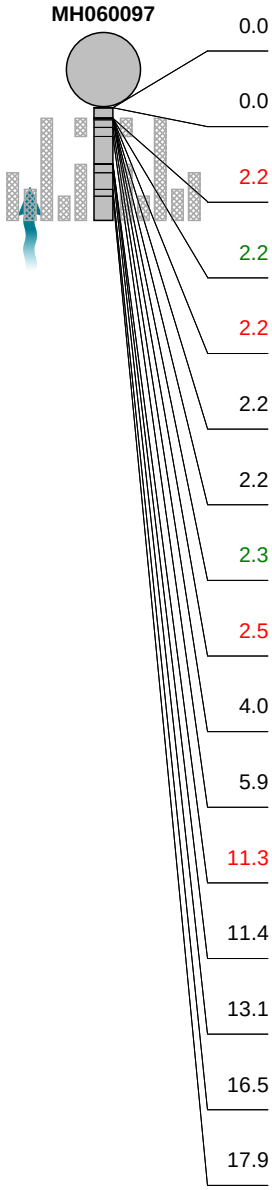
**Absolute Pipe**
*PO Box 943, Newton, IA*
*Tel. 515-966-5887*
*steven@absolutepipe.com*

# Inspection report

| Date: | Work Order: | Weather: | Surveyed By: | Certificate Number: | Pipe Segment Ref.: |
|---|---|---|---|---|---|
| **5/17/2022** | | **Dry** | **Steven Bucklin** | **U-0819-70306510** | **MH060097-MH060115** |
| Year laid: | Pre-cleaning: | Direction: | Pipe Joint Length: | Total Length: | Length Surveyed: |
| | **No Pre-Cleaning** | **Upstream** | | | |

| | | | | | |
|---|---|---|---|---|---|
| City: | **City of Superior** | Drainage Area: | | Upstream MH: | **MH060115** |
| Street: | **BTW ROYALTON & WINDSOR AND BTW** | Media Label: | **1111** | Up Rim to Invert: | **0.0** |
| Location Code: | **Easement/Right of way** | Flow Control: | **Not Controlled** | Downstream MH: | **MH060097** |
| Location Details: | | Sheet Number: | **19** | Down Rim to Invert: | **0.0** |
| Pipe shape: | **Circular** | Sewer Use: | **Combined Pipe** | Total gallons used: | **0.0** |
| Pipe size: | **12** | Sewer Category: | **SEC** | Joints passed: | **0** |
| Pipe material: | **Vitrified Clay Pipe** | Purpose: | **Routine Assessment** | Joints failed: | **0** |
| Lining Method: | **None** | Owner: | **City of Superior** | | |

Additional Info:

