

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF KENTUCKY-)	
AMERICAN WATER COMPANY TO)	CASE NO. 2022-00032
AMEND TARIFF TO)	
REVISE QUALIFIED INFRASTRUCTURE)	
PROGRAM CHARGE)	

**DIRECT TESTIMONY OF KRISTA CITRON, SENIOR PROJECT ENGINEER FOR
KENTUCKY-AMERICAN WATER COMPANY, INC.
AND SHELLEY PORTER, DIRECTOR OF ENGINEERING FOR KENTUCKY-
AMERICAN WATER COMPANY, INC.**

Filed: March 1, 2022

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1 I. INTRODUCTION

2 Q. Please state your name, position, and business address.

3 A. My name is Krista Citron. I am the Senior Project Engineer for Kentucky-American Water
4 Company, Inc. (“KAW” or “the Company”). My business address is 2300 Richmond
5 Road, Lexington, Kentucky 40502.

6 My name is Shelley Porter. I am the Director of Engineering for KAW. My business
7 address is 2300 Richmond Road, Lexington, Kentucky 40502.

8 Q. Have you previously filed testimony at the Kentucky Public Service Commission
9 (“Commission”)?

10 A. (Ms. Citron) Yes. I filed written testimony before the Kentucky Public Service
11 Commission in Case No. 2021-00090 and Case No. 2021-00376. I also provided hearing
12 testimony at the Commission in the June 2, 2021 hearing for Case No. 2021-00090.

13 (Ms. Porter) I have not previously filed testimony at the Commission.

14 Q. Please state your educational and professional background.

15 A. (Ms. Citron) I earned my Bachelor of Science in Civil Engineering from Vanderbilt
16 University in Nashville, Tennessee in 2007 and my Master of Science, also in Civil
17 Engineering, from the University of Kentucky in Lexington, Kentucky in 2008. I am a
18 registered Professional Engineer in the states of Kentucky and Tennessee.

19 I have been employed as an engineer by KAW since 2017. Prior to that, I worked
20 at CDP Engineers in Lexington, Kentucky for 8 years as a Project Engineer, overseeing
21 municipal water, wastewater, and stormwater improvement projects. I also worked with
22 CDP’s transportation group on roadway design projects and served as an occasional
23 construction inspector for municipal utility projects. I am an active member of the

1 Kentucky Society of Professional Engineers (KSPE) and the KY/TN section of the
2 American Water Works Association (AWWA).

3 (Ms. Porter) I graduated from West Virginia University Institute of Technology in
4 2006 with a Bachelor of Science in Civil Engineering. I earned a Master of Science in
5 Engineering, Environmental Engineering emphasis (May 2010) and Engineering
6 Management emphasis (December 2010). I am a registered Professional Engineer (WV
7 #19753 and KY#29229) and a designated Model Law Engineer (MLE). For my work
8 history, please see the attached Appendix A.

9 **Q. What is the purpose of your direct testimony?**

10 A. The purpose of our testimony is to describe the proposed investment for the Qualified
11 Infrastructure Program Rider (“QIP Rider”) approved by this Commission in KAW’s last
12 rate case (Case No. 2018-00358). We will describe the projects KAW plans to complete
13 that are eligible for recovery under the QIP Rider. This is the third QIP filing so it is for
14 QIP Rider Year 3 which is the period from July 1, 2022 to June 30, 2023. Projects for QIP
15 Rider Year 1 were approved in Case No. 2020-00027 and projects for QIP Rider Year 2
16 were approved in Case No. 2021-00090.

17 **II. QIP ELIGIBLE UTILITY PLANT AND PROPOSED PROJECTS**

18 **Q. Please define the categories for QIP Eligible Utility Plant.**

19 A. QIP eligible utility plant includes Distribution Infrastructure and Water Treatment
20 Infrastructure. They are both defined terms in KAW’s tariff on file with the Commission
21 at Sheet No. 48.

22 **Q. Please describe eligible Distribution Infrastructure.**

23 A. Eligible distribution infrastructure includes distribution and transmission system structures
24 and improvements, mains and valves installed as replacements for existing facilities;

1 hydrants, distribution tanks; services, meters and meter installations; and power generation
2 and pumping equipment installed as replacements for existing facilities; and unreimbursed
3 funds related to capital projects to relocate facilities required by governmental
4 infrastructure projects.

5 **Q. Please describe eligible Water Treatment Infrastructure.**

6 A. Eligible water treatment infrastructure includes source of supply and water treatment
7 structures, pipe and equipment including sampling equipment, SCADA (“Supervisory
8 Control and Data Acquisition”) equipment, and power generation and pumping equipment
9 installed as replacements for existing facilities.

10 **Q. Are projects encompassing all of the categories of QIP eligible Utility Plant included**
11 **in this filing?**

12 A. No.

13 **Q. Why are certain projects not included?**

14 A. The Commission’s June 17, 2020 Order in Case No. 2020-00027 states that only projects
15 that “are reasonably related or incidental to replacing aging mains”¹ should be included in
16 QIP Rider filings. Therefore, this filing complies with this requirement.

17 **Q. Can you elaborate on what KAW projects were proposed in Case No. 2021-00090 for**
18 **QIP Year 2 and what was approved?**

19 A. Yes. In Case No. 2021-00090, or QIP Rider Year 2, KAW submitted projects that were
20 consistent with the Commission’s June 17, 2020 order in Case No. 2020-00027. The
21 Commission approved most of those proposed projects. More specifically, the
22 Commission approved all the “Budget Line B: QIP Mains Replaced/Restored” projects.

¹ Case No. 2020-00027, June 17, 2020 Order, p. 16.

1 But the Commission did not approve three other budget line items: (1) Budget Line C:
2 Mains Unscheduled; (2) Budget Line F: Hydrants and Valves Replaced; and (3) Budget
3 Line H: Service Lines Replaced. Replacing hydrants, valves, and service lines that are
4 **incidental** to the main replacements as part of the Budget Line B projects was approved
5 by the Commission. The Commission also said the following related to future QIP
6 Applications:

7 For all future QIP applications after QIP 2, the Commission finds
8 that the amount of main replacement included in QIP projects should
9 be consistent with the amount proposed and approved in Case No.
10 2018-00358, and should be based on a 25-year replacement cycle.
11 The Commission further finds that, based on the 25-year
12 replacement cycle, Kentucky-American should limit future QIP
13 scheduled main replacement to 10-13 miles of main replaced each
14 year.²

15 **Q. Do the projects proposed in this case for QIP Year 3 comply with the Commission’s**
16 **order quoted above?**

17 A. Yes. KAW is proposing only Budget Line B: QIP Mains Replaced/Restored items in this
18 case. The total length of the proposed projects is 12.8 miles. And those projects are based
19 on a 10-13 miles per year rate to meet the 25-year replacement goal. These investments
20 are to replace aging infrastructure that is non-revenue producing. This means infrastructure
21 that does not produce additional revenue (no new customers). Examples of infrastructure
22 that would produce additional revenue are main extensions for new development and new
23 services or new meters for new customers.

24 **Q. What work is associated with Budget Line B - QIP Mains Replaced/Restored?**

25 A. The work includes the scheduled replacement, renewal or improvement of existing water
26 mains, including valves, hydrants, and other appurtenances incidental to the water main

² Case No. 2021-00090, June 21, 2021 Order, p. 12.

1 replacement. Work under this line is the planned and scheduled proactive replacement of
2 water main that has been determined to reach its useful life or is causing service problems
3 to the adjacent area serviced by the main. Water main replaced under this line item will
4 result in a robust and more reliable water distribution system. By replacing aging water
5 main infrastructure proactive rather than reactive basis, the distribution system will provide
6 direct customer benefits in the form of improved and sustained water quality, improved
7 fire protection, fewer service disruptions and lower operating and maintenance costs over
8 time.

9 KAW plans to spend approximately \$17.9M to replace various size water mains as
10 part of 58 projects during the QIP 3 forecasted period of July 1, 2022 to June 30, 2023.
11 KAW will replace approximately 67,580 feet or 12.8 miles of main during the period.
12 These projects are not only important in addressing the aging infrastructure needs of the
13 community, but they also allow for the replacement of cast iron and galvanized steel lines
14 that are leaking or have a high potential for failure. This should help KAW to reduce its
15 levels of “unaccounted for” water.

16 **Q. What are the proposed projects that are included with Budget Line B - QIP Mains**
17 **Replaced/Restored?**

18 A. KAW has identified 58 projects that are outlined in Exhibit 1 and shown in the maps in
19 Exhibit 2. While the number of projects has increased from prior years, the overall total
20 footage remains within the 10-13 miles as described above. KAW intentionally separated
21 larger projects into sections to create opportunities for our smaller contractors to
22 competitively bid. With smaller sections for jobs, KAW has more flexibility in how jobs

1 can be bundled and presented to contractors. KAW also continues to bundle projects on
2 adjacent streets, where applicable, to be as efficient as possible with contractor resources.

3 **Q. Are there any changes in how QIP 3 projects are projected to go in-service?**

4 A. Yes. As KAW witness Tricia Sinopole discusses in her direct testimony, in QIP Years 1
5 and 2, the assumption was that Line B – Mains Replaced projects would go into service
6 two months after the spend occurred. Rather than use the same two-month timeframe from
7 spend to in-service, KAW has projected actual in-service dates based on current planning
8 and best estimates for project completion for each individual QIP 3 project. This allows
9 KAW to account for spend that occurs well before a project goes into service, such as the
10 design and materials costs, as well as spend that occurs after a project goes into service,
11 such as final paving and restoration costs. In some cases where final paving is unable to
12 be performed immediately following construction completion, the spend may occur several
13 months after the project is in-service.

14 **Q. Why is the majority of the main being replaced cast iron?**

15 A. In Case No. 2018-00358, KAW requested approval of a QIP rider to make incremental
16 capital improvements to replace its aging mains that otherwise would not be replaced in a
17 timely manner. In that proceeding, the Company analyzed main break history from January
18 2012 to December 2016. Review of the reported breaks from January 2012 to December
19 2016 indicated that main breaks on cast iron and galvanized mains represented 64% of all
20 breaks. Since cast iron main (lined and unlined) and galvanized material only represents
21 15.9% of the total inventory of mains in the ground, the break rate on these types of material
22 is significantly higher than the other material in the system. The break rate per mile of
23 main shows that cast iron main had a break rate of 1.1 breaks per mile of main compared

1 to ductile iron, which only saw a break rate of 0.04 breaks per mile of main from January
2 2012 to December 2016.

3 **Q. What impacts are expected from additional Line B spending in the forecast period?**

4 A. It is anticipated that removing cast iron and galvanized steel from the distribution system
5 will help to reduce the number of water main breaks. Given the disproportionate number
6 of breaks caused by these two pipe materials, removing cast iron and galvanized mains will
7 have the biggest impact on the number of main breaks and help ensure the reliability of
8 water service to KAW Customers.

9 **Q. How did KAW select the projects proposed in this case?**

10 A. Projects are selected using the pipeline prioritization model along with external drivers
11 such as paving schedules, customer impact, and other construction considerations.
12 Combining the prioritization model results with external drivers allows KAW to maintain
13 an adaptable replacement program which allows for the efficient use of available resources.

14 The prioritization model is updated annually. As first described in Brent O'Neill's
15 Direct Testimony, Exhibit 2, pages 12-13, in Case No. 2018-00358, the prioritization
16 model consists of an electronic database which is used to assess and prioritize main
17 replacement projects. The inputs to the model consist of eight criteria which are each
18 ranked on a scale of 1 to 5 and individually weighted between 5 and 15 points out of a
19 possible 100.

20 Please see Exhibit 3 which illustrates the ranking matrix for these eight criteria.
21 These inputs are dynamic and are therefore updated to create the most accurate assessment
22 of system conditions. Each year, the criteria for low pressure, number of main break/leaks,
23 fire flow, age, water quality and customer impact need to be checked and/or updated as

1 conditions can change resulting in a possible adjustment to the replacement priority of a
 2 given water main. The updated prioritization model itself is attached as Exhibit 4.

3 For QIP Year 3, projects were selected using an additional factor which is the
 4 pavement condition rating from the City of Lexington (“LFUCG”). Using Geographical
 5 Information Systems (GIS), the prioritization model ranking and the pavement condition
 6 rating were overlaid on a map of KAW’s infrastructure, and projects were selected from
 7 among the streets that both ranked higher on the prioritization model and were rated as
 8 having poor pavement conditions. The goal of this additional step is to identify segments
 9 of KAW’s mains that are located within roadways that are likely to be paved in the near
 10 future. This was done intentionally to better coordinate paving restoration requirements
 11 with LFUCG, and to select streets that would be good candidates for paving sharing
 12 between KAWC and LFUCG or other utilities.

13 The miles of main replaced or proposed to be replaced by year has been updated in
 14 the table below.

Miles of Proposed Replacements by Material Types - QIP Years 1-5							
QIP Year	Material Type						Total by Year
	Cast Iron	Asbestos Cement	PVC	Ductile Iron	Galvanized	Other	
1	6.2						6.2
2	14.2	0.6	0.07			0.07	14.9
3 ¹	12.1	0.2	0.06		0.4	0.1	12.8
4 ¹	12.3	0.2			0.07	0.1	12.7
5 ¹	12.6	0.1			0.2	0.1	13.0
Total by Type	57.4	1.1	0.13	0	0.7	0.4	

¹ - Specific project areas for QIP years 3-5 were identified using the method described above.

15
 16 **Q. What is the estimated cost per foot of main proposed for the QIP Year 3 projects?**

1 A. The cost per foot of the proposal for QIP Year 3 is estimated to be \$265 per linear foot.
2 The costs for design of the Year 3 projects and the materials orders are generally known
3 and are reflected in this estimate, but QIP Year 3 contractor bid pricing is not yet known.
4 Therefore, the approximate cost per linear foot for construction and restoration is an
5 estimate based on the most recent QIP Year 2 project bids from contractors.

6 **Q. What steps has KAW taken to control the cost-per-foot of main replaced?**

7 A. For QIP Year 3 projects, KAW has continued grouping projects in geographical proximity
8 for design and construction efficiency, when appropriate. Bundling projects for design and
9 construction allows the firms to focus their efforts and equipment in a concentrated area.
10 Also, for QIP Year 3, KAW provided a formal, standardized scope of work to all design
11 firms to improve consistency and communication expectations.

12 KAW continues to utilize national contracts that leverage American Water Works
13 Service Company's ("Service Company") volumes to secure discounts and thus minimize
14 cost increases for material such as piping, fittings, and service line materials. In addition,
15 we can leverage our scale to have the shortest delivery lead times in the industry. Because
16 of the supply chain challenges facing KAW and the construction industry in general, KAW
17 has proactively sought out and secured the materials needed for QIP Year 3 projects on the
18 most economical terms available to ensure that materials would be available when projects
19 were ready to begin construction, and to minimize cost increases. This proactive approach
20 also helps to ensure KAW can complete all proposed QIP Year 3 projects in a timely
21 manner and according to the proposed schedule at a lower cost.

22 KAW has also expanded our list of bidders for QIP projects. Over the past 12
23 months, we have proactively sought out additional contractors and have added two new

1 contractors to the pre-qualified list. KAW and our Supply Chain group also contacted firms
2 that perform work for other American Water subsidiaries to gauge their interest in working
3 for KAW, and we have reached out to bidders for other utilities in surrounding areas such
4 as Louisville and Knoxville. In addition to adding new contractors, bid packages for QIP
5 jobs have also been sent to an expanded group of 7-8 contractors compared to 3-4 as in
6 years past. The contractors and their contact information are listed in Exhibit 5 to this direct
7 testimony.

8 Regarding utility coordination with external entities, KAW has continued to engage
9 with other utilities to determine if there are opportunities to coordinate our construction.
10 The maps in the attached Exhibit 2 are distributed to other utilities for their review. In
11 several cases, KAW has learned of a planned replacement project for another utility and
12 we have been able to successfully work around each other's schedules.

13 Additionally, KAW has continued to work with LFUCG to identify ways to
14 improve coordination on pavement restoration. These efforts are explained in more detail
15 below.

16 **Q. Has the recent inflation trend affected the cost of KAW's QIP projects, and, if so,**
17 **what steps has KAW taken to minimize those effects?**

18 A. KAW has been subject to rising costs in several areas. The cost of materials has been
19 impacted not just by inflation, but also by shortages and shipping delays, explained in more
20 detail below. The average cost-per-foot of project design work performed by consultants
21 as well as of construction work performed by contractors have also risen year over year.
22 KAW has worked to minimize these effects by bundling projects on adjacent streets or in
23 the same geographical areas. This allows design firms to provide better pricing for tasks

1 that can be performed concurrently—such as survey work—instead of providing a separate
2 price for each individual street. The same process applies to construction contractors as
3 well. By bundling projects in the same vicinity, contractors can mobilize equipment to one
4 primary location instead of several different locations, ultimately reducing the overall
5 costs.

6 **Q. Have KAW’s QIP projects been affected by the current global supply chain**
7 **challenges, and, if so, what steps has KAW taken to minimize those effects?**

8 A. Yes, global supply chain and transportation issues continue to be challenging. KAW
9 experienced a significant increase in delivery lead times and pricing increases in 2021.
10 KAW has worked diligently with supply chain and vendors on reducing material lead
11 times, accepting partial deliveries, working with alternative suppliers, and placing material
12 orders for QIP work sufficiently in advance. KAW modified designs to accept the
13 installation of 6” diameter pipe in lieu of 4” pipe, as the 4” diameter pipe is more costly
14 and had significantly longer lead times. The Service Company supply chain group has
15 diligently worked with vendors and suppliers to obtain favorable commitments for
16 materials cost and delivery, helping to ensure that the cost effects to KAW are minimized.

17 **Q. Part of KAW’s cost-per-foot is the expense of pavement restoration that must be**
18 **performed after KAW replaces a main in a public road. What specifically has KAW**
19 **done to control and minimize its pavement restoration expense in QIP Year 2 projects**
20 **and what is KAW going to do to control those costs in QIP Year 3?**

21 A. The paving restoration requirements on public roadways within Lexington are outlined in
22 LFUCG’s Chapter 17C of the Code of Ordinances and in the Standard Drawings, of which
23 200, 201-1, 201-2, 201-4, 300, 301, 302, 303, 304, 307-1, 307-2 primarily relate to 17C.

1 While general details and guidance are outlined in these documents, the restoration
2 requirement is ultimately determined post construction, immediately prior to paving, based
3 on the judgment of the LFUCG representative maintain the performance of the pavement
4 post construction. KAW has taken the following actions to reduce paving costs through
5 process improvements and identifying opportunities for efficiencies that will meet
6 LFUCG's goal of maintaining safe and quality roadways, while minimizing impacts to
7 customers associated with paving costs. KAW recognizes that beneficial partnerships with
8 LFUCG and coordination with other utilities through effective communication, planning,
9 performance, and continuous process improvement is critical to reducing paving costs.
10 While we have not realized a significant quantifiable reduction in paving costs yet, KAW
11 continues to focus on this issue. Throughout the implementation of QIP Year 2 and in
12 development of QIP Year 3 projects, KAW continues to engage LFUCG at multiple levels
13 of business and government to advocate for judicious paving requirements and to find
14 opportunities for efficiencies towards the minimization of paving costs to KAW ratepayers
15 through the following activities:

- 16 • LFUCG Utility Coordination Committee Meetings (“UCCM”): KAW staff attends every
17 UCCM meeting. During these meetings, KAW has requested consideration of LFUCG
18 completing the paving using their paving contract and pricing. While this request has been
19 met with apprehension in the past by LFUCG due to the administrative lift and resources,
20 the continued engagement of LFUCG representatives has resulted in the openness to
21 explore a pilot where LFUCG will consider a limited number of projects to perform the
22 paving under their paving contract. At the most recent meeting in November 2021, KAW
23 also invited our design firms and contractors to attend the virtual meeting to listen and

1 participate. KAW advocated for the pre-existing LFUCG pavement rating to be considered
2 as part of the post construction restoration requirements in an effort to align the paving
3 restoration to the 5-foot trench width detail in the LFUCG Standard Details (for roadways
4 over a certain paving rating). The paving condition rating is a factor KAW has considered
5 during the planning process. While the utilization of the pavement rating to move towards
6 a more standard, cost-sensitive, approach in establishing the restoration extents is not
7 currently utilized, the consideration of the paving rating in planning is beneficial in
8 coordinating partnering opportunities for the LFUCG paving pilot mentioned above. In
9 part due to KAW's feedback, future UCCM meetings will be more project- and
10 coordination-focused between utilities and LFUCG in executing and planning the
11 replacement program projects, with the goal to minimize paving costs and construction
12 disruptions, while still maintaining maintained safe, quality roadways for the community.

- 13 • Project Coordination Meetings: LFUCG also hosts bi-monthly project coordination
14 meetings for their storm and sanitary sewer departments. KAW staff attends every one of
15 these meetings and provides information about upcoming projects or coordination needs.
16 The project coordination meetings have been beneficial to find opportunities to cost share
17 on paving with other utilities and are necessary to coordinate construction timing. While
18 KAW has requested a future LFUCG paving list to align our project planning with
19 opportunities to complete main replacements in streets already planned to be paved within
20 LFUCG's budget, due to LFUCG's budget timing this list is not available prior to
21 establishing the QIP project list. Therefore, KAW's project list has been a primary driver
22 for cost sharing opportunities.

