

City Council Study Session Agenda

Monday, February 28, 2022 at 5:30 PM
27400 Southfield Road, Lathrup Village, Michigan 48076

HYBRID MEETING: City Council Chambers, City Hall with remote access via Zoom

Webinar ID: 811 3736 3185

Password: Lathrup22

CLICK HERE: [Online Zoom Link](#)

Telephone: 646.558.8656 or 312.626.6799

CLICK HERE: [Public Comment Form Link](#)

1. **Call to Order** by Mayor Garrett
2. **Discussion Items**
 - [A.](#) Zoning Board of Appeals Training
 - [B.](#) Sanitary Sewer CIPP update
 - [C.](#) Back-billing for Under-Billed, 1.5" Water Customers
3. **Mayor and Council Comments**
4. **Public Comments**
5. **Adjourn**

Who Does What?

ROLE OF THE ZBA

Planning & Zoning Training Series

With hundreds or thousands of parcels of land in a community, it is nearly impossible for a municipality to write a set of development regulations that may be applied uniformly. Relief from the strict requirements of the zoning ordinance may be granted to property owners with unique conditions related to their property by a zoning board of appeals (ZBA), whose authority lies only “within the covers of the zoning ordinance.” All zoning authority is granted by the state through the new Michigan Zoning Enabling Act, (PA 110 of 2006). The zoning enabling act defines the membership, responsibilities and authority of the ZBA. It also describes general rules for the formation and operation of a zoning board of appeals. Per state law, all of the duties and responsibilities of the ZBA must be specifically detailed in the zoning ordinance. All actions of the ZBA are the result of applications or requests to the ZBA for specific action. The ZBA does not generally take action on its own.

PRIMARY DUTIES OF THE ZBA

- Interpret Provisions Of The Zoning Ordinance
- Appeal Administrative Zoning Decisions
- Appeal Special Land Use Decisions
- Hear And Decide Variance Requests

INTERPRETATION OF PROVISIONS OF THE ZONING ORDINANCE

When there is uncertainty or disagreement as to the intent or meaning of a zoning ordinance provision a request for an interpretation can be made to the zoning board of appeals. The ZBA then makes an interpretation that becomes binding until modified through zoning amendment or further ZBA action.

APPEALS FROM ADMINISTRATIVE DECISIONS

When it is alleged that an administrative official or body has made an error in applying the provisions of the zoning ordinance, an appeal can be filed with the ZBA. The ZBA role in this instance is to review the record and determine if applicable standards and procedures were followed correctly - not substitute its judgment for that of the administrative official or body.

SPECIAL LAND USE APPROVAL APPEALS

The ZBA may be authorized to hear appeals from decisions regarding special land use approvals. In these appeals, the ZBA is asked to determine if the appealed decision (including any conditions) regarding a special land use request was based upon the appropriate criteria as specified in the ordinance. The ZBA may be authorized to place additional conditions on any action(s) it takes regarding such appeals.

VARIANCES FROM PROVISIONS OF THE ZONING ORDINANCE

The ZBA has the authority to grant variances from the provisions of the zoning ordinance. An applicant can request that the ZBA provide relief (variance) from standards or criteria in the zoning ordinance as they relate to a specific site and as detailed on a site plan. These fall into two types: non-use variances (pertaining to dimensional and site standards) and use variances (to allow a use not otherwise permitted). Applicants must demonstrate a “practical difficulty” for non-use variances and “unnecessary hardship” for use variances by showing that the request meets specific criteria listed in the zoning ordinance. Not all communities provide for use variances and this should be established in the zoning ordinance.

CONDITIONS

Conditions may be imposed on any affirmative decision. Conditions attached to a decision should have a clear purpose: to ensure that the standards used to make the decision are met. In other words, the condition should strengthen the decision to grant relief. All conditions should be:

- Reasonable
- Related to standards in the ordinance
- Intended to mitigate potential consequences of the decision
- Specifically included in the motion

If the motion includes the need for further action, it should state who will be responsible to see that action completed.

VOTING / QUORUM

The Michigan Court of Appeals ruled that email deliberations among a quorum of public body members violates the Open Meetings Act (OMA). The unpublished opinion was issued in the case of *Markel v Mackley*, which involved the Oakland Township Parks & Recreation Commission.

Section 3 of the Michigan Open Meetings Act, PA 267 of 1976, as amended (OMA), requires that:

“All meetings of a public body shall be open to the public and shall be held in a place available to the general public,” and

“All deliberations of a public body constituting a quorum of its members shall take place at a meeting open to the public.”

Based on the above, using other forms of communication such as text messaging or social media messaging is not in keeping with the concept of taking place “at a meeting open to the public.”

VOTING / CONFLICTS

A member shall disclose any possible conflict of interest before a vote on a matter. Failure to disclose a conflict of interest may constitute malfeasance in office. Once a member discloses a potential conflict of interest regarding a particular matter, he or she may be disqualified from voting on the matter upon a majority vote of the remaining members of the ZBA. Reference local bylaws.

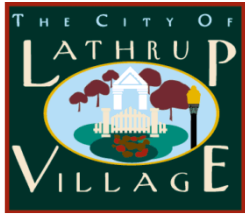
A conflict of interest exists if any member has a personal or financial interest in the matter or has an interest such that the member cannot be unbiased in the decision-making process. A zoning board of appeals member shall declare a conflict of interest when:

1. A relative or other family member is involved in any request for which the zoning board of appeals is asked to make a decision;
2. The zoning board of appeals member has a business or financial interest in the property involved in the request or has a business or financial interest in the applicant's company, agency or association;
3. The zoning board of appeals member owns or has a financial interest in neighboring property. For purposes of this section shall include any property falling within the notification radius for the proposed development, as required by the Zoning Ordinance or other applicable ordinance; or
4. There is a reasonable appearance of a conflict of interest, as determined by the zoning board of appeals member declaring such conflict.

A member with a conflict of interest should leave the room where the matter is discussed and acted upon by the Zoning Board of Appeals. Preferably the member should also leave the room while the item is under consideration and return only after the Zoning Board of Appeals is on the next agenda item.

Giffels Webster will help you identify and leverage your unique resources to improve the assets and attractiveness of your community. Whether it is increased walkability and connectivity, better streetscape design and parking, more natural settings and gathering places or other changes to enrich your city, we will work in partnership with you on how to attract and retain businesses and residents. As your municipal partner, we also review submitted site plans, conduct inspections, maintain records, prepare master plans, lead the planning, and construction administration process for capital improvement projects.

For more information please call us at **866.271.9663** and visit **www.giffelswebster.com**



A HERITAGE OF GOOD LIVING

Susie Stec**Interim City Administrator**

City of Lathrup Village

27400 Southfield Road | Lathrup Village, MI 48076

sstec@lathrupvillage.org

Office: 248.557.2600 x 223

COUNCIL COMMUNICATION:**TO:** Mayor Garrett and City Council Members**FR:** Susie Stec, Interim City Administrator**DA:** January 21, 2022**RE:** Sanitary Sewer Cured-in-Place Pipe Project

In Fall 2020/Winter 2021 the city conducted a comprehensive cleaning, televising and assessment project of 32,225 lft to ascertain the condition of the sanitary sewer system. The assessment shows that these sewers have continued to deteriorate since they were previously assessed and/or repaired. This deterioration is expected as they were generally installed in the 1920's and 1930's and are reaching 100 years old.

The City Engineer recommends that the sewers assessed as condition 4 or 5 and some condition 3 sewers to be lined with cured-in-place-pipe, which is a trenchless technology that does not generally require excavation. There are some sewer segments that have small localized failures that will require either a stand-alone excavated repair or excavated in conjunction with the lining of the sewer segment. Based on the assessment of the, we recommend the following repairs to the sewer system. These recommendations are for sewers that were assessed as condition 3, 4, or 5.

Sewer lining is estimated to cost approximately \$665,570 and manhole installation approximately \$46,200 for a total estimated cost of \$711,770. Funding for this work was estimated at \$480,000 (excluding the manhole installation) and has been included in the City's Capital Improvement Bond.



City of Lathrup Village
27400 Southfield Road
City of Lathrup Village, MI 48076

February 7, 2022

Attn: Ms. Susie Stec, Interim City Manager / CED Director

Re: 2020 Sanitary Sewer Cleaning, Televising, and Assessment

Dear Ms. Stec,

The following is a brief report for the 2020 sewer cleaning, televising, and assessment project which began in the fall of 2020 and was completed in the winter of 2021.

