

ADDENDUM No. 2

RFP No. 23-04

Broadway Street Water Main Replacement and Resurfacing Project

Due: January 26, 2023 at 2:00 PM (local time)

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes 169 pages.**

The Proposer is to acknowledge receipt of this Addendum No. 2, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered non-conforming.

The following forms provided within the RFP Document should be included in submitted proposal:

- **Attachment D - Prevailing Wage Declaration of Compliance**
- **Attachment E - Living Wage Declaration of Compliance**
- **Attachment G - Vendor Conflict of Interest Disclosure Form**
- **Attachment H - Non-Discrimination Declaration of Compliance**

Proposals that fail to provide these completed forms listed above upon proposal opening may be rejected as non-responsive and may not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

Changes to the RFP documents which are outlined below are referenced to a page or Section in which they appear conspicuously. Offerors are to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

Section/Page(s)	Change
Replace Plan Sheets 7-10	Revised Existing and Proposed Typical Road Sections Revised utility locations Clarify HMA Pav't Removal and Machine Grading Mod
Replace Plan Sheets 15-19	Revised Removal sheets to reflect HMA Pav't Removal change
Replace Plan Sheet 20	Revised sheets to include existing hydrant and service line at station 105+75

Replace Pages 14-17 with pages 14-17A	The bid form has been amended to reflect the modifications of this Addendum No. 2 and other quantity corrections from original contract documents.
Replace Pages SS-2-4	Project Schedule and Payment, Revised to extend Milestone #1 to July 10, 2023, Milestone #2 to August 14, 2023 and Milestone #3 to August 21, 2023.
Replace Pages SS-39	Updated HMA Application Estimate
Replace Pages SS-61-62	Updated HMA Pavement Surface Removal, any Depth
Replace Pages SS-68-70	Updated Machine Grading, Modified
New Content 1-139	Sanitary Sewer PAPC Condition Report
New Content 1-2	Pre-Proposal Meeting Agenda

II. QUESTIONS AND ANSWERS

The following Questions have been received by the City orally during the pre-proposal meeting held on January 10, 2023. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to take note in its review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

- Question 1: Can PACP sanitary sewer condition reports be made available to contractors?
 Answer 1: Yes, they are attached as part of Addendum #2
- Question 2: Can Milestone #1 Underground Utility work, completion date of June 5, 2023 is not achievable can this be extended?
 Answer 2: Yes, the Milestone #1 date has been revised through Addendum #2 to be completed by July 10, 2023; Milestone #2 Open to Traffic has been revised to August 14, 2023; and Milestone #3 Final Project Completion revised to August 21, 2023.
- Question 3: Work effort in HMA Pavement Surface Removal, any Depth and Machine Grading, Modified with HMA removal as incidental may cause confusion in the field when it come to water service lateral construction. Can these two pay items be reviewed and simplified for clarity?
 Answer 3: Yes, HMA Pavement Surface Removal, any Depth and Machine Grading, Modified have been revised through Addendum #2. The HMA Pavement Surface Removal, any Depth quantity has been calculated to include all the HMA removal for the full limits of the project, not just over the underground utility scope of work. Machine Grading, Modified has be revised to remove the incidental pavement removal scope and provide consistency. Machine Grading is included through the full length and width (Edge of Metal to EofM Curb and Gutter) to compensate the contractor for their effort to, adjust the grade after HMA removal to provide sufficient depth for the new 4-inch HMA pavement thickness and provide a smooth grade ahead of placing the leveling course.

- Question 4: Subgrade Undercut pay item does not have a matching 21AA Limestone C.I.P. quantity for backfill, which pay item should be used for backfill material?
- Answer 4: Addendum #1 included the addition of the contingency pay item 21 AA Limestone C.I.P. in the detailed standard specifications and bid form, to be used as backfill in the event of Subgrade Undercut being required.
- Question 5: Can you clarify if detailed specifications for sidewalk pay items includes furnishing sand base as incidental?
- Answer 5: No, Sand Subbase Course under sidewalk and 21 AA Agg Base Course under curb line will be paid for separately under each of those items.
- Question 6: Can you clarify the intention of using underdrain on the project. Detail for underdrain is shown on sheet 11 but no quantity is included on the bid form?
- Answer 6: Addendum #1 included the addition of 6-inch Wrapped Edge Drain on the detail plan sheet 12 and the bid form. Underdrain will be added coming off, 5 ft in each direction, where new storm drainage structures are being constructed.
- Question 7: Clarify how existing driveway approaches with existing HMA feathering shall be addressed through the pavement resurfacing?
- Answer 7: Existing HMA feathering at driveways shall be removed at the same time as HMA removal for the roadway and replaced using the HMA Approach contingency pay item. Addendum #2 includes an HMA Approach pay item on the bid form.
- Question 8: Can you clarify the extent of tree trimming effort performed by contractor?
- Answer 8: The City Forestry Department will come through the project limits during the winter dormant season and clear the canopy over the road pavement up to 18 feet. Addendum #1 includes the addition of Sidewalk Grading to the detail standard specification and to the bid form. Through this pay item the contractor will be responsible for tree trimming effort within sidewalk gap filling areas.
- Question 9: Why was Ductile Iron Class- 52 Water Main specified for this project?
- Answer 9: The City of Ann Arbor will be changing they typical ductile iron water main classification from Class-350 to Class- 52, going forward as the new revised orange book is adopted. D.I. Class -52 may also be more readily available after last year industry wide material shortage.

marital status, sexual orientation, gender identity or expression, height, weight, or disability.

4. The bidder’s proposed use of sustainable products, technologies, or practices for the project, which reduce the impact on human health and the environment, including raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and waste management.

5. The bidder’s environmental record, including findings of violations and penalties imposed by government agencies.

E. Schedule of Pricing/Cost – 20 Points

Company: _____

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Unit Price</u>	<u>Total Price</u>
130	Protective Fencing	FT	250	\$	\$
140	Exploratory Excavation (0-10')	EA	4	\$	\$
201	Project Supervision, Maximum \$40,000	LS	1	\$	\$
202	General Conditions, Maximum \$60,000	LS	1	\$	\$
203	Digital Audio-Visual Coverage	LS	1	\$	\$
204	Minor Traffic Control, Maximum \$50,000	LS	1	\$	\$
205	Project Clean-up & Restoration, Special, Max \$15,000	LS	1	\$	\$
206	“No Parking” Signs	EA	20	\$	\$
207	Certified Payroll Compliance and Reporting	LS	1	\$	\$
211	Remove Concrete Curb or Curb & Gutter-Any Type, Modified	FT	1008	\$	\$
212	Remove Concrete Sidewalk, Ramp & Drives-Any Thickness, Modified	SFT	2,955	\$	\$
213	HMA Pavement Surface Removal, Any Depth	SYD	16,299	\$	\$
214	Sidewalk Grading	FT	1,686	\$	\$
215	Sidewalk Ramp Grading	EA	22	\$	\$
Sheet 14 Total				\$	\$

216	Sewer, Any size or Depth, Remove	FT	774	\$	\$
217	Drainage Structure, Any Size or Depth, Remove	EA	14	\$	\$
221	Water Main Pipe Abandonment, Modified	LS	1	\$	\$
222	Fire Hydrant Assembly Abandonment	EA	4	\$	\$
230	Machine Grading, Modified	SYD	16,258	\$	\$
231	Subgrade Undercutting, Type II	CYD	750	\$	\$
232	Sand Subbase Course, CL II – C.I.P.	SYD	945	\$	\$
233	21AA Aggregate Base Course-C.I.P.	SYD	4,586	\$	\$
234	21AA Limestone – C.I.P.	CYD	750	\$	\$
241	HMA, LVSP – Pavement Leveling/Top Course	TON	3,661	\$	\$
242	HMA Approach	TON	30	\$	\$
244	Concrete Speed Table	EA	7	\$	\$
245	Concrete Curb or Curb & Gutter-Any Type	FT	1,417	\$	\$
246	Concrete Curb or Curb & Gutter-Any Type-High Early	FT	188	\$	\$
247	4 inch Concrete Sidewalk	SFT	3,804	\$	\$
248	6 inch Concrete Sidewalk or Sidewalk Ramp	SFT	2,245	\$	\$
249	6 inch Concrete Drive Approach-High Early	SFT	1,550	\$	\$
250	Integral Sidewalk Retaining Wall, Under 6 inch	SFT	42	\$	\$
253	Detectable Warning, Cast in Place	SFT	344	\$	\$
254	Pavt Mrkg, Ovly Cold Plastic, 12 inch Crosswalk	FT	504	\$	\$
255	Pavt Mrkg, Ovly Cold Plastic, 24 inch Stop Bar	FT	24	\$	\$
256	Pavt Mrkg, Ovly Cold Plastic, Left Turn Arrow	EA	1	\$	\$
258	Pavt Mrkg, Ovly Cold Plastic, Cross Hatching, Yellow	FT	110	\$	\$
259	Pavt Mrkg, Polyurea, 4 inch, Yellow	FT	9,037	\$	\$
260	Pavt Mrkg, Polyurea, 6 inch, White	FT	437	\$	\$
261	Recessing Pavt Mrkg, Longit	FT	9,255	\$	\$
Sheet 15 Total				\$	\$

270	Sign, Portable Changeable Message, Furnish and Operate	EA	2	\$	\$
271	Plastic Drum – Lighted - Furnish and Operate	EA	100	\$	\$
272	Barricade Type III – Lighted - Furnish and Operate	EA	13	\$	\$
273	Temporary Sign-Type B - Furnish and Operate	SFT	316	\$	\$
274	Temporary Sign-Type B - Furnish and Operate, Special	SFT	9	\$	\$
276	Pedestrian Type II Barricade, Temp	EA	7	\$	\$
277	Sign, Type 3B	SFT	47.5	\$	\$
278	Post, Steel, 3 lb	FT	84	\$	\$
279	Post Hole Through Conc for Steel Post	EA	2	\$	\$
280	Reflective Panel for Permanent Sign Support, 3 foot	EA	2	\$	\$
281	Reflective Panel for Permanent Sign Support, 6 foot	EA	2	\$	\$
282	Turf Establishment	SYD	1,400	\$	\$
290	4 inch Class 52 DIP WPolywrap, Trench Detail 1, Modified	FT	41	\$	\$
291	6 inch Class 52 DIP W/Polywrap, Trench Detail 1, Modified	FT	65	\$	\$
292	8 inch Class 52 DIP W/Polywrap, Trench Detail 1, Modified	FT	232	\$	\$
293	12 inch Class 52 DIP W/Polywrap, Trench Detail 1, Modified	FT	2,972	\$	\$
294	Sacrificial Anode, 17B	EA	5	\$	\$
295	Temporary Water Main Line Stop, Additional Rental Day [Contingency]	EA	8	\$	\$
296	Temporary Water Main Line Stop, Less than 8 inch [Contingency]	EA	4	\$	\$
297	Temporary 8 inch or 12 inch Water Main Line Stop [Contingency]	EA	4	\$	\$
320	12 inch Class IV RCP, Trench Detail 1	FT	718	\$	\$
321	15 inch Class IV RCP, Trench Detail 1	FT	16	\$	\$
			Sheet 16 Total	\$	\$

322	21 inch Class IV RCP, Trench Detail 1	FT	16	\$	\$
360	Type 1 Manhole, 48" Dia. (0-10' deep)	EA	2	\$	\$
367	Single Inlet	EA	11	\$	\$
410	6" 45 Bend	EA	7	\$	\$
411	8" 45 Bend	EA	31	\$	\$
412	12" 22.5 Bend	EA	2	\$	\$
413	12" 45 Bend	EA	17	\$	\$
416	6"x4" Reducer	EA	2	\$	\$
417	8"x6" Reducer	EA	9	\$	\$
418	12"x8" Reducer	EA	2	\$	\$
430	12"x12"x4" Tee	EA	1	\$	\$
431	12"x12"x6" Tee	EA	2	\$	\$
432	12"x12"x8" Tee	EA	12	\$	\$
433	12"x12"x12" Tee	EA	2	\$	\$
440	Fire Hydrant Assembly	EA	10	\$	\$
441	6" Gate Valve-in-Box	EA	2	\$	\$
442	12" Gate Valve-in-Box	EA	2	\$	\$
443	12" Gate Valve-in-Well	EA	7	\$	\$
460	Excavate & Backfill for Water Service Tap and Lead	FT	876	\$	\$
482	Gate Valve-in-Box Abandonment	EA	2	\$	\$
516	6" Wrapped Edge Drain	LF	128	\$	\$
563	Structure Covers	LB	7,150	\$	\$
566	Adjust Structure Cover	EA	30	\$	\$
567	Adjust Monument Box, Valve Box, or Gas Box	EA	9	\$	\$
702	Erosion Control, Inlet Filter	EA	26	\$	\$
703	Erosion Control, Silt Fence	FT	150	\$	\$
Sheet 17 Total				\$	\$

Sheet 14 Total \$ _____

Sheet 15 Total \$ _____

Sheet 16 Total \$ _____

Sheet 17 Total \$ _____

Grand Total All Sheets \$ _____

Contractor Acknowledgement of Addendums:

Addendum #1 _____

Addendum #2 _____

DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE AND PAYMENT

1 of 3

DESCRIPTION

Examination of Plans, Specifications, and Work Site: Bidders shall carefully examine the Bid Form, plans, specifications and the work site until the Bidder is satisfied as to all local conditions affecting the contract and the detailed requirements of construction. The submission of the bid shall be considered prima facie evidence that the Bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and all requirements of the contract.

The entire work under this Contract shall be completed in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

1. By no later than the **Pre-Construction Meeting** the Contractor shall submit a detailed schedule of work for the Engineer's review and approval. The proposed schedule must fully comply with the scheduling requirements contained in this Detailed Specification. The Contractor shall update the approved work schedule each week and present it to the Engineer at the weekly progress meeting.
2. The Contractor is expected to be furnished with two (2) copies of the Contract, for his/her execution, on or before **March 31, 2023**. The Contractor shall properly execute both copies of the Contract and return them, with the required Bonds and Insurance Certificate, to the City within **ten (10) days**. The Contractor shall not begin the work before the applicable date(s) as describes herein without approval from the Project Engineer, and in no case before the receipt of the fully executed Contract. City Council approval is expected in **March 20, 2023**.
3. The Contractor shall begin the work of this project on or before **April 17, 2023**, and only upon receipt of the fully executed Contract and Notice to Proceed. Appropriate time extensions shall be granted if the Notice to Proceed is delayed beyond this date.
4. The entire work under this Contract must be complete by ~~July 24, 2023~~ **August 21, 2023** (95 **114** calendar days total). Including, but not limited to all the work at **Broadway Street**, water main installation; install, swab, chlorinate, pressure test, flush and test the new water main pipe, connect all water service leads to the new main and complete all the remaining work under this Contract; restoration of all disturbed areas, permanent placement of hot mix asphalt and/or concrete, and the removal of any and all traffic control devices.
5. **Work day, hour, and other work restrictions imposed by the City of Ann Arbor.** Contractor operations shall be limited by local municipality work time, noise, and dust ordinance:
 - Monday – Sat: 7am-8pm
 - Sunday: only with approval from the City of Ann Arbor

- No work shall be performed during Holiday weekends, unless approved by the Engineer. No work shall be performed during University of Michigan home football games, and Art Fair **June 20-23, 2023**.

MILESTONES

1. MILESTONE 1: UNDERGROUND UTILITY WORK

The work of this milestone includes all water main, water service leads, hydrants and valves installed, storm structures and sewers installed. Newly installed water mains must successfully complete all bacteriological and pressure testing requirements. Milestone 1 work must be completed by ~~June 5, 2023~~ **July 10, 2023**.

2. MILESTONE 2: OPEN TO TRAFFIC

This work consists of constructing concrete curb and gutter, sidewalks and drive approaches, HMA paving of Broadway Street and installing pavement markings and permanent signage. Milestone 2 must be completed and Broadway Street must be open to traffic by ~~July 17, 2023~~ **August 14, 2023**.

3. MILESTONE 3: FINAL ACCEPTANCE AND PROJECT COMPLETION

Final Acceptance and Restoration shall be completed on or before ~~July 24, 2023~~ **August 21, 2023**.

The Contractor may propose to adjust the limits or sequencing of construction in order to complete the work more efficiently. Changes to the recommended construction sequence must be approved in writing by the Engineer prior to construction and must assure all required coordination with other projects and time lines.

The City will not allow any shut down of existing water mains without prior written approval of construction methods and timing of shut down, by the City of Ann Arbor and the Engineer. All water main valves are to be operated by City of Ann Arbor personnel.

When the Contractor has duly notified City of Ann Arbor Public Works that they are ready for them to install water services/ transfer of water services and Public Works is unable to perform the work, these works days will not be counted against the contractor and the project time line will be extended accordingly.

Time is of the essence in the performance of the work of this contract. The Contractor is expected to mobilize sufficient personnel and equipment and work throughout all authorized hours to complete the project by the final completion date. Should the Contractor demonstrate that they must work on some Sundays in order to maintain the project schedule, they may do so between the hours of 9:00 a.m. and 5:00 p.m. with prior approval from the City. There will be no additional compensation due to the Contractor for work performed on Sundays.

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Prior to the start of any construction, the Contractor shall submit a detailed schedule of work for the Engineer's review and approval. Work shall not be started until a schedule is approved in writing by the Engineer. The proposed schedule must fully comply with the scheduling requirements contained in this Detailed Specification. The Contractor shall update the approved work schedule upon request by the Engineer and present it to the Engineer within seven days of said request.

The Engineer may delay or stop the work due to threatening weather conditions. The Contractor shall not be compensated for unused materials or downtime due to rain, or the threat of rain. The Contractor is solely responsible for repairing all damages to the work and to the site, including road infrastructures, road subgrades, and any adjacent properties, which are caused as a result of working in the rain.

The Contractor shall not work in the dark except as approved by the Engineer and only when lighting for night work is provided as detailed elsewhere in this contract. The Engineer may stop the work, or may require the Contractor to defer certain work to another day, if, in the Engineer's opinion, the work cannot be completed within the remaining daylight hours, or if inadequate daylight is present to either properly perform or inspect the work.

The Contractor will not be compensated for unused materials or downtime, when delays or work stoppages are directed by the Engineer for darkness and/or inadequate remaining daylight reasons. The Contractor is solely responsible for repairing all damages to the work and to the site, including road infrastructures, road subgrades, and any adjacent properties, which are caused as a result of working in the dark.

Failure to complete all work as specified herein within the times specified herein, including time extensions granted thereto as determined by the Engineer, shall entitle the City to deduct from the payments due the Contractor, **\$250.00** in Liquidated Damages, and not as a penalty, for delays in the completion of the work for each and every calendar day beyond the "Calendar Days to Complete" for each sub-phase, as required by this Detailed Specification.

Liquidated Damages will be assessed until the required work is completed in the current construction season. If, with the Engineer's approval, work is extended beyond seasonal limitations, the assessment of Liquidated Damages will be discontinued until the work is resumed in the following construction season.

DETAILED SPECIFICATION
FOR
HMA APPLICATION ESTIMATE

1 of 1

DESCRIPTION

This work shall consist of furnishing and placing (HMA) hot mix asphalt on the prepared surfaces in accordance with the details shown on the plans and as specified in Section 501 of the Michigan Department of Transportation Standard Specifications for Construction, 2012 Edition with the exceptions and additions specified herein.

MATERIALS

HMA (Mainline):

The HMA, LVSP used for top course shall have a yield of 220 pounds per square yard with a PG 58-28 binder. The HMA, LVSP used for top course shall have an AWI = 260 minimum.

The HMA, LVSP used for leveling course shall have a yield of 220 pounds per square yard with a PG 58-28 binder.

~~The HMA, LVSP used for HMA Speed Tables shall have a yield of 220 pounds per square yard with a PG 58-22 binder.~~

HMA Driveway Feathering:

The HMA, Approach, LVSP used for driveway tapers, shall have a yield which varies given thickness of 0-2 inches with a PG 58-28 binder.

CONSTRUCTION METHOD

A bond coat shall be applied before each lift of HMA mixture is placed. The rate of application shall be 0.05 to 0.15 gallons per square yard.

MEASUREMENT AND PAYMENT

Measurement shall be based on load weight tickets from a certified scale and accepted at the job site by a City agent.

Payment for HMA (Mainline) shall include all labor, equipment and materials to complete this work.

Payment for **HMA Approach** shall include all labor, equipment and materials to complete this work.

DETAILED SPECIFICATION
FOR
ITEM #213 HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH

1 of 2

DESCRIPTION

This work includes removal of pavement in accordance with as shown on the Plans, as detailed in the Specifications, and as directed by the Engineer, in accordance with Section 204 of the 2012 edition of the MDOT Standard Specifications for Construction, except as specified herein, and as directed by the Engineer.

CONSTRUCTION METHOD

The Contractor shall remove HMA pavement and concrete base course, all regardless of the thickness, and all as shown on the Plans, as detailed in the Specifications, and as directed by the Engineer.

Prior to the start of removals, the Engineer and Contractor together shall field measure all removals.

The Contractor shall perform full-depth saw cutting at removal limits, as shown on the Plans, as directed by the Engineer, and as marked for removal.

The Contractor shall remove the HMA on the gutter pan, and driveway approach feathering, by milling or scraping with equipment bucket making sure not to damage the concrete gutter.

Butt joints are included in the pay item "HMA Pavement Surface Removal".

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas. The Contractor shall not be entitled to any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

The Contractor shall re-shape, re-grade, and re-compact the existing driveway base materials to the cross-section(s) as indicated on the Plans, as detailed in the Specifications, and as directed by the Engineer. The Contractor shall use blade graders, maintainers, vibratory rollers, and/or other equipment as necessary, and as directed by the Engineer. The use of each specific piece of equipment is subject to the approval of the Engineer.

The Engineer may direct aggregate base materials to be either removed from or added to the job-site, to properly complete the work. Where the Engineer directs the addition of such materials, they shall be paid for as either the Item of Work: "21AA Limestone - C.I.P.", "Aggregate Base Course, 21AA - C.I.P." or "Sand Subbase Course, CL II - C.I.P.". Where the Engineer directs such materials to be removed, it will be paid with "Subgrade Undercutting-Type II."

Excavated/removal areas shall be adequately protected with barricades or fencing at all times.

Removed or excavated materials which are not incorporated into the work shall become the property of the Contractor and shall be immediately removed and properly disposed of off-site. Removed or excavated materials may not be stockpiled overnight on, or adjacent to, the site.

Subbase or subgrade removed without authorization by the Engineer shall be replaced and compacted by the Contractor at the Contractor's expense, with materials specified by the Engineer.

The Contractor shall restore all disturbed areas to better than or equal to their original condition. Restoration shall be paid for as "Turf Establishment" This includes the placement and compaction of 4 inches of topsoil, followed by placement of grass seed, followed by the placement fertilizer and mulch blanket at all turf restoration locations. All restoration work and materials shall be in accordance with the Detailed Specifications "Clean up & Restoration, Special", "Fertilizer, Chemical Nutrient, CI A", "Mulch Blanket, High Velocity", "Seeding Mixture THM", and "Topsoil Surface, Furn, 4 inch."

MEASUREMENT AND PAYMENT

All saw-cutting to establish a neat line required for removals shall be included in the appropriate item of work and will not be paid for separately.

Finish work, including backfilling and compacting will not be paid for separately, but shall be included in the appropriate associated items of work.

HMA Pavement Surface Removal and ~~Concrete Base Course Removal~~ items shall be field measured and paid for at the Contract Unit Prices for their respective Contract (Pay) Items as follows:

PAY ITEM

PAY UNIT

HMA Pavement Surface Removal, Any Depth

Square Yard

The unit prices for these items of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

**DETAILED SPECIFICATION
FOR
ITEM #230 – MACHINE GRADING, MODIFIED**

1 of 3

DESCRIPTION

This work shall consist of constructing earth grades by excavating, cutting, filling, trimming, and grading; general restoration, and sign removals in accordance with the Detailed Specifications elsewhere herein; and maintaining the work in a finished condition until such time that it is accepted by the Engineer. This work shall be done as shown on the Plans, as detailed in the Specifications, and as directed by the Engineer, and in accordance with Section 205 of the 2012 edition of the MDOT Standard Specification for Construction, except as specified herein.

CONSTRUCTION METHOD

The Contractor shall construct earth grades as required to develop the typical and/or detailed cross-section(s) as shown on the Plans, as detailed in the Specifications, and as directed by the Engineer. This shall include, but not be limited to, the excavation of concrete ~~and HMA pavement~~, soil, rocks of any size, stumps, logs, and bricks; the removal and proper disposal off-site of surplus excavated material; the scarifying, plowing, disking, moving and shaping of earth; the trimming, grading, compaction and proof-rolling of the prepared subgrade; the importing, furnishing, placement and compaction of embankment and/or fill materials; the full depth saw-cutting of pavement at the removal limits; the grading of sideslopes; general restoration in accordance with the Detailed Specifications elsewhere herein and the general items of the work as specified herein. Road subbase and base materials shall be paid for separately.

The Contractor shall ~~remove, add to~~, re-shape, re-grade, and re-compact the existing roadbed materials, and shall construct the roadway to the cross-section(s) as indicated on the Plans, as detailed in the Specifications, and as directed by the Engineer. The Contractor shall use blade graders, maintainers, vibratory rollers, and/or other equipment as necessary, and as detailed in the Specifications and as directed by the Engineer, for this work. Use of each specific piece of equipment is subject to the approval of the Engineer.

The Contractor shall remove, salvage, deliver to any location within the City limits, and neatly stack/stockpile all bricks, if present, as directed by the Engineer.

The Contractor shall remove other surface features, including signs, located within the grading limits and not otherwise identified, as directed by the Engineer. Signs shall be salvaged and provided to City as directed by the Engineer.

The Contractor shall move excavated and/or imported materials longitudinally and/or transversely where necessary, and as directed by Engineer.

The Contractor shall keep the work well graded and drained at all times.

The Contractor shall not use rubber-tired equipment on the subgrade, when its use causes or may cause, in the opinion of the Engineer, damage to the subgrade. The Contractor shall conduct its operation(s), and provide all necessary equipment, to insure the satisfactory completion of the work without damaging the subgrade. This includes the transporting, stockpiling, rehandling, and

movement of materials over additional distances, in lieu of driving on an unprotected, or partially unprotected, subgrade.

The Contractor is solely responsible for the maintenance and protection of the subgrade. Further, any damage to the subgrade which, in the opinion of the Engineer, is caused as a result of the Contractor's operation(s), or its subcontractors' or suppliers' operation(s), shall be repaired by the Contractor at the Contractor's expense. This includes any additional earthwork and/or maintenance materials as directed by the Engineer, for the purposes of the Contractor's maintenance and protection of the subgrade. The Contractor shall not be entitled to any additional compensation for the implementation of these procedures.

The Contractor shall perform all rough and/or finish grading and compaction to the grades shown on the Plans, as detailed in the Specifications, and as directed by the Engineer.

The Contractor shall proof roll all graded and compacted surfaces in the presence of the Engineer as detailed in the Specifications. The Engineer will monitor the proof rolling operation to locate deleterious and/or uncompacted materials, and will direct undercuts as necessary.

At various times throughout the work, the Engineer may direct the Contractor to use smaller and/or lighter equipment, and to defer certain work tasks, in order to protect the grade and/or adjacent areas. The Contractor shall not be entitled to any additional compensation for the use of smaller equipment, lighter equipment, or work task deferral.

The Contractor shall take any and all steps necessary to avoid interruption in the mail delivery, and solid waste, recycling, and compostable pick-up within the project limits. This shall include the temporary relocation of mailboxes, where required by the Engineer, as well as moving of all solid waste/recycling/compost containers to the nearest cross street.

The Contractor shall coordinate with the City Forester prior to the removal of any tree roots 2 inches or larger in size.

Butt joints are included in the pay item "HMA Pavement Surface Removal, Any Depth" "Machine Grading."

Topsoil, seeding and mulch shall be paid for as part of the item "Turn Establishment" and "Clean-Up & Restoration, Special".

MEASUREMENT AND PAYMENT

Measurement for payment for the item "Machine Grading" shall be the computed in square yard quantity of excavated material (pavement, soil, rock, brick, etc.) from the top of existing grade down to the bottom of the proposed HMA excavation. Embankment, fill, subgrade protection/maintenance, drainage maintenance, topsoil, seeding, and restoration quantities will not be paid for separately, and are included in this item of work.