- 1 • Weekly Paving Meeting: During the months that the asphalt plants are open and operating,
2 LFUCG and LFUCG’s designated paving contractor host weekly meetings to review what
3 streets will be paved that week. KAW staff regularly attends these meetings and shares
4 information within KAW and from KAW back to LFUCG and the paving contractor. The
5 content of these meetings is focused on near-term paving, not long-term planning.
- 6 • Utilization of Pavement Rating in Project Planning: As previously discussed, KAW
7 utilized the pavement rating from LFUCG in conjunction with the pipeline prioritization
8 model in order to select streets that were both highly ranked in the model and likely to need
9 new pavement within the next few years. This allows KAW to be as cost-efficient as
10 possible with the selection of the project list regarding final pavement and restoration
11 requirements. Furthermore, KAW has engaged several relevant departments within
12 LFUCG earlier in our planning process. The group includes Streets & Roads, Engineering,
13 and Water Quality. At the time the initial list of projects is identified, the list is shared with
14 this group from LFUCG and they have the opportunity to provide any comments, feedback,
15 or coordination suggestions. This step has already provided multiple benefits by allowing
16 us to accelerate or delay proposed projects based on upcoming LFUCG work, and it has
17 been the primary means by which we have identified streets that are eligible for paving
18 sharing with LFUCG.
- 19 • Utility Partnering Opportunities: Once QIP projects have been identified in the planning
20 phase, the maps and locations are shared with other utilities, such as Columbia Gas.
21 Columbia Gas does the same, sharing their planned projects with KAW. This allows KAW
22 to determine if other utilities have upcoming projects in the same vicinity. In several cases,
23 we have been able to coordinate our construction schedules in these areas to minimize the

1 disruption to residents. This information-sharing has also helped highlight some streets that
2 may need to be moved up or down on the priority ranking based on other utilities' planned
3 work. Additionally, KAW and other utilities regularly share construction plans on shared
4 streets so that all parties can ensure, where possible, that their intended route does not create
5 new points of conflict.

- 6 • QIP Project Walkthroughs and Reviews: For every QIP main replacement project, the site
7 is walked and reviewed by LFUCG's inspector along with the KAW construction
8 representative and contractor. The final paving and restoration requirements are defined
9 during this site walkthrough. KAW requested a pre-construction walkthrough to establish
10 an anticipated restoration scope, but because the 17-C ordinance is performance-based and
11 relies heavily on the actual disturbance areas post construction, a determination of this
12 nature was deemed premature. To help KAW, our design firms, and our contractors better
13 anticipate and estimate the disturbance limits of the QIP projects, LFUCG's Municipal
14 Senior Engineer for the Division of Engineering has provided training on the 17-C
15 ordinance and associated design documents and paving policies to all involved. KAW has
16 implemented this training as an annual requirement for our design firms and contractors
17 that work on QIP projects.

18 KAW advocated for further review of the final paving and restoration limits on QIP
19 Year 2 jobs, and in one instance the second review resulted in a reduced scope of paving
20 restoration required by LFUCG.

- 21 • Construction Project Manager: KAW has established a Construction Project Manager, a
22 role that is the first point of contact for all construction-related issues. This role holds
23 regular meetings with our contractors to relay information and maintain contractor

1 accountability, interfaces with LFUCG and other utilities, and is heavily involved in
2 communications with customers.

- 3 • **KAW Paving Pilot:** For the approximately 4 miles of QIP Year 2 projects left to complete,
4 KAW is piloting the use of a third-party paving contractor for all final restoration and
5 paving activities. The goal of this pilot is to evaluate the effectiveness and efficiency of
6 using a single paving contractor to provide all the final restoration, regardless of the
7 selected contractor for the main installation work. This will also benefit KAW and LFUCG
8 with a single point of contact for any paving and restoration concerns and provide
9 consistency in process and paving performance. If the pilot for KAW proves to be
10 successful in terms of quality of restoration and cost efficiency, KAW will utilize a single
11 paving contractor for the paving and restoration on the QIP Year 3 projects.

12 **Q. Please provide a status report of the progress KAW has made in completing the**
13 **projects the Commission approved in Case No. 2021-00090 (the QIP Year 2 case).**

14 A. At this time, approximately 5.5 miles of the QIP Year 2 projects are in-service, and another
15 6.8 miles are currently under construction. The remaining 2.6 miles of main are expected
16 to begin construction over the next month. All projects are expected to be in-service prior
17 to the end of the QIP Year 2 on June 30, 2022.

18 IV. CALCULATION OF QIP PERCENTAGE

19 **Q. What witness is responsible for the calculation of the QIP Rider amount that results**
20 **from these infrastructure improvements?**

21 A. KAW witness Tricia Sinopole covers the calculation of the requested QIP Rider amount in
22 her direct testimony.

23 III. CONCLUSION

24 **Q. What is your recommendation for the Commission?**

1 A. I recommend that the Commission approve this petition for the QIP Rider amount as
2 proposed.

3 **Q. Does this conclude your testimony?**

4 A. Yes, it does.

SHELLEY W. PORTER, PE (KY, WV)

Education

Marshall University Graduate College, Charleston, WV

M.S. in Engineering - Engineering Management, May 2010; Environmental Engineering, December 2010;

West Virginia University Institute of Technology, Montgomery, WV

B.S. in Civil Engineering, 2006

Experience

Director of Engineering- Kentucky American Water, Lexington, KY, Jun. 2021 - Present

- Strategic leadership and oversight of engineering activities and employee development
- Serve as a technical advisor and engineering representative for PSC filings and hearings, company meetings, workshops, conferences, and negotiations
- Maintain strategic and strong working relationships with engineering and construction firms, vendors, government officials, and regulatory agencies
- Capital investment program planning, development, and implementation
- Strategic and comprehensive planning for capital improvements

Engineering Manager- West Virginia American Water, Charleston, WV, Dec. 2019- Jun. 2021

- Engineering and GIS employee appraisal and development; leading department safety, diversity and inclusion, and culture improvement activities
- Serve as a technical advisor and engineering representative for PSC filings and hearings, depositions, company meetings, workshops, conferences, and negotiations
- Engineering lead for acquisitions, due diligence work and asset allocation assignment
- Maintain strategic and strong working relationships with engineering and construction firms, vendors, government officials, and regulatory agencies
- Review and approve engineering design plans and evaluation reports
- Large capital investment project planning, development, and implementation
- Lead risk resiliency evaluations and project planning
- Water and wastewater acquisition evaluations and public private partnership development
- American Water SIF review committee; technical contributor to American Water Technical Standards development and update

Project Manager- West Virginia American Water, Charleston, WV, March 2013- Dec. 2019

- Plan, design, and establish detailed project scope, budget, drawings, and schedules for multiple water and wastewater improvements and business development projects
- GIS employee appraisal and development, team development, and technology implementation for business performance improvement
- Manage and contract services for engineering design, construction, material procurement
- Project management of water treatment plan automation projects, chemical feed improvements, and large capital treatment plan projects
- Manage activities for Dam Safety Inspection and Emergency Response, Arc Flash Hazard Assessment, Water Storage Tank Maintenance, Vulnerability Assessments, and Comprehensive Planning Studies

Project Engineer- Chapman Technical Group, St. Albans, WV, Dec. 2006- March 2013

- Municipal and private water and wastewater utility project design, permitting, and construction administration of collection/distribution system improvements, water tank, advanced metering infrastructure, treatment plant improvements, and hydraulic modeling
- Asset management program development
- Regulatory permitting guidance and violation negotiation on behalf of municipalities
- Project Application filings, Administration, Rule 42 and Schedule B Development
- Stormwater utility planning, development, and public outreach
- Combined Sewer Overflow Long Term Control planning and implementation; public outreach; negotiation with WVDEP regulatory officials on behalf of municipal clients

Highway Engineer Co-op, WVDOT, Huntington, WV, Summer 2003, 2005, and 2006

- Implemented Municipal Separate Stormwater Program, providing public education on stormwater management
- MS4 compliance and bioremediation
- Oil tank inspections, inspections of landslides and sediment control
- Bridge integrity and drainage analysis; bridge construction inspection

Undergraduate Research Assistant- WVU Institute of Tech., Montgomery, WV, Fall 2005 & 2006

- UNIFAC Modeling of Cosolvent Phase Partitioning in Nonaqueous Phase Liquid-Water Systems
- Undergraduate Research Day at the Capitol participant, selected to be individually recognized during the 2007 Legislative Session
- Conducted research for arsenic removal in drinking water
- Presented research paper on technology reducing coal-fired power plants' mercury emissions at the 2006 American Society of Engineering Education Conference, at Indiana-Perdue University- Ft. Wayne

Skills

- Developing and maintaining relationships with municipal leaders and utility personnel
- Education outreach event planning and coordination
- Capital planning and implementation of utility programs to meet regulatory requirements
- Excellent communication, presentation, and technical writing skills
- Computer skills- Excel, MS Word, PowerPoint, SAP, MapCall, MS Projects

Activities and Honors

- **2020 Water Leadership Institute Alumni**, Water Environment Federation
- **2020 Young Pro**, Water and Wastes Digest
- **2019 Excellence in Construction Award**, Associated Builders and Contractors, Inc. WV
- **2017 Arthur Sidney Bedell Award**, Water Environment Federation
- **2016 George Warren Fuller Award**, American Water Works Association
- **2014 Select Society of Sanitary Sludge Shovelers (5S)**, WV Water Environment Assoc.
- **2012 WV Young Civil Engineer of the Year**, American Society of Civil Engineers
- **2010 Employee of the Year**, Chapman Technical Group
- **American Society of Civil Engineers**- Region 4 Delegate, 2013 WV Section President, Political Key Contact
- **Women's International Network of Utility Professionals (WiNUP)**- Past Chair
- **American Water Works Association**- Asset Management Committee, WV Water Utility Council Chair, WV Government Affairs Chair
- **WV Water Environmental Federation**- Past Section Chair

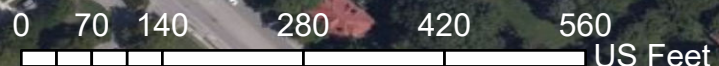
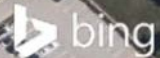
QIP Year 3 Project List



MAP NO	#	NAME	WBS NUMBER	LOCATION	PROJECT LENGTH (FT)	PRIORITIZATION MODEL RANKING	LFUCG PAVEMENT RATING	O'NEILL EXHIBIT 2	< 4" Main			4" Main			6" Main			8" Main			# BREAKS (PAST 10 YEARS)
									Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	
2.17	1	Aylesford	R12-02B2.21-P-0006	FAYETTE	1500	290	0-75%							1500	1904	CI				5	
2.17	2	Linden Walk/Rose	R12-02B2.21-P-0061	FAYETTE	1900	290	50-75%							1900	1903	CI				5	
2.22	3	Birkenhead Dr/Ct	R12-02B2.21-P-0014	FAYETTE	1700	295	25-50%	Year 4 Project 10	550	1967	CI			1150	1967	CI				5	
2.22	4	Cardiff Ln	R12-02B2.21-P-0062	FAYETTE	1100	265	75-100%										1100	1969	CI	1	
2.22	5	Aldershot Dr	R12-02B2.21-P-0063	FAYETTE	1200	245	75-100%		300	1971	CI						900	1967	CI	2	
2.22	6	Cardigan Ct	R12-02B2.21-P-0064	FAYETTE	500	250	25-50%		350	1967	CI			150	1967	CI				1	
2.24	7	Colonial Dr	R12-02B2.21-P-0010	FAYETTE	2400	235	50-75%							2400	1947	CI				0	
2.24	8	Standish Way	R12-02B2.21-P-0065	FAYETTE	2200	260	75-100%					900	1947	CI	1300	1947	CI			5	
2.25	9	Bryanwood Pkway	R12-02B2.21-P-0017	FAYETTE	3100	230	50-75%										3100	1964	CI	3	
	10	Gaines Village Dr	R12.30B2.22-P-0002	OWEN	2550	205	N/A		2000	1967	GALV			550	1967	CI, Copper					
	11	Grace Dr	R12-02B2.21-P-0067	FAYETTE	700	215	25-50%							700	1972	CI				1	
	12	Ox Hill Dr	R12-02B2.21-P-0068	FAYETTE	700	260	0-25%	Year 4 Project 31	100	1972	CI			600	1972	CI				2	
	13	Stephen Foster Dr/Versie Ct/Janelle Ct	R12-02B2.21-P-0069	FAYETTE	2420	215/265/280	0-50%	Year 4 Project 21	660	1972	CI						1760	1972	CI	6	
	14	River Park Dr	R12-02B2.21-P-0070	FAYETTE	1950	215	25-50%							1950	1972	CI				3	
	15	Golden Gate Park	R12-02B2.21-P-0071	FAYETTE	500	245	50-75%	Year 4 Project 32	150	1972	CI			350	1972	CI				0	
	16	Atokad Park	R12-02B2.21-P-0072	FAYETTE	650	255	25-50%	Year 4 Project 32	150	1972	CI			500	1972	CI				1	
	17	Beulah Park Ct	R12-02B2.21-P-0073	FAYETTE	350	270	25-50%	Year 4 Project 32	150	1972	CI			200	1972	CI				8	
	18	Ak Sar Ben Park	R12-02B2.21-P-0074	FAYETTE	800	225	25-50%	Year 4 Project 32	150	1972	CI			650	1972	CI				0	
	19	Ascot Park	R12-02B2.21-P-0075	FAYETTE	750	240	25-50%	Year 4 Project 32	150	1972	CI			600	1972	CI				4	
	20	Kentucky Ave South	R12-02B2.21-P-0076	FAYETTE	1500	270	25-50%							1500	1906, 1926	CI				4	
	21	Kentucky Ave North	R12-02B2.21-P-0077	FAYETTE	1570	270	25-100%							1570	1895, 1902	CI				3	
	22	Woodland Ave North	R12-02B2.21-P-0078	FAYETTE	1600	280	25-50%							1600	1891	CI				18	
	23	American Ave	R12-02B2.21-P-0079	FAYETTE	2100	300	25-75%							2100	1935	CI				29	
	24	Southern Ave	R12-02B2.21-P-0080	FAYETTE	650	260	25-50%					650	1935	CI						0	
	25	Camden Ave	R12-02B2.21-P-0081	FAYETTE	550	275	50-75%	Year 1 Project 13	550	1935	CI									4	
	26	Stanley Ave	R12-02B2.21-P-0082	FAYETTE	400	285	50-75%		150	1935	Unknown			250	1935	AC				4	
	27	Lone Oak Dr/Southbend Dr	R12-02B2.21-P-0083	FAYETTE	1750	270	0-25%	Year 2 Project 7	1750	1950, 1954	CI			700	1974	AC				2	
	28	Greenwood Ave	R12-02B2.21-P-0084	FAYETTE	750	295	25-50%	Year 5 Project 23	650	Unknown	CI						725	Unknown	CI	3	
	29	Bradley Ct	R12-02B2.21-P-0085	FAYETTE	840	265	25-50%	Year 5 Project 8	340	Unknown	PVC			500	Unknown	CI				4	
	30	Douglas Ave	R12-02B2.21-P-0086	FAYETTE	1450	255	25-75%							1450	1938	CI				2	
	31	Chiles Ave	R12-02B2.21-P-0087	FAYETTE	1200	290	25-50%		1200	1938	CI			550	Unknown	CI				11	
	32	Breathitt Ave	R12-02B2.21-P-0088	FAYETTE	1200	290	25-50%		1200	1938	CI			550	Unknown	CI				8	
	33	Florence Ave	R12-02B2.21-P-0089	FAYETTE	1300	275	25-50%		1300	1938	CI			950	Unknown	CI				5	
	34	Woodstock Cir	R12-02B2.21-P-0090	FAYETTE	500	215	50-75%							500	1964	CI				0	
	35	Woodside Way/Ct	R12-02B2.21-P-0091	FAYETTE	600	280	50-75%		160	1964	CI			440	1964	CI				1	
	36	Malabu Cir	R12-02B2.21-P-0092	FAYETTE	900	285	25-50%	Year 3 Project 5						900	1965	CI				7	
	37	Tanforan Dr/Ct	R12-02B2.21-P-0093	FAYETTE	2200	260	0-25%	Year 4 Project 8	230	1971	CI			140	1971	CI	1830	1972	CI	4	
	38	Waterford Park	R12-02B2.21-P-0094	FAYETTE	600	225	75-100%	Year 4 Project 8	280	1971	CI			320	1971	CI				0	
	39	Narragansett Park	R12-02B2.21-P-0095	FAYETTE	350	245	25-50%	Year 4 Project 8	200	1971	CI			150	1971	CI				0	
	40	Oaklawn/Maywood Park	R12-02B2.21-P-0096	FAYETTE	650	245/260	25-100%	Year 4 Project 8	390	1971	CI			260	1971	CI				2	
	41	Canonero/Gunbow/Personality	R12-02B2.21-P-0097	FAYETTE	1340	245/265/235	25-50%	Year 4 Project 34	800	1973	CI			860	1973	CI				3	
	42	Moundview Ct	R12-02B2.21-P-0098	FAYETTE	920	250	25-50%	Year 4 Project 18	220	1972	CI			700	1972	CI				3	
	43	Wood Valley Ct	R12-02B2.21-P-0099	FAYETTE	910	235	25-75%	Year 4 Project 15	110	1972	CI			800	1972	CI				1	
	44	Derby Dr	R12-02B2.21-P-0100	FAYETTE	890	255	25-50%	Year 2 Project 8						890	1970	CI				2	
	45	Headley Ave	R12-02B2.21-P-0101	FAYETTE	1520	250	75-100%							1520	1903, 1936	CI				4	
	46	Jane St	R12-02B2.22-P-0002	FAYETTE	700	210	50-75%							425	Unknown	CI	275	Unknown	CI	0	
	47	Ferguson St/Martin St	R12-02B2.22-P-0003	FAYETTE	860	255/260	50-75%	Year 5 Project 6	860	Unknown	CI						770	Unknown	CI	7	
	48	Coolidge St	R12-02B2.22-P-0004	FAYETTE	500	215	25-75%							500	Unknown	CI				0	
	49	Anderson St	R12-02B2.22-P-0005	FAYETTE	680	290	50-75%	Year 5 Project 6	680	Unknown	CI									10	
	50	Warren Ct	R12-02B2.22-P-0006	FAYETTE	350	265	25-50%							350	1913	CI				1	
	51	Chrysalis Ct	R12-02B2.22-P-0007	FAYETTE	350	250	50-75%							350	Unknown	CI				0	
	52	Kenton St	R12-02B2.22-P-0008	FAYETTE	800	245	50-75%					370	1909	CI	800	1903, 1970	CI			0	
	53	Campbell St	R12-02B2.22-P-0009	FAYETTE	800	260	25-50%					460	1914	CI	800	1908, 1970	CI			2	
	54	Toner St/Sheila Ct/Harken Ct	R12-02B2.22-P-0010	FAYETTE	900	270/250/250	50-100%							900	1905, 1971, 1983	CI, AC				2	
	55	Elsmere Park	R12-02B2.22-P-0011	FAYETTE	850	275	25-75%							1340	1901, 1904	CI				1	
	56	Briarwood Dr	R12-02B2.22-P-0012	FAYETTE	2250	260	50-75%										2250	1969	CI	4	
	57	Redwood Dr/Cir	R12-02B2.22-P-0013	FAYETTE	3000	260	25-50%		360	1969	CI						2640	1969	CI	2	
	58	Edinburgh Ct	R12-02B2.20-P-0023	FAYETTE	330	250	25-50%		330	1962	CI									0	



**KENTUCKY
AMERICAN WATER**

QIP EXHIBIT MAP - PROJECT 2.17
PROJECT NAME: AYLESFORD/LINDEN WALK
PROJECT WBS: R12-02B2.21-P-0006
CITY: LEXINGTON, KY
APPROX. 3,400 LINEAR FEET



 Work Zone
 Proposed Main

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02/23/2021



KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP - PROJECT 2.22
PROJECT NAME: BIRKENHEAD/CARDIFF
PROJECT WBS: R12-02B2.21-P-0014
CITY: LEXINGTON, KY
APPROX. 4,400 LINEAR FEET

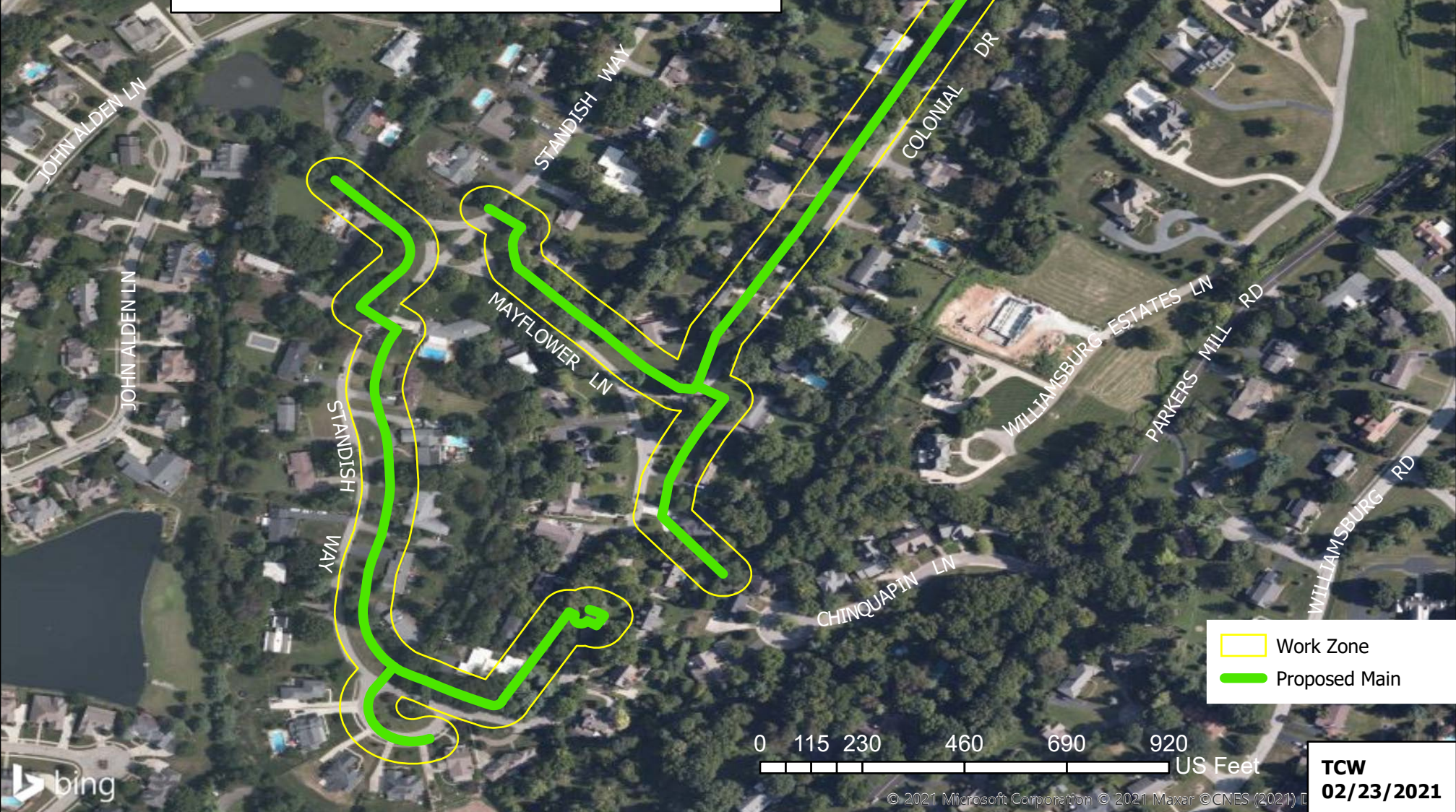




W NEW CIRCLE RD

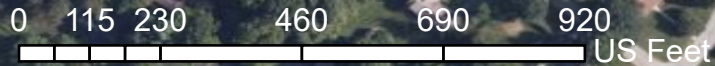


KENTUCKY AMERICAN WATER

QIP EXHIBIT MAP - PROJECT 2.24
PROJECT NAME: COLONIAL/STANDISH
PROJECT WBS: R12-02B2.21-P-0010
CITY: LEXINGTON, KY
APPROX. 4,800 LINEAR FEET



