

# DRAINAGE DITCH INSPECTIONS

## 2015-2016



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<u>DITCH NAME</u>	<u>PAGE #</u>	<u>DITCH NAME</u>	<u>PAGE #</u>
CLAGUE RD & WESTWOOD DR	002	CURTIS DR & DANBERRY DR	018
ROOT RD LANDFILL	003	DOVER CENTER RD	019
BLOSSOM LN	004	EHLE & WILLOW LATERALS	020
FITCH RD & I-480	005	FRENCH CREEK	021
MAPLE SCHOOL, PAISLEY DR, GREENWARD WAY	006	GOODMAN & BIDDULPH LATERALS	022
CINNAMON WAY	007	HALL DITCH	023
WINDSOR DR	008	LIMPERT LATERAL	024
AUSTIN LATERAL	009	RICH DITCH (EAST)	025
BAILUS & PALMER LATERALS	010	RICH DITCH (WEST)	026
BARTON RD	011	ROOT DITCH – LORAIN RD	027
BARTON RD & I-480	012	ROOT DITCH - NOGC	028
BARTON RD/LORAIN RD	013	ROOT DITCH - NOHS	029
CLAGUE RD	014	ROOT DITCH - SPRINGVALE	030
CLAGUE RD/BRENDAN LN	015	ROOT RD & LORAIN RD	031
COE DITCH	016	WALTER RD	032
COLUMBIA RD & SR-252	017	WESTERLY & FITCH LATERALS	033

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Prepared By: City Engineering Department

Report Date: November 10, 2016



FIGURE 1: Sediment to be removed



FIGURE 5: Dead vegetation to be cleared

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: DIFRANCO/TREPAL  
DATE: 3/24/2015



FIGURE 7



FIGURE 9



FIGURE 2: Sediment to be removed

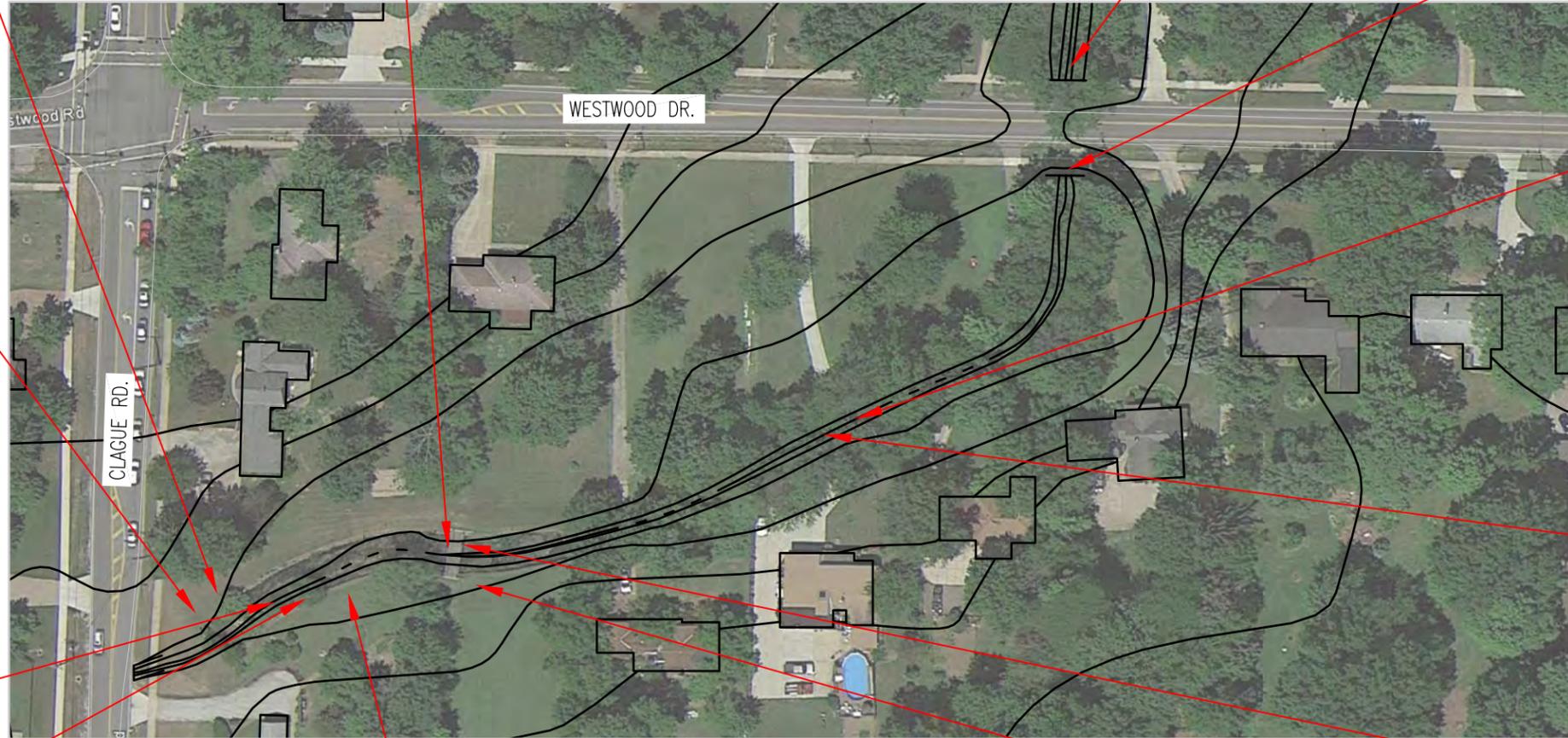


FIGURE 10: Channel narrows at drive culvert



FIGURE 3: Sediment to be removed



FIGURE 11: Channel narrows at drive culvert

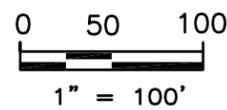


FIGURE 4: Channel to be cleaned



FIGURE 6: Channel to be cleaned

CLAGUE RD. & WESTWOOD DR.



SHEET 1 OF 5



FIGURE 8



FIGURE 12

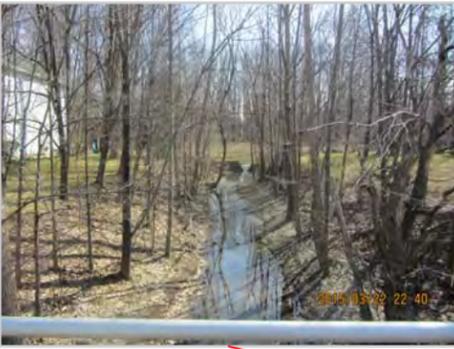


FIGURE 1



FIGURE 5: Weir at pond outlet

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: DIFRANCO/TREPAL  
DATE: 3/24/2015



FIGURE 7: Pipe 1/4 full



FIGURE 9



FIGURE 2: Debris to be removed



FIGURE 3: Debris to be removed



FIGURE 10



FIGURE 11

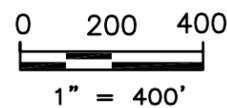


FIGURE 4: Debris to be removed



FIGURE 6

ROOT RD. LANDFILL



SHEET 2 OF 5



FIGURE 8



FIGURE 12



FIGURE 1



FIGURE 5

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: DIFRANCO/TREPAL  
DATE: 3/24/2015



FIGURE 7



FIGURE 9



FIGURE 2

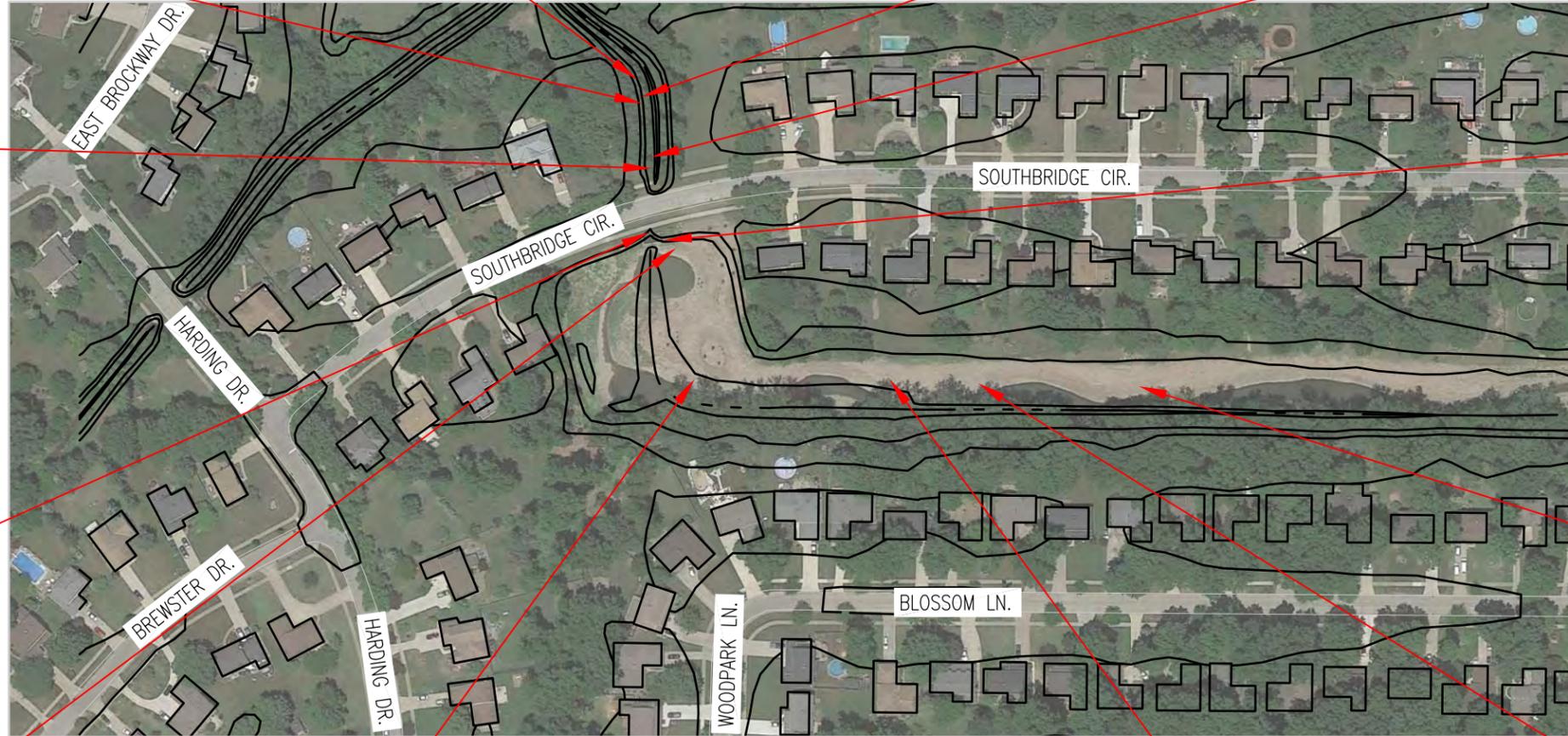


FIGURE 10: Monitor WQ orifice below plate



FIGURE 3



FIGURE 11: Outlet pipe above normal water

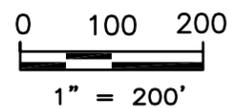


FIGURE 4: Water quality steel orifice plate



FIGURE 6: Outlet pipe above normal water

BLOSSOM LN.