The scope of this project involved the cleaning, televising, and assessment of 32,225 lft (6.1 miles) of sanitary sewers which accounts for 22% of the entire 146,000 lft (27.6 miles) sewer system. The sewers ranged in size from 8 to 24 inches in diameter and were located at various locations north of I-696. The sewers that were assessed were previously classified as:

1. The condition was unknown from the 1990's.
2. The sewer was known to be in good condition from the 1990's.
3. The sewer joints were previously grouted in the 1990's. Joint grouting is a means to seal up leaking joints and is considered a long-term maintenance work item.

Assessment:

The National Association of Sewer Service Companies (NASSCO) has developed standardized condition ratings based on a standard grading system for the structural and operations and maintenance (O&M) defects throughout a sewer segment. Contractors performing the televising operations must be certified in the Pipeline Assessment Certification Program (PACP) hosted by NASSCO. Giffels Webster also has staff certified in PACP.

The defect grades are defined as:

Grade 5 - Most significant defect grade
Grade 4 - Significant defect grade
Grade 3 - Moderate defect grade
Grade 2 - Minor to moderate defect grade
Grade 1 - Minor defect grade

Sewer assessment is also a subjective review of the sewer video and recommended repair methods for that particular sewer segment. Determination of the current condition of the sewer is based on longitudinal and circumferential cracks, broken pipe, root intrusions, mineral deposits, flow restrictions, and location. The main concern is the structural capacity of the sewer and any major flow restrictions.

Condition 5 = Pipe is in very poor structural condition and requires immediate attention. Flow may be significantly restricted and could potentially cause the sewer to back-up.

Condition 4 = Pipe is in poor condition. Flow is severely restricted by roots or mineral deposits.

Condition 3 = Flow may be impeded. Root intrusions, mineral deposits, debris accumulation, minor broken segments and cracking may jeopardize the structural capacity. In some cases, the minor cracks are noted to monitor in the future.

Condition 2 = Early stages of developing problems but overall in ok to good condition.

Condition 1 = Pipe is considered in good condition

The following is a sample of the City's asset management spreadsheet depicting the assessment ratings per NASSCO and Giffels Webster's assessed conditions.

				STRUCTURAL			OPERATIONAL & MAINT			OVERALL	2020 GW Rating Condition	No. of Services	Recommendation
L/T- MH	R/B- MH	DIA (inch)	Length (feet)	Pipe Rating	Pipe rating Index	Quick rating	Pipe Rating	Pipe Rating Index	Quick Rating	Quick Rating			
00-00	1-53	10	125.3	4	4.0	4100	0	0.0	0	4100	4	0	PR, EXC
01-53	1A-53	12	384.0	20	3.3	5142	83	2.0	312G	5142	4	5	LINE
03-54	2-54	8	102.0	0	0.0	0000	10	2.0	2500	2500	2	0	NO WORK
03-56	2-56	10	238.9	0	0.0	0000	0	0.0	0000	0000	1	2	NO WORK
06-55	7-55	10	114.0	27	3.0	3900	20	1.1	311B	3A1B	3	0	MONITOR
06-56	7-56	10	64.2	0	0.0	0000	0	0.0	0000	0000	1	1	NO WORK
06-56	3-56	10	117.7	0	0.0	0000	0	0.0	0000	0000	1	0	NO WORK
10-54	8-54	10	419.0	7	3.5	4131	8	2.0	2400	4131	3	1	MONITOR
10A-55	10-54	8	144.0	57	4.1	514A	0	0.0	0000	514A	5	0	LINE
10B-55	A	8	169.6	64	2.0	2E00	15	2.1	3126	312F	2	0	NO WORK
10B-55	10A-55	8	196.9	78	2.0	2F00	0	0.0	0000	2F00	1	0	NO WORK
11-50	12-50	15	206.0	0	0.0	0000	68	2.0	2E00	2E00	2	2	NO WORK
11-55	SMH#2	21	148.5	0	0.0	0000	0	0.0	0000	0000	1	0	NO WORK
11-56	9A-56	10	140.0	34	2.1	322A	0	0.0	0000	322A	3	1	MONITOR
12-50	14-50	12	276.0	129	2.3	3B2F	34	1.0	211E	3B2F	4	3	LINE
12-54	12A-54	12	270.0	90	3.0	3E00	1	1.0	1100	3E00	1	3	NO WORK

Findings:

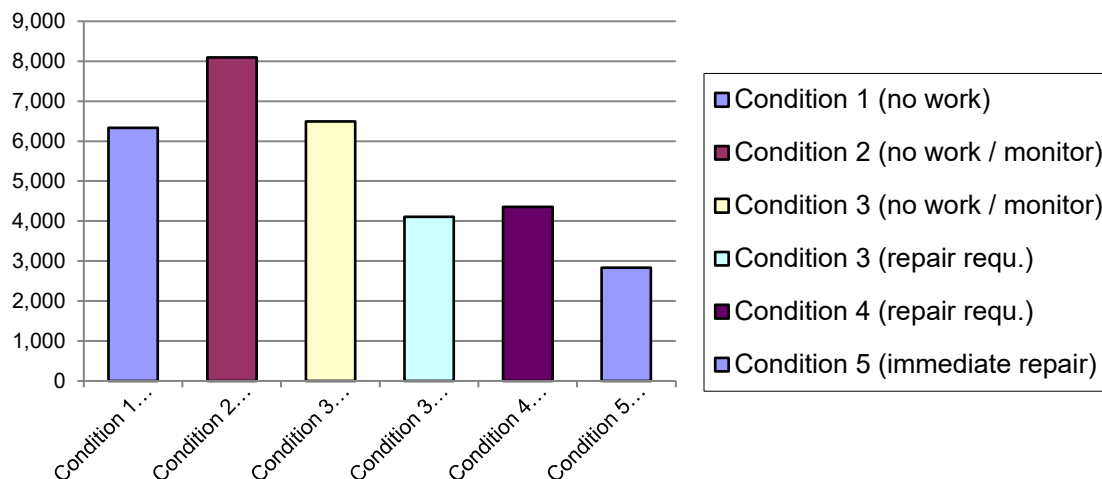
Of the 32,225 lft of sewers assessed, approximately:

- 2,909 lft (9.03%) are classified as condition 5
- 4,344 lft (13.48%) are classified as condition 4
- 10,549 lft (32.74%) are classified as condition 3
- 8,096 lft (25.12%) are classified as condition 2
- 6,327 lft (19.63%) are classified as condition 1

The following are statistics based on the 2020 videotaping assessment:

Previous Sewer Condition	Sewer Classification	Sewer Videotaped (LFT)	2020 Sewer Condition Rating	LFT of Sewers per Condition	% of Sewers per Condition
1	Unknown Condition	10,647	1	3,671	34.48%
			2	3,138	29.47%
			3	1,685	15.83%
			4	688	6.46%
			5	1,465	13.76%
2	Known to be in Good Condition	2,870	1	0	0.00%
			2	840	29.27%
			3	1,366	47.60%
			4	474	16.52%
			5	190	6.62%
6	Sewers Previously Grouted (1990's)	18,708	1	2,656	14.20%
			2	4,118	22.01%
			3	7,498	40.08%
			4	3,182	17.01%
			5	1,254	6.70%
TOTAL	Total all sewers videotaped	32,225	1	6,327	19.63%
			2	8,096	25.12%
			3	10,549	32.74%
			4	4,344	13.48%
			5	2,909	9.03%

Summary of Total Condition Ratings



Observations:

In review of the sewer televising project, our observations include the following:

- Approximately 45% of the sewers were assessed in a condition 1 or 2 with no work required at this time.
- Approximately 33% of the sewers were assessed as a condition 3 sewer with some being recommended for cured-in-place-pipe sewer lining. Most condition 3 sewers are recommended to be monitored.
- Approximately 22% of the sewers were assessed as a condition 4 or 5 with cured-in-place-pipe sewer lining recommended.
- Easement sewers tend to have significant root intrusions and broken sewer segments. These are often difficult to repair due to the limited access through private property rear-yards.
- Although the assessment does not include private sewer leads, the videos depict some residential service leads with significant root intrusions causing blockage in the private lead.
- The existing 24" sewers along both Evergreen and WB 11 Mile were assessed as good condition. However, these sewers had between 6 - 10 inches of debris in the pipe bottom which significantly reduces the flow capacity.
- Sewer segments with no upper end manholes continue to be a maintenance issue due to access of the sewer from one end only.