	Work Zone
	Proposed Main



TCW
02/23/2021





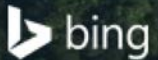
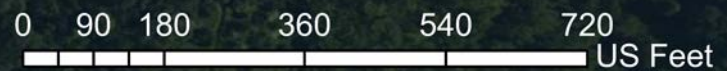
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: GAINES VILLAGE DR MAIN
REPLACEMENT
CITY: OWENTON, KY



Legend

 Existing Water Mains



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10/21/2021



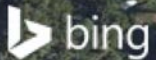
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: GRACE DR MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



0 80 160 320 480 640 US Feet

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10/21/2021

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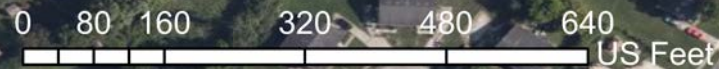
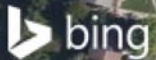
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: OX HILL DR MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



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10/21/2021

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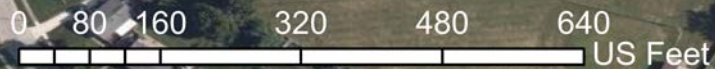
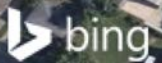
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: STEPHEN FOSTER DR / JANNELLE CT /
VERSIE CT MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



**TCW
10/22/2021**



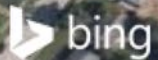
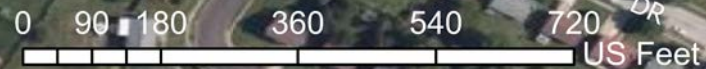
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: RIVER PARK DR MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



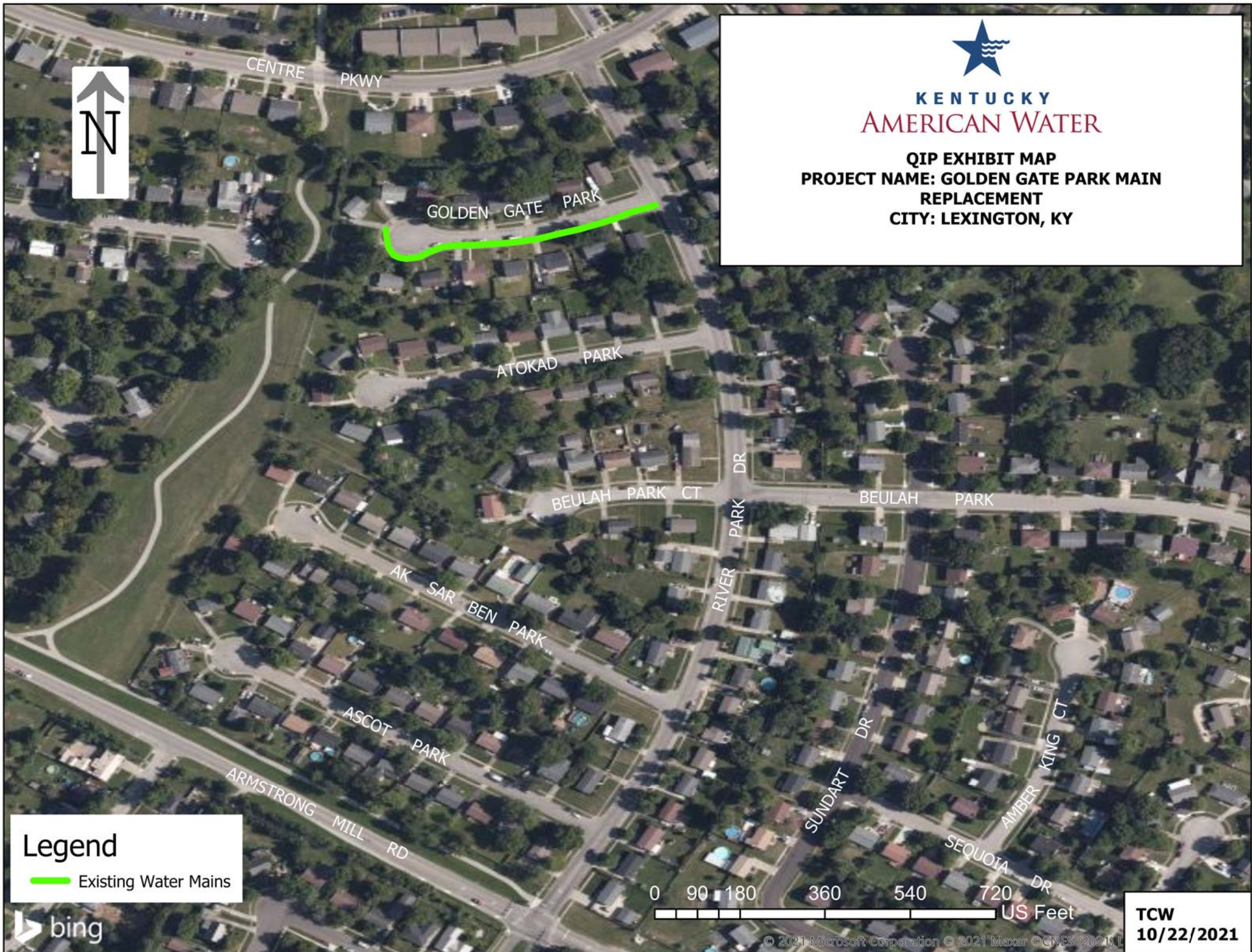
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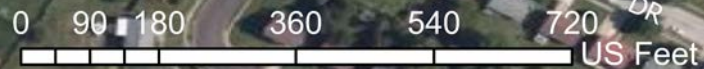
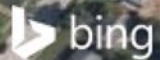
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: GOLDEN GATE PARK MAIN
REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



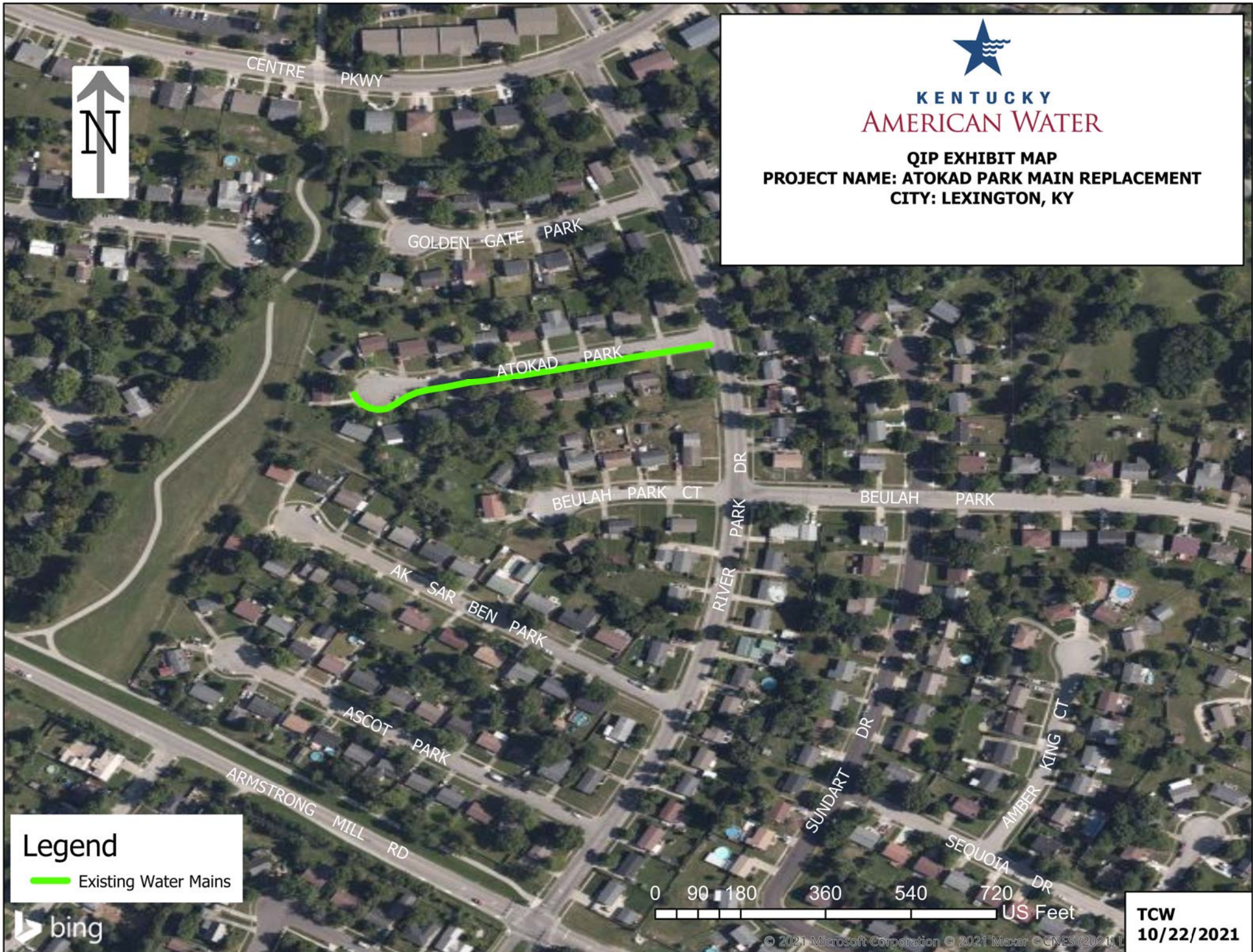
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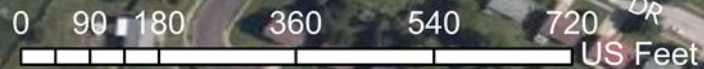
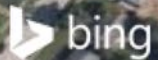
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: ATOKAD PARK MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



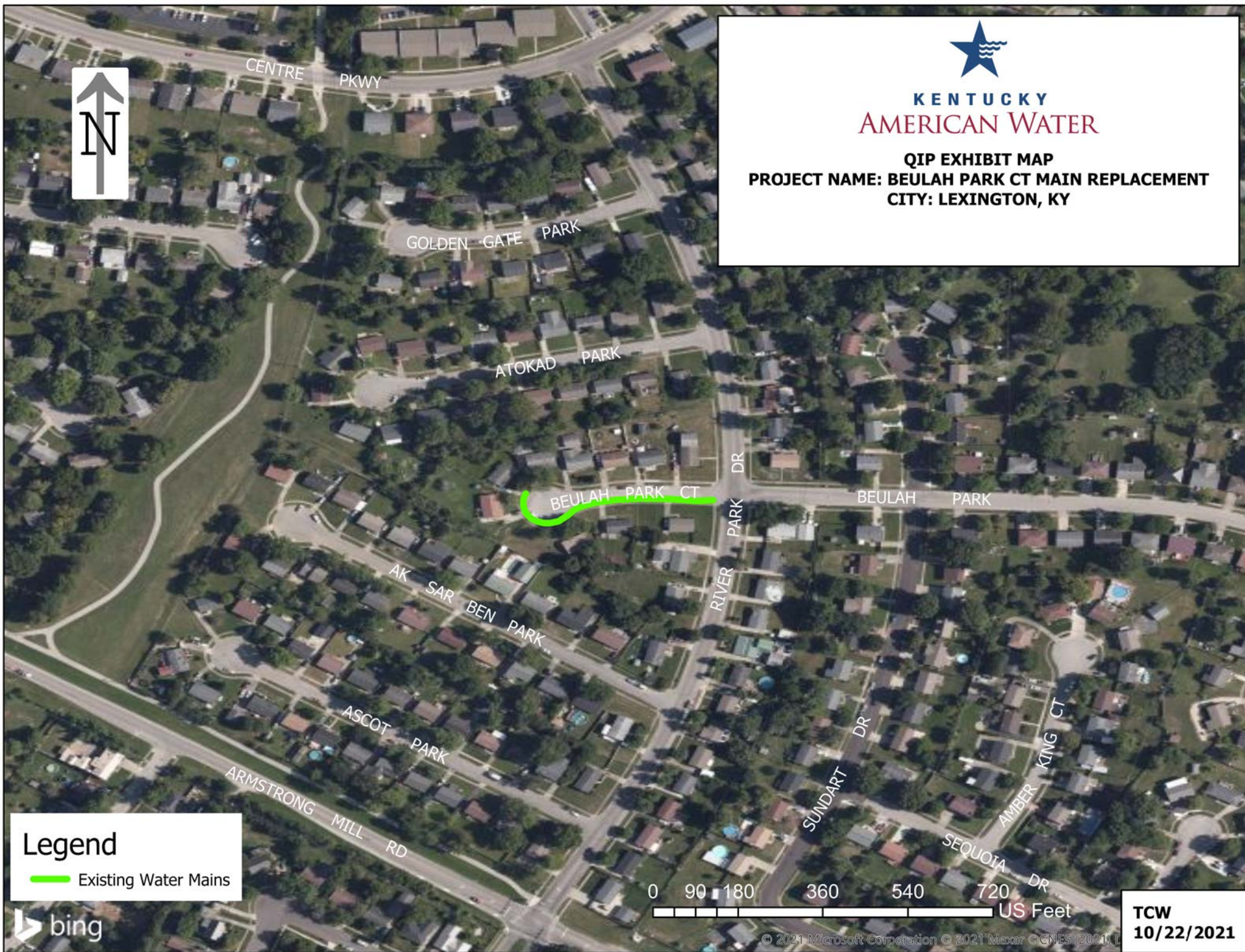
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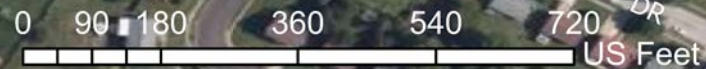
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: BEULAH PARK CT MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



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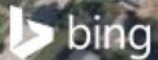
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: AK SAR BEN PARK MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



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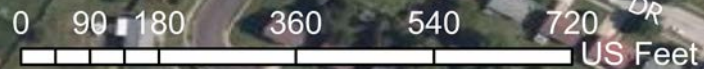
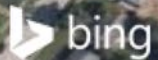
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: ASCOT PARK MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



TCW
10/22/2021

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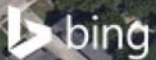
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: KENTUCKY AVE SOUTH MAIN
REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



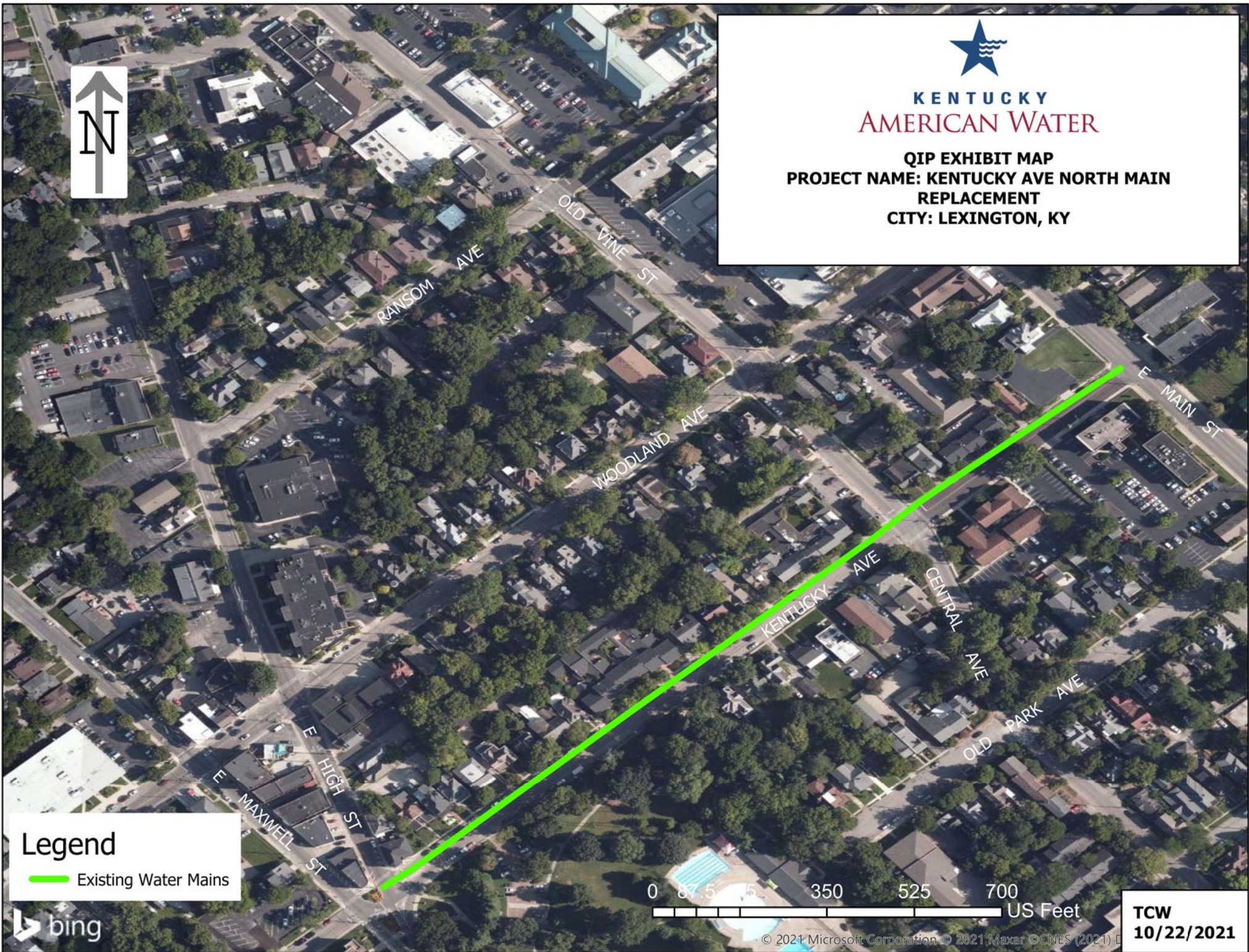
**TCW
10/22/2021**

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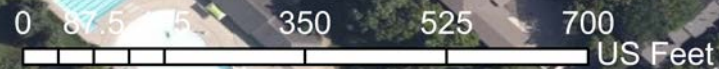
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: KENTUCKY AVE NORTH MAIN
REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



**TCW
10/22/2021**

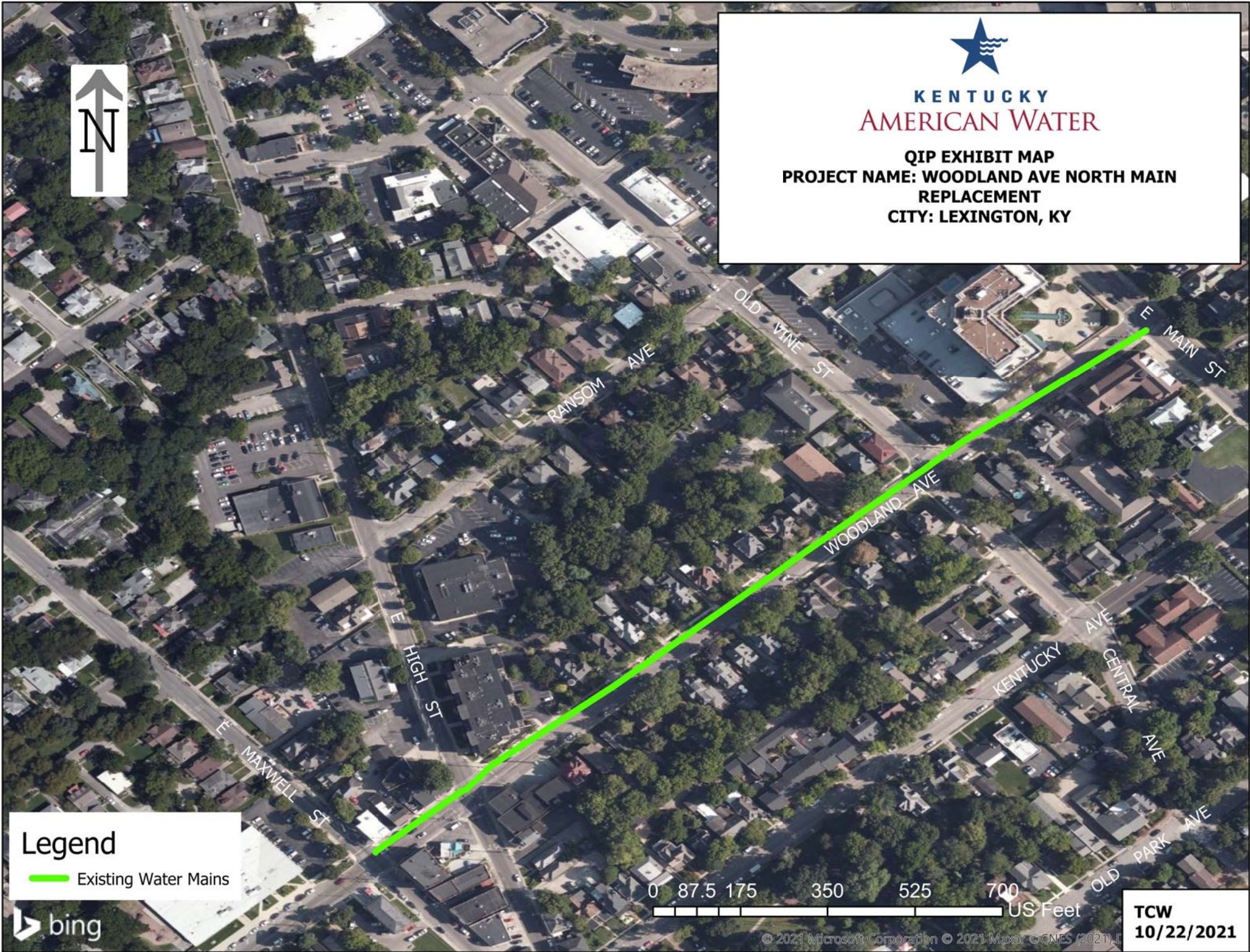


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KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: WOODLAND AVE NORTH MAIN
REPLACEMENT
CITY: LEXINGTON, KY