SHEET 3 OF 5



FIGURE 8



FIGURE 12

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: DIFRANCO/TREPAL  
DATE: 3/24/2015



FIGURE 1



FIGURE 6



FIGURE 8



FIGURE 2

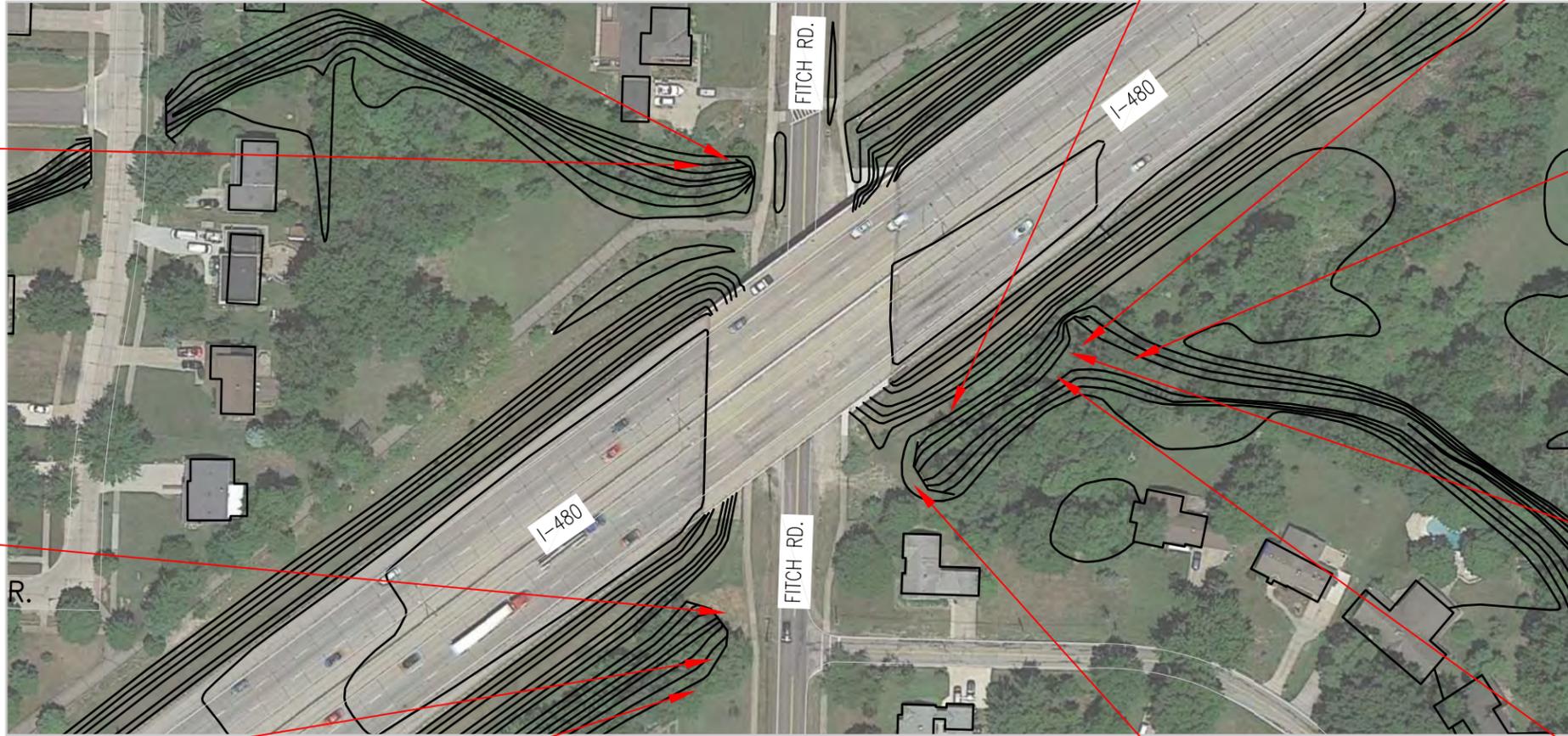


FIGURE 9



FIGURE 3



FIGURE 10

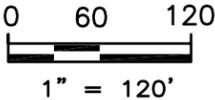


FIGURE 4



FIGURE 5

FITCH RD. & I-480.



SHEET 4 OF 5



FIGURE 7



FIGURE 11



FIGURE 1



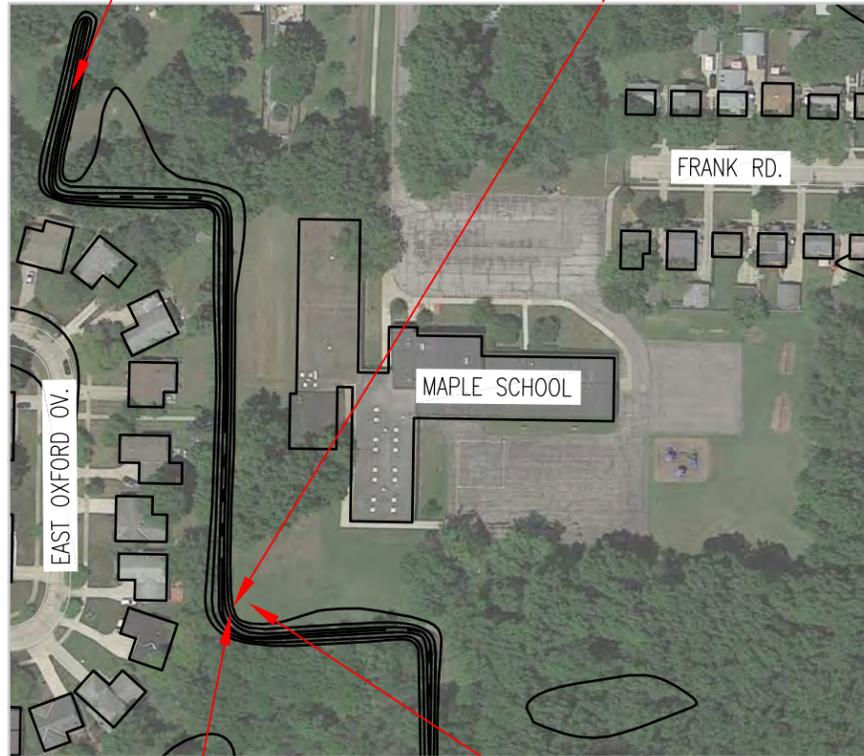
FIGURE 3

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: DIFRANCO/TREPAL  
DATE: 3/24/2015



FIGURE 5



MAPLE SCHOOL



PAISLEY DR.



GREENWARD WAY



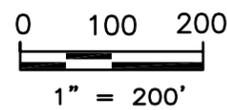
FIGURE 2



FIGURE 4



FIGURE 6



# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: DIFRANCO/SCHUMANN  
DATE: 6/30/2015