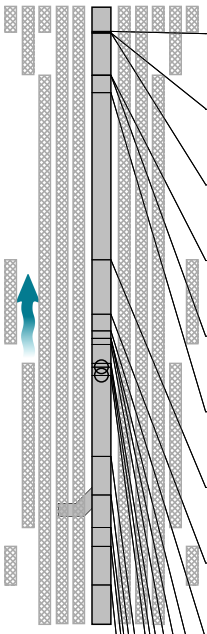



| Distance | | Code | Observation | Counter | Photo | Grade |
|---|---|---|---|---|---|---|
| 0.0 | | AMH | Manhole / MH060097 | 00:00:02 | MH060097-MH060115_355d87 | |
| 0.0 | | MWL | Water Level, 5% of the vertical dimension | 00:01:39 | MH060097-MH060115_6b523d | |
| 2.2 | | JOMD | Joint Offset Medium Defective | 00:03:10 | MH060097-MH060115_399a07 | S3 |
| 2.2 | | RFJ | Roots Fine Joint from 3 o'clock to 4 o'clock, within 8 inch | 00:03:32 | MH060097-MH060115_dd6e55 | M1 |
| 2.2 | | FM | Fracture Multiple from 2 o'clock to 9 o'clock, within 8 inch | 00:04:29 | MH060097-MH060115_55aa87 | S4 |
| 2.2 | S01 | LL | Line Left, change to: 20%, Start | 00:04:54 | MH060097-MH060115_af87443 | |
| 2.2 | S02 | JAL | Joint Angular Large, Start | 00:02:56 | MH060097-MH060115_e61217 | |
| 2.3 | | RFJ | Roots Fine Joint from 12 o'clock to 2 o'clock, within 8 inch | 00:06:04 | MH060097-MH060115_c228d84 | M1 |
| 2.5 | | CS | Crack Spiral from 12 o'clock to 1 o'clock, within 8 inch | 00:06:47 | MH060097-MH060115_8c33e49 | S2 |
| 4.0 | | ISGT | Intruding Sealing Material Grout, 5% of cross sectional area from 2 o'clock to 4 o'clock | 00:07:24 | MH060097-MH060115_97eb14 | M2 |
| 5.9 | F01 | LL | Line Left, change to: 20%, Finish | 00:07:49 | MH060097-MH060115_718ce27 | M2 |
| 11.3 | | CM | Crack Multiple from 11 o'clock to 2 o'clock, within 8 inch | 00:08:50 | MH060097-MH060115_9ce6efc | S3 |
| 11.4 | S03 | RFJ | Roots Fine Joint from 8 o'clock to 4 o'clock, Start, within 8 inch | 00:09:24 | MH060097-MH060115_c3a35c3 | |
| 13.1 | S04 | LL | Line Left, change to: 50%, Start | 00:09:50 | MH060097-MH060115_7e8a9d | |
| 16.5 | S05 | CM | Crack Multiple from 7 o'clock to 5 o'clock, within 8 inch, Start | 00:10:25 | MH060097-MH060115_41ae34 | |
| 17.9 | S06 | DSF | Deposits Settled Fine, 5% of cross sectional area from 5 o'clock to 7 o'clock, within 8 inch, Start | 00:10:48 | MH060097-MH060115_fef4963 | |

**Absolute Pipe**
*PO Box 943, Newton, IA*
*Tel. 515-966-5887*
*steven@absolutepipe.com*

# Inspection report

| Date: | Work Order: | Weather: | Surveyed By: | Certificate Number: | Pipe Segment Ref.: |
|---|---|---|---|---|---|
| **5/17/2022** | | **Dry** | **Steven Bucklin** | **U-0819-70306510** | **MH060097-MH060115** |
| Year laid: | Pre-cleaning: | Direction: | Pipe Joint Length: | Total Length: | Length Surveyed: |
| | **No Pre-Cleaning** | **Upstream** | | | |



| 1:1520 Distance | | Code | Observation | Counter | Photo | Grade |
|---|---|---|---|---|---|---|
| 27.7 | | MWL | Water Level, 15% of the vertical dimension | 00:12:14 | MH060097-MH060115_983641 | |
| 28.0 | F04 | LL | Line Left, change to: 50%, Finish | 00:12:30 | MH060097-MH060115_4d2978 | M4 |
| 28.0 | F02 | JAL | Joint Angular Large, Finish | 00:12:37 | MH060097-MH060115_a68312 | S4 |
| 36.6 | S07 | B | Broken from 12 o'clock to 12 o'clock, within 8 inch, Start | 00:13:36 | MH060097-MH060115_4f90ee0 | |
| 36.6 | F05 | CM | Crack Multiple from 7 o'clock to 5 o'clock, within 8 inch, Finish | 00:13:49 | MH060097-MH060115_33547d | S3 |
| 40.1 | | JSL | Joint Separated Large | 00:14:37 | MH060097-MH060115_1964b5 | S4 |
| 73.6 | S08 | MWLS | Miscellaneous Water Level, Sag, 15% of the vertical dimension, Start | 00:16:49 | MH060097-MH060115_44b7b4c | |
| 84.6 | | JOMD | Joint Offset Medium Defective | 00:17:44 | MH060097-MH060115_677fc40 | S3 |
| 87.9 | | JOMD | Joint Offset Medium Defective | 00:18:28 | MH060097-MH060115_42dfa27 | S3 |
| 89.5 | | RFB | Roots Fine Barrell at 10 o'clock | 00:19:00 | MH060097-MH060115_5a7f03e | M2 |
| 89.5 | | ISB | Infiltration Stain Barrel from 8 o'clock to 10 o'clock | 00:19:10 | MH060097-MH060115_1ce4797 | M1 |
| 90.6 | F08 | MWLS | Miscellaneous Water Level, Sag, 15% of the vertical dimension, Finish | 00:19:32 | MH060097-MH060115_1e4c6f2 | S2 |
| 94.5 | S09 | MWLS | Miscellaneous Water Level, Sag, 10% of the vertical dimension, Start | 00:19:54 | MH060097-MH060115_146522 | |
| 95.2 | | TFD | Tap Factory Made Defective at 12 o'clock, dia/height: 6inch, within 8 inch / TAP BROKEN. CAPPED. | 00:20:30 | MH060097-MH060115_d27f73a | M3 |
| 96.9 | | TFD | Tap Factory Made Defective at 12 o'clock, dia/height: 6inch, within 8 inch / TAP BROKEN. CAPPED. | 00:20:52 | MH060097-MH060115_c1b0bb5 | M3 |
| 113.1 | | JOMD | Joint Offset Medium Defective | 00:22:15 | MH060097-MH060115_bcf8287 | S3 |
| 120.8 | | TBI | Tap Break-In Intruding at 1 o'clock, dia/height: 4inch, intruding: 1inch / CONSTANTLY DRIPPING WATER. | 00:23:32 | MH060097-MH060115_791e8f7 | M2 |
| 127.5 | F09 | MWLS | Miscellaneous Water Level, Sag, 10% of the vertical dimension, Finish | 00:24:10 | MH060097-MH060115_0f76eb0 | S2 |
| 131.3 | S10 | MWLS | Miscellaneous Water Level, Sag, 5% of the vertical dimension, Start | 00:24:34 | MH060097-MH060115_1ded8d | |
| 139.0 | F10 | MWLS | Miscellaneous Water Level, Sag, 5% of the vertical dimension, Finish | 00:25:13 | MH060097-MH060115_38aba8 | S2 |