The completed work as measured for this item of work will be paid for at the Contract Unit Price for the following Contract (Pay) Item:

PAY ITEM

Machine Grading, Modified

PAY UNIT

Square Yard

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

THE FOLLOWING INFORMATION HAS BEEN UPDATED ON ALL TYPICALS:

- GENERAL UTILITY LOCATIONS SHOWN (EXISTING & PROPOSED)
- LIMITS OF HMA SURFACE REMOVE EXTENDED (EXISTING)
- PAYMENT FOR ADDITIONAL AGGREGATE BASE ADDED (PROPOSED)
- HMA TABLE AND DETAIL ADDED FOR HMA APPROACH AT DRIVEWAYS (PROPOSED)
- STATIONING UPDATED ON PROPOSED TYPICAL #3



PK2	PK2	PK2	PK2	PK2
ML2	ML2	ML2	ML2	ML2
1/20/2023	12/16/2022	7/15/2022	6/16/2022	DATE
ADDENDUM 2	ISSUED FOR BIDS	100% OWNER REVIEW	95% OWNER REVIEW	DESCRIPTION
05	03	02	01	REV.
				CHECKED

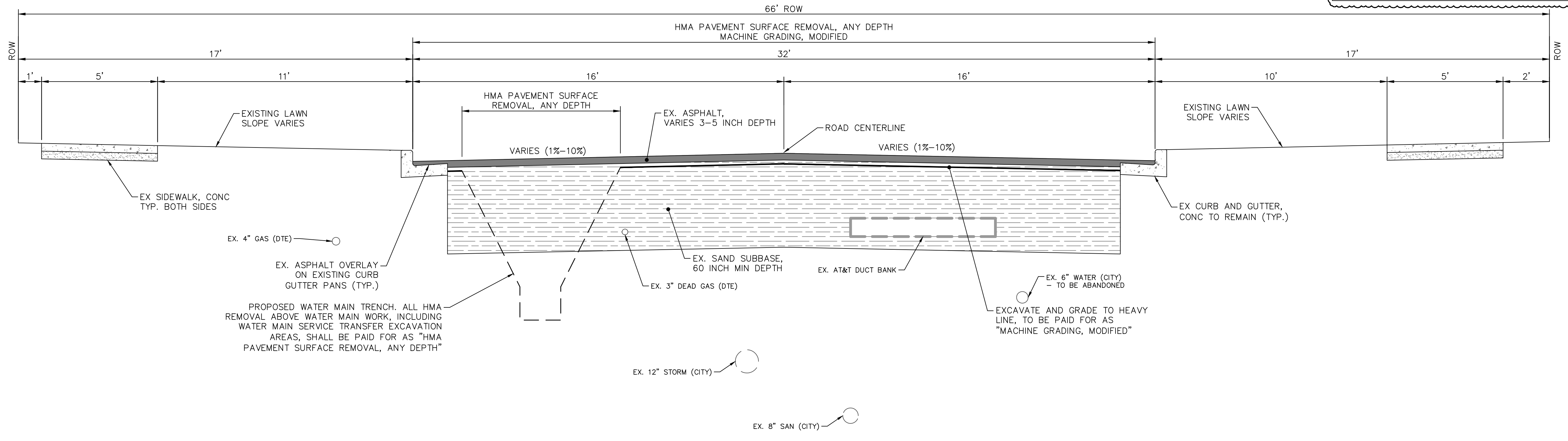
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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
 BROADWAY STREET WATER MAIN
 EXISTING TYPICAL ROAD SECTIONS

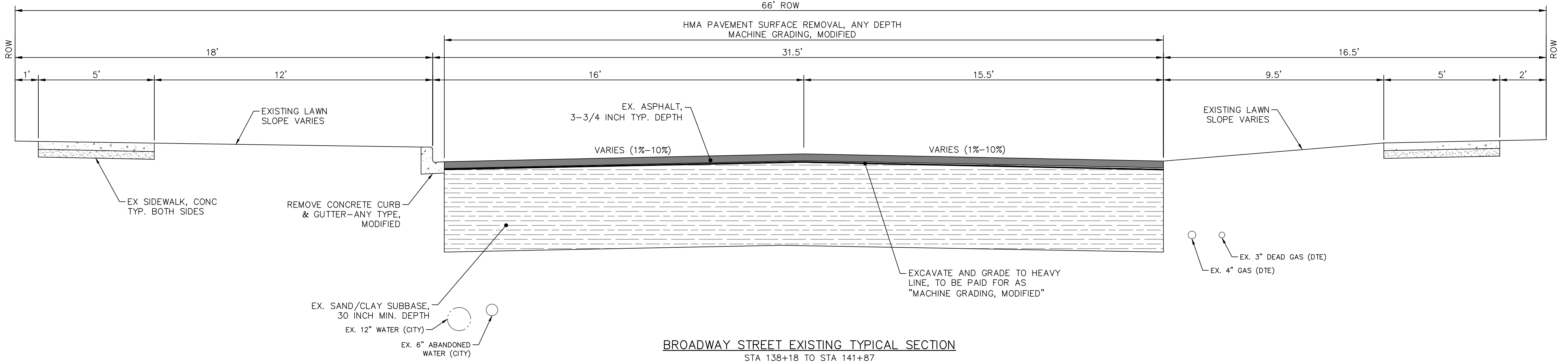
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DRAWING No. 2020030-7

SHEET No. 7 OF 50



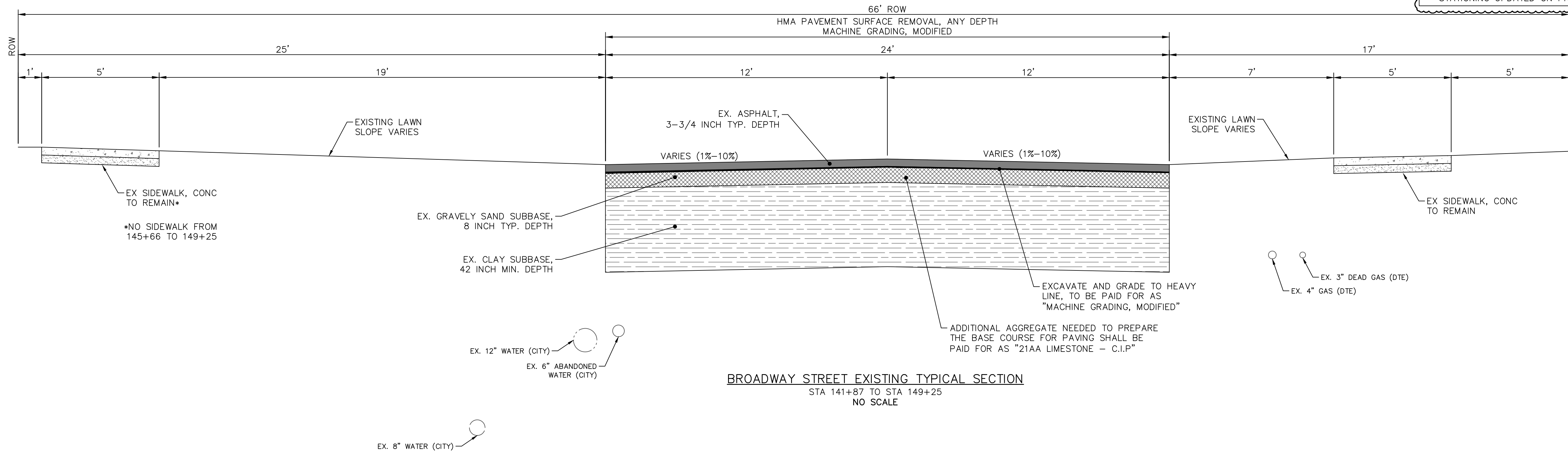
BROADWAY STREET EXISTING TYPICAL SECTION
 STA 106+18 TO STA 138+18
 NO SCALE



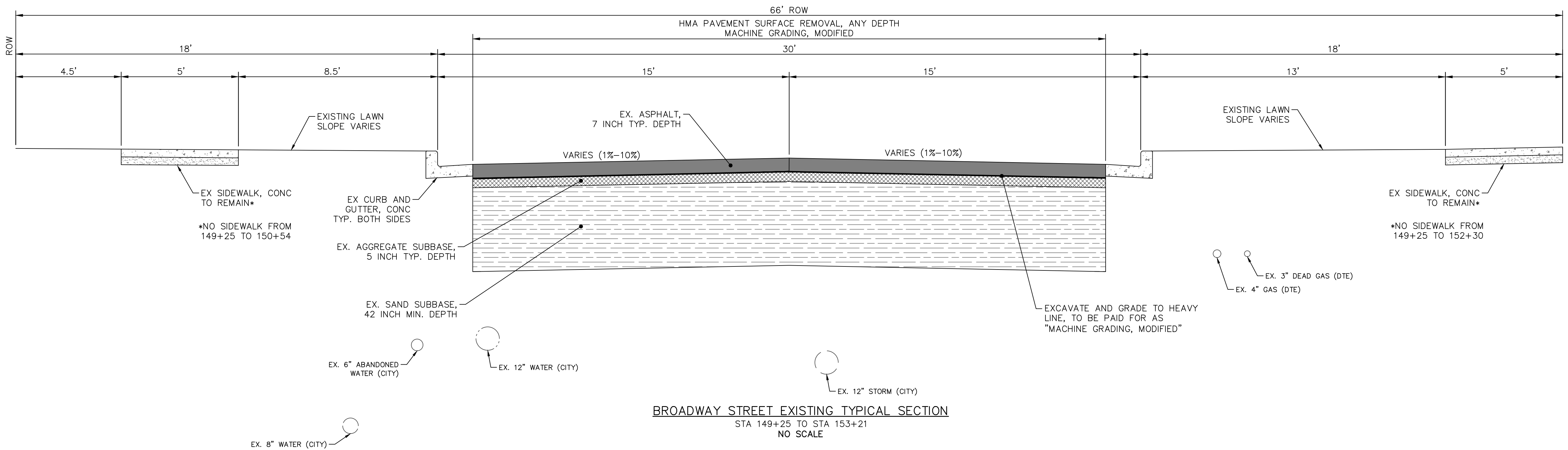
BROADWAY STREET EXISTING TYPICAL SECTION
 STA 138+18 TO STA 141+87
 NO SCALE

Z:\2021\211210\CAD\CD\4-7_211210_xsec.dwg - _a2 standard bw.stb - Plot Date: 1/20/2023 12:24:33 PM

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BROADWAY STREET EXISTING TYPICAL SECTION
 STA 141+87 TO STA 149+25
 NO SCALE



BROADWAY STREET EXISTING TYPICAL SECTION
 STA 149+25 TO STA 153+21
 NO SCALE

THE FOLLOWING INFORMATION HAS BEEN UPDATED ON ALL TYPICALS:
 • GENERAL UTILITY LOCATIONS SHOWN (EXISTING & PROPOSED)
 • LIMITS OF HMA SURFACE REMOVE EXTENDED (EXISTING)
 • PAYMENT FOR ADDITIONAL AGGREGATE BASE ADDED (PROPOSED)
 • HMA TABLE AND DETAIL ADDED FOR HMA APPROACH AT DRIVEWAYS (PROPOSED)
 • STATIONING UPDATED ON PROPOSED TYPICAL #3

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BROADWAY STREET WATER MAIN

SCALE: NTS

DRAWING No. 2020030-8

SHEET No. 8 OF 50

EXISTING TYPICAL ROAD SECTIONS

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REV.	DATE	DESCRIPTION	DRAWN	CHECKED
05	1/20/2023	ADDENDUM 2	PK2	PK2
03	12/16/2022	ISSUED FOR BIDS	ML2	PK2
02	7/15/2022	100% OWNER REVIEW	ML2	PK2
01	6/16/2022	95% OWNER REVIEW	ML2	PK2

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THE FOLLOWING INFORMATION HAS BEEN UPDATED ON ALL TYPICALS:

- GENERAL UTILITY LOCATIONS SHOWN (EXISTING & PROPOSED)
- LIMITS OF HMA SURFACE REMOVE EXTENDED (EXISTING)
- PAYMENT FOR ADDITIONAL AGGREGATE BASE ADDED (PROPOSED)
- HMA TABLE AND DETAIL ADDED FOR HMA APPROACH AT DRIVEWAYS (PROPOSED)
- STATIONING UPDATED ON PROPOSED TYPICAL #3

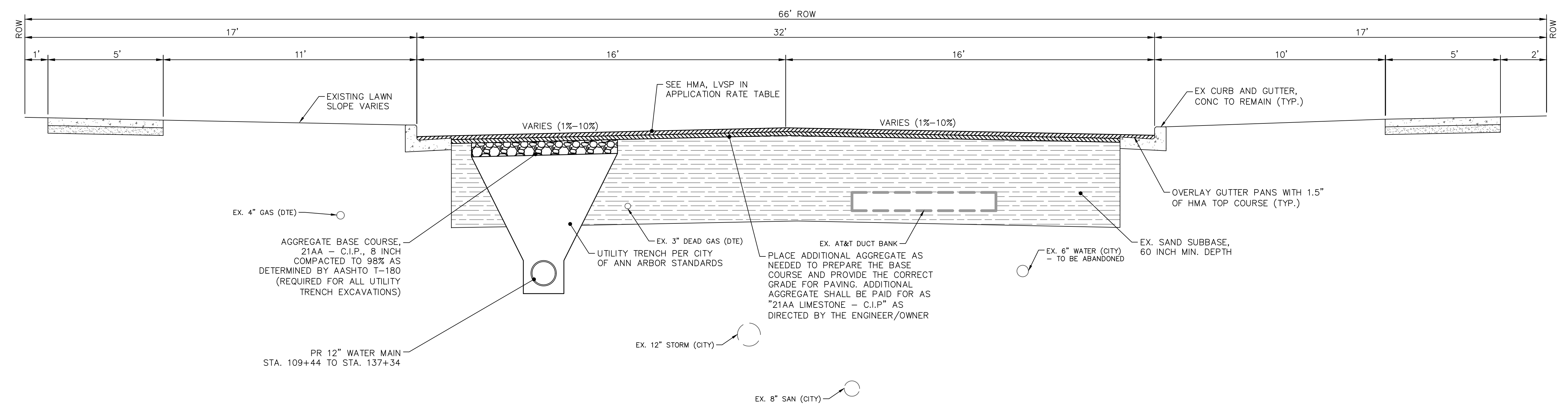


PK2	PK2	PK2	PK2	CHECKED
1/20/2023	ML2	12/16/2022	ML2	DATE
ADDENDUM 2	03	100% OWNER REVIEW	95% OWNER REVIEW	DESCRIPTION
05	01	02	03	REV.

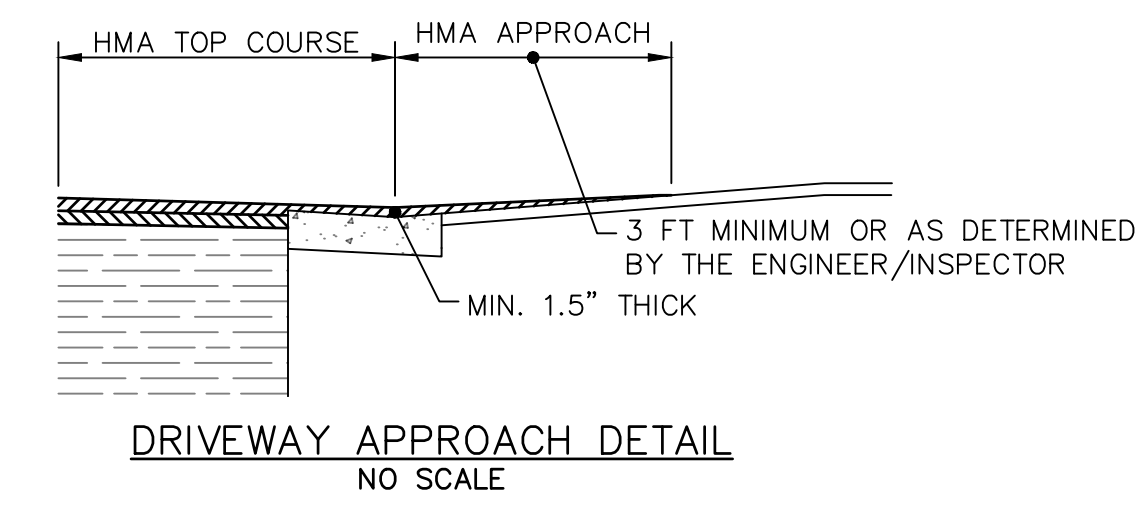
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 ANN ARBOR: 734.794.4410
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 BROADWAY STREET WATER MAIN
 PROPOSED TYPICAL ROAD SECTIONS

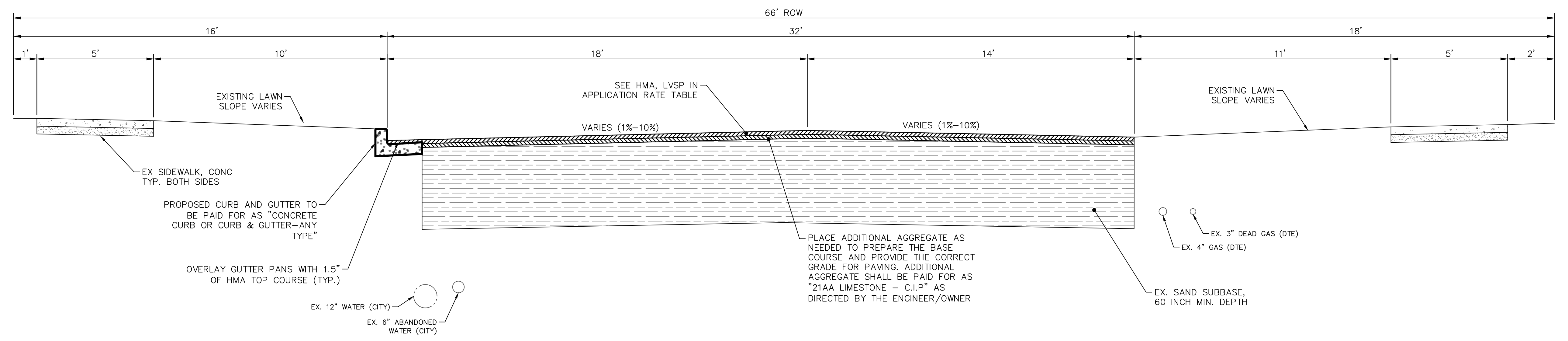
SCALE: NTS
 DRAWING No. 2020030-9



BROADWAY STREET PROPOSED TYPICAL SECTION
 STA 106+18 TO STA 137+34
 NO SCALE



HMA APPLICATION ESTIMATE						
HMA PAVEMENT	HMA MIX	RATE OF APPLICATION	THICKNESS (INCHES)	AWI (MIN.)	BINDER	LOCATION/NOTES
HMA PAVEMENT TOP	LVSP	220 LB/SYD	2	260 (TOP)	PG 58-28	TOP COURSE
HMA PAVEMENT LEVELING	LVSP	220 LB/SYD	2	-	PG 58-28	LEVELING COURSE
HMA APPROACH	LVSP	VARIES	VARIES	260 (TOP)	PG 58-28	DRIVEWAY ENTRANCE TAPERS
ASPHALT EMULSION	SS-1h	0.05 - 0.15 GAL/SYD	-	-	-	INCLUDE IN COST OF HMA ITEM

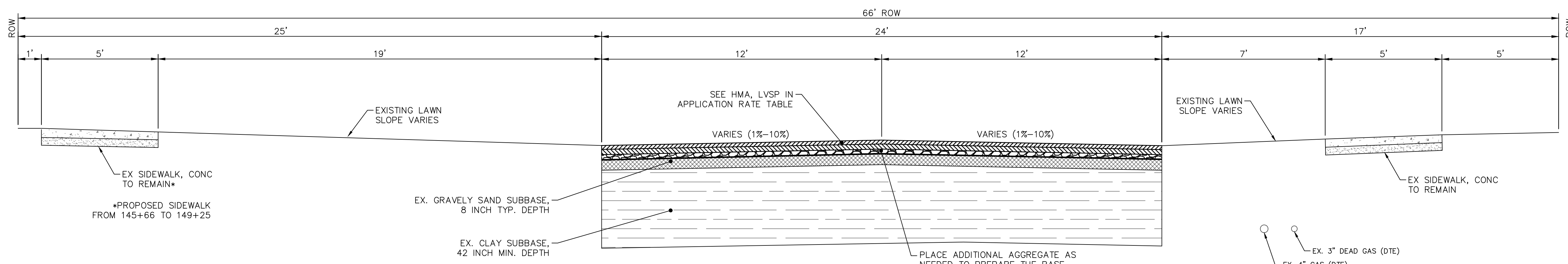


BROADWAY STREET PROPOSED TYPICAL SECTION
 STA 137+44 TO STA 141+87
 NO SCALE

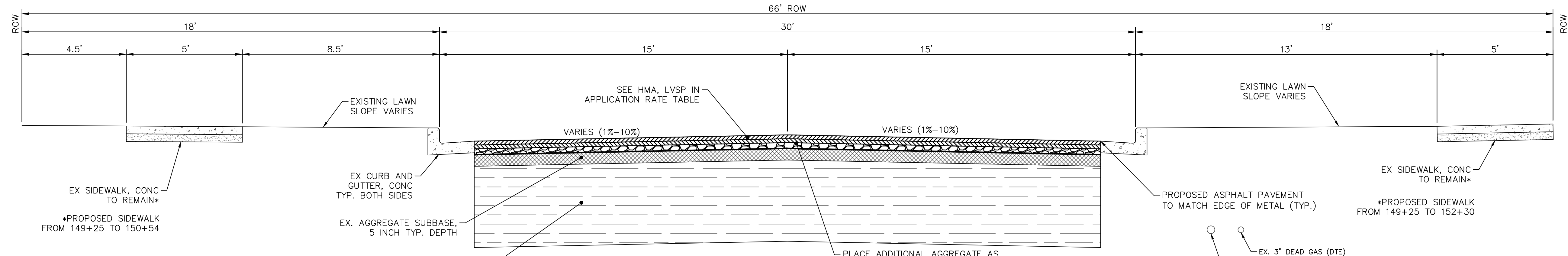
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THE FOLLOWING INFORMATION HAS BEEN UPDATED ON ALL TYPICALS:

- GENERAL UTILITY LOCATIONS SHOWN (EXISTING & PROPOSED)
- LIMITS OF HMA SURFACE REMOVE EXTENDED (EXISTING)
- PAYMENT FOR ADDITIONAL AGGREGATE BASE ADDED (PROPOSED)
- HMA TABLE AND DETAIL ADDED FOR HMA APPROACH AT DRIVEWAYS (PROPOSED)
- STATIONING UPDATED ON PROPOSED TYPICAL #3



BROADWAY STREET PROPOSED TYPICAL SECTION
 STA 141+87 TO STA 149+25
 NO SCALE

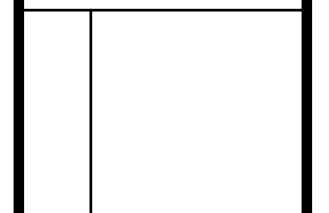


BROADWAY STREET PROPOSED TYPICAL SECTION
 STA 149+25 TO STA 153+21
 NO SCALE



PK2	PK2	PK2	PK2	PK2	CHECKED
1/20/2023	ML2	ML2	ML2	ML2	DRAWN
12/16/2022	ML2	ML2	ML2	ML2	DRAWN
7/15/2022	ML2	ML2	ML2	ML2	DRAWN
6/16/2022	ML2	ML2	ML2	ML2	DRAWN
					DATE
					DESCRIPTION
					REV.

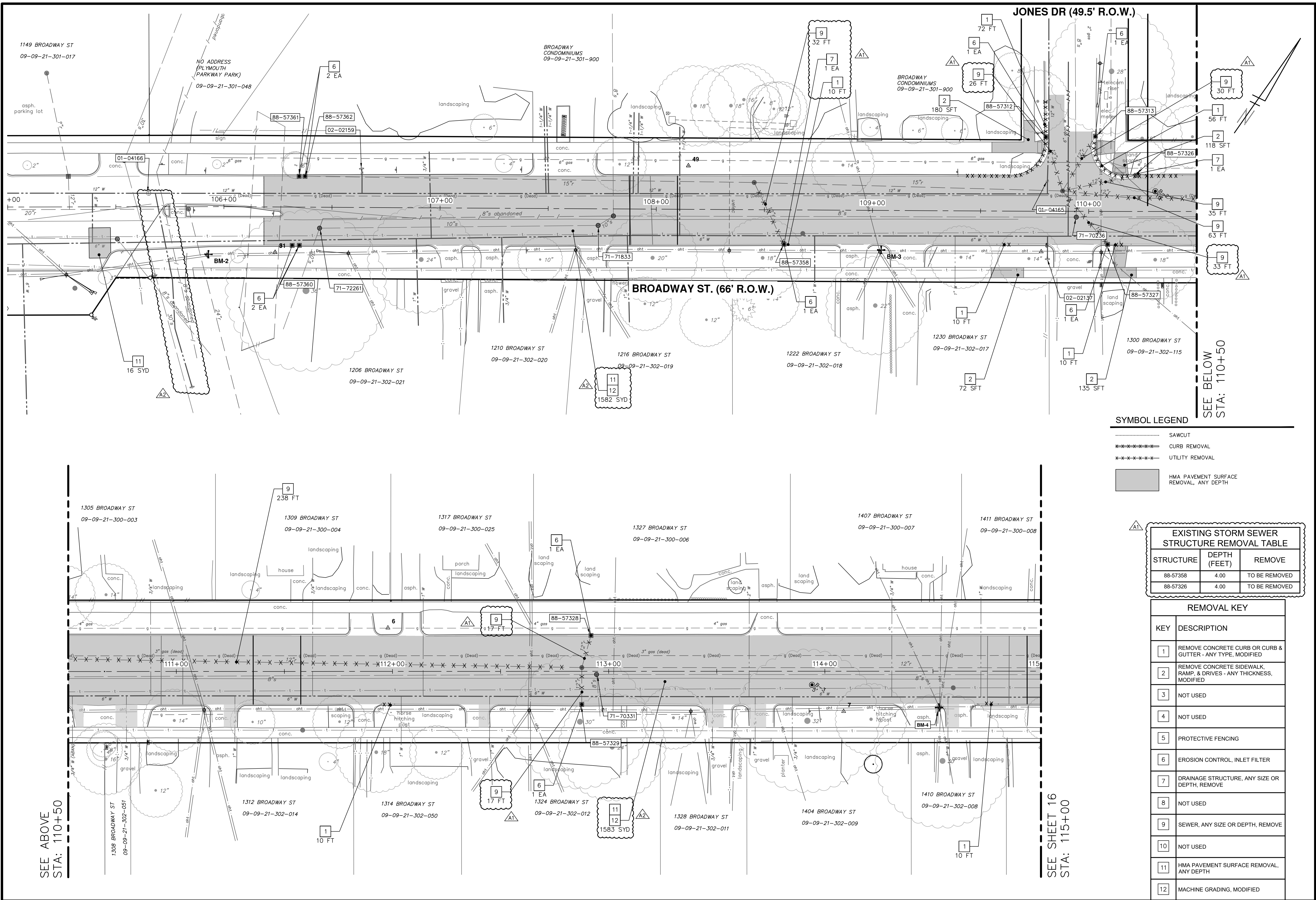
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 PROPOSED TYPICAL ROAD SECTIONS

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SYMBOL LEGEND

- SAWCUT
- ***** CURB REMOVAL
- ***** UTILITY REMOVAL
- HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH

EXISTING STORM SEWER STRUCTURE REMOVAL TABLE		
STRUCTURE	DEPTH (FEET)	REMOVE
88-57358	4.00	TO BE REMOVED
88-57326	4.00	TO BE REMOVED

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER - ANY TYPE, MODIFIED
2	REMOVE CONCRETE SIDEWALK, RAMP, & DRIVES - ANY THICKNESS, MODIFIED
3	NOT USED
4	NOT USED
5	PROTECTIVE FENCING
6	EROSION CONTROL, INLET FILTER
7	DRAINAGE STRUCTURE, ANY SIZE OR DEPTH, REMOVE
8	NOT USED
9	SEWER, ANY SIZE OR DEPTH, REMOVE
10	NOT USED
11	HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH
12	MACHINE GRADING, MODIFIED

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

BROADWAY STREET WATER MAIN PROPOSED REMOVALS

SCALE PLAN: 1" = 20'

DRAWING No. 2020030-15

SHEET No. 15 OF 50

STA. 106+00 TO STA. 115+00

SEE BELOW STA: 110+50

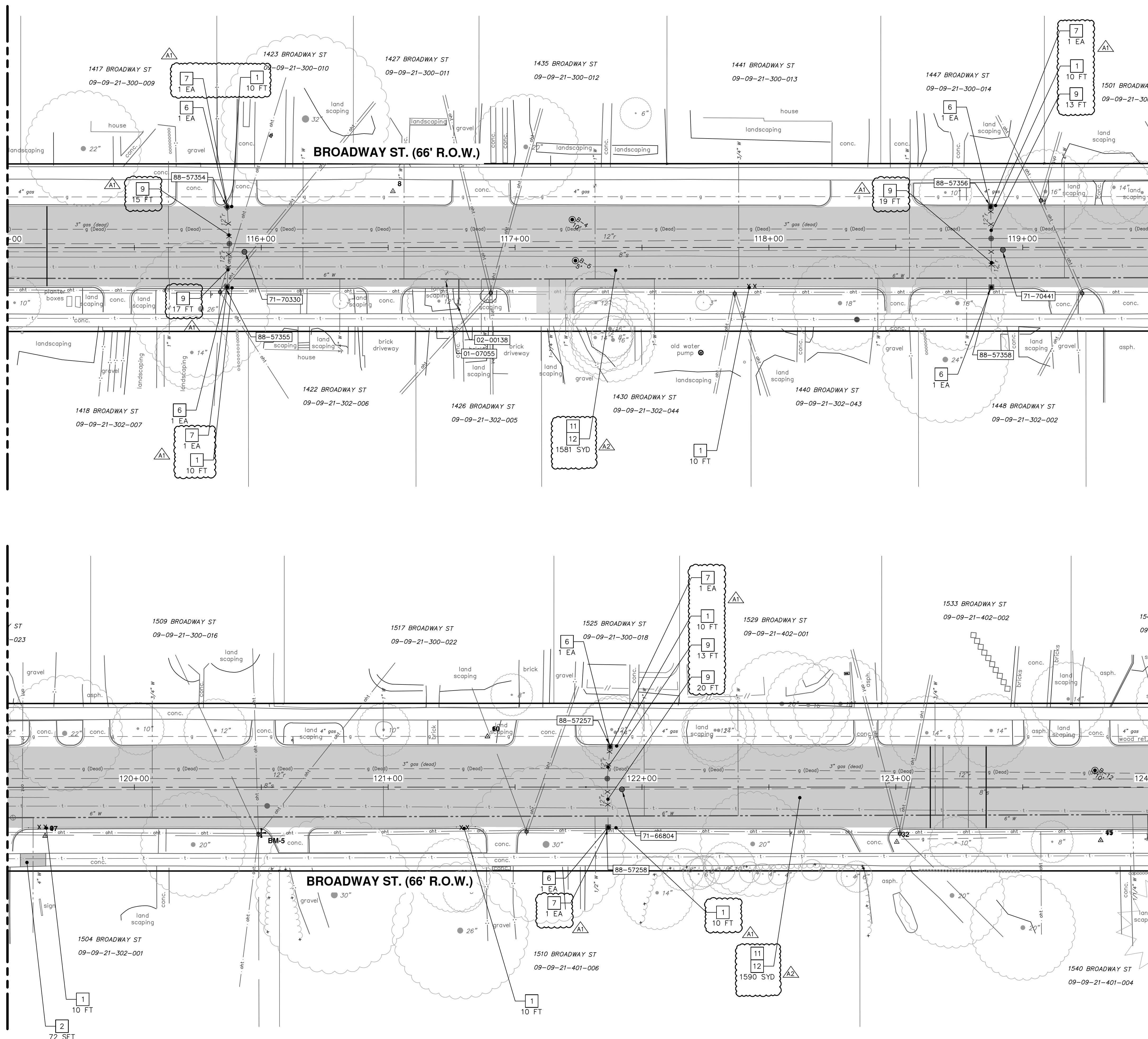
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05	ADDDENDUM 2	1/20/2023		
04	ADDDENDUM 1	1/12/2023		
03	ISSUED FOR BIDS	12/16/2022		
02	100% OWNER REVIEW	7/15/2022		
01	95% OWNER REVIEW	6/16/2022		

811
Know what's below. Call Before you dig.

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SEE ABOVE
STA: 119+50

SEE SHEET 15
STA: 115+00



SEE BELOW
STA: 119+50

SEE SHEET 17
STA: 124+00

SYMBOL LEGEND

- SAWCUT
- XXXXXXXX CURB REMOVAL
- XXXXXXXX UTILITY REMOVAL
- HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH

EXISTING STORM SEWER STRUCTURE REMOVAL TABLE		
STRUCTURE	DEPTH (FEET)	REMOVE
88-57354	4.00	TO BE REMOVED
88-57355	4.00	TO BE REMOVED
88-57356	4.00	TO BE REMOVED
88-57257	4.00	TO BE REMOVED
88-57258	4.00	TO BE REMOVED

REMOVAL KEY

KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER - ANY TYPE, MODIFIED
2	REMOVE CONCRETE SIDEWALK, RAMP, & DRIVES - ANY THICKNESS, MODIFIED
3	NOT USED
4	NOT USED
5	PROTECTIVE FENCING
6	EROSION CONTROL, INLET FILTER
7	DRAINAGE STRUCTURE, ANY SIZE OR DEPTH, REMOVE
8	NOT USED
9	SEWER, ANY SIZE OR DEPTH, REMOVE
10	NOT USED
11	HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH
12	MACHINE GRADING, MODIFIED

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
BROADWAY STREET WATER MAIN
PROPOSED REMOVALS
STA. 115+00 TO STA. 124+00

