (RV26)8628		LANDS END PT. N	No Building Leaks	No	N/A		229
(RV26)8631 - (RV26)8630		LANDS END PT. N	No Building Leaks	No	N/A		51
(RV26)8632 - (RV26)8631		LANDS END PT N	No Building Leaks	No	N/A		261
(RV26)8633 - (RV26)8626	1424	LANDS END PT N	USMH	No	Light	0	75
(RV26)8634 - (RV26)8634A		LANDS END PT. N	No Building Leaks	No	N/A		200
(RV26)8634A - (RV26)8633		LANDS END PT N	No Building Leaks	No	N/A		115
(RV26)8635 - (RV26)8634		LANDS END PT. N	No Building Leaks	No	N/A		180
(RV26)8636 - (RV26)8635		LANDS END PT. N	No Building Leaks	No	N/A		325
(RV26)8640 - (RV26)8620	3316	HALF MOON LANE	Cleanout/Defective, Private	No	Light	4,320	231
	3316	HALF MOON LN	USMH	No	Light	0	231
(RV26)8641 - (RV26)8640	1504	LANDS END PT. S	USMH	No	Light	0	148
	1504	LANDS END PT. S	USMH	No	Light	0	148
(RV26)8642 - (RV26)8641	1506	LANDS END PT. S	Cleanout/Missing Cap, Private	No	Light	2,880	241

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

Project Number 18-2873-00 Russellville City Corporation

Structure	Address	Street Name	Smoke Source	Recommend Dyed Water Flooding	Smoke Intensity	Inflow Rate (gpd)	Length (ft)
(RV26)8643 - (RV26)8640		HALF MOON LANE	No Building Leaks	No	N/A		204
(RV26)8644 - (RV26)8643	3316	HALF MOON LN	USMH	No	Light	0	59
(RV26)8645 - (RV26)8644	3303	HALF MOON LN.	USMH	No	Light	0	347
	1406	LANDS ENDS PT. S	Cleanout/Missing Cap, Private	No	Heavy	2,160	347
(RV26)8646 - (RV26)8643		LAND ENDS PT. S	No Building Leaks	No	N/A		264
(RV26)8647 - (RV26)8846		LAND ENDS PT. S	No Building Leaks	No	N/A		244
(RV26)8649 - (RV26)8646		LAND ENDS PT. S	No Building Leaks	No	N/A		454
(RV26)8650 - (RV26)8649		LAND ENDS PT. S	No Building Leaks	No	N/A		174
(RV26)8716 - (RV26)8720		CASTLEGATE LP.	No Building Leaks	No	N/A		379
(RV26)8720 - (RV26)8735		CASTLEGATE LP.	No Building Leaks	No	N/A		82
(RV26)8735 - (RV26)8784		CASTLEGATE LP.	No Building Leaks	No	N/A		148
(RV26)8778 - (RV26)8529		SKYLINE VISTA LN.	No Building Leaks	No	N/A		60
(RV26)8779 - (RV26)8562		SKYLINE VISTA CT.	No Building Leaks	No	N/A		155
(RV26)8784 - (RV26)8030	410	CASTLEGATE LP.	DSMH	No	Light	0	144
(RV26)9046 - (RV26)8716		CASTLEGATE LP.	No Building Leaks	No	N/A		363
(RV26)CO E - (RV26)8035	415	BENT TREE CIR.	Cleanout/Defective, Private	No	Heavy	2,880	213
(RV26)CO W - (RV26)8035	412	BENT TREE CIR.	Cleanout/Defective, Private	No	Heavy	1,440	239
(RV26)EOL - (RV26)8568		SKYLINE VISTA CT.	No Building Leaks	No	N/A		128

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

# Smoke Test Report

*Project Number* 18-2873-00 Russellville City Corporation

<i>Structure</i>	<i>Address Street Name</i>	<i>Smoke Source</i>	<i>Recommend Dyed Water Flooding</i>	<i>Smoke Intensity</i>	<i>Inflow Rate (gpd)</i>	<i>Length (ft)</i>	
<i>Source Summary</i>					<b>Totals</b>	431,280	114975
		Building Interior	4				
		Catch Basin	2				
		Cleanout/Defective, Private	35				
		Cleanout/Missing Cap, Private	22				
		Disconnected Downspout	1				
		Driveway Drain	1				
		DSMH	22				
		Lateral, Private Building	21				
		Mainline	8				
		Private San MH (Grease Trap)	2				
		Storm MH	1				
		USMH	47				
		Total Sources	166				

1. USMH and DSMH sources are upstream/downstream manhole frame seal defects.

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**APPENDIX D**

**Dyed Water Testing Report**



# Dyed Water Flooding Report

Project Number 18-2873-00 Russellville City Corporation

<i>Line Segment</i>	<i>Street Name</i>	<i>Location Flooded</i>	<i>Dye MH No</i>	<i>Illegal Conditions</i>	<i>Flow Rate</i>	<i>Recommended for TV Inspection</i>
(RV13)1674 - (RV13)1673	1201 University	Catch Basin		No Sources Found	0.00	Yes
(RV13)4071 - (RV13)4070	809 E G. St	Storm Ditch	(RV13)4070	Main Line Defect	15.00	Yes
		Storm Ditch	(RV13)4070	Dyed Water Observed	0.00	Yes
(RV13)4075 - (RV13)4073	1002 E G St	Storm Ditch	(RV13)4073	Laterals Under	8.00	Yes
		Storm Ditch	(RV13)4073	Dyed Water Observed	0.00	Yes
(RV16)1368 - (RV16)1367	303 Inglewood	Deprs Grass Area	(RV16)1367	Main Line Defect	5.00	No
		Deprs Grass Area	(RV16)1367	Dyed Water Observed	0.00	No
(RV16)1433 - (RV16)1342	903 Kings Ct	None		No Sources Found	0.00	No
(RV26)8036 - (RV26)8032	602 Castlegate Loop	Deprs Grass Area		No Sources Found	0.00	No

**Total Line Segments:** 6

**Total Flow (gpm):** 28.00

**Total Recommended for TV:** 3

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**APPENDIX E**

**Television Inspection Report**





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**APPENDIX F**

**Inflow Source Report**



# Inflow Source Report

Project Number 18-2873-00 Russellville City Corporation

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV13 2192	1004 N Jackson Ct	Inflow Pipe Seals	Pipe Seals - Seal Pipe Seal	28,800	\$300	0.010	28,800	\$300
RV13 1679	RV13 1676 1401 University Dr	Inflow Cleanout	Replace Cleanout Cap	8,640	\$150	0.017	37,440	\$450
RV13 1665	1319 E K St	Inflow Pipe Seals	Pipe Seals - Seal Pipe Seal	14,400	\$300	0.021	51,840	\$750
RV13 1660	1105 N Louisville Ave	Inflow Cracked Wall	Wall - Coat Manhole Wall	14,400	\$300	0.021	66,240	\$1,050
RV13 EOL	RV13 4074 1004 E G St	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	72,000	\$1,200
RV13 1672	RV13 1671 1313 E L St.	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	77,760	\$1,350
RV13 4407	RV13 4073 1005 E G St	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	83,520	\$1,500
RV13 1665	RV13 1663 1319 E K St	Inflow Cleanout	Repair Broken Cleanout	12,960	\$375	0.029	96,480	\$1,875
RV13 4072	RV13 4069 812 E F St	Inflow Cleanout	Replace Cleanout Cap	4,320	\$150	0.035	100,800	\$2,025
RV13 1679	RV13 1676 UNIVERSITY	Inflow Pipe w/ Hole	Repair	11,520	\$545	0.047	112,320	\$2,570
RV13 2292	RV13 1672 1406 E L St	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	118,080	\$2,945
RV13 1669	RV13 1659 1115 N Louisville Ave	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	123,840	\$3,320
RV13 2183	1511 E O St	Inflow Bench/Trough Leak	Bench/Trough - Seal Bench	4,320	\$300	0.069	128,160	\$3,620
RV13 EOL	RV13 1664 1110 University Dr	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	130,320	\$3,770
RV13 2183	1511 E O St	Inflow Cracked Wall	Wall - Coat Manhole Wall	4,320	\$300	0.069	134,640	\$4,070
RV13 4329	1201 N Quincy Ave	Inflow Cracked Corbel	Corbel - Coat Corbel	4,320	\$300	0.069	138,960	\$4,370
RV13 1840	RV13 1836 1512 N Mobile Ave	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	141,120	\$4,520
RV13 1652	RV13 1651 905 E H St	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	143,280	\$4,670
RV13 1675	RV13 1674 1302 University Dr	Inflow Cleanout	Repair Broken Cleanout	3,600	\$375	0.104	146,880	\$5,045
RV13 4075	1002 E G St	Inflow Defective Cover(Pick	Replace Manhole Cover	2,160	\$250	0.116	149,040	\$5,295
RV13 4067	620 N Greenwich Ave	Inflow Frame Seal	Repair Frame Seal	5,760	\$750	0.130	154,800	\$6,045
RV13 4332	RV13 4331 1710 E L St	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	157,680	\$6,420
RV13 1667	RV13 1666 1111 N Nashville Ct	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	160,560	\$6,795
RV13 4407	RV13 4073 1009 E G St	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	163,440	\$7,170
RV13 1677	1305 N Nashville Ave	Inflow Cracked Corbel	Corbel - Coat Corbel	2,160	\$300	0.139	165,600	\$7,470
RV13 1835	1502 E O St	Inflow Cracked Corbel	Corbel - Coat Corbel	2,160	\$300	0.139	167,760	\$7,770
RV13 1672	1318 E L St	Inflow Cracked Corbel	Corbel - Coat Corbel	2,160	\$300	0.139	169,920	\$8,070

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Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV13 1674	RV13 1673	1201 University Dr	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	172,080	\$8,445
RV13 EOL	RV13 1664	1118 University Dr	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	174,240	\$8,820
RV13 4071	RV13 4070	809 E G. St	Inflow Main Line Defect	Repair Defective Pipe	21,600	\$4,000	0.185	195,840	\$12,820
RV13 1659		1111 N Louisville Ave	Inflow Cracked Corbel	Corbel - Coat Corbel	1,440	\$300	0.208	197,280	\$13,120
RV13 4036		619 N Greenwich Ave	Inflow Defective Cover(Pick	Replace Frame and Cover	4,320	\$950	0.220	201,600	\$14,070
RV13 1678	RV13 1677	1407 E O St	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	203,040	\$14,445
RV13 1674	RV13 1673	1201 University Dr	Inflow X Connection - Catch	Repair Defective Pipe	14,400	\$4,000	0.278	217,440	\$18,445
RV13 4329		1201 N Quincy Ave	Inflow Broken Frame	Replace Frame and Cover	2,880	\$950	0.330	220,320	\$19,395
RV13 2892		1703 E O St	Inflow Broken Frame	Replace Frame and Cover	2,880	\$950	0.330	223,200	\$20,345
RV13 4068		517 N Greenwich Ave	Inflow Defective Cover(Pick	Replace Frame and Cover	2,880	\$950	0.330	226,080	\$21,295
RV13 1683		1210 E N St	Inflow Frame Seal	Repair Frame Seal	2,160	\$750	0.347	228,240	\$22,045
RV13 1656		1107 N Knoxville Ave	Inflow Frame Seal	Repair Frame Seal	2,160	\$750	0.347	230,400	\$22,795
RV13 4075	RV13 4073	1002 E G St	Inflow Leak to Lateral	Replace Broken Pipe	11,520	\$4,000	0.347	241,920	\$26,795
RV13 1235		521 N Greenwich Ave	Inflow Frame Seal/Ponding	Repair Frame Seal	2,160	\$750	0.347	244,080	\$27,545
RV13 1669		112 N Louisville Ave	Inflow Frame Seal	Repair Frame Seal	1,728	\$750	0.434	245,808	\$28,295
RV13 1645		715 N Hartford Ave	Inflow Frame Seal	Repair Frame Seal	1,728	\$750	0.434	247,536	\$29,045
RV13 1659		1111 N Louisville Ave	Inflow Frame Seal	Repair Frame Seal	1,728	\$750	0.434	249,264	\$29,795
RV13 4071	RV13 4070	G ST.	Inflow Pipe w/ Hole	Repair	1,440	\$650	0.451	250,704	\$30,445
RV13 1684		1207 E N St	Inflow Frame Seal	Repair Frame Seal	1,440	\$750	0.521	252,144	\$31,195
RV13 4337		1007 N Sidney Ave	Inflow Frame Seal	Repair Frame Seal	1,440	\$750	0.521	253,584	\$31,945
RV13 1677		1305 N Nashville Ave	Inflow Frame Seal	Repair Frame Seal	1,440	\$750	0.521	255,024	\$32,695
RV13 1835		1502 E O St	Inflow Frame Seal	Repair Frame Seal	1,440	\$750	0.521	256,464	\$33,445
RV13 4072		812 E F St	Inflow Frame Seal	Repair Frame Seal	1,440	\$750	0.521	257,904	\$34,195
RV13 1836		1502 N Mobile CV	Inflow Frame Seal	Repair Frame Seal	1,440	\$750	0.521	259,344	\$34,945
RV13 4076		1001 E G St	Inflow Frame Seal/Ponding	Repair Frame Seal	1,440	\$750	0.521	260,784	\$35,695
RV13 4407		1009 E F St	Inflow Defective Cover(Pick	Replace Frame and Cover	1,440	\$950	0.660	262,224	\$36,645
RV13 2893		1703 E O St	Inflow Frame Seal	Repair Frame Seal	1,080	\$750	0.694	263,304	\$37,395
RV13 1837		1504 N Nashville Ave	Inflow Frame Seal	Repair Frame Seal	1,080	\$750	0.694	264,384	\$38,145
RV13 1658		1109 E L St	Inflow Frame Seal	Repair Frame Seal	864	\$750	0.868	265,248	\$38,895

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV13 2183	1511 E O St	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	266,112	\$39,645
RV13 2296	1110 N Sidney Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	266,976	\$40,395
RV13 4072	812 E F St	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	267,264	\$40,645
RV13 4078	1004 E I St	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	267,552	\$40,895
RV13 4076	1001 E G St	Inflow	Defective Cover(Pick	Replace Frame and Cover	1,080	\$950	0.880	268,632	\$41,845
RV13 1672	1318 E L St	Inflow	Frame Seal	Repair Frame Seal	720	\$750	1.042	269,352	\$42,595
RV13 1653	1018 E J St	Inflow	Frame Seal	Repair Frame Seal	720	\$750	1.042	270,072	\$43,345
RV13 2892	1703 E O St	Inflow	Frame Seal	Repair Frame Seal	720	\$750	1.042	270,792	\$44,095
RV13 1838	RV13 1679 1505 University Dr	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	272,232	\$47,095
RV13 4075	RV13 4073 1001 E F St	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	273,672	\$50,095
RV13 4329	1201 N Quincy Ave	Inflow	Frame Seal	Repair Frame Seal	360	\$750	2.083	274,032	\$50,845
RV13 1676	1214 N Nashville Pl	Inflow	Frame Seal	Repair Frame Seal	360	\$750	2.083	274,392	\$51,595
RV13 4075	RV13 4073 1001 E F St	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	275,832	\$54,595
RV13 4071	901 E G St	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	276,120	\$55,545
RV13 4077	1002 E H St	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	276,408	\$56,495
RV13 4070	802 E G St	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	276,696	\$57,445
RV13 4074	1001 E G St	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	276,984	\$58,395
RV13 4067	620 N Greenwich Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	277,272	\$59,345
RV13 4069	607 N Hartford Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	277,344	\$59,595
RV13 1658	1109 E L St	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	277,517	\$60,545
RV13 2293	1615 E L St	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	277,690	\$61,495
RV13 2295	1106 N Sidney Ave	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	277,862	\$62,445
RV13 4071	RV13 4070 809 E G St	Inflow	Mainline	Mainline Rehab	0	\$4,000	999.999	277,862	\$66,445
RV13 2183	1511 E O St	Inflow	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	277,862	\$66,745
RV13 1674	1205 University Dr	Inflow	Corbel Deterioration	Corbel - Coat Corbel	0	\$300	999.999	277,862	\$67,045

Total Flow (gpd): 277,862

Total Cost: \$67,045

Total Sources: 81

RV16 1321	RV16 1322	406 S Arlington Ave	Inflow	Cleanout	Replace/Install Cap	28,800	\$150	0.005	28,800	\$150
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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative Flow (GPD)	Cumulative Cost (\$)
						Cost (\$)	Ratio (\$/GPD)		
RV16 1432	903 Kings Ct	Inflow	Bench/Trough Leak	Bench/Trough - Seal Bench	25,920	\$300	0.012	54,720	\$450
RV16 1434	804 S Inglewood Ave	Inflow	Cracked Corbel	Corbel - Coat Corbel	21,600	\$300	0.014	76,320	\$750
RV16 1419	2804 Knights Ct	Inflow	Cracked Wall	Wall - Coat Manhole Wall	21,600	\$300	0.014	97,920	\$1,050
RV16 1356	RV16 1353 308 Briarwood Ct.	Inflow	Cleanout	Replace Cleanout Cap	7,200	\$150	0.021	105,120	\$1,200
RV16 2106	RV16 1349 SHERWOOD	Inflow	Pipe w/ Hole	Repair	27,360	\$650	0.024	132,480	\$1,850
RV16 1380	RV16 1856 2809 W 4th St.	Inflow	Cleanout	Repair Broken Cleanout	14,400	\$375	0.026	146,880	\$2,225
RV16 1314	2005 W 3rd Ct	Inflow	Cracked Wall	Wall - Coat Manhole Wall	11,520	\$300	0.026	158,400	\$2,525
RV16 1408	1001 Tanglewood Dr	Inflow	Pipe Seals	Pipe Seals - Seal Pipe Seal	10,080	\$300	0.030	168,480	\$2,825
RV16 1751A	904 Rolling Hills Dr	Inflow	Cracked Wall	Wall - Coat Manhole Wall	8,640	\$300	0.035	177,120	\$3,125
RV16 1751A	904 Rolling Hills Dr	Inflow	Bench/Trough Leak	Bench/Trough - Seal Bench	7,200	\$300	0.042	184,320	\$3,425
RV16 1369	RV16 1368 314 S Inglewood Ave.	Inflow	Cleanout	Repair Broken Cleanout	8,640	\$375	0.043	192,960	\$3,800
RV16 1370	RV16 3401 3101 Honeysuckle Ln.	Inflow	Cleanout	Repair Broken Cleanout	7,200	\$375	0.052	200,160	\$4,175
RV16 2092	RV16 2091 309 S Utah Ave	Inflow	Cleanout	Replace Cleanout Cap	2,880	\$150	0.052	203,040	\$4,325
RV16 2864	1201 Town and Country Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	15,609	\$950	0.061	218,649	\$5,275
RV16 1828	919 Eastwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	15,119	\$950	0.063	233,768	\$6,225
RV16 1391	RV16 1380 504 Dalewood Ct.	Inflow	Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	239,528	\$6,600
RV16 1372	3112 Honeysuckle Ln	Inflow	Cracked Corbel	Corbel - Coat Corbel	4,320	\$300	0.069	243,848	\$6,900
RV16 1408	RV16 1407 1004 Ridgewood Dr.	Inflow	Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	246,008	\$7,050
RV16 2089	718 S Inglewood Ave	Inflow	Cracked Corbel	Corbel - Coat Corbel	3,600	\$300	0.083	249,608	\$7,350
RV16 1405	1009 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	11,037	\$950	0.086	260,645	\$8,300
RV16 1357	204 Arrowwood Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	10,969	\$950	0.087	271,613	\$9,250
RV16 1393	RV16 1378 1202 Ridgewood Dr.	Inflow	Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	275,933	\$9,625
RV16 1354	RV16 1355 301 Briarwood Ct.	Inflow	Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	280,253	\$10,000
RV16 1393	RV16 1378 1202 Ridgewood Dr.	Inflow	Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	284,573	\$10,375
RV16 1397	RV16 2023 810 Eastwood Dr.	Inflow	Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	288,893	\$10,750
RV16 1368	RV16 1367 308 Tanglewood Dr.	Inflow	Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	293,213	\$11,125
RV16 2226	RV16 2225 512 Wood Duck Ln	Inflow	Cleanout	Replace Cleanout Cap	1,440	\$150	0.104	294,653	\$11,275
RV16 1437	920 S Inglewood Ave	Inflow	Frame Seal/Ponding	Repair Frame Seal	7,200	\$750	0.104	301,853	\$12,025
RV16 1385	RV16 1384 320 Tanglewood Dr.	Inflow	Cleanout	Replace Cleanout Cap	1,440	\$150	0.104	303,293	\$12,175

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair	Ratio (\$/GPD)	Cumulative	Cumulative
						Cost (\$)		Flow (GPD)	Cost (\$)
RV16 1318	2220 Bradley Ln	Inflow	Frame Seal/Ponding	Repair Frame Seal	5,760	\$750	0.130	309,053	\$12,925
RV16 2238	RV16 2237 2008 S Tulsa Ave	Inflow	Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	311,933	\$13,300
RV16 2214	RV16 2213 2201 W 12th St	Inflow	Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	314,813	\$13,675
RV16 1391	RV16 1380 505 Dalewood Ct.	Inflow	Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	317,693	\$14,050
RV16 1321	RV16 1322 409 S Arlington Ave	Inflow	Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	320,573	\$14,425
RV16 1438A	1120 S Inglewood Ave	Inflow	Cracked Corbel	Corbel - Coat Corbel	2,160	\$300	0.139	322,733	\$14,725
RV16 2101	2208 W 8th St	Inflow	Cracked Corbel	Corbel - Coat Corbel	2,160	\$300	0.139	324,893	\$15,025
RV16 1318	2220 Bradley Ln	Inflow	Broken Frame	Replace Frame and Cover	5,760	\$950	0.165	330,653	\$15,975
RV16 1535	RV16 1344 1305 Ridgewood Dr	Inflow	Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	332,813	\$16,350
RV16 EOL	RV16 2216 2601 W 12th St	Inflow	Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	334,973	\$16,725
RV16 2113	1002 S Vancouver Ave	Inflow	Cracked Corbel	Corbel - Coat Corbel	1,440	\$300	0.208	336,413	\$17,025
RV16 1417	2710 Camelot Dr	Inflow	Cracked Corbel	Corbel - Coat Corbel	1,152	\$300	0.260	337,565	\$17,325
RV16 2113	1002 S Vancouver Ave	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	340,445	\$18,075
RV16 2101	2208 W 8th St	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	343,325	\$18,825
RV16 2100	611 S Waco Ave	Inflow	Frame Seal/Ponding	Repair Frame Seal	2,880	\$750	0.260	346,205	\$19,575
RV16 2089	718 S Inglewood Ave	Inflow	Frame Seal/Ponding	Repair Frame Seal	2,880	\$750	0.260	349,085	\$20,325
RV16 1004	916 Eastwood Dr	Inflow	Frame Seal/Ponding	Repair Frame Seal	2,880	\$750	0.260	351,965	\$21,075
RV16 1427	907 Lancelot Dr	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	354,845	\$21,825
RV16 2225	RV16 2221 2107 S Vancouver Ave	Inflow	Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	356,285	\$22,200
RV16 2863	RV16 2864 1216 Town and Country Ln	Inflow	Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	357,725	\$22,575
RV16 1320	2404 W 3rd St	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	360,605	\$23,325
RV16 1319	304 S Waco Ave	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	363,485	\$24,075
RV16 1315	335 S Vancouver Ave	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	366,365	\$24,825
RV16 1347	311 Sherwood Dr	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	369,245	\$25,575
RV16 1372	3112 Honeysuckle Ln	Inflow	Frame Seal	Repair Frame Seal	2,880	\$750	0.260	372,125	\$26,325
RV16 1117	226 S Vancouver Ave	Inflow	Frame Offset	Replace Frame and Cover	720	\$200	0.278	372,845	\$26,525
RV16 2380	202 Sherwood Dr	Inflow	Frame Seal	Repair Frame Seal	2,592	\$750	0.289	375,437	\$27,275
RV16 1420	2900 Camelot Dr	Inflow	Frame Seal	Repair Frame Seal	2,592	\$750	0.289	378,029	\$28,025
RV16 1770	911 Rolling Hills Dr	Inflow	Frame Seal	Repair Frame Seal	2,304	\$750	0.326	380,333	\$28,775

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair	Ratio (\$/GPD)	Cumulative	Cumulative
						Cost (\$)		Flow (GPD)	Cost (\$)
RV16 1370	3103 Honeysuckle Ln	Inflow	Frame Seal	Repair Frame Seal	2,304	\$750	0.326	382,637	\$29,525
RV16 2246	1109 S Tulsa Ave	Inflow	Frame Seal	Repair Frame Seal	2,304	\$750	0.326	384,941	\$30,275
RV16 2098	501 S Waco Ave	Inflow	Frame Seal	Repair Frame Seal	2,304	\$750	0.326	387,245	\$31,025
RV16 1432	903 Kings Ct	Inflow	Frame Seal	Repair Frame Seal	2,304	\$750	0.326	389,549	\$31,775
RV16 1320	2404 W 3rd St	Inflow	Broken Frame	Replace Frame and Cover	2,880	\$950	0.330	392,429	\$32,725
RV16 1319	304 S Waco Ave	Inflow	Broken Frame	Replace Frame and Cover	2,880	\$950	0.330	395,309	\$33,675
RV16 1318	2220 Bradley Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	2,880	\$950	0.330	398,189	\$34,625
RV16 1427	907 Lancelot Dr	Inflow	Broken Frame	Replace Frame and Cover	2,880	\$950	0.330	401,069	\$35,575
RV16 3404	903 Lancelot Dr	Inflow	Cracked Corbel	Corbel - Coat Corbel	864	\$300	0.347	401,933	\$35,875
RV16 2862	2711 W 12th St	Inflow	Cracked Corbel	Corbel - Coat Corbel	864	\$300	0.347	402,797	\$36,175
RV16 2168	2317 W 5th St	Inflow	Frame Seal	Repair Frame Seal	2,160	\$750	0.347	404,957	\$36,925
RV16 1376	530 S Durant Ave	Inflow	Frame Seal/Ponding	Repair Frame Seal	2,160	\$750	0.347	407,117	\$37,675
RV16 1400	920 Eastwood Dr	Inflow	Cracked Corbel	Corbel - Coat Corbel	720	\$300	0.417	407,837	\$37,975
RV16 2102	2208 W 8th St	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	409,565	\$38,725
RV16 1346	1313 Ridgewood Dr	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	411,293	\$39,475
RV16 2114	1100 S Vancouver Ave	Inflow	Frame Seal/Ponding	Repair Frame Seal	1,728	\$750	0.434	413,021	\$40,225
RV16 1417	2710 Camelot Dr	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	414,749	\$40,975
RV16 1413	1105 Princess Ct	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	416,477	\$41,725
RV16 1445	1106 Princess Ct	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	418,205	\$42,475
RV16 1371	901 Rolling Hills Dr	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	419,933	\$43,225
RV16 2862	2711 W 12th St	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	421,661	\$43,975
RV16 1386	422 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	576	\$250	0.434	422,237	\$44,225
RV16 1433	RV16 1432 903 Kings Ct.	Inflow	Area Drain	Remove to Storm Sewer - A	7,200	\$3,400	0.472	429,437	\$47,625
RV16 1421	3000 Camelot Dr.	Inflow	Frame Seal	Repair Frame Seal	1,440	\$750	0.521	430,877	\$48,375
RV16 2114	1100 S Vancouver Ave	Inflow	Broken Frame	Replace Frame and Cover	1,728	\$950	0.550	432,605	\$49,325
RV16 1359	319 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	1,728	\$950	0.550	434,333	\$50,275
RV16 1368	RV16 1367 303 Inglewood	Inflow	Main Line Defect	Repair Defective Pipe	7,200	\$4,000	0.556	441,533	\$54,275
RV16 2023	810 Eastwood Dr	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	442,037	\$54,575
RV16 1426	908 Lancelot Dr	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	442,541	\$54,875