CULVERT CROSSING I-480

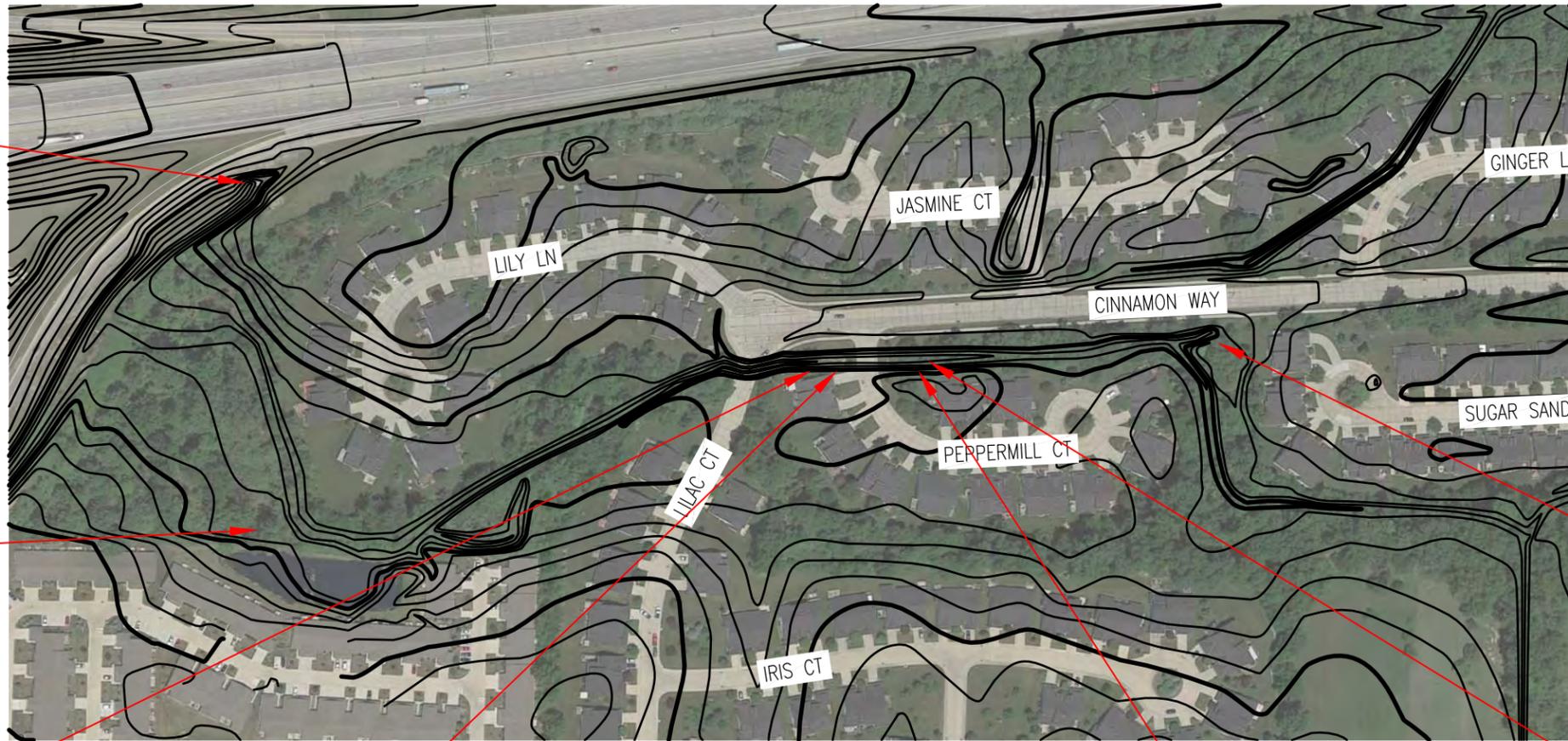


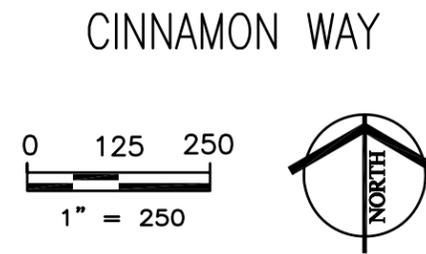
FIGURE 1: Debris impeding flow



FIGURE 2: Channel clear



FIGURE 3: Channel clear



SHEET 6 OF 6



FIGURE 4: Outlet Pipe 1/2 Full of Sediment



FIGURE 5: Vegetation at culvert inlet

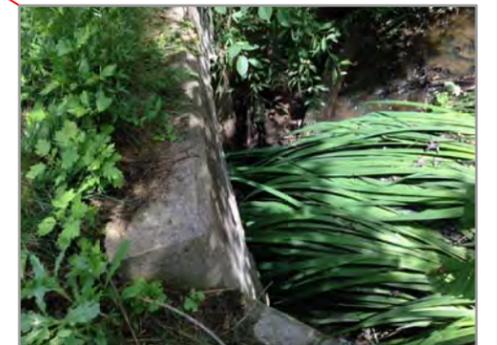


FIGURE 6: Vegetation at culvert inlet



FIGURE 1: Erosion & undermining tree roots



FIGURE 5: Bank stabilization by residents

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: DIFRANCO  
DATE: 10/07/2015



FIGURE 7: Headwall on Southerly Lateral



FIGURE 9: View towards culvert at school



FIGURE 2: Stearns culvert outlet channel



FIGURE 3: Stearns culvert outlet channel

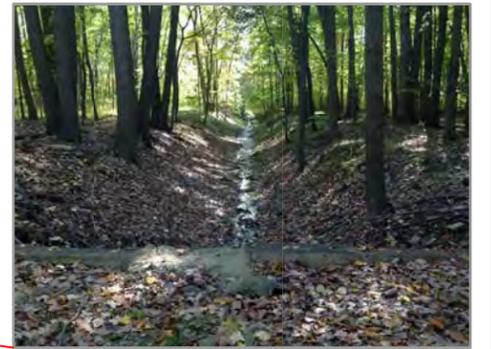
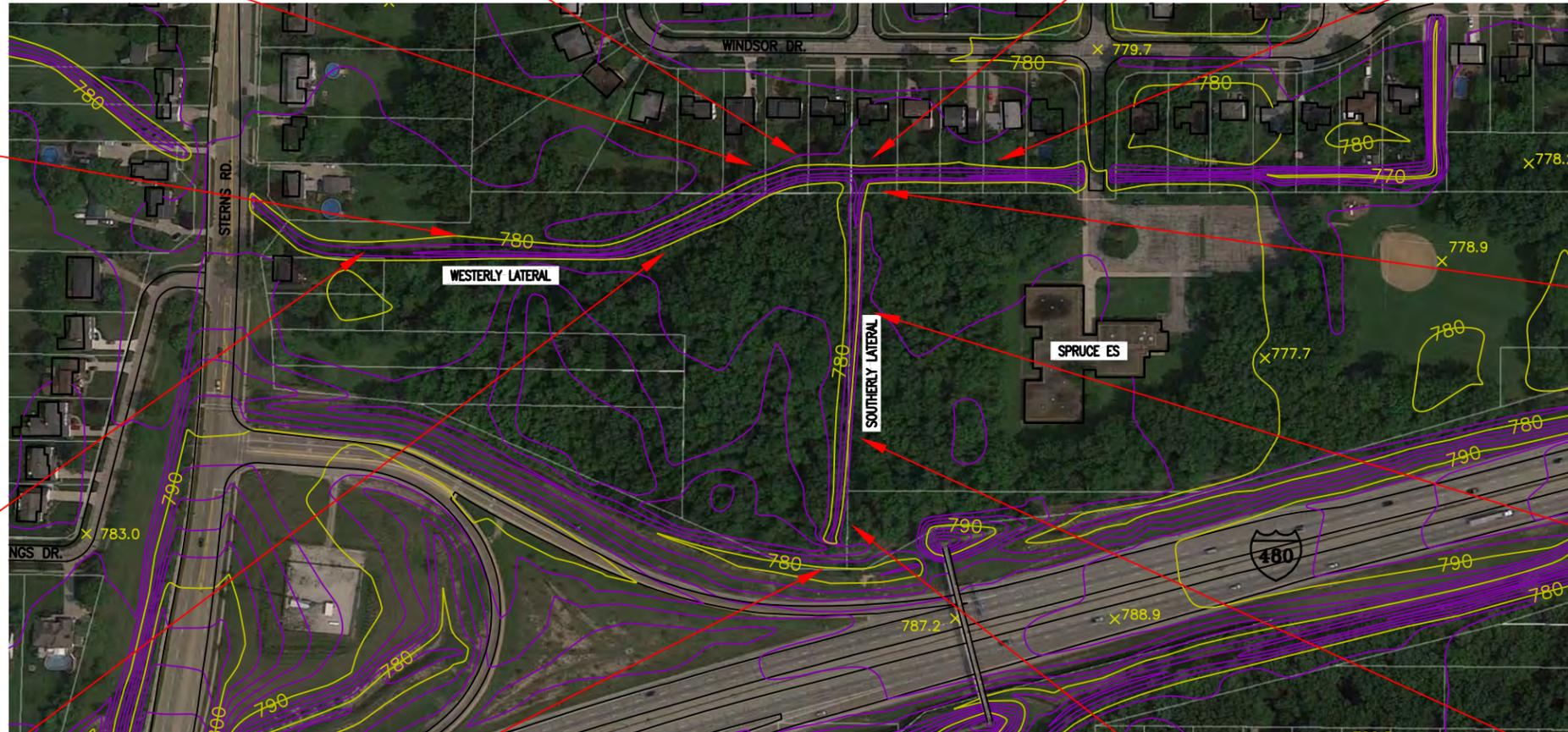


FIGURE 10: View towards I-480



FIGURE 11: View towards I-480

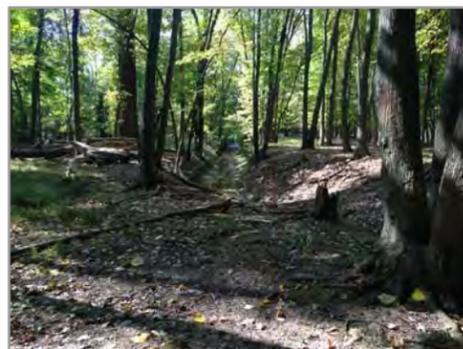
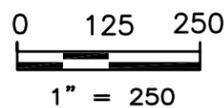