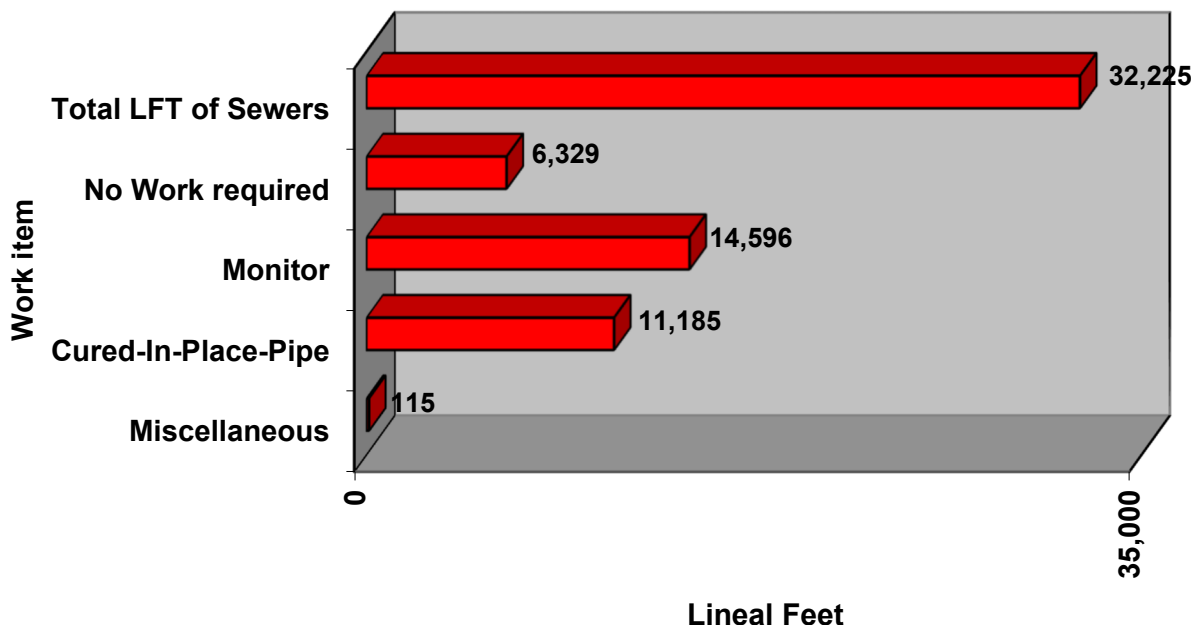
Recommendations:

The assessment shows that these sewers have continued to deteriorate since they were previously assessed and/or repaired. This deterioration is expected as they were generally installed in the 1920's and 1930's and are reaching 100 years old. We recommend that the sewers assessed as condition 4 or 5 and some condition 3 sewers to be lined with cured-in-place-pipe, which is a trenchless technology that does not generally require excavation. There are some sewer segments that have small localized failures that will require either a stand-alone excavated repair or excavated in conjunction with the lining of the sewer segment.

Based on the assessment of the 32,225 lft of sewers, we recommend the following repairs to the sewer system. These recommendations are for sewers that were assessed as condition 3, 4, or 5.

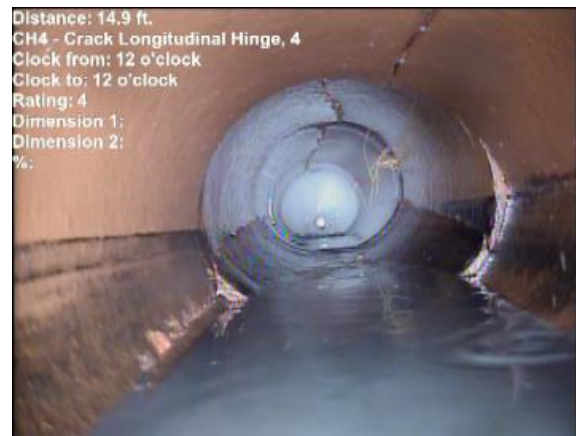
- Lining approximately 11,185 lft (2.12 miles) of sewers which are classified as condition 3, 4, or 5 sewers with cured-in-place-pipe.
- Installation of 5 upper end manholes to support the lining of specific sewers. Please note that a sewer must have access from both ends to be lined. Also included is the installation of an intermediate manhole due to a very long section of sewer (680 feet).

Summary of Recommendations

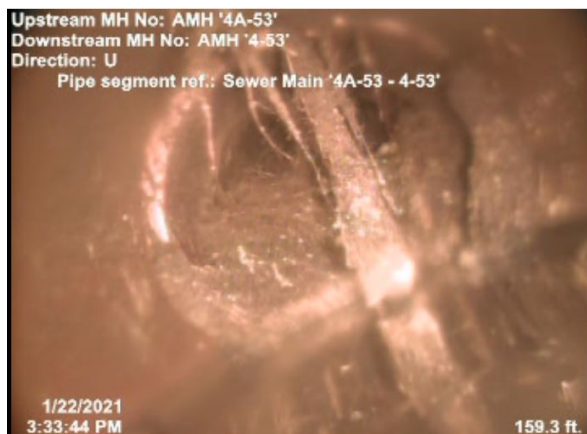


Examples of sewer defects identified in the 2020 assessment:

Broken and cracked sewers to be lined:



Sewer root intrusions:



Dead end sewers and protruding taps:



Residential service lead roots:



Sewers with a lot of debris (black parallel lines):



Sewers in good condition:



Sewers previously lined with Cured-In-Place-Pipe:



Estimated Cost:

Sewer lining is estimated to cost approximately \$665,570 and manhole installation approximately \$46,200 for a total estimated cost of \$711,770. Please see attached preliminary construction cost estimates.

Funding for this work was estimated at \$480,000 (excluding the manhole installation) and has been included in the City's Capital Improvement Bond.

Respectfully,
Giffels Webster

Scott A. Ringler, P.E.
Partner

Encl: Preliminary Construction Cost Estimates
Sewer Assessment map
Proposed CIPP Sewer Map
Sewer Assessment


2022 SEWER LINING AND MANHOLE INSTALLATION
GW NO.: 15289.50
DATE: February 7, 2022
PRELIMINARY CONSTRUCTION COST ESTIMATE

This preliminary construction cost estimate is for the CIPP sewer lining based on the 2020 sewer cleaning, televising, and assessment recommendations.

ITEM	WORK ACTIVITY	QUANTITY	UNIT	UNIT PRICE	TOTAL	COMMENTS
A. PREPARATORY CIPP SEWER CLEANING AND TELEVISIONING						
	Prep Clean and Televis, 8" Dia	456	LF	\$5.00	\$2,280.00	
	Prep Clean and Televis, 10" Dia	3786	LF	\$5.00	\$18,930.00	
	Prep Clean and Televis, 12" Dia	4012	LF	\$6.00	\$24,072.00	
	Prep Clean and Televis, 15" Dia	2105	LF	\$7.00	\$14,735.00	
	Prep Clean and Televis, 18" Dia	443	LF	\$8.00	\$3,544.00	
	Prep Clean and Televis, 21" Dia	228	LF	\$10.00	\$2,280.00	
	Protruding Tap Removal	94	EA	\$165.00	\$15,510.00	Estimate 2 per sewer segment
	SUBTOTAL - PREP CLEANING AND TELEVISIONING				\$81,351	
INSTALL CIPP						
	Install CIPP, 8" Dia	456	LF	\$40.00	\$18,240.00	
	Install CIPP, 10" Dia	3786	LF	\$32.00	\$121,152.00	
	Install CIPP, 12" Dia	4012	LF	\$36.00	\$144,432.00	
	Install CIPP, 15" Dia	2105	LF	\$45.00	\$94,725.00	
	Install CIPP, 18" Dia	443	LF	\$70.00	\$31,010.00	
	Install CIPP, 21" Dia	228	LF	\$85.00	\$19,380.00	
	Reconnection of Service Leads	134	EA	\$100.00	\$13,400.00	
	SUBTOTAL - INSTALL CIPP				\$442,339	
POST TELEVIEW CIPP						
	Post Televis, 8" Dia	456	LF	\$1.50	\$684.00	
	Post Televis, 10" Dia	3786	LF	\$1.50	\$5,679.00	
	Post Televis, 12" Dia	4012	LF	\$1.50	\$6,018.00	
	Post Televis, 15" Dia	2105	LF	\$1.50	\$3,157.50	
	Post Televis, 18" Dia	443	LF	\$1.50	\$664.50	
	Post Televis, 21" Dia	228	LF	\$1.50	\$342.00	
	SUBTOTAL - POST TELEVIEW CIPP				\$16,545	
UPPER END MANHOLE INSTALLATION						
	Install Manhole, Complete	5	EA	\$6,000.00	\$30,000.00	Assume Install by Sunde Services
	Install Intermediate Manhole, Complete	1	EA	\$7,500.00	\$7,500.00	Assume Install by Sunde Services
	SUBTOTAL - MANHOLE INSTALLATION				\$37,500	
	SUBTOTAL CONSTRUCTION COST				\$577,735	
	SUBTOTAL CONSTRUCTION COST				\$577,735	
	CONSTRUCTION CONTINGENCY			10%	\$57,774	
	SUBTOTAL ENGINEERING, BIDDING, INSPECTION			12%	\$76,261	
	TOTAL ESTIMATED COST				\$711,770	