Legend

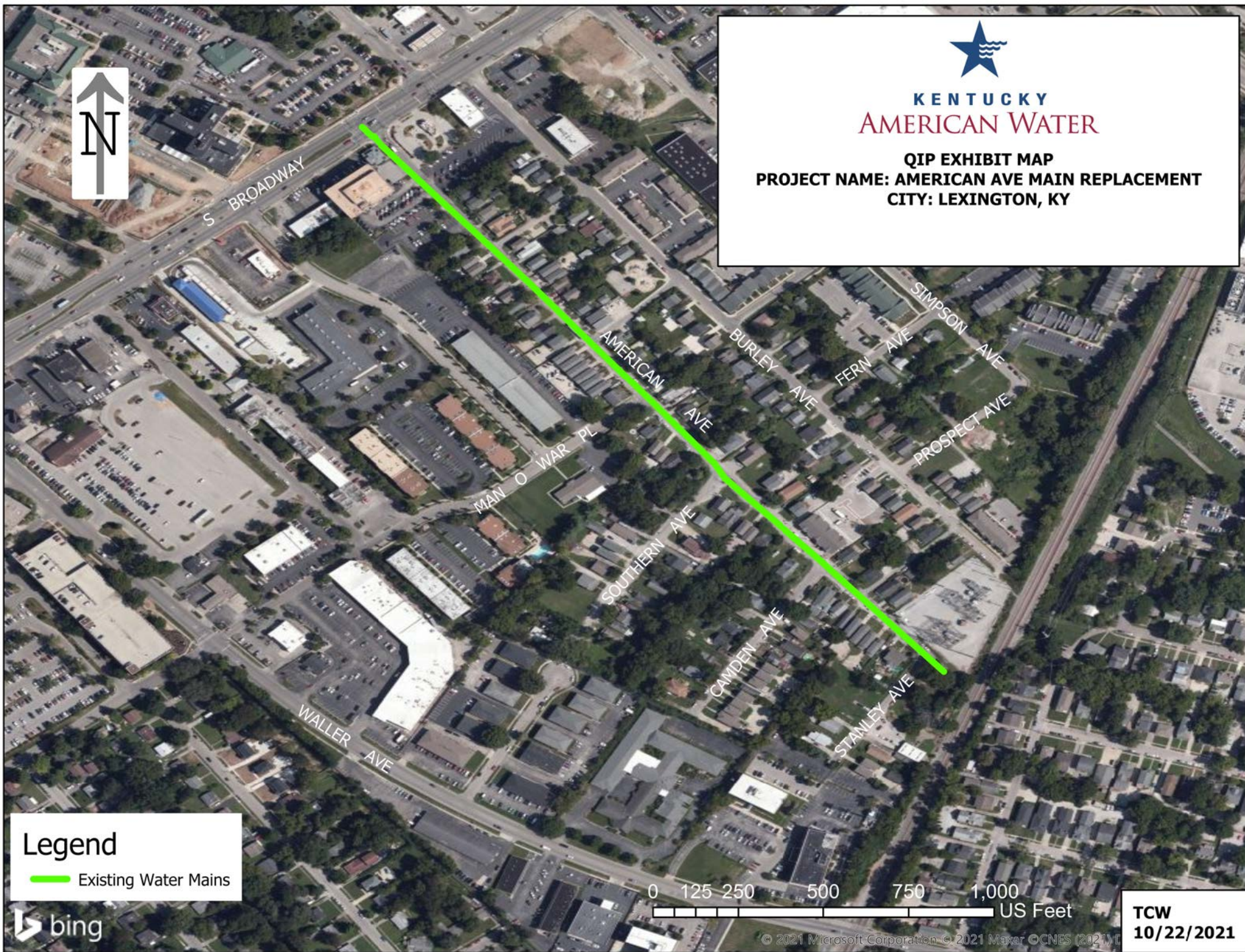
Existing Water Mains

TCW
10/22/2021



KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: AMERICAN AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



0 125 250 500 750 1,000 US Feet

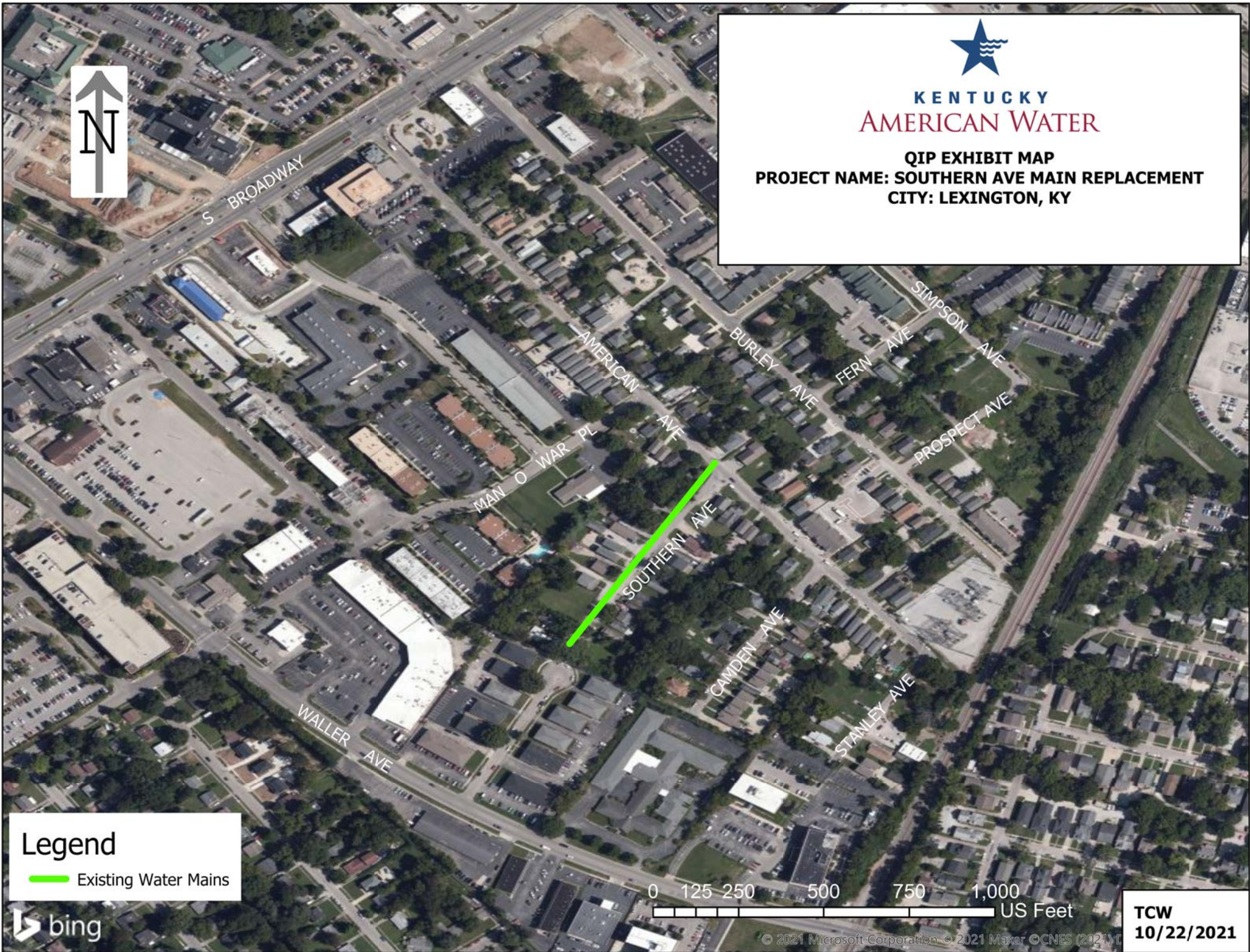
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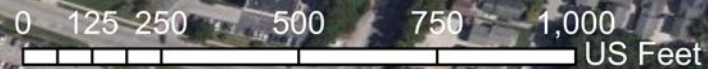
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: SOUTHERN AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



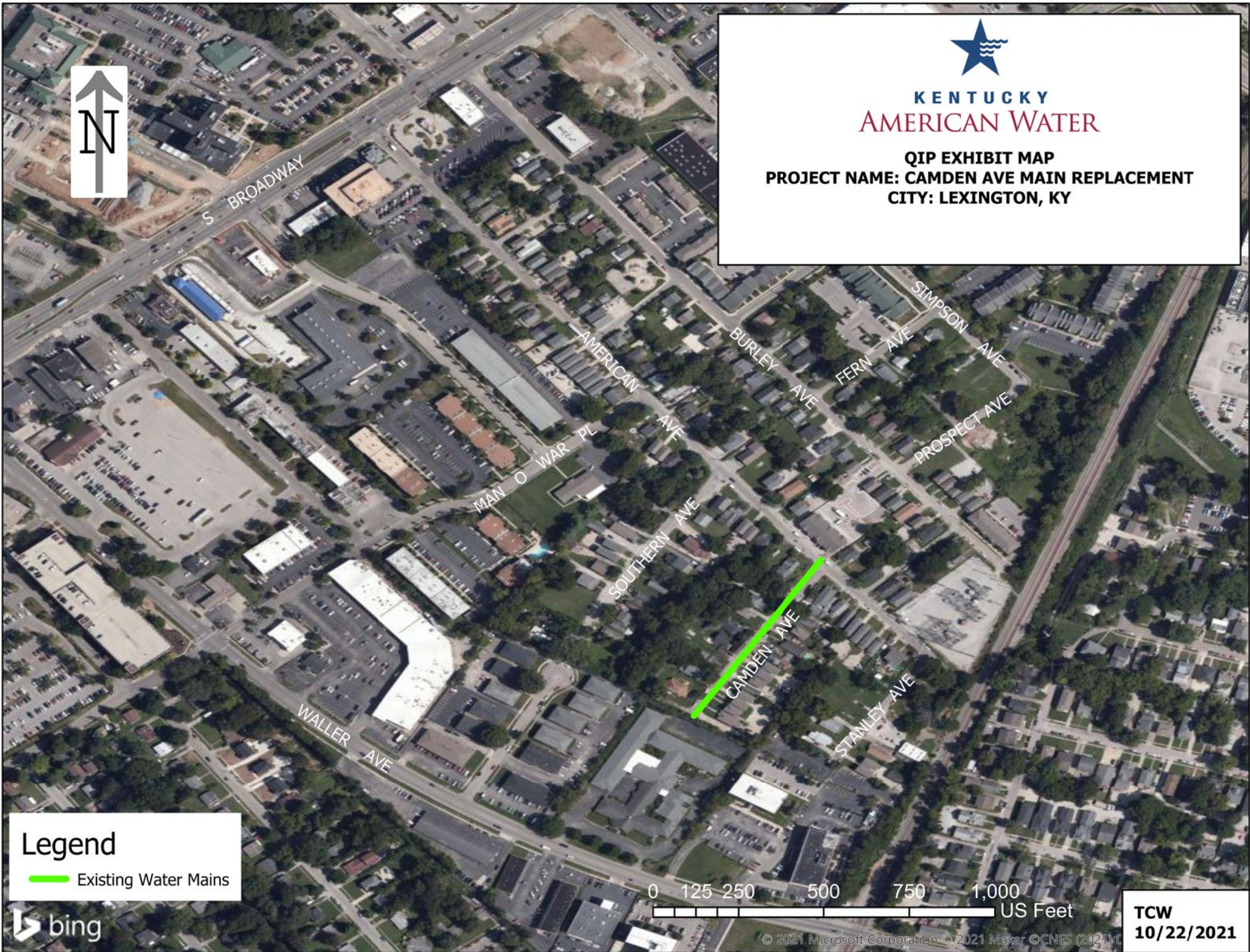
TCW
10/22/2021

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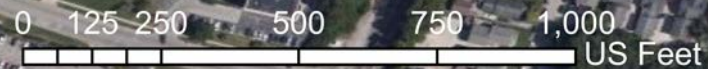
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: CAMDEN AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



TCW
10/22/2021

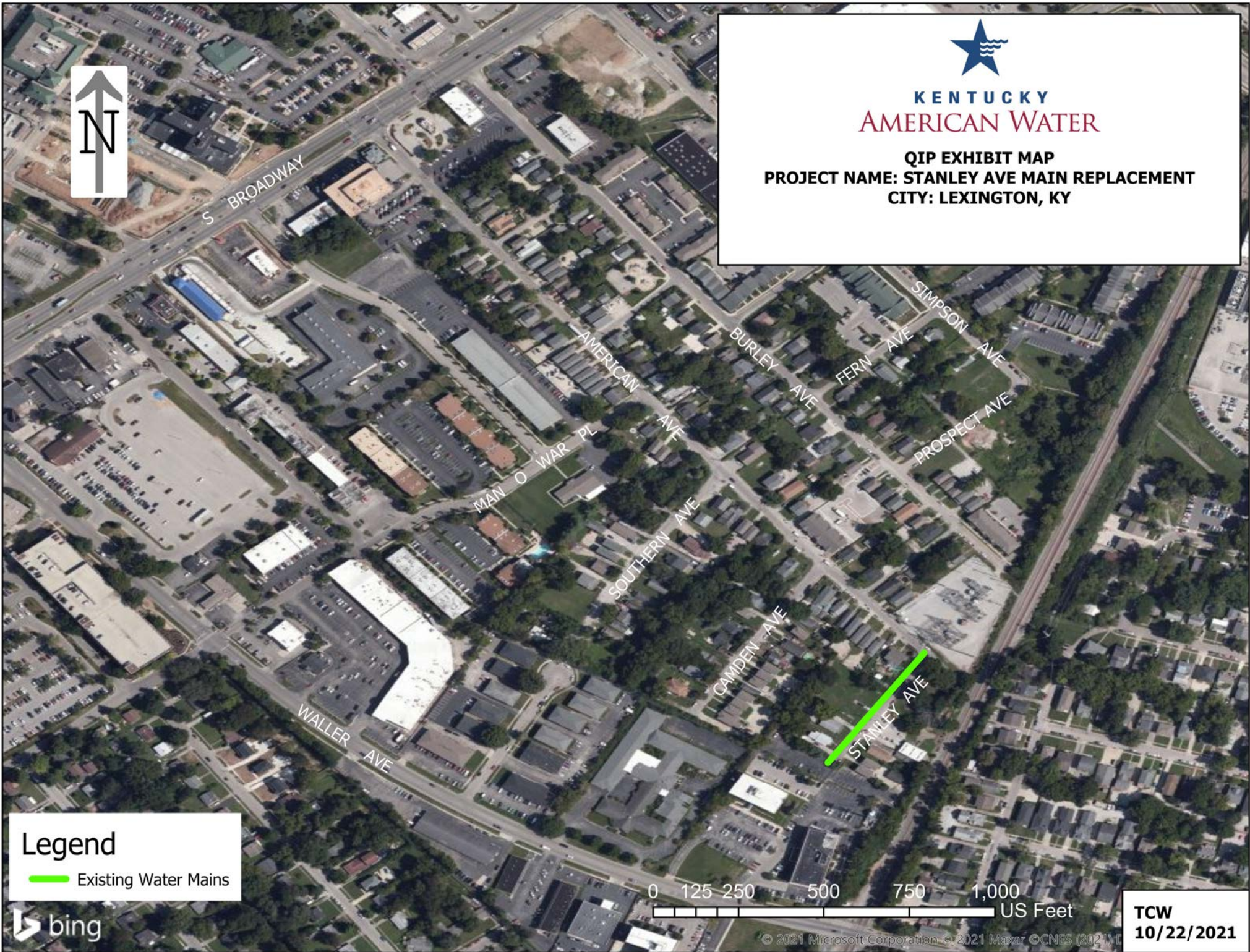


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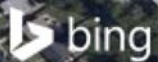
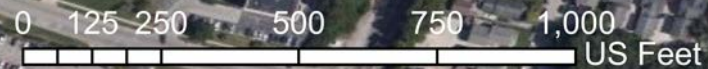
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: STANLEY AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



TCW
10/22/2021

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**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: LONE OAK DR / SOUTHBEND DR
MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



0 95 190 380 570 760 US Feet

**TCW
10/22/2021**

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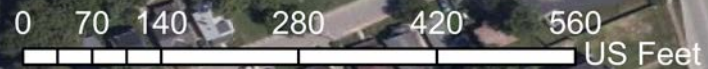
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: GREENWOOD AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



**TCW
10/22/2021**



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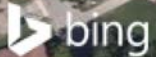
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: BRADLEY CT MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



0 70 140 280 420 560 US Feet

TCW
10/22/2021

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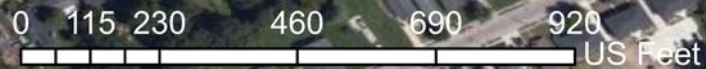
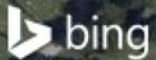
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: DOUGLAS AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



TCW
10/22/2021

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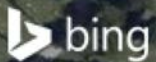
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: CHILES AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



0 115 230 460 690 920 US Feet

TCW
10/22/2021

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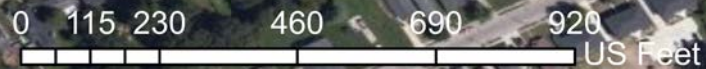
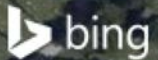
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: BREATHITT AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



TCW
10/22/2021

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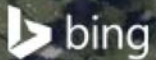
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: FLORENCE AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



0 115 230 460 690 920 US Feet

**TCW
10/22/2021**

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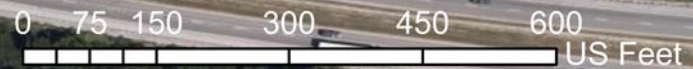
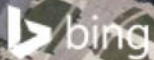
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: WOODSTOCK CIRCLE MAIN
REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



**TCW
10/22/2021**

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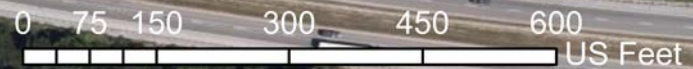
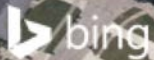
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: WOODSIDE WAY / WOODSIDE CT
MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



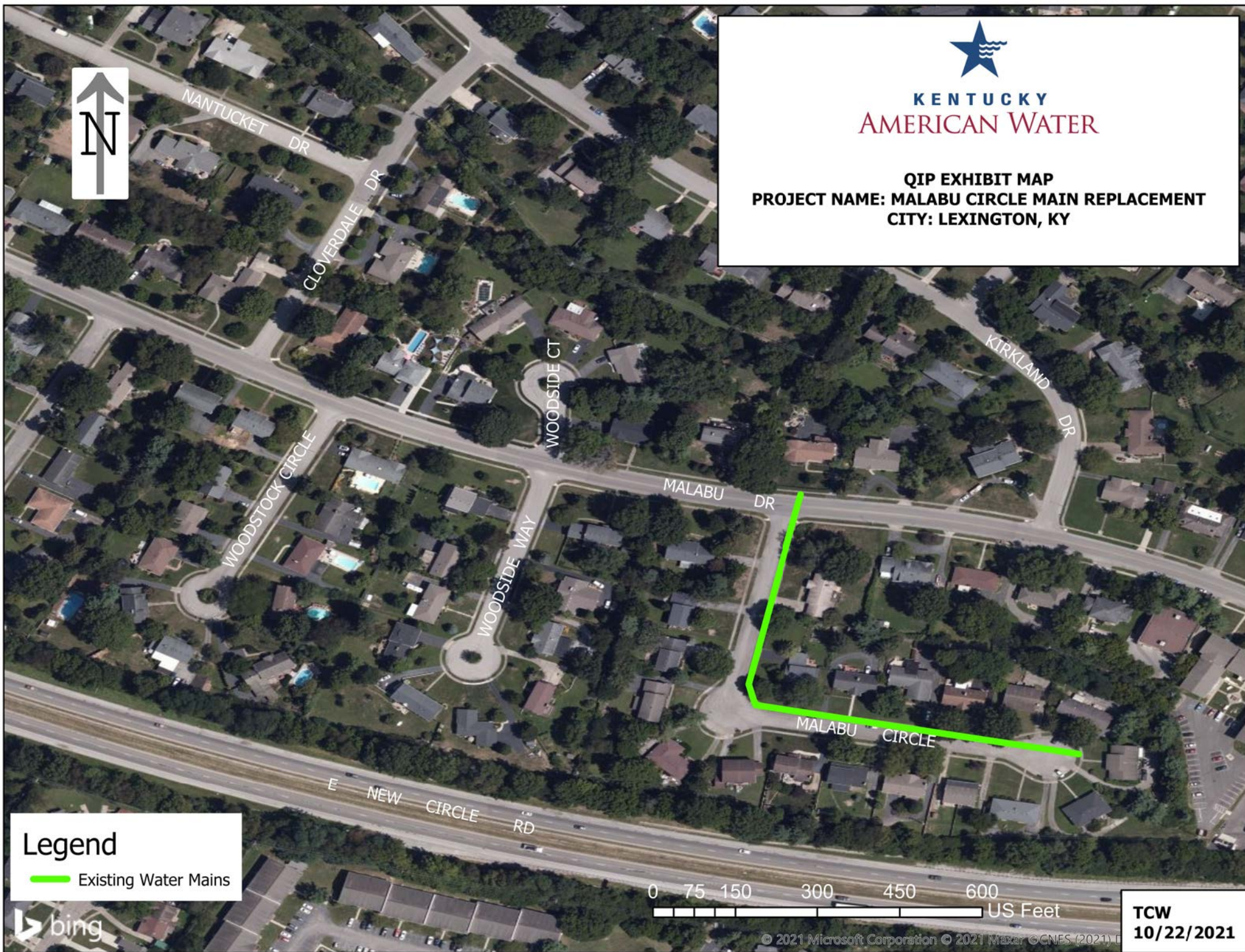
**TCW
10/22/2021**

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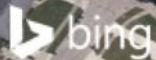
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: MALABU CIRCLE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