Project Number

18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1413	1105 Princess Ct	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	443,045	\$55,175
RV16 1387	511 S Inglewood Ave	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	443,549	\$55,475
RV16 1438	1103 S Inglewood Ave	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	444,053	\$55,775
RV16 1416	1004 Ridgewood Dr	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	444,557	\$56,075
RV16 1751	904 Rolling Hills Dr	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	445,061	\$56,375
RV16 1314	2005 W 3rd Ct	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	445,565	\$56,675
RV16 2238	725 S Tulsa Ave	Inflow	Cracked Corbel	Corbel - Coat Corbel	504	\$300	0.595	446,069	\$56,975
RV16 1333	329 S Waco Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	1,440	\$950	0.660	447,509	\$57,925
RV16 1393	1203 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	1,440	\$950	0.660	448,949	\$58,875
RV16 1421A	2904 Camelot Dr	Inflow	Frame Seal	Repair Frame Seal	1,080	\$750	0.694	450,029	\$59,625
RV16 1416	1004 Ridgewood Dr	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	450,893	\$60,375
RV16 2023	810 Eastwood Dr	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	451,757	\$61,125
RV16 1426	908 Lancelot Dr	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	452,621	\$61,875
RV16 1425	914 S Inglewood Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	453,485	\$62,625
RV16 1424	803 Knights Ct	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	454,349	\$63,375
RV16 1358	309 Briarwood Ct	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	455,213	\$64,125
RV16 1441	1017 Lancelot Dr	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	456,077	\$64,875
RV16 2543	2311 W 8th St	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	456,941	\$65,625
RV16 2339	1900 W 12th St	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	457,805	\$66,375
RV16 2334	1916 W 12th St	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	458,669	\$67,125
RV16 2232	910 S Vancouver Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	459,533	\$67,875
RV16 2237	2012 W 8th St	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	460,397	\$68,625
RV16 2090	503 S Durant Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	461,261	\$69,375
RV16 1337	2437 W 4th St	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	461,549	\$69,625
RV16 1322	401 S Arlington Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	461,837	\$69,875
RV16 1428	807 Knights Ct	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	462,125	\$70,125
RV16 1340	1302 W 4th St	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	462,413	\$70,375
RV16 1443	1011 Lancelot Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	462,701	\$70,625
RV16 1424	803 Knights Ct	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	462,989	\$70,875



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18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative	Cumulative	
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 3439	2315 S Arlington Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	463,277	\$71,125	
RV16 1416	1004 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	463,565	\$71,375	
RV16 2429	403 S Arlington Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	463,853	\$71,625	
RV16 1400	920 Eastwood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	464,141	\$71,875	
RV16 3401	3100 Honeysuckle Ln	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	464,429	\$72,125	
RV16 1395	921 Eastwood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	464,717	\$72,375	
RV16 1364	203 Arrowwood Ln	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	465,005	\$72,625	
RV16 1362	201 Arrowwood Ln	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	465,293	\$72,875	
RV16 1367	303 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	288	\$250	0.868	465,581	\$73,125	
RV16 1421A	2904 Camelot Dr	Inflow	Broken Frame	Replace Frame and Cover	1,080	\$950	0.880	466,661	\$74,075	
RV16 1358	RV16 1357	311 Tanglewood Dr.	Inflow	Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	469,541	\$77,075
RV16 1358	RV16 1357	313 Tanglewood Dr.	Inflow	Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	472,421	\$80,075
RV16 1358	RV16 1357	311 Tanglewood Dr.	Inflow	Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	475,301	\$83,075
RV16 1419	RV16 1417	2800 Camelot Dr.	Inflow	Lateral Defects	Replace Lateral	2,160	\$3,000	1.389	477,461	\$86,075
RV16 3401	RV16 1367	303 S Inglewood Ave.	Inflow	Lateral Defects	Replace Lateral	2,160	\$3,000	1.389	479,621	\$89,075
RV16 2023		810 Eastwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	576	\$950	1.649	480,197	\$90,025
RV16 1421		3000 Camelot Dr.	Inflow	Defective Cover(Pick	Replace Frame and Cover	576	\$950	1.649	480,773	\$90,975
RV16 1387		511 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	144	\$250	1.736	480,917	\$91,225
RV16 1856	RV16 1379	2807 W 4th St.	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	482,357	\$94,225
RV16 1856	RV16 1379	2805 W 4th St.	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	483,797	\$97,225
RV16 2216	RV16 2217	2201 W 12th St	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	485,237	\$100,225
RV16 1856	RV16 1379	2807 W 4th St.	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	486,677	\$103,225
RV16 EOL	RV16 2234	717 S Tulsa Ave	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	488,117	\$106,225
RV16 2380	RV16 2381	202 Sherwood Dr.	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	489,557	\$109,225
RV16 1367	RV16 1362	201 Arrowwood Ln.	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	490,997	\$112,225
RV16 1415	RV16 1412	603 S Inglewood Ave.	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	492,437	\$115,225
RV16 1856	RV16 1379	2807 W 4th St.	Inflow	Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	493,877	\$118,225
RV16 1321		407 S Arlington Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	494,165	\$119,175
RV16 1331		310 S Waco Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	494,453	\$120,125

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18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1856	2807 Cedarwood Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	494,741	\$121,075
RV16 1343	1317 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	495,029	\$122,025
RV16 1344	1309 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	495,317	\$122,975
RV16 1417	2710 Camelot Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	495,605	\$123,925
RV16 1347	311 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	495,893	\$124,875
RV16 1320	2404 W 3rd St	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	496,181	\$125,825
RV16 1355	307 Briarwood Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	496,469	\$126,775
RV16 1361	210 Arrowwood Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	496,757	\$127,725
RV16 1376	530 S Durant Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	497,045	\$128,675
RV16 1378	1202 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	497,333	\$129,625
RV16 1379	1205 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	497,621	\$130,575
RV16 1382	2812 W 4th St	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	497,909	\$131,525
RV16 1358	309 Briarwood Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	498,197	\$132,475
RV16 1403	1011 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	498,485	\$133,425
RV16 1408	1001 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	498,773	\$134,375
RV16 1334	519 S Arlington Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	499,061	\$135,325
RV16 1415	609 Dalewood Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	499,349	\$136,275
RV16 1440	1103 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	499,637	\$137,225
RV16 1419	2804 Knights Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	499,925	\$138,175
RV16 1353	304 Briarwood Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	500,213	\$139,125
RV16 1432	903 Kings Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	500,501	\$140,075
RV16 1336	2434 W 4th St	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	500,789	\$141,025
RV16 1346	1313 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	501,077	\$141,975
RV16 1433	903 Kings Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	501,365	\$142,925
RV16 1348	305 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	501,653	\$143,875
RV16 3325	419 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	501,941	\$144,825
RV16 1438B	1120 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	502,229	\$145,775
RV16 1413	1105 Princess Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	502,517	\$146,725
RV16 2381	2815 Honeysuckle Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	502,805	\$147,675

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18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1394	925 Eastwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	503,093	\$148,625
RV16 1429	807 Knights Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	503,381	\$149,575
RV16 1396	535 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	503,669	\$150,525
RV16 1751	904 Rolling Hills Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	503,957	\$151,475
RV16 2380	202 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	504,245	\$152,425
RV16 1399	1103 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	504,533	\$153,375
RV16 1317	300 S Vancouver Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	504,821	\$154,325
RV16 1770	911 Rolling Hills Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	505,109	\$155,275
RV16 1423	801 Knights Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	505,397	\$156,225
RV16 2141	309 S Vancouver Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	505,685	\$157,175
RV16 1535	1305 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	505,973	\$158,125
RV16 1004A	918 Eastwood Dr.	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	506,261	\$159,075
RV16 1426	908 Lancelot Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	506,549	\$160,025
RV16 1314	2005 W 3rd Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	506,837	\$160,975
RV16 1348A	311 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	507,125	\$161,925
RV16 1004	916 Eastwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	507,413	\$162,875
RV16 1430	805 Knights Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	507,701	\$163,825
RV16 1316	2230 Bradley Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	507,989	\$164,775
RV16 1372	3112 Honeysuckle Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	508,277	\$165,725
RV16 1349	401 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	508,565	\$166,675
RV16 1350	410 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	508,853	\$167,625
RV16 1351	412 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	509,141	\$168,575
RV16 2091	2005 W 3rd Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	509,429	\$169,525
RV16 2092	315 S Utah Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	509,717	\$170,475
RV16 1370	3103 Honeysuckle Ln	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	510,005	\$171,425
RV16 1751A	904 Rolling Hills Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	510,293	\$172,375
RV16 1319	304 S Waco Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	510,581	\$173,325
RV16 2106	306 Sherwood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	510,869	\$174,275
RV16 1390	422 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	511,157	\$175,225

Project Number

18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1392	605 Dalewood Ct	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	511,445	\$176,175
RV16 1371	901 Rolling Hills Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	511,733	\$177,125
RV16 1380	505 Dalewood Ct	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	511,805	\$177,375
RV16 1385	409 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	511,877	\$177,625
RV16 1381	505 Dalewood Ct	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	511,949	\$177,875
RV16 1412	803 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,021	\$178,125
RV16 1384	3002 W 4th St	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,093	\$178,375
RV16 2089	718 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,165	\$178,625
RV16 1360	206 Arrowwood Ln	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,237	\$178,875
RV16 1406	802 S Durant Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,309	\$179,125
RV16 1354	301 Brianwood Ct	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,381	\$179,375
RV16 1431	909 Kings Ct	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,453	\$179,625
RV16 1369	308 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,525	\$179,875
RV16 1398	548 S Durant Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,597	\$180,125
RV16 1439	1001 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,669	\$180,375
RV16 1437	920 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,741	\$180,625
RV16 1389	429 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,813	\$180,875
RV16 1341	1310 Ridgewood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,885	\$181,125
RV16 1434	804 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	512,957	\$181,375
RV16 1427	907 Lancelot Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	513,029	\$181,625
RV16 1368	307 S Inglewood Ave	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	513,101	\$181,875
RV16 1363	205 Arrowwood Ln	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	513,173	\$182,125
RV16 1421A	2904 Camelot Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	513,245	\$182,375
RV16 1388	427 Tanglewood Dr	Inflow	Defective Cover(Pick	Replace Manhole Cover	72	\$250	3.472	513,317	\$182,625
RV16 2219	320 S Utah Ave	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	513,490	\$183,575
RV16 2337	1916 W 12th St	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	513,663	\$184,525
RV16 2334	1916 W 12th St	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	513,836	\$185,475
RV16 2090	503 S Durant Ave	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	514,009	\$186,425
RV16 2543	2311 W 8th St	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	514,181	\$187,375

Project Number

18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 2339	1900 W 12th St	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	514,354	\$188,325
RV16 2237	2012 W 8th St	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	514,527	\$189,275
RV16 1416	1004 Ridgewood Dr	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	514,700	\$190,225
RV16 1368	RV16 1367 303 S Inglewood Ave.	Inflow	Mainline	Mainline Rehab	0	\$4,000	999.999	514,700	\$194,225
RV16 1751A	904 Rolling Hills Dr	Inflow	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	514,700	\$194,525
RV16 1358	RV16 1357 311 Tanglewood Dr.	Inflow	Mainline	Mainline Rehab	0	\$4,000	999.999	514,700	\$198,525
RV16 1358	RV16 1357 311 Tanglewood Dr.	Inflow	Mainline	Mainline Rehab	0	\$4,000	999.999	514,700	\$202,525
RV16 1348A	RV16 1347 311 Sherwood Dr.	Inflow	Mainline	Mainline Rehab	0	\$4,000	999.999	514,700	\$206,525
RV16 1348A	RV16 1347 311 Sherwood Dr.	Inflow	Mainline	Mainline Rehab	0	\$4,000	999.999	514,700	\$210,525
RV16 1348A	RV16 1347 311 Sherwood Dr.	Inflow	Mainline	Mainline Rehab	0	\$4,000	999.999	514,700	\$214,525

Total Flow (gpd): 514,700

Total Cost: \$214,525

Total Sources: 243

RV26 8013	RV26 8012 2810 S Boulder Ave.	Inflow	Cleanout	Replace Cleanout Cap	8,640	\$150	0.017	8,640	\$150
RV26 8009	RV26 8008 2911 S Arkansas Ave.	Inflow	Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	14,400	\$300
RV26 8009	RV26 8008 2911 S Arkansas Ave.	Inflow	Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	20,160	\$450
RV26 8049	RV26 8050 3015 S Arkansas Ave.	Inflow	Cleanout	Replace Cleanout Cap	4,320	\$150	0.035	24,480	\$600
RV26 8623	RV26 8623A 3310 Half Moon Ln.	Inflow	Cleanout	Replace Cleanout Cap	3,600	\$150	0.042	28,080	\$750
RV26 8001C	3102 S Frankfort Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	21,600	\$950	0.044	49,680	\$1,700
RV26 8043	RV26 8044 3001 Moblie Ave.	Inflow	Mainline	Mainline Rehab	86,400	\$4,000	0.046	136,080	\$5,700
RV26 8632	1402 Lands End N Point	Inflow	Frame Seal	Repair Frame Seal	14,400	\$750	0.052	150,480	\$6,450
RV26 8002A	3102 S Frankfort Ave	Inflow	Frame Seal/Ponding	Repair Frame Seal	14,400	\$750	0.052	164,880	\$7,200
RV26 8642	RV26 8641 1506 Lands End Pt. S	Inflow	Cleanout	Replace Cleanout Cap	2,880	\$150	0.052	167,760	\$7,350
RV26 8627	RV26 8626 3306 Half Moon Ln.	Inflow	Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	173,520	\$7,725
RV26 8012	RV26 8011 236 Lock and Dam Rd.	Inflow	Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	179,280	\$8,100
RV26 8013	RV26 8012 2810 S Boulder Ave.	Inflow	Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	185,040	\$8,475
RV26 8002A	3102 S Frankfort Ave	Inflow	Broken Frame	Replace Frame and Cover	14,400	\$950	0.066	199,440	\$9,425
RV26 8001A	3102 S Frankfort Ave	Inflow	Broken Frame	Replace Frame and Cover	14,400	\$950	0.066	213,840	\$10,375
RV26 8520	RV26 8519 1415 Shalimar cir.	Inflow	Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	216,000	\$10,525

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Basin/Structure	Street Address	Type Source	Rehabilitation Work	Flow (GPD)	Repair	Ratio (\$/GPD)	Cumulative	Cumulative	
					Cost (\$)		Flow (GPD)	Cost (\$)	
RV26 8038	RV26 8037	711 Castlegate loop	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	218,160	\$10,675
RV26 8645	RV26 8644	1406 Lands Ends Pt. S	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	220,320	\$10,825
RV26 8012	RV26 8011	238 Lock and Dam Rd.	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	224,640	\$11,200
RV26 8509		315 Nordin Ln	Inflow Frame Seal/Ponding	Repair Frame Seal	8,640	\$750	0.087	233,280	\$11,950
RV26 8640	RV26 8620	3316 Half moon lane	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	237,600	\$12,325
RV26 8531		38 Rim Rock Rd	Inflow Cracked Corbel	Corbel - Coat Corbel	3,168	\$300	0.095	240,768	\$12,625
RV26 8621		3314 Half Moon Ln	Inflow Cracked Corbel	Corbel - Coat Corbel	3,168	\$300	0.095	243,936	\$12,925
RV26 8001C		3102 S Frankfort Ave	Inflow Frame Seal/Ponding	Repair Frame Seal	7,200	\$750	0.104	251,136	\$13,675
RV26 8537		105 Skyridge Rd	Inflow Frame Seal/Ponding	Repair Frame Seal	7,200	\$750	0.104	258,336	\$14,425
RV26 8640		3316 Half Moon Ln	Inflow Frame Seal/Ponding	Repair Frame Seal	7,200	\$750	0.104	265,536	\$15,175
RV26 8528	RV26 8527	1428 Shalimar cir.	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	268,416	\$15,550
RV26 8001		3102 S Frankfort Ave	Inflow Frame Seal	Repair Frame Seal	5,760	\$750	0.130	274,176	\$16,300
RV26 CO E	RV26 8035	415 Bent tree cir.	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	277,056	\$16,675
RV26 1478	RV26 8041	2750 Blouder Ave	Inflow X Connection - Catch	Repair Defective Pipe	28,800	\$4,000	0.139	305,856	\$20,675
RV26 8513		317 Nordin Ln	Inflow Frame Seal	Repair Frame Seal	4,320	\$750	0.174	310,176	\$21,425
RV26 8532		38 Rim Rock Rd	Inflow Frame Seal	Repair Frame Seal	4,320	\$750	0.174	314,496	\$22,175
RV26 8627		3306 Half Moon Ln	Inflow Frame Seal	Repair Frame Seal	3,456	\$750	0.217	317,952	\$22,925
RV26 8501		38 Rim Rock Rd	Inflow Frame Seal	Repair Frame Seal	3,456	\$750	0.217	321,408	\$23,675
RV26 CO W	RV26 8035	412 Bent tree cir.	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	322,848	\$24,050
RV26 1478		2750 S Boulder Ave	Inflow Frame Offset	Replace Frame and Cover	720	\$200	0.278	323,568	\$24,250
RV26 1478	RV26 8041	2750 S Blouder ave.	Inflow X Connection - Storm	Repair Defective Pipe	14,400	\$4,000	0.278	337,968	\$28,250
RV26 8043		2809 Jimmy Lyle Rd	Inflow Frame Seal	Repair Frame Seal	2,592	\$750	0.289	340,560	\$29,000
RV26 8529		107 Skyline Vista Ln	Inflow Frame Seal	Repair Frame Seal	2,592	\$750	0.289	343,152	\$29,750
RV26 8568		1506 Skyline Vista Ct	Inflow Frame Seal	Repair Frame Seal	2,592	\$750	0.289	345,744	\$30,500
RV26 8522		112 Quarry Rd	Inflow Frame Seal	Repair Frame Seal	2,592	\$750	0.289	348,336	\$31,250
RV26 8569		1412 Lands End N Point	Inflow Cracked Corbel	Corbel - Coat Corbel	864	\$300	0.347	349,200	\$31,550
RV26 8623		3310 Half Moon Ln	Inflow Cracked Corbel	Corbel - Coat Corbel	864	\$300	0.347	350,064	\$31,850
RV26 8534		38 Rim Rock Rd	Inflow Frame Seal	Repair Frame Seal	2,160	\$750	0.347	352,224	\$32,600
RV26 8036	RV26 8032	506 Castlegate Lp.	Inflow Lateral Defects	Replace Lateral	8,640	\$3,000	0.347	360,864	\$35,600

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)	Cumulative Flow (GPD)	Cumulative Cost (\$)
RV26 8511	317 Nordin Ln	Inflow	Cracked Corbel	Corbel - Coat Corbel	720	\$300	0.417	361,584	\$35,900
RV26 8510	317 Nordin Ln	Inflow	Cracked Corbel	Corbel - Coat Corbel	720	\$300	0.417	362,304	\$36,200
RV26 8026	200 Riverstone St	Inflow	Frame Seal/Ponding	Repair Frame Seal	1,728	\$750	0.434	364,032	\$36,950
RV26 8569	1412 Lands End N Point	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	365,760	\$37,700
RV26 8622	3312 Half Moon Loop	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	367,488	\$38,450
RV26 8506	315 Nordin Ln	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	369,216	\$39,200
RV26 8650	1405 Lands End S Point	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	370,944	\$39,950
RV26 8511	317 Nordin Ln	Inflow	Frame Seal	Repair Frame Seal	1,728	\$750	0.434	372,672	\$40,700
RV26 8534	38 Rim Rock Rd	Inflow	Broken Frame	Replace Frame and Cover	2,160	\$950	0.440	374,832	\$41,650
RV26 8033	RV26 8032 506 Castlegate loop	Inflow	Lateral Defects	Replace Lateral	5,760	\$3,000	0.521	380,592	\$44,650
RV26 8036	RV26 8032 506 Castlegate Lp.	Inflow	Lateral Defects	Replace Lateral	5,760	\$3,000	0.521	386,352	\$47,650
RV26 8042	2809 Jimmy Lyle Rd	Inflow	Defective Cover(Pick	Replace Frame and Cover	1,152	\$950	0.825	387,504	\$48,600
RV26 8521	112 Quarry Rd	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	388,368	\$49,350
RV26 8520	120 Nordin Ln Old Post Rd	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	389,232	\$50,100
RV26 1490A	3102 S Frankfort Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	390,096	\$50,850
RV26 8512	317 Nordin Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	390,960	\$51,600
RV26 8012	2804 S Arkansas Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	391,824	\$52,350
RV26 8510	317 Nordin Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	392,688	\$53,100
RV26 8508	315 Nordin Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	393,552	\$53,850
RV26 8507	315 Nordin Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	394,416	\$54,600
RV26 8505	315 Nordin Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	395,280	\$55,350
RV26 8009	2911 S Arkansas Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	396,144	\$56,100
RV26 8045	404 Jimmy Lyle Rd	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	397,008	\$56,850
RV26 8011	230 Lock and Dam Rd	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	397,872	\$57,600
RV26 8643	3316 Half Moon Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	398,736	\$58,350
RV26 8006	3007 S Arkansas Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	399,600	\$59,100
RV26 8626	3308 Half Moon Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	400,464	\$59,850
RV26 8007	2911 S Arkansas Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	401,328	\$60,600
RV26 8523	1419 Shalimar Cir	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	402,192	\$61,350

Project Number

18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV26 8779	1510 Skyline Vista Ct	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	403,056	\$62,100
RV26 8645	3307 Half Moon Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	403,920	\$62,850
RV26 8641	5 Rim Rock Rd	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	404,784	\$63,600
RV26 8634	1422 Lands End N Point	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	405,648	\$64,350
RV26 8014	104 Lock and Dam Rd	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	406,512	\$65,100
RV26 8628	1403 Lands End N Point	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	407,376	\$65,850
RV26 8620	3314 Half Moon Ln	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	408,240	\$66,600
RV26 8559	1521 Skyline Vista Ct	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	409,104	\$67,350
RV26 8533	38 Rim Rock Rd	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	409,968	\$68,100
RV26 1401	602 S Durant Ave	Inflow	Frame Seal	Repair Frame Seal	864	\$750	0.868	410,832	\$68,850
RV26 8038	710 Castlegate Loop	Inflow	Frame Seal	Repair Frame Seal	720	\$750	1.042	411,552	\$69,600
RV26 8033	RV26 8032 506 Castlegate loop	Inflow	Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	414,432	\$72,600
RV26 8038	710 Castlegate Loop	Inflow	Broken Frame	Replace Frame and Cover	720	\$950	1.319	415,152	\$73,550
RV26 1401	602 S Durant Ave	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	415,440	\$74,500
RV26 8019	901 Shepard Dr	Inflow	Defective Cover(Pick	Replace Frame and Cover	288	\$950	3.299	415,728	\$75,450
RV26 8045	404 Jimmy Lyle Rd	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	415,901	\$76,400
RV26 8001C	3102 S Frankfort Ave	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	416,074	\$77,350
RV26 1401	602 S Durant Ave	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	416,246	\$78,300
RV26 8645	3307 Half Moon Ln	Inflow	Broken Frame	Replace Frame and Cover	173	\$950	5.498	416,419	\$79,250
RV26 8001	3102 S Frankfort Ave	Inflow	Corbel Deterioration	Corbel - Coat Corbel	0	\$300	999.999	416,419	\$79,550
RV26 8014	104 Lock and Dam Rd	Inflow	Corbel Deterioration	Corbel - Coat Corbel	0	\$300	999.999	416,419	\$79,850