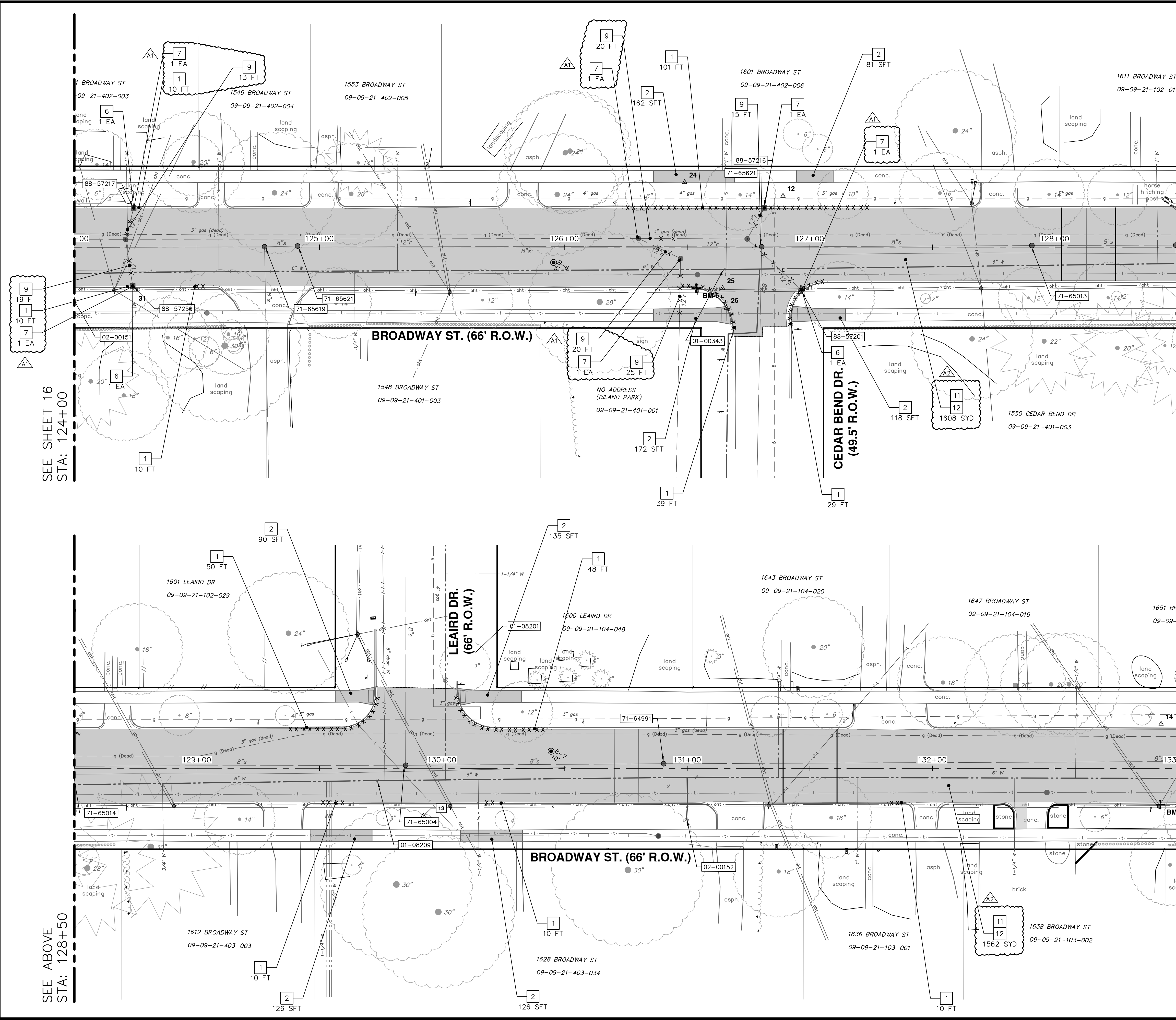
SHEET No. 16 OF 50

811
Know what's below.
Call Before you dig.

PK2	ML2	DATE	DESCRIPTION	REV.
05	ADDENDUM 2	1/20/2023		
04	ADDENDUM 1	1/12/2023		
03	ISSUED FOR BIDS	12/16/2022		
02	100% OWNER REVIEW	7/15/2022		
01	95% OWNER REVIEW	6/16/2022		

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DRAWING No. 2020030-16



SEE SHEET 16
STA: 124+00

SEE ABOVE
STA: 128+50

SEE BELOW
STA: 128+50

SEE SHEET 18
STA: 133+00

SYMBOL LEGEND

- SAWCUT
- XXXXXX CURB REMOVAL
- XXXXXX UTILITY REMOVAL
- HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH

EXISTING STORM SEWER STRUCTURE REMOVAL TABLE		
STRUCTURE	DEPTH (FEET)	REMOVE
88-57256	4.00	TO BE REMOVED
88-57217	4.00	TO BE REMOVED
88-57216	4.00	TO BE REMOVED
88-57201	4.00	TO BE REMOVED

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER - ANY TYPE, MODIFIED
2	REMOVE CONCRETE SIDEWALK, RAMP, & DRIVES - ANY THICKNESS, MODIFIED
3	NOT USED
4	NOT USED
5	PROTECTIVE FENCING
6	EROSION CONTROL, INLET FILTER
7	DRAINAGE STRUCTURE, ANY SIZE OR DEPTH, REMOVE
8	NOT USED
9	SEWER, ANY SIZE OR DEPTH, REMOVE
10	NOT USED
11	HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH
12	MACHINE GRADING, MODIFIED

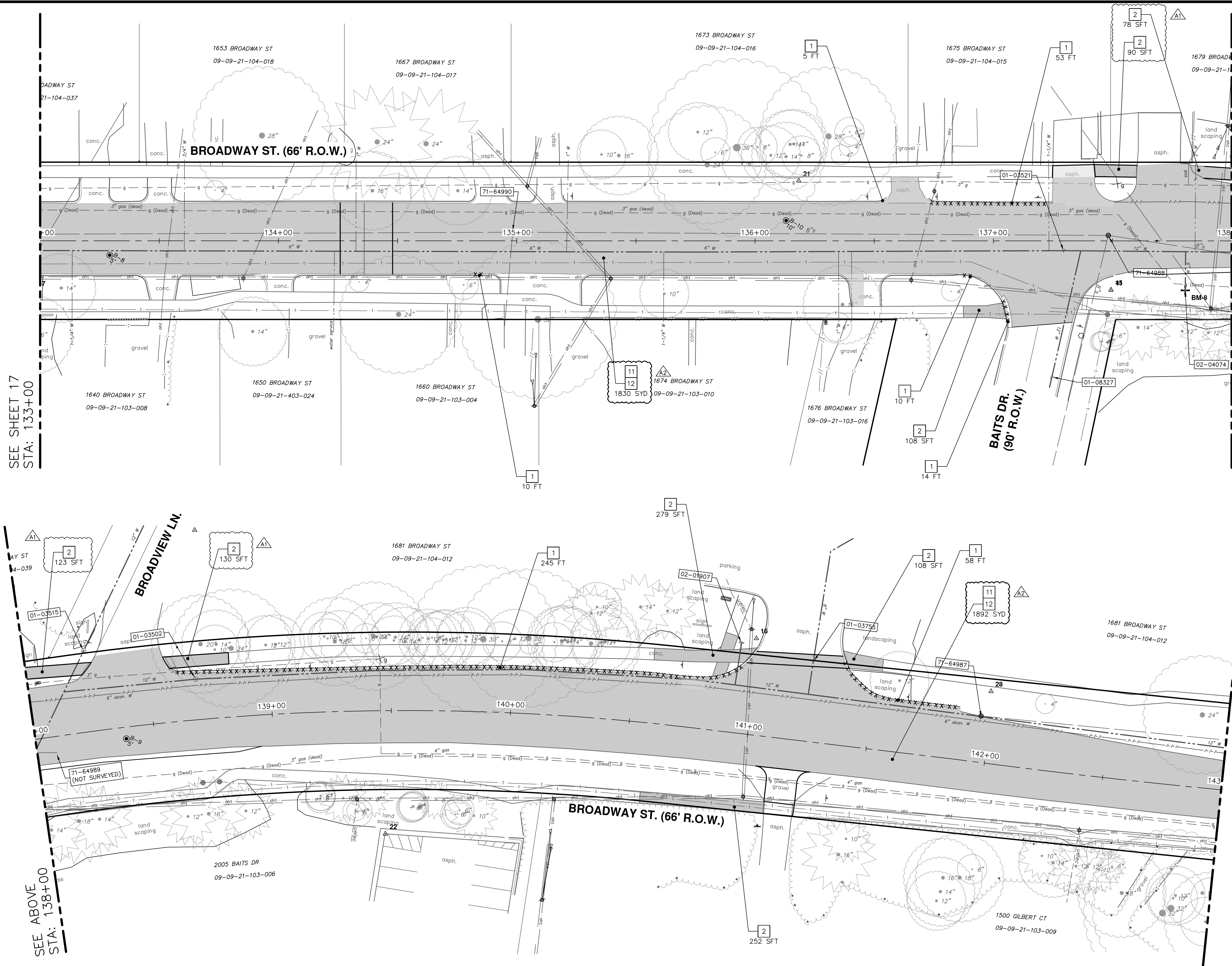
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
BROADWAY STREET WATER MAIN
PROPOSED REMOVALS
STA. 124+00 TO STA. 133+00

SHEET No. 17 OF 50

PK2	ML2	1/20/2023	ADDENDUM 2
PK2	ML2	1/12/2023	ADDENDUM 1
PK2	ML2	12/16/2022	ISSUED FOR BIDS
PK2	ML2	7/15/2022	100% OWNER REVIEW
PK2	ML2	6/16/2022	95% OWNER REVIEW
		DATE	DESCRIPTION
		REV.	

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SYMBOL LEGEND

- SAWCUT
- XXXXXX CURB REMOVAL
- XXXXXX UTILITY REMOVAL
- HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH

REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER - ANY TYPE, MODIFIED
2	REMOVE CONCRETE SIDEWALK, RAMP, & DRIVES - ANY THICKNESS, MODIFIED
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6	EROSION CONTROL, INLET FILTER
7	DRAINAGE STRUCTURE, ANY SIZE OR DEPTH, REMOVE
8	NOT USED
9	SEWER, ANY SIZE OR DEPTH, REMOVE
10	NOT USED
11	HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH
12	MACHINE GRADING, MODIFIED

SEE BELOW
STA: 138+00

SEE SHEET 19
STA: 143+00

SEE SHEET 17
STA: 133+00

SEE ABOVE
STA: 138+00

811
Know what's below.
Call before you dig.

PK2	ML2	DATE	DESCRIPTION
05	ADDENDUM 2	1/20/2023	
04	ADDENDUM 1	1/12/2023	
03	ISSUED FOR BIDS	12/16/2022	
02	100% OWNER REVIEW	7/15/2022	
01	95% OWNER REVIEW	6/16/2022	

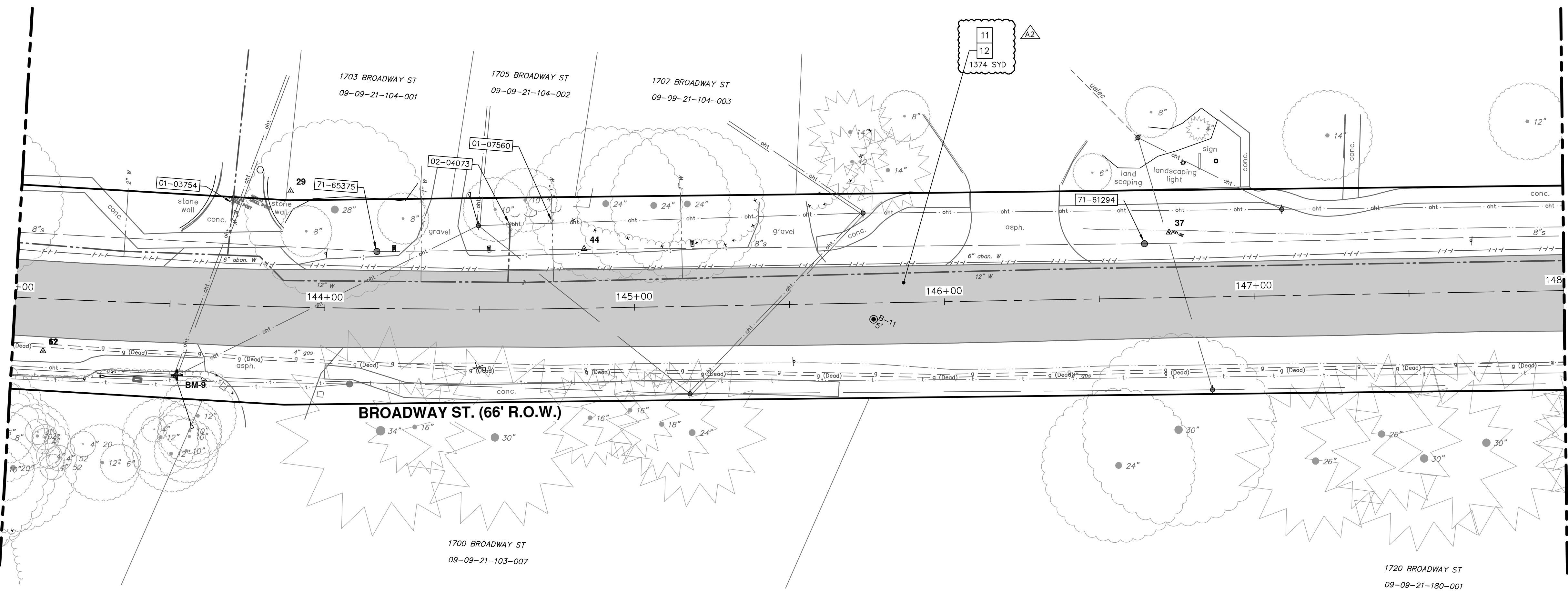
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
BROADWAY STREET WATER MAIN
 PROPOSED REMOVALS

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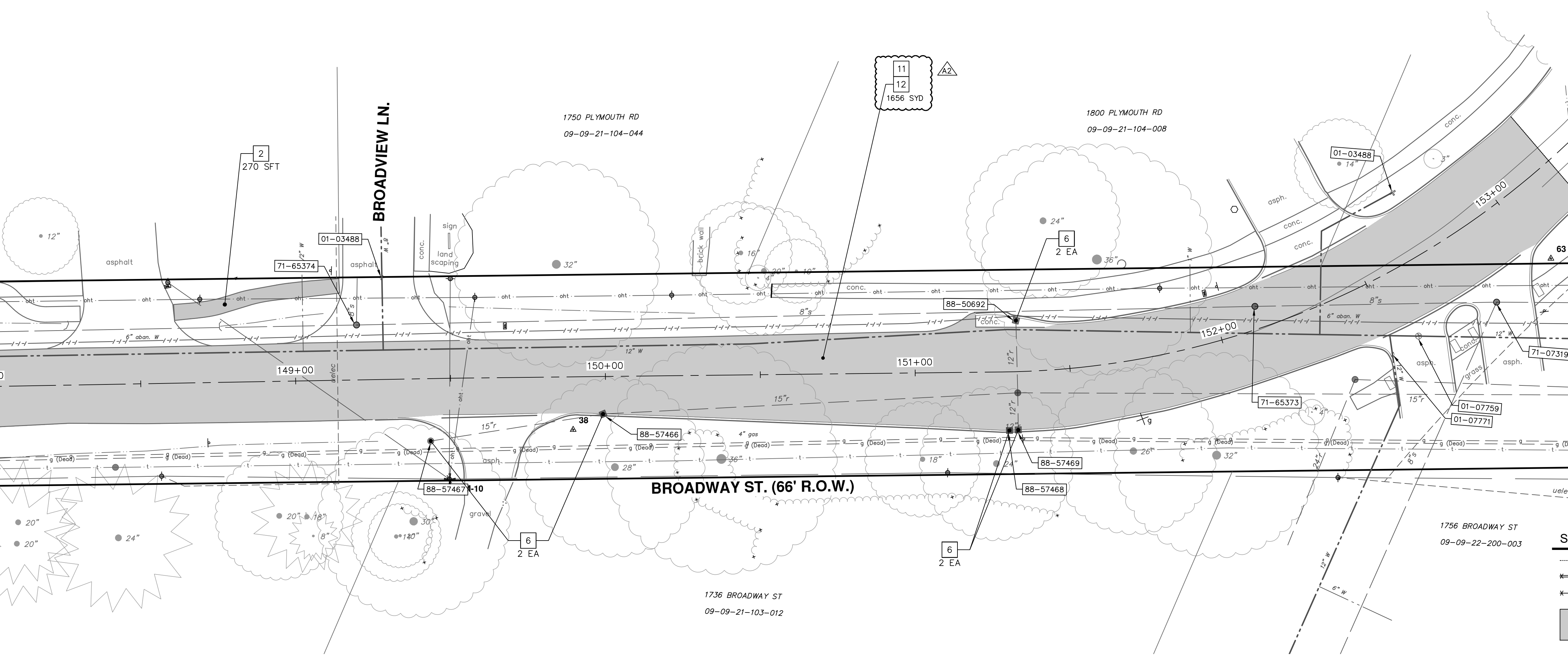
SCALE PLAN: 1" = 20'
DRAWING No. 2020030-18
SHEET No. 18 OF 50

SEE ABOVE
STA: 143+00

SEE ABOVE
STA: 148+00



SEE BELOW
STA: 148+00



REMOVAL KEY	
KEY	DESCRIPTION
1	REMOVE CONCRETE CURB OR CURB & GUTTER - ANY TYPE, MODIFIED
2	REMOVE CONCRETE SIDEWALK, RAMP, & DRIVES - ANY THICKNESS, MODIFIED
3	NOT USED
4	NOT USED
5	PROTECTIVE FENCING
6	EROSION CONTROL, INLET FILTER
7	DRAINAGE STRUCTURE, ANY SIZE OR DEPTH, REMOVE
8	NOT USED
9	SEWER, ANY SIZE OR DEPTH, REMOVE
10	NOT USED
11	HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH
12	MACHINE GRADING, MODIFIED

SYMBOL LEGEND	
	SAWCUT
	CURB REMOVAL
	UTILITY REMOVAL
	HMA PAVEMENT SURFACE REMOVAL, ANY DEPTH

Know what's below.
Call before you dig.

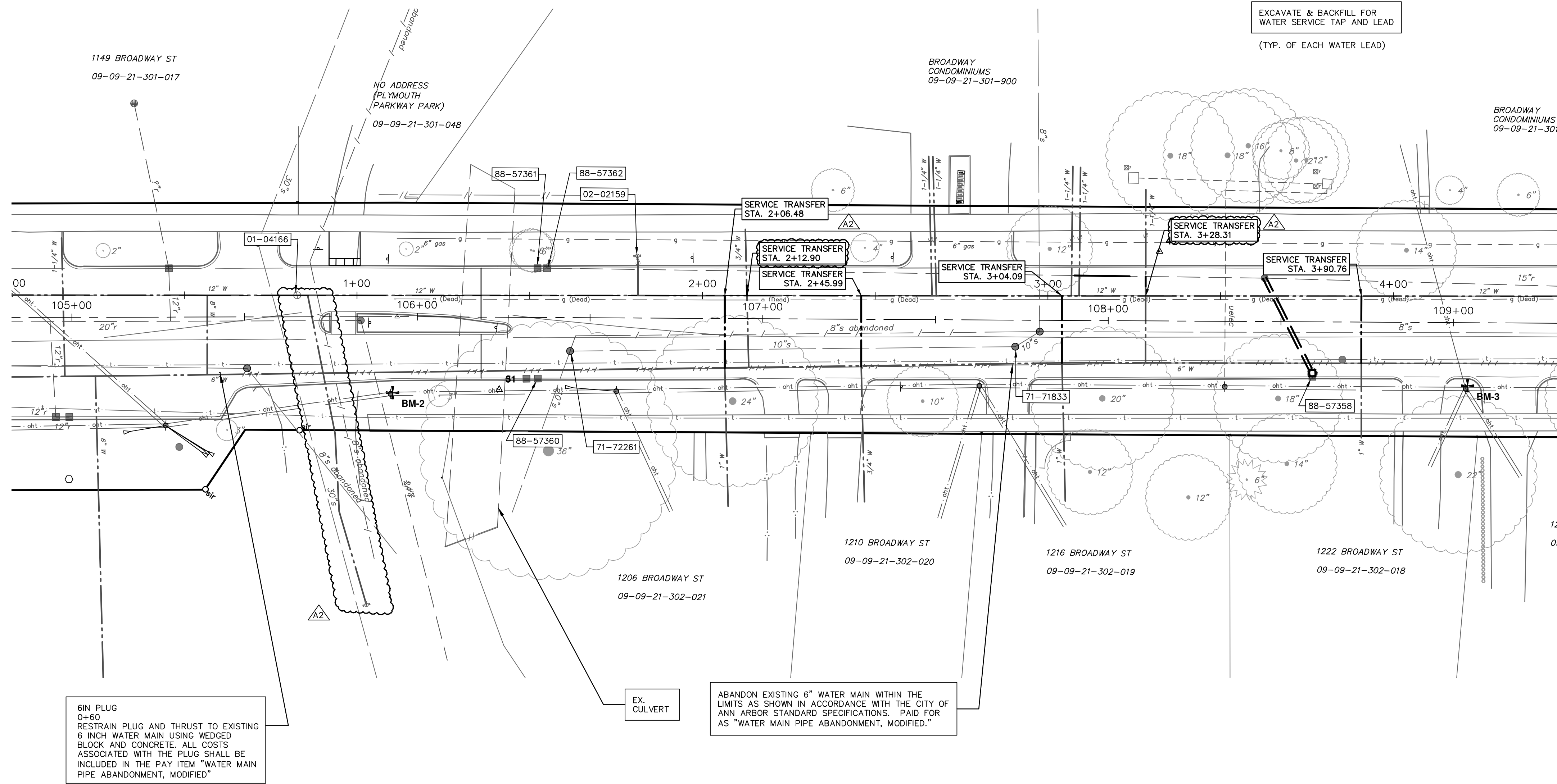
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03	ISSUED FOR BIDS	12/16/2022	PK2	DRAWN
02	100% OWNER REVIEW	7/15/2022	PK2	DATE
01	95% OWNER REVIEW	6/16/2022	PK2	REV.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
BROADWAY STREET WATER MAIN
 PROPOSED REMOVALS
 STA. 143+00 TO END

SHEET No. **19 OF 50**

DRAWING No. **2020030-19**

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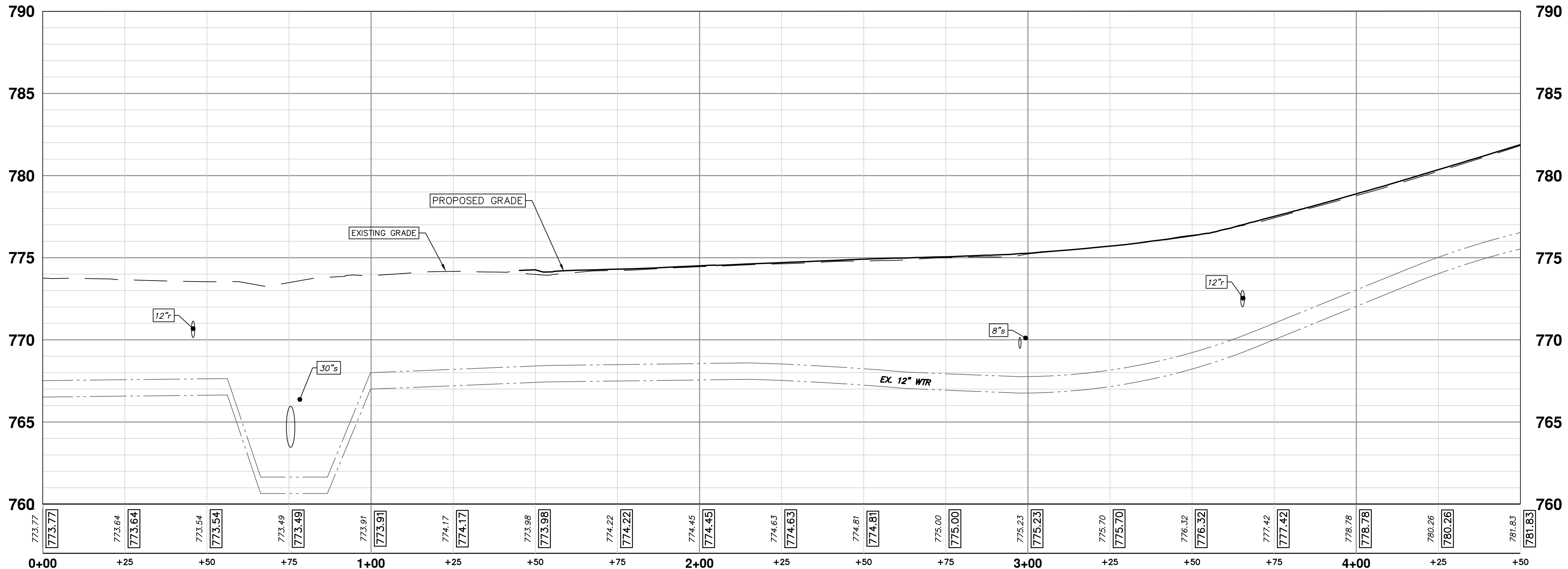



6IN PLUG
 0+60
 RESTRAIN PLUG AND THRUST TO EXISTING
 6 INCH WATER MAIN USING WEDGED
 BLOCK AND CONCRETE. ALL COSTS
 ASSOCIATED WITH THE PLUG SHALL BE
 INCLUDED IN THE PAY ITEM "WATER MAIN
 PIPE ABANDONMENT, MODIFIED"

ABANDON EXISTING 6" WATER MAIN WITHIN THE
 LIMITS AS SHOWN IN ACCORDANCE WITH THE CITY OF
 ANN ARBOR STANDARD SPECIFICATIONS. PAID FOR AS
 "WATER MAIN PIPE ABANDONMENT, MODIFIED."

WATER MAIN QUANTITIES
 EXCAVATE & BACKFILL FOR WATER SERVICE TAP AND LEAD 90 FT
 WATER MAIN PIPE ABANDONMENT, MODIFIED 1 LS

SEE SHEET 21
 STA. 4+50





Know what's below.
Call before you dig.

PK2	ML2	1/20/2023	CHECKED
PK2	ML2	12/16/2022	DRAWN
PK2	ML2	7/15/2022	DATE
PK2	ML2	6/16/2022	DATE

05 ADDENDUM 2

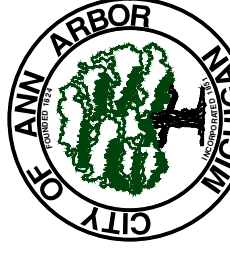
03 ISSUED FOR BIDS

02 100% OWNER REVIEW

01 95% OWNER REVIEW

DESCRIPTION

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CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

BROADWAY STREET WATER MAIN

PROPOSED WATER MAIN

STA. 0+00 TO STA. 4+50

PROFILE: 1" = 4'

SCALE: PLAN: 1" = 20'

DRAWING No. 2020030-20

SHEET No. 20 OF 50

2020030-20

**Pre-Proposal Meeting for the
Broadway Water Main Replacement and Resurfacing Project**

**Request for Proposal: RFP-23-04
January 10, 2023 @ 2:00 p.m. via Zoom Meeting**

- I. Introductions Project Overview
 - a. Water Main +/- 3,000 ft of 12-inch between Jones Dr and Baits Dr.
 - i. Replace 1880's 6-inch WM
 - ii. Hydrants with 8-inch leads to be placed on far east side of road
 - iii. Span over two pressure districts, Boundary valve to remain closed after construction.
 - b. Resurfacing
 - i. Remove HMA surface full depth including on gutter plan
 - ii. Place 2 lifts of HMA LVSP, 3,660 Ton
 - iii. Place 7 Ea, Traffic Tables, Concrete
 - c. Sidewalk
 - i. Remove and replace all sidewalk crossings, bump outs at intersection crossings
 - ii. New mid-block ped crossing at "The Highlands Apartments"
 - iii. Sidewalk gap filling, 460 ft, including Driveway approach
 - d. Storm
 - i. Remove and Replace many Catch Basins and Storm Leads.
 - ii. 2 ea Storm Sewer Repairs, Sheet 30
 - iii. 265 ft 12-inch RCP Storm Sewer replacement, Sheet 32
- II. Addendum Items
 - a. Addendum #1 – will include the following and will be issued this week:
 - i. Updated Plan Sheets to include Catch Basins and Storm Leads
 - ii. Updated Bid Form- to include new and additional qty of STM work
 - b. Addendum #2 – will include the following:
 - i. Pre-Proposal Meeting Minutes, including attendance table
 - ii. Updated Plan Sheets if necessary
 - iii. Updated Bid Form – Quantities if necessary

Question and Answers

1. Question Deadline is January 13, 2023 2:00 p.m. in writing to nbayley@a2gov.org and cspencer@a2gov.org

III. General

a. Standard Specifications and Detailed Specifications

i. Project Schedule

Starting Date – April 17, 2023. City Council Award date is anticipated to be March 20, 2023.

Underground Utility Work - June 5, 2023

Open to Traffic Date - July 17, 2023

Completion Date – July 24, 2023 (95 days after commencement of work)

Hours of work: 7:00 a.m. to 8:00 p.m. Monday thru Saturday (Sundays with permission)

ii. Ann Arbor Art Fair, July 20-22, 2023. No site work during this period.

iii. Engineer's Estimate - \$2.7 million (including Addendum #1 Storm work)

iv. General Conditions

1. Street sweeping & dust control

2. Maintenance gravel

3. Maintaining drainage

4. Sediment Control given 5% road grade, concern about large storm during WM construction and sediment building up at bottom of grade and causing water ponding issues.

v. Access to driveways - Contractor responsible for maintaining access to driveways during construction, and notifying residents when access will be unavailable (i.e. during water main installation, during paving, concrete work)

IV. Construction

a. Utility Construction

i. Water Main – Installation and Testing

1. Half width HMA removal for trench / storm replacements

2. Other Half width HMA removal prior to HMA placement

ii. Catch Basins structure replacements

1. Removal and Install on Prop Road and Storm Plan Sheets (31-40)

iii. Manhole covers shall be labeled with "CITY OF ANN ARBOR" and "WATER", "STORM", or "SANITARY" standard detail to be included in Addendum #1.

iv. Adjust Structure Cover, item 566 applies to existing frame and covers only, new frame and cover are paid for under item 563, depending on condition of the existing frame and cover.

b. Sidewalk and ADA Ramps – ADA compliance MUST be achieved at all locations

c. Restoration

i. Syd includes: 4 inch topsoil, seed, fertilizer and mulch blanket (all in)

V. Other Items

a. Certified Payroll Compliance – using Prevailing Wage Rate determination for Highway and Heavy -General Construction, current on the date 10 days before the proposals are due, shall apply to this contract. Certified payrolls for prime and subcontractors shall be submitted weekly to the City for review, see sample form for Cert Wage Rate in RFP Attachment I GC-30/31.

- b. Award recommendation will be based on point system evaluation, scored on 5 criteria (20 points for each category). See Section III- for category breakdown and submittal requirements, starting at page 12.