Specific work items that ARE NOT included in this estimate include:

- Construction or access easements

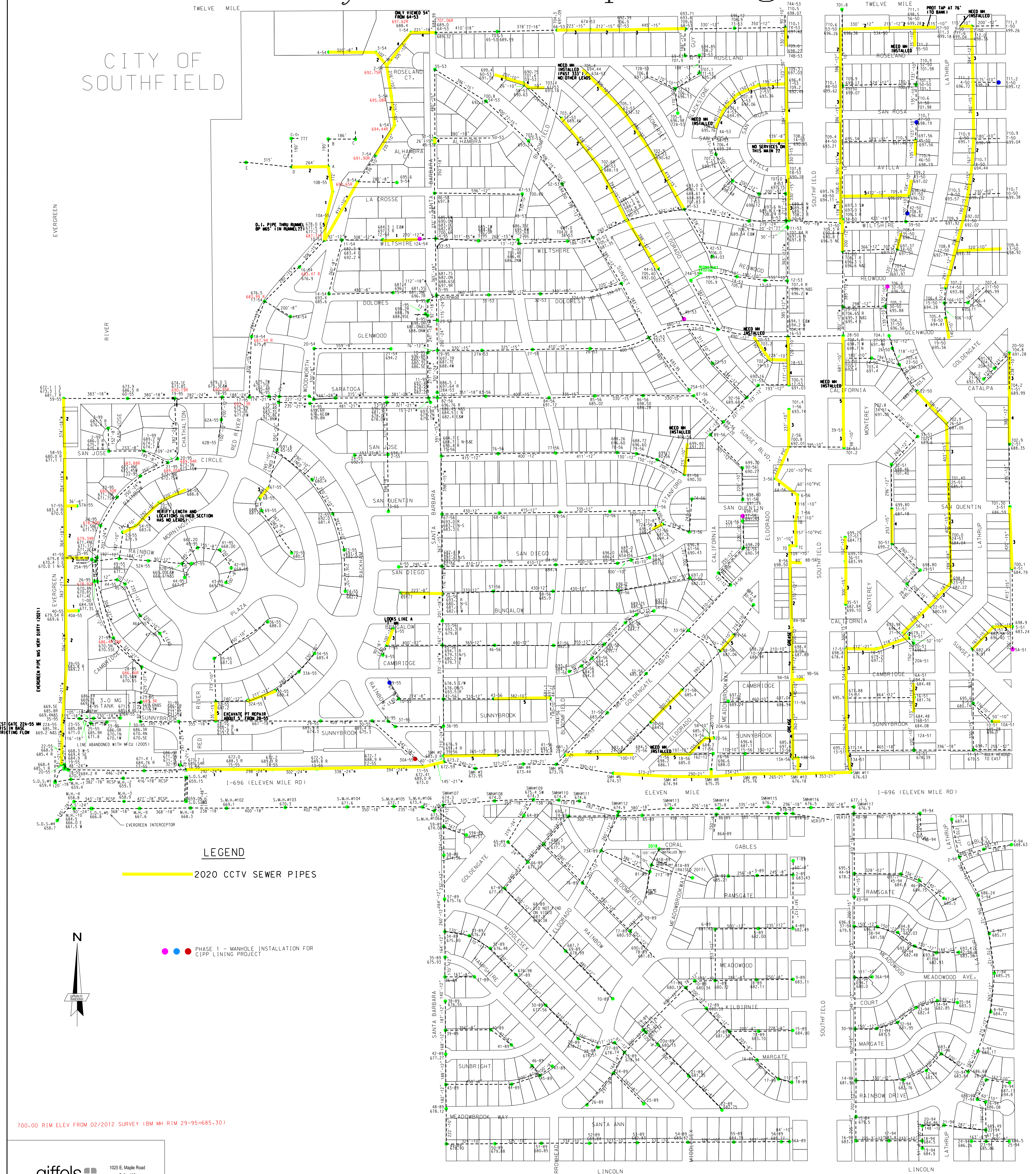
It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,
GIFELS WEBSTER

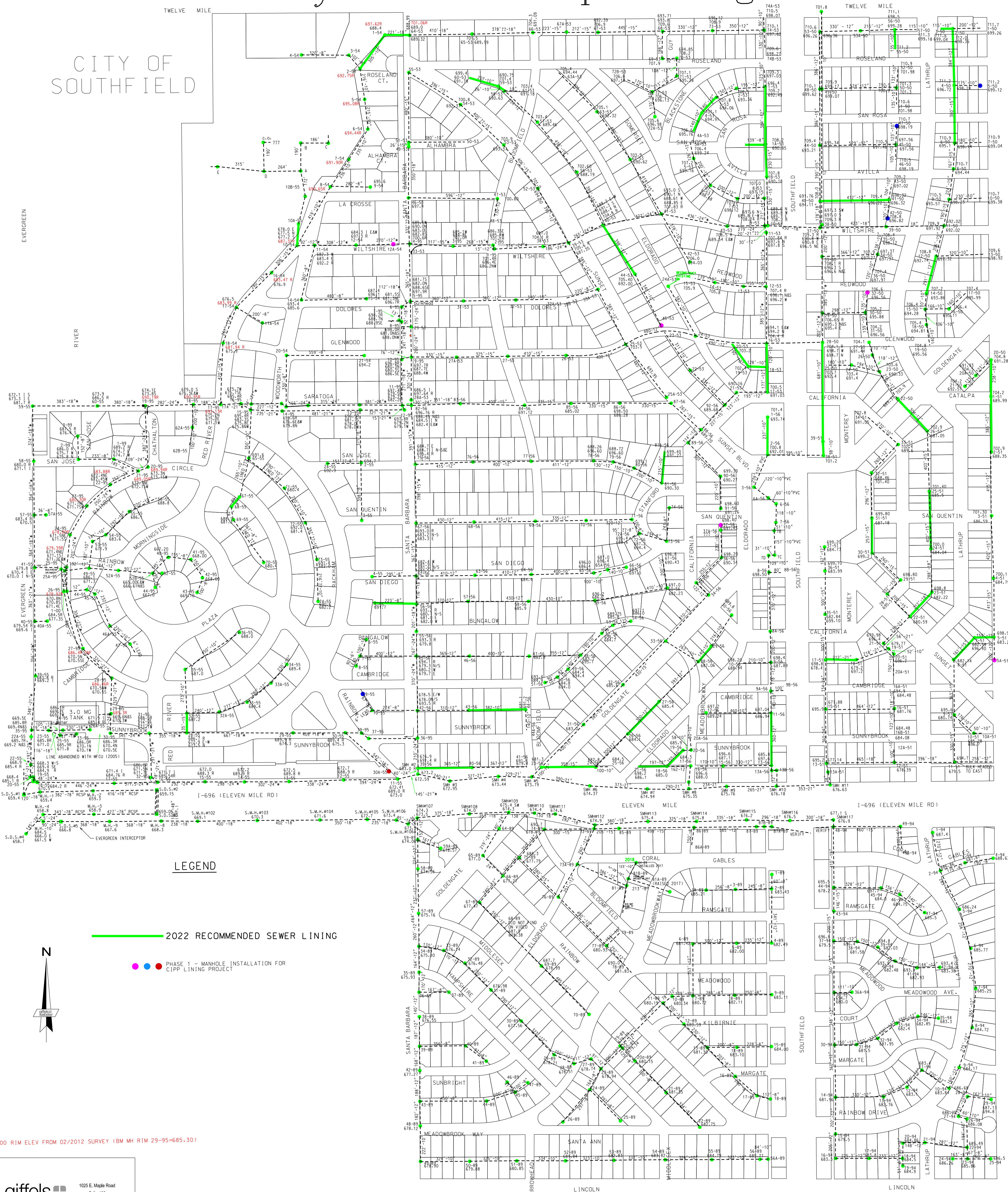
Estimate Prepared By: Scott A. Ringler, PE
Date: February 7, 2022