**Total Flow (gpd):** 416,419

**Total Cost:** \$79,850

**Total Sources:** 95



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**APPENDIX G**

**Infiltration Source Report**



# Infiltration Source Report

Project Number 18-2873-00 Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)	Cumulative Flow (GPD)	Cumulative Cost (\$)
RV13 1675	1308 E M St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	14,400	\$300	0.021	14,400	\$300
RV13 2291	1109 E L St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	7,200	\$300	0.042	21,600	\$600
RV13 4036	619 N Greenwich Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	7,200	\$300	0.042	28,800	\$900
RV13 1657	1106 E L St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	7,200	\$300	0.042	36,000	\$1,200
RV13 1676	1214 N Nashville Pl	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	7,200	\$300	0.042	43,200	\$1,500
RV13 2180	1616 E M St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	47,520	\$1,800
RV13 1703	1316 N Jackson Ave	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	4,320	\$300	0.069	51,840	\$2,100
RV13 1651	902 E J St	Infilt	Cracked Wall	Wall - Coat Manhole Wall	4,320	\$300	0.069	56,160	\$2,400
RV13 1666	1107 N Nashville Ct	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	60,480	\$2,700
RV13 1660	1105 N Louisville Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	64,800	\$3,000
RV13 1703	1316 N Jackson Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	69,120	\$3,300
RV13 1685	1312 E O St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	73,440	\$3,600
RV13 4071	901 E G St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	77,760	\$3,900
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Connection Infiltration	Repair	6,840	\$545	0.080	84,600	\$4,445
RV13 4070	RV13 4069 HARTFORD	Infilt	Pipe w/ Hole	Repair	7,200	\$650	0.090	91,800	\$5,095
RV13 4074	RV13 4071 G ST.	Infilt	Pipe w/ Hole	Repair	6,840	\$650	0.095	98,640	\$5,745
RV13 4074	RV13 4071 G ST.	Infilt	Pipe w/ Hole	Repair	6,840	\$650	0.095	105,480	\$6,395
RV13 1840	1512 N Mobile Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	2,880	\$300	0.104	108,360	\$6,695
RV13 1676	1214 N Nashville Pl	Infilt	Wall Leakage	Karol's Grout Joints	2,880	\$300	0.104	111,240	\$6,995
RV13 4330	1615 E L St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,880	\$300	0.104	114,120	\$7,295
RV13 1679	1500 E O St	Infilt	Cracked Wall	Wall - Coat Manhole Wall	2,880	\$300	0.104	117,000	\$7,595
RV13 1664	1105 University Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,880	\$300	0.104	119,880	\$7,895
RV13 1703	1316 N Jackson Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	2,880	\$300	0.104	122,760	\$8,195
RV13 1672	1318 E L St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,880	\$300	0.104	125,640	\$8,495
RV13 2893	1703 E O St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	127,800	\$8,795
RV13 4076	1001 E G St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	129,240	\$9,095
RV13 1655	1101 N Knoxville Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	130,680	\$9,395

Project Number

18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative	Cumulative
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV13 2182	1411 N Pittsburg Ave	Infiltration	Wall Leakage	Karol's Grout Joints	1,440	\$300	0.208	132,120	\$9,695
RV13 1836	1502 N Mobile CV	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	133,560	\$9,995
RV13 2193	1020 N Jackson Ct	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	135,000	\$10,295
RV13 1659	1111 N Louisville Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	136,440	\$10,595
RV13 1838	1508 University Dr	Infiltration	Bench/Trough Leak	Bench/Trough - Seal Bench	1,440	\$300	0.208	137,880	\$10,895
RV13 1652	1006 N Jackson Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	139,320	\$11,195
RV13 1646	715 E G St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	140,760	\$11,495
RV13 1843	1511 N Louisville Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	142,200	\$11,795
RV13 1835	1502 E O St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	143,640	\$12,095
RV13 1837	1504 N Nashville Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	145,080	\$12,395
RV13 1675	1308 E M St	Infiltration	Wall Leakage	Karol's Grout Joints	1,440	\$300	0.208	146,520	\$12,695
RV13 1835	1502 E O St	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	147,600	\$12,995
RV13 1644	607 N Hartford Ave	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	148,680	\$13,295
RV13 1838	1508 University Dr	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	149,760	\$13,595
RV13 1067	903 E G St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	150,797	\$13,895
RV13 1647	715 E G St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	151,834	\$14,195
RV13 4074	RV13 4071 G ST.	Infiltration	Service Connection w	Repair	1,026	\$650	0.634	152,860	\$14,845
RV13 4074	RV13 4071 G ST.	Infiltration	Joint, Separated	Repair	1,026	\$650	0.634	153,886	\$15,495
RV13 2286	1206 E O St	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	154,246	\$15,795
RV13 2180	1616 E M St	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	154,606	\$16,095
RV13 2193	1020 N Jackson Ct	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	154,966	\$16,395
RV13 4076	1001 E G St	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	155,326	\$16,695
RV13 4077	RV13 4076 H ST.	Infiltration	Service Connection w	Repair	684	\$650	0.950	156,010	\$17,345
RV13 4071	RV13 4070 G ST.	Infiltration	Pipe w/ Hole	Repair	684	\$650	0.950	156,694	\$17,995
RV13 4071	RV13 4070 G ST.	Infiltration	Pipe, Broken	Repair	684	\$650	0.950	157,378	\$18,645
RV13 4074	RV13 4071 G ST.	Infiltration	Service Connection w	Repair	684	\$650	0.950	158,062	\$19,295
RV13 4070	RV13 4069 HARTFORD	Infiltration	Pipe, Broken	Repair	684	\$650	0.950	158,746	\$19,945
RV13 4070	RV13 4069 HARTFORD	Infiltration	Pipe w/ Hole	Repair	684	\$650	0.950	159,430	\$20,595
RV13 4074	RV13 4071 G ST.	Infiltration	Pipe w/ Open Crack	Repair	410	\$650	1.584	159,840	\$21,245

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Russellville City Corporation

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV13 4074	RV13 4071	G ST.	Infilt Joint w/ Medium Root	Repair	342	\$600	1.754	160,182	\$21,845
RV13 4071	RV13 4070	G ST.	Infilt Connection Infiltration	Repair	342	\$650	1.901	160,524	\$22,495
RV13 4074	RV13 4071	G ST.	Infilt Connection Infiltration	Repair	342	\$650	1.901	160,866	\$23,145
RV13 4070	RV13 4069	HARTFORD	Infilt Service Connection w	Repair	342	\$650	1.901	161,208	\$23,795
RV13 4071	RV13 4070	G ST.	Infilt Connection Infiltration	Repair	342	\$650	1.901	161,550	\$24,445
RV13 4074	RV13 4071	G ST.	Infilt Connection Infiltration	Repair	342	\$650	1.901	161,892	\$25,095
RV13 4071	RV13 4070	G ST.	Infilt Connection Infiltration	Repair	342	\$650	1.901	162,234	\$25,745
RV13 4071	RV13 4070	G ST.	Infilt Connection Infiltration	Repair	342	\$650	1.901	162,576	\$26,395
RV13 1659		1111 N Louisville Ave	Infilt Cracked Wall	Wall - Coat Manhole Wall	144	\$300	2.083	162,720	\$26,695
RV13 1833	RV13 1685	O ST.	Infilt Connection Infiltration	Repair	205	\$545	2.656	162,925	\$27,240
RV13 1679	RV13 1676	UNIVERSITY	Infilt Connection Infiltration	Repair	205	\$545	2.656	163,130	\$27,785
RV13 4071	RV13 4070	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	163,336	\$28,435
RV13 4074	RV13 4071	G ST.	Infilt Connection Infiltration	Repair	205	\$650	3.168	163,541	\$29,085
RV13 4074	RV13 4071	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	163,746	\$29,735
RV13 4070	RV13 4069	HARTFORD	Infilt Service Connection w	Repair	205	\$650	3.168	163,951	\$30,385
RV13 4077	RV13 4076	H ST.	Infilt Service Connection w	Repair	205	\$650	3.168	164,156	\$31,035
RV13 4074	RV13 4071	G ST.	Infilt Connection Infiltration	Repair	205	\$650	3.168	164,362	\$31,685
RV13 4071	RV13 4070	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	164,567	\$32,335
RV13 4074	RV13 4071	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	164,772	\$32,985
RV13 4071	RV13 4070	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	164,977	\$33,635
RV13 4071	RV13 4070	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	165,182	\$34,285
RV13 4074	RV13 4071	G ST.	Infilt Connection Infiltration	Repair	205	\$650	3.168	165,388	\$34,935
RV13 4074	RV13 4071	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	165,593	\$35,585
RV13 4074	RV13 4071	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	165,798	\$36,235
RV13 4074	RV13 4071	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	166,003	\$36,885
RV13 4070	RV13 4069	HARTFORD	Infilt Service Connection w	Repair	205	\$650	3.168	166,208	\$37,535
RV13 4071	RV13 4070	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	166,414	\$38,185
RV13 4074	RV13 4071	G ST.	Infilt Connection Infiltration	Repair	205	\$650	3.168	166,619	\$38,835
RV13 4074	RV13 4071	G ST.	Infilt Service Connection w	Repair	205	\$650	3.168	166,824	\$39,485

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Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV13 4074	RV13 4071	G ST.	Infilt Service Connection w Repair	205	\$650	3.168	167,029	\$40,135
RV13 4071	RV13 4070	G ST.	Infilt Service Connection w Repair	205	\$650	3.168	167,234	\$40,785
RV13 4074	RV13 4071	G ST.	Infilt Connection Infiltration Repair	205	\$650	3.168	167,440	\$41,435
RV13 1679	RV13 1676	UNIVERSITY	Infilt Pipe w/ Circular Crac Repair	137	\$545	3.984	167,576	\$41,980
RV13 1833	RV13 1685	O ST.	Infilt Pipe w/ Circular Crac Repair	137	\$545	3.984	167,713	\$42,525
RV13 4070	RV13 4069	HARTFORD	Infilt Tap Capped/Abandon Repair	137	\$600	4.386	167,850	\$43,125
RV13 4074	RV13 4071	G ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	167,987	\$43,775
RV13 4077	RV13 4076	H ST.	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	168,124	\$44,425
RV13 4076	RV13 4075	G ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	168,260	\$45,075
RV13 4070	RV13 4069	HARTFORD	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	168,397	\$45,725
RV13 4076	RV13 4075	G ST.	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	168,534	\$46,375
RV13 4077	RV13 4076	H ST.	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	168,671	\$47,025
RV13 4077	RV13 4076	H ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	168,808	\$47,675
RV13 1835	RV13 1834	O ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	168,944	\$48,325
RV13 1834	RV13 1833	O ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	169,081	\$48,975
RV13 4074	RV13 4071	G ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	169,218	\$49,625
RV13 4077	RV13 4076	H ST.	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	169,355	\$50,275
RV13 4077	RV13 4076	H ST.	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	169,492	\$50,925
RV13 4071	RV13 4070	G ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	169,628	\$51,575
RV13 4070	RV13 4069	HARTFORD	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	169,765	\$52,225
RV13 4077	RV13 4076	H ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	169,902	\$52,875
RV13 4070	RV13 4069	HARTFORD	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	170,039	\$53,525
RV13 4070	RV13 4069	HARTFORD	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	170,176	\$54,175
RV13 4077	RV13 4076	H ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	170,312	\$54,825
RV13 4070	RV13 4069	HARTFORD	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	170,449	\$55,475
RV13 4071	RV13 4070	G ST.	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	170,586	\$56,125
RV13 4070	RV13 4069	HARTFORD	Infilt Pipe w/ Longitudinal Repair	137	\$650	4.751	170,723	\$56,775
RV13 4070	RV13 4069	HARTFORD	Infilt Pipe w/ Circular Crac Repair	137	\$650	4.751	170,860	\$57,425
RV13 1679	RV13 1676	UNIVERSITY	Infilt Joint w/ Moderate Off Repair	68	\$509	7.442	170,928	\$57,934

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Joint w/ Moderate Off	Repair	68	\$509	7.442	170,996	\$58,443
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Service Connection	Repair	14	\$545	39.839	171,010	\$58,988
RV13 1833	RV13 1685 O ST.	Infilt	Pipe w/ deposits	Repair	14	\$545	39.839	171,024	\$59,533
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Service Connection	Repair	14	\$545	39.839	171,037	\$60,078
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Service Connection	Repair	14	\$545	39.839	171,051	\$60,623
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Service Connection	Repair	14	\$545	39.839	171,065	\$61,168
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Service Connection	Repair	14	\$545	39.839	171,078	\$61,713
RV13 1679	RV13 1676 UNIVERSITY	Infilt	Service Connection	Repair	14	\$545	39.839	171,092	\$62,258
RV13 4071	RV13 4070 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,106	\$62,858
RV13 4074	RV13 4071 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,120	\$63,458
RV13 4070	RV13 4069 HARTFORD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,133	\$64,058
RV13 4070	RV13 4069 HARTFORD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,147	\$64,658
RV13 4076	RV13 4075 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,161	\$65,258
RV13 4071	RV13 4070 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,174	\$65,858
RV13 4071	RV13 4070 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,188	\$66,458
RV13 4077	RV13 4076 H ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,202	\$67,058
RV13 4076	RV13 4075 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,215	\$67,658
RV13 1834	RV13 1833 O ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,229	\$68,258
RV13 4071	RV13 4070 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,243	\$68,858
RV13 4074	RV13 4071 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,256	\$69,458
RV13 4074	RV13 4071 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,270	\$70,058
RV13 4077	RV13 4076 H ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,284	\$70,658
RV13 4074	RV13 4071 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,297	\$71,258
RV13 4076	RV13 4075 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,311	\$71,858
RV13 4070	RV13 4069 HARTFORD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,325	\$72,458
RV13 4077	RV13 4076 H ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,338	\$73,058
RV13 4074	RV13 4071 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,352	\$73,658
RV13 4074	RV13 4071 G ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,366	\$74,258
RV13 4077	RV13 4076 H ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	171,379	\$74,858

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV13 4077	RV13 4076	H ST.	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	171,393	\$75,458
RV13 4076	RV13 4075	G ST.	Infiltration	Pipe w/ Sag	Repair	14	\$650	47.515	171,407	\$76,108
RV13 4074	RV13 4071	G ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,420	\$76,758
RV13 4074	RV13 4071	G ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,434	\$77,408
RV13 4070	RV13 4069	HARTFORD	Infiltration	Pipe w/ Sag	Repair	14	\$650	47.515	171,448	\$78,058
RV13 1834	RV13 1833	O ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,462	\$78,708
RV13 4074	RV13 4071	G ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,475	\$79,358
RV13 4070	RV13 4069	HARTFORD	Infiltration	Service Connection	Repair	14	\$650	47.515	171,489	\$80,008
RV13 4070	RV13 4069	HARTFORD	Infiltration	Service Connection	Repair	14	\$650	47.515	171,503	\$80,658
RV13 4071	RV13 4070	G ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,516	\$81,308
RV13 4071	RV13 4070	G ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,530	\$81,958
RV13 1835	RV13 1834	O ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,544	\$82,608
RV13 4071	RV13 4070	G ST.	Infiltration	Service Connection	Repair	14	\$650	47.515	171,557	\$83,258
RV13 2172	1418 E M St		Infiltration	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	171,557	\$84,258
RV13 4078	1004 E I St		Infiltration	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	171,557	\$85,258
RV13 1662	1101 University Dr		Infiltration	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	171,557	\$86,258
RV13 1703	1316 N Jackson Ave		Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	171,557	\$86,558
RV13 1838	1508 University Dr		Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	171,557	\$86,858

**Total Flow (gpd):** 171,557

**Total Cost:** \$86,858

**Total Sources:** 161

RV16 1428	807 Knights Ct	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	8,640	\$300	0.035	8,640	\$300	
RV16 2238	725 S Tulsa Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	7,200	\$300	0.042	15,840	\$600	
RV16 2381	2815 Honeysuckle Ln	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	5,760	\$300	0.052	21,600	\$900	
RV16 2171	2415 W 6th St	Infiltration	Bench/Trough Leak	Bench/Trough - Seal Bench	5,760	\$300	0.052	27,360	\$1,200	
RV16 2171	2415 W 6th St	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	4,320	\$300	0.069	31,680	\$1,500	
RV16 1376	530 S Durant Ave	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	4,320	\$300	0.069	36,000	\$1,800	
RV16 1346	1313 Ridgewood Dr	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	4,320	\$300	0.069	40,320	\$2,100	
RV16 2089	RV16 1434	INGLEWOOD	Infiltration	Joint w/ Moderate Off	Repair	6,840	\$610	0.089	47,160	\$2,710

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative Flow (GPD)	Cumulative Cost (\$)
						Cost (\$)	Ratio (\$/GPD)		
RV16 2232	910 S Vancouver Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,880	\$300	0.104	50,040	\$3,010
RV16 1385	409 S Inglewood Ave	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	2,880	\$300	0.104	52,920	\$3,310
RV16 1371	901 Rolling Hills Dr	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	2,880	\$300	0.104	55,800	\$3,610
RV16 1415	609 Dalewood Ct	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	2,880	\$300	0.104	58,680	\$3,910
RV16 1338	509 S Durant Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	60,840	\$4,210
RV16 1346	1313 Ridgewood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	63,000	\$4,510
RV16 2219	320 S Utah Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	65,160	\$4,810
RV16 1370	3103 Honeysuckle Ln	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	67,320	\$5,110
RV16 1004	RV16 1004A EASTWOOD	Infilt	Pipe w/ Hole	Repair	3,960	\$650	0.164	71,280	\$5,760
RV16 1004	RV16 1004A EASTWOOD	Infilt	Pipe, Broken	Repair	3,960	\$650	0.164	75,240	\$6,410
RV16 1343	1317 Ridgewood Dr	Infilt	Wall Leakage	Karol's Grout Joints	1,728	\$300	0.174	76,968	\$6,710
RV16 3408	2314 W 8th St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	78,408	\$7,010
RV16 2091	2005 W 3rd Ct	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	1,440	\$300	0.208	79,848	\$7,310
RV16 2879	1010 S Vancouver Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	81,288	\$7,610
RV16 1828	919 Eastwood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	82,728	\$7,910
RV16 1317	300 S Vancouver Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	84,168	\$8,210
RV16 2429	403 S Arlington Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	85,608	\$8,510
RV16 2429	403 S Arlington Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	87,048	\$8,810
RV16 2381	2815 Honeysuckle Ln	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	88,488	\$9,110
RV16 1004	916 Eastwood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	89,928	\$9,410
RV16 2865	2607 W 12th St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	91,368	\$9,710
RV16 1412	803 Ridgewood Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	92,808	\$10,010
RV16 1357	204 Arrowwood Ln	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	94,248	\$10,310
RV16 1354	301 Briarwood Ct	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	95,688	\$10,610
RV16 1372	3112 Honeysuckle Ln	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	97,128	\$10,910
RV16 1372	3112 Honeysuckle Ln	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	98,568	\$11,210
RV16 1376	530 S Durant Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	100,008	\$11,510
RV16 1385	409 S Inglewood Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	101,448	\$11,810
RV16 2219	320 S Utah Ave	Infilt	Wall Leakage	Karol's Grout Joints	1,440	\$300	0.208	102,888	\$12,110



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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative	Cumulative
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1410	901 Ridgewood Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	104,328	\$12,410
RV16 1440	1103 S Inglewood Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	105,768	\$12,710
RV16 1412	803 Ridgewood Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	107,208	\$13,010
RV16 1321	407 S Arlington Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	108,648	\$13,310
RV16 1413	1105 Princess Ct	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	110,088	\$13,610
RV16 1415	609 Dalewood Ct	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	111,528	\$13,910
RV16 1342	1310 Ridgewood Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	112,968	\$14,210
RV16 1355	307 Briarwood Ct	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	114,408	\$14,510
RV16 1438B	1120 S Inglewood Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	115,848	\$14,810
RV16 1407	1005 Ridgewood Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	117,288	\$15,110
RV16 2090	503 S Durant Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	118,728	\$15,410
RV16 3325	419 Sherwood Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	120,168	\$15,710
RV16 1314	2005 W 3rd Ct	Infiltration	Bench/Trough Leak	Bench/Trough - Seal Bench	1,440	\$300	0.208	121,608	\$16,010
RV16 2218	404 S Vancouver Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	123,048	\$16,310
RV16 2224	2011 W 5th St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	124,488	\$16,610
RV16 2233	605 S Utah Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	125,928	\$16,910
RV16 2103	810 S Vancouver Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	127,368	\$17,210
RV16 1441	1017 Lancelot Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	128,808	\$17,510
RV16 1856	2807 Cedarwood Ct	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	130,248	\$17,810
RV16 1751	904 Rolling Hills Dr	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	131,688	\$18,110
RV16 2380	202 Sherwood Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	133,128	\$18,410
RV16 2023	810 Eastwood Dr	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	134,568	\$18,710
RV16 2236	802 S Vancouver Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	136,008	\$19,010
RV16 1425	914 S Inglewood Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	137,448	\$19,310
RV16 2168	2317 W 5th St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	138,888	\$19,610
RV16 2098	501 S Waco Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	140,328	\$19,910
RV16 1856	2807 Cedarwood Ct	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	141,768	\$20,210
RV16 2023	810 Eastwood Dr	Infiltration	Bench/Trough Leak	Bench/Trough - Seal Bench	1,440	\$300	0.208	143,208	\$20,510
RV16 1343	1317 Ridgewood Dr	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	144,648	\$20,810

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)	Cumulative Flow (GPD)	Cumulative Cost (\$)
RV16 1344	1309 Ridgewood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	146,088	\$21,110
RV16 1349	401 Sherwood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	147,528	\$21,410
RV16 1424	803 Knights Ct	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	148,968	\$21,710
RV16 1364	203 Arrowwood Ln	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	150,408	\$22,010
RV16 1386	422 Tanglewood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	151,848	\$22,310
RV16 2380	202 Sherwood Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	153,288	\$22,610
RV16 1367	303 S Inglewood Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	154,728	\$22,910
RV16 1386	422 Tanglewood Dr	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	1,440	\$300	0.208	156,168	\$23,210
RV16 1371	901 Rolling Hills Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	157,608	\$23,510
RV16 1386	422 Tanglewood Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	159,048	\$23,810
RV16 1441	1017 Lancelot Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	160,488	\$24,110
RV16 2100	611 S Waco Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	161,928	\$24,410
RV16 1419	RV16 1417 LANCELOT	Infilt	Connection Infiltration	Repair	2,880	\$650	0.226	164,808	\$25,060
RV16 1358	RV16 1357 TANGLEWOOD	Infilt	Pipe, Broken	Repair	2,592	\$655	0.253	167,400	\$25,715
RV16 3444	704 S Durant Ave	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	1,152	\$300	0.260	168,552	\$26,015
RV16 1429	807 Knights Ct	Infilt	Wall Leakage	Karol's Grout Joints	1,080	\$300	0.278	169,632	\$26,315
RV16 2091	2005 W 3rd Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	170,712	\$26,615
RV16 3444	704 S Durant Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	171,792	\$26,915
RV16 2864	1201 Town and Country Ln	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	172,872	\$27,215
RV16 1355	307 Briarwood Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	173,952	\$27,515
RV16 1431	909 Kings Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	175,032	\$27,815
RV16 1337	2437 W 4th St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	176,069	\$28,115
RV16 1353	304 Briarwood Ct	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	177,106	\$28,415
RV16 1356	400 Briarwood Ct	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	178,142	\$28,715
RV16 1379	1205 Ridgewood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	179,179	\$29,015
RV16 2235	706 S Vancouver Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	180,216	\$29,315
RV16 2242	908 S Vancouver Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	181,253	\$29,615
RV16 2244	909 S Tulsa Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	182,290	\$29,915
RV16 1369	308 Tanglewood Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	183,326	\$30,215

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative	
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1420	2900 Camelot Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	184,363	\$30,515
RV16 2239	810 S Vancouver Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	185,400	\$30,815
RV16 1353	304 Briarwood Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,008	\$300	0.298	186,408	\$31,115
RV16 1376	RV16 1340 RIDGEWOOD	Infilt	Pipe w/ Hole	Repair	1,980	\$600	0.303	188,388	\$31,715
RV16 1347	RV16 1346 SHERWOOD	Infilt	Pipe w/ Longitudinal	Repair	2,052	\$650	0.317	190,440	\$32,365
RV16 2216	2601 W 12th St	Infilt	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	191,304	\$32,665
RV16 1535	RV16 1344 RIDGEWOOD	Infilt	Joint w/ Severe Offset	Repair	1,710	\$650	0.380	193,014	\$33,315
RV16 1400	920 Eastwood Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	193,734	\$33,615
RV16 2212	2601 W 12th St	Infilt	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	194,454	\$33,915
RV16 2103	810 S Vancouver Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	195,174	\$34,215
RV16 1437	920 S Inglewood Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	195,894	\$34,515
RV16 2103	810 S Vancouver Ave	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	720	\$300	0.417	196,614	\$34,815
RV16 1424	803 Knights Ct	Infilt	Wall Leakage	Karol's Grout Joints	720	\$300	0.417	197,334	\$35,115
RV16 1315	RV16 1332 3RD ST.	Infilt	Connection Infiltration	Repair	1,440	\$650	0.451	198,774	\$35,765
RV16 1419	RV16 1417 LANCELOT	Infilt	Connection Infiltration	Repair	1,440	\$650	0.451	200,214	\$36,415
RV16 1751	904 Rolling Hills Dr	Infilt	Bench/Trough Deterio	Replace Bench/Trough	2,160	\$1,000	0.463	202,374	\$37,415
RV16 1535	RV16 1344 RIDGEWOOD	Infilt	Service Connection w	Repair	1,368	\$650	0.475	203,742	\$38,065
RV16 3325	RV16 1346 4TH ST.	Infilt	Pipe w/ Open Crack	Repair	1,026	\$650	0.634	204,768	\$38,715
RV16 1425	RV16 1437 INGLEWOOD	Infilt	Pipe w/ Hole	Repair	1,026	\$650	0.634	205,794	\$39,365
RV16 2091	RV16 1315 3RD ST.	Infilt	Connection Infiltration	Repair	1,026	\$655	0.638	206,820	\$40,020
RV16 1317	RV16 1316 VANCOUVER	Infilt	Service Connection w	Repair	684	\$545	0.797	207,504	\$40,565
RV16 1751	RV16 1371 ROLLING HILLS	Infilt	Service Connection w	Repair	684	\$545	0.797	208,188	\$41,110
RV16 1320	RV16 1322 ARLINGTON	Infilt	Pipe w/ Longitudinal	Repair	684	\$545	0.797	208,872	\$41,655
RV16 1424	RV16 1423 TANGLEWOOD	Infilt	Pipe w/ Circular Crac	Repair	684	\$545	0.797	209,556	\$42,200
RV16 2237	2012 W 8th St	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	360	\$300	0.833	209,916	\$42,500
RV16 1004A	918 Eastwood Dr.	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	210,276	\$42,800
RV16 2240	2010 W 9th St	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	210,636	\$43,100
RV16 1427	907 Lancelot Dr	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	360	\$300	0.833	210,996	\$43,400
RV16 2243	1210 Whipporwill Ln	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	211,356	\$43,700