VI. Questions are due **January 13 2023** at 2:00 p.m.

VII. Bids are due **January 26, 2023 by 2:00** p.m. 2 ea hard copy submittals with 1 full .pdf copy via USB only

Questions and Answers:

Contact Information:

Nicholas Bayley

Project Manager

Phone: (734) 794-6410 ext. 43685

E-mail: nbayley@a2gov.org

Project Information

Project Name:
A2_PACP_7_Master

Project Number:

Date:
6/3/2021

Broadway Sanitary Sewer
Condition Assessment Report

Plymouth Rd to Plymouth Rd

Notes:





Defect Listing

Pipe Segment Reference 74-073649	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-073190	Total Length 177.7587	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65348	Length surveyed 151.7	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000					
OPR 0	Surveyed By JACOB	Direction Downstream	Date 08/14/2012		Media label	
OPRI 0	Certificate Number 000000	Pre-Cleaning Not Known	Time 14:43		Weather <small>Dry - No precipitation during survey</small>	
Date Cleaned			End Time		Additional Info	

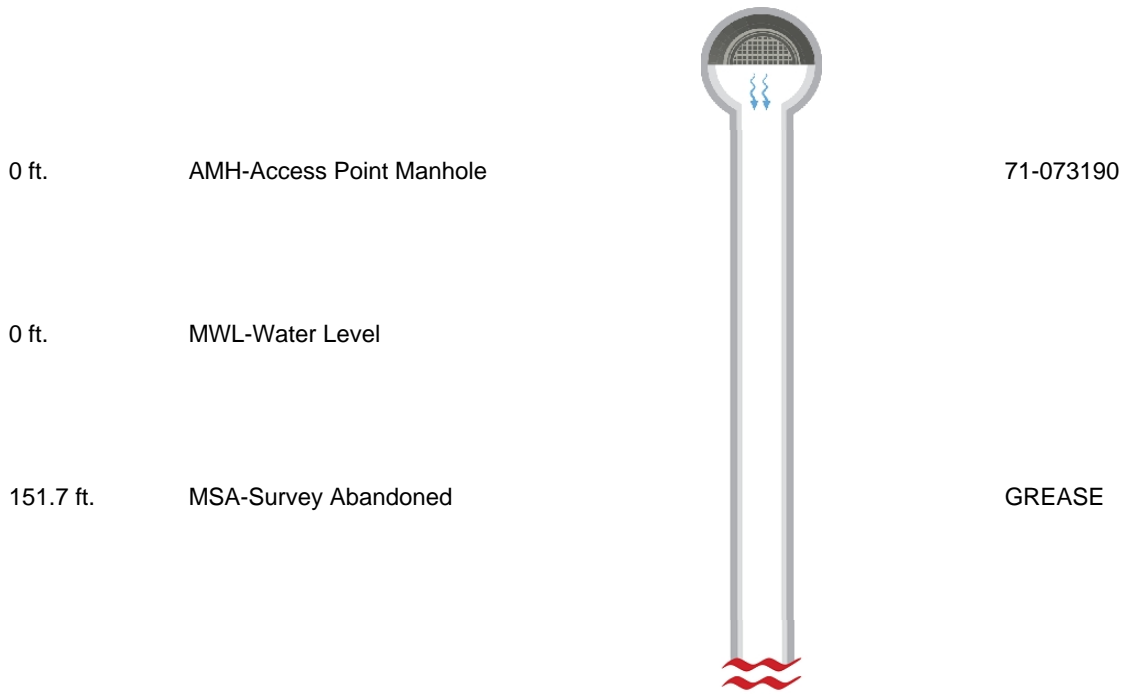
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-073190									
0	MWL-Water Level				10	<input type="checkbox"/>			
151.7	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: GREASE									



Defect Listing Plot

Pipe Segment Reference 74-073649	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-073190	Total Length 177.7587	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65348	Length surveyed 151.7	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Downstream		Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 14:43	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info	





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-073649	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-073190	Total Length 177.7587	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65348	Length surveyed 151.7	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-61232	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-61294	Total Length 254.8033	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-65374	Length surveyed 221.4	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Upstream	Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known	Time 14:12	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65374									
0	MWL-Water Level				10	<input type="checkbox"/>			
61.4	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	2		
109.7	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	2		
170.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	2		
221.4	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: LIME									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-61232	Ann Arbor	Broadway St	Vitrified Clay Pipe			Stormwater Pipe
Upstream MH 71-61294	Total Length 254.8033	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65374	Length surveyed 221.4	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-61232	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-61294	Total Length 254.8033	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65374	Length surveyed 29.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 4	PO Number		Customer CITY OF ANN ARBOR		
SPRI 0	MPRI 2	Work Order Number		Purpose Routine Assessment		
QSR 0000	QMR 2200	Direction Downstream	Date 07/06/2021	Media label 74-61232		
OPR 4	Surveyed By PIPETEK_MW	Pre-Cleaning No Pre-Cleaning	Time 14:21	Weather Dry		
OPRI 2	Certificate Number U-115-06023116	Date Cleaned 07/06/2021	End Time	Additional Info		

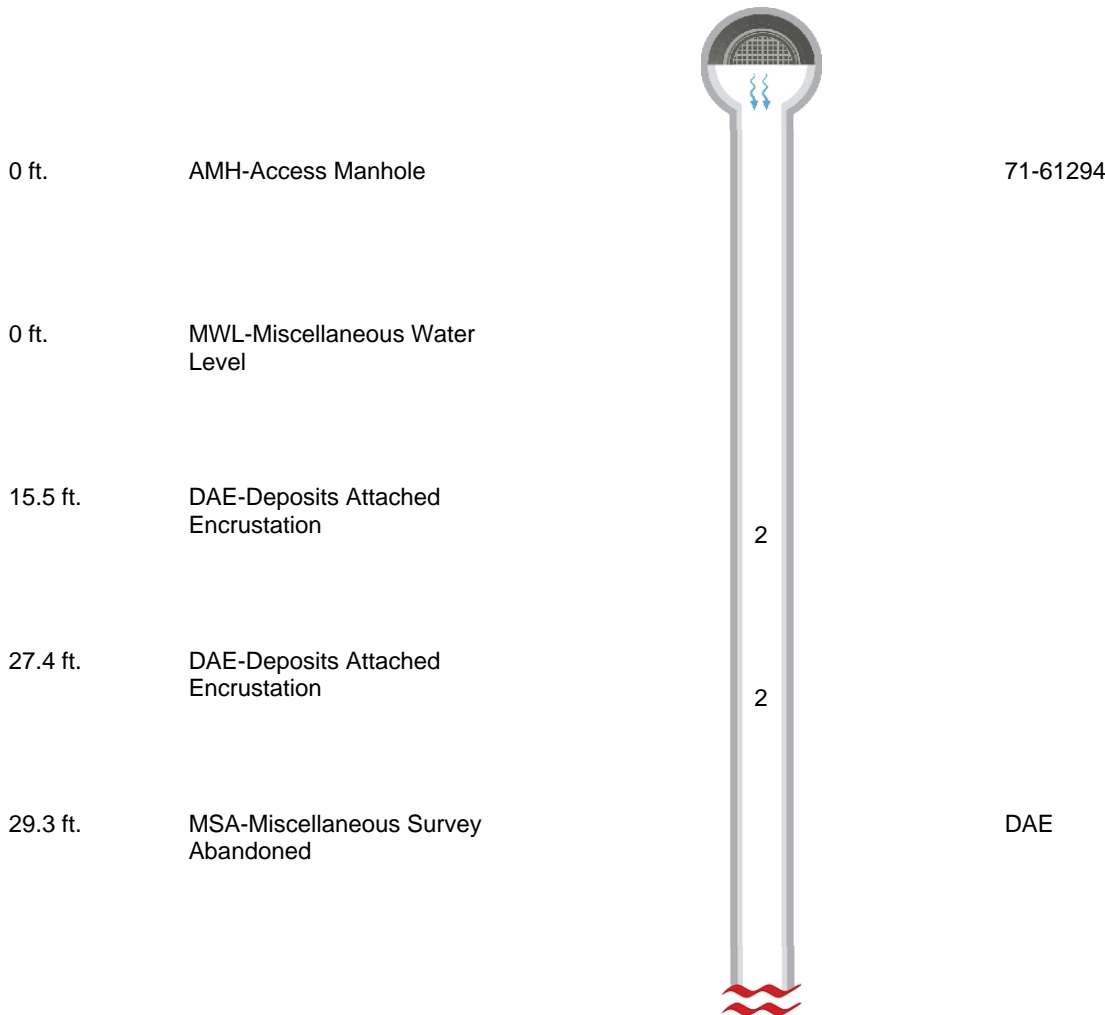
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-61294									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
15.5	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7	5	2
27.4	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7	5	2
29.3	MSA-Miscellaneous Survey Abandoned					<input type="checkbox"/>			
Remarks: DAE									



Defect Listing Plot

Pipe Segment Reference 74-61232	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-61294	Total Length 254.8033	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-65374	Length surveyed 29.3	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 0	MPR 4	PO Number		Customer CITY OF ANN ARBOR	
SPRI 0	MPRI 2	Work Order Number		Purpose Routine Assessment	
QSR 0000	QMR 2200	Direction Downstream	Date 07/06/2021	Media label 74-61232	
OPR 4	Surveyed By PIPETEK_MW	Pre-Cleaning No Pre-Cleaning	Time 14:21	Weather Dry	
OPRI 2	Certificate Number U-115-06023116	Date Cleaned 07/06/2021	End Time	Additional Info	





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-61232	Ann Arbor	Broadway St	Vitrified Clay Pipe			Stormwater Pipe
Upstream MH 71-61294	Total Length 254.8033	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65374	Length surveyed 29.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-61232	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-61294	Total Length 254.8033	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-65374	Length surveyed 222.3	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 0	MPR 14	PO Number		Customer CITY OF ANN ARBOR	
SPRI 0	MPRI 2	Work Order Number		Purpose Routine Assessment	
QSR 0000	QMR 2700	Direction Upstream	Date 07/06/2021	Media label 74-61232	
OPR 14	Surveyed By PIPETEK_MW	Pre-Cleaning No Pre-Cleaning	Time 14:46	Weather Dry	
OPRI 2	Certificate Number U-115-06023116	Date Cleaned 07/06/2021	End Time	Additional Info Reverse set up on sheet:10	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-65374									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
15.6	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7	5	2
39.8	DAE-Deposits Attached Encrustation				10	<input type="checkbox"/>	7	5	2
63.8	TF-Tap Factory Made		6			<input type="checkbox"/>	2		
63.8	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	2	3	2
100.3	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7	10	2
111.8	TFC-Tap Factory Capped		6			<input type="checkbox"/>	2		
124.1	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7	9	2
164.6	DAE-Deposits Attached Encrustation				10	<input type="checkbox"/>	12	5	2
172.2	TF-Tap Factory Made		6			<input type="checkbox"/>	1		
220.8	DAE-Deposits Attached Encrustation				10	<input type="checkbox"/>	7	5	2
222.3	MSA-Miscellaneous Survey Abandoned					<input type="checkbox"/>			
Remarks: DAE									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-61232	Ann Arbor	Broadway St	Vitrified Clay Pipe			Stormwater Pipe
Upstream MH 71-61294	Total Length 254.8033	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65374	Length surveyed 222.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-61327	City ANN ARBOR	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65375	Total Length 250	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-61294	Length surveyed 244.65	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 0	MPR 11	PO Number		Customer CITY OF ANN ARBOR	
SPRI 0	MPRI 1.4	Work Order Number		Purpose Routine Assessment	
QSR 0000	QMR 2315	Direction Upstream	Date 07/06/2021	Media label 74-61327	
OPR 11	Surveyed By PIPETEK_MW	Pre-Cleaning No Pre-Cleaning	Time 13:59	Weather Dry	
OPRI 1.4	Certificate Number U-115-06023116	Date Cleaned 07/06/2021	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-61294									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
11	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7	5	2
23.9	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7		2
27	TF-Tap Factory Made		6			<input type="checkbox"/>	1		
33.8	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	7	5	2
75.1	TFC-Tap Factory Capped		6			<input type="checkbox"/>	1		
111.3	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	9		1
119.4	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	7	5	1
139.5	TF-Tap Factory Made		6			<input type="checkbox"/>	2		
146.8	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	9		1
155.1	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	7	5	1
167.5	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	7	5	1
187.5	TF-Tap Factory Made		6			<input type="checkbox"/>	1		
226.5	TF-Tap Factory Made		6			<input type="checkbox"/>	1		
244.7	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-65375									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-61327	ANN ARBOR	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65375	Total Length 250	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-61294	Length surveyed 244.65	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 20.9	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Upstream		Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 10:46	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

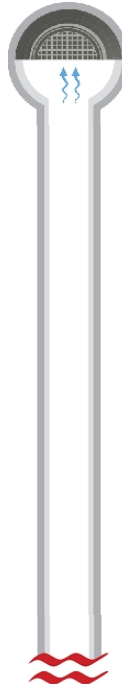
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64988									
0	MWL-Water Level				10	<input type="checkbox"/>			
20.9	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: ELBOW									



Defect Listing Plot

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 20.9	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Upstream	Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known	Time 10:46	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned	End Time	Additional Info	



0 ft. AMH-Access Point Manhole

71-64988

0 ft. MWL-Water Level

20.9 ft. MSA-Survey Abandoned

ELBOW



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65193	Ann Arbor	Baits Dr	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 20.9	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 219.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Downstream		Date 08/15/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 07:07	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

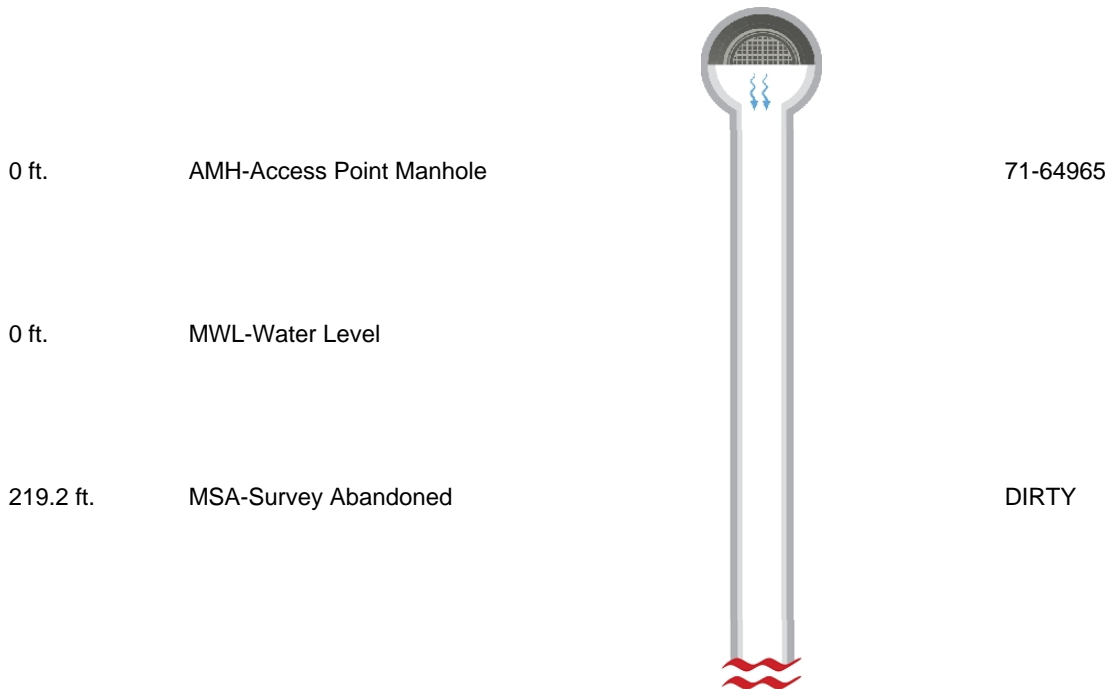
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64965									
0	MWL-Water Level				10	<input type="checkbox"/>			
219.2	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: DIRTY									



Defect Listing Plot

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 219.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream	Date 08/15/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known	Time 07:07	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned	End Time	Additional Info	





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65193	Ann Arbor	Baits Dr	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 219.2	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 258.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number 562942		Purpose		
QSR 0000	QMR 0000	Direction Downstream	Date 04/19/2018	Media label		
OPR 0	Surveyed By TConley	Pre-Cleaning No Pre-Cleaning	Time 12:41	Weather Saturated		
OPRI 0	Certificate Number U-809-9177	Date Cleaned	End Time	Additional Info		

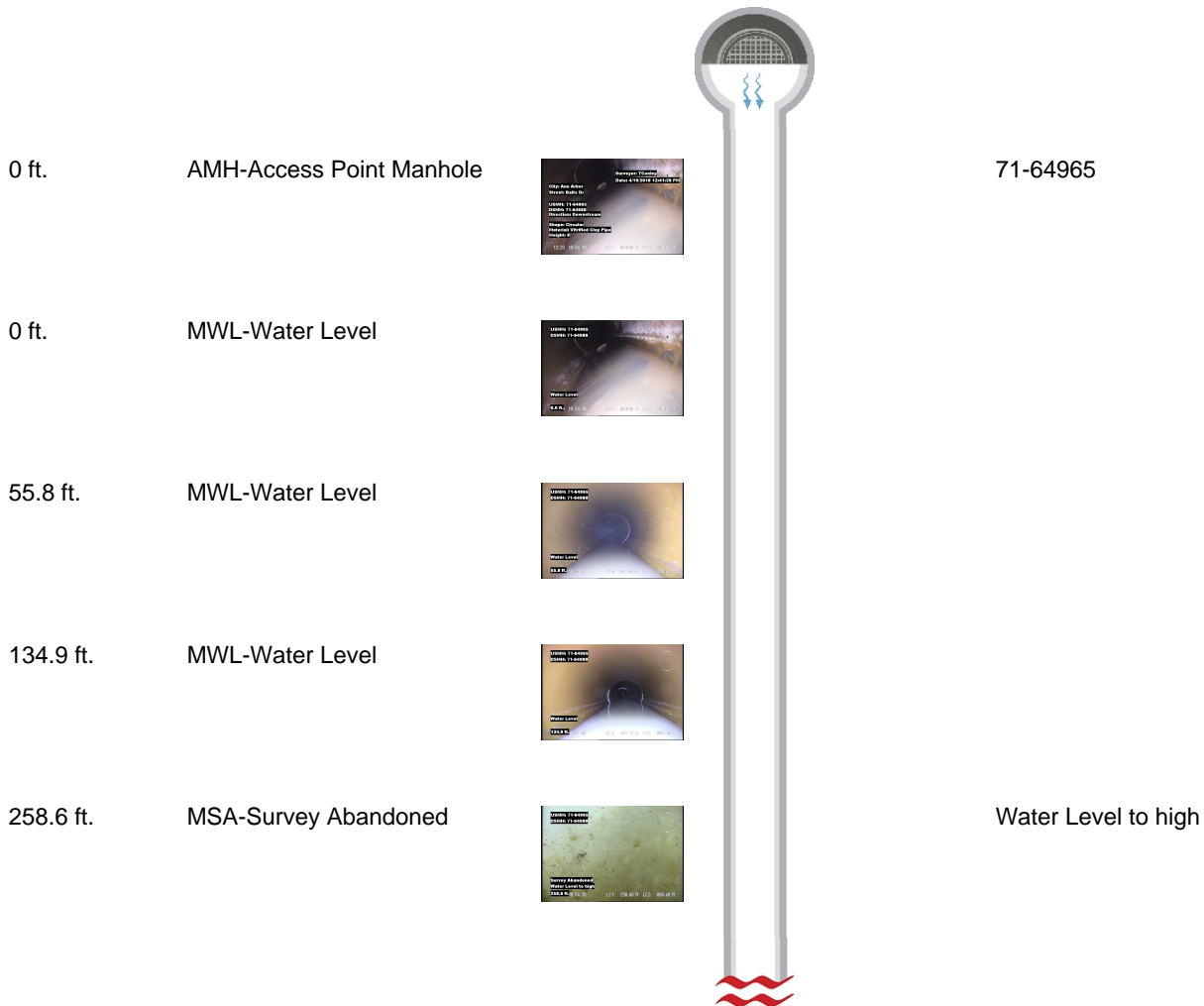
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64965									
0	MWL-Water Level				0	<input type="checkbox"/>			
55.8	MWL-Water Level				5	<input type="checkbox"/>			
134.9	MWL-Water Level				10	<input type="checkbox"/>			
258.6	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: Water Level to high									



Defect Listing Plot

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-64988	Length surveyed 258.6	Year Renewed	Height 8	Width	Pipe Joint Length

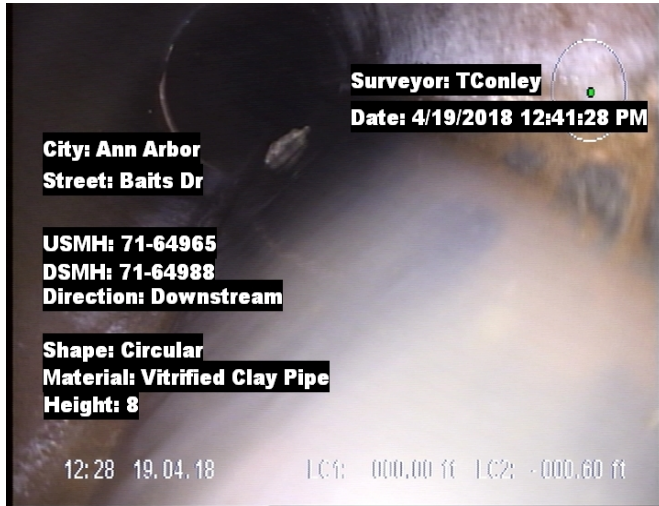
SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number 562942		Purpose	
QSR 0000	QMR 0000	Direction Downstream	Date 04/19/2018	Media label	
OPR 0	Surveyed By TConley	Pre-Cleaning No Pre-Cleaning	Time 12:41	Weather Saturated	
OPRI 0	Certificate Number U-809-9177	Date Cleaned	End Time	Additional Info	



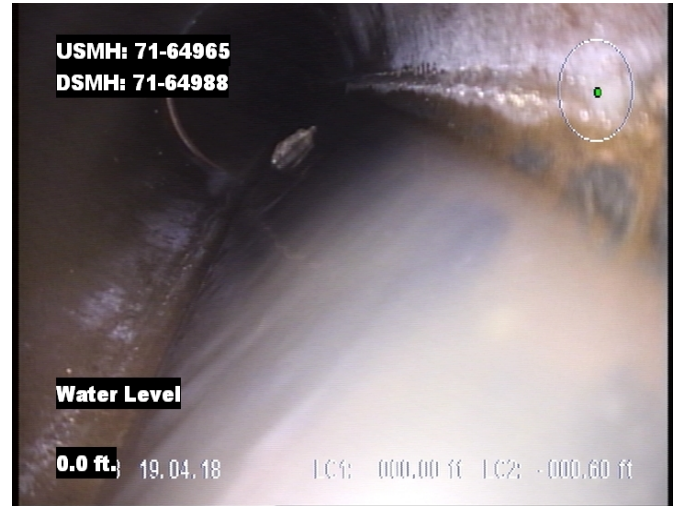


4 Image Report

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 258.6	Year Renewed	Height 8	Width	Pipe Joint Length	



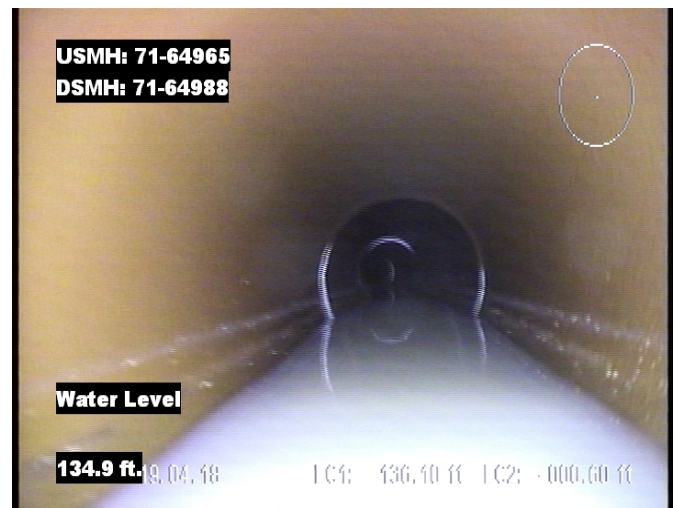
Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-64965



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 55.8 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A

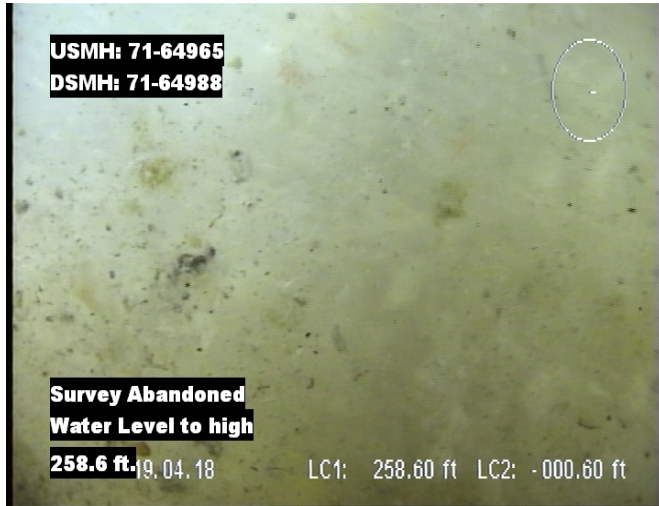


Distance: 134.9 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



4 Image Report

Pipe Segment Reference 74-65193	City Ann Arbor	Street Baits Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64965	Total Length 303.2	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64988	Length surveyed 258.6	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 258.6 ft. Grade: 0
 Condition: MSA-Survey Abandoned
 Remarks: Water Level to high



Defect Listing

Pipe Segment Reference 74-65214	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular		Location Details	
Downstream MH 71-64990	Length surveyed 2.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream		Date 08/14/2012	Media label
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 10:49	Weather <small>Dry - No precipitation during survey</small>
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info

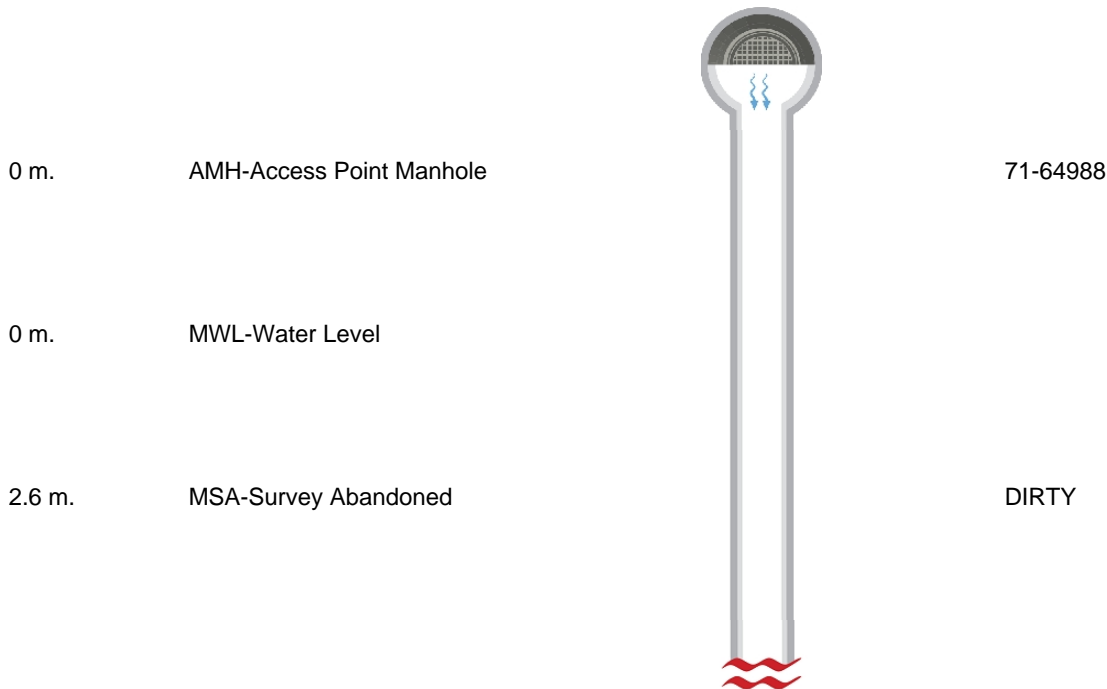
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64988									
0	MWL-Water Level				10	<input type="checkbox"/>			
2.6	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: DIRTY									



Defect Listing Plot

Pipe Segment Reference 74-65214	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular		Location Details	
Downstream MH 71-64990	Length surveyed 2.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream		Date 08/14/2012	Media label
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 10:49	Weather <small>Dry - No precipitation during survey</small>
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65214	Ann Arbor	Broadway St	Vitrified Clay Pipe			Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular		Location Details	
Downstream MH 71-64990	Length surveyed 2.6	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65214	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular	Location Details	
Downstream MH 71-64990	Length surveyed 158.3	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Upstream	Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known	Time 11:20	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64990									
0	MWL-Water Level				10	<input type="checkbox"/>			
23.6	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
63.7	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
112.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
130.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
138.1	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
158.3	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: DIRTY									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65214	Ann Arbor	Broadway St	Vitrified Clay Pipe			Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular		Location Details	
Downstream MH 71-64990	Length surveyed 158.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65214	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular		Location Details	
Downstream MH 71-64990	Length surveyed 30	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 2	PO Number		Customer		
SPRI 0	MPRI 2	Work Order Number 562942		Purpose		
QSR 0000	QMR 2100					
OPR 2	Surveyed By TConley	Direction Upstream	Date 04/19/2018		Media label	
OPRI 2	Certificate Number U-809-9177	Pre-Cleaning No Pre-Cleaning	Time 13:14		Weather Saturated	
Date Cleaned			End Time		Additional Info	

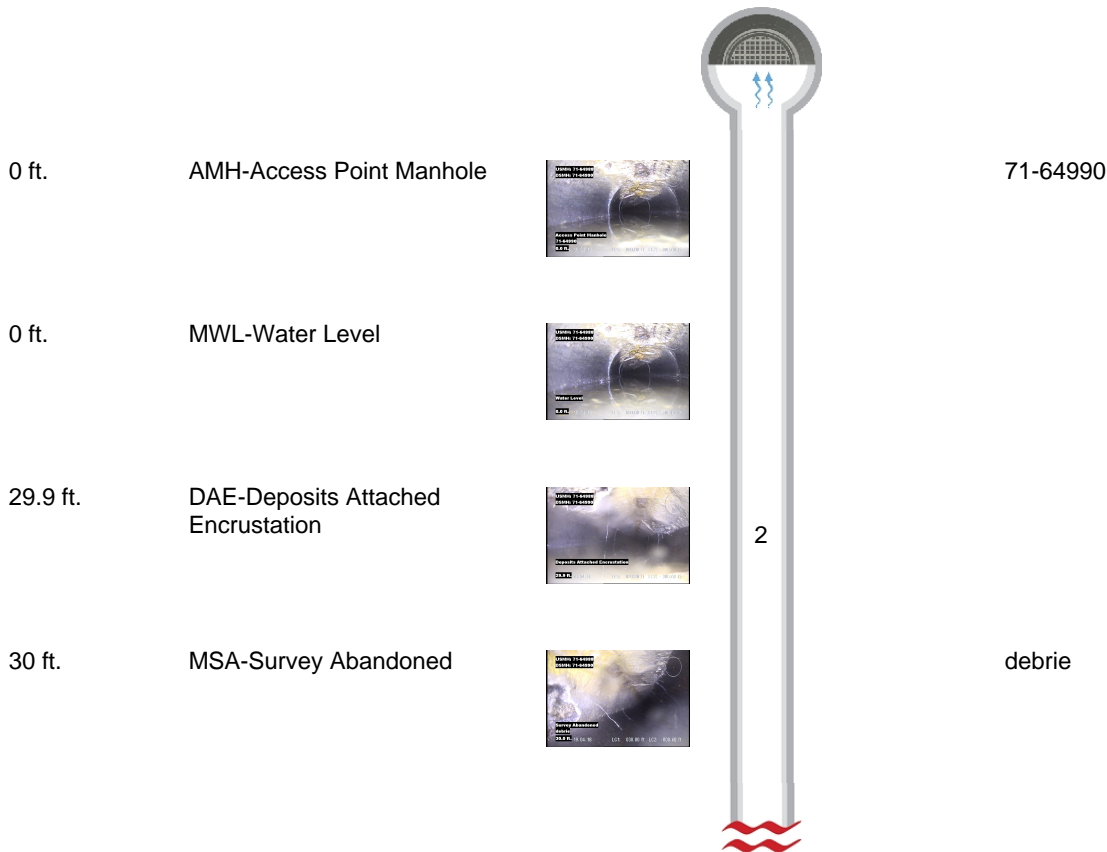
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64990									
0	MWL-Water Level				0	<input type="checkbox"/>			
29.9	DAE-Deposits Attached Encrustation				5	<input type="checkbox"/>	10	2	2
30	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: debris									



Defect Listing Plot

Pipe Segment Reference 74-65214	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular		Location Details	
Downstream MH 71-64990	Length surveyed 30	Year Renewed	Height 8	Width	Pipe Joint Length	

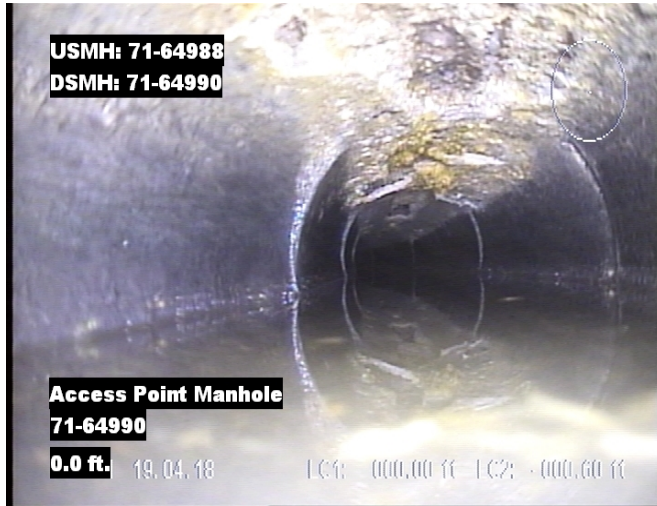
SPR 0	MPR 2	PO Number		Customer		
SPRI 0	MPRI 2	Work Order Number 562942		Purpose		
QSR 0000	QMR 2100	Direction Upstream		Date 04/19/2018	Media label	
OPR 2	Surveyed By TConley	Pre-Cleaning No Pre-Cleaning		Time 13:14	Weather Saturated	
OPRI 2	Certificate Number U-809-9177	Date Cleaned		End Time	Additional Info	