1025 E Maple, Suite 1200 Birmingham, MI 48009-6426 (248) 852-3100 Fax: (248) 852-6372	28 W. Adams, Suite 1200 Detroit, MI 48226-1609 (313) 962-4442 Fax: (313) 962-5068	6303 26 Mile Road, Suite 100 Washington Twp, MI 48094-3819 (586) 781-8950 Fax: (586) 781-8951
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Sanitary Sewer System City of Lathrup Village



Sanitary Sewer System City of Lathrup Village



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Environmental Specialists

2022 PROPOSED SEWER LINING MAP

MANHOLE LEGEND

R Right
L Left
T Top
B Bottom
BR Bottom-Right
BL Bottom-Left
UR Upper-Right
UL Upper-Left

1 Pipe in good condition
2 Early stages of developing problems
3 Flow impeded. Roots, minerals, cracks,
structural integrity is jeopardized.
4 Poor condition. May be in state of collapse
5 Pipe is collapsed or flow sverly restricted
A=10-14
B=15-19
C=20-24
D=25-29
E=30-34
F=35-39

REPAIR TYPES

1 - NO WORK
2 - HEAVY CLEAN / ROOT CUT
3 - ROOT TREATMENT
4 - JOINT GROUTING
5 - POINT REPAIR, EXCAVATION
6 - POINT REPAIR, CIPP
7 - LINE / CIPP
8 - R & R, EXCAVATION
9 - MONITOR
10- INVESTIGATE
11 - INSTALL MH

L/T- MH	R/B-MH	Manhole Missing	DIA (Inch)	Length (feet)	STRUCTURAL			OPERATIONAL & MAIN			OVERALL	2020 GW Rating Condition	No. of Services	Comments	Recommen- dation	Repair Type	Secondary Repair Type
					Pipe Rating	Pipe rating Index	Quick rating	Pipe Rating	Pipe Rating Index	Quick Rating							
03-56	2-56	N/A	10	238.9	0	0.0	0000	0	0.0	0000	0000	1	2	PIPE IN GREAT CONDITION	NO WORK	1	
06-56	7-56	N/A	10	64.2	0	0.0	0000	0	0.0	0000	0000	1	1	PIPE IN GOOD CONDITION	NO WORK	1	
06-56	3-56	N/A	10	117.7	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GREAT CONDITION	NO WORK	1	
10B-55	10A-55	N/A	8	196.9	78	2.0	2F00	0	0.0	0000	2F00	1	0	PIPE IN GOOD CONDITION. 1/3 FILLED WITH DEBRIS	NO WORK	1	
11-55	SMH#2	N/A	21	148.5	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GREAT CONDITION	NO WORK	1	
12-54	12A-54	N/A	12	270.0	90	3.0	3E00	1	1.0	1100	3E00	1	3	PIPE WAS PREVIOUSLY LINED (STRUCTURAL #S WERE DUE TO FOLD IN LINE)	NO WORK	1	
12-55	11-55	N/A	24	390.0	0	0.0	0000	0	0.0	0000	0000	1	2	PIPE IN GOOD CONDITION	NO WORK	1	
13-55	12-55	N/A	24	336.0	0	0.0	0000	8	2.0	2400	2400	1	2	PIPE IN GOOD COND. HAD 6" OF DEBRIS IN BOTTOM	NO WORK	1	
13A-56	13B-56	N/A	12	39.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION (NORTH SIDE OF STANDARD FEDERAL)	NO WORK	1	
14-55	13-55	N/A	24	295.0	0	0.0	0000	4	2.0	2200	2200	1	2	PIPE IN GOOD COND. 4" OF DEBRIS IN BOTTOM	NO WORK	1	
15-55	14-55	N/A	24	300.0	0	0.0	0000	2	2.0	2100	2100	1	2	PIPE IN GOOD CONDITION. 6"-10" OF DEBRIS IN BOTTOM	NO WORK	1	
16-55	15-55	N/A	24	291.0	0	0.0	0000	4	2.0	2200	2200	1	2	PIPE IN GOOD CONDITION. 6"-8" OF DEBRIS IN BOTTOM	NO WORK	1	
22-55	20-55	N/A	21	83.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD COND. SEEMED LIKE A LOT OF FLOW INTO MH 22-55 (EVERG	NO WORK	1	
32A-55	33-55	N/A	12	277.0	0	0.0	0000	0	0.0	0000	0000	1	3	PREVIOUSLY LINED	NO WORK	1	
35-95	22A-55	N/A	21	55.5	22	2.0	2A00	0	0.0	0000	2A00	1	0	PIPE IN GOOD CONDITION, 1/2 FULL OF DEBRIS	NO WORK	1	
40-55	40A-55	N/A	8	40.0	0	0.0	0000	0	0.0	0000	0000	1	3	PIPE IN GREAT COND. PVC TRUSS	NO WORK	1	
4-54	3-54	N/A	8	320.7	0	0.0	0000	3	1.5	2111	2111	1	12	PIPE IN GOOD CONDITION - PIPE GOES TO DPW	NO WORK	1	
53-55	54-55	N/A	10	180.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE PREVIOUSLY LINED	NO WORK	1	
57-55	57A-55	N/A	8	35.7	0	0.0	0000	0	0.0	0000	0000	1	2	PIPE IN GOOD COND	NO WORK	1	
57-55	58-55	N/A	18	355.0	140	2.0	2M00	2	2.0	2100	2M00	1	1	PIPE IN GOOD CONDITION (SURFACE AGGREGATE LOSS ??)	NO WORK	1	
6-54	7-54	N/A	10	235.0	0	0.0	0000	0	0.0	0000	0000	1	0	MINOR MD'S IN A FEW JOINTS	NO WORK	1	
6A-56	6-56	U	10	60.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION	NO WORK	1	
74-53	74B-53	N/A	10	130.0	5	2.5	3121	1	1.0	1100	3121	1	4	PIPE WAS PREVIOUSLY LINED	NO WORK	1	
7A-56	7B-56	N/A	10	59.6	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION	NO WORK	1	
7B-56	7C-56	N/A	10	161.9	0	0.0	0000	0	0.0	0000	0000	1	1	PIPE IN GOOD CONDITION	NO WORK	1	
7D-56	7C-56	N/A	10	37.5	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION	NO WORK	1	
SMH#10	SMH#11	N/A	21	393.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION, 5" - 6" DEBRIS IN BOTTOM	NO WORK	1	
SMH#6	SMH#7	N/A	21	373.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION, 3" - 4" DEBRIS IN BOTTOM	NO WORK	1	
SMH#7	SMH#8	N/A	21	290.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION, 3" - 4" DEBRIS IN BOTTOM	NO WORK	1	
SMH#8	SMH#9	N/A	21	255.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION, 3" - 4" DEBRIS IN BOTTOM	NO WORK	1	
SMH#9	SMH#10	N/A	21	300.0	0	0.0	0000	0	0.0	0000	0000	1	0	PIPE IN GOOD CONDITION	NO WORK	1	
03-54	2-54	N/A	8	102.0	0	0.0	0000	10	2.0	2500	2500	2	0	PIPE IN GOOD CONDITION	NO WORK	1	
10B-55	A	N/A	8	169.6	64	2.0	2E00	15	2.1	3126	312F	2	0	PIPE IN OK COND. FEW MD'S	NO WORK	1	
11-50	12-50	N/A	15	206.0	0	0.0	0000	68	2.0	2E00	2E00	2	2	PIPE IN GOOD COND. MD'S AT MOST JTS	NO WORK	1	4
13-51	15-51	N/A	24	360.0	0	0.0	0000	3	3.0	2100	3100	2	2	PIPE IN GOOD CONDITION	NO WORK	1	
13-56	13A-56	N/A	12	48.0	0	0.0	0000	0	0.0	0000	0000	2	0	PIPE IN GOOD COND. SOME DEBRIS IN BOTTOM	NO WORK	1	
13A-51	SMH#11	N/A	24	58.2	0	0.0	0000	0	0.0	0000	0000	2	0	PIPE IN GOOD CONDITION (BEHIND DISCOUNT TIRE). DID NOT FIND SERVICE	NO WORK	1	
13A-51	13-51	N/A	24	108.0	1	1.0	1100	4	2.0	2200	2200	2	0	PIPE IN GOOD CONDITION (BEHIND DISCOUNT TIRE). DID NOT FIND SERVICE	NO WORK	1	
13B-56	SMH#10	N/A	12	99.0	0	0.0	0000	0	0.0	0000	0000	2	0	PIPE IN GOOD CONDITION, POSSIBLE LOSS OF SURFACE AGGREGATE	NO WORK	1	
16-51	16B-51	B	10	123.0	40	2.0	2C00	12	1.0	1A00	2C1A	2	2	PIPE IN OK COND. ROOTS AT END, NEEDS UPPER END MH	NO WORK	1	
16A-51	16-51	U	10	118.9	6	3.0	3200	20	1.0	1C00	321C	2	1	PIPE IN OK COND. NEEDS UPPER END MH INSTALL	NO WORK	1	
19-51	21-51	N/A	21	56.0	30	3.0	3Z00	0	0.0	0000	3A00	2	0	PIPE IN GOOD CONDITION. DEBRIS ON BOTTOM	NO WORK	1	
35-95	39-55	N/A	21	352.0	114	2.0	2J00	0	0.0	0000	2J00	2	2	PIPE IN GOOD CONDITION	NO WORK	1	
36-51	37-51	N/A	12	162.0	2	2.0	2100	34	1.0	211E	221E	2	0	PIPE IN GOOD CONDITION (SEWER RUNNING NORTH FROM 37-51 NOT ON MAP)	NO WORK	1	
40-55	39-55	N/A	21	356.4	140	2.0	2M00	7	2.3	3122	312M	2	1	PIPE IN GOOD CONDITION, 1/2 FULL OF DEBRIS	NO WORK	1	