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 2238	725 S Tulsa Ave	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	360	\$300	0.833	211,716	\$44,000
RV16 2243	1210 Whipporwill Ln	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	360	\$300	0.833	212,076	\$44,300
RV16 1360	206 Arrowwood Ln	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	360	\$300	0.833	212,436	\$44,600
RV16 2238	725 S Tulsa Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	212,796	\$44,900
RV16 1420	2900 Camelot Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	213,156	\$45,200
RV16 1367	303 S Inglewood Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	213,516	\$45,500
RV16 1369	308 Tanglewood Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	213,876	\$45,800
RV16 1426	908 Lancelot Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	214,236	\$46,100
RV16 1430	805 Knights Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	214,596	\$46,400
RV16 2213	2601 W 12th St	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	214,956	\$46,700
RV16 2235	706 S Vancouver Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	215,316	\$47,000
RV16 1315	335 S Vancouver Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	215,676	\$47,300
RV16 1438B	1120 S Inglewood Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	216,036	\$47,600
RV16 2237	2012 W 8th St	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	216,396	\$47,900
RV16 1413	1105 Princess Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	216,756	\$48,200
RV16 1358	309 Briarwood Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	217,116	\$48,500
RV16 1379	1205 Ridgewood Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	217,476	\$48,800
RV16 1407	1005 Ridgewood Dr	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	217,836	\$49,100
RV16 2236	802 S Vancouver Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	218,196	\$49,400
RV16 1315	RV16 1332 3RD ST.	Infilt	Joint w/ Light Roots	Repair	684	\$600	0.877	218,880	\$50,000
RV16 1376	RV16 1340 RIDGEWOOD	Infilt	Pipe w/ Open Crack	Repair	684	\$600	0.877	219,564	\$50,600
RV16 1372	RV16 1371 HONEYSUCKLE	Infilt	Pipe w/ Circular Crac	Repair	616	\$545	0.885	220,180	\$51,145
RV16 1402	1013 Ridgewood Dr	Infilt	Wall Leakage	Karol's Grout Joints	317	\$300	0.947	220,496	\$51,445
RV16 1433	903 Kings Ct	Infilt	Wall Leakage	Karol's Grout Joints	317	\$300	0.947	220,813	\$51,745
RV16 2221	2103 W 5th St	Infilt	Wall Leakage	Karol's Grout Joints	317	\$300	0.947	221,130	\$52,045
RV16 2100	611 S Waco Ave	Infilt	Wall Leakage	Karol's Grout Joints	317	\$300	0.947	221,447	\$52,345
RV16 1315	RV16 1332 3RD ST.	Infilt	Pipe w/ Circular Crac	Repair	684	\$650	0.950	222,131	\$52,995
RV16 1348	RV16 1348A SHERWOOD	Infilt	Pipe w/ Open Crack	Repair	684	\$650	0.950	222,815	\$53,645
RV16 1535	RV16 1344 RIDGEWOOD	Infilt	Pipe w/ Open Crack	Repair	684	\$650	0.950	223,499	\$54,295

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair			Cumulative	Cumulative
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 1388	RV16 1381	4TH ST.	Infilt	Service Connection w	Repair	684	\$650	0.950	224,183	\$54,945
RV16 1345	RV16 1344	RIDGEWOOD	Infilt	Pipe, Broken	Repair	684	\$650	0.950	224,867	\$55,595
RV16 1535	RV16 1344	RIDGEWOOD	Infilt	Pipe w/ Open Crack	Repair	684	\$650	0.950	225,551	\$56,245
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Service Connection w	Repair	684	\$655	0.958	226,235	\$56,900
RV16 1317	RV16 1316	VANCOUVER	Infilt	Pipe w/ Open Crack	Repair	410	\$545	1.328	226,645	\$57,445
RV16 1425	RV16 1437	INGLEWOOD	Infilt	Pipe w/ Open Crack	Repair	410	\$650	1.584	227,056	\$58,095
RV16 2106	RV16 1349	SHERWOOD	Infilt	Pipe w/ Open Crack	Repair	410	\$650	1.584	227,466	\$58,745
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Pipe w/ Open Crack	Repair	410	\$650	1.584	227,876	\$59,395
RV16 1398	RV16 1377	RIDGEWOOD	Infilt	Pipe w/ Open Crack	Repair	410	\$650	1.584	228,287	\$60,045
RV16 1359	RV16 1358	TANGLEWOOD	Infilt	Pipe w/ Open Crack	Repair	410	\$650	1.584	228,697	\$60,695
RV16 1354	RV16 1355	BRIARWOOD	Infilt	Pipe w/ Open Crack	Repair	410	\$650	1.584	229,108	\$61,345
RV16 1350	RV16 1346	SHERWOOD	Infilt	Pipe w/ Open Crack	Repair	410	\$650	1.584	229,518	\$61,995
RV16 1372	RV16 1371	HONEYSUCKLE	Infilt	Service Connection w	Repair	342	\$545	1.594	229,860	\$62,540
RV16 1425	RV16 1437	INGLEWOOD	Infilt	Pipe w/ Circular Crac	Repair	342	\$650	1.901	230,202	\$63,190
RV16 1315	RV16 1332	3RD ST.	Infilt	Pipe w/ Circular Crac	Repair	342	\$650	1.901	230,544	\$63,840
RV16 1410	RV16 1408	RIDGEWOOD	Infilt	Pipe w/ Circular Crac	Repair	342	\$650	1.901	230,886	\$64,490
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Pipe w/ Longitudinal	Repair	342	\$650	1.901	231,228	\$65,140
RV16 2106	RV16 1349	SHERWOOD	Infilt	Service Connection w	Repair	342	\$650	1.901	231,570	\$65,790
RV16 1425	RV16 1437	INGLEWOOD	Infilt	Pipe w/ Circular Crac	Repair	342	\$650	1.901	231,912	\$66,440
RV16 1425	RV16 1437	INGLEWOOD	Infilt	Pipe w/ Longitudinal	Repair	342	\$650	1.901	232,254	\$67,090
RV16 2106	RV16 1349	SHERWOOD	Infilt	Pipe w/ Longitudinal	Repair	342	\$650	1.901	232,596	\$67,740
RV16 1535	RV16 1344	RIDGEWOOD	Infilt	Pipe w/ Circular Crac	Repair	342	\$650	1.901	232,938	\$68,390
RV16 1354	RV16 1355	BRIARWOOD	Infilt	Roots	Repair	342	\$650	1.901	233,280	\$69,040
RV16 1315	RV16 1332	3RD ST.	Infilt	Pipe w/ Longitudinal	Repair	342	\$650	1.901	233,622	\$69,690
RV16 1353	RV16 1350	BRIARWOOD	Infilt	Service Connection w	Repair	342	\$655	1.915	233,964	\$70,345
RV16 2091	RV16 1315	3RD ST.	Infilt	Service Connection w	Repair	342	\$655	1.915	234,306	\$71,000
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Service Connection w	Repair	342	\$655	1.915	234,648	\$71,655
RV16 1372	RV16 1371	HONEYSUCKLE	Infilt	Joint w/ Moderate Off	Repair	205	\$509	2.481	234,853	\$72,164
RV16 1320	RV16 1322	ARLINGTON	Infilt	Connection Infiltration	Repair	216	\$545	2.523	235,069	\$72,709

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair	Ratio (\$/GPD)	Cumulative	Cumulative	
						Cost (\$)		Flow (GPD)	Cost (\$)	
RV16 1320	RV16 1322	ARLINGTON	Infilt	Connection Infiltration	Repair	216	\$545	2.523	235,285	\$73,254
RV16 1317	RV16 1316	VANCOUVER	Infilt	Connection Infiltration	Repair	216	\$545	2.523	235,501	\$73,799
RV16 1320	RV16 1322	ARLINGTON	Infilt	Connection Infiltration	Repair	216	\$545	2.523	235,717	\$74,344
RV16 2141	RV16 1317	VANCOUVER	Infilt	Service Connection w	Repair	205	\$545	2.656	235,922	\$74,889
RV16 1317	RV16 1316	VANCOUVER	Infilt	Pipe w/ Circular Crac	Repair	205	\$545	2.656	236,128	\$75,434
RV16 1535	RV16 1344	RIDGEWOOD	Infilt	Tap Capped/Abandon	Repair	205	\$600	2.924	236,333	\$76,034
RV16 1376	RV16 1340	RIDGEWOOD	Infilt	Service Connection w	Repair	205	\$600	2.924	236,538	\$76,634
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Tap Capped/Abandon	Repair	205	\$600	2.924	236,743	\$77,234
RV16 1389	RV16 1388	4TH ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	236,959	\$77,884
RV16 1398	RV16 1377	RIDGEWOOD	Infilt	Connection Infiltration	Repair	216	\$650	3.009	237,175	\$78,534
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	237,391	\$79,184
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	237,607	\$79,834
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	237,823	\$80,484
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	238,039	\$81,134
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	238,255	\$81,784
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	238,471	\$82,434
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$650	3.009	238,687	\$83,084
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	216	\$655	3.032	238,903	\$83,739
RV16 1443	RV16 1427	LANCELOT DR	Infilt	Connection Infiltration	Repair	216	\$655	3.032	239,119	\$84,394
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Service Connection w	Repair	205	\$650	3.168	239,324	\$85,044
RV16 3401	RV16 1367	INGLEWOOD	Infilt	Service Connection w	Repair	205	\$650	3.168	239,530	\$85,694
RV16 1398	RV16 1377	RIDGEWOOD	Infilt	Pipe w/ Circular Crac	Repair	205	\$650	3.168	239,735	\$86,344
RV16 1004	RV16 1004A	EASTWOOD	Infilt	Service Connection w	Repair	205	\$650	3.168	239,940	\$86,994
RV16 3325	RV16 1346	4TH ST.	Infilt	Joint w/ Severe Offset	Repair	205	\$650	3.168	240,145	\$87,644
RV16 1427	RV16 3404	LANCELOT DR	Infilt	Service Connection w	Repair	205	\$650	3.168	240,350	\$88,294
RV16 1398	RV16 1377	RIDGEWOOD	Infilt	Pipe w/ Circular Crac	Repair	205	\$650	3.168	240,556	\$88,944
RV16 1535	RV16 1344	RIDGEWOOD	Infilt	Service Connection w	Repair	205	\$650	3.168	240,761	\$89,594
RV16 1388	RV16 1381	4TH ST.	Infilt	Service Connection w	Repair	205	\$650	3.168	240,966	\$90,244
RV16 1350	RV16 1346	SHERWOOD	Infilt	Joint w/ Severe Offset	Repair	205	\$650	3.168	241,171	\$90,894

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1348	RV16 1348A	SHERWOOD	Infiltration	Service Connection w Repair	205	\$650	3.168	241,376	\$91,544
RV16 1398	RV16 1377	RIDGEWOOD	Infiltration	Pipe w/ Circular Crac Repair	205	\$650	3.168	241,582	\$92,194
RV16 1410	RV16 1408	RIDGEWOOD	Infiltration	Roots Repair	205	\$650	3.168	241,787	\$92,844
RV16 1348	RV16 1348A	SHERWOOD	Infiltration	Service Connection w Repair	205	\$650	3.168	241,992	\$93,494
RV16 1416	RV16 1406	DURANT	Infiltration	Service Connection w Repair	205	\$650	3.168	242,197	\$94,144
RV16 1410	RV16 1408	RIDGEWOOD	Infiltration	Joint w/ Severe Offset Repair	205	\$650	3.168	242,402	\$94,794
RV16 1359	RV16 1358	TANGLEWOOD	Infiltration	Service Connection w Repair	205	\$650	3.168	242,608	\$95,444
RV16 1361	RV16 1360	ARROWWOOD	Infiltration	Service Connection w Repair	205	\$650	3.168	242,813	\$96,094
RV16 1403	RV16 1402	RIDGEWOOD	Infiltration	Service Connection w Repair	205	\$650	3.168	243,018	\$96,744
RV16 1427	RV16 3404	LANCELOT DR	Infiltration	Service Connection w Repair	205	\$650	3.168	243,223	\$97,394
RV16 1358	RV16 1357	TANGLEWOOD	Infiltration	Service Connection w Repair	205	\$655	3.192	243,428	\$98,049
RV16 2091	RV16 1315	3RD ST.	Infiltration	Service Connection w Repair	205	\$655	3.192	243,634	\$98,704
RV16 1369	RV16 1368	INGLEWOOD	Infiltration	Service Connection w Repair	205	\$655	3.192	243,839	\$99,359
RV16 1358	RV16 1357	TANGLEWOOD	Infiltration	Service Connection w Repair	205	\$655	3.192	244,044	\$100,014
RV16 1369	RV16 1368	INGLEWOOD	Infiltration	Service Connection w Repair	205	\$655	3.192	244,249	\$100,669
RV16 1317	RV16 1316	VANCOUVER	Infiltration	Pipe w/ Circular Crac Repair	137	\$545	3.984	244,386	\$101,214
RV16 2141	RV16 1317	VANCOUVER	Infiltration	Pipe w/ Circular Crac Repair	137	\$545	3.984	244,523	\$101,759
RV16 1320	RV16 1322	ARLINGTON	Infiltration	Pipe w/ Circular Crac Repair	137	\$545	3.984	244,660	\$102,304
RV16 1320	RV16 1322	ARLINGTON	Infiltration	Pipe w/ Circular Crac Repair	137	\$545	3.984	244,796	\$102,849
RV16 1376	RV16 1340	RIDGEWOOD	Infiltration	Pipe w/ Longitudinal Repair	137	\$600	4.386	244,933	\$103,449
RV16 1535	RV16 1344	RIDGEWOOD	Infiltration	Joint w/ Light Roots Repair	137	\$600	4.386	245,070	\$104,049
RV16 2106	RV16 1349	SHERWOOD	Infiltration	Connection Infiltration Repair	144	\$650	4.514	245,214	\$104,699
RV16 2106	RV16 1349	SHERWOOD	Infiltration	Connection Infiltration Repair	144	\$650	4.514	245,358	\$105,349
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Connection Infiltration Repair	144	\$650	4.514	245,502	\$105,999
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Connection Infiltration Repair	144	\$650	4.514	245,646	\$106,649
RV16 1315	RV16 1332	3RD ST.	Infiltration	Connection Infiltration Repair	144	\$650	4.514	245,790	\$107,299
RV16 1354	RV16 1355	BRIARWOOD	Infiltration	Connection Infiltration Repair	144	\$650	4.514	245,934	\$107,949
RV16 1315	RV16 1332	3RD ST.	Infiltration	Connection Infiltration Repair	144	\$650	4.514	246,078	\$108,599
RV16 1315	RV16 1332	3RD ST.	Infiltration	Connection Infiltration Repair	144	\$650	4.514	246,222	\$109,249

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Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 1315	RV16 1332	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$650	4.514	246,366	\$109,899
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$655	4.549	246,510	\$110,554
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$655	4.549	246,654	\$111,209
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$655	4.549	246,798	\$111,864
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$655	4.549	246,942	\$112,519
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$655	4.549	247,086	\$113,174
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$655	4.549	247,230	\$113,829
RV16 2091	RV16 1315	3RD ST.	Infilt	Connection Infiltration	Repair	144	\$655	4.549	247,374	\$114,484
RV16 1347	RV16 1346	SHERWOOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	247,511	\$115,134
RV16 1535	RV16 1344	RIDGEWOOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	247,648	\$115,784
RV16 1345	RV16 1344	RIDGEWOOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	247,784	\$116,434
RV16 1359	RV16 1358	TANGLEWVOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	247,921	\$117,084
RV16 1345	RV16 1344	RIDGEWOOD	Infilt	Pipe w/ Circular Crac	Repair	137	\$650	4.751	248,058	\$117,734
RV16 1419	RV16 1417	LANCELOT	Infilt	Pipe w/ Circular Crac	Repair	137	\$650	4.751	248,195	\$118,384
RV16 1347	RV16 1346	SHERWOOD	Infilt	Pipe w/ Circular Crac	Repair	137	\$650	4.751	248,332	\$119,034
RV16 1350	RV16 1346	SHERWOOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	248,468	\$119,684
RV16 1359	RV16 1358	TANGLEWVOD	Infilt	Pipe w/ Circular Crac	Repair	137	\$650	4.751	248,605	\$120,334
RV16 1377	RV16 1376	RIDGEWOOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	248,742	\$120,984
RV16 1350	RV16 1346	SHERWOOD	Infilt	Pipe w/ Circular Crac	Repair	137	\$650	4.751	248,879	\$121,634
RV16 1359	RV16 1358	TANGLEWVOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	249,016	\$122,284
RV16 1350	RV16 1346	SHERWOOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	249,152	\$122,934
RV16 1359	RV16 1358	TANGLEWVOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	249,289	\$123,584
RV16 1350	RV16 1346	SHERWOOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	249,426	\$124,234
RV16 1359	RV16 1358	TANGLEWVOD	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	249,563	\$124,884
RV16 1348	RV16 1348A	SHERWOOD	Infilt	Pipe w/ Circular Crac	Repair	137	\$650	4.751	249,700	\$125,534
RV16 1348	RV16 1348A	SHERWOOD	Infilt	Pipe w/ Circular Crac	Repair	137	\$650	4.751	249,836	\$126,184
RV16 1419	RV16 1417	LANCELOT	Infilt	Pipe w/ Longitudinal	Repair	137	\$650	4.751	249,973	\$126,834
RV16 1425	RV16 1437	INGLEWOOD	Infilt	Roots	Repair	137	\$650	4.751	250,110	\$127,484
RV16 1427	RV16 3404	LANCELOT DR	Infilt	Roots	Repair	137	\$650	4.751	250,247	\$128,134



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Russellville City Corporation

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 1004	RV16 1004A	EASTWOOD	Infiltration Roots	Repair	137	\$650	4.751	250,384	\$128,784
RV16 1350	RV16 1346	SHERWOOD	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	250,520	\$129,434
RV16 1398	RV16 1377	RIDGEWOOD	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	250,657	\$130,084
RV16 3325	RV16 1346	4TH ST.	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	250,794	\$130,734
RV16 3325	RV16 1346	4TH ST.	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	250,931	\$131,384
RV16 3325	RV16 1346	4TH ST.	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	251,068	\$132,034
RV16 1350	RV16 1346	SHERWOOD	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	251,204	\$132,684
RV16 1359	RV16 1358	TANGLEWOD	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	251,341	\$133,334
RV16 1389	RV16 1388	4TH ST.	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	251,478	\$133,984
RV16 1398	RV16 1377	RIDGEWOOD	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	251,615	\$134,634
RV16 1398	RV16 1377	RIDGEWOOD	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	251,752	\$135,284
RV16 1354	RV16 1355	BRIARWOOD	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	251,888	\$135,934
RV16 1354	RV16 1355	BRIARWOOD	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	252,025	\$136,584
RV16 1354	RV16 1355	BRIARWOOD	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	252,162	\$137,234
RV16 1354	RV16 1355	BRIARWOOD	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	252,299	\$137,884
RV16 1403	RV16 1402	RIDGEWOOD	Infiltration Pipe w/ Circular Crac	Repair	137	\$650	4.751	252,436	\$138,534
RV16 1359	RV16 1358	TANGLEWOD	Infiltration Pipe w/ Longitudinal	Repair	137	\$650	4.751	252,572	\$139,184
RV16 1751	RV16 1371	ROLLING HILLS	Infiltration Joint w/ Moderate Off	Repair	68	\$509	7.442	252,641	\$139,693
RV16 1004	RV16 1004A	EASTWOOD	Infiltration Joint w/ Heavy Roots	Repair	41	\$600	14.620	252,682	\$140,293
RV16 1004	RV16 1004A	EASTWOOD	Infiltration Joint w/ Medium Root	Repair	27	\$600	21.930	252,709	\$140,893
RV16 1004	RV16 1004A	EASTWOOD	Infiltration Joint w/ Medium Root	Repair	27	\$600	21.930	252,737	\$141,493
RV16 1369	RV16 1368	INGLEWOOD	Infiltration Joint w/ Medium Root	Repair	27	\$600	21.930	252,764	\$142,093
RV16 1372	RV16 1371	HONEYSUCKLE	Infiltration Joint w/ Light Roots	Repair	14	\$500	36.550	252,778	\$142,593
RV16 1317	RV16 1316	VANCOUVER	Infiltration Joint w/ Light Roots	Repair	14	\$500	36.550	252,791	\$143,093
RV16 1317	RV16 1316	VANCOUVER	Infiltration Joint w/ Light Roots	Repair	14	\$500	36.550	252,805	\$143,593
RV16 1372	RV16 1371	HONEYSUCKLE	Infiltration Joint w/ Light Roots	Repair	14	\$500	36.550	252,819	\$144,093
RV16 1751	RV16 1371	ROLLING HILLS	Infiltration Joint w/ Light Roots	Repair	14	\$500	36.550	252,832	\$144,593
RV16 1751	RV16 1371	ROLLING HILLS	Infiltration Joint w/ Light Roots	Repair	14	\$500	36.550	252,846	\$145,093
RV16 1751	RV16 1371	ROLLING HILLS	Infiltration Joint w/ Light Roots	Repair	14	\$500	36.550	252,860	\$145,593

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Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 1751	RV16 1371	ROLLING HILLS	Infilt	Joint w/ Light Roots	Repair	14	\$500	36.550	252,873	\$146,093
RV16 1751	RV16 1371	ROLLING HILLS	Infilt	Joint w/ Light Roots	Repair	14	\$500	36.550	252,887	\$146,593
RV16 1751	RV16 1371	ROLLING HILLS	Infilt	Joint w/ Light Roots	Repair	14	\$500	36.550	252,901	\$147,093
RV16 1751	RV16 1371	ROLLING HILLS	Infilt	Joint w/ Light Roots	Repair	14	\$500	36.550	252,914	\$147,593
RV16 2141	RV16 1317	VANCOUVER	Infilt	Joint w/ Gasket Expos	Repair	14	\$545	39.839	252,928	\$148,138
RV16 1751	RV16 1371	ROLLING HILLS	Infilt	Joint w/ Gasket Expos	Repair	14	\$545	39.839	252,942	\$148,683
RV16 2141	RV16 1317	VANCOUVER	Infilt	Service Connection	Repair	14	\$545	39.839	252,955	\$149,228
RV16 1317	RV16 1316	VANCOUVER	Infilt	Joint w/ Gasket Expos	Repair	14	\$545	39.839	252,969	\$149,773
RV16 2141	RV16 1317	VANCOUVER	Infilt	Service Connection	Repair	14	\$545	39.839	252,983	\$150,318
RV16 2141	RV16 1317	VANCOUVER	Infilt	Service Connection	Repair	14	\$545	39.839	252,996	\$150,863
RV16 2141	RV16 1317	VANCOUVER	Infilt	Service Connection	Repair	14	\$545	39.839	253,010	\$151,408
RV16 2141	RV16 1317	VANCOUVER	Infilt	Service Connection	Repair	14	\$545	39.839	253,024	\$151,953
RV16 1751	RV16 1371	ROLLING HILLS	Infilt	Service Connection	Repair	14	\$545	39.839	253,038	\$152,498
RV16 1372	RV16 1371	HONEYSUCKLE	Infilt	Service Connection	Repair	14	\$545	39.839	253,051	\$153,043
RV16 1372	RV16 1371	HONEYSUCKLE	Infilt	Joint w/ Gasket Expos	Repair	14	\$545	39.839	253,065	\$153,588
RV16 1372	RV16 1371	HONEYSUCKLE	Infilt	Joint w/ Gasket Expos	Repair	14	\$545	39.839	253,079	\$154,133
RV16 1372	RV16 1371	HONEYSUCKLE	Infilt	Joint w/ Gasket Expos	Repair	14	\$545	39.839	253,092	\$154,678
RV16 1424	RV16 1423	TANGLEWOOD	Infilt	Service Connection	Repair	14	\$545	39.839	253,106	\$155,223
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,120	\$155,823
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,133	\$156,423
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,147	\$157,023
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,161	\$157,623
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,174	\$158,223
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,188	\$158,823
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,202	\$159,423
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,215	\$160,023
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,229	\$160,623
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,243	\$161,223
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,256	\$161,823

Basin/Structure		Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)	Cumulative Flow (GPD)	Cumulative Cost (\$)
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,270	\$162,423
RV16 1359	RV16 1358	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,284	\$163,023
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,297	\$163,623
RV16 1359	RV16 1358	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,311	\$164,223
RV16 1359	RV16 1358	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,325	\$164,823
RV16 1359	RV16 1358	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,338	\$165,423
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,352	\$166,023
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,366	\$166,623
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,380	\$167,223
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,393	\$167,823
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,407	\$168,423
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,421	\$169,023
RV16 1350	RV16 1346	SHERWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,434	\$169,623
RV16 1361	RV16 1360	ARROWWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,448	\$170,223
RV16 1363	RV16 1362	ARROWWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,462	\$170,823
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,475	\$171,423
RV16 1348	RV16 1348A	SHERWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,489	\$172,023
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,503	\$172,623
RV16 1348	RV16 1348A	SHERWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,516	\$173,223
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,530	\$173,823
RV16 2092	RV16 2091	UTAH	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,544	\$174,423
RV16 1004	RV16 1004A	EASTWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,557	\$175,023
RV16 1353	RV16 1350	BRIARWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,571	\$175,623
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,585	\$176,223
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,598	\$176,823
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,612	\$177,423
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,626	\$178,023
RV16 1353	RV16 1350	BRIARWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,639	\$178,623
RV16 2106	RV16 1349	SHERWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,653	\$179,223

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Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair			Cumulative	
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 1351	RV16 1350	SHERWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,667	\$179,823
RV16 2092	RV16 2091	UTAH	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,680	\$180,423
RV16 2092	RV16 2091	UTAH	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,694	\$181,023
RV16 1427	RV16 3404	LANCELOT DR	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,708	\$181,623
RV16 1427	RV16 3404	LANCELOT DR	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,722	\$182,223
RV16 1376	RV16 1340	RIDGEWOOD	Infilt	Service Connection	Repair	14	\$600	43.860	253,735	\$182,823
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,749	\$183,423
RV16 2106	RV16 1349	SHERWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,763	\$184,023
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,776	\$184,623
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,790	\$185,223
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,804	\$185,823
RV16 1358	RV16 1357	TANGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,817	\$186,423
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,831	\$187,023
RV16 1368	RV16 1367	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,845	\$187,623
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,858	\$188,223
RV16 1353	RV16 1350	BRIARWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,872	\$188,823
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,886	\$189,423
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,899	\$190,023
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,913	\$190,623
RV16 1389	RV16 1388	4TH ST.	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,927	\$191,223
RV16 1004	RV16 1004A	EASTWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,940	\$191,823
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,954	\$192,423
RV16 1398	RV16 1377	RIDGEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,968	\$193,023
RV16 1350	RV16 1346	SHERWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,981	\$193,623
RV16 1369	RV16 1368	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	253,995	\$194,223
RV16 2089	RV16 1434	INGLEWOOD	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	254,009	\$194,823
RV16 2092	RV16 2091	UTAH	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	254,022	\$195,423
RV16 2092	RV16 2091	UTAH	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	254,036	\$196,023
RV16 2092	RV16 2091	UTAH	Infilt	Joint w/ Light Roots	Repair	14	\$600	43.860	254,050	\$196,623