0 75 150 300 450 600
US Feet

TCW
10/22/2021

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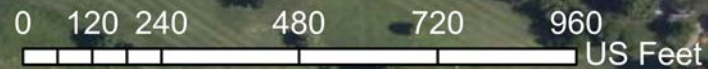
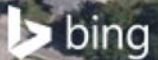
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: TANFORAN DR / TANFORAN CT
MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



**TCW
10/22/2021**

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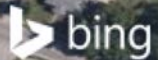
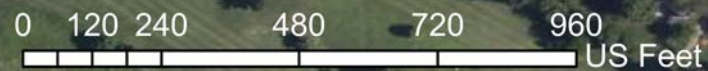
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: WATERFORD PARK
MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



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TCW
10/22/2021



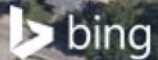
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: NARRAGANSETT PARK
MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



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TCW
10/22/2021



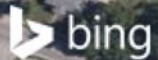
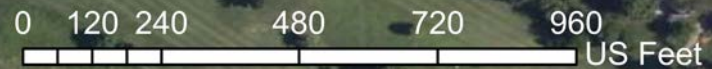
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: OAKLAWN PARK / MAYWOOD PARK
MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



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TCW
10/22/2021



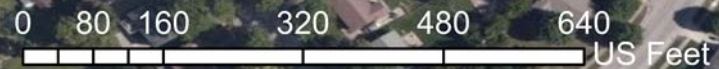
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: CANONERO DR / GUNBOW CT /
PERSONALITY CT MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



TCW
10/22/2021



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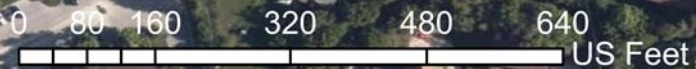
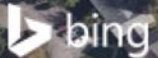
**KENTUCKY
AMERICAN WATER**

**QIP EXHIBIT MAP
PROJECT NAME: MOUNDVIEW CT MAIN REPLACEMENT
CITY: LEXINGTON, KY**



Legend

 Existing Water Mains



**TCW
10/22/2021**

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KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: WOOD VALLEY CT MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



0 80 160 320 480 640
US Feet

TCW
10/22/2021

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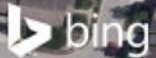
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: DERBY DR MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

Existing Water Mains



TCW
10/22/2021



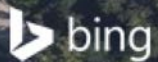
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: HEADLEY AVE MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



0 87.5 175 350 525 700 US Feet

TCW
10/22/2021

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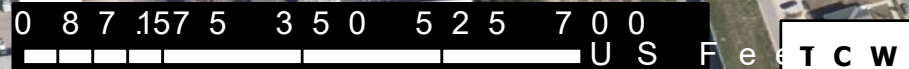
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: JANE ST MAIN
CITY: LEXINGTON, KY



Legend

 Existing Water Mains

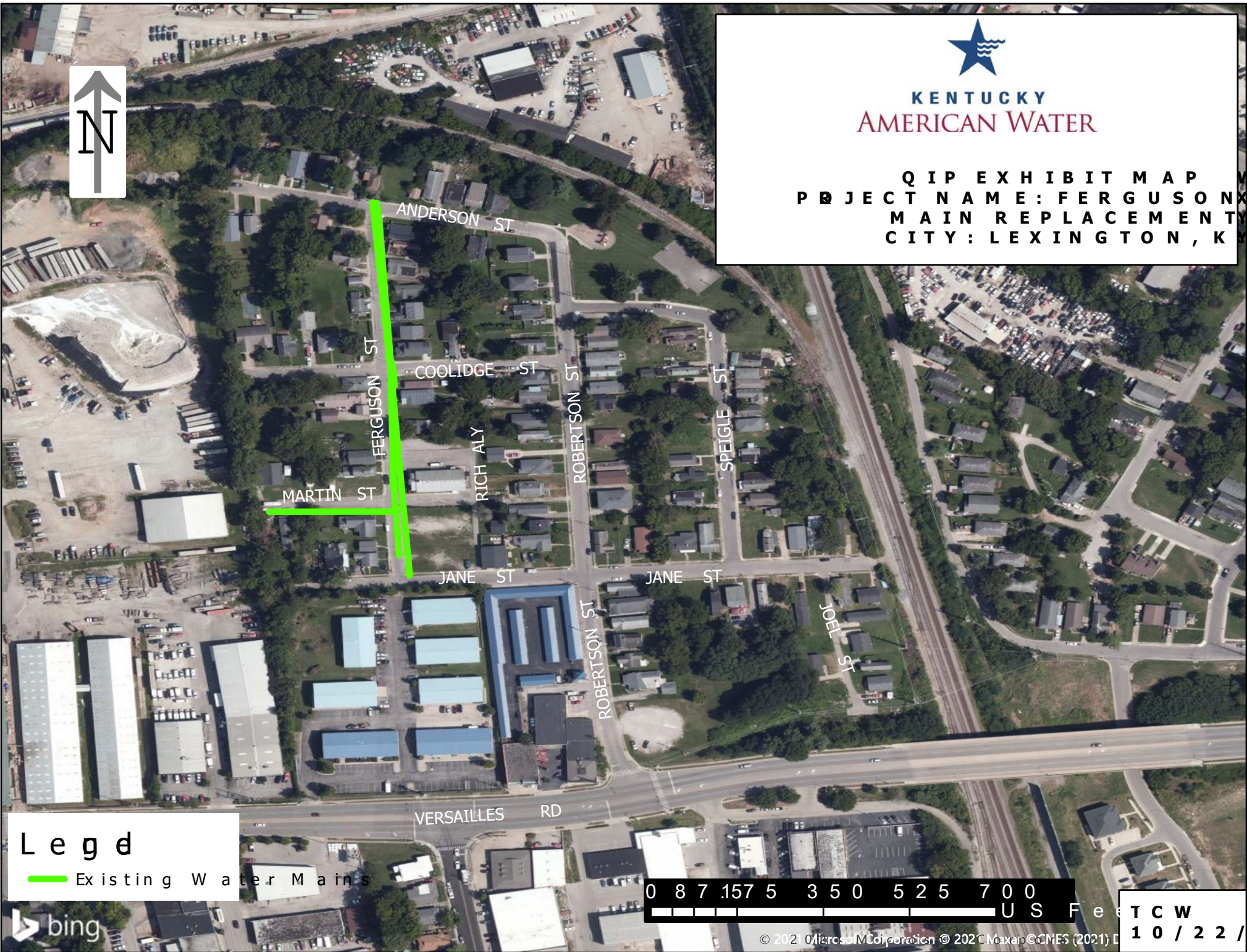


10/22/2022



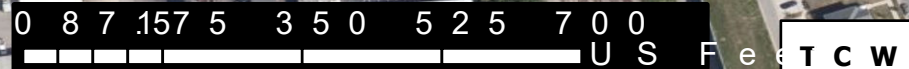
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: FERGUSON X
MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend

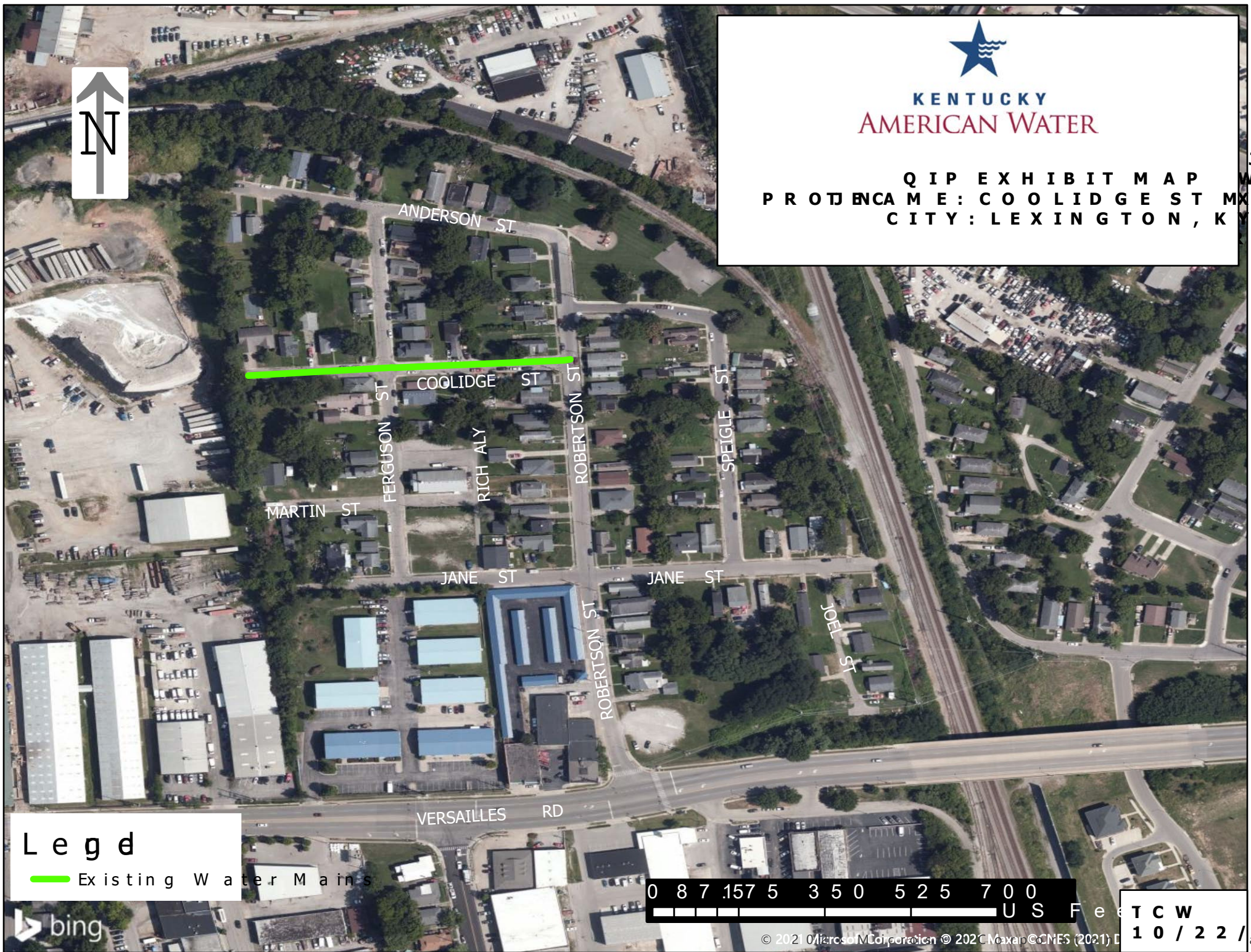
 Existing Water Mains





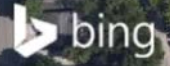
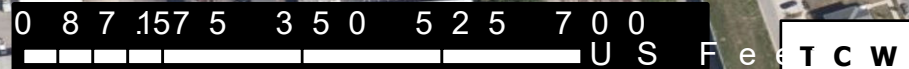
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: COOLIDGE ST MAX
CITY: LEXINGTON, KY



Legend

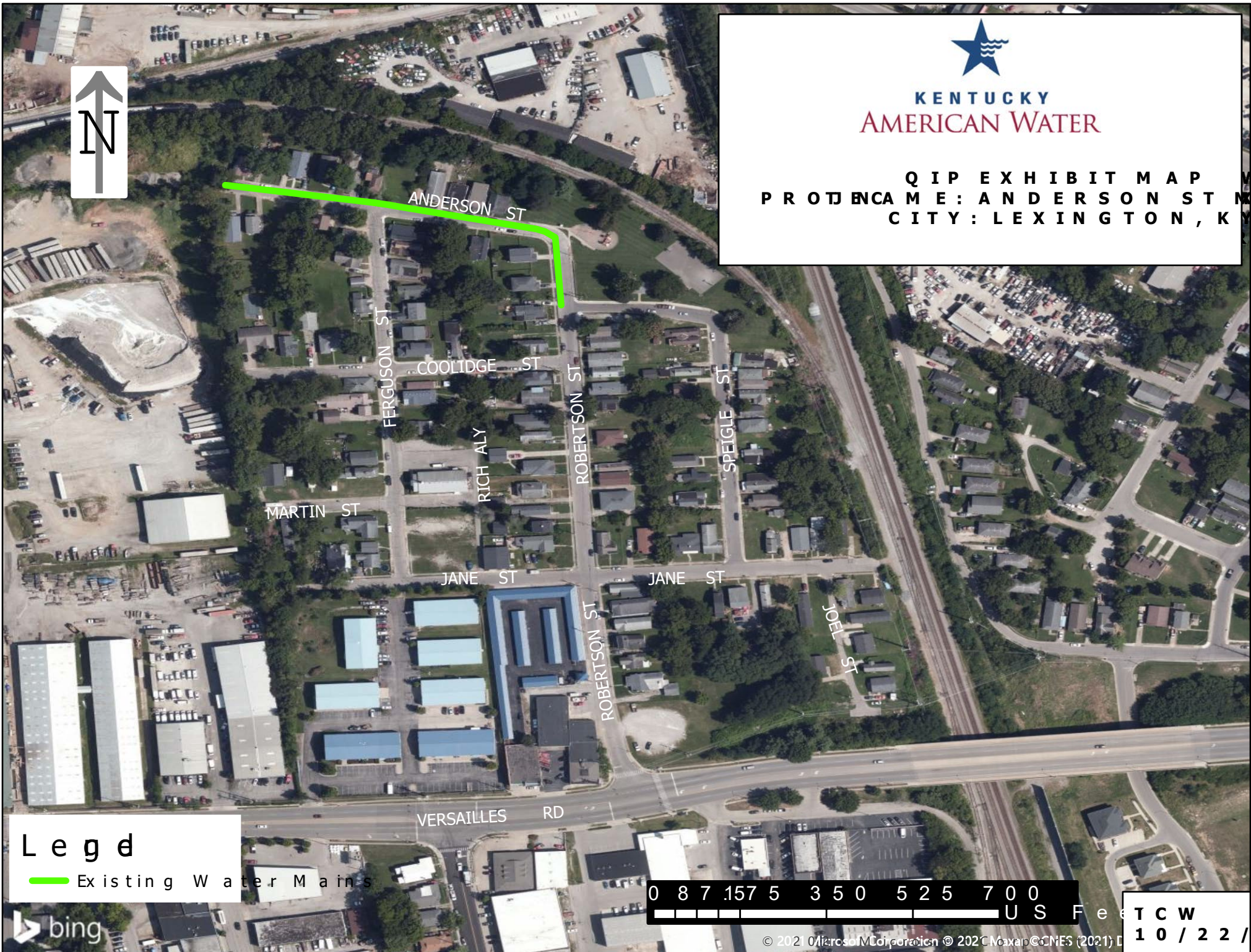
 Existing Water Mains





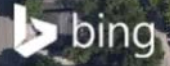
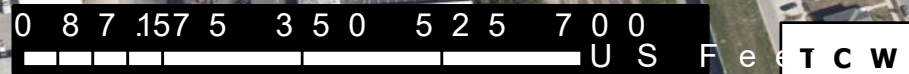
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: ANDERSON ST
CITY: LEXINGTON, KY



Legend

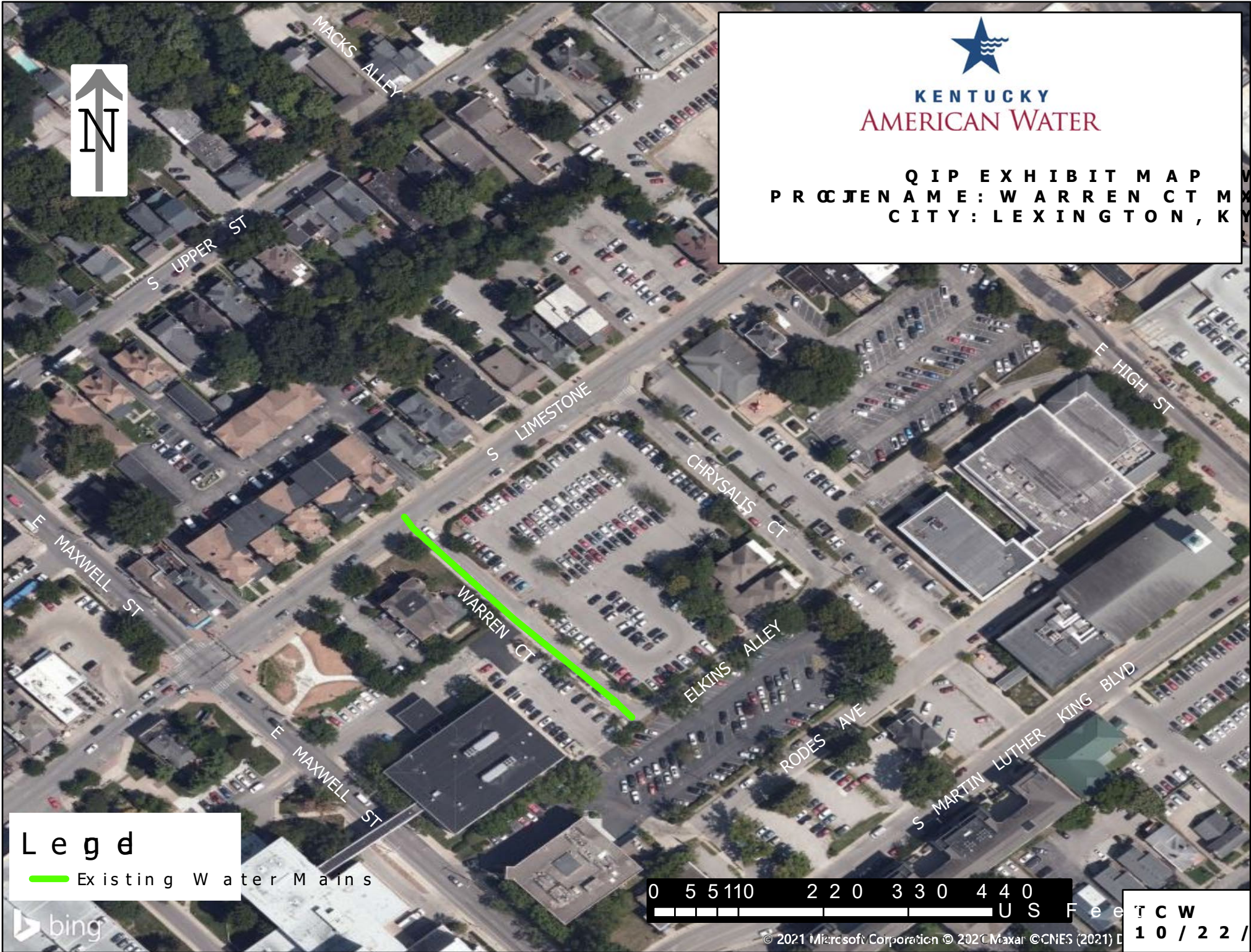
Existing Water Mains





KENTUCKY
AMERICAN WATER

Q I P E X H I B I T M A P
P R O J E C T N A M E : W A R R E N C T M A X
C I T Y : L E X I N G T O N , K



Legend

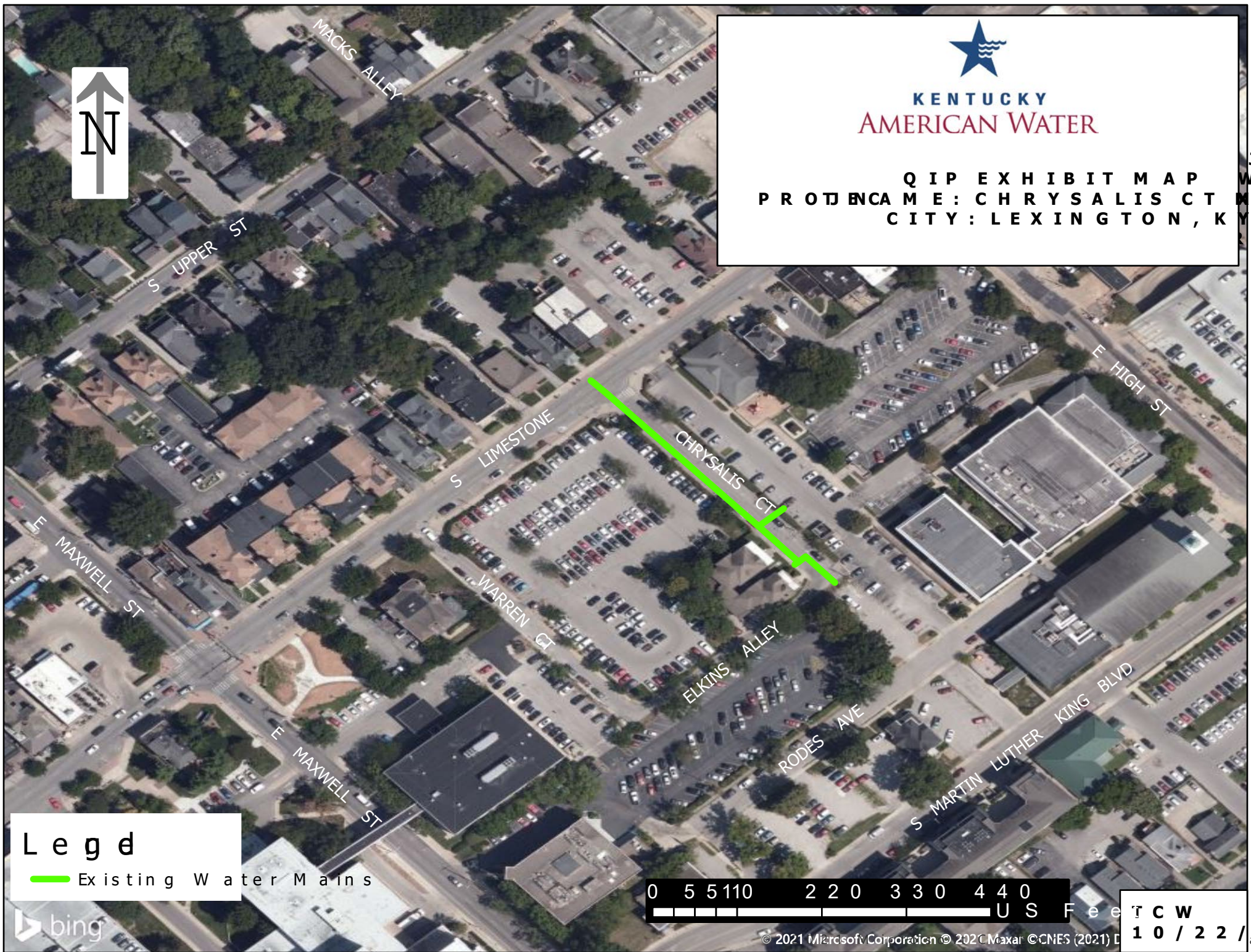
 Existing Water Mains

0 55 110 220 330 440
US Feet



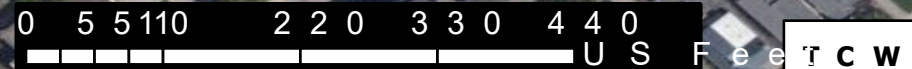
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: CHRYSALIS CT
CITY: LEXINGTON, KY