FIGURE 4: Westerly Lateral channel



FIGURE 6: Culvert crossing I-480

WINDSOR DRIVE  
ROOT DITCH WESTERLY & SOUTHERLY LATERALS



SHEET 7 OF #

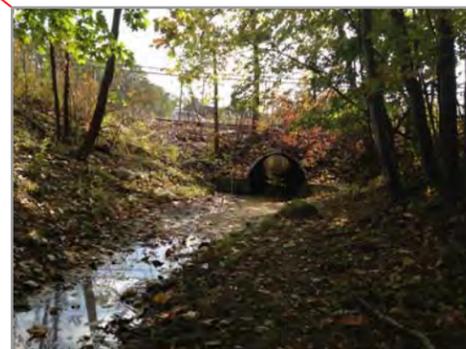


FIGURE 8: Culvert crossing bike path

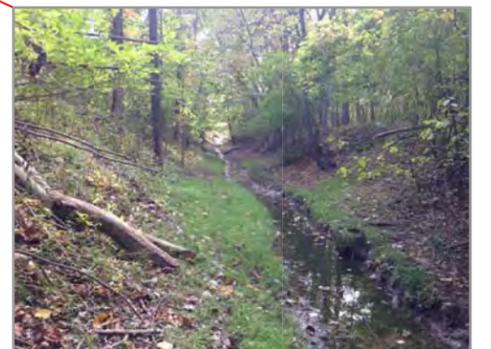


FIGURE 12: View towards I-480

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/22/2016



Figure 1. Culvert channel clear



Figure 2. Culvert Channel clear



Figure 3. Channel clear



Figure 4. Overgrown vegetation

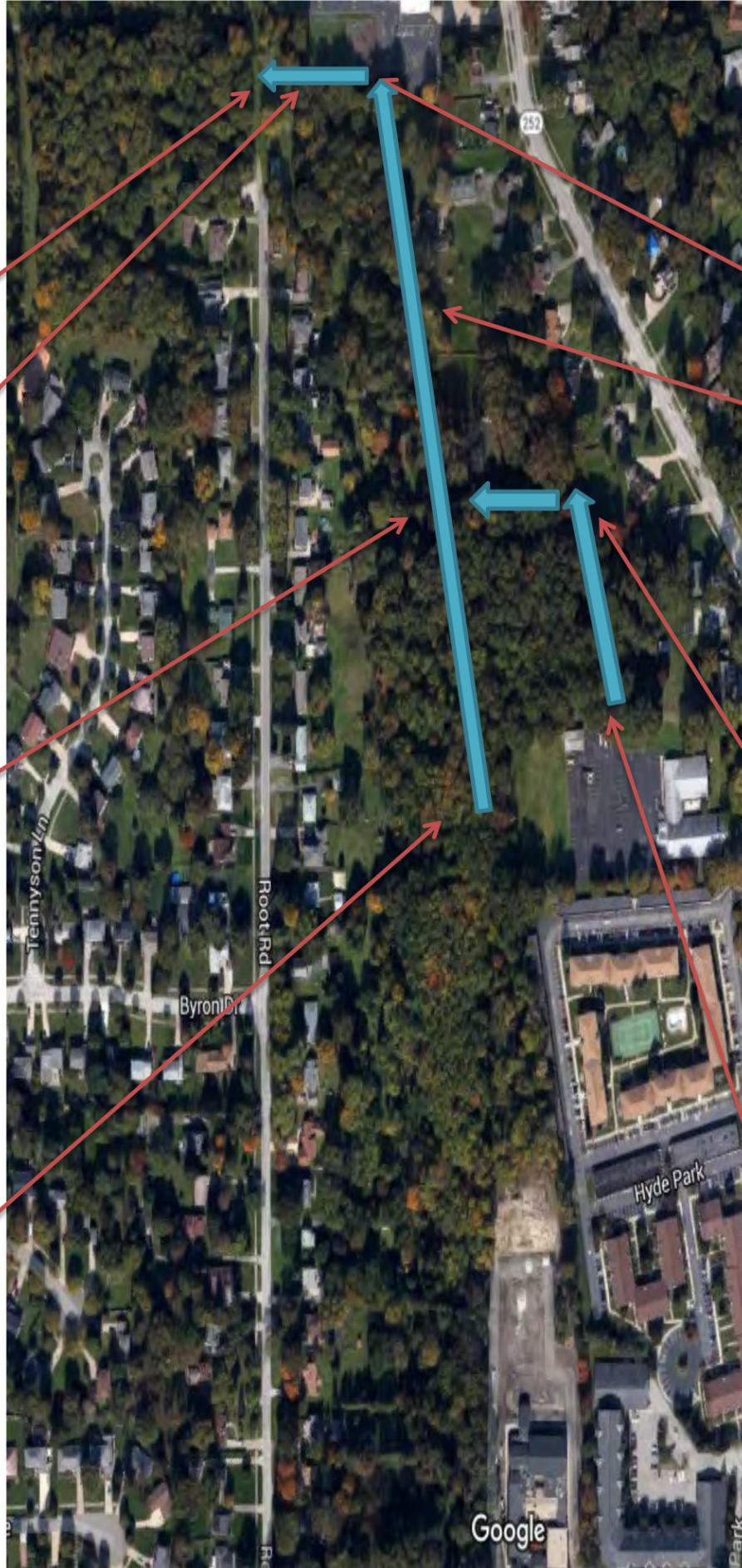


Figure 5. Culvert Channel clear



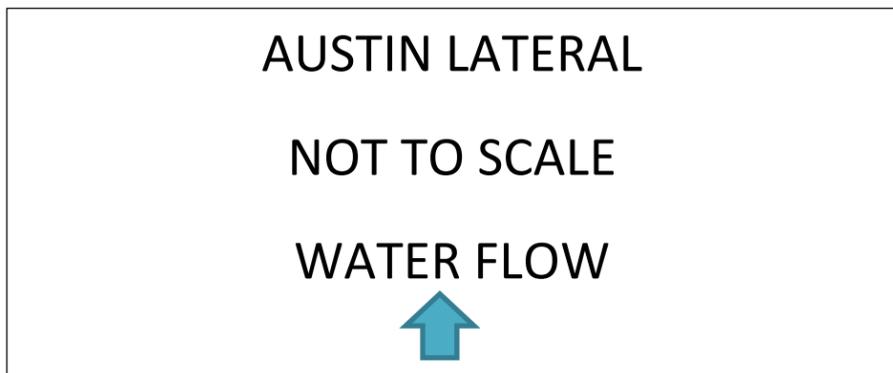
Figure 6. Channel clear



Figure 7. Culvert Channel clear



Figure 8. Culvert Channel clear



# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/13/2016



Figure 1. Stream bank erosion.



Figure 5. Channel blockage to be cleared



Figure 7. Channel clear



Figure 9. Channel clear



Figure 2. Culvert channel overgrown with vegetation and needs to be cleared.



Figure 10. Channel clear



Figure 3. Culver channel clear



Figure 11. Channel clear



Figure 4. Potential channel blockage.



Figure 6. Channel clear.

BAILUS & PALMER LATERALS

NOT TO SCALE

WATER FLOW



Figure 8. Channel clear



Figure 12. Channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/8/2016



Figure1. Culvert half full of sediment to be cleared.



Figure7. Culvert half full of sediment to be cleared.



Figure 2. Channel clear. Stream bank overgrown



Figure3. Culvert clear



Figure4. Channel overgrown with vegetation to be cleared.

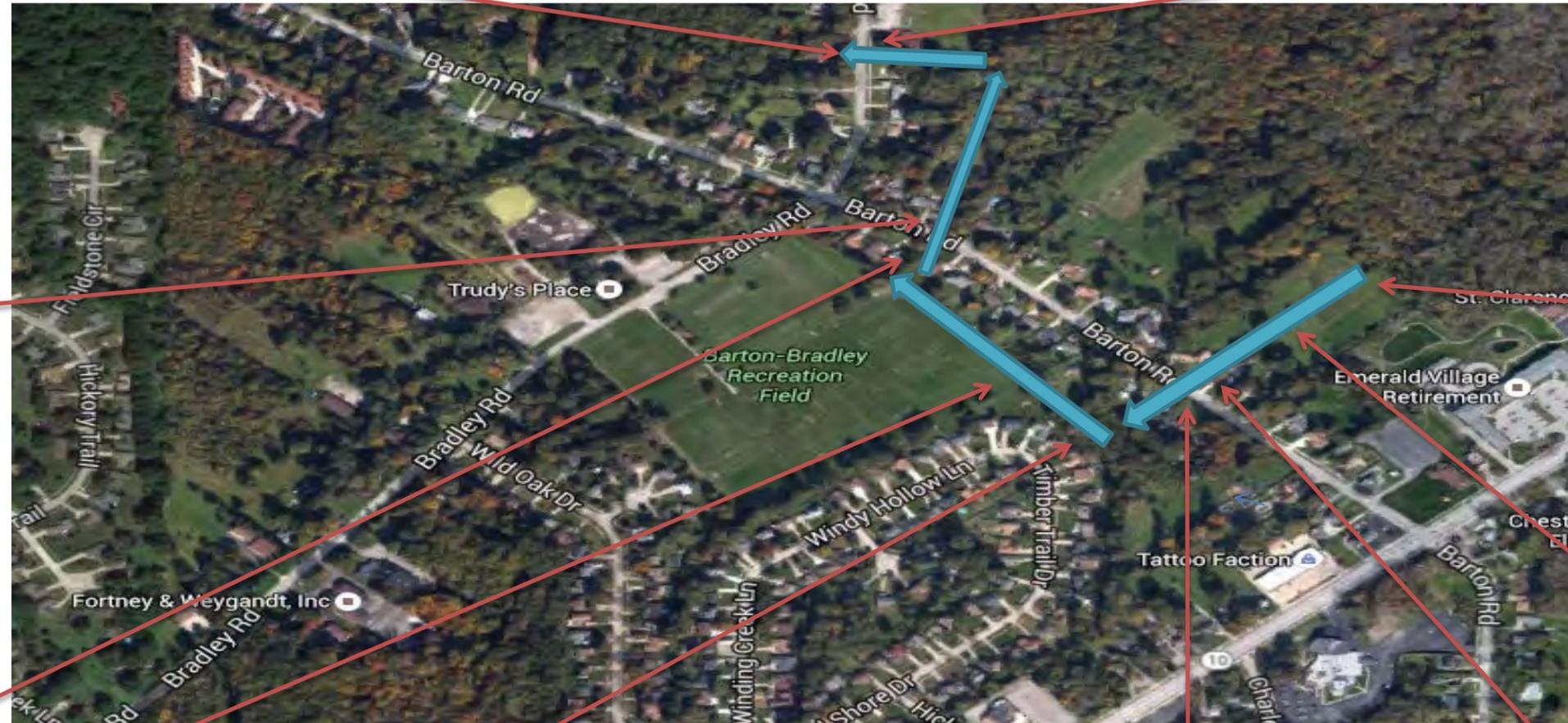


Figure5. Clear Channel

BARTON RD  
NOT TO SCALE  
WATER FLOW



Figure6. Culvert channel clear



Figure8. Channel overgrown with vegetation to be cleared.