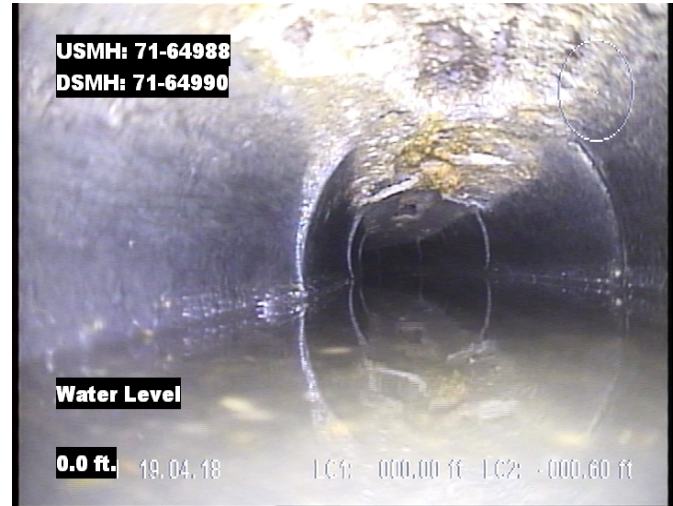


4 Image Report

Pipe Segment Reference 74-65214	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-64988	Total Length 0	Year Constructed 0	Shape Circular	Location Details	
Downstream MH 71-64990	Length surveyed 30	Year Renewed	Height 8	Width	Pipe Joint Length



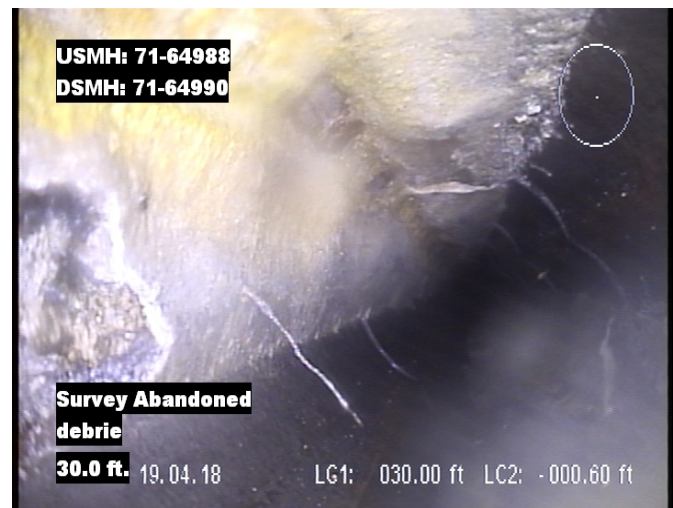
Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-64990



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 29.9 ft. Grade: 2
 Condition: DAE-Deposits Attached Encrustation
 Remarks: N/A



Distance: 30.0 ft. Grade: 0
 Condition: MSA-Survey Abandoned
 Remarks: debris



Defect Listing

Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64991	Length surveyed 249.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 11	MPR 0	PO Number		Customer		
SPRI 3.7	MPRI 0	Work Order Number		Purpose Not Known		
QSR 5132	QMR 0000	Direction Downstream		Date 08/14/2012	Media label	
OPR 11	Surveyed By JACOB	Pre-Cleaning Not Known		Time 10:52	Weather <small>Dry - No precipitation during survey</small>	
OPRI 3.7	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64990									
0	MWL-Water Level				0	<input type="checkbox"/>			
1.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	12		
2.1	BSV-Broken Pipe Soil Visible					<input type="checkbox"/>	12		5
4.1	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
5.8	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
27.2	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
56.1	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
96	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
Remarks: BROKE ELBOW VOID									
108	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	2		
134.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
187.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
189.7	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
194.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
232.6	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
249.3	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: CAMERA TIPPED OVER									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65216	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64991	Length surveyed 249.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64991	Length surveyed 146.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Upstream		Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 11:30	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64991									
0	MWL-Water Level				10	<input type="checkbox"/>			
44	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
46.2	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
76.4	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
93.6	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	10		
119.5	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	10		
Remarks: BROKE AT MAIN									
146.3	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: LIME GRAVEL									



4 Image Report

Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64991	Length surveyed 146.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-64991	Length surveyed 402.6	Year Renewed	Height 8	Width	Pipe Joint Length

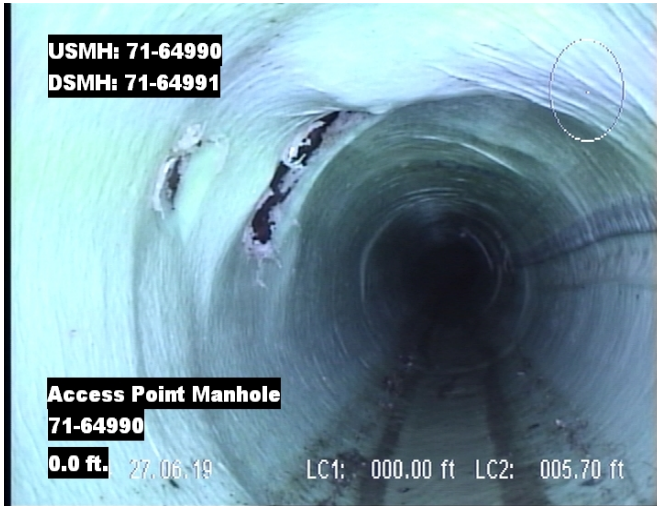
SPR 0	MPR 9	PO Number		Customer	
SPRI 0	MPRI 3	Work Order Number		Purpose	
QSR 0000	QMR 3300				
OPR 9	Surveyed By JBELL	Direction Downstream	Date 06/27/2019	Media label	
OPRI 3	Certificate Number U-1117-07009559	Pre-Cleaning No Pre-Cleaning	Time 07:01	Weather Saturated	
Date Cleaned			End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64990									
0	MWL-Water Level				5	<input type="checkbox"/>			
2.5	TB-Tap Break-In		6			<input type="checkbox"/>	10		
5.1	TB-Tap Break-In		4			<input type="checkbox"/>	2		
6.7	TF-Tap Factory Made		4			<input type="checkbox"/>	2		
97	TF-Tap Factory Made		4			<input type="checkbox"/>	10		
108.3	TFD-Tap Factory Made Defective		4			<input type="checkbox"/>	3		3
Remarks: Tap possibly not cut out when liner installed.									
135.3	TB-Tap Break-In		4			<input type="checkbox"/>	2		
190.8	TB-Tap Break-In		4			<input type="checkbox"/>	10		
195.3	TF-Tap Factory Made		4			<input type="checkbox"/>	2		
233.7	TB-Tap Break-In		4			<input type="checkbox"/>	10		
280.5	TB-Tap Break-In		4			<input type="checkbox"/>	2		
306.7	TFD-Tap Factory Made Defective		4			<input type="checkbox"/>	3		3
Remarks: Appears to be a tap where liner was not cut out									
323.8	TF-Tap Factory Made		4			<input type="checkbox"/>	10		
353.4	TFD-Tap Factory Made Defective		4			<input type="checkbox"/>	10		3
Remarks: Appears to be a tap where liner was not cut out									
402.6	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64991									

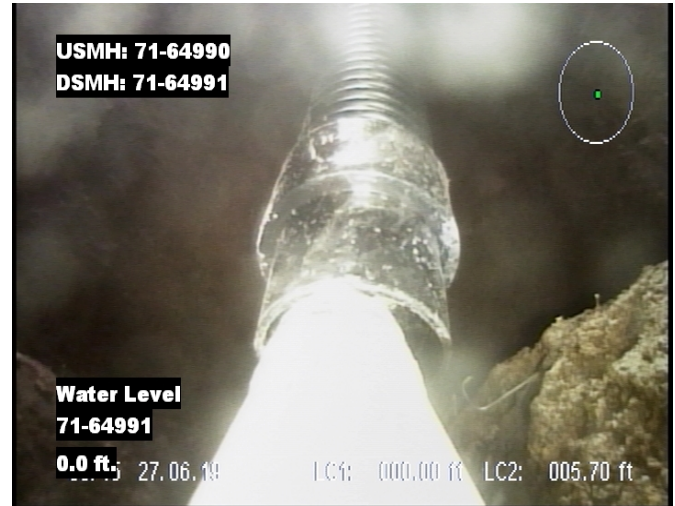


4 Image Report

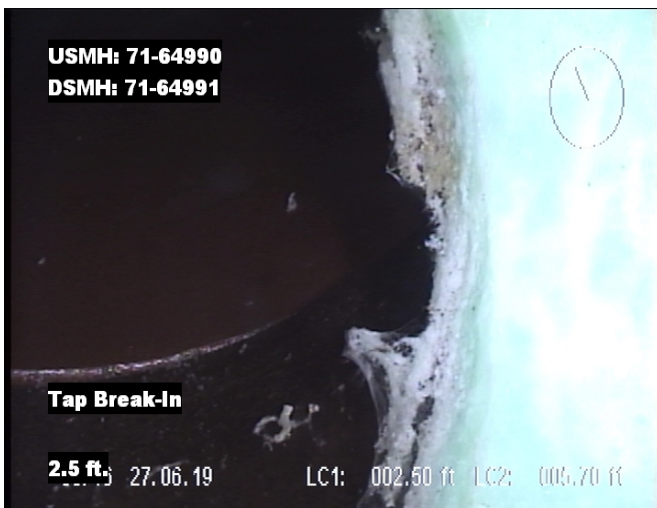
Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64991	Length surveyed 402.6	Year Renewed	Height 8	Width	Pipe Joint Length	



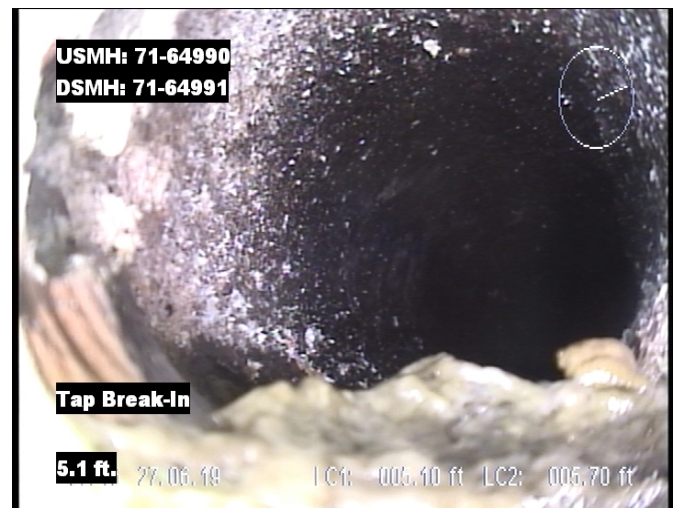
Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-64990



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 2.5 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 5.1 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A

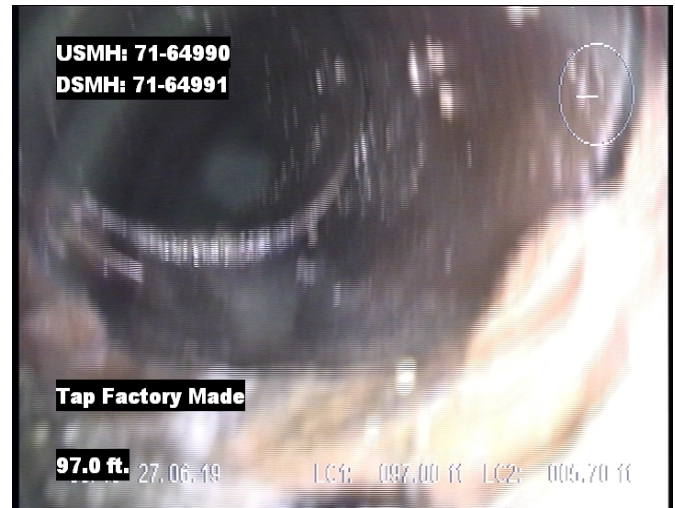


4 Image Report

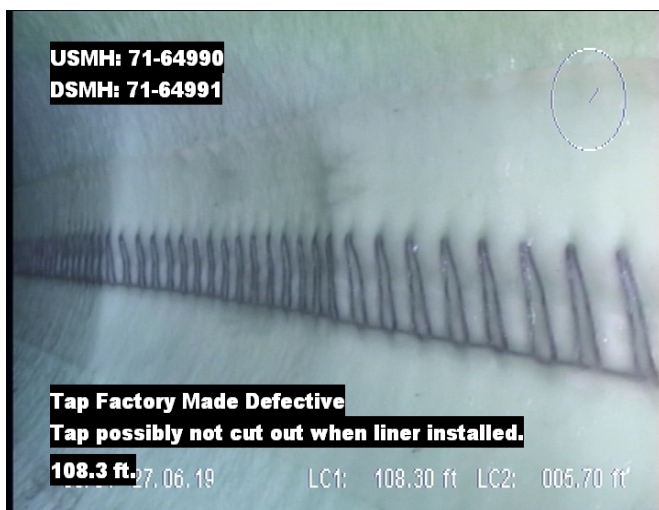
Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-64991	Length surveyed 402.6	Year Renewed	Height 8	Width	Pipe Joint Length



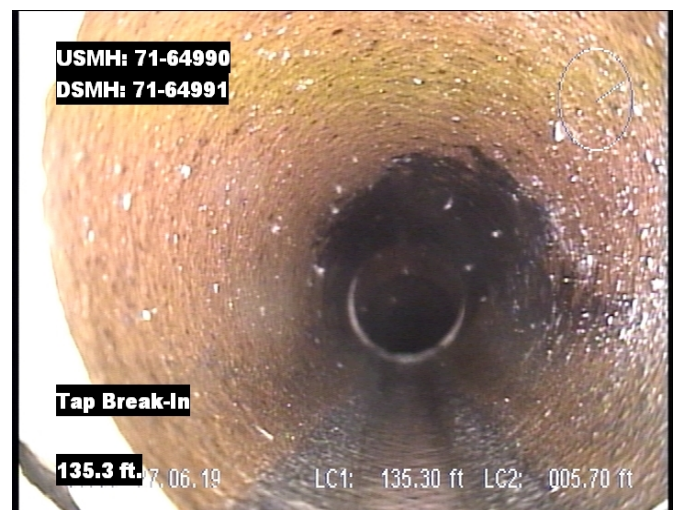
Distance: 6.7 ft. **Grade:** 0
Condition: TF-Tap Factory Made
Remarks: N/A



Distance: 97.0 ft. **Grade:** 0
Condition: TF-Tap Factory Made
Remarks: N/A



Distance: 108.3 ft. **Grade:** 3
Condition: TFD-Tap Factory Made Defective
Remarks: Tap possibly not cut out when liner installed.

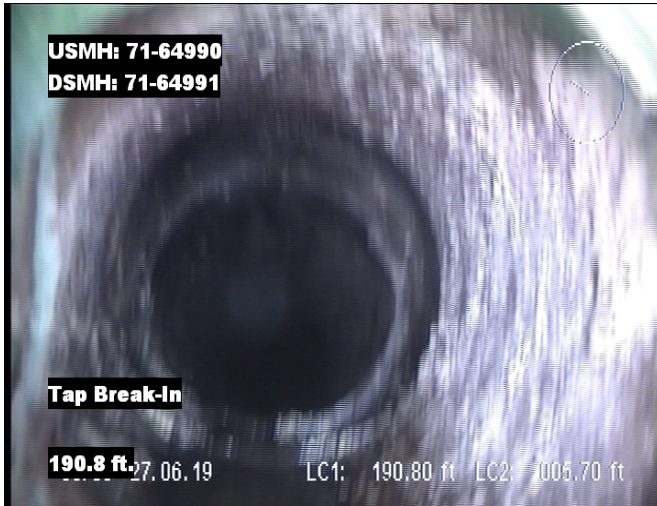


Distance: 135.3 ft. **Grade:** 0
Condition: TB-Tap Break-In
Remarks: N/A



4 Image Report

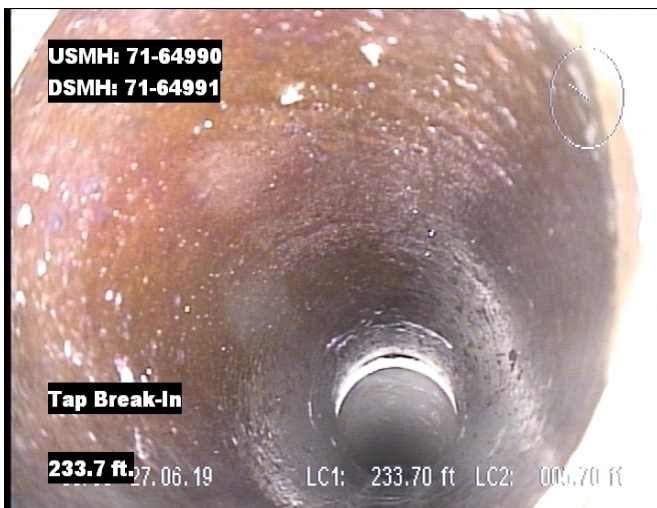
Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64991	Length surveyed 402.6	Year Renewed	Height 8	Width	Pipe Joint Length	



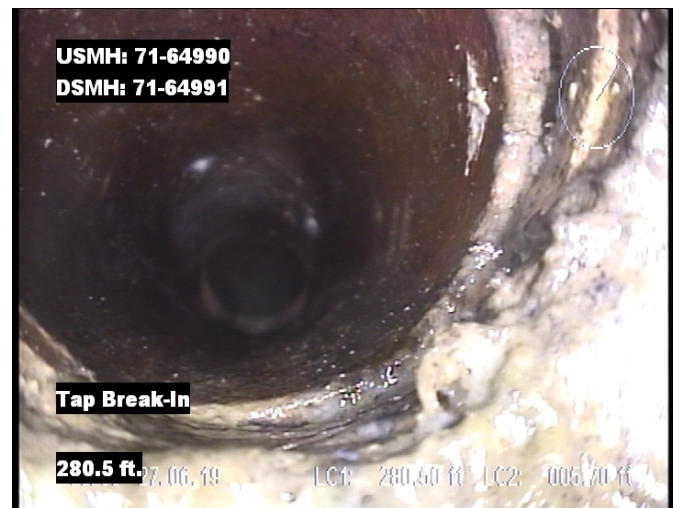
Distance: 190.8 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 195.3 ft. Grade: 0
 Condition: TF-Tap Factory Made
 Remarks: N/A



Distance: 233.7 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A

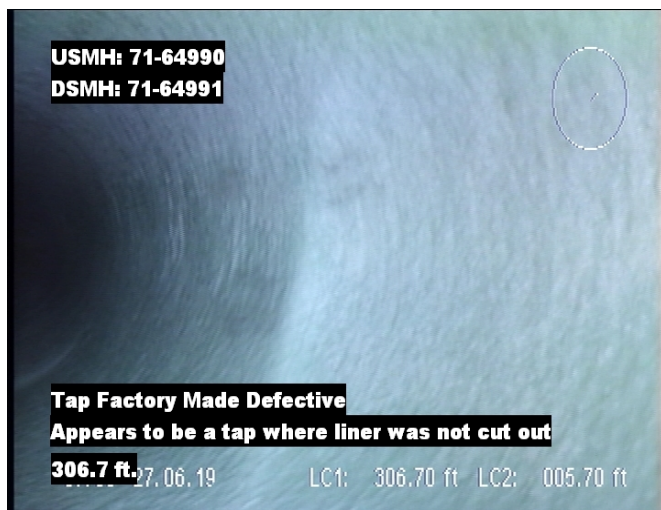


Distance: 280.5 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A

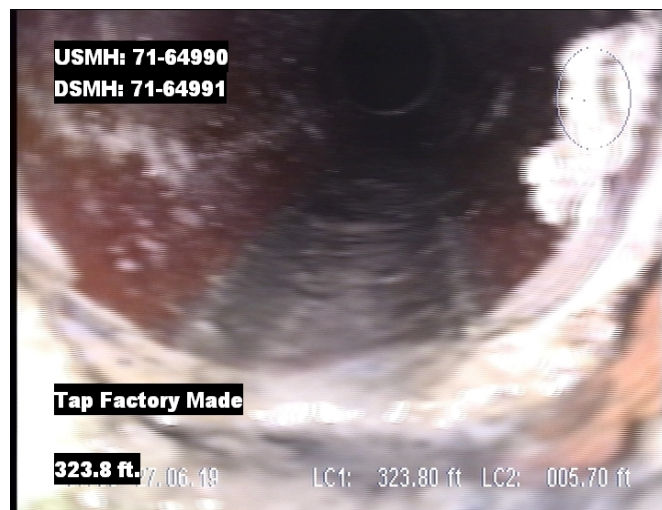


4 Image Report

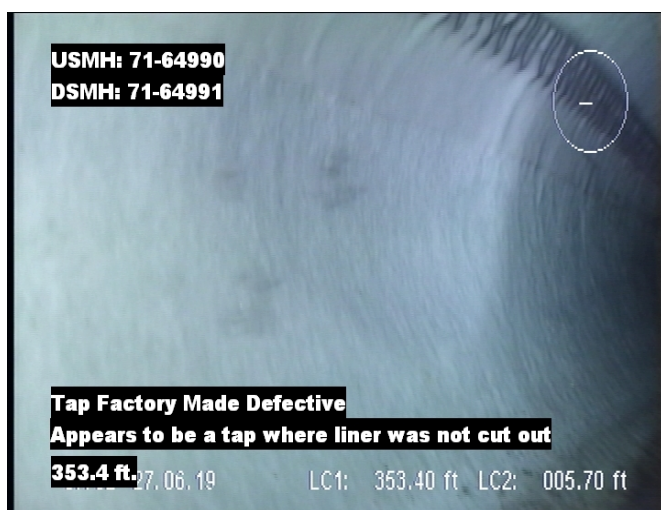
Pipe Segment Reference 74-65216	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64990	Total Length 407.7523	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-64991	Length surveyed 402.6	Year Renewed	Height 8	Width	Pipe Joint Length	



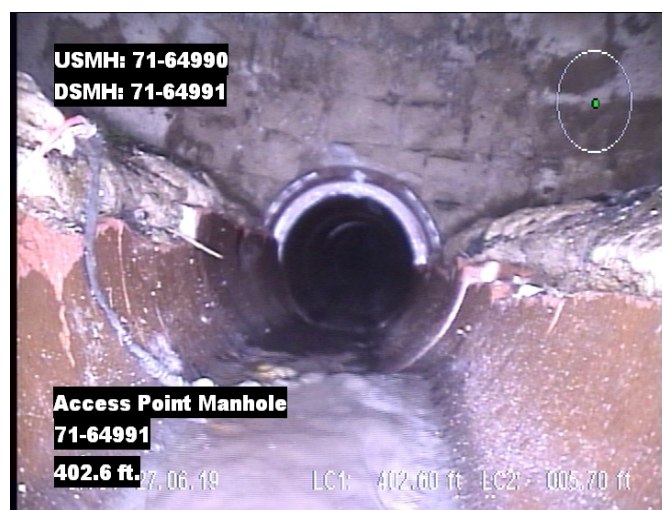
Distance: 306.7 ft. **Grade:** 3
Condition: TFD-Tap Factory Made Defective
Remarks: Appears to be a tap where liner was not cut out



Distance: 323.8 ft. **Grade:** 0
Condition: TF-Tap Factory Made
Remarks: N/A



Distance: 353.4 ft. **Grade:** 3
Condition: TFD-Tap Factory Made Defective
Remarks: Appears to be a tap where liner was not cut out



Distance: 402.6 ft. **Grade:** 0
Condition: AMH-Access Point Manhole
Remarks: 71-64991



Defect Listing

Pipe Segment Reference 74-65217	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64991	Total Length 105	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65004	Length surveyed 99.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 3	MPR 0	PO Number		Customer		
SPRI 3	MPRI 0	Work Order Number		Purpose Not Known		
QSR 3100	QMR 0000	Direction Downstream		Date 08/14/2012	Media label	
OPR 3	Surveyed By JACOB	Pre-Cleaning Not Known		Time 11:46	Weather <small>Dry - No precipitation during survey</small>	
OPRI 3	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64991									
0	MWL-Water Level				10	<input type="checkbox"/>			
0.9	CM-Crack Multiple					<input type="checkbox"/>	12	6	3
25.1	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	12		
36.4	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
60.8	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
71	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
99.2	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65004									



4 Image Report

Pipe Segment Reference 74-65217	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64991	Total Length 105	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65004	Length surveyed 99.2	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65217	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64991	Total Length 105	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65004	Length surveyed 99.2	Year Renewed	Height 8	Width	Pipe Joint Length	

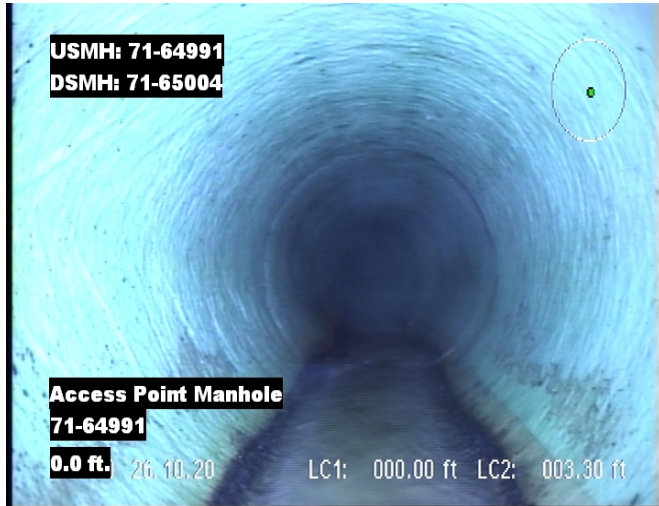
SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose	
QSR 0000	QMR 0000				
OPR 0	Surveyed By JBELL	Direction Downstream	Date 10/26/2020		Media label
OPRI 0	Certificate Number U-1117-07009559	Pre-Cleaning No Pre-Cleaning	Time 11:23		Weather <small>Dry - No precipitation during survey</small>
Date Cleaned			End Time		Additional Info

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-64991									
0	MWL-Water Level				5	<input type="checkbox"/>			
25.5	TF-Tap Factory Made		4			<input type="checkbox"/>	10		
60.7	MGO-General Observation					<input type="checkbox"/>			
Remarks: Looks like a tap that was not cut out									
71.3	TF-Tap Factory Made		4			<input type="checkbox"/>	10		
99.2	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65004									

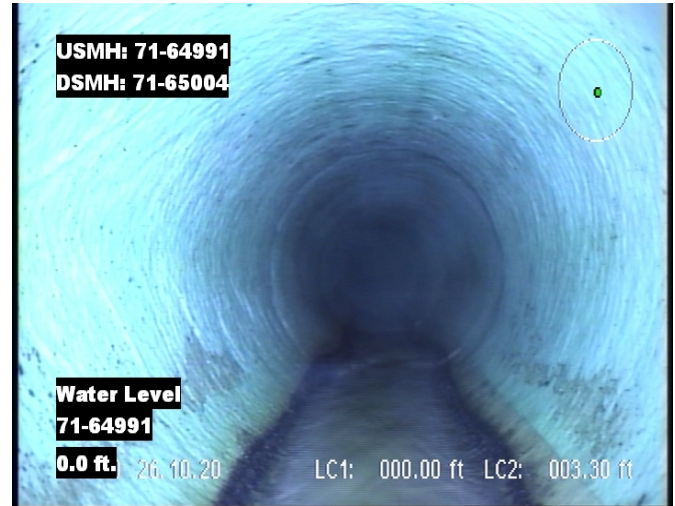


4 Image Report

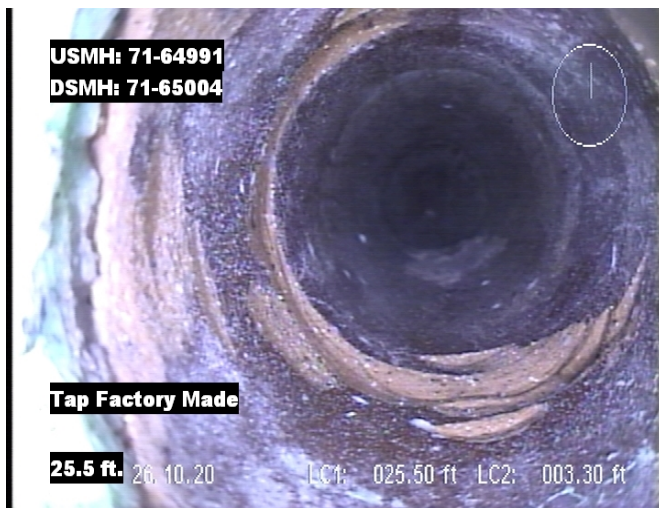
Pipe Segment Reference 74-65217	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64991	Total Length 105	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65004	Length surveyed 99.2	Year Renewed	Height 8	Width	Pipe Joint Length	



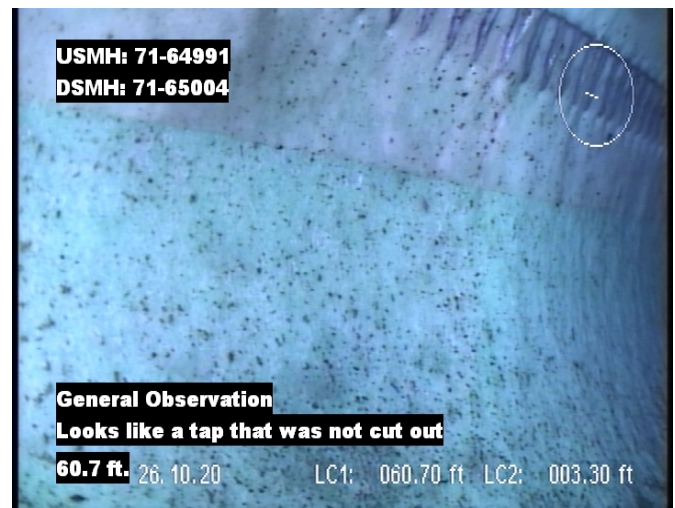
Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-64991



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 25.5 ft. Grade: 0
 Condition: TF-Tap Factory Made
 Remarks: N/A



Distance: 60.7 ft. Grade: 0
 Condition: MGO-General Observation
 Remarks: Looks like a tap that was not cut out



4 Image Report

Pipe Segment Reference 74-65217	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-64991	Total Length 105	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65004	Length surveyed 99.2	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 71.3 ft. **Grade:** 0

Condition: TF-Tap Factory Made

Remarks: N/A



Distance: 99.2 ft. **Grade:** 0

Condition: AMH-Access Point Manhole

Remarks: 71-65004



Defect Listing

Pipe Segment Reference 74-65230	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65004	Total Length 136	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65014	Length surveyed 131.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream	Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known	Time 13:33	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65004									
0	MWL-Water Level				0	<input type="checkbox"/>			
105.6	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	10		
131.6	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65014									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65230	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65004	Total Length 136	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65014	Length surveyed 131.6	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65230	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65004	Total Length 136	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65014	Length surveyed 129.9	Year Renewed	Height 8	Width	Pipe Joint Length	

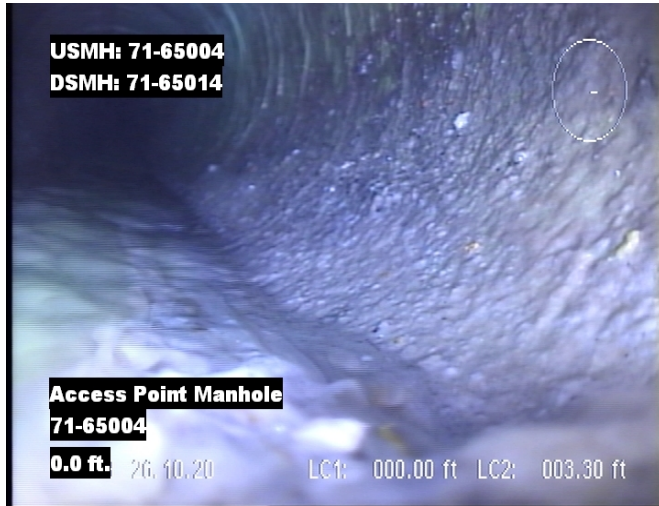
SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose		
QSR 0000	QMR 0000					
OPR 0	Surveyed By JBELL	Direction Downstream	Date 10/26/2020		Media label	
OPRI 0	Certificate Number U-1117-07009559	Pre-Cleaning No Pre-Cleaning	Time 11:42		Weather Saturated	
Date Cleaned			End Time		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65004									
0	MWL-Water Level				5	<input type="checkbox"/>			
106.3	TB-Tap Break-In		4			<input type="checkbox"/>	10		
129.9	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65014									