Legend

 Existing Water Mains



10/22/2021



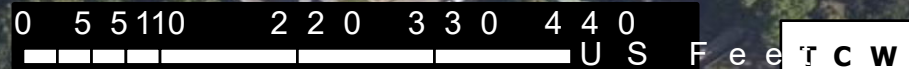
KENTUCKY
AMERICAN WATER

Q I P E X H I B I T M A P
P R O J E C T N A M E : K E N T O N S T M
C I T Y : L E X I N G T O N , K



Legend

Existing Water Mains



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02 / 14 / 2022



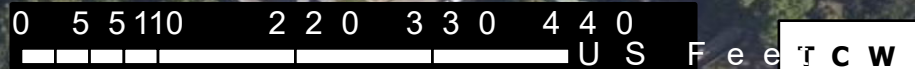
KENTUCKY
AMERICAN WATER

Q I P E X H I B I T M A P
P R O J E C T N A M E : C A M P B E L L S T M A X
C I T Y : L E X I N G T O N , K



Legend

Existing Water Mains



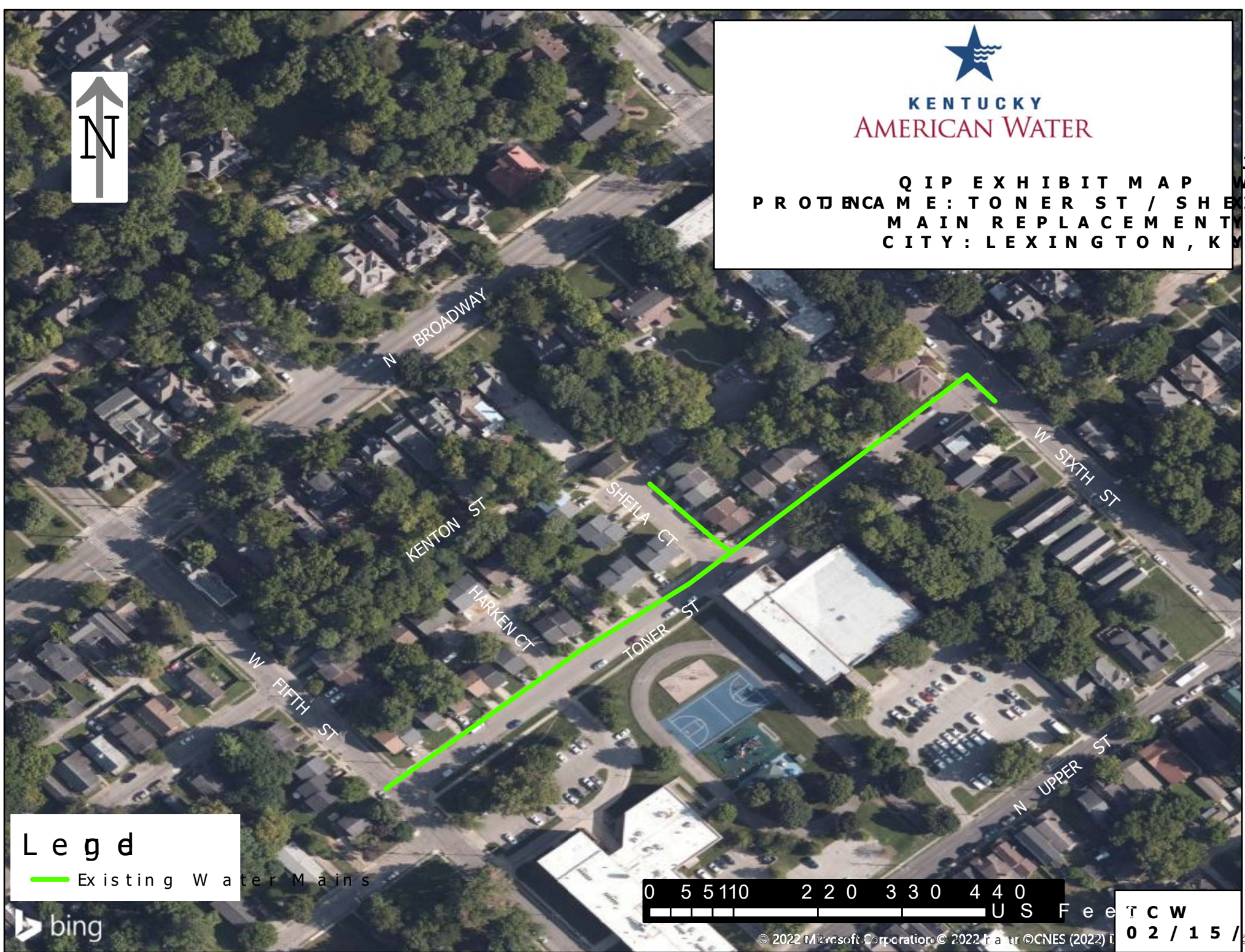
02 / 15 / 2022



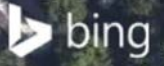
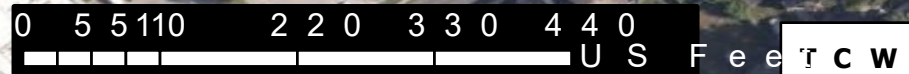
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QIP EXHIBIT MAP
PROJECT NAME: TONER ST / SHEILA CT
MAIN REPLACEMENT
CITY: LEXINGTON, KY



Legend
— Existing Water Mains



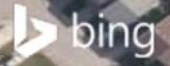
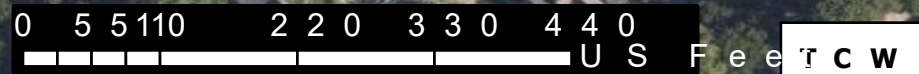


KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: ELSMERE PARK
CITY: LEXINGTON, K



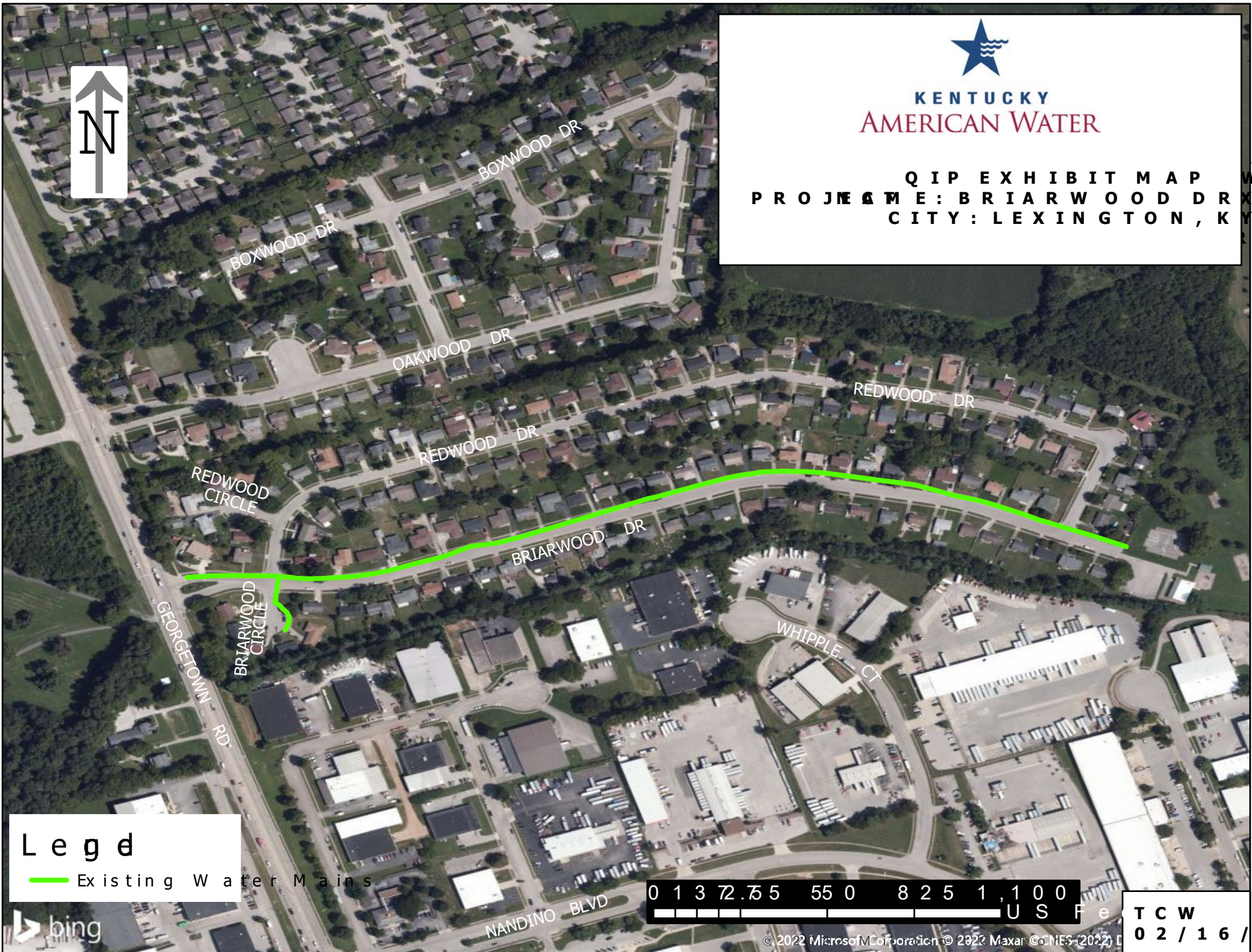
Legend
— Existing Water Mains





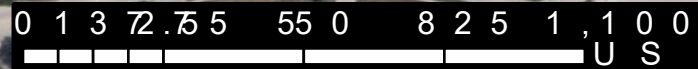
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: BRIARWOOD DR
CITY: LEXINGTON, K



Legend

Existing Water Mains



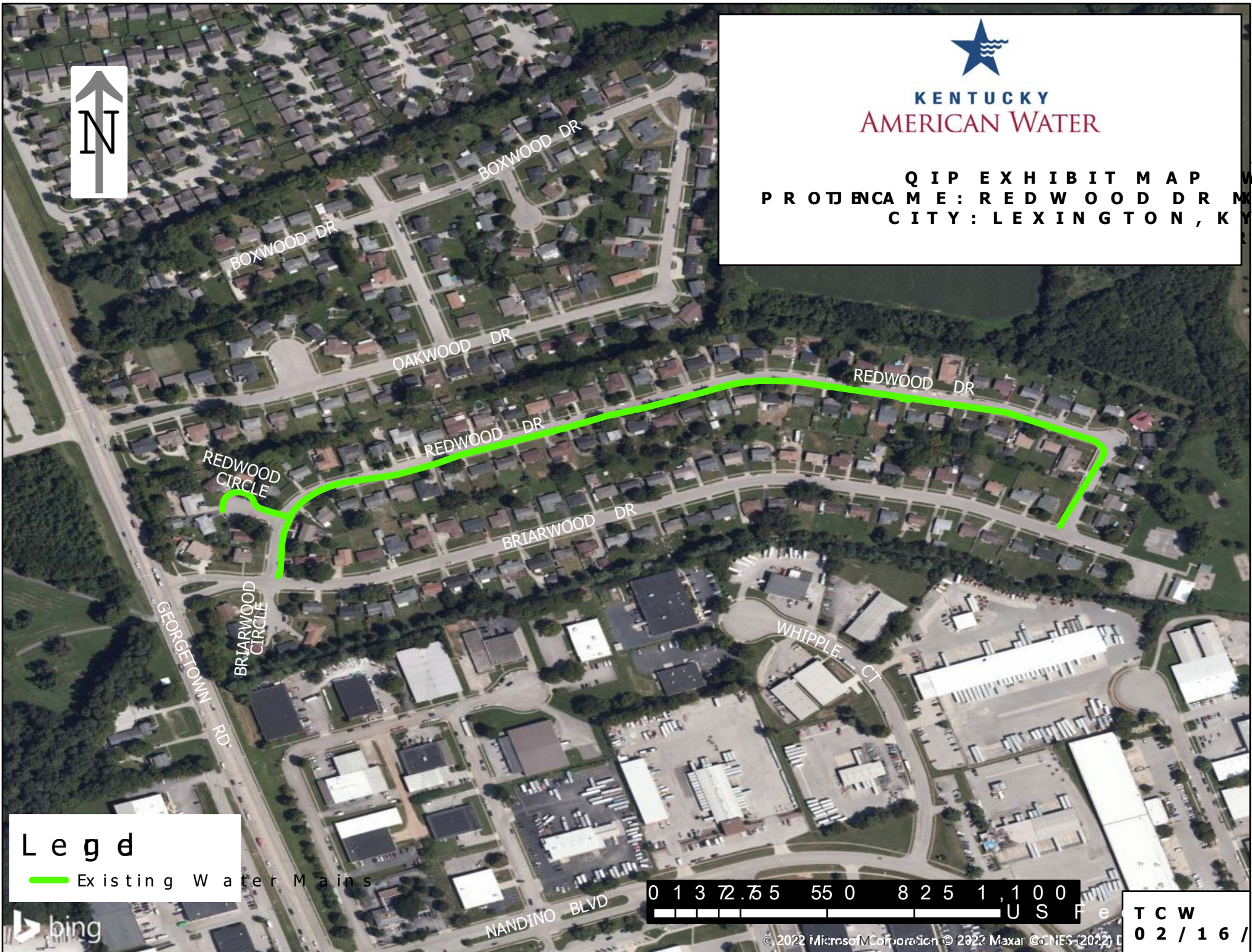
US Feet

TCW
02/16/2022



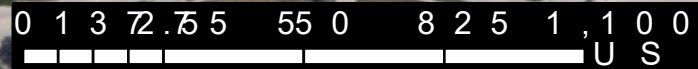
KENTUCKY
AMERICAN WATER

QIP EXHIBIT MAP
PROJECT NAME: REDWOOD DR MAIN
CITY: LEXINGTON, KY



Legend

Existing Water Mains



TCW
02/16/2022

MAIN REPLACEMENT CRITERIA

Criteria (Max. Points)	Weight	Rating				
		1	2	3	4	5
Low Pressure (75)	15x	50 psi or greater	50 psi to 45 psi	45 psi to 40 psi	40 psi to 35 psi	< 35 psi
Number of Breaks/Leaks (75)	15x	0 breaks/5-year avg.	1-2 breaks/5-year avg.	3-4 breaks/5-year avg.	5-6 breaks/5-year avg.	< 6 breaks/5-year avg.
Fire Flow (50)	10x	Greater than 1,500 gpm (Blue)	1,500 to 1,000 gpm (Green)	999 gpm to 500 gpm (Yellow)	Less than 500 gpm (Red)	Known problems
Age (75)	15x	1995 or later	1980 to 1994	1970 to 1979	1960 to 1969	1959 and prior
Material Type (75)	15x	DI/RCP	PVC/HDPE	Transite/AC	CI/CLCI	Gal. / Steel
Size of Main (50)	10x	8 inch and above	6 inch	4 inch	2 inch to 3 inch	Main smaller than 2 inch
Water Quality (75)	15x	Flushing but not routine	Monthly Flushing	Bi weekly Flushing	Weekly (or more frequent) Flushing	Continuous Flushing (w/ discussion)
Customer Impact (25)	5x	less than 2 customers	2 to 10 customers	11 to 20 customers	greater than 20 customers	School/Hospital (Critical Customer)

Street/Project	Address	City	Ratings (1-5)								Total Weighted Score	Comments	COMPLETE	QIP YEAR	CASE NO. 2018 00358
			Low Pressure	Number of Breaks/Leaks (data from Jan 2017- December 2021)	Fire Flow	Age	Material Type	Size of Main	Water Quality	Customer Impact					
Highlawn Ave	Bluegrass Ave to end	Lexington	2	5	4	5	4	4	2	3	365	2" CI		QIP YEAR 2	
Westgate Dr	Entire Street	Lexington	2	5	2	5	4	4	1	4	335	2" and 6" CI; 6" from 1937		QIP YEAR 2	CASE YEAR 5
Lincoln Ave	Entire Street	Lexington	2	3	4	5	4	4	1	4	325	2" and 6" CI		QIP YEAR 2	CASE YEAR 1
McCubbing Dr	Entire Street	Lexington	2	3	4	5	4	4	1	3	320	2" CI			CASE YEAR 1
Benwood Dr	Entire Street	Lexington	4	2	4	5	4	2	1	4	320	8" CI	Y	QIP YEAR 2	
Montavesta Rd	Old Crow to End	Lexington	2	5	2	4	4	4	1	4	320	2" and 8" CI		QIP YEAR 2	CASE YEAR 4
Wilderness Rd	Most of Street	Lexington	2	1	4	5	5	4	1	4	310	2" Galvanized			
Winchester Rd	5000 and 5200 Blocks	Lexington	3	3	4	5	4	1	1	4	310	8" CI	Y	QIP YEAR 1	CASE YEAR 2
Fern Ave	1100 Block	Lexington	2	1	5	5	4	5	1	3	310	1" CI			CASE YEAR 5
N Cleveland Rd	100 and 1100 Blocks	Lexington	3	2	4	4	4	5	1	2	310	1.25" and 6" CI			CASE YEAR 2
Clays Mill Road	Stratford to Harrodsburg Rd	Lexington	1	5	2	5	4	2	1	5	305	6" CI and AC		QIP YEAR 2	
Pensacola Dr	Entire Street	Lexington	1	2	5	5	4	4	1	4	305	2" CI	Y	COMPLETE	CASE YEAR 1
Samuel Ln	Entire Street	Lexington	2	1	5	5	4	5	1	2	305	1" CI			CASE YEAR 3
Lindy Ln	Entire Street	Lexington	4	2	4	5	3	2	1	4	305	8" CI and AC	Y	QIP YEAR 2	
Delmont Dr	Entire Street	Lexington	2	3	2	5	4	4	1	3	300	2" CI	Y	QIP YEAR 1	CASE YEAR 1
Halls Ln	Entire Street	Lexington	2	3	2	5	4	4	1	3	300	2" CI	Y	QIP YEAR 1	CASE YEAR 2
Bluegrass Ave	N Limestone to Highlawn	Lexington	2	2	2	5	4	4	2	3	300	4" and 6" CI		QIP YEAR 2	
American Ave	Entire Street	Lexington	1	5	2	5	4	2	1	4	300	6" CI - 1935		QIP YEAR 3	
Preston Ave	Entire Street	Lexington	2	1	4	5	4	4	1	4	295	2" and 6" CI		IN DESIGN	CASE YEAR 1
Greenwood Ave	Entire Street	Lexington	2	2	2	5	4	5	1	3	295	1" and 8" CI		QIP YEAR 3	CASE YEAR 5
Rolling Hills Ct	3500 Block	Lexington	2	1	4	5	4	5	1	2	295	1" CI			CASE YEAR 2
Birkenhead Cir	Entire Street	Lexington	2	3	5	3	4	4	1	2	295	2.25" and 6" CI		QIP YEAR 3	CASE YEAR 4
Avon Ave	Entire Street	Lexington	2	2	2	5	4	4	1	4	290	2" and 6" CI	Y	QIP YEAR 1	CASE YEAR 1
Elizabeth St	Sioux to Waller	Lexington	2	2	2	5	4	4	1	4	290	2", 8", 16" CI			CASE YEAR 5
Elizabeth St	Waller to end	Lexington	2	2	2	5	4	4	1	4	290	2", 8", 16" CI	Y	QIP YEAR 1	CASE YEAR 5
Hamilton Park	Entire Street	Lexington	1	3	2	5	4	4	1	4	290	2", 4", 6" CI		QIP YEAR 2	CASE YEAR 1
Memory Ln	Entire Street	Lexington	2	1	4	5	4	4	1	3	290	2" and 6" CI		QIP YEAR 2	CASE YEAR 5
Arceme Ave	Entire Street	Lexington	1	2	4	5	4	3	1	5	290	4" and 6" CI; from 1930s; School	Y	QIP YEAR 1	
Whitney Ave	Entire Street	Lexington	1	2	4	5	4	4	1	3	290	2" and 6" CI	Y	QIP YEAR 2	CASE YEAR 1
Aurora Ave	Entire Street	Lexington	1	2	4	5	4	2	2	4	290	6" CI		QIP YEAR 2	
Aylesford Place	Entire Street	Lexington	1	3	4	5	4	2	1	4	290	6" CI; replace w/ 8" DI; replace with approximately 1,500' of 8" DI		QIP YEAR 3	
Linden Walk/Rose Lane	Entire Street (Linden Walk)/Linden Walk to Aylesford Place (Rose Lane)	Lexington	1	3	4	5	4	2	1	4	290	6" CI; replace with 1,900' of 8" DI		QIP YEAR 3	
Chiles Ave	Entire Street	Lexington	1	3	2	5	4	4	1	4	290	2" CI - 1938		QIP YEAR 3	
Breathitt Ave	Entire Street	Lexington	1	3	2	5	4	4	1	4	290	2" CI - 1938		QIP YEAR 3	
Old Richmond Rd	7300 Block	Lexington	1	3	5	4	4	3	1	3	290	4" CI			CASE YEAR 3
National Ave	Entire Street	Lexington	1	5	2	3	4	4	1	4	290	2" and 6" CI		QIP YEAR 2	CASE YEAR 5
Anderson St	Entire Street	Lexington	2	3	5	2	4	4	1	4	290	2" CI		QIP YEAR 3	CASE YEAR 5
Kastle Rd	Entire Street	Lexington	2	1	2	5	4	5	1	4	285	1" and 4" CI			CASE YEAR 1
Hunter Cir	Entire Street	Lexington	2	2	2	5	4	4	1	3	285	2" CI			CASE YEAR 3
Blue Ash Dr	Entire Street	Lexington	2	2	2	5	4	4	1	3	285	2" CI		QIP YEAR 2	
Johnsdale Dr	Entire Street	Lexington	1	3	2	5	4	4	1	3	285	2.25" CI	Y	QIP YEAR 2	CASE YEAR 5
Crescent Ave	Entire Street	Lexington	2	1	4	5	4	3	1	4	285	4" and 6" CI; 4" from 1925	Y	QIP YEAR 1	
Given Ln	Entire Street	Lexington	1	1	4	5	4	4	2	2	285	6" CI		QIP YEAR 2	
White Ave	200 Block	Lexington	1	1	5	5	4	4	1	3	285	2" CI			CASE YEAR 1
Boone Ln	4800 Block	Lexington	1	1	5	5	4	4	1	3	285	2" CI			CASE YEAR 2
Sulphur Ln	5000 Block	Lexington	1	1	5	5	4	4	1	3	285	2.25" CI			CASE YEAR 2
Malabu Ct	Entire Street	Lexington	1	3	2	5	4	4	1	3	285	2" CI		QIP YEAR 3	CASE YEAR 3
Stanley Ave	Entire Street	Lexington	1	2	4	5	4	4	1	2	285	2" CI		QIP YEAR 3	
Wyatt Pkwy	Entire Street	Lexington	4	2	2	5	3	2	1	4	285	8" CI and AC	Y	QIP YEAR 2	
Delmont Ct	Entire Street	Lexington	2	2	2	5	4	4	1	2	280	2" CI	Y	QIP YEAR 1	CASE YEAR 3
Forest Park Rd	100 Block	Lexington	2	2	2	5	4	3	1	4	280	4" and 8" CI			CASE YEAR 5
University Ave	Entire Street	Lexington	2	2	2	5	4	3	1	4	280	4" CI; from 1925	Y	QIP YEAR 1	
State St	Entire Street	Lexington	2	2	2	5	4	3	1	4	280	4" and 16" CI; 4" from 1925	Y	QIP YEAR 1	
Appletree Ln	Entire Street	Lexington	1	1	4	5	4	4	1	4	280	2" and 6" CI	Y	QIP YEAR 2	CASE YEAR 1
Courtney Ave	Entire Street	Lexington	1	1	4	5	4	4	1	4	280	2" and 6" CI	Y	QIP YEAR 2	CASE YEAR 2
Euclid Ave	Entire Street	Lexington	1	2	4	5	4	2	1	5	280	6" and 12" CI; 6" from 1914 and 12" from 1937; in conjunction with LFUCG project			CASE YEAR 5
Uhlan Ct	400 Block	Lexington	1	1	5	5	4	4	1	2	280	2" CI			CASE YEAR 1
Emery Ct	Entire Street	Lexington	1	1	5	5	4	4	1	2	280	2" CI	Y	QIP YEAR 2	CASE YEAR 2
Westwood Ct	200 Block	Lexington	1	1	5	5	4	4	1	2	280	2" CI			CASE YEAR 5
Woodland Ave	Entire Street	Lexington	1	3	4	5	4	2	1	2	280	6" CI; from 1891		QIP YEAR 3	
Croyden Ct	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2" CI	Y	QIP YEAR 2	CASE YEAR 3
Woodside Cir	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2" CI		QIP YEAR 3	CASE YEAR 3
Jade Cir	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2" CI			CASE YEAR 3
Granite Cir	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2" CI			CASE YEAR 3
Cricklewood Ct	Entire Street	Lexington	1	2	5	4	4	4	1	2	280	2" CI			CASE YEAR 3
Berwin Ct	3500 Block	Lexington	2	1	5	4	4	4	1	2	280	2.25" CI			CASE YEAR 3
Ipswich Ct	3400 Block	Lexington	1	2	5	4	4	4	1	2	280	2.25" CI			CASE YEAR 3