Figure9. Channel clear



Figure10. Culvert channel clear



Figure 1. Overgrown vegetation



Figure 5. Culvert channel clear

**CITY OF NORTH OLMSTED  
DRAINAGE DITCH INSPECTIONS**  
BY: KLOTZBACH  
DATE 6/6/2016



Figure 7. Culvert channel clear



Figure 9. Minor stream bank erosion



Figure 2. Culvert channel clear

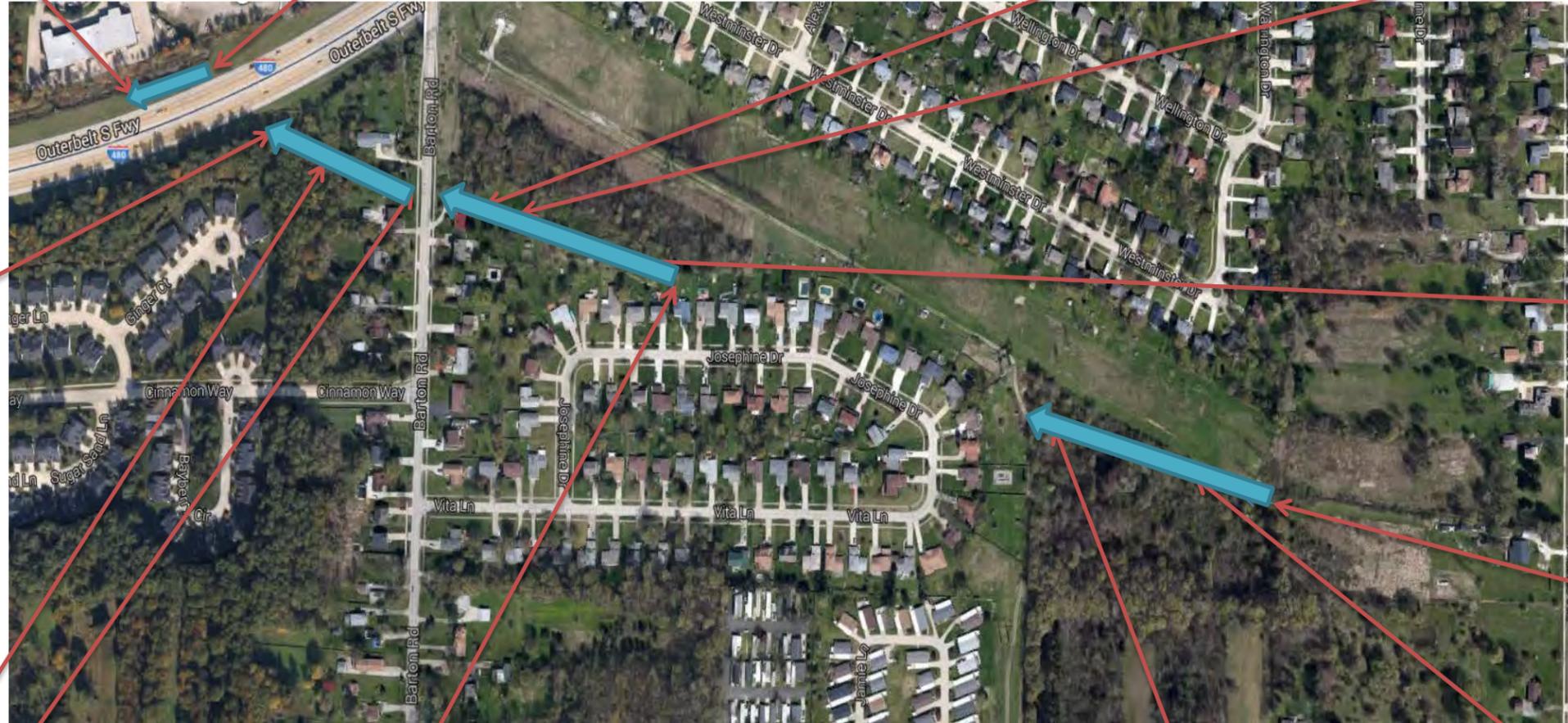


Figure 3. Channel clear



Figure 10. Culvert channel clear



Figure 11. Culvert channel clear



Figure 4. Culvert clear



Figure 6. Culvert clear

**BARTON RD & I-480**  
**NOT TO SCALE**  
**WATER FLOW**



Figure 8. Culvert channel clear



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/6/2016



Figure 1. Clear Channel



Figure 10. Culvert channel clear.



Figure 2. Culvert channel clear



Figure 9. Culvert exit half full



Figure 3. Channel clear



Figure 11. Culvert channel clear

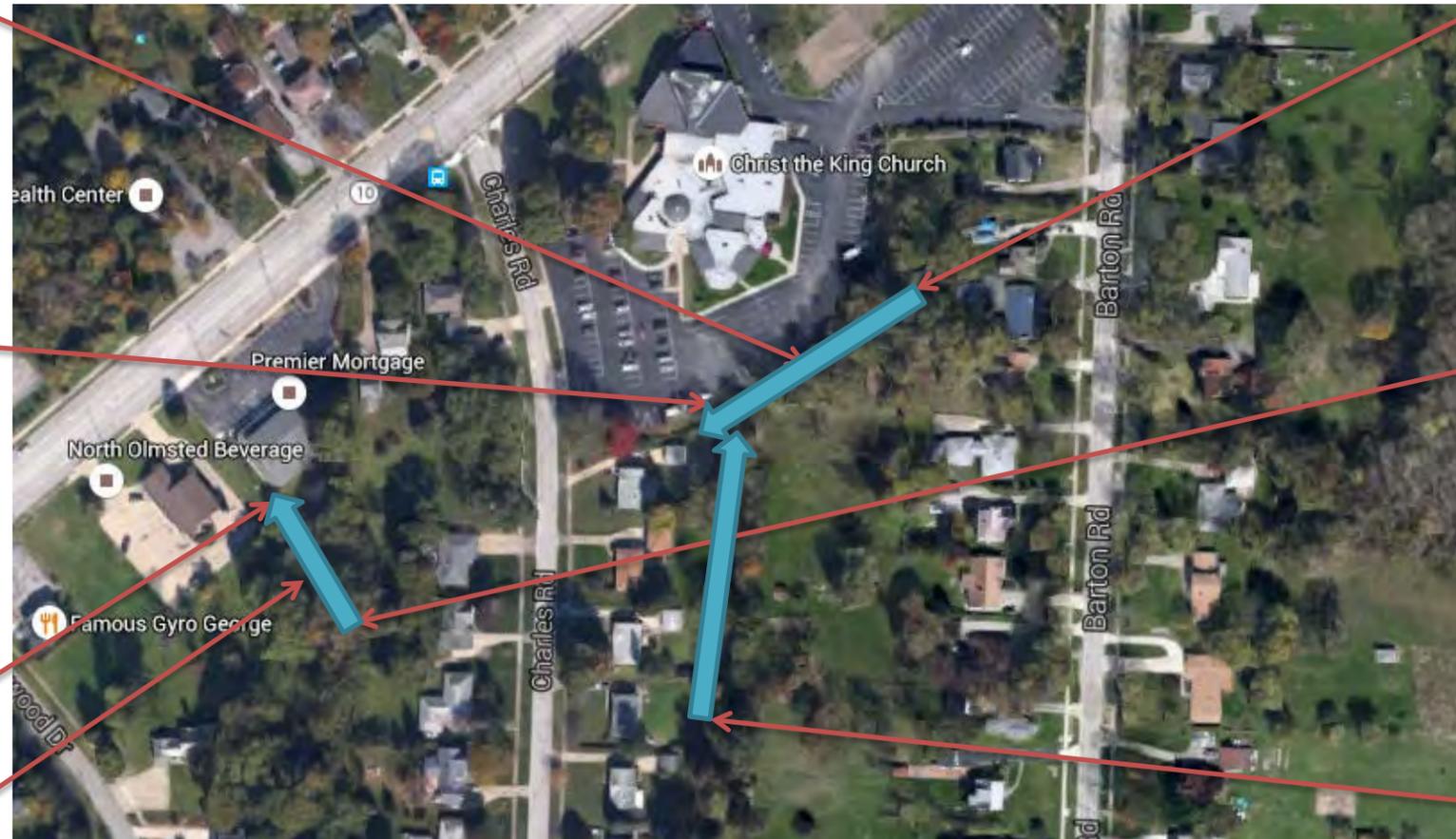


Figure 4. Channel clear

BARTON RD/LORAIN RD

NOT TO SCALE

WATER FLOW





Figure 1. Channel clear



Figure 5. Channel clear

**CITY OF NORTH OLMSTED  
DRAINAGE DITCH INSPECTIONS**

BY: KLOTZBACH  
DATE 8/19/2016



Figure 7. Culvert clear.