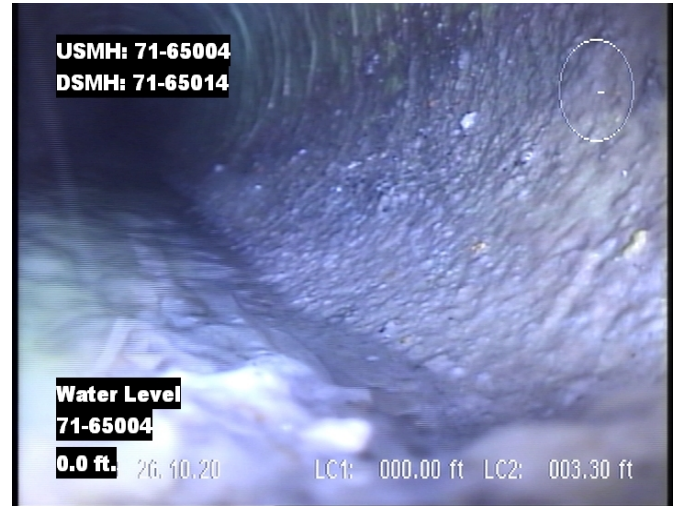


4 Image Report

Pipe Segment Reference 74-65230	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65004	Total Length 136	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65014	Length surveyed 129.9	Year Renewed	Height 8	Width	Pipe Joint Length	



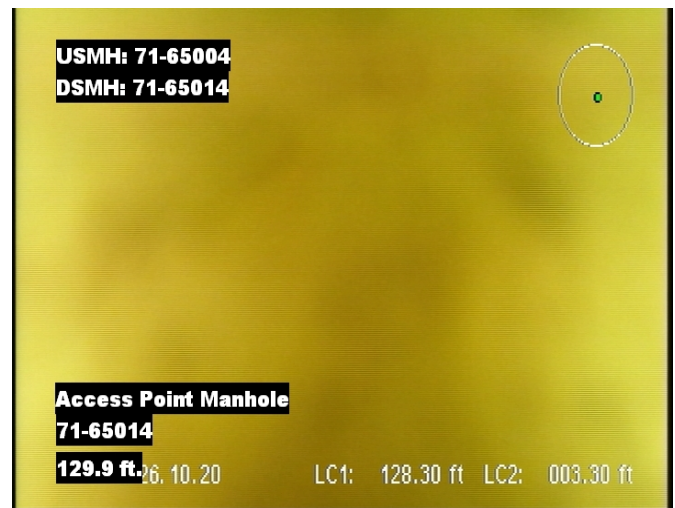
Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-65004



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 106.3 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 129.9 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-65014



Defect Listing

Pipe Segment Reference 74-65233	City Ann Arbor	Street Harbal Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-65007	Total Length 283.7682	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65004	Length surveyed 277.9	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 17	MPR 0	PO Number		Customer		
SPRI 2.8	MPRI 0	Work Order Number		Purpose Not Known		
QSR 3521	QMR 0000	Direction Downstream		Date 08/14/2012	Media label	
OPR 17	Surveyed By JACOB	Pre-Cleaning Not Known		Time 13:07	Weather <small>Dry - No precipitation during survey</small>	
OPRI 2.8	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65007									
0	MWL-Water Level				10	<input type="checkbox"/>			
14.5	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
32.4	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
58.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
59.6	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
78	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
80.8	CL-Crack Longitudinal					<input type="checkbox"/>	12		2
84.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	10		
Remarks: ROOTS									
115.6	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
130.3	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
173.2	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
175.1	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
277.9	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65004									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65233	Ann Arbor	Harbal Dr	Vitrified Clay Pipe			Stormwater Pipe
Upstream MH 71-65007	Total Length 283.7682	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65004	Length surveyed 277.9	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65238	City Ann Arbor	Street Cedar Bend Dr	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65012	Total Length 146.5437	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65620	Length surveyed 126.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 13	MPR 0	PO Number		Customer		
SPRI 3.2	MPRI 0	Work Order Number		Purpose Not Known		
QSR 5132	QMR 0000	Direction Downstream		Date 08/15/2012	Media label	
OPR 13	Surveyed By JACOB	Pre-Cleaning Not Known		Time 08:06	Weather <small>Dry - No precipitation during survey</small>	
OPRI 3.2	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65012									
0	MWL-Water Level				10	<input type="checkbox"/>			
15.6	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
48	CL-Crack Longitudinal					<input type="checkbox"/>	12		2
57	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
69.8	CM-Crack Multiple					<input type="checkbox"/>	12	6	3
123.8	BSV-Broken Pipe Soil Visible					<input type="checkbox"/>	8		5
126.2	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65620									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65238	Ann Arbor	Cedar Bend Dr	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65012	Total Length 146.5437	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65620	Length surveyed 126.2	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65239	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65013	Total Length 110.2444	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65620	Length surveyed 106.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000					
OPR 0	Surveyed By JACOB	Direction Upstream	Date 08/16/2012		Media label	
OPRI 0	Certificate Number 000000	Pre-Cleaning Not Known	Time 09:33		Weather <small>Dry - No precipitation during survey</small>	
Date Cleaned			End Time		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65620									
0	MWL-Water Level				10	<input type="checkbox"/>			
38.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	2		
106.2	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65013									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65239	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65013	Total Length 110.2444	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65620	Length surveyed 106.2	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65240	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Stormwater Pipe
Upstream MH 71-65014	Total Length 58.51708	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-65013	Length surveyed 38.8	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream	Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known	Time 13:48	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65014									
0	MWL-Water Level				10	<input type="checkbox"/>			
9.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
24.3	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
38.8	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: ROCK									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65240	Ann Arbor	Broadway St	Vitrified Clay Pipe			Stormwater Pipe
Upstream MH 71-65014	Total Length 58.51708	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65013	Length surveyed 38.8	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65521	City Ann Arbor	Street Plymouth Rd	Material Vitrified Clay Pipe		Location Code Easement/Right of Way	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65348	Total Length 259.5	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65366	Length surveyed 259.5	Year Renewed	Height 12	Width	Pipe Joint Length	

SPR 0	MPR 2	PO Number		Customer Ann Arbor	
SPRI 0	MPRI 2	Work Order Number		Purpose	
QSR 0000	QMR 2100				
OPR 2	Surveyed By T.LEWIS	Direction Upstream	Date 08/30/2021	Media label 321146	
OPRI 2	Certificate Number U-0317-07007496	Pre-Cleaning No Pre-Cleaning	Time 13:50	Weather Dry	
Date Cleaned			End Time	Additional Info	

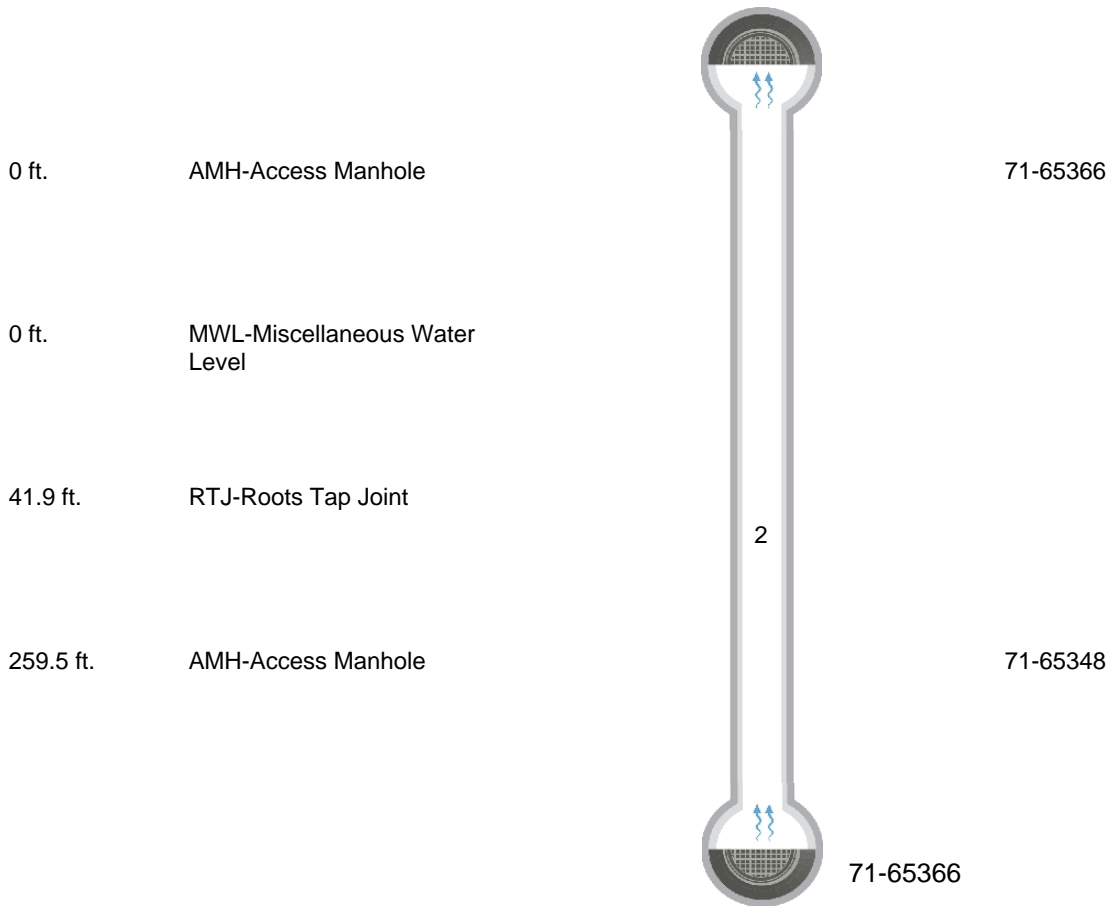
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-65366									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
41.9	RTJ-Roots Tap Joint				10	<input checked="" type="checkbox"/>	8		2
259.5	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-65348									



Defect Listing Plot

Pipe Segment Reference 74-65521	City Ann Arbor	Street Plymouth Rd	Material Vitrified Clay Pipe		Location Code Easement/Right of Way	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65348	Total Length 259.5	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65366	Length surveyed 259.5	Year Renewed	Height 12	Width	Pipe Joint Length	

SPR 0	MPR 2	PO Number		Customer Ann Arbor	
SPRI 0	MPRI 2	Work Order Number		Purpose	
QSR 0000	QMR 2100				
OPR 2	Surveyed By T.LEWIS	Direction Upstream	Date 08/30/2021	Media label 321146	
OPRI 2	Certificate Number U-0317-07007496	Pre-Cleaning No Pre-Cleaning	Time 13:50	Weather Dry	
Date Cleaned			End Time	Additional Info	





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65521	Ann Arbor	Plymouth Rd	Vitrified Clay Pipe		Easement/Right of Way	Sanitary Sewage Pipe
Upstream MH 71-65348	Total Length 259.5	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65366	Length surveyed 259.5	Year Renewed	Height 12	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65545	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65373	Total Length 88.38013	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-073190	Length surveyed 77.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000					
OPR 0	Surveyed By JACOB	Direction Downstream	Date 08/14/2012		Media label	
OPRI 0	Certificate Number 000000	Pre-Cleaning Not Known	Time 14:40		Weather <small>Dry - No precipitation during survey</small>	
Date Cleaned			End Time		Additional Info	

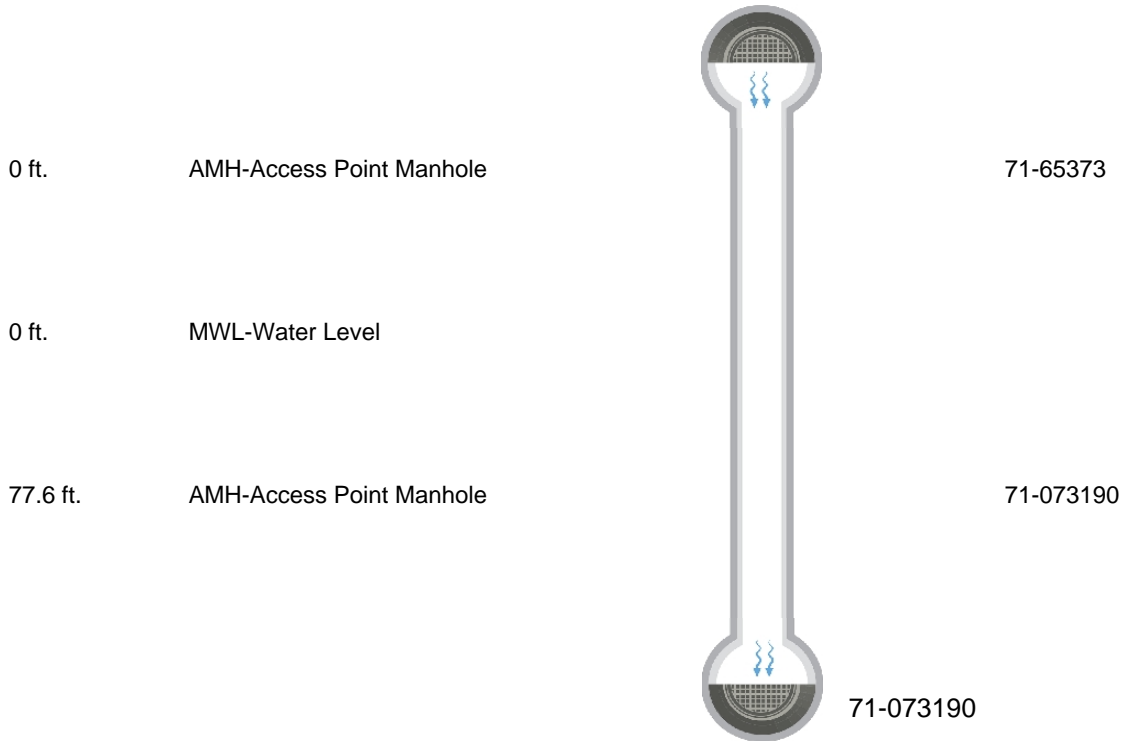
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65373									
0	MWL-Water Level				10	<input type="checkbox"/>			
77.6	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-073190									



Defect Listing Plot

Pipe Segment Reference 74-65545	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65373	Total Length 88.38013	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-073190	Length surveyed 77.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Downstream		Date 08/14/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 14:40	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info	





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65545	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65373	Total Length 88.38013	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-073190	Length surveyed 77.6	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 286.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 3	MPR 2	PO Number		Customer	
SPRI 3	MPRI 1	Work Order Number		Purpose Not Known	
QSR 3100	QMR 1200	Direction Downstream	Date 08/14/2012	Media label	
OPR 5	Surveyed By JACOB	Pre-Cleaning Not Known	Time 14:23	Weather <small>Dry - No precipitation during survey</small>	
OPRI 1.7	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65374									
0	MWL-Water Level				10	<input type="checkbox"/>			
69.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	10		
218.8	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	3		1
229.3	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
257.4	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	3		1
286.3	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65373									



4 Image Report

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 286.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 71.8	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 4	PO Number		Customer CITY OF ANN ARBOR	
SPRI 0	MPRI 4	Work Order Number		Purpose Routine Assessment	
QSR 0000	QMR 4100	Direction Downstream	Date 07/06/2021	Media label 74-65546	
OPR 4	Surveyed By PIPETEK_MW	Pre-Cleaning No Pre-Cleaning	Time 15:17	Weather Dry	
OPRI 4	Certificate Number U-115-06023116	Date Cleaned 07/06/2021	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-65374									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
70.4	DAE-Deposits Attached Encrustation				30	<input type="checkbox"/>	7	10	4
71.7	TF-Tap Factory Made		6			<input type="checkbox"/>	10		
71.8	MSA-Miscellaneous Survey Abandoned					<input type="checkbox"/>			
Remarks: DAE									



4 Image Report

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 71.8	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 70.4 ft. **Grade:** 4
Condition: DAE-Deposits Attached Encrustation
Remarks: N/A



Defect Listing

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 285.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 5	MPR 1	PO Number		Customer	
SPRI 5	MPRI 1	Work Order Number		Purpose	
QSR 5100	QMR 1100				
OPR 6	Surveyed By JBell	Direction Downstream	Date 09/17/2021		Media label
OPRI 3	Certificate Number U-1117-07009559	Pre-Cleaning No Pre-Cleaning	Time 12:49		Weather
Date Cleaned			End Time 12:56	Additional Info	

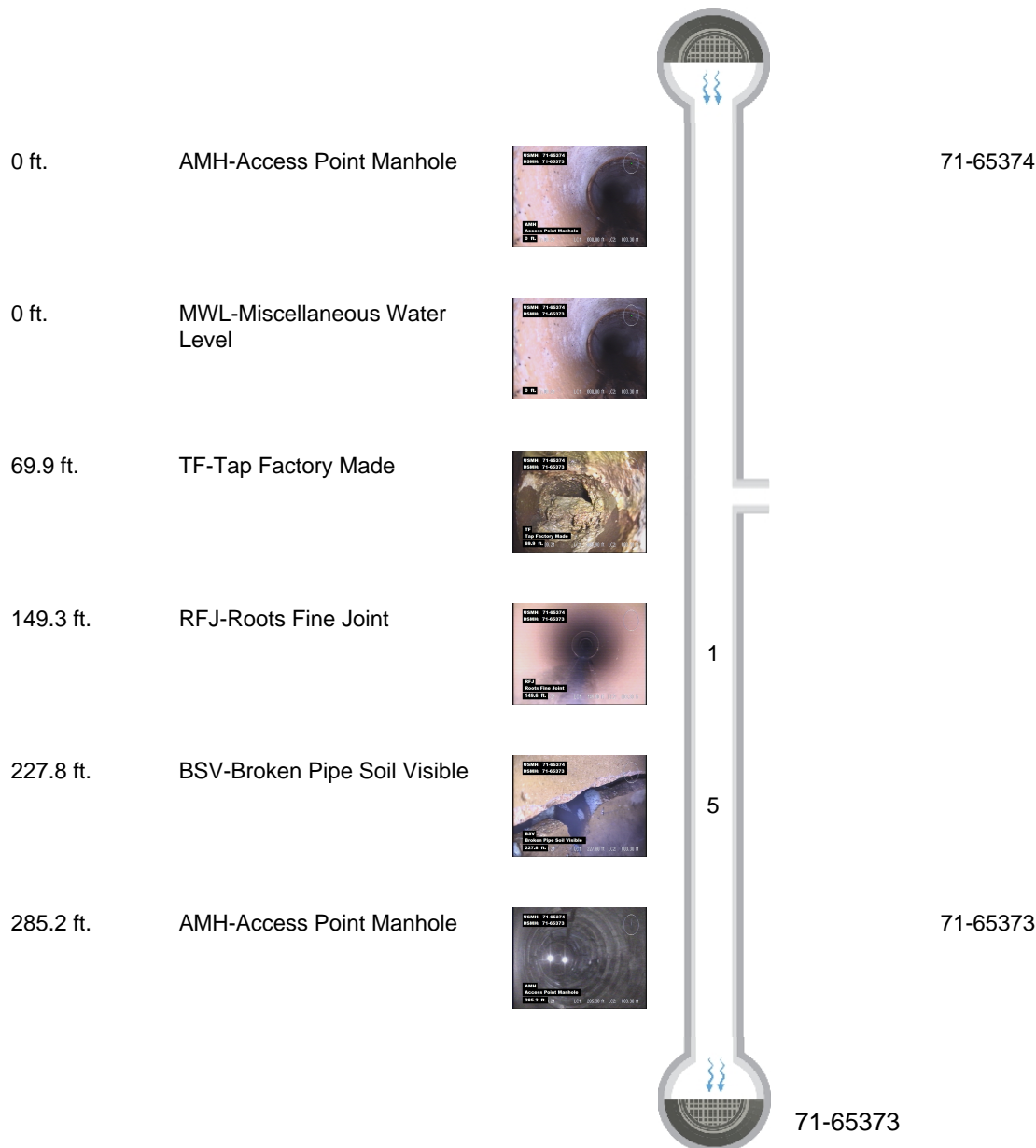
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65374									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
69.9	TF-Tap Factory Made		4			<input type="checkbox"/>	10		
149.3	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	12		1
227.8	BSV-Broken Pipe Soil Visible					<input type="checkbox"/>	7		5
285.2	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65373									



Defect Listing Plot

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 285.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 5	MPR 1	PO Number		Customer		
SPRI 5	MPRI 1	Work Order Number		Purpose		
QSR 5100	QMR 1100					
OPR 6	Surveyed By JBell	Direction Downstream	Date 09/17/2021		Media label	
OPRI 3	Certificate Number U-1117-07009559	Pre-Cleaning No Pre-Cleaning	Time 12:49		Weather	
Date Cleaned			End Time 12:56		Additional Info	





4 Image Report

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-65373	Length surveyed 285.2	Year Renewed	Height 8	Width	Pipe Joint Length



Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-65374



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Miscellaneous Water Level
 Remarks: N/A



Distance: 69.9 ft. Grade: 0
 Condition: TF-Tap Factory Made
 Remarks: N/A



Distance: 149.3 ft. Grade: 1
 Condition: RFJ-Roots Fine Joint
 Remarks: N/A

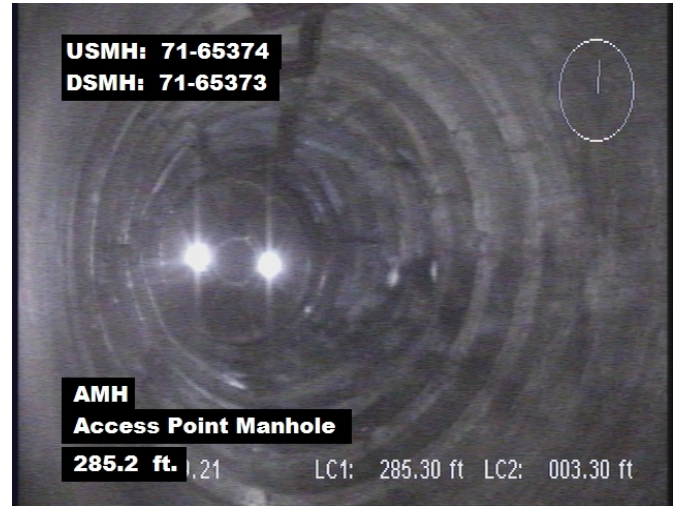


4 Image Report

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 285.2	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 227.8 ft. **Grade:** 5
Condition: BSV-Broken Pipe Soil Visible
Remarks: N/A



Distance: 285.2 ft. **Grade:** 0
Condition: AMH-Access Point Manhole
Remarks: 71-65373



Defect Listing

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 37.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 16	PO Number		Customer		
SPRI 0	MPRI 2.7	Work Order Number		Purpose		
QSR 0000	QMR 3511			Maintenance Related		
OPR 16	Surveyed By T.LEWIS	Direction Upstream	Date 09/02/2021		Media label 321106	
OPRI 2.7	Certificate Number U-0317-07007496	Pre-Cleaning No Pre-Cleaning	Time 15:20		Weather Dry	
Date Cleaned			End Time		Additional Info Reversal	

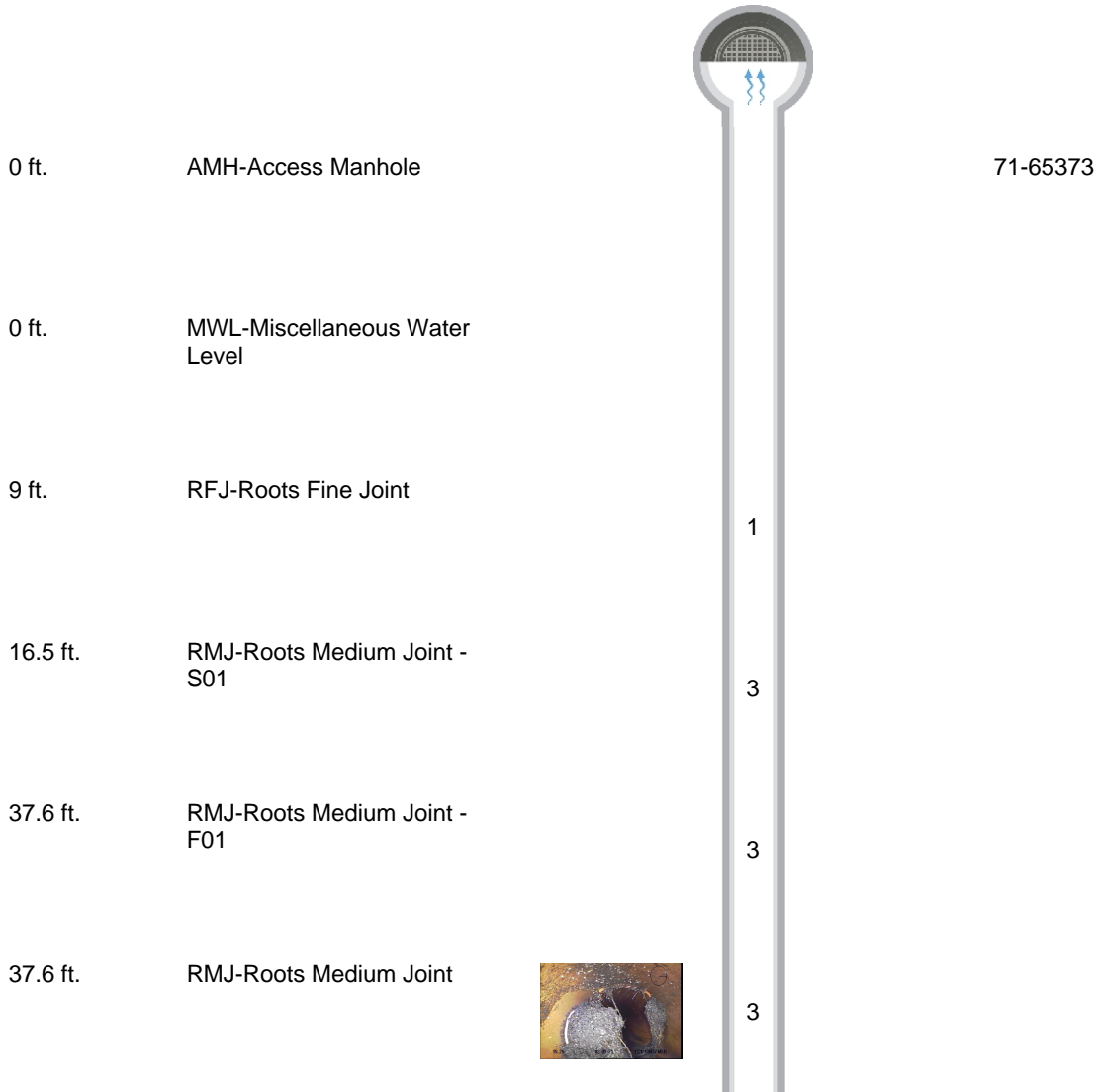
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-65373									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
9	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	2	5	1
16.5	RMJ-Roots Medium Joint	S01			15	<input checked="" type="checkbox"/>	3	9	3
37.6	RMJ-Roots Medium Joint	F01			15	<input checked="" type="checkbox"/>	3	9	3
37.6	RMJ-Roots Medium Joint				30	<input checked="" type="checkbox"/>	2	11	3
37.6	MSA-Miscellaneous Survey Abandoned					<input type="checkbox"/>			
Remarks: Roots									



Defect Listing Plot

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 37.6	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 16	PO Number		Customer	
SPRI 0	MPRI 2.7	Work Order Number		Purpose	
QSR 0000	QMR 3511			Maintenance Related	
OPR 16	Surveyed By T.LEWIS	Direction Upstream	Date 09/02/2021	Media label 321106	
OPRI 2.7	Certificate Number U-0317-07007496	Pre-Cleaning No Pre-Cleaning	Time 15:20	Weather Dry	
Date Cleaned			End Time	Additional Info Reversal	





Defect Listing Plot

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 37.6	Year Renewed	Height 8	Width	Pipe Joint Length	

37.6 ft.