MANHOLE LEGEND

R	Right
L	Left
T	Top
B	Bottom
BR	Bottom-Right
BL	Bottom-Left
UR	Upper-Right
UL	Upper-Left

- 1 Pipe in good condition
 - 2 Early stages of developing problems
 - 3 Flow impeded. Roots, minerals, cracks, structural integrity is jeopardized.
 - 4 Poor condition. May be in state of collapse
 - 5 Pipe is collapsed or flow severely restricted
- A=10-14
B=15-19
C=20-24
D=25-29
E=30-34
F=35-39

REPAIR TYPES	
1 - NO WORK	6 - POINT REPAIR, CIPP
2 - HEAVY CLEAN / ROOT CUT	7 - LINE / CIPP
3 - ROOT TREATMENT	8 - R & R, EXCAVATION
4 - JOINT GROUTING	9 - MONITOR
5 - POINT REPAIR, EXCAVATION	10- INVESTIGATE
	11 - INSTALL MH

L/T- MH	R/B-MH	Manhole	DIA	Length	STRUCTURAL			OPERATIONAL & MAIN			OVERALL	2020 GW Rating Condition	No. of Services	Comments	Recommendation	Repair Type	Secondary Repair Type
					Pipe Rating	Pipe rating Index	Quick rating	Pipe Rating	Pipe Rating Index	Quick Rating	Quick Rating						
40-55	41-55	N/A	21	366.0	144	2.0	2M00	7	2.3	3122	312M	2	0	PIPE IS IN GOOD CONDITION, 1/3 FULL OF DEBRIS	NO WORK	1	
41-55	25A-95	N/A	12	210.0	0	0.0	0000	36	2.1	322B	322B	2	2	PIPE IN GOOD COND, MD'S THROUGHOUT (PIPE IS ABABONED FROM 91' TO 100')	NO WORK	1	
41-55	57-55	N/A	18	362.0	174	2.2	482M	4	2.0	2200	482M	2	0	PIPE IN GOOD CONDITION, 3-4" OF DEBRIS (SURFACE AGGREGATE LOSS ??)	NO WORK	1	
48-50	53-50	N/A	12	386.0	0	0.0	0000	6	2.0	2300	2300	2	2	PIPE IN GOOD CONDITION. SOME SIGNS OF GREASE. DEBRIS AT 20%	NO WORK	1	
53-50	53A-50	N/A	12	330.5	3	3.0	2100	2	2.0	2100	2200	2	3	PIPE IN GOOD CONDITION. FEW MD'S ON JOINTS	NO WORK	1	
53A-50	56-50	N/A	12	215.0	24	2.0	2A00	9	3.0	4131	4131	2	1 OR 2	PIPE IN GOOD CONDITION. FEW MD'S ON JOINTS	NO WORK	1	
5-54	6-54	N/A	10	215.0	5	2.5	3121	16	2.0	2800	3129	2	0	PIPE IN GOOD COND, SOME MD'S AT JOINTS, POOR VIDEO	NO WORK	1	4
56-53	40-53	N/A	15	399.0	0	0.0	0000	72	1.0	1M00	1M00	2	8	PIPE IN GOOD CONDITION, FEW ROOTS AND MD'S IN JTS. SERVICES SEEMED OK	NO WORK	1	
59-55	58-55	N/A	18	374.0	0	0.0	0000	132	4.0	4E00	4E00	2	1	PIPE IN GOOD CONDITION. SOME HARD SUBSTANCE NEAR 59-55 AT BOTTOM	NO WORK	1	
6-50	8-50	N/A	15	167.0	0	0.0	0000	31	1.0	1E00	1E00	2	2	MINOR ROOTS IN SOME JTS	NO WORK	1	
67A-53	66-53	N/A	15	217.0	0	0.0	0000	4	2.0	2200	2200	2	3	PIPE IN GOOD CONDITION	NO WORK	1	
7D-56	8-56	N/A	10	115.8	6	2.0	2300	0	0.0	0000	2300	2	1	PIPE IN GOOD CONDITION. 1/2 FULL OF WATER	NO WORK	1	
8-50	9-50	N/A	15	210.0	0	0.0	0000	16	2.0	2800	2800	2	2	PIPE IN GOOD CONDITION	NO WORK	1	
8-56	8A-56	N/A	12	379.8	2	2.0	2100	10	2.0	2500	2600	2	11	PIPE IN GOOD CONDITION. DBL CHECK SERVICE LEAD AT 352' TO EAST (OLD)	NO WORK	1	
9-50	11-50	N/A	15	190.0	4	2.0	2200	37	1.9	2B11	2B11	2	2	PIPE IN GOOD CONDITION, SOME MD'S IN JTS	NO WORK	1	
9A-56	9-56	N/A	12	200.0	2	2.0	2100	8	1.6	2312	2412	2	1	PIPE IN GOOD COND, MD'S ON JTS	NO WORK	1	4
A	D	N/A	8	264.0	104	2.0	2100	2	2.0	2100	2100	2	0	PIPE IN GOOD CONDITION	NO WORK	1	
22A-55	22-55	N/A	21	196.4	76	2.0	2F00	0	0.0	0000	2F00	2	0	PIPE IN GOOD COND. SURFACE AGGREGATE LOSS ??, PIPE FLOWING 1/3 FULL	MONITOR	9	
40-50	37-50	N/A	18	175.2	0	0.0	0000	0	0.0	0000	0000	2	1	PIPE IN GOOD CONDITION. SIGNS OF DEBRIS APPROX. 30%	MONITOR	9	
44-50	40-50	N/A	15	375.0	8	2.0	2400	0	0.0	0000	2400	2	2	PIPE IN GOOD CONDITION. COUPLE CRACKS AT 115' AND 240'	MONITOR	9	
57-53	56-53	N/A	15	430.0	5	2.5	3121	48	1.0	1H00	3121	2	9	PIPE IN GOOD CONDITION. ROOTS IN MOST JOINTS	MONITOR	9	
3-53	2-53	N/A	12	135.0	12	2.0	2600	1	1.0	1100	2601	3	3	PIPE IN OK CONDITION. A FEW MINOR CRACKS. NO SIGNS OF ROOTS	NO WORK	1	
56-50	57-50	R	10	115.0	0	0.0	0000	6	3.0	5111	5111	3	2	PIPE IN GOOD CONDITION. ONLY SAW 76' TO A SERIOUS PROTRUDING TAP	PR, EXCAV	5	