Figure 9. Culvert Channel Clear



Figure 2. Drain tile clear

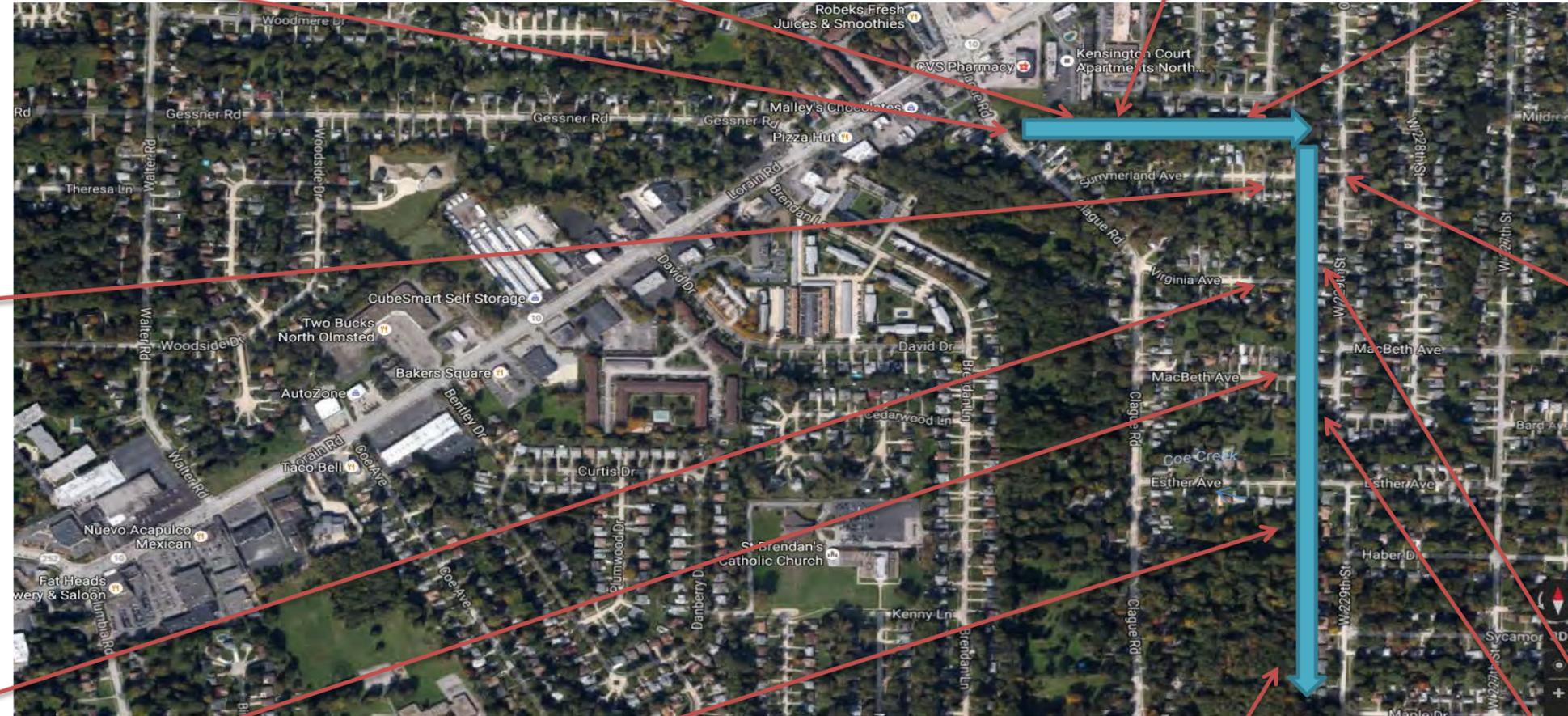


Figure 3. Channel clear



Figure 10. Culvert clear



Figure 11. Channel clear

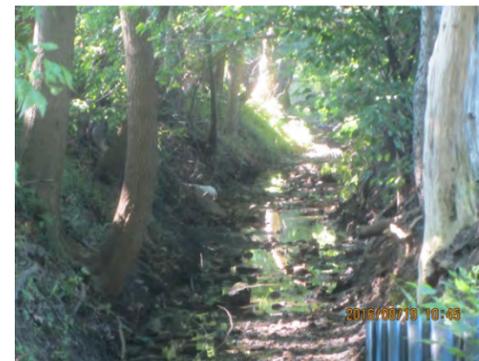


Figure 4. Culvert clear

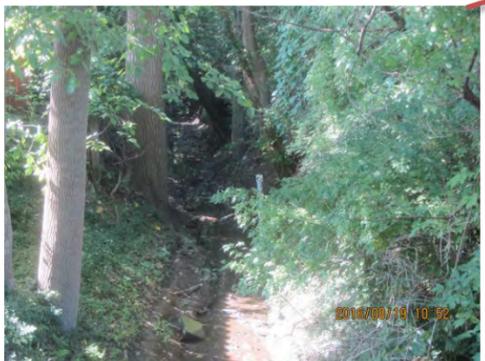


Figure 6. Channel debris to be removed

**CLAGUE RD  
NOT TO SCALE  
WATER FLOW**



Figure 8. Channel with debris to be removed



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 7/11/2016



Figure 1. Channel clear



Figure 5. Channel Clear



Figure 2. Minor debris



Figure 6. Channel clear



Figure 3. Channel clear



Figure 7. Channel clear



Figure 4. Culvert clear

CLAGUE RD/BRENDAN LN

NOT TO SCALE

WATER FLOW



Figure 8. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 8/19/2016



Figure 1. Channel clear



Figure 5. Channel clear



Figure 7. Channel clear.



Figure 9. Channel Clear



Figure 2. Drain tile clear

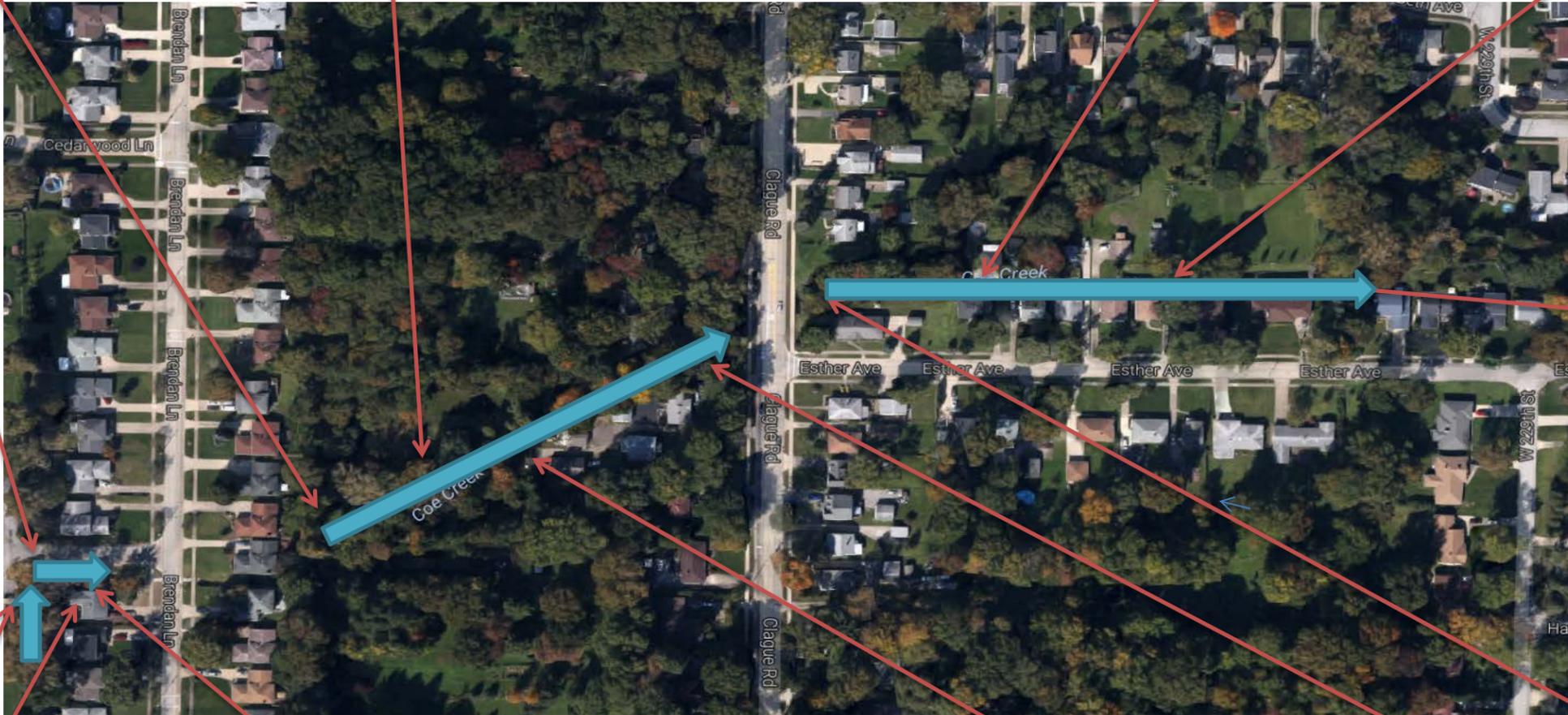


Figure 10. Channel clear



Figure 3. Channel clear



Figure 11. Channel clear



Figure 4. Channel clear



Figure 6. Culvert Clear

COE DITCH  
NOT TO SCALE  
WATER FLOW



Figure 8. Channel clear



Figure 12. Culvert clear



Figure 1. Channel Clear



Figure 5. Channel clear. Culvert severely overgrown with cattails.

**CITY OF NORTH OLMSTED  
DRAINAGE DITCH INSPECTIONS**  
  
BY: KLOTZBACH  
  
DATE 8/22/2016



Figure 7. Channel clear



Figure 9. Culvert Clear



Figure 2. Culvert clear. Major bank erosion.



Figure 3. Culvert clear

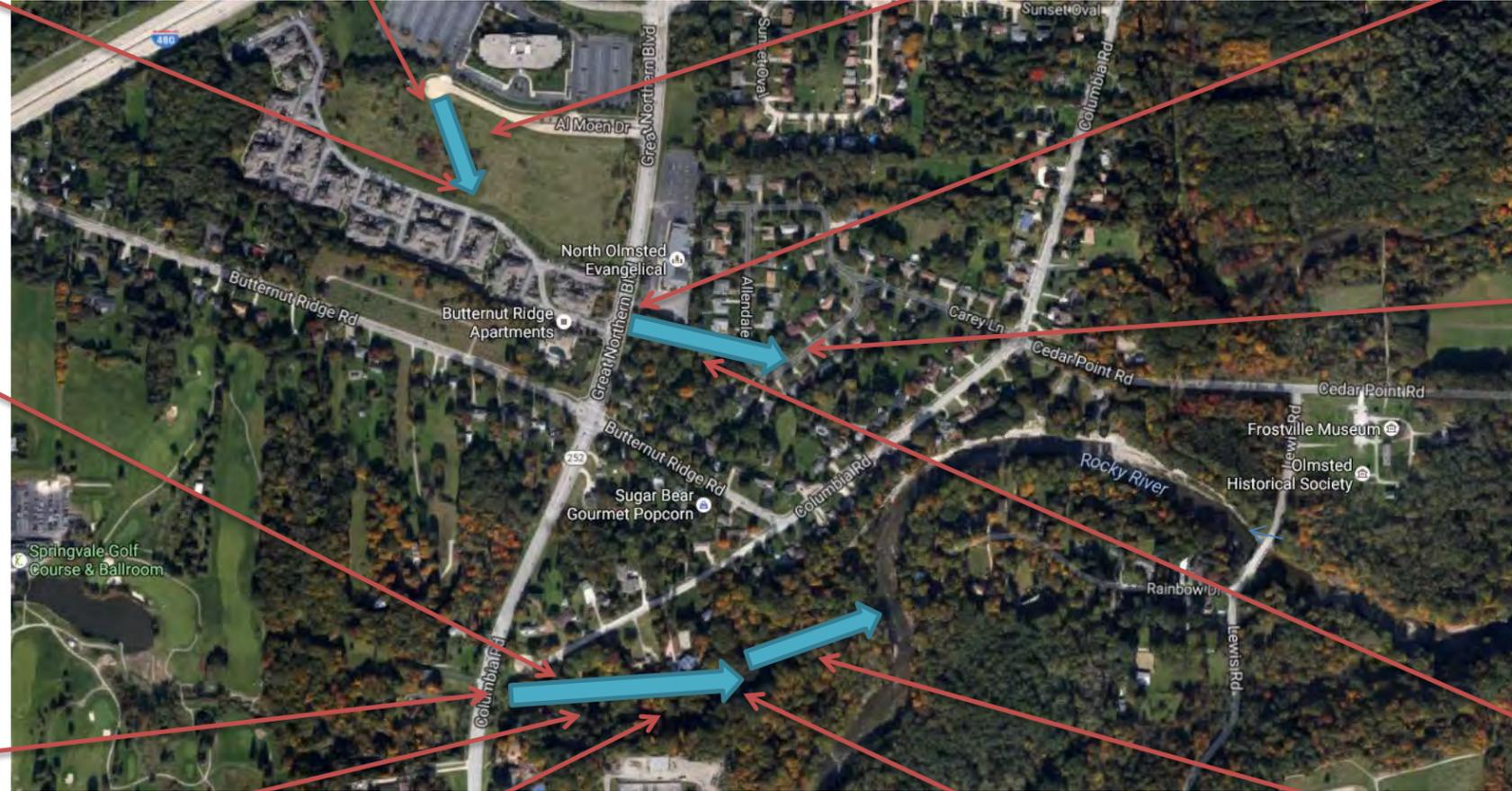


Figure 10. Culvert channel clear



Figure 11. Culvert channel clear



Figure 4. Channel clear



Figure 6. Channel clear

**COLUMBIA RD & SR-252**  
  
NOT TO SCALE  
  
WATER FLOW



Figure 8. Channel clear



Figure 12. Channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 8/19/2016



Figure 1. Channel clear



Figure 5. Channel clear



Figure 7. Culvert clear.