MSA-Miscellaneous Survey
Abandoned

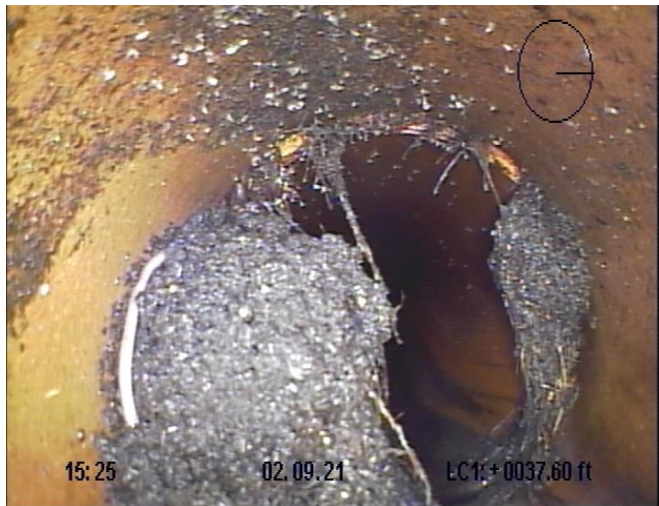


Roots



4 Image Report

Pipe Segment Reference 74-65546	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65374	Total Length 290	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65373	Length surveyed 37.6	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 37.6 ft. **Grade:** 3
Condition: RMJ-Roots Medium Joint
Remarks: N/A



Defect Listing

Pipe Segment Reference 74-65925	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65618	Total Length 199.7435	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65619	Length surveyed 181.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 5	MPR 0	PO Number		Customer		
SPRI 5	MPRI 0	Work Order Number		Purpose Not Known		
QSR 5100	QMR 0000	Direction Upstream		Date 08/16/2012	Media label	
OPR 5	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 14:35	Weather <small>Dry - No precipitation during survey</small>	
OPRI 5	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info	

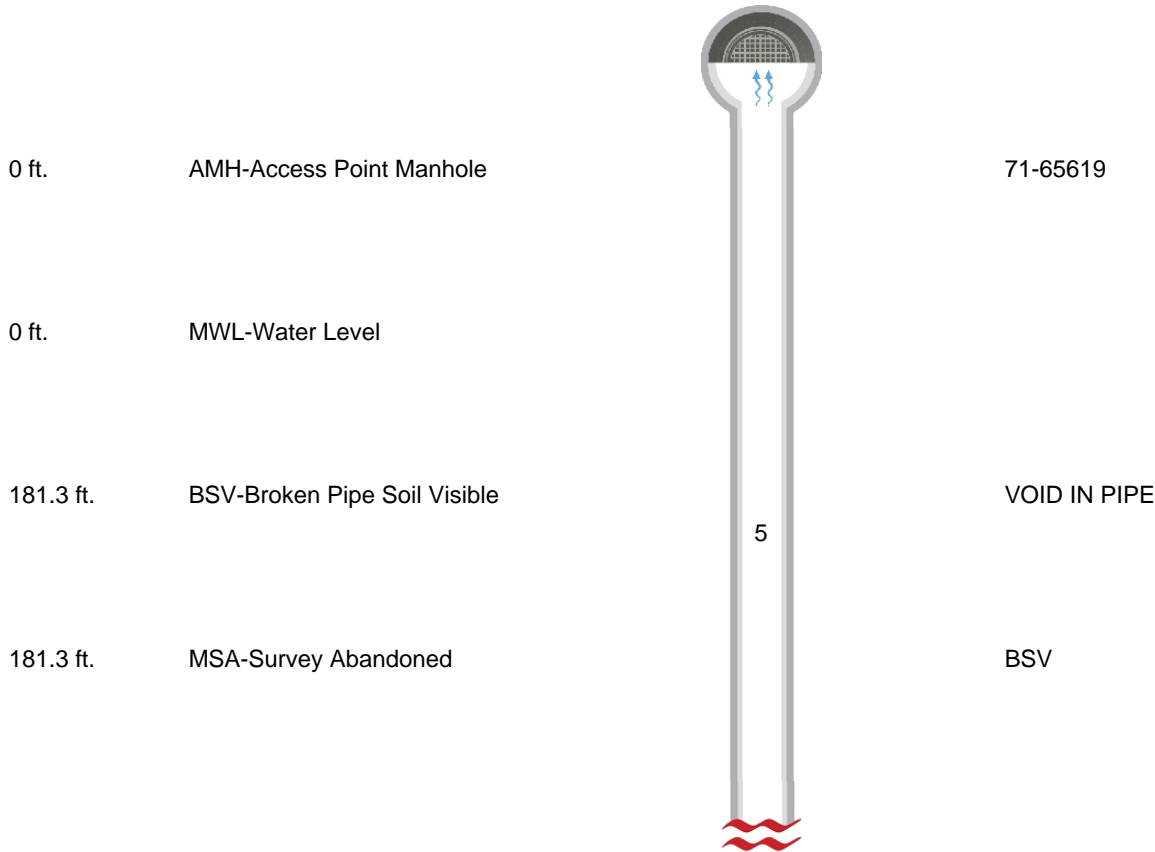
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65619									
0	MWL-Water Level				0	<input type="checkbox"/>			
181.3	BSV-Broken Pipe Soil Visible					<input type="checkbox"/>	8	5	5
Remarks: VOID IN PIPE									
181.3	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: BSV									



Defect Listing Plot

Pipe Segment Reference 74-65925	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65618	Total Length 199.7435	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65619	Length surveyed 181.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 5	MPR 0	PO Number		Customer		
SPRI 5	MPRI 0	Work Order Number		Purpose Not Known		
QSR 5100	QMR 0000	Direction Upstream	Date 08/16/2012	Media label		
OPR 5	Surveyed By JACOB	Pre-Cleaning Light Cleaning	Time 14:35	Weather <small>Dry - No precipitation during survey</small>		
OPRI 5	Certificate Number 000000	Date Cleaned 08/16/2012	End Time	Additional Info		





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65925	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65618	Total Length 199.7435	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65619	Length surveyed 181.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65926	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65619	Total Length 285.4727	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-66804	Length surveyed 38	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 3	MPR 1	PO Number		Customer	
SPRI 3	MPRI 1	Work Order Number		Purpose Not Known	
QSR 3100	QMR 1100	Direction Downstream	Date 08/16/2012	Media label	
OPR 4	Surveyed By JACOB	Pre-Cleaning Not Known	Time 09:52	Weather <small>Dry - No precipitation during survey</small>	
OPRI 2	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65619									
0	MWL-Water Level				10	<input type="checkbox"/>			
4	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
17.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
24.6	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	9		1
36.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
38	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: ROCK									



4 Image Report

Pipe Segment Reference 74-65926	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65619	Total Length 285.4727	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-66804	Length surveyed 38	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65926	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65619	Total Length 285.4727	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-66804	Length surveyed 280.8	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Upstream		Date 08/16/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 09:57	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-66804									
0	MWL-Water Level				10	<input type="checkbox"/>			
4.7	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
15.5	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	9		
43.7	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
76.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
110.5	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
118.1	TBA-Tap Break-In Active		4			<input type="checkbox"/>	9		
157.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
159.3	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	9		
216	TBA-Tap Break-In Active		4			<input type="checkbox"/>	9		
244.9	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	3		
264.1	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	10		
280.8	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65619									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65926	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65619	Total Length 285.4727	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-66804	Length surveyed 280.8	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65927	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65620	Total Length 184.7	Year Constructed 0	Shape Circular	Location Details	
Downstream MH 71-65621	Length surveyed 184.7	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 9	MPR 0	PO Number		Customer	
SPRI 3	MPRI 0	Work Order Number		Purpose Not Known	
QSR 3300	QMR 0000	Direction Downstream	Date 08/16/2012	Media label	
OPR 9	Surveyed By JACOB	Pre-Cleaning Not Known	Time 09:40	Weather <small>Dry - No precipitation during survey</small>	
OPRI 3	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65020									
0	MWL-Water Level				10	<input type="checkbox"/>			
12.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
80.4	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	2		
82.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
108.1	CM-Crack Multiple					<input type="checkbox"/>	10	5	3
144.7	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
146.1	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
Remarks: ROOTS IN SERVICE									
180.4	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	10		
181.3	CM-Crack Multiple					<input type="checkbox"/>	3	8	3
184.7	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65621									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65927	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65620	Total Length 184.7	Year Constructed 0	Shape Circular		Location Details	
Downstream MH 71-65621	Length surveyed 184.7	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-65928	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65621	Total Length 13.49766	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65619	Length surveyed 14.4	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000					
OPR 0	Surveyed By JACOB	Direction Downstream	Date 08/16/2012		Media label	
OPRI 0	Certificate Number 000000	Pre-Cleaning Not Known	Time 09:51		Weather <small>Dry - No precipitation during survey</small>	
Date Cleaned			End Time		Additional Info	

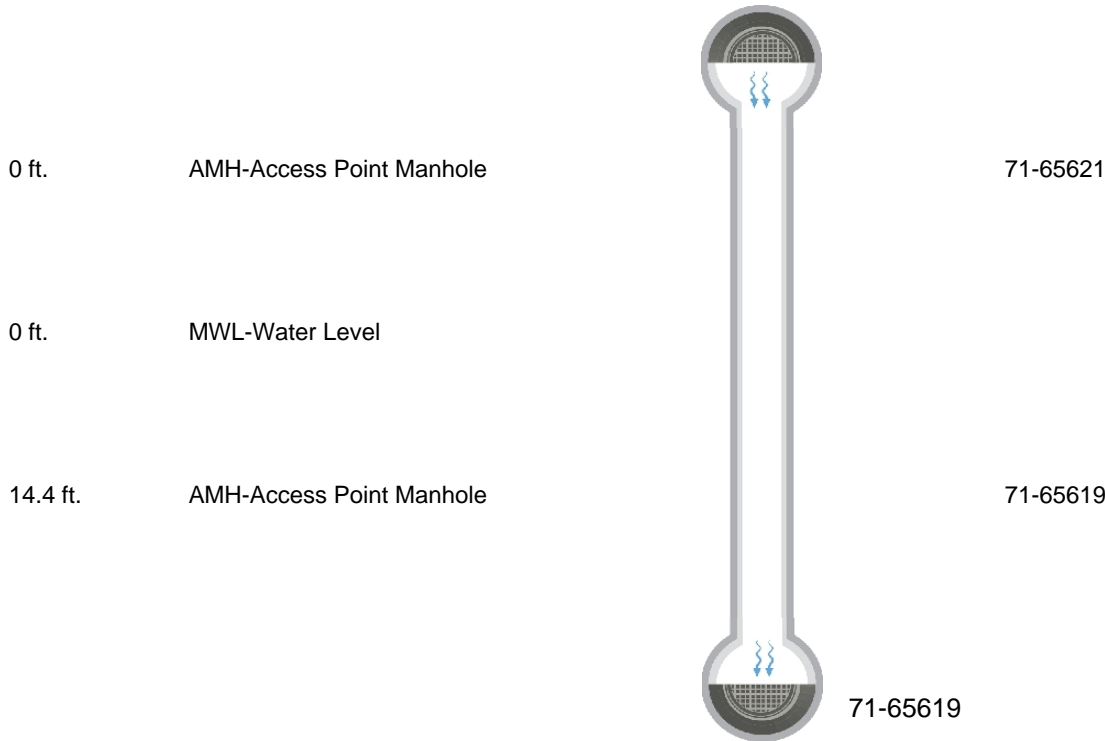
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65621									
0	MWL-Water Level				10	<input type="checkbox"/>			
14.4	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-65619									



Defect Listing Plot

Pipe Segment Reference 74-65928	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-65621	Total Length 13.49766	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65619	Length surveyed 14.4	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Downstream		Date 08/16/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known		Time 09:51	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned		End Time	Additional Info	





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-65928	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-65621	Total Length 13.49766	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-65619	Length surveyed 14.4	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-67011	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-66804	Total Length 299.969	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70441	Length surveyed 297.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Downstream	Date 08/16/2012		Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning	Time 10:39		Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012	End Time		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-66804									
0	MWL-Water Level				5	<input type="checkbox"/>			
45.6	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
62.3	TBA-Tap Break-In Active		4			<input type="checkbox"/>	12		
93.7	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
98	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	9		
142.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
174.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	10		
202.7	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	10		
239	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	9		
241	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
269.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
297.3	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70441									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-67011	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-66804	Total Length 299.969	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70441	Length surveyed 297.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70335	City Ann Arbor	Street Broadway St	Material Reinforced Concrete Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71755	Total Length 122.8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71831	Length surveyed 122.8	Year Renewed	Height 30	Width	Pipe Joint Length	

SPR 0	MPR 2	PO Number		Customer		
SPRI 0	MPRI 2	Work Order Number		Purpose		
QSR 0000	QMR 2100			Maintenance Related		
OPR 2	Surveyed By T.LEWIS	Direction Downstream	Date 09/02/2021	Media label 334610		
OPRI 2	Certificate Number U-0317-07007496	Pre-Cleaning No Pre-Cleaning	Time 15:53	Weather Dry		
Date Cleaned			End Time	Additional Info		

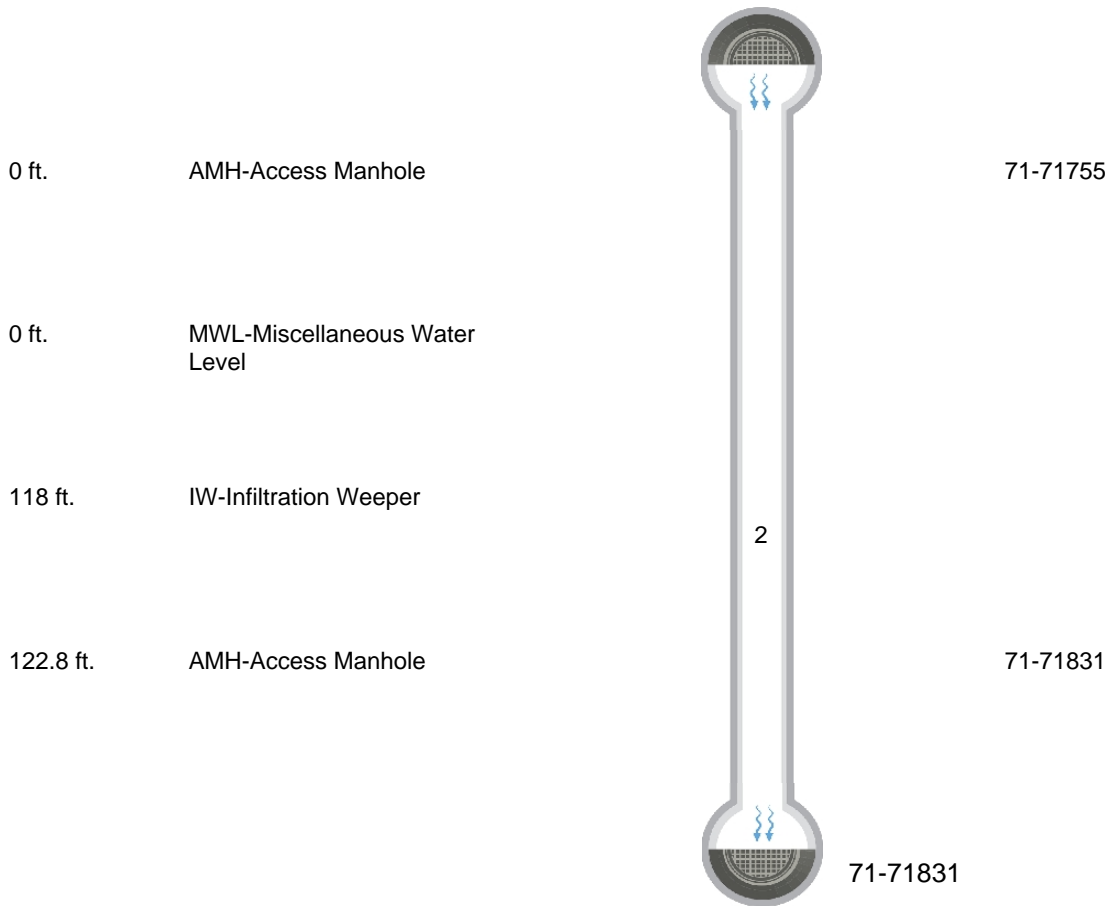
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-71755									
0	MWL-Miscellaneous Water Level				10	<input type="checkbox"/>			
118	IW-Infiltration Weeper					<input checked="" type="checkbox"/>	7	5	2
122.8	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-71831									



Defect Listing Plot

Pipe Segment Reference 74-70335	City Ann Arbor	Street Broadway St	Material Reinforced Concrete Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71755	Total Length 122.8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71831	Length surveyed 122.8	Year Renewed	Height 30	Width	Pipe Joint Length	

SPR 0	MPR 2	PO Number		Customer		
SPRI 0	MPRI 2	Work Order Number		Purpose		
QSR 0000	QMR 2100			Maintenance Related		
OPR 2	Surveyed By T.LEWIS	Direction Downstream	Date 09/02/2021	Media label 334610		
OPRI 2	Certificate Number U-0317-07007496	Pre-Cleaning No Pre-Cleaning	Time 15:53	Weather Dry		
Date Cleaned			End Time	Additional Info		





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70335	Ann Arbor	Broadway St	Reinforced Concrete Pipe			Sanitary Sewage Pipe
Upstream MH 71-71755	Total Length 122.8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71831	Length surveyed 122.8	Year Renewed	Height 30	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70471	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70236	Total Length 214.0423	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71832	Length surveyed 156.1	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 10	MPR 0	PO Number		Customer		
SPRI 3.3	MPRI 0	Work Order Number		Purpose Not Known		
QSR 4221	QMR 0000	Direction Downstream	Date 08/16/2012		Media label	
OPR 10	Surveyed By JACOB	Pre-Cleaning Light Cleaning	Time 12:41		Weather <small>Dry - No precipitation during survey</small>	
OPRI 3.3	Certificate Number 000000	Date Cleaned 08/16/2012	End Time		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70236									
0	MWL-Water Level				0	<input type="checkbox"/>			
57.6	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
63.9	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
68.5	TBA-Tap Break-In Active		4			<input type="checkbox"/>	3		
131.9	CS-Crack Spiral					<input type="checkbox"/>	12	6	2
138.9	TBA-Tap Break-In Active		4			<input type="checkbox"/>	9		
153.7	B-Broken Pipe					<input type="checkbox"/>	6		4
154.1	B-Broken Pipe					<input type="checkbox"/>	8		4
156.1	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: BROKEN PIPE ON BOTTOM									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70471	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-70236	Total Length 214.0423	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71832	Length surveyed 156.1	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70474	City Ann Arbor	Street Jones Dr	Material Vitrified Clay Pipe	Location Code <small>Local road areas with light traffic, town and city back</small>	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70239	Total Length 244.0847	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-70236	Length surveyed 206.1	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 1	MPR 26	PO Number		Customer ANN ARBOR	
SPRI 1	MPRI 1.9	Work Order Number		Purpose Routine Assessment	
QSR 1100	QMR 2A12	Direction Downstream	Date 02/26/2021	Media label 74-70474	
OPR 27	Surveyed By R. LAKE	Pre-Cleaning No Pre-Cleaning	Time 13:35	Weather Saturated	
OPRI 1.8	Certificate Number U-215-06023410	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-70239									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
16	DAGS-Deposits Attached Grease	S01			5	<input type="checkbox"/>	5	7	2
34.1	DAGS-Deposits Attached Grease	F01			5	<input type="checkbox"/>	5	7	2
42.5	TFC-Tap Factory Capped		6			<input type="checkbox"/>	2		
45.6	CC-Crack Circumferential					<input checked="" type="checkbox"/>	7	10	1
47.3	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	8		1
50.4	TFC-Tap Factory Capped		6			<input type="checkbox"/>	10		
51.3	TBA-Tap Break-in Active		6			<input type="checkbox"/>	10		
58.4	DAGS-Deposits Attached Grease				5	<input type="checkbox"/>	5	7	2
60.9	MWL-Miscellaneous Water Level				10	<input type="checkbox"/>			
63.6	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	2	10	1
65.3	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
91	DAGS-Deposits Attached Grease				5	<input type="checkbox"/>	5	7	2
101.1	TFA-Tap Factory Active		6			<input type="checkbox"/>	10		
105.1	TFC-Tap Factory Capped		6			<input type="checkbox"/>	2		
112	DSZ-Deposits Settled Other				5	<input type="checkbox"/>	5	7	2
Remarks: DEBRIS IN CHANNEL.									
114.2	TBA-Tap Break-in Active		6			<input type="checkbox"/>	2		
135.1	DSZ-Deposits Settled Other				5	<input type="checkbox"/>	5	7	2
Remarks: DEBRIS IN CHANNEL.									
143.8	DAGS-Deposits Attached Grease				5	<input type="checkbox"/>	5	7	2
147.4	MWL-Miscellaneous Water Level				10	<input type="checkbox"/>			
148.3	DSZ-Deposits Settled Other				5	<input type="checkbox"/>	5	7	2
Remarks: DEBRIS IN CHANNEL.									
152.5	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
156.1	MWL-Miscellaneous Water Level				10	<input type="checkbox"/>			
167.2	TFC-Tap Factory Capped		6			<input type="checkbox"/>	10		
169.1	TFC-Tap Factory Capped		6			<input type="checkbox"/>	2		
180.8	MWL-Miscellaneous Water Level				20	<input type="checkbox"/>			
180.8	DSZ-Deposits Settled Other				5	<input type="checkbox"/>	5	7	2
Remarks: DEBRIS IN CHANNEL.									



Defect Listing

Pipe Segment Reference	City	Street	Material	Location Code	Pipe Use
74-70474	Ann Arbor	Jones Dr	Vitrified Clay Pipe	<small>Local rural areas with light traffic, town and city back</small>	Sanitary Sewage Pipe
Upstream MH 71-70239	Total Length 244.0847	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-70236	Length surveyed 206.1	Year Renewed	Height 8	Width	Pipe Joint Length
192.6	MWL-Miscellaneous Water Level		5	<input type="checkbox"/>	
196.8	DAGS-Deposits Attached Grease		5	<input type="checkbox"/>	5 7 2
205.2	MWL-Miscellaneous Water Level		20	<input type="checkbox"/>	
206.1	MSA-Miscellaneous Survey Abandoned			<input type="checkbox"/>	
Remarks: STOPPED BY DEBRIS IN CHANNEL.					



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70474	Ann Arbor	Jones Dr	Vitrified Clay Pipe		<small>Local rural areas with light traffic, town and city back</small>	Sanitary Sewage Pipe
Upstream MH 71-70239	Total Length 244.0847	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70236	Length surveyed 206.1	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70474	City Ann Arbor	Street Jones Dr	Material Vitrified Clay Pipe	Location Code <small>Local road areas with light traffic, town and city back</small>	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70239	Total Length 244.0847	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-70236	Length surveyed 243.1	Year Renewed	Height 8	Width	Pipe Joint Length

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream	Date 08/07/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Not Known	Time 13:20	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned	End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70239									
0	MWL-Water Level				10	<input type="checkbox"/>			
40.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
48.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
49.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
99.1	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
103.4	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
112.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
164.1	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	9		
166.1	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
243.1	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70236									



4 Image Report

Pipe Segment Reference	City	Street	Material	Location Code	Pipe Use
74-70474	Ann Arbor	Jones Dr	Vitrified Clay Pipe	<small>Local rural areas with light traffic, town and city back</small>	Sanitary Sewage Pipe
Upstream MH 71-70239	Total Length 244.0847	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-70236	Length surveyed 243.1	Year Renewed	Height 8	Width	Pipe Joint Length



Defect Listing

Pipe Segment Reference 74-70474	City ANN ARBOR,MI	Street JONES DR.	Material Vitrified Clay Pipe		Location Code Easement/Right of Way	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70239	Total Length 244	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70236	Length surveyed 241.8	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 5	PO Number		Customer CITY OF ANN ARBOR		
SPRI 0	MPRI 2.5	Work Order Number		Purpose Routine Assessment		
QSR 0000	QMR 3121	Direction Downstream	Date 01/29/2022	Media label 74-70474		
OPR 5	Surveyed By J.ROGERS	Pre-Cleaning No Pre-Cleaning	Time 13:48	Weather Dry		
OPRI 2.5	Certificate Number U-070-3002071	Date Cleaned	End Time	Additional Info		

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-70239									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
2	DSF-Deposits Settled Fine				10	<input type="checkbox"/>	5	7	2
34.5	MGO-Miscellaneous General Observation					<input type="checkbox"/>			
Remarks: STEAM DUE TO WEATHER CONDITIONS									
42.7	TFC-Tap Factory Capped		6			<input type="checkbox"/>	2		
51.6	TFC-Tap Factory Capped		6			<input type="checkbox"/>	10		
51.7	TBA-Tap Break-in Activity		6			<input type="checkbox"/>	2		
101.5	TFA-Tap Factory Activity		6			<input type="checkbox"/>	10		
105.8	TFC-Tap Factory Capped		6			<input type="checkbox"/>	2		
114.8	TBD-Tap Break-in Defective		6			<input type="checkbox"/>	2		3
Remarks: 10%GREASE									
166.6	TFC-Tap Factory Capped		6			<input type="checkbox"/>	10		
168.8	TFC-Tap Factory Capped		6			<input type="checkbox"/>	2		
241.8	AMH-Access Manhole					<input type="checkbox"/>			
Remarks: 71-70236									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70474	ANN ARBOR,MI	JONES DR.	Vitrified Clay Pipe		Easement/Right of Way	Sanitary Sewage Pipe
Upstream MH 71-70239	Total Length 244	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70236	Length surveyed 241.8	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70567	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70330	Total Length 299.0376	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70331	Length surveyed 295.1	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 13	MPR 0	PO Number		Customer		
SPRI 2.6	MPRI 0	Work Order Number		Purpose Not Known		
QSR 3322	QMR 0000	Direction Downstream		Date 08/16/2012	Media label	
OPR 13	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 11:33	Weather <small>Dry - No precipitation during survey</small>	
OPRI 2.6	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70330									
0	MWL-Water Level				5	<input type="checkbox"/>			
32.7	CS-Crack Spiral					<input type="checkbox"/>	12	6	2
46.4	CL-Crack Longitudinal					<input type="checkbox"/>	4		2
53.2	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
63.9	TBA-Tap Break-In Active		4			<input type="checkbox"/>	3		
64.6	CM-Crack Multiple					<input type="checkbox"/>	3	9	3
77.6	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	10		
90.8	CM-Crack Multiple					<input type="checkbox"/>	3	9	3
109.7	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	3		
111.6	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	9		
113.5	TBA-Tap Break-In Active		4			<input type="checkbox"/>	2		
120.3	TBA-Tap Break-In Active		4			<input type="checkbox"/>	9		
129.8	TBA-Tap Break-In Active		4			<input type="checkbox"/>	2		
133.9	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	4		
192.9	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
194	CM-Crack Multiple					<input type="checkbox"/>	1	6	3
221.3	TBA-Tap Break-In Active		4			<input type="checkbox"/>	10		
225.1	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
243	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
283.9	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
295.1	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70331									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70567	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-70330	Total Length 299.0376	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70331	Length surveyed 295.1	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70568	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70331	Total Length 300.0678	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70236	Length surveyed 12.8	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream		Date 08/16/2012	Media label
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 11:53	Weather <small>Dry - No precipitation during survey</small>
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70331									
0	MWL-Water Level				5	<input type="checkbox"/>			
6.4	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	10		
12.8	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: ROCK									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70568	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-70331	Total Length 300.0678	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70236	Length surveyed 12.8	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70568	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70331	Total Length 300.0678	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70236	Length surveyed 75.3	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Upstream		Date 08/16/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 12:31	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70236									
0	MWL-Water Level				10	<input type="checkbox"/>			
1.8	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
1.8	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
5.4	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	3		
23.5	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	10		
25.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
70.2	TFB-Tap Factory Made Abandoned		4			<input type="checkbox"/>	10		
74.7	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
75.3	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: OFFSET JOINT									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70568	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-70331	Total Length 300.0678	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70236	Length surveyed 75.3	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70678	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70441	Total Length 298.8337	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70330	Length surveyed 95.2	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known		
QSR 0000	QMR 0000	Direction Downstream		Date 08/16/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 10:58	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70441									
0	MWL-Water Level				5	<input type="checkbox"/>			
13.5	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	10		
36.3	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
37.8	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
62.2	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	3		
83.1	TBA-Tap Break-In Active		4			<input type="checkbox"/>	8		
95.2	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	9		
95.2	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: DEBRIE									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70678	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-70441	Total Length 298.8337	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70330	Length surveyed 95.2	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-70678	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-70441	Total Length 298.8337	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70330	Length surveyed 180.1	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 1	PO Number		Customer		
SPRI 0	MPRI 1	Work Order Number		Purpose Not Known		
QSR 0000	QMR 1100	Direction Upstream		Date 08/16/2012	Media label	
OPR 1	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 11:09	Weather <small>Dry - No precipitation during survey</small>	
OPRI 1	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-70330									
0	MWL-Water Level				5	<input type="checkbox"/>			
26.7	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	2		
39.7	RFJ-Roots Fine Joint					<input checked="" type="checkbox"/>	8		1
66.6	TBA-Tap Break-In Active		4			<input type="checkbox"/>	7		
81.3	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	9		
84.6	TBA-Tap Break-In Active		4			<input type="checkbox"/>	3		
103.4	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	3		
117.4	TBA-Tap Break-In Active		4			<input type="checkbox"/>	3		
131.4	TFA-Tap Factory Made Active		4			<input type="checkbox"/>	9		
180.1	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: DEBRIE									



4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-70678	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-70441	Total Length 298.8337	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-70330	Length surveyed 180.1	Year Renewed	Height 8	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-71977	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71832	Total Length 8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71833	Length surveyed 4.3	Year Renewed	Height 10	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream		Date 08/16/2012	Media label
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 14:20	Weather <small>Dry - No precipitation during survey</small>
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info

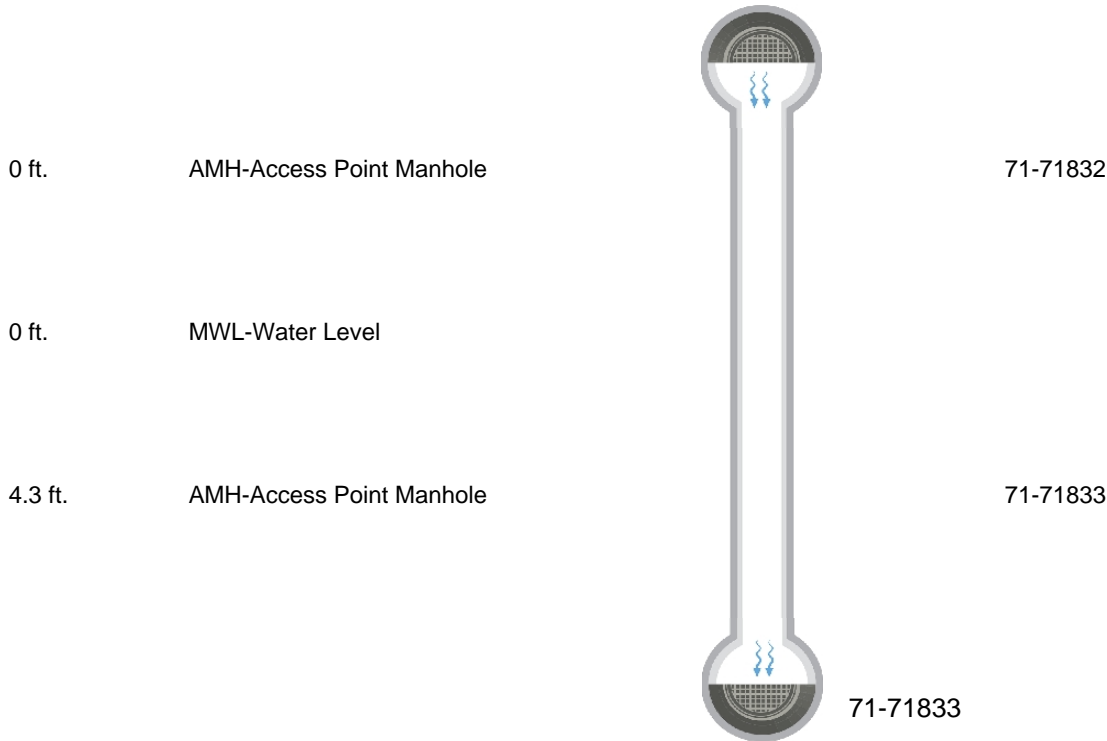
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71832									
0	MWL-Water Level				0	<input type="checkbox"/>			
4.3	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71833									



Defect Listing Plot

Pipe Segment Reference 74-71977	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71832	Total Length 8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71833	Length surveyed 4.3	Year Renewed	Height 10	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream	Date 08/16/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning	Time 14:20	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012	End Time	Additional Info	





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-71977	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-71832	Total Length 8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71833	Length surveyed 4.3	Year Renewed	Height 10	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-71977	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71832	Total Length 8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71833	Length surveyed 5.5	Year Renewed	Height 10	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose	
QSR 0000	QMR 0000				
OPR 0	Surveyed By Ahoagland	Direction Upstream	Date 09/01/2022		Media label
OPRI 0	Certificate Number U-913-18423	Pre-Cleaning Not Known	Time 08:16		Weather
Date Cleaned			End Time 08:17		Additional Info

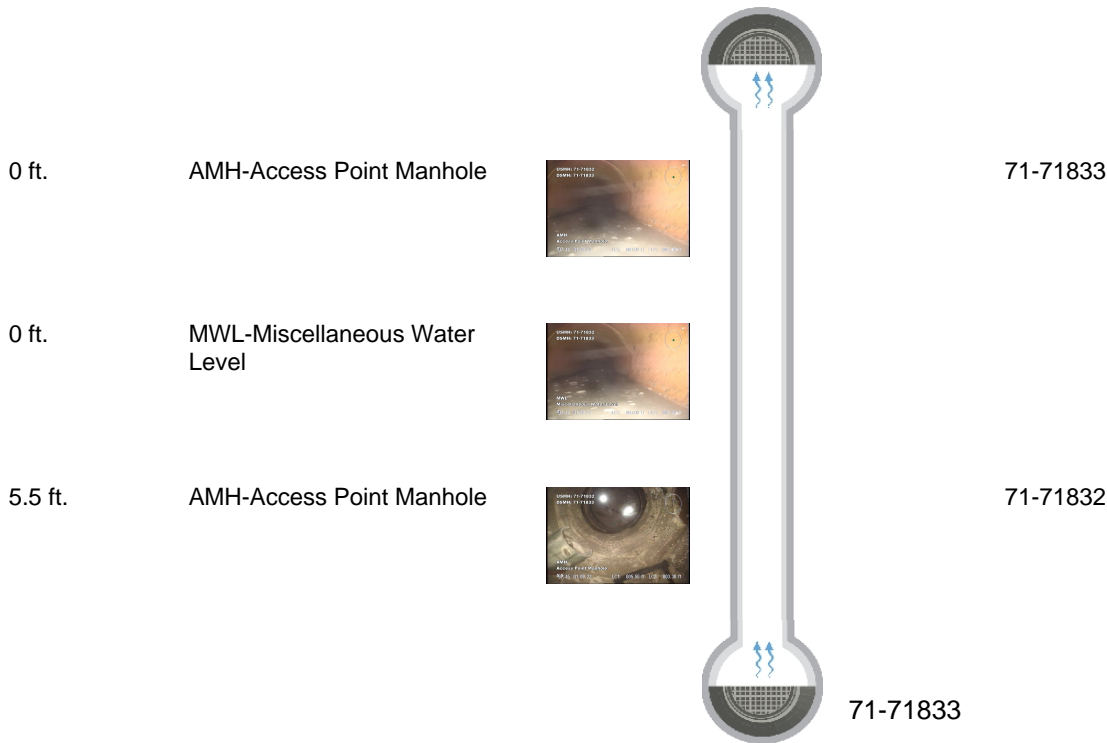
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71833									
0	MWL-Miscellaneous Water Level				5	<input type="checkbox"/>			
5.5	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71832									



Defect Listing Plot

Pipe Segment Reference 74-71977	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71832	Total Length 8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71833	Length surveyed 5.5	Year Renewed	Height 10	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer		
SPRI 0	MPRI 0	Work Order Number		Purpose		
QSR 0000	QMR 0000					
OPR 0	Surveyed By Ahoagland	Direction Upstream	Date 09/01/2022		Media label	
OPRI 0	Certificate Number U-913-18423	Pre-Cleaning Not Known	Time 08:16		Weather	
Date Cleaned			End Time 08:17		Additional Info	