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative	Cumulative	
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 2092	RV16 2091	UTAH	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,064	\$197,223
RV16 2092	RV16 2091	UTAH	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,077	\$197,823
RV16 2089	RV16 1434	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,091	\$198,423
RV16 2089	RV16 1434	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,105	\$199,023
RV16 3401	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,118	\$199,623
RV16 1535	RV16 1344	RIDGEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,132	\$200,223
RV16 1535	RV16 1344	RIDGEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,146	\$200,823
RV16 1369	RV16 1368	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,159	\$201,423
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,173	\$202,023
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,187	\$202,623
RV16 2092	RV16 2091	UTAH	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,200	\$203,223
RV16 1417	RV16 1416	LANEALOT	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,214	\$203,823
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,228	\$204,423
RV16 1363	RV16 1362	ARROWWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,241	\$205,023
RV16 1369	RV16 1368	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,255	\$205,623
RV16 1361	RV16 1360	ARROWWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,269	\$206,223
RV16 1359	RV16 1358	TANGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,282	\$206,823
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,296	\$207,423
RV16 1353	RV16 1350	BRIARWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,310	\$208,023
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,323	\$208,623
RV16 1345	RV16 1344	RIDGEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,337	\$209,223
RV16 1443	RV16 1427	LANCELOT DR	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,351	\$209,823
RV16 1443	RV16 1427	LANCELOT DR	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,364	\$210,423
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,378	\$211,023
RV16 1358	RV16 1357	TANGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,392	\$211,623
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,406	\$212,223
RV16 1369	RV16 1368	INGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,419	\$212,823
RV16 2092	RV16 2091	UTAH	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,433	\$213,423
RV16 1361	RV16 1360	ARROWWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,447	\$214,023

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 1353	RV16 1350	BRIARWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,460	\$214,623
RV16 1353	RV16 1350	BRIARWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,474	\$215,223
RV16 1361	RV16 1360	ARROWWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,488	\$215,823
RV16 1417	RV16 1416	LANEALOT	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,501	\$216,423
RV16 1358	RV16 1357	TANGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,515	\$217,023
RV16 1358	RV16 1357	TANGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,529	\$217,623
RV16 1403	RV16 1402	RIDGEWOOD	Infiltration	Joint w/ Mineral Depo	Repair	14	\$600	43.860	254,542	\$218,223
RV16 1358	RV16 1357	TANGLEWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,556	\$218,823
RV16 1361	RV16 1360	ARROWWOOD	Infiltration	Joint w/ Light Roots	Repair	14	\$600	43.860	254,570	\$219,423
RV16 1398	RV16 1377	RIDGEWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,583	\$220,073
RV16 1361	RV16 1360	ARROWWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,597	\$220,723
RV16 1359	RV16 1358	TANGLEWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,611	\$221,373
RV16 1425	RV16 1437	INGLEWOOD	Infiltration	Joint w/ Gasket Expos	Repair	14	\$650	47.515	254,624	\$222,023
RV16 1359	RV16 1358	TANGLEWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,638	\$222,673
RV16 1535	RV16 1344	RIDGEWOOD	Infiltration	Joint w/ Gasket Expos	Repair	14	\$650	47.515	254,652	\$223,323
RV16 1419	RV16 1417	LANCELOT	Infiltration	Joint w/ Gasket Expos	Repair	14	\$650	47.515	254,665	\$223,973
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,679	\$224,623
RV16 1417	RV16 1416	LANEALOT	Infiltration	Pipe w/ Sag	Repair	14	\$650	47.515	254,693	\$225,273
RV16 1425	RV16 1437	INGLEWOOD	Infiltration	Joint w/ Gasket Expos	Repair	14	\$650	47.515	254,706	\$225,923
RV16 1350	RV16 1346	SHERWOOD	Infiltration	Joint w/ Gasket Expos	Repair	14	\$650	47.515	254,720	\$226,573
RV16 1378	RV16 1376	RIDGEWOOD	Infiltration	Pipe w/ Sag	Repair	14	\$650	47.515	254,734	\$227,223
RV16 1368	RV16 1367	INGLEWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,748	\$227,873
RV16 1417	RV16 1416	LANEALOT	Infiltration	Pipe w/ Sag	Repair	14	\$650	47.515	254,761	\$228,523
RV16 1417	RV16 1416	LANEALOT	Infiltration	Pipe w/ Sag	Repair	14	\$650	47.515	254,775	\$229,173
RV16 1403	RV16 1402	RIDGEWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,789	\$229,823
RV16 1419	RV16 1417	LANCELOT	Infiltration	Service Connection	Repair	14	\$650	47.515	254,802	\$230,473
RV16 1427	RV16 3404	LANCELOT DR	Infiltration	Service Connection	Repair	14	\$650	47.515	254,816	\$231,123
RV16 1419	RV16 1417	LANCELOT	Infiltration	Joint w/ Gasket Expos	Repair	14	\$650	47.515	254,830	\$231,773
RV16 1354	RV16 1355	BRIARWOOD	Infiltration	Service Connection	Repair	14	\$650	47.515	254,843	\$232,423

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Basin/Structure	Street Address	Type Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)	Cumulative Flow (GPD)	Cumulative Cost (\$)
RV16 1378	RV16 1376	RIDGEWOOD	Infiltr Joint w/ Gasket Expos Repair	14	\$650	47.515	254,857	\$233,073
RV16 1535	RV16 1344	RIDGEWOOD	Infiltr Joint w/ Gasket Expos Repair	14	\$650	47.515	254,871	\$233,723
RV16 1368	RV16 1367	INGLEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	254,884	\$234,373
RV16 2092	RV16 2091	UTAH	Infiltr Service Connection Repair	14	\$650	47.515	254,898	\$235,023
RV16 1348	RV16 1348A	SHERWOOD	Infiltr Service Connection Repair	14	\$650	47.515	254,912	\$235,673
RV16 1417	RV16 1416	LANEALOT	Infiltr Pipe w/ Sag Repair	14	\$650	47.515	254,925	\$236,323
RV16 1416	RV16 1406	DURANT	Infiltr Pipe w/ Sag Repair	14	\$650	47.515	254,939	\$236,973
RV16 1416	RV16 1406	DURANT	Infiltr Pipe w/ Sag Repair	14	\$650	47.515	254,953	\$237,623
RV16 1368	RV16 1367	INGLEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	254,966	\$238,273
RV16 1416	RV16 1406	DURANT	Infiltr Pipe w/ Sag Repair	14	\$650	47.515	254,980	\$238,923
RV16 1410	RV16 1408	RIDGEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	254,994	\$239,573
RV16 3401	RV16 1367	INGLEWOOD	Infiltr Joint w/ Gasket Expos Repair	14	\$650	47.515	255,007	\$240,223
RV16 1425	RV16 1437	INGLEWOOD	Infiltr Joint w/ Gasket Expos Repair	14	\$650	47.515	255,021	\$240,873
RV16 3325	RV16 1346	4TH ST.	Infiltr Service Connection Repair	14	\$650	47.515	255,035	\$241,523
RV16 1425	RV16 1437	INGLEWOOD	Infiltr Joint w/ Gasket Expos Repair	14	\$650	47.515	255,048	\$242,173
RV16 1410	RV16 1408	RIDGEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	255,062	\$242,823
RV16 2092	RV16 2091	UTAH	Infiltr Service Connection Repair	14	\$650	47.515	255,076	\$243,473
RV16 1419	RV16 1417	LANCELOT	Infiltr Joint w/ Gasket Expos Repair	14	\$650	47.515	255,090	\$244,123
RV16 1368	RV16 1367	INGLEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	255,103	\$244,773
RV16 1425	RV16 1437	INGLEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	255,117	\$245,423
RV16 1410	RV16 1408	RIDGEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	255,131	\$246,073
RV16 1398	RV16 1377	RIDGEWOOD	Infiltr Joint w/ Gasket Expos Repair	14	\$650	47.515	255,144	\$246,723
RV16 1410	RV16 1408	RIDGEWOOD	Infiltr Pipe w/ deposits Repair	14	\$650	47.515	255,158	\$247,373
RV16 1350	RV16 1346	SHERWOOD	Infiltr Service Connection Repair	14	\$650	47.515	255,172	\$248,023
RV16 1398	RV16 1377	RIDGEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	255,185	\$248,673
RV16 1378	RV16 1376	RIDGEWOOD	Infiltr Pipe w/ Sag Repair	14	\$650	47.515	255,199	\$249,323
RV16 1410	RV16 1408	RIDGEWOOD	Infiltr Service Connection Repair	14	\$650	47.515	255,213	\$249,973
RV16 1358	RV16 1357	TANGLEWOOD	Infiltr Service Connection Repair	14	\$655	47.880	255,226	\$250,628
RV16 1358	RV16 1357	TANGLEWOOD	Infiltr Service Connection Repair	14	\$655	47.880	255,240	\$251,283

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV16 1443	RV16 1427 LANCELOT DR	Infilt	Service Connection	Repair	14	\$655	47.880	255,254	\$251,938
RV16 2091	RV16 1315 3RD ST.	Infilt	Joint w/ Gasket Expos	Repair	14	\$655	47.880	255,267	\$252,593
RV16 2091	RV16 1315 3RD ST.	Infilt	Joint w/ Gasket Expos	Repair	14	\$655	47.880	255,281	\$253,248
RV16 1443	RV16 1427 LANCELOT DR	Infilt	Pipe w/ Sag	Repair	14	\$655	47.880	255,295	\$253,903
RV16 2091	RV16 1315 3RD ST.	Infilt	Joint w/ Gasket Expos	Repair	14	\$655	47.880	255,308	\$254,558
RV16 1443	RV16 1427 LANCELOT DR	Infilt	Pipe w/ Sag	Repair	14	\$655	47.880	255,322	\$255,213
RV16 1443	RV16 1427 LANCELOT DR	Infilt	Pipe w/ Sag	Repair	14	\$655	47.880	255,336	\$255,868
RV16 1353	RV16 1350 BRIARWOOD	Infilt	Service Connection	Repair	14	\$655	47.880	255,349	\$256,523
RV16 1353	RV16 1350 BRIARWOOD	Infilt	Service Connection	Repair	14	\$655	47.880	255,363	\$257,178
RV16 1353	RV16 1350 BRIARWOOD	Infilt	Pipe w/ Sag	Repair	14	\$655	47.880	255,377	\$257,833
RV16 2091	RV16 1315 3RD ST.	Infilt	Service Connection	Repair	14	\$655	47.880	255,390	\$258,488
RV16 2091	RV16 1315 3RD ST.	Infilt	Service Connection	Repair	14	\$655	47.880	255,404	\$259,143
RV16 1443	RV16 1427 LANCELOT DR	Infilt	Pipe w/ Sag	Repair	14	\$655	47.880	255,418	\$259,798
RV16 1535	1305 Ridgewood Dr	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$260,798
RV16 2103	810 S Vancouver Ave	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$261,098
RV16 1354	301 Briarwood Ct	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$261,398
RV16 2091	2005 W 3rd Ct	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$261,698
RV16 2098	501 S Waco Ave	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	0	\$300	999.999	255,418	\$261,998
RV16 1399	1103 Ridgewood Dr	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$262,998
RV16 2023	810 Eastwood Dr	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$263,298
RV16 3444	704 S Durant Ave	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$263,598
RV16 1427	907 Lancelot Dr	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$263,898
RV16 1319	304 S Waco Ave	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$264,898
RV16 1314	2005 W 3rd Ct	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$265,198
RV16 2238	725 S Tulsa Ave	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	255,418	\$265,498
RV16 1441	1017 Lancelot Dr	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$266,498
RV16 2233	605 S Utah Ave	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$267,498
RV16 1337	2437 W 4th St	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$268,498
RV16 1379	1205 Ridgewood Dr	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$269,498



Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)	Cumulative Flow (GPD)	Cumulative Cost (\$)
RV16 1751	904 Rolling Hills Dr	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$269,798
RV16 2240	2010 W 9th St	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$270,098
RV16 1419	2804 Knights Ct	Infiltration	Bench/Trough Deterioration	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$271,098
RV16 1410	901 Ridgewood Dr	Infiltration	Bench/Trough Deterioration	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$272,098
RV16 1415	609 Dalewood Ct	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$272,398
RV16 1387	511 S Inglewood Ave	Infiltration	Surcharged	Further Inspection and Clean	0	\$0	999.999	255,418	\$272,398
RV16 2237	2012 W 8th St	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$272,698
RV16 2243	1210 Whipperwill Ln	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$272,998
RV16 3403	3002 W 4th St	Infiltration	Bench/Trough Deterioration	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$273,998
RV16 1389	429 Tanglewood Dr	Infiltration	Karol's Wall Deterioration	Karol's Line Manhole	0	\$300	999.999	255,418	\$274,298
RV16 1384	3002 W 4th St	Infiltration	Bench/Trough Deterioration	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$275,298
RV16 1385	409 S Inglewood Ave	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$275,598
RV16 1432	903 Kings Ct	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$275,898
RV16 2171	2415 W 6th St	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$276,198
RV16 1412	803 Ridgewood Dr	Infiltration	Bench/Trough Deterioration	Replace Bench/Trough	0	\$1,000	999.999	255,418	\$277,198
RV16 1386	422 Tanglewood Dr	Infiltration	Cracked Bench/Trough	Seal Bench /Trough	0	\$300	999.999	255,418	\$277,498

**Total Flow (gpd):** 255,418  
**Total Cost:** \$277,498  
**Total Sources:** 517

RV26 8001	3102 S Frankfort Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	11,520	\$300	0.026	11,520	\$300
RV26 8650	1405 Lands End S Point	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	8,640	\$300	0.035	20,160	\$600
RV26 8001	3102 S Frankfort Ave	Infiltration	Karol's Wall Deterioration	Karol's Line Manhole	8,640	\$300	0.035	28,800	\$900
RV26 8004	3007 S Arkansas Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	7,200	\$300	0.042	36,000	\$1,200
RV26 8620	3314 Half Moon Ln	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	7,200	\$300	0.042	43,200	\$1,500
RV26 8513	317 Nordin Ln	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	5,760	\$300	0.052	48,960	\$1,800
RV26 8513	317 Nordin Ln	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	5,760	\$300	0.052	54,720	\$2,100
RV26 8627	3306 Half Moon Ln	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	59,040	\$2,400
RV26 8632	1402 Lands End N Point	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	4,320	\$300	0.069	63,360	\$2,700
RV26 8008	2911 S Arkansas Ave	Infiltration	Wall Leakage	Karol's Grout Joints	4,320	\$300	0.069	67,680	\$3,000

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair	Ratio (\$/GPD)	Cumulative	Cumulative
						Cost (\$)		Flow (GPD)	Cost (\$)
RV26 8569A	1412 Lands End N Point	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	4,320	\$300	0.069	72,000	\$3,300
RV26 8620	3314 Half Moon Ln	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	3,600	\$300	0.083	75,600	\$3,600
RV26 8039	2804 Kovel Ct	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	3,600	\$300	0.083	79,200	\$3,900
RV26 8640	3316 Half Moon Ln	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	3,600	\$300	0.083	82,800	\$4,200
RV26 8532	38 Rim Rock Rd	Infilt	Cracked Wall	Wall - Coat Manhole Wall	2,880	\$300	0.104	85,680	\$4,500
RV26 8002A	3102 S Frankfort Ave	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	2,880	\$300	0.104	88,560	\$4,800
RV26 8012	2804 S Arkansas Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,880	\$300	0.104	91,440	\$5,100
RV26 8041A	2750 S Boulder Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	2,304	\$300	0.130	93,744	\$5,400
RV26 1490	3102 S Frankfort Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	95,904	\$5,700
RV26 8631	1403 Lands End N Point	Infilt	Cracked Wall	Wall - Coat Manhole Wall	2,160	\$300	0.139	98,064	\$6,000
RV26 8646	1411 Lands End S Point	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	100,224	\$6,300
RV26 8012	2804 S Arkansas Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	2,160	\$300	0.139	102,384	\$6,600
RV26 8025	200 Riverstone St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	2,160	\$300	0.139	104,544	\$6,900
RV26 8009	2911 S Arkansas Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,800	\$300	0.167	106,344	\$7,200
RV26 8021	901 Shepard Dr	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,800	\$300	0.167	108,144	\$7,500
RV26 8027	200 Riverstone St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,800	\$300	0.167	109,944	\$7,800
RV26 8030	402 Castlegate Loop	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,800	\$300	0.167	111,744	\$8,100
RV26 8622	3312 Half Moon Loop	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,728	\$300	0.174	113,472	\$8,400
RV26 8627	3306 Half Moon Ln	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,728	\$300	0.174	115,200	\$8,700
RV26 8735	402 Castlegate Loop	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,728	\$300	0.174	116,928	\$9,000
RV26 8014	104 Lock and Dam Rd	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,728	\$300	0.174	118,656	\$9,300
RV26 8650	1405 Lands End S Point	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,440	\$300	0.208	120,096	\$9,600
RV26 1490A	3102 S Frankfort Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	121,536	\$9,900
RV26 8001A	3102 S Frankfort Ave	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	122,976	\$10,200
RV26 8521	112 Quarry Rd	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	124,416	\$10,500
RV26 8028	200 Riverstone St	Infilt	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,440	\$300	0.208	125,856	\$10,800
RV26 8625	1410 Lands End N Point	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,152	\$300	0.260	127,008	\$11,100
RV26 8635	1420 Lands End N Point	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	128,088	\$11,400
RV26 8539	1521 Skyline Vista Ct	Infilt	Cracked Wall	Wall - Coat Manhole Wall	1,080	\$300	0.278	129,168	\$11,700

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Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Cumulative	Cumulative
						Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV26 8515	315 Old Post Rd	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	130,205	\$12,000
RV26 8634	1422 Lands End N Point	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	131,242	\$12,300
RV26 8026	200 Riverstone St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	132,278	\$12,600
RV26 8031	506 Castlegate Loop	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	133,315	\$12,900
RV26 8622	3312 Half Moon Loop	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	134,352	\$13,200
RV26 8625	1410 Lands End N Point	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	135,389	\$13,500
RV26 8008	2911 S Arkansas Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	136,426	\$13,800
RV26 8559	1521 Skyline Vista Ct	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	137,462	\$14,100
RV26 8002A	3102 S Frankfort Ave	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	138,499	\$14,400
RV26 8024	200 Riverstone St	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	139,536	\$14,700
RV26 8029	506 Castlegate Loop	Infiltration	Pipe Seals	Pipe Seals - Seal Pipe Seal	1,037	\$300	0.289	140,573	\$15,000
RV26 8569A	1412 Lands End N Point	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	141,437	\$15,300
RV26 8508	315 Nordin Ln	Infiltration	Wall Leakage	Karol's Grout Joints	864	\$300	0.347	142,301	\$15,600
RV26 8623	3310 Half Moon Ln	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	143,165	\$15,900
RV26 8626	3308 Half Moon Ln	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	144,029	\$16,200
RV26 1490A	3102 S Frankfort Ave	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	144,893	\$16,500
RV26 8621	3314 Half Moon Ln	Infiltration	Wall Leakage	Karol's Grout Joints	864	\$300	0.347	145,757	\$16,800
RV26 8563	15 Rim Rock Rd	Infiltration	Wall Leakage	Karol's Grout Joints	864	\$300	0.347	146,621	\$17,100
RV26 8500	38 Rim Rock Rd	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	147,485	\$17,400
RV26 8052	3023 S Arkansas Ave	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	148,349	\$17,700
RV26 8025	200 Riverstone St	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	149,213	\$18,000
RV26 8569	1412 Lands End N Point	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	864	\$300	0.347	150,077	\$18,300
RV26 8640	3316 Half Moon Ln	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	150,797	\$18,600
RV26 8500	38 Rim Rock Rd	Infiltration	Bench/Trough Leak	Bench/Trough - Seal Bench	720	\$300	0.417	151,517	\$18,900
RV26 8521	112 Quarry Rd	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	152,237	\$19,200
RV26 8505	315 Nordin Ln	Infiltration	Wall Leakage	Karol's Grout Joints	720	\$300	0.417	152,957	\$19,500
RV26 8538	1521 Skyline Vista Ct	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	153,677	\$19,800
RV26 8633	1424 Lands End N Point	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	154,397	\$20,100
RV26 8507	315 Nordin Ln	Infiltration	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	155,117	\$20,400

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Repair			Cumulative	Cumulative
					Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)
RV26 8634A	1424 Lands End N Point	Infilt	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	155,837	\$20,700
RV26 8636	1414 Lands End N Point	Infilt	Cracked Wall	Wall - Coat Manhole Wall	720	\$300	0.417	156,557	\$21,000
RV26 8531	38 Rim Rock Rd	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	156,917	\$21,300
RV26 8029	506 Castlegate Loop	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	157,277	\$21,600
RV26 8565	1509 Lands End S Point	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	157,637	\$21,900
RV26 8645	3307 Half Moon Ln	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	157,997	\$22,200
RV26 8029	506 Castlegate Loop	Infilt	Bench/Trough Leak	Bench/Trough - Seal Bench	360	\$300	0.833	158,357	\$22,500
RV26 8501	38 Rim Rock Rd	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	158,717	\$22,800
RV26 8001A	3102 S Frankfort Ave	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	159,077	\$23,100
RV26 8516	315 Old Post Rd	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	159,437	\$23,400
RV26 8641	5 Rim Rock Rd	Infilt	Cracked Wall	Wall - Coat Manhole Wall	360	\$300	0.833	159,797	\$23,700
RV26 8514	317 Old Post Rd	Infilt	Wall Leakage	Karol's Grout Joints	317	\$300	0.947	160,114	\$24,000
RV26 8013	2804 Kovel Ct	Infilt	Wall Leakage	Karol's Grout Joints	317	\$300	0.947	160,430	\$24,300
RV26 8525	1424 Shalimar Cir	Infilt	Wall Leakage	Karol's Grout Joints	317	\$300	0.947	160,747	\$24,600
RV26 8043	2809 Jimmy Lyle Rd	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	0	\$300	999.999	160,747	\$24,900
RV26 8500	38 Rim Rock Rd	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	160,747	\$25,200
RV26 8009	2911 S Arkansas Ave	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	160,747	\$26,200
RV26 8001C	3102 S Frankfort Ave	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	0	\$300	999.999	160,747	\$26,500
RV26 8004	3007 S Arkansas Ave	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	160,747	\$27,500
RV26 8008	2911 S Arkansas Ave	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	160,747	\$28,500
RV26 8004	3007 S Arkansas Ave	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	0	\$300	999.999	160,747	\$28,800
RV26 8014	104 Lock and Dam Rd	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	0	\$300	999.999	160,747	\$29,100
RV26 8014	104 Lock and Dam Rd	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	160,747	\$30,100
RV26 8029	506 Castlegate Loop	Infilt	Cracked Bench/Troug	Seal Bench /Trough	0	\$300	999.999	160,747	\$30,400
RV26 8042	2809 Jimmy Lyle Rd	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	0	\$300	999.999	160,747	\$30,700
RV26 8002A	3102 S Frankfort Ave	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	160,747	\$31,700
RV26 8001C	3102 S Frankfort Ave	Infilt	Bench/Trough Deterio	Replace Bench/Trough	0	\$1,000	999.999	160,747	\$32,700
RV26 8009	2911 S Arkansas Ave	Infilt	Karols Wall Deteriorat	Karol's Line Manhole	0	\$300	999.999	160,747	\$33,000

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<i>Basin/Structure</i>	<i>Street Address</i>	<i>Type Source</i>	<i>Rehabilitation Work</i>	<i>Flow (GPD)</i>	<i>Repair Cost (\$)</i>	<i>Ratio (\$/GPD)</i>	<i>Cumulative Flow (GPD)</i>	<i>Cumulative Cost (\$)</i>
<i>Total Flow (gpd):</i>				160,747				
<i>Total Cost:</i>					\$33,000			
<i>Total Sources:</i>		96						