Figure 9. Culvert Channel Clear



Figure 2. Drain tile clear

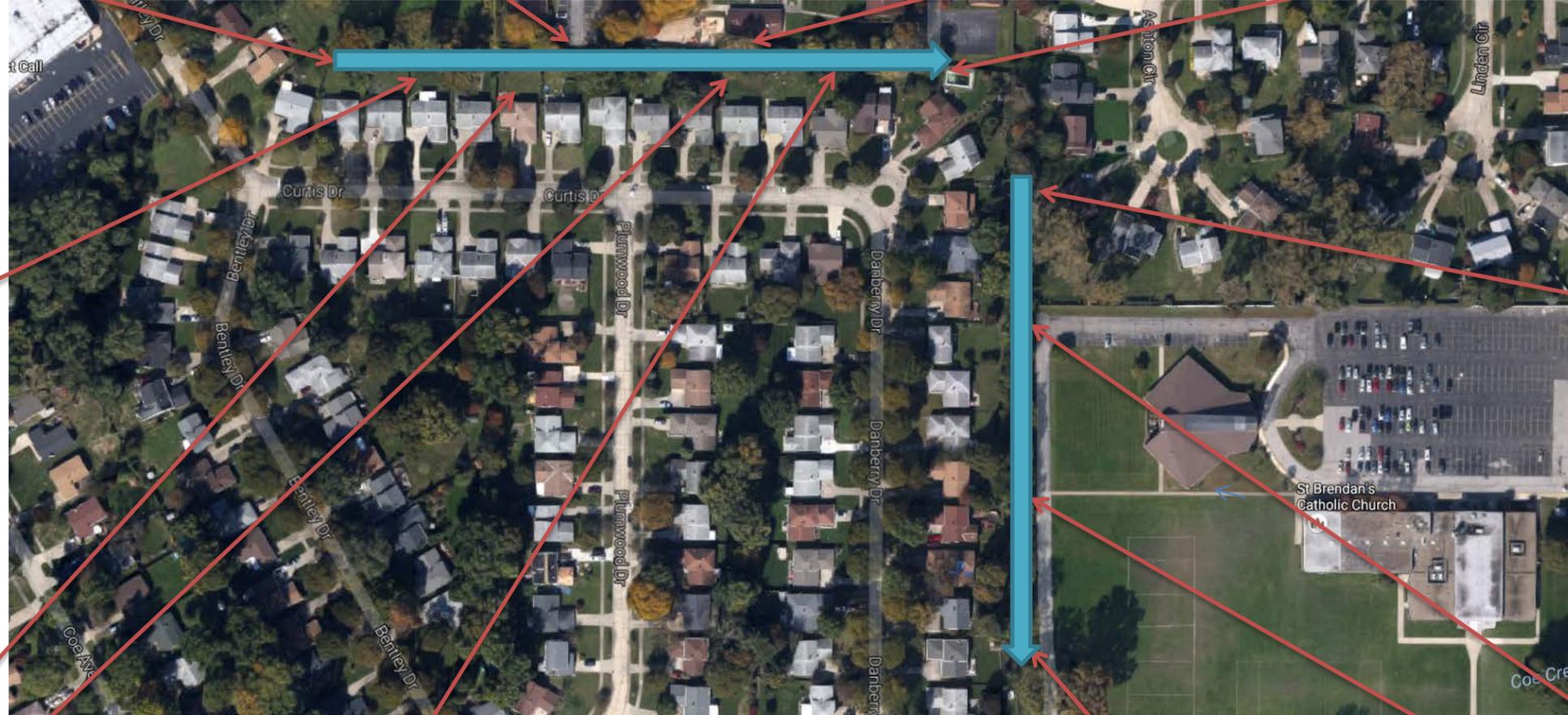


Figure 10. Culvert clear



Figure 3. Channel clear



Figure 11. Channel clear



Figure 4. Culvert clear



Figure 6. Channel debris to be removed

## CURTIS DR & DANBERRY DR

### NOT TO SCALE

### WATER FLOW



Figure 8. Channel with debris to be removed



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/17/2016



Figure 1. Overgrown vegetation



Figure 5. Culvert channel clear



Figure 7. Culvert channel clear



Figure 9. Minor stream bank erosion



Figure 2. Culvert channel clear

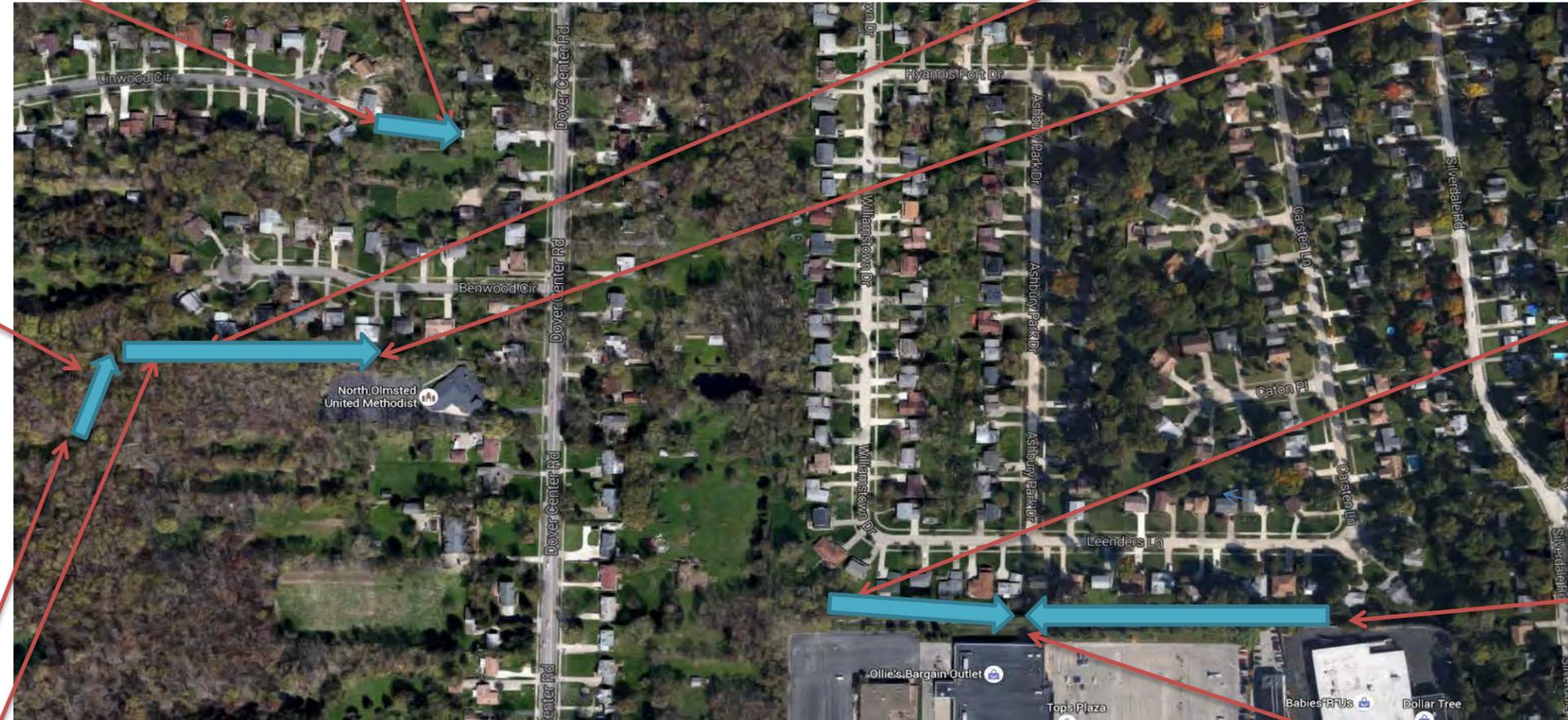


Figure 10. Culvert channel clear



Figure 3. Channel clear



Figure 11. Culvert channel clear



Figure 4. Culvert clear

DOVER CENTER RD

NOT TO SCALE

WATER FLOW



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/17/2016



Figure 1. Overgrown vegetation



Figure 2. Culvert channel clear



Figure 3. Channel clear



Figure 4. Culvert clear



Figure 9. Minor stream bank erosion



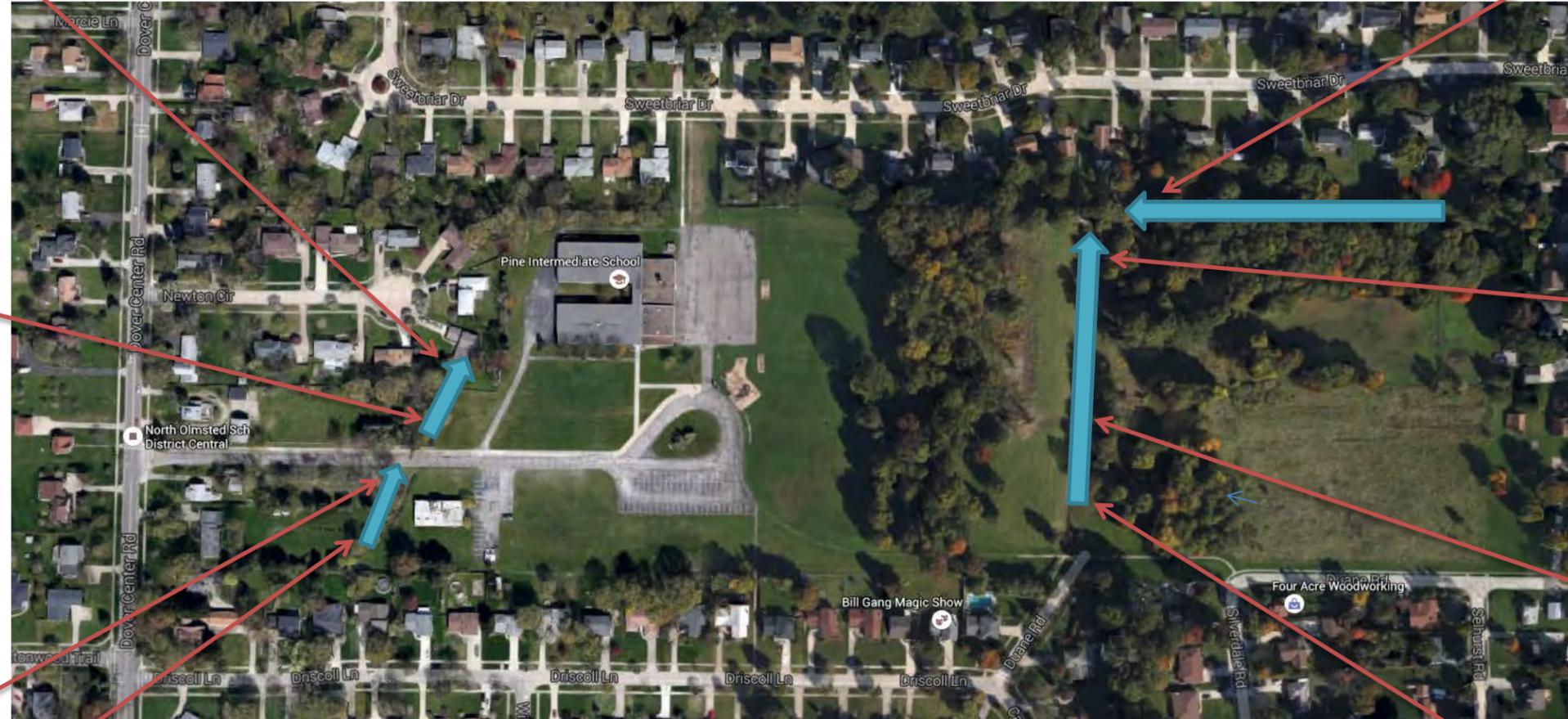
Figure 10. Culvert channel clear