4 Image Report

Pipe Segment Reference 74-71977	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71832	Total Length 8	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71833	Length surveyed 5.5	Year Renewed	Height 10	Width	Pipe Joint Length	



Distance: 0.0 ft. **Grade:** 0
Condition: AMH-Access Point Manhole
Remarks: 71-71833



Distance: 0.0 ft. **Grade:** 0
Condition: MWL-Miscellaneous Water Level
Remarks: N/A



Distance: 5.5 ft. **Grade:** 0
Condition: AMH-Access Point Manhole
Remarks: 71-71832



Defect Listing

Pipe Segment Reference 74-71978	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71833	Total Length 128.9085	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71834	Length surveyed 25	Year Renewed	Height 10	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream		Date 08/16/2012	Media label
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 14:24	Weather <small>Dry - No precipitation during survey</small>
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info

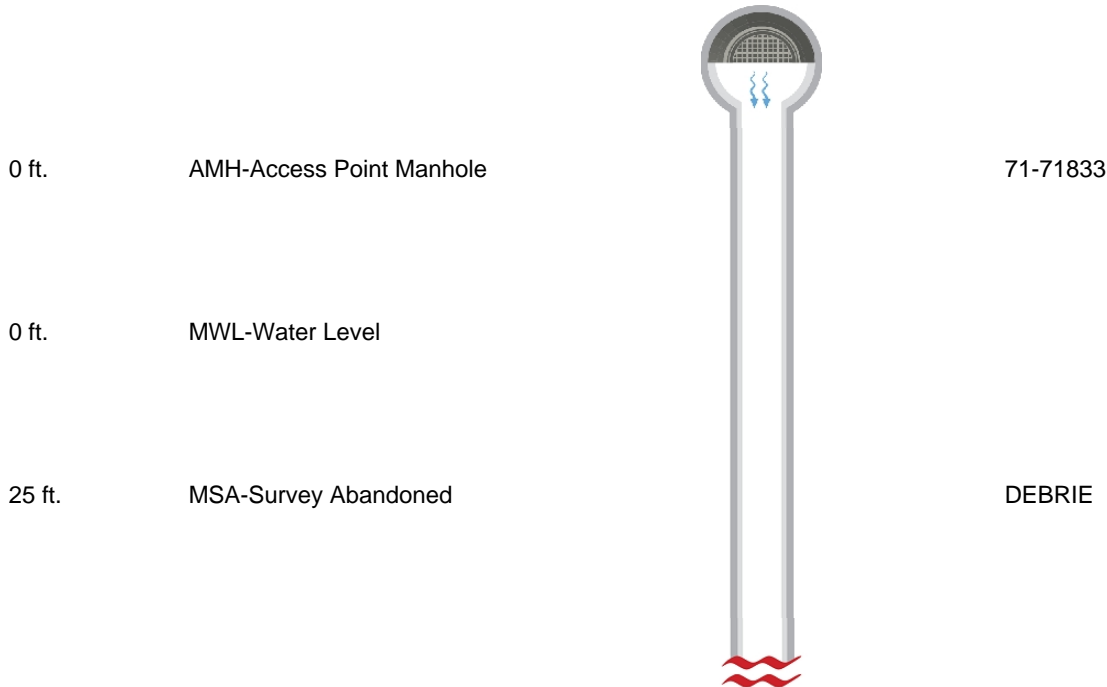
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71833									
0	MWL-Water Level				0	<input type="checkbox"/>			
25	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: DEBRIE									



Defect Listing Plot

Pipe Segment Reference 74-71978	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71833	Total Length 128.9085	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71834	Length surveyed 25	Year Renewed	Height 10	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Downstream	Date 08/16/2012	Media label	
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning	Time 14:24	Weather <small>Dry - No precipitation during survey</small>	
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012	End Time	Additional Info	





4 Image Report

Pipe Segment Reference 74-71978	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71833	Total Length 128.9085	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71834	Length surveyed 25	Year Renewed	Height 10	Width	Pipe Joint Length	



Defect Listing

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 198.8	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 5	MPR 13	PO Number		Customer		
SPRI 5	MPRI 4.3	Work Order Number		Purpose		
QSR 5100	QMR 5231					
OPR 18	Surveyed By JBELL	Direction Upstream	Date 02/28/2019		Media label	
OPRI 4.5	Certificate Number U-1117-07009559	Pre-Cleaning Light Cleaning	Time 11:02		Weather <small>Dry - No precipitation during survey</small>	
Date Cleaned			End Time		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71767									
0	MWL-Water Level				5	<input type="checkbox"/>			
3.4	TB-Tap Break-In		4			<input type="checkbox"/>	2		
44.8	TBB-Tap Break-In Abandoned		4			<input type="checkbox"/>	3		
55.1	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
68.8	TB-Tap Break-In		4			<input type="checkbox"/>	10		
69.2	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	10		
93.4	TB-Tap Break-In		4			<input type="checkbox"/>	2		
124.7	TB-Tap Break-In		4			<input type="checkbox"/>	2		
129	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
134.5	DAGS-Deposits Attached Grease				50	<input type="checkbox"/>	7		5
151.5	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	10		
157.9	TBI-Tap Break-In Intruding		4	1		<input type="checkbox"/>	10		3
184.9	HSV-Hole Soil Visible					<input type="checkbox"/>	10		5
197	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
198.8	DAGS-Deposits Attached Grease				100	<input type="checkbox"/>	6		5
198.8	MSA-Survey Abandoned					<input type="checkbox"/>			
Remarks: cant get through grease									



4 Image Report

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 198.8	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-71767



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 3.4 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 44.8 ft. Grade: 0
 Condition: TBB-Tap Break-In Abandoned
 Remarks: N/A



4 Image Report

Pipe Segment Reference	City	Street	Material	Location Code	Pipe Use
74-71984	Ann Arbor	Broadway St	Vitrified Clay Pipe		Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-71767	Length surveyed 198.8	Year Renewed	Height 8	Width	Pipe Joint Length



Distance: 55.1 ft. Grade: 0
 Condition: TFC-Tap Factory Made Capped
 Remarks: N/A



Distance: 68.8 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 69.2 ft. Grade: 0
 Condition: TFC-Tap Factory Made Capped
 Remarks: N/A

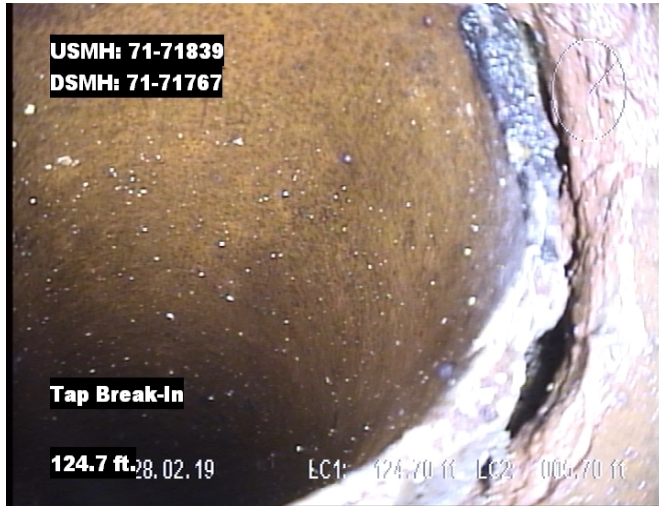


Distance: 93.4 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A

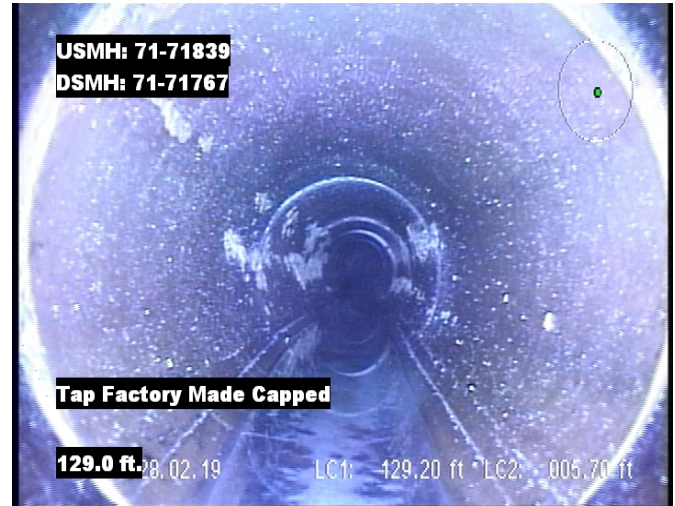


4 Image Report

Pipe Segment Reference	City	Street	Material	Location Code	Pipe Use
74-71984	Ann Arbor	Broadway St	Vitrified Clay Pipe		Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-71767	Length surveyed 198.8	Year Renewed	Height 8	Width	Pipe Joint Length



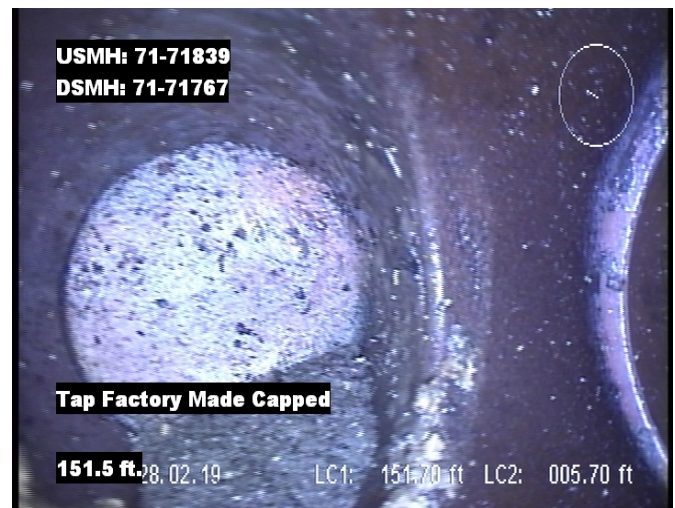
Distance: 124.7 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 129.0 ft. Grade: 0
 Condition: TFC-Tap Factory Made Capped
 Remarks: N/A



Distance: 134.5 ft. Grade: 5
 Condition: DAGS-Deposits Attached Grease
 Remarks: N/A

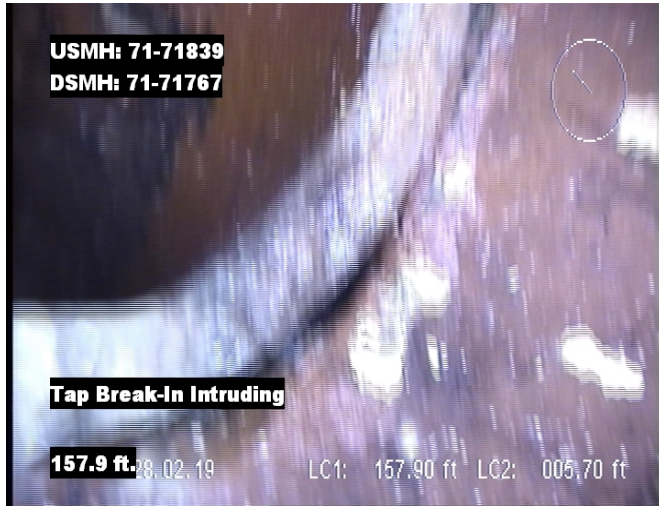


Distance: 151.5 ft. Grade: 0
 Condition: TFC-Tap Factory Made Capped
 Remarks: N/A



4 Image Report

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-71767	Length surveyed 198.8	Year Renewed	Height 8	Width	Pipe Joint Length



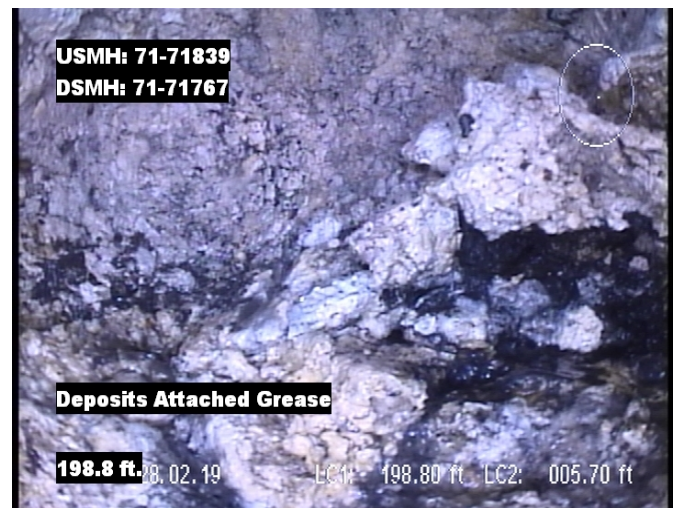
Distance: 157.9 ft. **Grade:** 3
Condition: TBI-Tap Break-In Intruding
Remarks: N/A



Distance: 184.9 ft. **Grade:** 5
Condition: HSV-Hole Soil Visible
Remarks: N/A



Distance: 197.0 ft. **Grade:** 0
Condition: TFC-Tap Factory Made Capped
Remarks: N/A

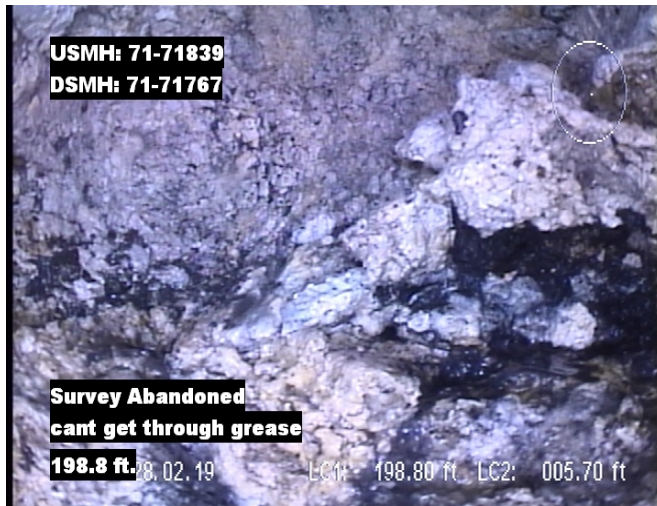


Distance: 198.8 ft. **Grade:** 5
Condition: DAGS-Deposits Attached Grease
Remarks: N/A



4 Image Report

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 198.8	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 198.8 ft. Grade: 0
 Condition: MSA-Survey Abandoned
 Remarks: cant get through grease



Defect Listing

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length	

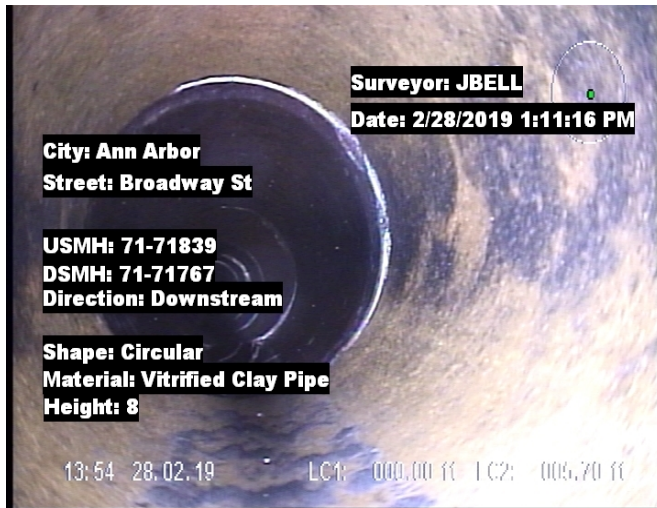
SPR 27	MPR 3	PO Number		Customer		
SPRI 3.4	MPRI 3	Work Order Number		Purpose		
QSR 5142	QMR 3100					
OPR 30	Surveyed By JBELL	Direction Downstream	Date 02/28/2019		Media label	
OPRI 3.3	Certificate Number U-1117-07009559	Pre-Cleaning Light Cleaning	Time 13:11		Weather <small>Dry - No precipitation during survey</small>	
Date Cleaned			End Time		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71839									
0	MWL-Water Level				5	<input type="checkbox"/>			
4.6	TB-Tap Break-In		4			<input type="checkbox"/>	2		
9.2	B-Broken Pipe					<input type="checkbox"/>	12		4
11.4	B-Broken Pipe					<input type="checkbox"/>	10		4
59.9	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
61.7	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	10		
109.4	TB-Tap Break-In		4			<input type="checkbox"/>	2		
126	TF-Tap Factory Made		4			<input type="checkbox"/>	10		
137.5	HSV-Hole Soil Visible					<input type="checkbox"/>	3		5
156.5	CM-Crack Multiple					<input type="checkbox"/>	12	12	3
165	TB-Tap Break-In		4			<input type="checkbox"/>	2		
168.8	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
193.8	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	10		
198.3	TB-Tap Break-In		4			<input type="checkbox"/>	10		
229.5	TB-Tap Break-In		4			<input type="checkbox"/>	10		
236.2	CM-Crack Multiple					<input type="checkbox"/>	6	6	3
242.3	CM-Crack Multiple					<input type="checkbox"/>	9	12	3
253.8	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	2		
254.4	TBI-Tap Break-In Intruding		4	1		<input type="checkbox"/>	2		3
268.2	TFC-Tap Factory Made Capped		4			<input type="checkbox"/>	10		
273.2	CM-Crack Multiple					<input type="checkbox"/>	9	1	3
278.3	TB-Tap Break-In		4			<input type="checkbox"/>	10		
306.2	CS-Crack Spiral					<input type="checkbox"/>	8	2	2
319.8	TB-Tap Break-In		4			<input type="checkbox"/>	10		
319.8	TB-Tap Break-In		4			<input type="checkbox"/>	10		
321.5	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71767									



4 Image Report

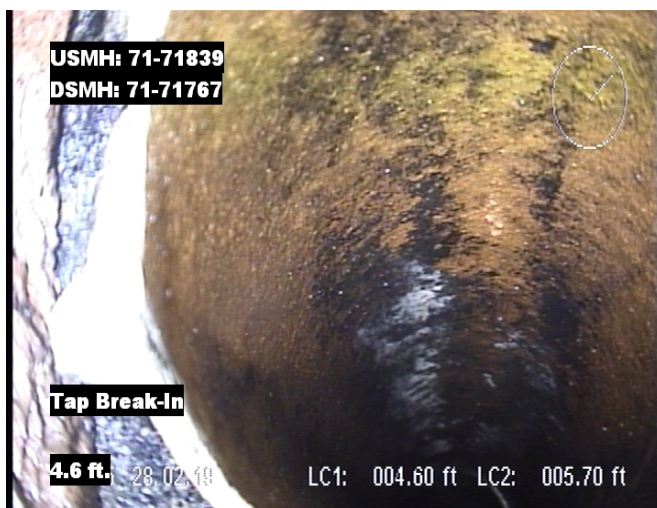
Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length



Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-71839



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 4.6 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 9.2 ft. Grade: 4
 Condition: B-Broken Pipe
 Remarks: N/A



4 Image Report

Pipe Segment Reference	City	Street	Material	Location Code	Pipe Use
74-71984	Ann Arbor	Broadway St	Vitrified Clay Pipe		Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length



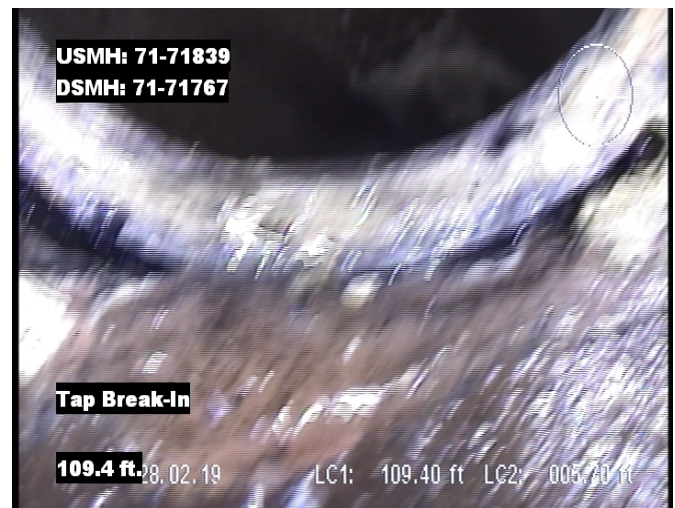
Distance: 11.4 ft. Grade: 4
 Condition: B-Broken Pipe
 Remarks: N/A



Distance: 59.9 ft. Grade: 0
 Condition: TFC-Tap Factory Made Capped
 Remarks: N/A



Distance: 61.7 ft. Grade: 0
 Condition: TFC-Tap Factory Made Capped
 Remarks: N/A



Distance: 109.4 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



4 Image Report

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe	Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length



Distance: 126.0 ft. **Grade:** 0
Condition: TF-Tap Factory Made
Remarks: N/A



Distance: 137.5 ft. **Grade:** 5
Condition: HSV-Hole Soil Visible
Remarks: N/A



Distance: 156.5 ft. **Grade:** 3
Condition: CM-Crack Multiple
Remarks: N/A



Distance: 165.0 ft. **Grade:** 0
Condition: TB-Tap Break-In
Remarks: N/A



4 Image Report

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 168.8 ft. **Grade:** 0
Condition: TFC-Tap Factory Made Capped
Remarks: N/A



Distance: 193.8 ft. **Grade:** 0
Condition: TFC-Tap Factory Made Capped
Remarks: N/A



Distance: 198.3 ft. **Grade:** 0
Condition: TB-Tap Break-In
Remarks: N/A

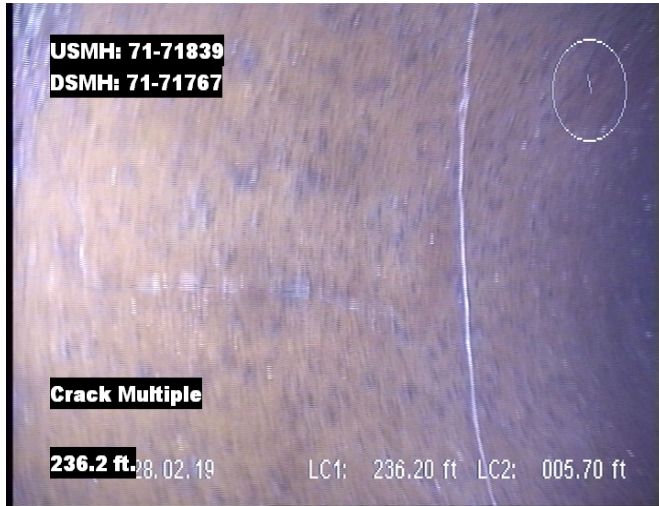


Distance: 229.5 ft. **Grade:** 0
Condition: TB-Tap Break-In
Remarks: N/A



4 Image Report

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 236.2 ft. **Grade:** 3
Condition: CM-Crack Multiple
Remarks: N/A



Distance: 242.3 ft. **Grade:** 3
Condition: CM-Crack Multiple
Remarks: N/A



Distance: 253.8 ft. **Grade:** 0
Condition: TFC-Tap Factory Made Capped
Remarks: N/A



Distance: 254.4 ft. **Grade:** 3
Condition: TBI-Tap Break-In Intruding
Remarks: N/A



4 Image Report

Pipe Segment Reference	City	Street	Material	Location Code	Pipe Use
74-71984	Ann Arbor	Broadway St	Vitrified Clay Pipe		Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular	Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length



Distance: 268.2 ft. Grade: 0
 Condition: TFC-Tap Factory Made Capped
 Remarks: N/A



Distance: 273.2 ft. Grade: 3
 Condition: CM-Crack Multiple
 Remarks: N/A



Distance: 278.3 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 306.2 ft. Grade: 2
 Condition: CS-Crack Spiral
 Remarks: N/A



4 Image Report

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 321.5	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 319.8 ft. **Grade:** 0
Condition: TB-Tap Break-In
Remarks: N/A



Distance: 319.8 ft. **Grade:** 0
Condition: TB-Tap Break-In
Remarks: N/A



Distance: 321.5 ft. **Grade:** 0
Condition: AMH-Access Point Manhole
Remarks: 71-71767



Defect Listing

Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 9.5	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 3	MPR 0	PO Number		Customer		
SPRI 3	MPRI 0	Work Order Number		Purpose		
QSR 3100	QMR 0000					
OPR 3	Surveyed By AHoagland	Direction Downstream	Date 02/27/2019		Media label	
OPRI 3	Certificate Number U-913-18423	Pre-Cleaning Heavy Cleaning	Time 12:08		Weather Snow	
Date Cleaned 02/27/2019			End Time		Additional Info	

Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71839									
0	MWL-Water Level				0	<input type="checkbox"/>			
4.8	TB-Tap Break-In		4			<input type="checkbox"/>	2		
9.5	CM-Crack Multiple					<input type="checkbox"/>	7	11	3

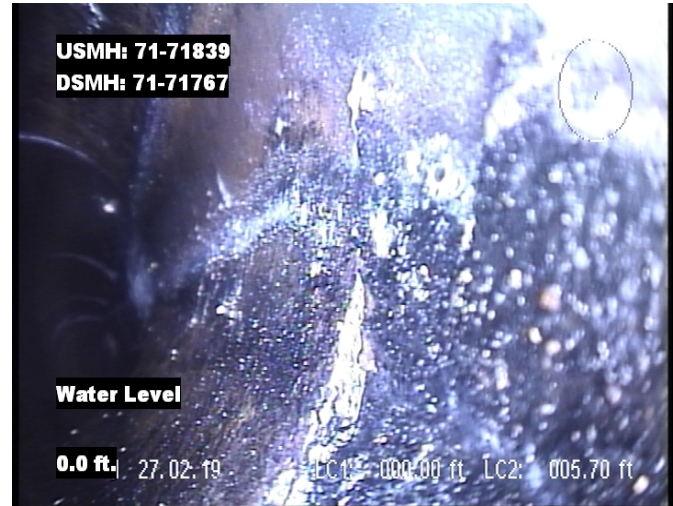


4 Image Report

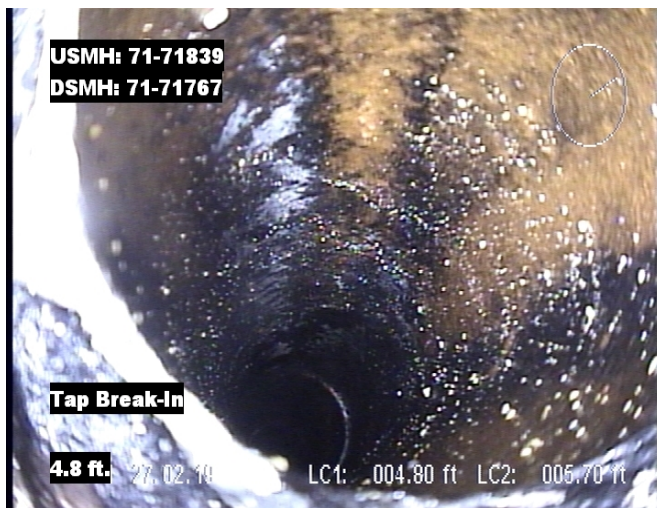
Pipe Segment Reference 74-71984	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71839	Total Length 0	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71767	Length surveyed 9.5	Year Renewed	Height 8	Width	Pipe Joint Length	



Distance: 0.0 ft. Grade: 0
 Condition: AMH-Access Point Manhole
 Remarks: 71-71839



Distance: 0.0 ft. Grade: 0
 Condition: MWL-Water Level
 Remarks: N/A



Distance: 4.8 ft. Grade: 0
 Condition: TB-Tap Break-In
 Remarks: N/A



Distance: 9.5 ft. Grade: 3
 Condition: CM-Crack Multiple
 Remarks: N/A



Defect Listing

Pipe Segment Reference 74-72004	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71857	Total Length 111.3167	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71832	Length surveyed 107.1	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Upstream		Date 08/16/2012	Media label
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 14:14	Weather <small>Dry - No precipitation during survey</small>
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info

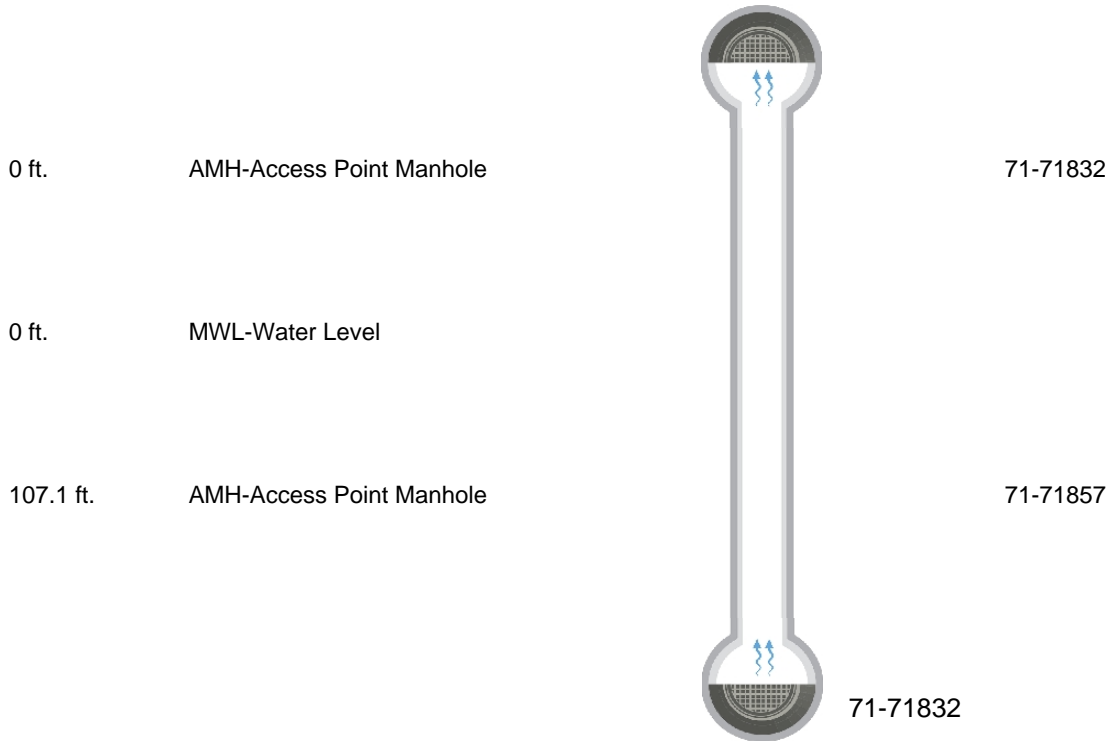
Distance	Condition	Cont. Dfct.	Values			Joint	Clock Position		Grade
			1st	2nd	%		At/From	To	
0	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71832									
0	MWL-Water Level				0	<input type="checkbox"/>			
107.1	AMH-Access Point Manhole					<input type="checkbox"/>			
Remarks: 71-71857									



Defect Listing Plot

Pipe Segment Reference 74-72004	City Ann Arbor	Street Broadway St	Material Vitrified Clay Pipe		Location Code	Pipe Use Sanitary Sewage Pipe
Upstream MH 71-71857	Total Length 111.3167	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71832	Length surveyed 107.1	Year Renewed	Height 8	Width	Pipe Joint Length	

SPR 0	MPR 0	PO Number		Customer	
SPRI 0	MPRI 0	Work Order Number		Purpose Not Known	
QSR 0000	QMR 0000	Direction Upstream		Date 08/16/2012	Media label
OPR 0	Surveyed By JACOB	Pre-Cleaning Light Cleaning		Time 14:14	Weather <small>Dry - No precipitation during survey</small>
OPRI 0	Certificate Number 000000	Date Cleaned 08/16/2012		End Time	Additional Info





4 Image Report

Pipe Segment Reference	City	Street	Material		Location Code	Pipe Use
74-72004	Ann Arbor	Broadway St	Vitrified Clay Pipe			Sanitary Sewage Pipe
Upstream MH 71-71857	Total Length 111.3167	Year Constructed	Shape Circular		Location Details	
Downstream MH 71-71832	Length surveyed 107.1	Year Renewed	Height 8	Width	Pipe Joint Length	