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**APPENDIX H**

**Manhole Rehabilitation Recommendations**



# Manhole Rehabilitation Recommendations

Project Number 18-2873-00 Russellville City Corporation

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infltr (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV13-1662	Replace Bench/Trough and Replace Gasket	1101 University Dr	Poured / MH	Non-Paved	8.72	14.5	B	\$1,000	\$1,000		0	0	0		321
RV13-2172	Replace Bench/Trough and Replace Gasket	1418 E M St	None / MH	Non-Paved	4.40	9.5	A	\$1,000	\$2,000		0	0	0		322
RV13-1674	Repair Corbel and Replace Gasket	1205 University Dr	Rehab / MH	Paved	3.78	13.5	B	\$500	\$2,500	0		0	0		323
RV16-3403	Replace Bench/Trough and Replace Gasket	3002 W 4th St	Poured / MH	Non-Paved	4.06	13.5	B	\$1,000	\$3,500		0	0	0		324
RV13-2192	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1004 N Jackson Ct	Poured / MH	Non-Paved	7.10	30.0	B	\$1,000	\$4,500	28,800		28,800	28,800	0.035	325
RV16-1434	Replace Cover/Frame/Frame Seal and Replace Gasket	804 S Inglewood Ave	Rehab / MH	Non-Paved	5.60	20.5	B	\$925	\$5,425	21,672		21,672	50,472	0.043	326
RV26-8632	Cementitious Coating and Install External Chimney Seal and Replace Gasket	1402 Lands End N Point	Precast / MH	Non-Paved	3.00	161.0	F	\$980	\$6,405	14,400	4,320	18,720	69,192	0.052	327
RV13-1675	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1308 E M St	Rehab / MH	Non-Paved	5.21	24.0	B	\$1,000	\$7,405		15,840	15,840	85,032	0.063	328
RV13-1665	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1319 E K St	Poured / MH	Non-Paved	6.80	30.0	B	\$1,000	\$8,405	14,400		14,400	99,432	0.069	329
RV26-8513	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	317 Nordin Ln	Precast / MH	Non-Paved	3.60	49.0	C	\$1,300	\$9,705	4,320	11,520	15,840	115,272	0.082	330
RV16-1405	Replace Cover/Frame/Frame Seal and Replace Gasket	1009 Ridgewood Dr	Rehab / MH	Non-Paved	8.74	23.5	B	\$925	\$10,630	11,037		11,037	126,309	0.084	331
RV16-1828	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	919 Eastwood Dr	Rehab / MH	Non-Paved	9.80	28.0	B	\$1,425	\$12,055	15,119	1,440	16,559	142,868	0.086	332
RV26-8002A	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	3102 S Frankfort Ave	Poured / MH	Non-Paved	11.00	0.0		\$2,860	\$14,915	28,800	3,917	32,717	175,585	0.087	333
RV16-1432	Grout Lower 18" of Manhole, Repair Bench/Trough, and Replace Cover/Frame/Frame Seal an	903 Kings Ct	Rehab / MH	Non-Paved	9.95	45.0	C	\$2,500	\$17,415	28,512	0	28,512	204,097	0.088	334
RV16-1318	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	2220 Bradley Ln	Rehab / MH	Paved	16.05	62.5	D	\$1,500	\$18,915	14,400		14,400	218,497	0.104	335
RV26-8509	Replace Cover/Frame/Frame Seal and Replace Gasket	315 Nordin Ln	Precast / MH	Non-Paved	5.65	81.5	F	\$925	\$19,840	8,640		8,640	227,137	0.107	336
RV26-8650	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	1405 Lands End S Point	Precast / MH	Non-Paved	3.20	56.0	D	\$1,300	\$21,140	1,728	10,080	11,808	238,945	0.110	337
RV26-8001	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	3102 S Frankfort Ave	Poured / MH	Non-Paved	11.88	90.0	F	\$3,001	\$24,141	5,760	20,160	25,920	264,865	0.116	338
RV16-1419	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	2804 Knights Ct	Rehab / MH	Paved	8.05	22.5	B	\$2,563	\$26,704	21,888	0	21,888	286,753	0.117	339
RV26-8537	Replace Cover/Frame/Frame Seal and Replace Gasket	105 Skyridge Rd	Precast / MH	Non-Paved	4.34	54.5	D	\$925	\$27,629	7,200		7,200	293,953	0.128	340
RV13-1660	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1105 N Louisville Ave	Rehab / MH	Non-Paved	11.40	38.0	C	\$2,424	\$30,053	14,400	4,320	18,720	312,673	0.129	341
RV16-2171	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	2415 W 6th St	Precast / MH	Non-Paved	4.62	17.0	B	\$1,339	\$31,392		10,080	10,080	322,753	0.133	342
RV26-8001C	Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment and Replace Gas	3102 S Frankfort Ave	Poured / MH	Non-Paved	11.70	174.5	F	\$3,872	\$35,264	28,973	0	28,973	351,726	0.134	343
RV13-2291	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1109 E L St	None / MH	Paved	3.73	20.0	B	\$1,000	\$36,264		7,200	7,200	358,926	0.139	344
RV13-1657	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1106 E L St	Poured / MH	Non-Paved	9.25	24.0	B	\$1,000	\$37,264		7,200	7,200	366,126	0.139	345
RV16-2864	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	1201 Town and Country Ln	Poured / MH	Non-Paved	8.42	24.0	B	\$2,372	\$39,636	15,609	1,080	16,689	382,814	0.142	346
RV16-1408	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	1001 Tanglewood Dr	Rehab / MH	Paved	6.80	26.0	B	\$1,575	\$41,211	10,368		10,368	393,182	0.152	347
RV16-1751A	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	904 Rolling Hills Dr	Rehab / MH	Paved	6.90	32.0	C	\$2,479	\$43,690	16,128		16,128	409,310	0.154	348
RV26-8627	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	3306 Half Moon Ln	Precast / MH	Non-Paved	5.90	44.0	C	\$1,544	\$45,234	3,456	6,048	9,504	418,814	0.162	349
RV26-8640	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	3316 Half Moon Ln	Precast / MH	Non-Paved	4.80	49.0	C	\$1,868	\$47,102	7,200	4,320	11,520	430,334	0.162	350

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infil (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV26-8532	Cementitious Coating and Replace Gasket	38 Rim Rock Rd	Precast / MH	Non-Paved	7.40	59.5	D	\$1,184	\$48,286	4,320	2,880	7,200	437,534	0.164	351
RV13-1703	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1316 N Jackson Ave	Rehab / MH	Non-Paved	8.05	25.5	B	\$1,888	\$50,174		11,520	11,520	449,054	0.164	352
RV26-8620	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	3314 Half Moon Ln	Precast / MH	Non-Paved	6.10	36.0	C	\$2,076	\$52,250	864	10,800	11,664	460,718	0.178	353
RV16-2238	Grout Lower 18" of Manhole, Repair Bench/Trough, and Repair Corbel and Replace Gasket	725 S Tulsa Ave	Poured / MH	Non-Paved	4.10	24.5	B	\$1,500	\$53,750	504	7,920	8,424	469,142	0.178	354
RV13-4067	Replace Cover/Frame/Frame Seal and Replace Gasket	620 N Greenwich Ave	Rehab / MH	Paved	13.00	42.5	C	\$1,075	\$54,825	6,048		6,048	475,190	0.178	355
RV13-1676	Complete Manhole Rehab, Internal Chimney Seal w/o New Frame and Cover and Replace Gas	1214 N Nashville Pl	Rehab / MH	Paved	6.28	34.0	C	\$1,905	\$56,730	360	10,080	10,440	485,630	0.182	356
RV26-8001A	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	3102 S Frankfort Ave	Poured / MH	Non-Paved	12.55	76.0	F	\$3,033	\$59,763	14,400	1,800	16,200	501,830	0.187	357
RV13-4329	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1201 N Quincy Ave	Poured / MH	Non-Paved	5.83	57.5	D	\$1,500	\$61,263	7,560		7,560	509,390	0.198	358
RV26-8631	Cementitious Coating and Replace Gasket	1403 Lands End N Point	Precast / MH	Non-Paved	2.80	16.5	B	\$448	\$61,711		2,160	2,160	511,550	0.207	359
RV16-2101	Replace Cover/Frame/Frame Seal and Replace Gasket	2208 W 8th St	Poured / MH	Paved	5.65	18.5	B	\$1,075	\$62,786	5,040		5,040	516,590	0.213	360
RV26-8621	Cementitious Coating and Replace Gasket	3314 Half Moon Ln	Precast / MH	Non-Paved	5.36	59.5	D	\$858	\$63,644	3,168	864	4,032	520,622	0.213	361
RV16-1438A	Repair Corbel and Replace Gasket	1120 S Inglewood Ave	Rehab / MH	Paved	8.50	21.5	B	\$500	\$64,144	2,160		2,160	522,782	0.231	362
RV16-2113	Install External Chimney Seal and Repair Corbel and Replace Gasket	1002 S Vancouver Ave	Poured / MH	Non-Paved	6.30	40.5	C	\$1,000	\$65,144	4,320		4,320	527,102	0.231	363
RV13-1685	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1312 E O St	Poured / MH	Paved	8.40	24.0	B	\$1,000	\$66,144		4,320	4,320	531,422	0.231	364
RV13-2183	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	1511 E O St	Poured / MH	Non-Paved	6.05	29.0	B	\$2,193	\$68,337	9,504		9,504	540,926	0.231	365
RV13-1666	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1107 N Nashville Ct	Poured / MH	Non-Paved	5.40	24.0	B	\$1,000	\$69,337		4,320	4,320	545,246	0.231	366
RV26-8531	Cementitious Coating and Replace Gasket	38 Rim Rock Rd	Precast / MH	Non-Paved	5.28	26.5	B	\$845	\$70,181	3,168	360	3,528	548,774	0.239	367
RV16-1357	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	204 Arrowwood Ln	Rehab / MH	Non-Paved	12.50	30.5	C	\$3,025	\$73,206	10,969	1,440	12,409	561,183	0.244	368
RV16-1319	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	304 S Waco Ave	Rehab / MH	Paved	12.20	59.5	D	\$1,500	\$74,706	6,048	0	6,048	567,231	0.248	369
RV16-1320	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	2404 W 3rd St	Rehab / MH	Paved	4.10	66.5	D	\$1,500	\$76,206	6,048		6,048	573,279	0.248	370
RV16-1428	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	807 Knights Ct	Rehab / MH	Non-Paved	7.90	16.5	B	\$2,289	\$78,495	288	8,640	8,928	582,207	0.256	371
RV16-1372	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	3112 Honeysuckle Ln	Rehab / MH	Paved	8.32	49.5	C	\$2,706	\$81,202	7,488	2,880	10,368	592,575	0.261	372
RV26-8569A	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1412 Lands End N Point	Precast / MH	Non-Paved	4.85	0.0		\$1,376	\$82,578		5,184	5,184	597,759	0.265	373
RV16-2381	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	2815 Honeysuckle Ln	Rehab / MH	Non-Paved	6.05	27.0	B	\$1,993	\$84,571	288	7,200	7,488	605,247	0.266	374
RV26-8039	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	2804 Kovel Ct	Poured / MH	Non-Paved	6.53	18.0	B	\$1,000	\$85,571		3,600	3,600	608,847	0.278	375
RV13-1651	Cementitious Coating and Replace Gasket	902 E J St	Poured / MH	Non-Paved	7.56	14.5	B	\$1,210	\$86,780		4,320	4,320	613,167	0.280	376
RV16-1314	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	2005 W 3rd Ct	Brick / MH	Paved	14.80	45.0	C	\$3,943	\$90,723	12,312	1,440	13,752	626,919	0.287	377
RV13-2182	Grout Walls/Joints and Replace Gasket	1411 N Pittsburg Ave	Poured / MH	Paved	6.25	40.5	C	\$417	\$91,140		1,440	1,440	628,359	0.289	378
RV13-1679	Cementitious Coating and Replace Gasket	1500 E O St	Rehab / MH	Paved	5.35	12.5	B	\$856	\$91,996		2,880	2,880	631,239	0.297	379
RV13-1677	Replace Cover/Frame/Frame Seal and Replace Gasket	1305 N Nashville Ave	Rehab / MH	Paved	3.25	30.5	C	\$1,075	\$93,071	3,600		3,600	634,839	0.299	380
RV13-4036	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	619 N Greenwich Ave	Rehab / MH	Paved	13.60	31.5	C	\$3,451	\$96,522	4,320	7,200	11,520	646,359	0.300	381



Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infiltration (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV16-2089	Repair Corbel and Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	718 S Inglewood Ave	Rehab / MH	Non-Paved	3.94	34.5	C	\$2,000	\$98,522	6,552		6,552	652,911	0.305	382
RV13-2180	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1616 E M St	Poured / MH	Non-Paved	5.61	20.0	B	\$1,498	\$100,019		4,680	4,680	657,591	0.320	383
RV16-1370	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	3103 Honeysuckle Ln	Rehab / MH	Paved	6.90	49.0	C	\$1,575	\$101,594	2,592	2,160	4,752	662,343	0.331	384
RV13-1672	Complete Manhole Rehab, Internal Chimney Seal w/o New Frame and Cover and Replace Gas	1318 E L St	Poured / MH	Paved	6.59	43.0	C	\$1,954	\$103,549	2,880	2,880	5,760	668,103	0.339	385
RV16-1315	Cementitious Coating and Install Internal Chimney Seal and Replace Gasket	335 S Vancouver Ave	Rehab / MH	Paved	5.00	32.5	C	\$1,100	\$104,649	2,880	360	3,240	671,343	0.340	386
RV26-8501	Cementitious Coating and Install External Chimney Seal and Replace Gasket	38 Rim Rock Rd	Precast / MH	Non-Paved	5.00	36.5	C	\$1,300	\$105,949	3,456	360	3,816	675,159	0.341	387
RV13-4071	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	901 E G St	None / MH	Paved	3.41	18.0	B	\$1,575	\$107,524	288	4,320	4,608	679,767	0.342	388
RV13-1835	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	1502 E O St	Rehab / MH	Non-Paved	5.47	54.0	D	\$2,100	\$109,624	3,600	2,520	6,120	685,887	0.343	389
RV13-1664	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1105 University Dr	Poured / MH	Non-Paved	8.52	18.0	B	\$1,000	\$110,624		2,880	2,880	688,767	0.347	390
RV26-8534	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	38 Rim Rock Rd	Precast / MH	Non-Paved	5.30	156.5	F	\$1,500	\$112,124	4,320		4,320	693,087	0.347	391
RV13-4330	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1615 E L St	Poured / MH	Non-Paved	4.48	18.0	B	\$1,000	\$113,124		2,880	2,880	695,967	0.347	392
RV16-2232	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	910 S Vancouver Ave	Poured / MH	Paved	8.10	34.0	C	\$1,300	\$114,424	864	2,880	3,744	699,711	0.347	393
RV26-8529	Replace Cover/Frame/Frame Seal and Replace Gasket	107 Skyline Vista Ln	Precast / MH	Non-Paved	4.35	14.5	B	\$925	\$115,349	2,592		2,592	702,303	0.357	394
RV26-8522	Replace Cover/Frame/Frame Seal and Replace Gasket	112 Quarry Rd	Precast / MH	Non-Paved	3.20	44.5	C	\$925	\$116,274	2,592		2,592	704,895	0.357	395
RV26-8568	Replace Cover/Frame/Frame Seal and Replace Gasket	1506 Skyline Vista Ct	Precast / MH	Non-Paved	7.20	29.5	B	\$925	\$117,199	2,592		2,592	707,487	0.357	396
RV26-8622	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	3312 Half Moon Loop	Poured / MH	Non-Paved	3.22	37.0	C	\$1,615	\$118,814	1,728	2,765	4,493	711,980	0.360	397
RV16-2168	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	2317 W 5th St	Precast / MH	Non-Paved	6.02	19.0	B	\$1,300	\$120,114	2,160	1,440	3,600	715,580	0.361	398
RV26-8004	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	3007 S Arkansas Ave	Poured / MH	Non-Paved	12.90	27.0	B	\$2,664	\$122,778		7,200	7,200	722,780	0.370	399
RV13-4068	Replace Cover/Frame/Frame Seal and Replace Gasket	517 N Greenwich Ave	Rehab / MH	Paved	7.52	19.5	B	\$1,075	\$123,853	2,880		2,880	725,660	0.373	400
RV16-1371	Complete Manhole Rehab, Internal Chimney Seal, and New Cover and Replace Gasket	901 Rolling Hills Dr	Rehab / MH	Paved	8.04	65.0	D	\$2,436	\$126,290	2,016	4,320	6,336	731,996	0.385	401
RV16-2862	Install External Chimney Seal and Repair Corbel and Replace Gasket	2711 W 12th St	None / MH	Non-Paved	3.50	28.5	B	\$1,000	\$127,290	2,592		2,592	734,588	0.386	402
RV16-1346	Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment and Replace Gas	1313 Ridgewood Dr	Rehab / MH	Non-Paved	8.54	58.0	D	\$3,366	\$130,656	2,016	6,480	8,496	743,084	0.396	403
RV13-1840	Cementitious Coating and Replace Gasket	1512 N Mobile Ave	Rehab / MH	Non-Paved	7.20	29.5	B	\$1,152	\$131,808		2,880	2,880	745,964	0.400	404
RV13-2893	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	1703 E O St	Precast / MH	Paved	6.40	32.0	C	\$1,300	\$133,108	1,080	2,160	3,240	749,204	0.401	405
RV16-2246	Replace Cover/Frame/Frame Seal and Replace Gasket	1109 S Tulsa Ave	Poured / MH	Non-Paved	3.79	29.5	B	\$925	\$134,033	2,304		2,304	751,508	0.401	406
RV16-1427	Grout Lower 18" of Manhole, Repair Bench/Trough, and Replace Cover/Frame/Frame Seal an	907 Lancelot Dr	Rehab / MH	Non-Paved	7.60	80.0	F	\$2,500	\$136,533	5,832	360	6,192	757,700	0.404	407
RV26-8511	Install External Chimney Seal and Repair Corbel and Replace Gasket	317 Nordin Ln	Precast / MH	Non-Paved	3.70	32.5	C	\$1,000	\$137,533	2,448		2,448	760,148	0.408	408
RV26-8012	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	2804 S Arkansas Ave	Poured / MH	Non-Paved	8.35	30.0	B	\$2,436	\$139,969	864	5,040	5,904	766,052	0.413	409
RV16-1770	Replace Cover/Frame/Frame Seal and Replace Gasket	911 Rolling Hills Dr	Rehab / MH	Paved	6.65	26.0	B	\$1,075	\$141,044	2,592		2,592	768,644	0.415	410
RV16-1376	Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment and Replace Gas	530 S Durant Ave	Rehab / MH	Non-Paved	8.90	44.0	C	\$3,424	\$144,468	2,448	5,760	8,208	776,852	0.417	411
RV13-2892	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1703 E O St	Precast / MH	Paved	5.06	62.5	D	\$1,500	\$145,968	3,600		3,600	780,452	0.417	412

<u>Manhole</u>	<u>Repair Description</u>	<u>Street Address</u>	<u>Construction / MH Type</u>	<u>Surface</u>	<u>Depth</u>	<u>Rating</u>	<u>Grade</u>	<u>Repair Cost</u>	<u>Cumulative Repair Cost</u>	<u>Inflow (GPD)</u>	<u>Infil (GPD)</u>	<u>Flow (GPD)</u>	<u>Cumulative Flow (GPD)</u>	<u>Ratio (\$/GPD)</u>	<u>Count</u>
RV13-4075	Replace Cover/Frame/Frame Seal and Replace Gasket	1002 E G St	Rehab / MH	Non-Paved	6.61	15.5	B	\$925	\$146,893	2,160		2,160	782,612	0.428	413
RV13-1683	Replace Cover/Frame/Frame Seal and Replace Gasket	1210 E N St	Poured / MH	Non-Paved	6.42	23.5	B	\$925	\$147,818	2,160		2,160	784,772	0.428	414
RV16-1437	Cementitious Coating and Replace Cover/Frame/Frame Seal and Adjustment and Replace Ga	920 S Inglewood Ave	Rehab / MH	Non-Paved	12.05	34.5	C	\$3,428	\$151,246	7,272	720	7,992	792,764	0.429	415
RV16-2114	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1100 S Vancouver Ave	Poured / MH	Non-Paved	6.05	62.5	D	\$1,500	\$152,746	3,456		3,456	796,220	0.434	416
RV16-1004	Grout Pipe Seals and Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	916 Eastwood Dr	Rehab / MH	Non-Paved	5.80	58.0	D	\$2,000	\$154,746	3,168	1,440	4,608	800,828	0.434	417
RV13-1836	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	1502 N Mobile CV	Rehab / MH	Non-Paved	5.60	49.0	C	\$1,300	\$156,046	1,440	1,440	2,880	803,708	0.451	418
RV16-1338	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	509 S Durant Ave	None / MH	Non-Paved	2.62	12.0	B	\$1,000	\$157,046		2,160	2,160	805,868	0.463	419
RV26-8646	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1411 Lands End S Point	Precast / MH	Non-Paved	3.65	16.0	B	\$1,000	\$158,046		2,160	2,160	808,028	0.463	420
RV26-1490	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	3102 S Frankfort Ave	Poured / MH	Non-Paved	15.60	21.0	B	\$1,000	\$159,046		2,160	2,160	810,188	0.463	421
RV16-2380	Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment and Replace Gas	202 Sherwood Dr	Rehab / MH	Non-Paved	4.40	61.0	D	\$2,704	\$161,750	2,880	2,880	5,760	815,948	0.469	422
RV16-1347	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	311 Sherwood Dr	Rehab / MH	Non-Paved	4.70	28.5	B	\$1,500	\$163,250	3,168		3,168	819,116	0.473	423
RV26-8635	Cementitious Coating and Replace Gasket	1420 Lands End N Point	Precast / MH	Non-Paved	3.20	15.5	B	\$512	\$163,762		1,080	1,080	820,196	0.474	424
RV16-2100	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	611 S Waco Ave	Poured / MH	Non-Paved	6.90	80.0	F	\$2,204	\$165,966	2,880	1,757	4,637	824,833	0.475	425
RV16-1386	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	422 Tanglewood Dr	Rehab / MH	Non-Paved	7.20	27.5	B	\$2,377	\$168,343	576	4,320	4,896	829,729	0.485	426
RV16-1117	Realign Frame and Install Internal Chimney Seal and Replace Gasket	226 S Vancouver Ave	Rehab / MH	Paved	10.80	31.5	C	\$350	\$168,693	720		720	830,449	0.486	427
RV13-1656	Replace Cover/Frame/Frame Seal and Replace Gasket	1107 N Knoxville Ave	Poured / MH	Paved	7.90	19.5	B	\$1,075	\$169,768	2,160		2,160	832,609	0.498	428
RV13-1235	Replace Cover/Frame/Frame Seal and Replace Gasket	521 N Greenwich Ave	Poured / MH	Paved	7.00	44.5	C	\$1,075	\$170,843	2,160		2,160	834,769	0.498	429
RV26-8623	Cementitious Coating and Replace Gasket	3310 Half Moon Ln	Precast / MH	Non-Paved	5.40	33.5	C	\$864	\$171,707	864	864	1,728	836,497	0.500	430
RV13-1659	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	1111 N Louisville Ave	Rehab / MH	Non-Paved	7.20	44.0	C	\$2,377	\$174,084	3,168	1,584	4,752	841,249	0.500	431
RV26-8008	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	2911 S Arkansas Ave	Poured / MH	Non-Paved	13.12	30.0	B	\$2,699	\$176,783		5,357	5,357	846,605	0.504	432
RV26-8025	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	200 Riverstone St	Poured / MH	Non-Paved	5.95	15.0	B	\$1,552	\$178,335		3,024	3,024	849,629	0.513	433
RV26-8026	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	200 Riverstone St	Poured / MH	Non-Paved	4.60	33.0	C	\$1,425	\$179,760	1,728	1,037	2,765	852,394	0.515	434
RV13-1837	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	1504 N Nashville Ave	Rehab / MH	Non-Paved	4.56	36.0	C	\$1,300	\$181,060	1,080	1,440	2,520	854,914	0.516	435
RV16-1420	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	2900 Camelot Dr	Rehab / MH	Non-Paved	6.40	30.0	B	\$2,124	\$183,184	2,592	1,397	3,989	858,903	0.532	436
RV16-1751	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	904 Rolling Hills Dr	Rehab / MH	Paved	6.05	27.0	B	\$2,343	\$185,527	792	3,600	4,392	863,295	0.533	437
RV16-1445	Replace Cover/Frame/Frame Seal and Replace Gasket	1106 Princess Ct	Rehab / MH	Non-Paved	7.62	44.5	C	\$925	\$186,452	1,728		1,728	865,023	0.535	438
RV16-1359	Replace Cover/Frame/Frame Seal and Replace Gasket	319 Tanglewood Dr	Rehab / MH	Non-Paved	5.44	0.0		\$925	\$187,377	1,728		1,728	866,751	0.535	439
RV16-2102	Replace Cover/Frame/Frame Seal and Replace Gasket	2208 W 8th St	Poured / MH	Non-Paved	6.25	44.5	C	\$925	\$188,302	1,728		1,728	868,479	0.535	440
RV13-1669	Replace Cover/Frame/Frame Seal and Replace Gasket	112 N Louisville Ave	Rehab / MH	Non-Paved	6.00	15.5	B	\$925	\$189,227	1,728		1,728	870,207	0.535	441
RV26-8569	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	1412 Lands End N Point	Precast / MH	Non-Paved	3.90	36.5	C	\$1,849	\$191,076	2,592	864	3,456	873,663	0.535	442
RV26-8506	Replace Cover/Frame/Frame Seal and Replace Gasket	315 Nordin Ln	Precast / MH	Non-Paved	4.30	29.5	B	\$925	\$192,001	1,728		1,728	875,391	0.535	443