**Absolute Pipe**
*PO Box 943, Newton, IA*
*Tel. 515-966-5887*
*steven@absolutepipe.com*

# Inspection report

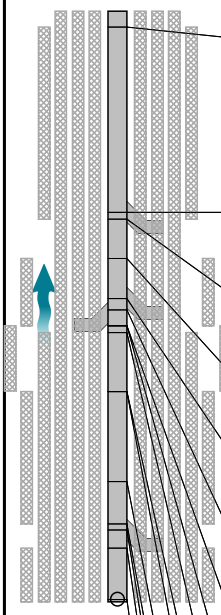
| Date: | Work Order: | Weather: | Surveyed By: | Certificate Number: | Pipe Segment Ref.: |
|---|---|---|---|---|---|
| **5/17/2022** | | **Dry** | **Steven Bucklin** | **U-0819-70306510** | **MH060097-MH060115** |
| Year laid: | Pre-cleaning: | Direction: | Pipe Joint Length: | Total Length: | Length Surveyed: |
| | **No Pre-Cleaning** | **Upstream** | | | |

| 1:1520 Distance | | Code | Observation | Counter | Photo | Grade |
|---|---|---|---|---|---|---|
| 154.9 | S11 | MWLS | Miscellaneous Water Level, Sag, 10% of the vertical dimension, Start | 00:26:14 | MH060097-MH060115_f2f283c | |
| 175.3 | F11 | MWLS | Miscellaneous Water Level, Sag, 10% of the vertical dimension, Finish | 00:27:30 | MH060097-MH060115_c632d29 | S2 |
| 175.3 | S12 | DR | Deformed Rigid, change to: 15%, Start | 00:27:39 | MH060097-MH060115_cf9ba60 | |
| 180.1 | | SMW | Surface Damage Missing Wall from 1 o'clock to 2 o'clock | 00:28:14 | MH060097-MH060115_4aa86e | S5 |
| 182.0 | S13 | BSV | Broken Soil Visible from 12 o'clock to 12 o'clock, within 8 inch, Start | 00:28:56 | MH060097-MH060115_cec7ddc | |
| 185.6 | | SMW | Surface Damage Missing Wall from 4 o'clock to 6 o'clock, within 8 inch | 00:29:52 | MH060097-MH060115_2787ddc | S5 |
| 192.6 | | TFD | Tap Factory Made Defective at 1 o'clock, dia/height: 4inch, within 8 inch / TAP BROKEN. | 00:30:58 | MH060097-MH060115_2abc3a6 | M3 |
| 200.0 | | SMW | Surface Damage Missing Wall from 4 o'clock to 5 o'clock, within 8 inch | 00:31:59 | MH060097-MH060115_c74fec0 | S5 |
| 202.0 | F13 | BSV | Broken Soil Visible from 12 o'clock to 12 o'clock, within 8 inch, Finish | 00:32:26 | MH060097-MH060115_587ff72 | S5 |
| 202.0 | F12 | DR | Deformed Rigid, change to: 15%, Finish | 00:32:36 | MH060097-MH060115_8d1f520 | S5 |
| 208.2 | S14 | MWLS | Miscellaneous Water Level, Sag, 15% of the vertical dimension, Start | 00:33:08 | MH060097-MH060115_e500d2 | |
| 209.4 | | JAM | Joint Angular Medium | 00:33:46 | MH060097-MH060115_ba9227 | S3 |
| 214.6 | | JOM | Joint Offset Medium | 00:34:21 | MH060097-MH060115_29a5b9 | S3 |
| 223.3 | | JOM | Joint Offset Medium | 00:35:10 | MH060097-MH060115_ba267b | S3 |
| 229.0 | F14 | MWLS | Miscellaneous Water Level, Sag, 15% of the vertical dimension, Finish | 00:35:50 | MH060097-MH060115_9d12ca3 | S2 |
| 229.0 | S15 | DR | Deformed Rigid, change to: 5%, Start | 00:35:58 | MH060097-MH060115_e76909 | |
| 231.0 | | TFD | Tap Factory Made Defective at 12 o'clock, dia/height: 10inch, within 8 inch / TAP BROKEN. | 00:36:19 | MH060097-MH060115_4f024df | M3 |
| 235.2 | F15 | DR | Deformed Rigid, change to: 5%, Finish | 00:36:52 | MH060097-MH060115_9311da | S4 |
| 239.6 | | MWLS | Miscellaneous Water Level, Sag, 5% of the vertical dimension | 00:37:17 | MH060097-MH060115_7326e4 | S2 |
| 240.8 | | JOM | Joint Offset Medium | 00:37:33 | MH060097-MH060115_dc95d11 | S3 |