Greentree Cir	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2" CI			CASE YEAR 3
Paddock Ct	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2.25" CI			CASE YEAR 3
Penway Ct	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2.25" CI			CASE YEAR 3
Kirk Ct	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2" CI			CASE YEAR 3
Black Arrow Ct	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2.25" CI			CASE YEAR 3
Lilydale Ct	Entire Street	Lexington	2	1	5	4	4	4	1	2	280	2.25" CI			CASE YEAR 4
Kelsey Ct	Entire Street	Lexington	1	2	5	4	4	4	1	2	280	2.25" CI		QIP YEAR 2	CASE YEAR 3
Margo Ct	Entire Street	Lexington	2	2	5	3	4	4	1	2	280	2.25" CI			CASE YEAR 4
Jamaica Ct	Entire Street	Lexington	2	2	5	3	4	4	1	2	280	2.25" CI			CASE YEAR 4
Jannelle Ct	Entire Street	Lexington	2	2	5	3	4	4	1	2	280	2.25" CI		QIP YEAR 3	CASE YEAR 4
Ralston Lane	Entire Street	Winchester	1	2	5	2	2	4	5	2	280	2" PVC; Continuous Flushing			
Campbell Ln	800 Block	Lexington	2	3	5	4	4	4	3	2	280	2" CI		QIP YEAR 2	CASE YEAR 5
Rosemill Dr	Entire Street	Lexington	1	2	2	5	4	4	1	4	275	2" CI & 6" CI; replace with 1,150' of 8" DI			
Burnett Ave	Entire Street	Lexington	2	1	2	5	4	4	1	4	275	2" and 6" CI	Y	QIP YEAR 1	CASE YEAR 1
Lackawanna Rd	Entire Street	Lexington	1	2	2	5	4	4	1	4	275	2" CI	Y	COMPLETE	CASE YEAR 1
Cooper Dr	600 Block	Lexington	2	2	2	5	4	2	1	5	275	6" and 12" CI			CASE YEAR 1
Clayton Ave	Entire Street	Lexington	1	2	2	5	4	4	1	4	275	2" and 6" CI	Y	QIP YEAR 2	CASE YEAR 1
Lansdowne Cir	700 Block	Lexington	2	1	2	5	4	5	1	2	275	1" CI			CASE YEAR 2
Westwood Dr	100 Block	Lexington	1	2	2	5	4	4	1	4	275	2" CI			CASE YEAR 5
Rosemill Dr	Southgate to Clays Mill	Lexington	1	2	2	5	4	4	1	4	275	2" and 6" CI			CASE YEAR 5
Sayre Ave	Entire Street	Lexington	1	1	4	5	4	4	1	3	275	2" and 4" CI			CASE YEAR 1
Strathmore Rd	300 Block	Lexington	1	1	4	5	4	4	1	3	275	2" CI			CASE YEAR 1
Conn Terrace	Entire Street	Lexington	2	1	4	5	4	2	1	4	275	6" CI and 6" AC	Y	QIP YEAR 1	
Gazette Ave	Entire Street	Lexington	2	1	4	5	4	2	1	4	275	6" CI; from 1927	Y	QIP YEAR 1	
Monroe Ave	Entire Street	Lexington	2	1	4	5	4	2	1	4	275	6" CI; from 1936		IN DESIGN	
Pine St	500 Block	Lexington	2	1	5	5	4	2	1	2	275	6" CI; from 1926			CASE YEAR 5
Camden Ave	1400 Block	Lexington	1	2	2	5	4	4	1	4	275	2" CI		QIP YEAR 3	CASE YEAR 1
Florence Ave	Entire Street	Lexington	1	2	2	5	4	4	1	4	275	2" CI - 1938		QIP YEAR 3	
Elsmere Park	Entire Street	Lexington	1	2	4	5	4	2	1	4	275	6" CI - 1901, 1904		QIP YEAR 3	
King Arthur Dr	3400 Block	Lexington	1	3	2	4	4	4	1	4	275	2" CI		QIP YEAR 2	CASE YEAR 3
Gentry Ln	Small Section	Lexington	2	2	2	4	4	5	1	2	275	1" CI			CASE YEAR 3
Columbus Ln	Entire Street	Lexington	1	1	2	5	5	4	1	3	270	2" Galvanized			
Uttinger Ln	Entire Street	Lexington	1	1	2	5	5	4	1	3	270	2" Galvanized			
Morrison Ave	400 Block	Lexington	2	1	2	5	4	4	1	3	270	2" CI			CASE YEAR 1
Briar Hill Rd	Entire Street	Lexington	2	2	2	5	4	2	1	4	270	6" CI			CASE YEAR 2
Leisure Ln	Entire Street	Lexington	2	1	2	5	4	4	1	3	270	6" CI		QIP YEAR 2	
N Ashland Ave	National Ave to Cramer Ave	Lexington	1	1	4	5	4	2	2	3	270	6" CI		QIP YEAR 2	
Ash St	Whitney Ave to Georgetown Rd	Lexington	1	2	4	5	4	2	1	3	270	6" CI	Y	QIP YEAR 2	
Michigan St	Whitney Ave to Georgetown Rd	Lexington	1	2	4	5	4	2	1	3	270	6" CI	Y	QIP YEAR 2	
Wittland Ln	Entire Street	Lexington	1	1	5	5	4	2	1	4	270	6" CI; some from 1922	Y	QIP YEAR 1	
Lone Oak Dr	Entire Street	Lexington	1	2	2	5	4	4	1	3	270	2" CI		QIP YEAR 3	CASE YEAR 2
Kentucky Avenue	Euclid Ave-Maxwell St	Lexington	1	3	2	5	4	2	1	4	270	6" CI; replace w/ 8" DI		QIP YEAR 3	
Toner St	Entire Street	Lexington	1	2	4	5	4	2	1	3	270	6" CI - 1905		QIP YEAR 3	
Raven Cir	Entire Street	Lexington	2	1	2	5	4	4	1	3	270	2" CI			CASE YEAR 3
Colchester Dr	Entire Street	Lexington	2	2	2	4	4	4	1	3	270	2.25" and 8" CI	Y	QIP YEAR 2	CASE YEAR 3
Beulah Park	Entire Street	Lexington	2	3	2	3	4	4	1	3	270	2.25" and 6" CI		QIP YEAR 3	CASE YEAR 4
Tillybrook Ct	Entire Street	Lexington	2	1	2	5	4	4	1	2	265	2" CI			CASE YEAR 3
Shirlee Ct	Entire Street	Lexington	2	1	2	5	4	4	1	2	265	2" CI			CASE YEAR 3
Hill Rise Ct	Entire Street	Lexington	2	1	2	5	4	4	1	2	265	2" CI	Y	QIP YEAR 1	CASE YEAR 3
Bradford Dr	Entire Street	Lexington	1	2	3	5	4	2	1	4	265	6" CI			
Silver Maple Way	Entire Street	Lexington	1	1	4	5	4	1	2	4	265	8" CI; Reference 4th St/Chestnut St Flushing; tied to N Martin Luther King Blvd Replacement (do at same time)			
Bradley Ct	Entire Street	Lexington	1	2	2	5	4	4	1	2	265	2" and 6" CI			CASE YEAR 5
Warren Ct	Entire Street	Lexington	1	2	4	5	4	2	1	2	265	6" CI - 1913		QIP YEAR 3	
Greentree Ct	1100 Block	Lexington	2	2	2	4	4	4	1	2	265	2" CI			CASE YEAR 3
Feltner Ct	Entire Street	Lexington	1	3	2	4	4	4	1	2	265	2.25" CI	Y	QIP YEAR 2	CASE YEAR 3
Williamsburg Ct	Entire Street	Lexington	1	1	5	4	4	4	1	2	265	2" CI			CASE YEAR 3
Range Ct	Entire Street	Lexington	1	1	5	4	4	4	1	2	265	2" CI	Y	QIP YEAR 1	CASE YEAR 3
Kimberlite Ct	Entire Street	Lexington	1	1	5	4	4	4	1	2	265	2" CI			CASE YEAR 3
Durham Ct	Entire Street	Lexington	1	1	5	4	4	4	1	2	265	2" CI			CASE YEAR 3
Saybrook Ct	Entire Street	Lexington	1	1	5	4	4	4	1	2	265	2" CI			CASE YEAR 3
Tanner Ct	Entire Street	Lexington	1	1	5	4	4	4	1	2	265	2" CI			CASE YEAR 3
Havelock Cir	Entire Street	Lexington	1	1	5	4	4	4	1	2	265	2.25" CI		QIP YEAR 3	CASE YEAR 3
Whitemark Ct	4000 Block	Lexington	1	1	5	4	4	4	1	2	265	2.25" CI			CASE YEAR 4
Ormond Cir	3500 Block	Lexington	1	1	5	4	4	4	1	2	265	2" CI			CASE YEAR 4
Cobyville Ct	Entire Street	Lexington	2	3	2	3	4	4	1	2	265	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 4
Saginaw Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 3
Lisa Cir	Entire Street	Lexington	1	2	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Mona Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Versie Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2" CI		QIP YEAR 3	CASE YEAR 4
Tammy Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Laverne Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4

Grevey Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Lynnwood Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Woodston Ct	Entire Street	Lexington	1	2	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Clearwood Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" and 6" CI			CASE YEAR 4
Waters Edge Pl	Entire Street	Lexington	1	2	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Bass Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Swoonalong Ct	Entire Street	Lexington	1	2	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 4
Gunbow Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI		QIP YEAR 3	CASE YEAR 4
Pittman Creek Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI			CASE YEAR 5
Timberhill Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI	Y	QIP YEAR 2	CASE YEAR 5
Elderberry Ct	Entire Street	Lexington	2	1	5	3	4	4	1	2	265	2.25" CI	Y	QIP YEAR 2	CASE YEAR 5
La Somme Dr & Riviera Rd	Entire Street	Lexington	1	3	5	2	4	3	1	4	265	4" CI			
Wabash Dr	100 Block	Lexington	1	1	2	5	4	4	1	4	260	2" CI	Y	COMPLETE	CASE YEAR 1
Old Vine St	300 Block	Lexington	2	2	2	5	4	2	1	2	260	6" CI			CASE YEAR 5
Devonia Ave	Entire Street	Lexington	1	1	4	5	4	2	1	4	260	6" CI; from 1930s	Y	QIP YEAR 1	
Carlisle Ave	Entire Street	Lexington	1	1	4	5	4	2	1	4	260	6" CI; from 1930s	Y	QIP YEAR 1	
Elm St	Charles St to Georgetown Rd	Lexington	1	1	5	5	4	2	1	2	260	6" CI	Y	QIP YEAR 2	
Kentucky Ave	Entire Street	Lexington	1	3	2	5	4	2	1	2	260	6" CI; from 1895			QIP YEAR 3
Standish Way	South end	Lexington	1	2	2	5	4	3	1	3	260	4" and 6" CIU - 1947			QIP YEAR 3
Southern Ave	Entire Street	Lexington	1	1	4	5	4	3	1	2	260	4" CI			QIP YEAR 3
Campbell St	Entire Street	Lexington	1	2	2	5	4	3	1	3	260	4" and 6" CI - 1908, 1914			QIP YEAR 3
Greentree Pl	Entire Street	Lexington	2	1	2	4	4	4	1	4	260	2" CI			CASE YEAR 3
Greentree Rd	Entire Street	Lexington	2	3	2	4	4	1	1	4	260	12" CI			
Barbados Ln	Entire Street	Lexington	2	1	2	4	4	4	1	4	260	2.25" CI			CASE YEAR 3
Clair Rd	Entire Street	Lexington	2	1	2	4	4	4	1	4	260	2" CI		QIP YEAR 2	CASE YEAR 4
Central Ave	600 Block	Lexington	2	2	2	4	4	3	1	3	260	4" and 8" CI			CASE YEAR 5
Barksdale Dr	Entire Street	Lexington	1	2	2	4	4	4	1	4	260	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 3
Briarwood Dr	Entire Street	Lexington	1	2	2	4	4	4	1	4	260	8" CI			QIP YEAR 3
Redwood Dr/Cir	Entire Street	Lexington	1	2	2	4	4	4	1	4	260	2" and 8" CI			QIP YEAR 3
Kilrush Dr	1100 Block	Lexington	2	4	2	3	4	1	1	4	260	8" CI		QIP YEAR 2	CASE YEAR 3
Cayman Ln	3600 Block	Lexington	1	2	4	3	4	4	1	3	260	2.25" and 6" CI			CASE YEAR 4
Macadam Dr	Entire Street	Lexington	1	1	5	3	4	4	1	4	260	2" and 8" CI			CASE YEAR 5
Maywood Park	Entire Street	Lexington	2	2	2	3	4	4	1	4	260	2" CI		QIP YEAR 3	CASE YEAR 4
Ox Hill Dr	Entire Street	Lexington	2	2	2	3	4	4	1	4	260	2" and 6" CI		QIP YEAR 3	CASE YEAR 4
Tanforan Dr	Entire Street	Lexington	1	3	2	3	4	4	1	4	260	2" and 8" CI		QIP YEAR 3	CASE YEAR 4
Martin Ave	Entire Street	Lexington	2	2	4	2	4	4	1	3	260	2" CI		QIP YEAR 3	CASE YEAR 5
Gentry Road	177-550	Winchester	2	3	5	2	2	5	1	2	260	1.5" PVC			
Haley Rd	Small Section	Lexington	2	2		5	4	4	1	1	255	2" CI			CASE YEAR 2
New Zion Rd	100 Block	Lexington	2	1	1	5	4	4	1	2	255	2.25" CI			CASE YEAR 3
Newtown Pike	Louden Ave-Charles Ave	Lexington	1	2	2	5	4	2	1	4	255	6" CI; replace with approximately 1,800' of 8" DI			
Shawnee Pl	100 Block	Lexington	1	1	2	5	4	4	1	3	255	2" CI			CASE YEAR 1
Willowlawn Ave	1300 Block	Lexington	1	1	2	5	4	4	1	3	255	2" CI	Y	QIP YEAR 2	CASE YEAR 1
Rainbow Rd	2000 Block	Lexington	1	1	2	5	4	4	1	3	255	2.25" CI			CASE YEAR 2
Bradford Cir	200 Block	Lexington	1	1	2	5	4	4	1	3	255	2" CI			CASE YEAR 3
Ridgeway Rd	Entire Street	Lexington	1	1	2	5	4	4	1	3	255	2" and 6" CI; 2" from 1927 and 6" from 1928			CASE YEAR 5
Russell Cave Rd	1400 Block	Lexington	1	3	2	5	4	1	1	3	255	8" and 12" CI			CASE YEAR 5
Transcript Ave	Entire Street	Lexington	2	1	2	5	4	2	1	4	255	6" and 8" CI; from 1935	Y	QIP YEAR 1	
Sherman Ave	Entire Street	Lexington	2	1	2	5	4	2	1	4	255	6" CI; from 1935		IN DESIGN	
Perry St	200 Block	Lexington	1	1	4	5	4	2	1	3	255	6" CI			CASE YEAR 1
Gunn St	300 Block	Lexington	1	1	4	5	4	2	1	3	255	6" CI			CASE YEAR 1
Warnock St	200 Block	Lexington	1	1	4	5	4	2	1	3	255	6" CI			CASE YEAR 1
Castlewood Dr	Entire Street	Lexington	1	1	4	5	4	2	1	3	255	6" and 8" CI			CASE YEAR 5
Douglas Ave	Entire Street	Lexington	1	2	2	5	4	2	1	4	255	6" CI - 1938			QIP YEAR 3
N Limestone St	E. Loudon Ave - New Circle Rd	Lexington	1	3	2	4	4	2	1	4	255	6" CI & 12" CI; replace with 3,700' of 12" DI			
Heather Ct	Entire Street	Lexington	1	2	2	4	4	4	1	3	255	2" CI	Y	QIP YEAR 2	CASE YEAR 3
Thistleton Cir	Entire Street	Lexington	1	2	2	4	4	4	1	3	255	2" CI	Y	QIP YEAR 2	CASE YEAR 3
Martinique Ln	Entire Street	Lexington	2	1	2	4	4	4	1	3	255	2.25" and 6" CI			CASE YEAR 3
Derby Dr	200 Block + Court	Lexington	2	2	2	3	4	4	1	3	255	2.25" and 6" CI		QIP YEAR 3	CASE YEAR 2
Crewe Ct	Entire Street	Lexington	1	2	4	3	4	4	1	2	255	2.25" and 6" CI		QIP YEAR 2	CASE YEAR 4
Atokad Park	Entire Street	Lexington	2	2	2	3	4	4	1	3	255	2.25" and 6" CI		QIP YEAR 3	CASE YEAR 4
Ferguson St	Entire Street	Lexington	2	3	2	2	4	4	1	3	255	2" and 8" CI			CASE YEAR 5
Lamont Ct	Entire Street	Lexington	1	1	2	5	4	4	1	2	250	2" CI			CASE YEAR 2
Longview Dr	500 Block	Lexington	1	2	2	5	4	2	1	3	250	6" CI			CASE YEAR 5
Oak Hill Dr	1100 Block	Lexington	2	1	2	5	4	2	1	3	250	6" CI			CASE YEAR 5
Orion Way	Entire Street	Lexington	1	1	3	5	4	2	1	4	250	6" CI; from 1930s	Y	QIP YEAR 1	
Ransom Ave	Entire Street	Lexington	1	1	4	5	4	2	1	2	250	6" CI; from 1911			
Shreve Ave	Entire Street	Lexington	1	1	4	5	4	2	1	2	250	6" CI; from 1910			
Booker St	Entire Street	Lexington	1	1	4	5	4	2	1	2	250	6" CI	Y	QIP YEAR 2	
Grand Ave	Entire Street	Lexington	1	1	5	5	4	1	1	2	250	8" CI; from 1884			
Headley Ave	Entire Street	Lexington	1	2	2	5	4	2	1	3	250	6" CI - 1903, 1936			QIP YEAR 3
Chrysalis Ct	Entire Street	Lexington	1	1	4	5	4	2	1	2	250	6" CI			QIP YEAR 3
Sheila Ct	Entire Street	Lexington	1	1	4	5	4	2	1	2	250	6" AC - 1983			QIP YEAR 3