1-51	20-50	N/A	10	238.0	120	2.0	412J	41	1.0	211F	412J	3	1	A LOT OF MINOR TO MED CRACKS THROUGHOUT. SIGNS OF PIPE 1/2 FULL	LINE	7	9
17-51	18-51	N/A	21	228.0	8	2.0	2400	16	1.0	1B00	241B	3	4+	PIPE IN OK COND, ROOTS IN MOST JOINTS (VIDEO NOTES REVERSE BUT NOT)	LINE	7	
19-53	18-53	N/A	10	128.0								3	1	SEVERE HINGE CRACKS AND ROOTS (NO PACP PROVIDED)	LINE	7	
1A-53	1B-53	N/A	15	230.0	2	2.0	2100	39	2.1	312B	312B	3	2	PIPE IN OK CONDITION. SEVERAL LARGE MD'S (25%), PAVT FAILURE AT 215'	LINE	7	
22-51	23-51	N/A	18	212.0	38	2.1	322B	42	1.1	411F	4132	3	4	MINOR CRACKS THROUGHOUT	LINE	7	
23-56	24-56	N/A	15	359.0	177	3.0	3J23	31	1.0	1E00	3J23	3	1	MINOR CRACKS THROUGHOUT, DID NOT SEE LAST 50'	LINE	7	
24-51	25-51	N/A	15	402.0	173	2.4	523D	24	1.0	1C00	523D	3	7	SMALL PIECE MISSING AT 213'. CAPPED SERVICE LEAD W/ VISIBLE SOIL AT	LINE	7	
2-50	4-50	N/A	12	384.0	59	2.1	4131	77	1.0	211N	4131	3	3	CP AT 256' (MEDIUM), ROOTS THROUGHOUT PIPE	LINE	7	
2-56	1-56	N/A	10	237.0	68	2.1	322E	0	0.0	0000	322E	3	1	MINOR TO MEDIUM CRACKS (HINGE) THROUGHOUT	LINE	7	
26-56	27-56	N/A	12	310.0	89	2.0	312G	52	1.2	4132	4133	3	6	ROOTS AT MOST JTS AND SOME HVY, 1/4 TO 1/2 FULL OF DEBRIS	LINE	7	9
3-50	2-50	L	10	115.0	50	2.1	412C	10	2.5	4123	422C	3	1	MINOR CP AT 10 PM THROUGHOUT. NEED MH ON UPPER END, WEIRD BULGE	LINE	7	9
39-51	38-51	N/A	10	230.0	0	0.0	0	3	3.0	3100	3100	3	3	PIPE RUNS UNDER EXISTING SCHOOL. SERVICES APPEAR DEFECTIVE. RECORD	LINE	7	9
4-50	6-50	N/A	15	380.0	231	3.0	3N00	77	2.0	1N00	3N1N	3	3	ROOTS IN EVERY JOINT 0' - 100', HVY ROOTS 100'-135'	LINE	7	9
56-50	55-50	B	10	135.0	50	2.0	2D00	8	1.0	1800	2D18	3	1	PIPE IN OK CONDITION. A LOT OF ROOTS. UPPER END IS A CLEANOUT. WHEN	LINE	7	9
67-55	68-55	N/A	8	88.9	51	3.0	3B00	14	1.0	1A00	3B1A	3	0	BP FROM 10' - 29', HVY ROOTS AT MOST JOINTS	LINE	7	
7-51	5-51	N/A	15	159.0	54	2.1	322C	28	1.0	1D00	322C	3	2	MINOR CP 12 PM 50'-80'. 120' - 123' HINGE CRACK	LINE	7	
8-51	7-51	N/A	15	161.0	51	2.0	312C	24	1.0	1C00	312C	3	3	CP APPROX. 20%, MINOR CRACKS	LINE	7	
06-55	7-55	N/A	10	114.0	27	3.0	3900	20	1.1	311B	3A1B	3	0	MORE CRACKS THAN NOTED IN RATINGS- MINOR, MH 6-55 LOOKS LIKE A CLEAN	MONITOR	9	
10-54	8-54	N/A	10	419.0	7	3.5	4131	8	2.0	2400	4131	3	1	MD'S AT SOME JOINTS, MINOR CRACK AT 235'	MONITOR	9	4
11-56	9A-56	N/A	10	140.0	34	2.1	322A	0	0.0	0000	322A	3	1	PIPE IN OK COND. CRACKS AT 78', 92'-102', 109-113'	MONITOR	9	
15-51	17-51	N/A	24	334.0	38	2.9	3A21	3	1.5	2111	3A22	3	2	PIPE IN OK COND. MONITOR CRACKS 4' - 20'	MONITOR	9	
18-51	19-51	N/A	21	218.0	30	2.0	2B00	6	1.0	1600	2B16	3	4	PIPE IN OK COND. COUPLE CRACKS AND ROOTS	MONITOR	9	
19-56	20-56	N/A	10	59.1	0	0.0	0000	7	1.0	1700	1700	3	1	PIPE IN GOOD CONDITION, ROOTS IN EVERY JOINT. ONLY SERVICE LEAD IS	MONITOR	9	
1B-53	10-53	N/A	15	334.2	0	0.0	0	76	2.0	2F00	2F00	3	2	PIPE IN OK CONDITION. SIGNS OF GREASE AND DEBRIS	MONITOR	9	
21-51	22-51	N/A	21	250.0	43	2.4	372A	6	2.0	2300	372A	3	2	MINOR CRACKS FROM 24' TO 60'	MONITOR	9	
23-51	24-51	N/A	18	288.0	147	2.7	3F2B	53	1.0	1100	3F2B	3	8	PIPE HAS SOME CRACKS, MOSTLY MINOR	MONITOR	9	

MANHOLE LEGEND

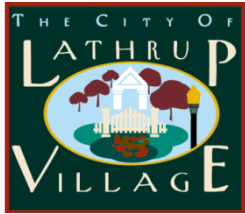
R Right
L Left
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1 Pipe in good condition
2 Early stages of developing problems
3 Flow impeded. Roots, minerals, cracks,
structural integrity is jeopardized.
4 Poor condition. May be in state of collapse
5 Pipe is collapsed or flow sverly restricted
A=10-14
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D=25-29
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REPAIR TYPES

1 - NO WORK
2 - HEAVY CLEAN / ROOT CUT
3 - ROOT TREATMENT
4 - JOINT GROUTING
5 - POINT REPAIR, EXCAVATION
6 - POINT REPAIR, CIPP
7 - LINE / CIPP
8 - R & R, EXCAVATION
9 - MONITOR
10- INVESTIGATE
11 - INSTALL MH