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infil (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV16-2103	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	810 S Vancouver Ave	Poured / MH	Non-Paved	6.05	23.5	B	\$1,568	\$193,569		2,880	2,880	878,271	0.544	444
RV26-8625	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1410 Lands End N Point	Precast / MH	Non-Paved	3.80	19.0	B	\$1,208	\$194,777		2,189	2,189	880,460	0.552	445
RV26-8027	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	200 Riverstone St	Poured / MH	Non-Paved	6.10	16.0	B	\$1,000	\$195,777		1,800	1,800	882,260	0.556	446
RV26-8021	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	901 Shepard Dr	Poured / MH	Non-Paved	6.32	16.0	B	\$1,000	\$196,777		1,800	1,800	884,060	0.556	447
RV26-8041A	Cementitious Coating and Replace Gasket	2750 S Boulder Ave	Precast / MH	Non-Paved	8.00	10.5	B	\$1,280	\$198,057		2,304	2,304	886,364	0.556	448
RV16-2023	Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment and Replace Gas	810 Eastwood Dr	Rehab / MH	Non-Paved	4.42	42.5	C	\$2,707	\$200,764	1,944	2,880	4,824	891,188	0.561	449
RV16-1425	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	914 S Inglewood Ave	Poured / MH	Non-Paved	5.06	32.0	C	\$1,300	\$202,064	864	1,440	2,304	893,492	0.564	450
RV16-1856	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	2807 Cedarwood Ct	Rehab / MH	Non-Paved	4.80	26.0	B	\$1,793	\$203,857	288	2,880	3,168	896,660	0.566	451
RV26-8508	Grout Walls/Joints and Install External Chimney Seal and Replace Gasket	315 Nordin Ln	Precast / MH	Non-Paved	7.44	55.5	D	\$996	\$204,853	864	864	1,728	898,388	0.576	452
RV16-3404	Repair Corbel and Replace Gasket	903 Lancelot Dr	Rehab / MH	Non-Paved	6.95	25.5	B	\$500	\$205,353	864		864	899,252	0.579	453
RV26-8735	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	402 Castlegate Loop	Poured / MH	Non-Paved	7.60	16.0	B	\$1,000	\$206,353		1,728	1,728	900,980	0.579	454
RV26-8505	Replace Cover/Frame/Frame Seal and Replace Gasket	315 Nordin Ln	Precast / MH	Non-Paved	5.00	55.0	D	\$925	\$207,278	864	720	1,584	902,564	0.584	455
RV16-1415	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	609 Dalewood Ct	Rehab / MH	Non-Paved	9.20	19.0	B	\$2,697	\$209,975	288	4,320	4,608	907,172	0.585	456
RV16-1343	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	1317 Ridgewood Dr	Rehab / MH	Non-Paved	6.50	23.0	B	\$2,065	\$212,040	288	3,168	3,456	910,628	0.598	457
RV16-2090	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	503 S Durant Ave	Rehab / MH	Non-Paved	5.82	47.0	C	\$1,500	\$213,540	1,037	1,440	2,477	913,105	0.606	458
RV26-8636	Cementitious Coating and Replace Gasket	1414 Lands End N Point	Precast / MH	Non-Paved	2.74	15.5	B	\$438	\$213,979		720	720	913,825	0.609	459
RV16-2219	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	320 S Utah Ave	Poured / MH	Non-Paved	8.17	76.0	F	\$2,332	\$216,311	173	3,600	3,773	917,597	0.618	460
RV13-4072	Replace Cover/Frame/Frame Seal and Replace Gasket	812 E F St	Rehab / MH	Paved	6.71	29.5	B	\$1,075	\$217,386	1,728		1,728	919,325	0.622	461
RV13-1645	Replace Cover/Frame/Frame Seal and Replace Gasket	715 N Hartford Ave	Poured / MH	Paved	9.35	19.5	B	\$1,075	\$218,461	1,728		1,728	921,053	0.622	462
RV16-1417	Repair Corbel and Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	2710 Camelot Dr	Rehab / MH	Non-Paved	6.25	36.5	C	\$2,000	\$220,461	3,168		3,168	924,221	0.631	463
RV26-8510	Install External Chimney Seal and Repair Corbel and Replace Gasket	317 Nordin Ln	Poured / MH	Non-Paved	3.78	32.5	C	\$1,000	\$221,461	1,584		1,584	925,805	0.631	464
RV16-2429	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	403 S Arlington Ave	Rehab / MH	Non-Paved	6.18	32.0	C	\$2,014	\$223,475	288	2,880	3,168	928,973	0.636	465
RV26-8563	Grout Walls/Joints and Replace Gasket	15 Rim Rock Rd	Precast / MH	Non-Paved	8.32	39.5	C	\$555	\$224,030		864	864	929,837	0.642	466
RV13-4337	Replace Cover/Frame/Frame Seal and Replace Gasket	1007 N Sidney Ave	Poured / MH	Non-Paved	4.95	29.5	B	\$925	\$224,955	1,440		1,440	931,277	0.642	467
RV16-1424	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	803 Knights Ct	Rehab / MH	Non-Paved	7.25	16.0	B	\$2,185	\$227,140	1,152	2,160	3,312	934,589	0.660	468
RV16-3444	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	704 S Durant Ave	Poured / MH	Non-Paved	5.56	13.0	B	\$1,490	\$228,629		2,232	2,232	936,821	0.667	469
RV16-1421A	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	2904 Camelot Dr	Rehab / MH	Non-Paved	4.59	44.5	C	\$1,500	\$230,129	2,232		2,232	939,053	0.672	470
RV26-8634	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	1422 Lands End N Point	Precast / MH	Non-Paved	3.25	31.0	C	\$1,300	\$231,429	864	1,037	1,901	940,954	0.684	471
RV26-8559	Grout Lower 18" of Manhole, Repair Bench/Trough, and Install Internal Chimney Seal and Repl	1521 Skyline Vista Ct	Precast / MH	Non-Paved	5.40	31.0	C	\$1,300	\$232,729	864	1,037	1,901	942,855	0.684	472
RV26-8030	Cementitious Coating and Replace Gasket	402 Castlegate Loop	Poured / MH	Non-Paved	7.75	16.5	B	\$1,240	\$233,969		1,800	1,800	944,655	0.689	473
RV13-1838	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1508 University Dr	Rehab / MH	Non-Paved	7.15	19.0	B	\$1,744	\$235,713		2,520	2,520	947,175	0.692	474

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infil (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV16-2224	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	2011 W 5th St	Poured / MH	Non-Paved	4.30	20.0	B	\$1,000	\$236,713		1,440	1,440	948,615	0.694	475
RV16-2233	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	605 S Utah Ave	Poured / MH	Non-Paved	9.20	23.0	B	\$1,000	\$237,713		1,440	1,440	950,055	0.694	476
RV16-2218	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	404 S Vancouver Ave	Poured / MH	Paved	5.86	20.0	B	\$1,000	\$238,713		1,440	1,440	951,495	0.694	477
RV26-8507	Cementitious Coating and Install External Chimney Seal and Replace Gasket	315 Nordin Ln	Precast / MH	Non-Paved	3.75	31.5	C	\$1,100	\$239,813	864	720	1,584	953,079	0.694	478
RV16-1342	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1310 Ridgewood Dr	Poured / MH	Non-Paved	6.20	16.0	B	\$1,000	\$240,813		1,440	1,440	954,519	0.694	479
RV16-2865	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	2607 W 12th St	Poured / MH	Non-Paved	5.92	16.0	B	\$1,000	\$241,813		1,440	1,440	955,959	0.694	480
RV26-8028	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	200 Riverstone St	Poured / MH	Non-Paved	6.30	16.0	B	\$1,000	\$242,813		1,440	1,440	957,399	0.694	481
RV16-3408	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	2314 W 8th St	Poured / MH	Non-Paved	5.17	16.0	B	\$1,000	\$243,813		1,440	1,440	958,839	0.694	482
RV16-1410	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	901 Ridgewood Dr	Rehab / MH	Non-Paved	7.40	0.0		\$1,000	\$244,813		1,440	1,440	960,279	0.694	483
RV16-2879	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1010 S Vancouver Ave	Poured / MH	Non-Paved	6.60	16.0	B	\$1,000	\$245,813		1,440	1,440	961,719	0.694	484
RV13-1843	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1511 N Louisville Ave	Rehab / MH	Non-Paved	6.11	16.0	B	\$1,000	\$246,813		1,440	1,440	963,159	0.694	485
RV13-1655	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1101 N Knoxville Ave	Poured / MH	Paved	6.45	16.0	B	\$1,000	\$247,813		1,440	1,440	964,599	0.694	486
RV13-1652	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	1006 N Jackson Ave	Poured / MH	Paved	6.65	16.0	B	\$1,000	\$248,813		1,440	1,440	966,039	0.694	487
RV13-1646	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	715 E G St	Poured / MH	Non-Paved	5.60	16.0	B	\$1,000	\$249,813		1,440	1,440	967,479	0.694	488
RV16-1385	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	409 S Inglewood Ave	Rehab / MH	Non-Paved	11.45	24.0	B	\$3,057	\$252,870	72	4,320	4,392	971,871	0.696	489
RV16-2098	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	501 S Waco Ave	Poured / MH	Non-Paved	9.60	0.0		\$2,636	\$255,506	2,304	1,440	3,744	975,615	0.704	490
RV16-1441	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	1017 Lancelot Dr	Rehab / MH	Non-Paved	9.63	44.0	C	\$2,641	\$258,147	864	2,880	3,744	979,359	0.705	491
RV13-4076	Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment and Replace Gas	1001 E G St	Block / MH	Non-Paved	6.60	58.0	D	\$3,056	\$261,203	2,520	1,800	4,320	983,679	0.707	492
RV26-8521	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	112 Quarry Rd	Precast / MH	Non-Paved	6.90	50.0	C	\$2,204	\$263,407	864	2,160	3,024	986,703	0.729	493
RV16-1421	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	3000 Camelot Dr.	Rehab / MH	Non-Paved	5.54	13.5	B	\$1,500	\$264,907	2,016		2,016	988,719	0.744	494
RV16-1393	Replace Cover/Frame/Frame Seal and Replace Gasket	1203 Ridgewood Dr	Rehab / MH	Paved	5.66	15.5	B	\$1,075	\$265,982	1,440		1,440	990,159	0.747	495
RV13-4407	Replace Cover/Frame/Frame Seal and Replace Gasket	1009 E F St	Rehab / MH	Paved	4.15	15.5	B	\$1,075	\$267,057	1,440		1,440	991,599	0.747	496
RV16-1333	Replace Cover/Frame/Frame Seal and Replace Gasket	329 S Waco Ave	Rehab / MH	Paved	8.00	0.0		\$1,075	\$268,132	1,440		1,440	993,039	0.747	497
RV13-1684	Replace Cover/Frame/Frame Seal and Replace Gasket	1207 E N St	Rehab / MH	Paved	7.10	29.5	B	\$1,075	\$269,207	1,440		1,440	994,479	0.747	498
RV13-2193	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1020 N Jackson Ct	Poured / MH	Paved	4.85	17.0	B	\$1,376	\$270,583		1,800	1,800	996,279	0.764	499
RV26-8514	Grout Walls/Joints and Replace Gasket	317 Old Post Rd	Precast / MH	Non-Paved	3.76	39.5	C	\$251	\$270,834		317	317	996,596	0.791	500
RV16-1367	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	303 S Inglewood Ave	Rehab / MH	Non-Paved	4.15	15.0	B	\$1,689	\$272,523	288	1,800	2,088	998,684	0.809	501
RV16-1349	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	401 Sherwood Dr	None / MH	Non-Paved	5.55	14.0	B	\$1,425	\$273,948	288	1,440	1,728	1,000,412	0.825	502
RV16-3325	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	419 Sherwood Dr	None / MH	Non-Paved	2.30	13.0	B	\$1,425	\$275,373	288	1,440	1,728	1,002,140	0.825	503
RV16-1440	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	1103 S Inglewood Ave	Rehab / MH	Non-Paved	9.95	22.0	B	\$1,425	\$276,798	288	1,440	1,728	1,003,868	0.825	504
RV16-1344	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	1309 Ridgewood Dr	Rehab / MH	Non-Paved	5.16	18.0	B	\$1,425	\$278,223	288	1,440	1,728	1,005,596	0.825	505

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infil (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV16-1321	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	407 S Arlington Ave	Rehab / MH	Non-Paved	4.59	18.0	B	\$1,425	\$279,648	288	1,440	1,728	1,007,324	0.825	506
RV16-1364	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	203 Arrowwood Ln	None / MH	Non-Paved	2.70	14.0	B	\$1,425	\$281,073	288	1,440	1,728	1,009,052	0.825	507
RV26-8633	Cementitious Coating and Replace Gasket	1424 Lands End N Point	Precast / MH	Non-Paved	3.72	15.5	B	\$595	\$281,668		720	720	1,009,772	0.827	508
RV26-8043	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	2809 Jimmy Lyle Rd	Poured / MH	Non-Paved	6.58	45.5	C	\$2,153	\$283,821	2,592	0	2,592	1,012,364	0.831	509
RV26-8634A	Cementitious Coating and Replace Gasket	1424 Lands End N Point	Precast / MH	Non-Paved	3.80	24.5	B	\$608	\$284,429		720	720	1,013,084	0.844	510
RV16-1413	Complete Manhole Rehab w/ New Cover/Frame/Frame Seal and Adjustment and Replace Gas	1105 Princess Ct	Rehab / MH	Non-Paved	11.05	45.0	C	\$3,768	\$288,197	2,520	1,800	4,320	1,017,404	0.872	511
RV16-2236	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	802 S Vancouver Ave	Poured / MH	Non-Paved	6.20	13.0	B	\$1,592	\$289,789		1,800	1,800	1,019,204	0.884	512
RV16-1407	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1005 Ridgewood Dr	Rehab / MH	Non-Paved	6.30	13.0	B	\$1,608	\$291,397		1,800	1,800	1,021,004	0.893	513
RV26-8029	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	506 Castlegate Loop	Poured / MH	Non-Paved	6.10	21.5	B	\$1,576	\$292,973		1,757	1,757	1,022,761	0.897	514
RV26-8014	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	104 Lock and Dam Rd	Poured / MH	Non-Paved	7.78	76.0	F	\$2,345	\$295,317	864	1,728	2,592	1,025,353	0.905	515
RV16-1412	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	803 Ridgewood Dr	Rehab / MH	Paved	9.00	19.5	B	\$2,715	\$298,032	72	2,880	2,952	1,028,305	0.920	516
RV26-8626	Cementitious Coating and Install External Chimney Seal and Replace Gasket	3308 Half Moon Ln	Precast / MH	Non-Paved	6.90	31.5	C	\$1,604	\$299,636	864	864	1,728	1,030,033	0.928	517
RV26-8009	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	2911 S Arkansas Ave	Poured / MH	Non-Paved	8.62	25.0	B	\$2,479	\$302,116	864	1,800	2,664	1,032,697	0.931	518
RV16-1354	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	301 Briarwood Ct	Rehab / MH	Non-Paved	5.32	20.5	B	\$1,425	\$303,541	72	1,440	1,512	1,034,209	0.942	519
RV26-8031	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	506 Castlegate Loop	Poured / MH	Non-Paved	6.00	15.0	B	\$1,000	\$304,541		1,037	1,037	1,035,245	0.965	520
RV26-8024	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	200 Riverstone St	Poured / MH	Non-Paved	5.71	15.0	B	\$1,000	\$305,541		1,037	1,037	1,036,282	0.965	521
RV16-2244	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	909 S Tulsa Ave	Poured / MH	Non-Paved	11.82	20.0	B	\$1,000	\$306,541		1,037	1,037	1,037,319	0.965	522
RV16-2242	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	908 S Vancouver Ave	Poured / MH	Non-Paved	7.00	15.0	B	\$1,000	\$307,541		1,037	1,037	1,038,356	0.965	523
RV16-2239	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	810 S Vancouver Ave	Poured / MH	Paved	7.86	21.0	B	\$1,000	\$308,541		1,037	1,037	1,039,393	0.965	524
RV13-1647	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	715 E G St	Poured / MH	Non-Paved	5.00	15.0	B	\$1,000	\$309,541		1,037	1,037	1,040,429	0.965	525
RV26-8515	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	315 Old Post Rd	Precast / MH	Non-Paved	7.10	15.0	B	\$1,000	\$310,541		1,037	1,037	1,041,466	0.965	526
RV13-1067	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	903 E G St	Precast / MH	Non-Paved	2.80	15.0	B	\$1,000	\$311,541		1,037	1,037	1,042,503	0.965	527
RV16-1356	Grout Lower 18" of Manhole and Repair Bench/Trough and Replace Gasket	400 Briarwood Ct	Rehab / MH	Non-Paved	5.45	15.0	B	\$1,000	\$312,541		1,037	1,037	1,043,540	0.965	528
RV16-1438	Repair Corbel and Replace Gasket	1103 S Inglewood Ave	Rehab / MH	Paved	5.70	10.5	B	\$500	\$313,041	504		504	1,044,044	0.992	529
RV26-8038	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	710 Castlegate Loop	Poured / MH	Non-Paved	4.28	44.5	C	\$1,500	\$314,541	1,440		1,440	1,045,484	1.042	530
RV16-1355	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	307 Briarwood Ct	Rehab / MH	Non-Paved	11.92	29.0	B	\$2,932	\$317,473	288	2,520	2,808	1,048,292	1.044	531
RV16-2216	Cementitious Coating and Replace Gasket	2601 W 12th St	Poured / MH	Non-Paved	5.68	12.5	B	\$909	\$318,382		864	864	1,049,156	1.052	532
RV26-8539	Cementitious Coating and Replace Gasket	1521 Skyline Vista Ct	Precast / MH	Non-Paved	7.13	20.5	B	\$1,141	\$319,522		1,080	1,080	1,050,236	1.056	533
RV26-8643	Replace Cover/Frame/Frame Seal and Replace Gasket	3316 Half Moon Ln	Precast / MH	Non-Paved	6.00	42.5	C	\$925	\$320,447	864		864	1,051,100	1.071	534
RV13-2296	Replace Cover/Frame/Frame Seal and Replace Gasket	1110 N Sidney Ave	Poured / MH	Non-Paved	6.51	27.5	B	\$925	\$321,372	864		864	1,051,964	1.071	535
RV26-8006	Replace Cover/Frame/Frame Seal and Replace Gasket	3007 S Arkansas Ave	Poured / MH	Non-Paved	12.12	48.5	C	\$925	\$322,297	864		864	1,052,828	1.071	536

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infiltration (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV26-8007	Replace Cover/Frame/Frame Seal	2911 S Arkansas Ave	Poured / MH	Non-Paved	15.08	16.5	B	\$925	\$323,222	864		864	1,053,692	1.071	537
RV26-8779	Replace Cover/Frame/Frame Seal and Replace Gasket	1510 Skyline Vista Ct	Precast / MH	Non-Paved	4.90	42.5	C	\$925	\$324,147	864		864	1,054,556	1.071	538
RV26-8011	Replace Cover/Frame/Frame Seal	230 Lock and Dam Rd	Poured / MH	Non-Paved	5.69	15.5	B	\$925	\$325,072	864		864	1,055,420	1.071	539
RV26-8533	Replace Cover/Frame/Frame Seal and Replace Gasket	38 Rim Rock Rd	Precast / MH	Non-Paved	3.87	41.5	C	\$925	\$325,997	864		864	1,056,284	1.071	540
RV26-8512	Replace Cover/Frame/Frame Seal and Replace Gasket	317 Nordin Ln	Precast / MH	Non-Paved	5.90	27.5	B	\$925	\$326,922	864		864	1,057,148	1.071	541
RV26-8520	Replace Cover/Frame/Frame Seal and Replace Gasket	120 Nordin Old Post Rd	Precast / MH	Non-Paved	4.81	42.5	C	\$925	\$327,847	864		864	1,058,012	1.071	542
RV26-8523	Replace Cover/Frame/Frame Seal and Replace Gasket	1419 Shalimar Cir	Poured / MH	Non-Paved	4.84	26.5	B	\$925	\$328,772	864		864	1,058,876	1.071	543
RV26-8628	Replace Cover/Frame/Frame Seal and Replace Gasket	1403 Lands End N Point	Precast / MH	Non-Paved	3.35	27.5	B	\$925	\$329,697	864		864	1,059,740	1.071	544
RV16-2091	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	2005 W 3rd Ct	Rehab / MH	Non-Paved	11.20	20.0	B	\$3,017	\$332,714	288	2,520	2,808	1,062,548	1.074	545
RV26-8500	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	38 Rim Rock Rd	Precast / MH	Non-Paved	7.00	19.0	B	\$1,720	\$334,434		1,584	1,584	1,064,132	1.086	546
RV16-1416	Repair Corbel and Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1004 Ridgewood Dr	Rehab / MH	Non-Paved	8.10	47.5	C	\$2,000	\$336,434	1,829		1,829	1,065,961	1.094	547
RV16-1438B	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	1120 S Inglewood Ave	Rehab / MH	Paved	6.34	13.5	B	\$2,289	\$338,724	288	1,800	2,088	1,068,049	1.096	548
RV16-1379	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	1205 Ridgewood Dr	Rehab / MH	Non-Paved	5.21	21.0	B	\$1,859	\$340,582	288	1,397	1,685	1,069,733	1.103	549
RV16-2235	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	706 S Vancouver Ave	Poured / MH	Non-Paved	6.12	12.0	B	\$1,579	\$342,162		1,397	1,397	1,071,130	1.131	550
RV26-1401	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	602 S Durant Ave	Rehab / MH	Non-Paved	4.30	42.5	C	\$1,500	\$343,662	1,325		1,325	1,072,455	1.132	551
RV26-1490A	Complete Manhole Rehab and External Chimney Seal w/o New Frame and Cover and Replace	3102 S Frankfort Ave	Poured / MH	Non-Paved	16.10	55.0	D	\$3,676	\$347,338	864	2,304	3,168	1,075,623	1.160	552
RV16-1353	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	304 Briarwood Ct	Rehab / MH	Non-Paved	10.55	28.5	B	\$2,713	\$350,051	288	2,045	2,333	1,077,956	1.163	553
RV26-8641	Cementitious Coating and Install External Chimney Seal and Replace Gasket	5 Rim Rock Rd	Precast / MH	Non-Paved	5.90	25.5	B	\$1,444	\$351,495	864	360	1,224	1,079,180	1.180	554
RV16-1337	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	2437 W 4th St	Rehab / MH	Paved	10.80	18.5	B	\$1,575	\$353,070	288	1,037	1,325	1,080,505	1.189	555
RV16-1400	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	920 Eastwood Dr	Rehab / MH	Non-Paved	5.58	8.5	A	\$2,118	\$355,187	1,008	720	1,728	1,082,233	1.226	556
RV16-1426	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	908 Lancelot Dr	Rehab / MH	Non-Paved	8.67	24.5	B	\$2,612	\$357,800	1,656	360	2,016	1,084,249	1.296	557
RV16-2237	Complete Manhole Rehab w/ New Frame and Cover and Replace Gasket	2012 W 8th St	Poured / MH	Non-Paved	6.80	43.0	C	\$2,313	\$360,113	1,037	720	1,757	1,086,005	1.317	558
RV16-2221	Grout Walls/Joints and Replace Gasket	2103 W 5th St	Poured / MH	Paved	6.45	39.5	C	\$430	\$360,543		317	317	1,086,322	1.357	559
RV26-8042	Complete Manhole Rehab w/ New Cover and Replace Gasket	2809 Jimmy Lyle Rd	Poured / MH	Non-Paved	5.20	14.5	B	\$1,582	\$362,125	1,152	0	1,152	1,087,474	1.373	560
RV26-8645	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	3307 Half Moon Ln	Precast / MH	Non-Paved	5.94	37.5	C	\$1,975	\$364,100	1,037	360	1,397	1,088,871	1.414	561
RV16-1387	Replace Cover/Frame/Frame Seal and Replace Gasket	511 S Inglewood Ave	None / MH	Non-Paved	2.42	13.5	B	\$925	\$365,025	648	0	648	1,089,519	1.427	562
RV16-2339	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1900 W 12th St	Poured / MH	Non-Paved	7.36	42.5	C	\$1,500	\$366,525	1,037		1,037	1,090,556	1.447	563
RV16-2334	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1916 W 12th St	Poured / MH	Non-Paved	8.45	42.5	C	\$1,500	\$368,025	1,037		1,037	1,091,593	1.447	564
RV26-8045	Replace Cover/Frame/Frame Seal and Adjustment	404 Jimmy Lyle Rd	Poured / MH	Non-Paved	6.60	42.5	C	\$1,500	\$369,525	1,037		1,037	1,092,629	1.447	565
RV13-1658	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1109 E L St	Rehab / MH	Non-Paved	4.10	15.5	B	\$1,500	\$371,025	1,037		1,037	1,093,666	1.447	566
RV16-2543	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	2311 W 8th St	Poured / MH	Non-Paved	4.41	42.5	C	\$1,500	\$372,525	1,037		1,037	1,094,703	1.447	567