Harken Ct	Entire Street	Lexington	1	1	4	5	4	2	1	2	250	2" Service?		QIP YEAR 3	
Chelan Ct	100 Block	Lexington	1	1	2	5	4	4	1	2	250	2" CI			CASE YEAR 5
Old Dobbin Cir	Entire Street	Lexington	2	1	2	4	4	4	1	2	250	2" CI			CASE YEAR 3
Edinburgh Ct	Entire Street	Lexington	2	1	2	4	4	4	1	2	250	2" CI		QIP YEAR 3	CASE YEAR 3
Shiloh Ct	Entire Street	Lexington	2	1	2	4	4	4	1	2	250	2" CI			CASE YEAR 3
Flintridge Cir	3400 Block	Lexington	2	1	2	4	4	4	1	2	250	2" CI			CASE YEAR 3
Montavesta Ct	Entire Street	Lexington	2	1	2	4	4	4	1	2	250	2" CI		QIP YEAR 2	CASE YEAR 4
Cummins Ct	Entire Street	Lexington	1	2	2	4	4	4	1	2	250	2" CI			CASE YEAR 4
King Arthur Ct	Entire Street	Lexington	1	2	2	4	4	4	1	2	250	2" CI		QIP YEAR 2	CASE YEAR 3
Bowen Ct	Entire Street	Lexington	1	2	2	4	4	4	1	2	250	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 3
Old Crow Ct	Entire Street	Lexington	1	2	2	4	4	4	1	2	250	2" and 6" CI		QIP YEAR 2	CASE YEAR 4
Cardigan Ct	600 Block	Lexington	1	2	2	4	4	4	1	2	250	2.25" CI		QIP YEAR 3	CASE YEAR 3
Tabago Ct	Entire Street	Lexington	1	3	2	3	4	4	1	2	250	2.25" and 6" CI			CASE YEAR 3
Leitner Ct	Entire Street	Lexington	2	2	2	3	4	4	1	2	250	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 4
Fraserdale Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2.25" and 6" CI		QIP YEAR 2	CASE YEAR 4
Lookout Cir	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2" CI		QIP YEAR 2	CASE YEAR 4
Wem Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2" CI			CASE YEAR 4
Harris Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2.25" CI			CASE YEAR 4
Grant Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2" CI			CASE YEAR 4
Hollow Creek Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2" CI			CASE YEAR 4
Graig Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2.25" CI			CASE YEAR 4
Harmony Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2.25" CI			CASE YEAR 4
Elkwood Ct	Entire Street	Lexington	1	1	5	3	4	4	1	2	250	2.25" CI	Y	QIP YEAR 2	
Moundview Ct	Entire Street	Lexington	2	2	2	3	4	4	1	2	250	2" and 6" CI		QIP YEAR 3	CASE YEAR 4
Tanforan Ct	Entire Street	Lexington	1	3	2	3	4	4	1	2	250	2" CI		QIP YEAR 3	
North Cleveland Road	1301-2999	Lexington	2	1	5	3	3	3	1	4	250	4" AC			
North Cleveland Road	176-584	Lexington	3	2	5	2	2	4	1	2	250	2" PVC			
Avenue of Champions	Entire Street	Lexington	1	1	2	5	4	2	1	5	245	6" and 12" CI; 6" from 1914 and 12" from 1937; in conjunction with LFUCG project	Y	COMPLETE	
Kenton St	Entire Street	Lexington	1	1	2	5	4	3	1	3	245	4" and 6" CI - 1903, 1909		QIP YEAR 3	
Breckenwood Dr	Small Section	Lexington	1	1	2	5	4	4	1	1	245	2" CI			CASE YEAR 2
Sutherland Dr	3500 Block	Lexington	1	1	2	4	4	4	1	4	245	2.25" and 8" CI			CASE YEAR 4
Lancelot Ln	Greenlawn to Camelot	Lexington	1	1	2	4	4	4	1	4	245	8" CI		QIP YEAR 2	
Carson Ct	Entire Street	Lexington	1	1	5	4	4	2	1	2	245	6" CI		QIP YEAR 2	
Eastland Drive	Industry Rd-New Circle Rd	Lexington	2	2	2	4	4	1	1	4	245	8" CI			
Montavesta Road	2917-2994	Lexington	1	4	2	3	4	1	1	4	245	8" CL		QIP YEAR 2	
Oaklawn Park	Entire Street	Lexington	2	1	2	3	4	4	1	4	245	2" CI		QIP YEAR 3	CASE YEAR 4
Narragansett Park	Entire Street	Lexington	2	1	2	3	4	4	1	4	245	2" and 6" CI		QIP YEAR 3	CASE YEAR 4
Golden Gate Park	Entire Street	Lexington	2	1	2	3	4	4	1	4	245	2.25" and 6" CI		QIP YEAR 3	CASE YEAR 4
Kenil Ct	Entire Street	Lexington	2	1	2	3	4	5	1	2	245	1" CI			CASE YEAR 4
Valley Farm Dr and Ct	Entire Street	Lexington	1	2	2	3	4	4	1	4	245	2.25" and 8" CI	Y	QIP YEAR 2	CASE YEAR 4
Chris Dr and Ct	Entire Street	Lexington	1	2	2	3	4	4	1	4	245	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 4
Tisdale Dr and Ct	Entire Street	Lexington	1	4	2	3	4	1	1	4	245	8" CI		QIP YEAR 2	
Gingertree Cir	3500 Block	Lexington	1	1	4	3	4	4	1	3	245	2" and 6" CI			CASE YEAR 4
Aldershot Dr	3400 Block	Lexington	1	2	2	3	4	4	1	4	245	2.25" and 8" CI		QIP YEAR 3	CASE YEAR 3
Canonero Dr	Entire Street	Lexington	1	2	2	3	4	4	1	4	245	2.25" and 6" CI		QIP YEAR 3	CASE YEAR 4
Newtown Pike	3500-4305	Lexington	1	3	5	3	3	2	1	2	245	6" AC			
Richmond Ave	300 Block	Lexington	1	1	2	5	4	2	1	4	240	6" CI		QIP YEAR 2	CASE YEAR 1
Folkstone Dr	Plainview to RR track	Lexington	1	2	2	5	4	1	1	3	240	16" CI			CASE YEAR 3
Curry Ave	Most of Street	Lexington	1	1	2	5	4	2	1	4	240	6" and 8" CI; 6" is from 1901			CASE YEAR 4
Glenn Pl	Entire Street	Lexington	1	1	2	5	4	2	1	4	240	6" CI; some from 1930s	Y	QIP YEAR 1	
Montclair Dr	Tates Creek Rd to end	Lexington	1	1	2	5	4	2	1	4	240	6" CI		QIP YEAR 2	
Journal Ave	Entire Street	Lexington	2	1	2	5	3	2	1	4	240	6" AC	Y	QIP YEAR 1	
Carson Dr	Entire Street	Lexington	1	1	5	4	4	1	1	3	240	8" CI		QIP YEAR 2	
Bedinger Ct	Entire Street	Lexington	2	2	1	3	4	4	1	2	240	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 4
Yarmouth Ct	Entire Street	Lexington	2	2	1	3	4	4	1	2	240	2" CI		QIP YEAR 2	CASE YEAR 3
Grant Pl	Entire Street	Lexington	2	1	2	3	4	4	1	3	240	2" CI			CASE YEAR 4
Bridgeport Dr	Entire Street	Lexington	2	1	2	3	4	4	1	3	240	2.25" and 6" CI			CASE YEAR 4
Costigan Dr	Entire Street	Lexington	1	2	2	3	4	4	1	3	240	2.25", 6", 8" CI	Y	QIP YEAR 2	CASE YEAR 4
Von List Way	Entire Street	Lexington	1	2	2	3	4	4	1	3	240	2" and 8" CI			CASE YEAR 4
Kelsey Dr and Pl	Entire Street	Lexington	2	3	2	3	4	1	1	3	240	8" CI		QIP YEAR 2	CASE YEAR 3
Ascot Park	Entire Street	Lexington	1	2	2	3	4	4	1	3	240	2" and 6" CI		QIP YEAR 3	CASE YEAR 4
Gemini Trail Road	Entire Street	Georgetown	2	5		3	3	1	1	4	240	6" & 8" AC			
Merino St	500 Block	Lexington	1	1	2	5	4	2	1	3	235	6" CI; from 1884			CASE YEAR 5
Summit Dr	Montclair Dr to Cooper Dr	Lexington	1	1	2	5	4	2	1	3	235	6" CI		QIP YEAR 2	
Scoville Dr	Montclair Dr to Cooper Dr	Lexington	1	1	2	5	4	2	1	3	235	6" CI		QIP YEAR 2	
Eldemere Dr	Montclair Dr to Cooper Dr	Lexington	1	1	2	5	4	2	1	3	235	6" CI		QIP YEAR 2	
Colonial Dr	John Alden to Mayflower	Lexington	1	1	2	5	4	2	1	3	235	6" CIU and CIL - 1947		QIP YEAR 3	
Hialeiah Ct	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2.25" and 6" CI			CASE YEAR 3
Hot Springs Ct	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2.25" and 6" CI			CASE YEAR 3
Cross Keys Ct	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2" CI	Y	QIP YEAR 2	CASE YEAR 3
Sheffield Ct	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2" CI	Y	QIP YEAR 2	CASE YEAR 3
Gentry Rd	100 Block	Lexington	1	2	2	4	4	2	1	3	235	6" CI			CASE YEAR 3

Gayle Cir	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2" CI			CASE YEAR 3
Waycrosse Cir	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2" CI			CASE YEAR 3
Toronto Rd	100 and 200 Blocks	Lexington	2	2	2	4	4	1	1	2	235	12" CI			CASE YEAR 3
Middlesex Ct	2800 Block	Lexington	1	1	2	4	4	4	1	2	235	2.25" CI			CASE YEAR 3
Halsted Ct	1500 Block	Lexington	1	1	2	4	4	4	1	2	235	2" and 6" CI			CASE YEAR 3
Kildare Ct	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2" CI			CASE YEAR 3
Butternut Hill Ct	Entire Street	Lexington	1	1	2	4	4	4	1	2	235	2.25", 6", 8" CI			CASE YEAR 3
Daniel Ct	2000 Block	Lexington	1	1	2	4	4	4	1	2	235	2" and 6" CI			CASE YEAR 4
Victoria Way	4000 Block	Lexington	2	1	2	3	4	4	1	2	235	2" and 8" CI			CASE YEAR 3
Rittenhouse Ct	1900 Block	Lexington	2	1	2	3	4	4	1	2	235	2" and 6" CI			CASE YEAR 4
Fogo Ct	Entire Street	Lexington	2	1	2	3	4	4	1	2	235	2.25" and 6" CI		QIP YEAR 2	CASE YEAR 4
Karen Ct	Entire Street	Lexington	2	1	2	3	4	4	1	2	235	2.25" CI			CASE YEAR 4
Heaton Ct	Entire Street	Lexington	1	2	2	3	4	4	1	2	235	2.25" CI	Y	QIP YEAR 2	CASE YEAR 5
Wood Valley Ct	Entire Street	Lexington	1	2	2	3	4	4	1	2	235	2.25" and 8" CI		QIP YEAR 3	CASE YEAR 4
Personality Ct	Entire Street	Lexington	1	2	2	3	4	4	1	2	235	2" CI		QIP YEAR 3	CASE YEAR 4
Newtown Pike	4305-4626	Lexington	2	2	2	3	3	4	1	2	235	3" AC			
Sidwell Lane	204-dead end	Lexington	2	2	5	2	2	4	1	2	235	2" PVC			
E Main St	MLK to Richmond Rd	Lexington	1	1	2	5	4	1	1	4	230	12" and 16" CI; 2x16" from 1900 and 1909			CASE YEAR 5
Eastland Parkway	E Cantrill Dr - Biloxi Ct	Lexington	1	2	2	4	4	1	1	4	230	8" CI			
Pennebaker Dr	Entire Street	Lexington	1	2	2	4	4	1	1	4	230	8" CI			
Bryanwood Pkwy	Entire Street	Lexington	1	2	2	4	4	1	1	4	230	8" CI		QIP YEAR 3	
Old Richmond Rd	7641-Durbin Ln	Lexington	1	3		4	3	3	1	4	230	4" AC; replace with 8,500' of 6" DI			
Bahama Road	2030-Winchester Rd.	Lexington	1	3	2	3	4	1	1	4	230	8" CI			
Latoria Park	Entire Street	Lexington	1	1	2	3	4	4	1	4	230	2.25" CI			CASE YEAR 4
Bellmeade Rd	Entire Street	Lexington	1	1	2	3	4	4	1	4	230	2" and 6" CI			CASE YEAR 4
Pepperhill Rd	Gingertree to Simcoe	Lexington	2	2	2	3	4	1	1	4	230	8" CI			
Mirahill Dr	Entire Street	Lexington	1	1	2	3	4	4	1	4	230	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 5
Wyse Sq	Entire Street	Lexington	1	1	4	3	4	2	1	4	230	6" CI			
Osage Ct	Entire Street	Lexington	1	1	5	3	4	2	1	2	230	6" CI			CASE YEAR 3
Burton Road	578-1457	Georgetown	2	3		3	3	3	1	4	230	4" & 3" AC; replace with 10,200' of 6" DI			
Schoolhouse Lane	Entire Street	Winchester	1	2		2	2	4	5	2	230	2" & 3" PVC; Continuous Flushing			
W Main St	Vine to Old Georgetown	Lexington	1	2		5	4	1	1	4	225	8" CI; from 1884			
Plainview Rd	Small Section	Lexington	2	1		4	4	4	1	1	225	2" CI			CASE YEAR 3
Meadow Lane	950-1199	Lexington	1	1	2	4	4	2	1	4	225	6" CL			
Beacon Hill Rd	1900 Block	Lexington	2	1	2	4	4	1	1	3	225	8" CI			CASE YEAR 2
Terrace View Dr	Entire Street	Lexington	2	1	2	4	4	1	1	3	225	8" CI	Y	QIP YEAR 1	CASE YEAR 3
Cardiff Ln	Entire Street	Lexington	1	2	2	4	4	1	1	3	225	8" CI - 1969		QIP YEAR 3	
Rebel Rd	2000 Block + Court	Lexington	1	1	2	3	4	4	1	3	225	2" CI			CASE YEAR 2
Mulberry Dr and Ct	Entire Street	Lexington	1	1	2	3	4	4	1	3	225	2" and 8" CI	Y	QIP YEAR 2	CASE YEAR 3
Waterford Park	3200 Block	Lexington	1	1	2	3	4	4	1	3	225	2.25" and 6" CI		QIP YEAR 3	CASE YEAR 4
Fraserdale Dr	Entire Street	Lexington	1	2	2	3	4	2	1	4	225	6" CI		QIP YEAR 2	
Ak-sar-ben Park	Entire Street	Lexington	1	1	2	3	4	4	1	3	225	2" and 6" CI		QIP YEAR 3	CASE YEAR 4
Codell Dr	Woodhill to Palumbo	Lexington	1	1	2	3	4	4	1	3	225	8" CI	Y	QIP YEAR 2	
Leesburg-Newtown Road	100-1899	Paris	2	3		3	3	3	1	3	225	4" AC			
Niagara Dr	Trout to End	Lexington	1	2	2	2	4	4	1	3	225	2" and 8" CI			CASE YEAR 4
Lakeshore Dr	Backside of RR to Island	Lexington	1	2		5	4	1	1	3	220	16" CI; from 1912			
Caywood Dr	Entire Street	Lexington	1	2	1	4	4	1	1	4	220	8" CI		QIP YEAR 2	
Tateswood Dr	600 Block	Lexington	1	1	2	4	4	2	1	3	220	6" CI			CASE YEAR 3
Turner Station Road	Entire Street	Lexington	1	1	4	4	3	2	1	2	220	6" AC			
Lewis St	Entire Street	Lexington	2	1	2	3	4	2	1	3	220	6" CI			CASE YEAR 3
Kilkenny Ct	Entire Street	Lexington	1	1	2	3	4	4	1	2	220	2" CI			CASE YEAR 3
Plumtree Ct	2400 Block	Lexington	1	1	2	3	4	4	1	2	220	2.25" and 6" CI			CASE YEAR 4
Thornberry Ct	2400 Block	Lexington	1	1	2	3	4	4	1	2	220	2.25" and 6" CI			CASE YEAR 4
Woodlake Way	Entire Street	Lexington	2	1	2	3	4	2	1	3	220	6" CI			CASE YEAR 4
Warwick Ct	Entire Street	Lexington	1	1	2	3	4	4	1	2	220	2" and 6" CI			CASE YEAR 4
Brandon Ct	Entire Street	Lexington	1	1	2	3	4	4	1	2	220	2" CI			CASE YEAR 4
Windwood Ct	Entire Street	Lexington	1	1	2	3	4	4	1	2	220	2.25" and 6" CI	Y	QIP YEAR 2	CASE YEAR 5
Winnipeg Ct	Entire Street	Lexington	1	1	2	3	4	4	1	2	220	2" and 6" CI			CASE YEAR 4
Newtown Pike	3290-3500	Lexington	1	2	5	3	3	1	1	2	220	8" AC			
Keeneland Ct	1300 Block	Lexington	1	1		4	4	4	1	2	215	2.25" and 6" CI			CASE YEAR 3
Montrose Drive	Entire Street	Lexington	1	1	2	4	4	1	1	4	215	8" CI; replace w/ approx. 1,000 of 8" DI			
Caywood Cir	Entire Street	Lexington	1	1	2	4	4	2	1	2	215	6" CI		QIP YEAR 2	
Woodstock Cir	Entire Street	Lexington	1	1	2	4	4	2	1	2	215	6" CI		QIP YEAR 3	
Kilkenny Dr	End of Street	Lexington	1	2	2	3	4	1	1	4	215	8" CI			
Moore Dr	Entire Street	Lexington	1	2	2	3	4	1	1	4	215	12" CI			CASE YEAR 5
Bassett Ave	Entire Street	Lexington	2	1	2	3	4	1	1	4	215	8" CI		IN DESIGN	
Stephen Foster Dr	Ox Hill to End	Lexington	1	2	2	3	4	1	1	4	215	8" CI		QIP YEAR 3	
Grace Dr	Entire Street	Lexington	1	2	2	3	4	2	1	2	215	6" CI		QIP YEAR 3	
River Park Dr	Centre Pkwy to Armstrong Mill	Lexington	1	2	2	3	4	1	1	4	215	8" CI		QIP YEAR 3	
Wilderness Rd	Entire Street	Lexington	2	2	2	3	3	1	1	4	215	8" AC			
Iron Works Pike	1600-289	Lexington	1	1	5	3	3	1	1	4	215	8" AC			
Coolidge St	Entire Street	Lexington	1	1	4	2	4	2	1	4	215	6" CI		QIP YEAR 3	

Robertson St	300 Block	Lexington	1	2	4		4	4	1	3	215	2" and 6" CI		IN DESIGN	CASE YEAR 5
Trepassey Ct	Entire Street	Lexington	1	1	1	3	4	4	1	2	210	2.25" and 6" CI			CASE YEAR 5
Hedgewood Ct	Whole Complex	Lexington	1	1	2	3	4	2	1	4	210	6" and 8" CI			CASE YEAR 4
Jane St	Entire Street	Lexington	1	1	4	2	4	2	1	3	210	6" and 8" CI		QIP YEAR 3	
Gaines Village Dr	Entire Street	Owenton	1			4	5	4		3	205	2" Galvanized		QIP YEAR 3	
Lagonda Ave	Entire Street	Lexington	1	1	2	3	4	2	1	3	205	6" CI			CASE YEAR 1
US 25	Hurricane Hall Rd-Lisle Rd	Lexington	1	3		3	3	2	1	4	205	6" AC			
Spruce St	200 Block	Lexington	2	1	2	2	4	2	1	3	205	6" CI	Y	QIP YEAR 1	CASE YEAR 1
Aqueduct Dr	Half of Street	Lexington	1	1	2	3	4	1	1	4	200	8" CI			
Merrimac Dr	Entire Street	Lexington	1	1	2	3	4	1	1	4	200	8" CI		QIP YEAR 2	
Newtown Pike	4626-5022	Lexington	2	1		3	3	4	1	2	200	2 1/4" AC			
Carriage Lane	Entire Street	Lexington	1	2	2	3	3	1	1	4	200	8" AC			
Lakeshore Dr	Island	Lexington	1	2		3	4	1	1	4	195	12" CI			
Grassy Creek Drive	3881-3929	Lexington	1	2	1	3	3	1	1	4	190	8" AC			
Elk Lake		Owenton	2	1		3	2	3	1	5	190	Various water mains			
Paige Ct	2100 Block	Lexington	2	1	2		4	4	1	2	190	2.25" and 6" CI			CASE YEAR 5
Georgetown Rd	6000-14200	Owenton	2	1		3	2	3	1	4	185	4"			
Leestown Road	Scott Co.	Georgetown	1	3	2	2	2	1	1	3	180	8" C900 PVC			
Carrick Pike	100-1698	Georgetown	1	3	1	2	2	1	1	4	175	8" C900 & PVC			
Montgomery Ave	600 Block	Lexington	1	2	2		4	2	1	3	175	6" CI			CASE YEAR 5
KY 330	2600	Owenton	2	1		3	2	2	1	2	165	Road has slipped and affected the ability to maintain the main			
Floyd Dr	Small Cluster	Lexington	1	1			4	5	1	1	160	1" CI			CASE YEAR 5
Deer Haven Road	1000-1361	Lexington	1	2		2	2	1	1	4	150	12" PVC			

1. DCM, LLC (Formerly Dix & Associates Pipeline Contractors, Inc.) (Certified DBE)
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Justin Dix, 859-887-2661

2. C J Hughes Construction Company, Inc.
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David Combs, 304-522-3868

3. Todd Johnson Contracting, Inc. (Certified DBE)
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Linda Johnson, 859-238-9489

4. Lagco, Inc.
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5. Revivify Service Company LLC (Certified DBE)
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6. Edward Hall Trucking & Excavating Company
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8. Little Creek Construction, Inc. (Certified DBE)
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