L/T- MH	R/B-MH	Manhole Missing	DIA (Inch)	Length (feet)	STRUCTURAL			OPERATIONAL & MAIN			OVERALL	2020 GW Rating Condition	No. of Services	Comments	Recommen- dation	Repair Type	Secondary Repair Type
					Pipe Rating	Pipe rating Index	Quick rating	Pipe Rating	Pipe Rating Index	Quick Rating							
2-53	1-53	N/A	12	210.0	1	1.0	1100	16	1.0	1B00	1B00	3	4	PIPE IN GOOD CONDITION. ROOTS IN ABOUT 35% OF JOINTS	MONITOR	9	
26-51	25-51	N/A	15	403.0	89	2.1	342F	83	1.1	4122	4134	3	10	PIPE IN OK COND. SOME GRADE 2 GCRACKS AND ROOTS	MONITOR	9	
36-51	35-51	N/A	15	297.6	48	2.8	3A23	1	1.0	1100	3A23	3	1	PIPE IN OK CONDITION (UNDER CITY HALL)	MONITOR	9	
4-51	3-51	N/A	15	420.0	382	2.9	4F3G	83	1.0	1000	4F3G	3	6	PIPE IN OK CONDITION. HVY ROOTS FROM 300' - 370'	MONITOR	9	
48-50	44-50	N/A	15	386.0	4	2.0	2200	44	2.0	2C00	2C00	3	2	PIPE IN OK CONDITION. SIGNS OF DEBRIS 30%. MD'S ON A LOT OF JOINTS	MONITOR	9	
54-55	55-55	N/A	10	292.0	491	2.8	3E2B	4	1.0	1400	3E2B	3	5	PIPE IN OK COND (NOT AS BAD AS STRUCTURAL #)	MONITOR	9	
62-53	41-53	N/A	15	415.0	3	3.0	3100	35	1.0	1F00	311F	3	8	PIPE IN GOOD CONDITION. ROOTS IN MOST JOINTS	MONITOR	9	
63-53	62-53	N/A	12	400.0	33	2.8	3923	10	1.4	4116	4139	3	9	SOME MINOR CRACKS THROUGHOUT. DIDN'T LOOK BAD. MONITOR CRACK	MONITOR	9	
63A-53	63-53	UL	10	405.0	12	3.0	4132	93	1.1	4310	4432	3	7	PIPE IN OK COND WITH FEW CRACKS. INSTALL MH PAST 333' (NO OTHER K)	MONITOR	9	
67-53	67A-53	N/A	15	225.0	14	3.5	4321	0	0.0	0000	4321	3	3	PIPE IN OK COND. MONITOR CRACK AT 185'	MONITOR	9	
67-53	68-53	N/A	15	438.7	42	2.0	2C00	11	1.4	2315	2D15	3	6	PIPE IN OK CONDITION. SOME MINOR CRACKS	MONITOR	9	
72A-56	72-56	BL	8	95	9	2.3	3123	0	0.0	0000	3123	3	3	PIPE IN OK CONDITION. NEEDS UPPER END MH	MONITOR	9	
9-56	8A-56	N/A	12	221.0	0	0.0	0000	8	1.1	2116	2116	3	4	PIPE IN GOOD COND. SIGNS OF GREASE (FROM UPSTREAM RESTAURANT)	MONITOR	9	
00-00	1A-53	T	8	139.0	4	4.0	4100	0	0.0	0	4100	4	0	Broken pipe 95' - 101'. No services - Investigae 4 houses adjacent to for sewer c	PR, EXC	7	8
01-53	1A-53	N/A	12	384.0	20	3.3	5142	83	2.0	312G	5142	4	5	A LOT OF MD'S, 2 SPOTS WITH MISSING PIPE	LINE	7	
12-50	14-50	N/A	12	276.0	129	2.3	3B2F	34	1.0	211E	3B2F	4	3	PIPE HAS HINGE CRACKING AND MINOR TO MED CRACKING FROM 16'-125'	LINE	7	
13-56	11-56	N/A	12	360.0	137	2.8	423F	42	1.1	221F	423F	4	3	PIPE HAS MINOR TO MEDIUM CRACKS THROUGHOUT	LINE	7	
1-54	64-53	N/A	18	221.0	40	2.0	2C00	20	1.0	1C00	2C1C	4	1	MASSIVE ROOTS. ONLY VIEWED 1ST 54'	LINE	7	
16-53	18-53	N/A	10	120.0	37	2.5	5141	0	0.0	0000	5141	4	1	SOME HINGE CRACKING 10'-20, 1ST 25' BIG 6" DIP	LINE	7	
18-53	17-53	N/A	12	177.0	106	3.0	413E	8	1.0	1800	413E	4	3	PIPE CRACKED THROUGHOUT	LINE	7	
18-56	19-56	N/A	10	155.0	157	3.3	4B3C	25	1.1	411C	4B3C	4	1	PIPE HAS CRACKS AND ROOTS THROUGHOUT	LINE	7	
22-50	26-51	N/A	12	304.0	112	3.1	5144	59	1	1J00	5144	4	5	HINGE CRACKS 0' - 100'	LINE	7	
2-51	1-51	N/A	12	385.0	206	3.0	513L	75	1.0	1N00	513L	4	4	BP AT 132' DEFORMED, SIGNIFICANT ROOTS THROUGHOUT	LINE	7	
2-54	1-54	N/A	10	305.0	11	2.8	4131	28	2.5	3625	4137	4	0	BP AT 0' - 10'	LINE	7	8
30-51	31-51	N/A	15	253.0	80	2.6	4832	43	1.1	411F	4932	4	2	HINGE CRACKING THROUGHOUT AND MASSIVBE ROOTS	LINE	7	
40-53	44-53	N/A	12	398.0	192	3.0	3K00	54	1.0	211I	3K21	4	8	PIPE FOR 0' TO 50' FROM 44-53 IN POOR COND. ROOTS IN JTS	LINE	7	
4A-53	4-53	L	10	151.1	32	2.3	4132	36	1.2	4131	4233	4	1	ROOTS IN EVERY JOINT. UPPER END NEEDS MH (2022 BY SUNDE)	LINE	7	
51-53	49-53	N/A	15	26.0	21	3.0	3700	0	0.0	0000	3700	4	0	CRACKS THROUGHOUT. SOME HINGED, UNDER ROAD	LINE	7	
5-55	56-56	N/A	8	223.0	19	2.7	5132	17	1.3	511A	5232	4	2	CP 165' TO AT LEAST 179', ROOTS THROUGHOUT	LINE	7	
59-53	58-53	N/A	10	19.0	15	3.0	3500	0	0.0	0000	3500	4	0	PIPE BROKEN THROUGHOUT	LINE	7	
60-53	59-53	L	10	246.0	34	3.1	413A	23	1.0	1C00	413A	4	5	BP AT 234'-246' (LINE TRHOUGH)	LINE	7	
81A-56	81-56	U	10	215.0	148	2.4	3D2F	37	1.0	1F00	3D2F	4	7	HINGED CRACKED THROUGHOUT, HVY ROOTS. NEED UPPER END MH	LINE	7	
10A-55	10-54	N/A	8	144.0	57	4.1	514A	0	0.0	0000	514A	5	0	BP AT 65' (MISSING PIPE) (ONLY VIEWED 65') **SEWER RUNS THROUGH RU	LINE	7	
20-53	19-53	N/A	10	190.0	93	2.8	463B	18	1.1	211B	463B	5	4	PIPE HAS NUMEROUS HINGE CRACKS AND ROOTS. NEED UPPER END MH	LINE	7	
21-56	18-56	L	12	197.4	170	2.9	483F	36	1.0	211E	483F	5	2	PIPE HAS HINGE CRACKS THROUGHOUT. NEED UPPER END MH	LINE	7	
28-50	39-51	N/A	10	681.0	184	2.8	5147	33	1.0	211E	5147	5	3	PIPE IN POOR CONDITION WITH HINGE CRACKS. MH INSTALL BETWEEN RU	LINE	7	
28-55	32-55	N/A	15	135.0	91	2.4	5241	0	0.0	0000	5241	5	1	BP AT MH 28-55 NEEDS EXCAVATED POINT REPAIR OR LINE. 4" - 6" DEBRIS	LINE	7	5
28-56	29-56	N/A	10	140.0	44	2.6	5241	16	1.1	311A	5241	5	3	PIPE IN POOR COND. VOID AT SEWER LEAD CONNECTION, SOIL VISIBLE	LINE	7	
39-56	40-56	N/A	12	365.0	234	3.6	4F3D	6	1.0	1600	4F3D	5	4	HINGE CRACKED FROM 11' TO 200' PLUS	LINE	7	
40-50	41-50	N/A	12	472.0	350	3.2	4B3Q	82	1.0	1000	4B3Q	5	10	PIPE IS CRACKED THROUGHOUT WITH SOME HINGED	LINE	7	
43-56	44-56	N/A	10	382.0	286	4.0	514L	79	1.1	321M	514L	5	7	BAD HINGE CRACKS THROUGHOUT, ROOTS IN MOST JOINTS	LINE	7	
4-53	3-53	N/A	10	125.0	82	3.7	514B	20	1.0	1C00	514B	5	3	CONDITION 4 AND 5 HINGE CRACKS THROUGHOUT PIPE.	LINE	7	



A HERITAGE OF GOOD LIVING

Susie Stec

Interim City Administrator

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COUNCIL COMMUNICATION:

TO: Mayor Garrett and City Council Members

FR: Susie Stec, Interim City Administrator

DA: February 28, 2022

RE: Back-billing for Under-Billed, 1.5" Water Customers

Recently City Council has been discussing billing for those 1.5" water customers who were under-billed over the course of the last four (4) years. This is the result of using 4-digit reads, as opposed to 5-digit reads. It is estimated that back-billing these water customers will result in recovering \$130,000.