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infiltr (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV13-1653	Replace Cover/Frame/Frame Seal and Replace Gasket	1018 E J St	Poured / MH	Paved	7.40	12.5	B	\$1,075	\$373,600	720		720	1,095,423	1.493	568
RV16-1317	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	300 S Vancouver Ave	Rehab / MH	Paved	8.20	18.5	B	\$2,587	\$376,187	288	1,440	1,728	1,097,151	1.497	569
RV26-8525	Grout Walls/Joints and Replace Gasket	1424 Shalimar Cir	Precast / MH	Non-Paved	7.32	39.5	C	\$488	\$376,675		317	317	1,097,468	1.540	570
RV26-8516	Cementitious Coating and Replace Gasket	315 Old Post Rd	Precast / MH	Non-Paved	3.66	15.5	B	\$586	\$377,261		360	360	1,097,828	1.627	571
RV13-1644	Cementitious Coating and Replace Gasket	607 N Hartford Ave	Poured / MH	Paved	11.05	14.5	B	\$1,768	\$379,029		1,080	1,080	1,098,908	1.637	572
RV16-1429	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	807 Knights Ct	Rehab / MH	Non-Paved	7.65	17.5	B	\$2,249	\$381,278	288	1,080	1,368	1,100,276	1.644	573
RV26-1478	Replace Adjustment, Realign Frame , and Install External Chimney Seal and Replace Gasket	2750 S Boulder Ave	Poured / MH	Non-Paved	6.60	26.5	B	\$1,200	\$382,478	720		720	1,100,996	1.667	574
RV26-8052	Cementitious Coating and Replace Gasket	3023 S Arkansas Ave	Poured / MH	Non-Paved	9.65	9.5	A	\$1,544	\$384,022		864	864	1,101,860	1.787	575
RV16-2212	Cementitious Coating and Replace Gasket	2601 W 12th St	Poured / MH	Non-Paved	8.10	15.5	B	\$1,296	\$385,318		720	720	1,102,580	1.800	576
RV16-1402	Grout Walls/Joints and Replace Gasket	1013 Ridgewood Dr	Rehab / MH	Paved	8.70	15.5	B	\$580	\$385,898		317	317	1,102,897	1.831	577
RV16-1369	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	308 Tanglewood Dr	Rehab / MH	Non-Paved	11.14	25.0	B	\$2,807	\$388,705	72	1,397	1,469	1,104,365	1.911	578
RV26-8538	Cementitious Coating and Replace Gasket	1521 Skyline Vista Ct	Precast / MH	Non-Paved	9.20	15.5	B	\$1,472	\$390,177		720	720	1,105,085	2.044	579
RV16-1358	Cementitious Coating and Replace Cover/Frame/Frame Seal and Adjustment and Replace Ga	309 Briarwood Ct	Rehab / MH	Non-Paved	10.68	36.5	C	\$3,209	\$393,386	1,152	360	1,512	1,106,597	2.122	580
RV16-2243	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	1210 Whiporwill Ln	Poured / MH	Non-Paved	6.00	12.0	B	\$1,560	\$394,946		720	720	1,107,317	2.167	581
RV16-1431	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	909 Kings Ct	Rehab / MH	Non-Paved	10.48	22.5	B	\$2,702	\$397,648	72	1,080	1,152	1,108,469	2.345	582
RV26-8013	Grout Walls/Joints and Replace Gasket	2804 Kovel Ct	Poured / MH	Non-Paved	12.35	20.5	B	\$823	\$398,471		317	317	1,108,786	2.599	583
RV13-2286	Cementitious Coating and Replace Gasket	1206 E O St	Rehab / MH	Paved	6.28	9.5	A	\$1,005	\$399,476		360	360	1,109,146	2.791	584
RV16-1004A	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	918 Eastwood Dr.	Rehab / MH	Non-Paved	6.20	11.5	B	\$2,017	\$401,493	288	360	648	1,109,794	3.113	585
RV16-2213	Cementitious Coating and Replace Gasket	2601 W 12th St	Poured / MH	Non-Paved	7.14	9.5	A	\$1,142	\$402,635		360	360	1,110,154	3.173	586
RV16-1351	Replace Cover/Frame/Frame Seal and Replace Gasket	412 Sherwood Dr	Rehab / MH	Non-Paved	5.28	10.5	B	\$925	\$403,560	288		288	1,110,442	3.212	587
RV26-8019	Replace Cover/Frame/Frame Seal and Replace Gasket	901 Shepard Dr	Poured / MH	Non-Paved	7.00	13.5	B	\$925	\$404,485	288		288	1,110,730	3.212	588
RV16-1423	Replace Cover/Frame/Frame Seal and Replace Gasket	801 Knights Ct	Rehab / MH	Non-Paved	7.50	13.5	B	\$925	\$405,410	288		288	1,111,018	3.212	589
RV16-1361	Replace Cover/Frame/Frame Seal and Replace Gasket	210 Arrowwood Ln	Rehab / MH	Non-Paved	4.64	13.5	B	\$925	\$406,335	288		288	1,111,306	3.212	590
RV16-1396	Replace Cover/Frame/Frame Seal and Replace Gasket	535 Tanglewood Dr	Rehab / MH	Non-Paved	4.50	13.5	B	\$925	\$407,260	288		288	1,111,594	3.212	591
RV16-1350	Replace Cover/Frame/Frame Seal and Replace Gasket	410 Sherwood Dr	Rehab / MH	Non-Paved	7.05	10.5	B	\$925	\$408,185	288		288	1,111,882	3.212	592
RV16-1395	Replace Cover/Frame/Frame Seal and Replace Gasket	921 Eastwood Dr	Rehab / MH	Non-Paved	11.84	18.5	B	\$925	\$409,110	288		288	1,112,170	3.212	593
RV16-1348A	Replace Cover/Frame/Frame Seal and Replace Gasket	311 Sherwood Dr	Rehab / MH	Non-Paved	4.05	10.5	B	\$925	\$410,035	288		288	1,112,458	3.212	594
RV13-4077	Replace Cover/Frame/Frame Seal and Replace Gasket	1002 E H St	None / MH	Non-Paved	2.80	9.5	A	\$925	\$410,960	288		288	1,112,746	3.212	595
RV16-2092	Replace Cover/Frame/Frame Seal and Replace Gasket	315 S Utah Ave	None / MH	Non-Paved	2.50	9.5	A	\$925	\$411,885	288		288	1,113,034	3.212	596
RV16-1340	Replace Cover/Frame/Frame Seal and Replace Gasket	1302 W 4th St	Rehab / MH	Non-Paved	9.93	13.5	B	\$925	\$412,810	288		288	1,113,322	3.212	597
RV16-2106	Replace Cover/Frame/Frame Seal and Replace Gasket	306 Sherwood Dr	Rehab / MH	Non-Paved	5.29	10.5	B	\$925	\$413,735	288		288	1,113,610	3.212	598

Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infiltration (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV16-1348	Replace Cover/Frame/Frame Seal and Replace Gasket	305 Sherwood Dr	Rehab / MH	Non-Paved	4.10	10.5	B	\$925	\$414,660	288		288	1,113,898	3.212	599
RV16-1443	Replace Cover/Frame/Frame Seal and Replace Gasket	1011 Lancelot Dr	Rehab / MH	Non-Paved	12.00	18.5	B	\$925	\$415,585	288		288	1,114,186	3.212	600
RV16-1334	Replace Cover/Frame/Frame Seal and Replace Gasket	519 S Arlington Ave	Rehab / MH	Non-Paved	6.00	13.5	B	\$925	\$416,510	288		288	1,114,474	3.212	601
RV16-1392	Replace Cover/Frame/Frame Seal and Replace Gasket	605 Dalewood Ct	Rehab / MH	Non-Paved	7.20	13.5	B	\$925	\$417,435	288		288	1,114,762	3.212	602
RV16-1390	Replace Cover/Frame/Frame Seal and Replace Gasket	422 Tanglewood Dr	Rehab / MH	Non-Paved	6.40	13.5	B	\$925	\$418,360	288		288	1,115,050	3.212	603
RV16-1382	Replace Cover/Frame/Frame Seal and Replace Gasket	2812 W 4th St	Rehab / MH	Non-Paved	6.60	13.5	B	\$925	\$419,285	288		288	1,115,338	3.212	604
RV16-1378	Replace Cover/Frame/Frame Seal and Replace Gasket	1202 Ridgewood Dr	Rehab / MH	Non-Paved	5.80	13.5	B	\$925	\$420,210	288		288	1,115,626	3.212	605
RV16-1360	Grout Lower 18" of Manhole and Replace Cover/Frame/Frame Seal and Replace Gasket	206 Arrowwood Ln	Rehab / MH	Non-Paved	8.52	17.0	B	\$1,425	\$421,635	72	360	432	1,116,058	3.299	606
RV26-8565	Cementitious Coating and Replace Gasket	1509 Lands End S Point	Precast / MH	Non-Paved	7.50	9.5	A	\$1,200	\$422,835		360	360	1,116,418	3.333	607
RV16-1430	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	805 Knights Ct	Rehab / MH	Non-Paved	7.55	11.5	B	\$2,233	\$425,068	288	360	648	1,117,066	3.446	608
RV16-1403	Replace Cover/Frame/Frame Seal and Replace Gasket	1011 Ridgewood Dr	Rehab / MH	Paved	6.40	13.5	B	\$1,075	\$426,143	288		288	1,117,354	3.733	609
RV16-1316	Replace Cover/Frame/Frame Seal and Replace Gasket	2230 Bradley Ln	Rehab / MH	Paved	10.55	18.5	B	\$1,075	\$427,218	288		288	1,117,642	3.733	610
RV16-1322	Replace Cover/Frame/Frame Seal and Replace Gasket	401 S Arlington Ave	Rehab / MH	Paved	6.05	13.5	B	\$1,075	\$428,293	288		288	1,117,930	3.733	611
RV16-3401	Replace Cover/Frame/Frame Seal and Replace Gasket	3100 Honeysuckle Ln	Rehab / MH	Paved	5.43	10.5	B	\$1,075	\$429,368	288		288	1,118,218	3.733	612
RV16-3439	Replace Cover/Frame/Frame Seal and Replace Gasket	2315 S Arlington Ave	Rehab / MH	Paved	5.70	0.0		\$1,075	\$430,443	288		288	1,118,506	3.733	613
RV16-1331	Replace Cover/Frame/Frame Seal and Replace Gasket	310 S Waco Ave	Rehab / MH	Paved	10.30	18.5	B	\$1,075	\$431,518	288		288	1,118,794	3.733	614
RV16-2141	Replace Cover/Frame/Frame Seal and Replace Gasket	309 S Vancouver Ave	Rehab / MH	Paved	3.54	13.5	B	\$1,075	\$432,593	288		288	1,119,082	3.733	615
RV13-4074	Replace Cover/Frame/Frame Seal and Replace Gasket	1001 E G St	None / MH	Paved	3.80	9.5	A	\$1,075	\$433,668	288		288	1,119,370	3.733	616
RV13-4070	Replace Cover/Frame/Frame Seal and Replace Gasket	802 E G St	Rehab / MH	Paved	5.00	13.5	B	\$1,075	\$434,743	288		288	1,119,658	3.733	617
RV16-1362	Replace Cover/Frame/Frame Seal and Replace Gasket	201 Arrowwood Ln	None / MH	Paved	3.00	9.5	A	\$1,075	\$435,818	288		288	1,119,946	3.733	618
RV16-1394	Replace Cover/Frame/Frame Seal and Replace Gasket	925 Eastwood Dr	Rehab / MH	Paved	6.08	0.0		\$1,075	\$436,893	288		288	1,120,234	3.733	619
RV16-1336	Replace Cover/Frame/Frame Seal and Replace Gasket	2434 W 4th St	Rehab / MH	Paved	4.80	10.5	B	\$1,075	\$437,968	288		288	1,120,522	3.733	620
RV16-1433	Cementitious Coating and Replace Cover/Frame/Frame Seal and Replace Gasket	903 Kings Ct	Rehab / MH	Non-Paved	7.75	14.5	B	\$2,265	\$440,233	288	317	605	1,121,127	3.745	621
RV16-1535	Replace Bench/Trough and Replace Cover and Replace Gasket	1305 Ridgewood Dr	None / MH	Non-Paved	2.18	11.5	B	\$1,150	\$441,383	288	0	288	1,121,415	3.993	622
RV16-1399	Replace Bench/Trough and Replace Cover and Replace Gasket	1103 Ridgewood Dr	Rehab / MH	Non-Paved	6.30	15.5	B	\$1,150	\$442,533	288	0	288	1,121,703	3.993	623
RV13-4078	Replace Bench/Trough and Replace Cover and Replace Gasket	1004 E I St	None / MH	Paved	1.00	8.5	A	\$1,150	\$443,683	288	0	288	1,121,991	3.993	624
RV16-2240	Complete Manhole Rehab w/o New Frame and Cover and Replace Gasket	2010 W 9th St	Poured / MH	Non-Paved	5.50	12.0	B	\$1,480	\$445,163		360	360	1,122,351	4.111	625
RV16-2337	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1916 W 12th St	Poured / MH	Non-Paved	5.45	42.5	C	\$1,500	\$446,663	173		173	1,122,524	8.681	626
RV13-2295	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1106 N Sidney Ave	Poured / MH	Non-Paved	9.25	42.5	C	\$1,500	\$448,163	173		173	1,122,697	8.681	627
RV13-2293	Replace Cover/Frame/Frame Seal and Adjustment and Replace Gasket	1615 E L St	Poured / MH	Non-Paved	4.55	42.5	C	\$1,500	\$449,663	173		173	1,122,869	8.681	628
RV16-1341	Replace Cover/Frame/Frame Seal and Replace Gasket	1310 Ridgewood Dr	Poured / MH	Non-Paved	4.43	13.5	B	\$925	\$450,588	72		72	1,122,941	12.847	629



Manhole	Repair Description	Street Address	Construction / MH Type	Surface	Depth	Rating	Grade	Repair Cost	Cumulative Repair Cost	Inflow (GPD)	Infil (GPD)	Flow (GPD)	Cumulative Flow (GPD)	Ratio (\$/GPD)	Count
RV16-1398	Replace Cover/Frame/Frame Seal and Replace Gasket	548 S Durant Ave	Rehab / MH	Non-Paved	8.15	13.5	B	\$925	\$451,513	72		72	1,123,013	12.847	630
RV16-1406	Replace Cover/Frame/Frame Seal and Replace Gasket	802 S Durant Ave	None / MH	Non-Paved	3.40	9.5	A	\$925	\$452,438	72		72	1,123,085	12.847	631
RV13-4069	Replace Cover/Frame/Frame Seal and Replace Gasket	607 N Hartford Ave	Rehab / MH	Non-Paved	7.20	13.5	B	\$925	\$453,363	72		72	1,123,157	12.847	632
RV16-1363	Replace Cover/Frame/Frame Seal and Replace Gasket	205 Arrowwood Ln	None / MH	Non-Paved	2.70	9.5	A	\$925	\$454,288	72		72	1,123,229	12.847	633
RV16-1368	Replace Cover/Frame/Frame Seal and Replace Gasket	307 S Inglewood Ave	Rehab / MH	Non-Paved	7.90	13.5	B	\$925	\$455,213	72		72	1,123,301	12.847	634
RV16-1380	Replace Cover/Frame/Frame Seal and Replace Gasket	505 Dalewood Ct	Rehab / MH	Non-Paved	4.62	13.5	B	\$925	\$456,138	72		72	1,123,373	12.847	635
RV16-1381	Replace Cover/Frame/Frame Seal and Replace Gasket	505 Dalewood Ct	Rehab / MH	Non-Paved	5.25	13.5	B	\$925	\$457,063	72		72	1,123,445	12.847	636
RV16-1388	Replace Cover/Frame/Frame Seal and Replace Gasket	427 Tanglewood Dr	Rehab / MH	Non-Paved	4.45	13.5	B	\$925	\$457,988	72		72	1,123,517	12.847	637
RV16-1439	Replace Cover/Frame/Frame Seal and Replace Gasket	1001 S Inglewood Ave	Rehab / MH	Non-Paved	7.40	13.5	B	\$925	\$458,913	72		72	1,123,589	12.847	638
RV16-1384	Replace Bench/Trough and Replace Cover and Replace Gasket	3002 W 4th St	Rehab / MH	Non-Paved	9.04	15.5	B	\$1,150	\$460,063	72	0	72	1,123,661	15.972	639
RV16-1389	Complete Manhole Rehab w/ New Cover and Replace Gasket	429 Tanglewood Dr	Rehab / MH	Non-Paved	4.23	14.5	B	\$1,427	\$461,490	72	0	72	1,123,733	19.817	640

<b>Project Totals:</b>	Total Cost: \$461,490
	Total Manholes: 320

<b>Report Totals:</b>	Total Cost: \$922,980
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**APPENDIX I**

**Service Line Inflow Removal**



# Service Line Inflow Removal

Project Number 18-2873-00 Russellville City Corporation

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)	Cumulative Flow (GPD)	Cumulative Cost (\$)	
RV13 1679	RV13 1676	1401 University Dr	Inflow Cleanout	Replace Cleanout Cap	8,640	\$150	0.017	8,640	\$150
RV13 4407	RV13 4073	1005 E G St	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	14,400	\$300
RV13 EOL	RV13 4074	1004 E G St	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	20,160	\$450
RV13 1672	RV13 1671	1313 E L St.	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	25,920	\$600
RV13 1665	RV13 1663	1319 E K St	Inflow Cleanout	Repair Broken Cleanout	12,960	\$375	0.029	38,880	\$975
RV13 4072	RV13 4069	812 E F St	Inflow Cleanout	Replace Cleanout Cap	4,320	\$150	0.035	43,200	\$1,125
RV13 1669	RV13 1659	1115 N Louisville Ave	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	48,960	\$1,500
RV13 2292	RV13 1672	1406 E L St	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	54,720	\$1,875
RV13 1840	RV13 1836	1512 N Mobile Ave	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	56,880	\$2,025
RV13 1652	RV13 1651	905 E H St	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	59,040	\$2,175
RV13 EOL	RV13 1664	1110 University Dr	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	61,200	\$2,325
RV13 1675	RV13 1674	1302 University Dr	Inflow Cleanout	Repair Broken Cleanout	3,600	\$375	0.104	64,800	\$2,700
RV13 4407	RV13 4073	1009 E G St	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	67,680	\$3,075
RV13 1667	RV13 1666	1111 N Nashville Ct	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	70,560	\$3,450
RV13 4332	RV13 4331	1710 E L St	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	73,440	\$3,825
RV13 EOL	RV13 1664	1118 University Dr	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	75,600	\$4,200
RV13 1674	RV13 1673	1201 University Dr	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	77,760	\$4,575
RV13 1678	RV13 1677	1407 E O St	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	79,200	\$4,950
RV13 4075	RV13 4073	1002 E G St	Inflow Leak to Lateral	Replace Broken Pipe	11,520	\$4,000	0.347	90,720	\$8,950
RV13 1838	RV13 1679	1505 University Dr	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	92,160	\$11,950
RV13 4075	RV13 4073	1001 E F St	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	93,600	\$14,950
RV13 4075	RV13 4073	1001 E F St	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	95,040	\$17,950

**Total Flow (gpd):** 95,040

**Total Cost:** \$17,950

**Total Sources:** 22

RV16 1321	RV16 1322	406 S Arlington Ave	Inflow Cleanout	Replace/Install Cap	28,800	\$150	0.005	28,800	\$150
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Project Number 18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair		Ratio (\$/GPD)	Cumulative	Cumulative
						Cost (\$)	Flow (GPD)		Cost (\$)	
RV16 1356	RV16 1353	308 Briarwood Ct.	Inflow Cleanout	Replace Cleanout Cap	7,200	\$150	0.021	36,000	\$300	
RV16 1380	RV16 1856	2809 W 4th St.	Inflow Cleanout	Repair Broken Cleanout	14,400	\$375	0.026	50,400	\$675	
RV16 1369	RV16 1368	314 S Inglewood Ave.	Inflow Cleanout	Repair Broken Cleanout	8,640	\$375	0.043	59,040	\$1,050	
RV16 2092	RV16 2091	309 S Utah Ave	Inflow Cleanout	Replace Cleanout Cap	2,880	\$150	0.052	61,920	\$1,200	
RV16 1370	RV16 3401	3101 Honeysuckle Ln.	Inflow Cleanout	Repair Broken Cleanout	7,200	\$375	0.052	69,120	\$1,575	
RV16 1391	RV16 1380	504 Dalewood Ct.	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	74,880	\$1,950	
RV16 1408	RV16 1407	1004 Ridgewood Dr.	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	77,040	\$2,100	
RV16 1368	RV16 1367	308 Tanglewood Dr.	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	81,360	\$2,475	
RV16 1393	RV16 1378	1202 Ridgewood Dr.	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	85,680	\$2,850	
RV16 1397	RV16 2023	810 Eastwood Dr.	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	90,000	\$3,225	
RV16 1354	RV16 1355	301 Briarwood Ct.	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	94,320	\$3,600	
RV16 1393	RV16 1378	1202 Ridgewood Dr.	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	98,640	\$3,975	
RV16 2226	RV16 2225	512 Wood Duck Ln	Inflow Cleanout	Replace Cleanout Cap	1,440	\$150	0.104	100,080	\$4,125	
RV16 1385	RV16 1384	320 Tanglewood Dr.	Inflow Cleanout	Replace Cleanout Cap	1,440	\$150	0.104	101,520	\$4,275	
RV16 2238	RV16 2237	2008 S Tulsa Ave	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	104,400	\$4,650	
RV16 1391	RV16 1380	505 Dalewood Ct.	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	107,280	\$5,025	
RV16 1321	RV16 1322	409 S Arlington Ave	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	110,160	\$5,400	
RV16 2214	RV16 2213	2201 W 12th St	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	113,040	\$5,775	
RV16 1535	RV16 1344	1305 Ridgewood Dr	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	115,200	\$6,150	
RV16 EOL	RV16 2216	2601 W 12th St	Inflow Cleanout	Repair Broken Cleanout	2,160	\$375	0.174	117,360	\$6,525	
RV16 2863	RV16 2864	1216 Town and Country Ln	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	118,800	\$6,900	
RV16 2225	RV16 2221	2107 S Vancouver Ave	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	120,240	\$7,275	
RV16 1433	RV16 1432	903 Kings Ct.	Inflow Area Drain	Remove to Storm Sewer - A	7,200	\$3,400	0.472	127,440	\$10,675	
RV16 1358	RV16 1357	311 Tanglewood Dr.	Inflow Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	130,320	\$13,675	
RV16 1358	RV16 1357	313 Tanglewood Dr.	Inflow Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	133,200	\$16,675	
RV16 1358	RV16 1357	311 Tanglewood Dr.	Inflow Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	136,080	\$19,675	
RV16 3401	RV16 1367	303 S Inglewood Ave.	Inflow Lateral Defects	Replace Lateral	2,160	\$3,000	1.389	138,240	\$22,675	
RV16 1419	RV16 1417	2800 Camelot Dr.	Inflow Lateral Defects	Replace Lateral	2,160	\$3,000	1.389	140,400	\$25,675	
RV16 1856	RV16 1379	2807 W 4th St.	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	141,840	\$28,675	

Project Number 18-2873-00

Russellville City Corporation

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Repair			Cumulative	Cumulative	
				Flow (GPD)	Cost (\$)	Ratio (\$/GPD)	Flow (GPD)	Cost (\$)	
RV16 1856	RV16 1379	2805 W 4th St.	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	143,280	\$31,675
RV16 1367	RV16 1362	201 Arrowwood Ln.	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	144,720	\$34,675
RV16 1856	RV16 1379	2807 W 4th St.	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	146,160	\$37,675
RV16 2216	RV16 2217	2201 W 12th St	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	147,600	\$40,675
RV16 1415	RV16 1412	603 S Inglewood Ave.	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	149,040	\$43,675
RV16 EOL	RV16 2234	717 S Tulsa Ave	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	150,480	\$46,675
RV16 1856	RV16 1379	2807 W 4th St.	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	151,920	\$49,675
RV16 2380	RV16 2381	202 Sherwood Dr.	Inflow Lateral Defects	Replace Lateral	1,440	\$3,000	2.083	153,360	\$52,675

Total Flow (gpd): 153,360

Total Cost: \$52,675

Total Sources: 38

RV26 8013	RV26 8012	2810 S Boulder Ave.	Inflow Cleanout	Replace Cleanout Cap	8,640	\$150	0.017	8,640	\$150
RV26 8009	RV26 8008	2911 S Arkansas Ave.	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	14,400	\$300
RV26 8009	RV26 8008	2911 S Arkansas Ave.	Inflow Cleanout	Replace Cleanout Cap	5,760	\$150	0.026	20,160	\$450
RV26 8049	RV26 8050	3015 S Arkansas Ave.	Inflow Cleanout	Replace Cleanout Cap	4,320	\$150	0.035	24,480	\$600
RV26 8623	RV26 8623A	3310 Half Moon Ln.	Inflow Cleanout	Replace Cleanout Cap	3,600	\$150	0.042	28,080	\$750
RV26 8642	RV26 8641	1506 Lands End Pt. S	Inflow Cleanout	Replace Cleanout Cap	2,880	\$150	0.052	30,960	\$900
RV26 8013	RV26 8012	2810 S Boulder Ave.	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	36,720	\$1,275
RV26 8627	RV26 8626	3306 Half Moon Ln.	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	42,480	\$1,650
RV26 8012	RV26 8011	236 Lock and Dam Rd.	Inflow Cleanout	Repair Broken Cleanout	5,760	\$375	0.065	48,240	\$2,025
RV26 8645	RV26 8644	1406 Lands Ends Pt. S	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	50,400	\$2,175
RV26 8520	RV26 8519	1415 Shalimar cir.	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	52,560	\$2,325
RV26 8038	RV26 8037	711 Castlegate loop	Inflow Cleanout	Replace Cleanout Cap	2,160	\$150	0.069	54,720	\$2,475
RV26 8640	RV26 8620	3316 Half moon lane	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	59,040	\$2,850
RV26 8012	RV26 8011	238 Lock and Dam Rd.	Inflow Cleanout	Repair Broken Cleanout	4,320	\$375	0.087	63,360	\$3,225
RV26 CO E	RV26 8035	415 Bent tree cir.	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	66,240	\$3,600
RV26 8528	RV26 8527	1428 Shalimar cir.	Inflow Cleanout	Repair Broken Cleanout	2,880	\$375	0.130	69,120	\$3,975
RV26 CO W	RV26 8035	412 Bent tree cir.	Inflow Cleanout	Repair Broken Cleanout	1,440	\$375	0.260	70,560	\$4,350
RV26 8036	RV26 8032	506 Castlegate Lp.	Inflow Lateral Defects	Replace Lateral	8,640	\$3,000	0.347	79,200	\$7,350

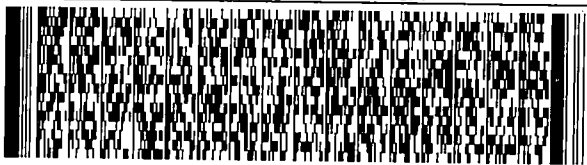

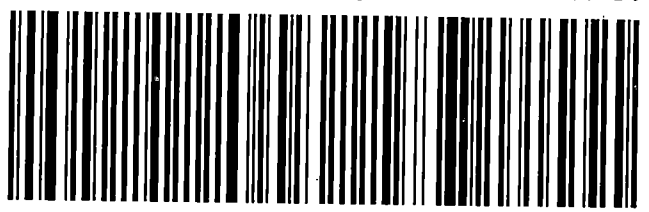
**Project Number** 18-2873-00 Russellville City Corporation

<b>Basin/Structure</b>	<b>Street Address</b>	<b>Type Source</b>	<b>Rehabilitation Work</b>	<b>Repair</b>			<b>Cumulative</b>	<b>Cumulative</b>	
				<b>Flow (GPD)</b>	<b>Cost (\$)</b>	<b>Ratio (\$/GPD)</b>	<b>Flow (GPD)</b>	<b>Cost (\$)</b>	
RV26 8033	RV26 8032	506 Castlegate loop	Inflow Lateral Defects	Replace Lateral	5,760	\$3,000	0.521	84,960	\$10,350
RV26 8036	RV26 8032	506 Castlegate Lp.	Inflow Lateral Defects	Replace Lateral	5,760	\$3,000	0.521	90,720	\$13,350
RV26 8033	RV26 8032	506 Castlegate loop	Inflow Lateral Defects	Replace Lateral	2,880	\$3,000	1.042	93,600	\$16,350
<b>Total Flow (gpd):</b>		93,600							
<b>Total Cost:</b>		\$16,350							
<b>Total Sources:</b>		21							

# FEDEX

# Express

# Me

FROM: HEBER SPRINGS MAIL CENTER HEBER SPRINGS MAIL CENTER 1520 HWY 25B	(501) 250-0191	SHIP DATE: 26 JAN 17 ACTWT: 4.0 LB MAN CAD: 0223781/CAFE2912
HEBER SPRINGS AR 72543 US		BILL SENDER
TO ADEQ- ALAN ANDERSON WATER ENFORCEMENT BRANCH 5301 NORTHSORE DR.		
NORTH LITTLE ROCK AR 72118		(US)
INV: PO:	REF:	DEPT:
		<b>FedEx</b> Ground 
TRK# 5766 7731 3449		
72118		
9622 0019 0 (000 624 9690) 0 00 5766 7731 3449		
		<b>X</b>

538C1/1987/3298  
J151315881381uv

Part # 156148V-43# BIT2 08/15

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**G**  
28-01