**Absolute Pipe**
*PO Box 943, Newton, IA*
*Tel. 515-966-5887*
*steven@absolutepipe.com*

# Inspection report

| Date: | Work Order: | Weather: | Surveyed By: | Certificate Number: | Pipe Segment Ref.: |
|---|---|---|---|---|---|
| **5/17/2022** | | **Dry** | **Steven Bucklin** | **U-0819-70306510** | **MH060097-MH060115** |
| Year laid: | Pre-cleaning: | Direction: | Pipe Joint Length: | Total Length: | Length Surveyed: |
| | **No Pre-Cleaning** | **Upstream** | | | |

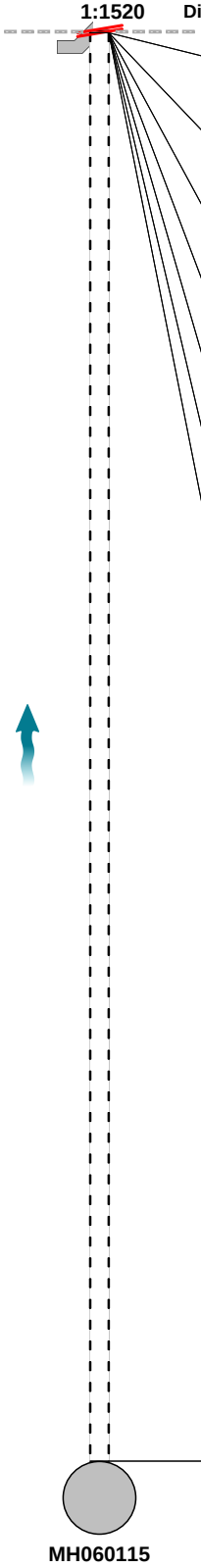


| 1:1520 Distance | | Code | Observation | Counter | Photo | Grade |
|---|---|---|---|---|---|---|
| 247.2 | S16 | MWLS | Miscellaneous Water Level, Sag, 5% of the vertical dimension, Start | 00:38:04 | MH060097-MH060115_d3db08 | |
| 284.4 | | TBI | Tap Break-In Intruding at 11 o'clock, dia/height: 6inch, intruding: 2inch | 00:40:28 | MH060097-MH060115_09ff041 | M3 |
| 285.9 | F16 | MWLS | Miscellaneous Water Level, Sag, 5% of the vertical dimension, Finish | 00:40:48 | MH060097-MH060115_450d7a | S2 |
| 293.7 | S17 | MWLS | Miscellaneous Water Level, Sag, 10% of the vertical dimension, Start | 00:41:26 | MH060097-MH060115_b0da90 | |
| 301.7 | | TFD | Tap Factory Made Defective at 11 o'clock, dia/height: 6inch, within 8 inch / TAP BROKEN. CAPPED. | 00:42:00 | MH060097-MH060115_5d8a9a | M3 |
| 304.1 | | TFD | Tap Factory Made Defective at 1 o'clock, dia/height: 6inch, within 8 inch / TAP BROKEN. CAPPED. | 00:42:19 | MH060097-MH060115_c574289 | M3 |
| 307.2 | F17 | MWLS | Miscellaneous Water Level, Sag, 10% of the vertical dimension, Finish | 00:42:48 | MH060097-MH060115_251500f | S2 |
| 307.2 | S18 | DR | Deformed Rigid, change to: 5%, Start | 00:42:56 | MH060097-MH060115_dddcae6 | |
| 308.6 | S19 | DAE | Deposits Attached Encrustation, 5% of cross sectional area from 7 o'clock to 5 o'clock, within 8 inch, Start | 00:43:17 | MH060097-MH060115_157b1f2 | |
| 320.4 | F18 | DR | Deformed Rigid, change to: 5%, Finish | 00:44:20 | MH060097-MH060115_373732c | S4 |
| 320.4 | S20 | MWLS | Miscellaneous Water Level, Sag, 20% of the vertical dimension, Start | 00:44:28 | MH060097-MH060115_460284 | |
| 338.5 | | JOMD | Joint Offset Medium Defective | 00:45:49 | MH060097-MH060115_0cd50c4 | S3 |
| 347.0 | F20 | MWLS | Miscellaneous Water Level, Sag, 20% of the vertical dimension, Finish | 00:46:34 | MH060097-MH060115_00c7811 | S2 |
| 348.3 | | TFD | Tap Factory Made Defective at 11 o'clock, dia/height: 6inch, within 8 inch / TAP BROKEN. SERVICE OFFSET. ANGLED. | 00:46:52 | MH060097-MH060115_806fea5 | M3 |
| 352.0 | S21 | MWLS | Miscellaneous Water Level, Sag, 5% of the vertical dimension, Start | 00:47:18 | MH060097-MH060115_a28647c | |
| 362.3 | | RMC | Roots Medium Connection from 12 o'clock to 4 o'clock, 10% of cross sectional area | 00:48:24 | MH060097-MH060115_54fa50b | M3 |

**Absolute Pipe**
*PO Box 943, Newton, IA*
*Tel. 515-966-5887*
*steven@absolutepipe.com*

# Inspection report

| Date: | Work Order: | Weather: | Surveyed By: | Certificate Number: | Pipe Segment Ref.: |
|---|---|---|---|---|---|
| **5/17/2022** | | **Dry** | **Steven Bucklin** | **U-0819-70306510** | **MH060097-MH060115** |
| Year laid: | Pre-cleaning: | Direction: | Pipe Joint Length: | Total Length: | Length Surveyed: |
| | **No Pre-Cleaning** | **Upstream** | | | |




| Distance | | Code | Observation | Counter | Photo | Grade |
|---|---|---|---|---|---|---|
| 363.2 | | TBI | Tap Break-In Intruding at 1 o'clock, dia/height: 6inch, intruding: 5inch, within 8 inch | 00:48:48 | MH060097-MH060115_86f2515 | M5 |
| 363.2 | F03 | RFJ | Roots Fine Joint from 8 o'clock to 4 o'clock, Finish, within 8 inch | 00:49:14 | MH060097-MH060115_016b95 | M1 |
| 363.2 | F06 | DSF | Deposits Settled Fine, 5% of cross sectional area from 5 o'clock to 7 o'clock, within 8 inch, Finish | 00:49:22 | MH060097-MH060115_c7ed0e6 | M2 |
| 363.2 | F07 | B | Broken from 12 o'clock to 12 o'clock, within 8 inch, Finish | 00:49:29 | MH060097-MH060115_ad2ecae | S4 |
| 363.2 | F19 | DAE | Deposits Attached Encrustation, 5% of cross sectional area from 7 o'clock to 5 o'clock, within 8 inch, Finish | 00:49:38 | MH060097-MH060115_56522c4 | M2 |
| 363.2 | F21 | MWLS | Miscellaneous Water Level, Sag, 5% of the vertical dimension, Finish | 00:49:47 | MH060097-MH060115_229711 | S2 |
| 363.3 | | MSA | Miscellaneous Survey Abandoned / CAMERA CANT MAKE IT PAST PROTRUDING TAP. MADE IT TO THE POINT OF OVERLAP. REVERSAL COMPLETE. | 00:51:31 | MH060097-MH060115_4bedfe3 | |
| 656.0 | | | End of pipe | | | |

| QSR | QMR | QOR | SPR | MPR | OPR | SPRI | MPRI | OPRI |
|---|---|---|---|---|---|---|---|---|
| 5A4N | 5143 | 5A4N | 486.0 | 285.0 | 771.0 | 3.4 | 1.7 | 2.5 |