Figure 11. Culvert channel clear



Figure 12. Culvert channel clear



EHLE & WILLOW LATERALS

NOT TO SCALE

WATER FLOW



# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/8/2016



Figure 1. Channel Clear



Figure 5. Channel clear minor stream bank erosion.



Figure 7. Culvert channel clear



Figure 9. Minor stream bank erosion



Figure 2. Channel clear. Stream bank overgrown with vegetation to be cleared.

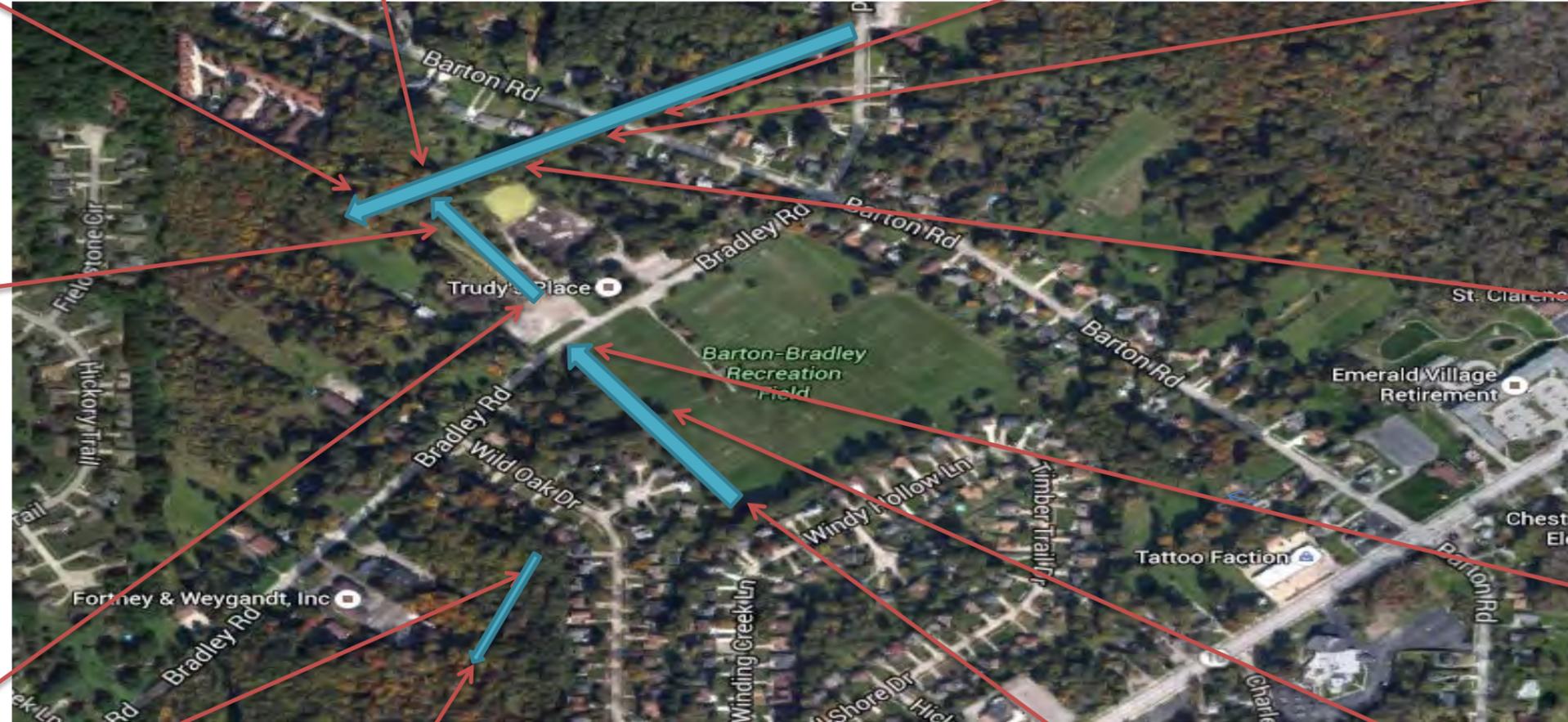


Figure 3. Culvert clear



Figure 10. Culvert channel clear



Figure 11. Culvert channel clear



Figure 4. Clear Channel



Figure 6. Clear Channel

FRENCH CREEK  
NOT TO SCALE  
WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Culvert Stream bank overgrown.

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/15/2016



Figure 1. Channel Clear



Figure 5. Channel clear



Figure 7. Culvert channel clear



Figure 9. Channel clear



Figure 2. Channel clear

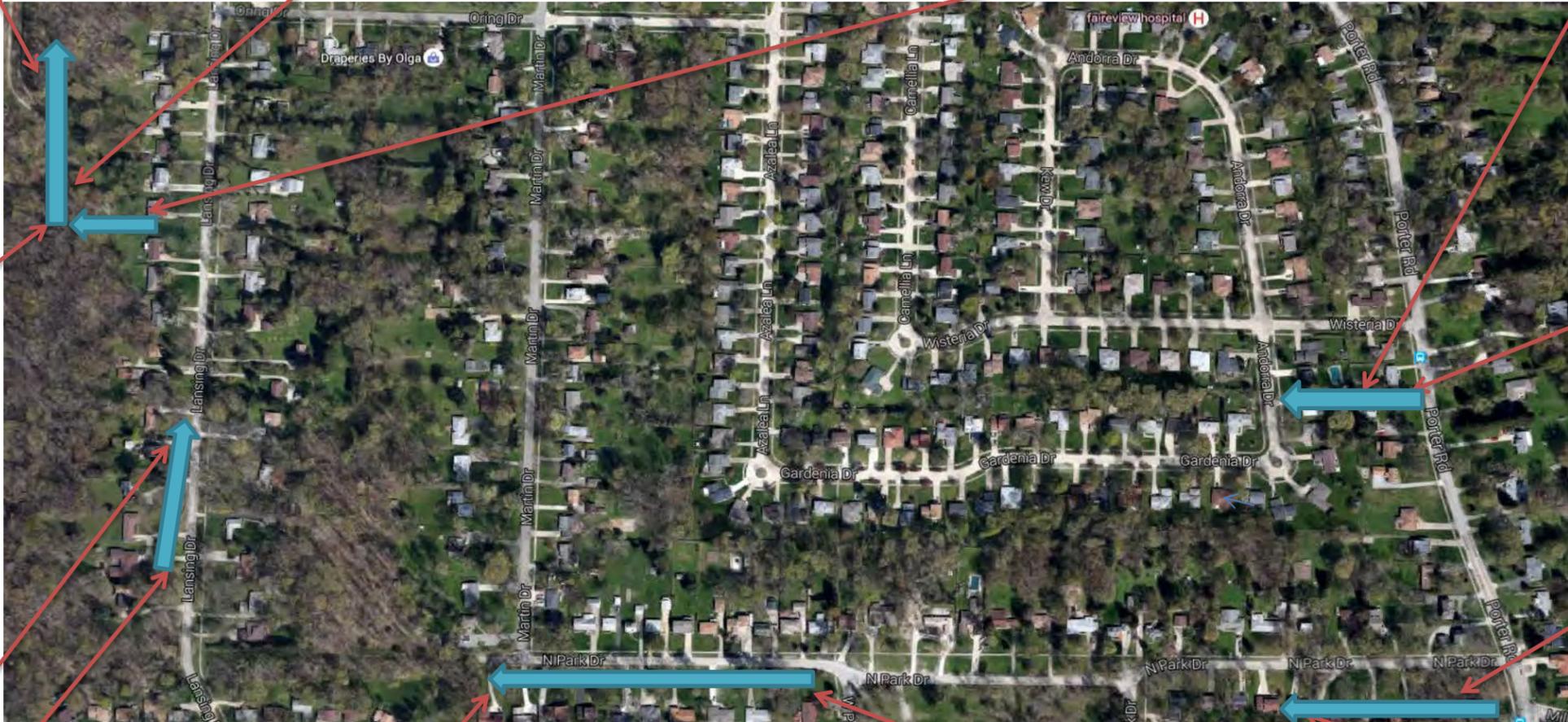


Figure 10. Channel clear



Figure 3. Channel clear



Figure 11. Channel clear



Figure 4. Culvert clear



Figure 6. Culvert clear

GOODMAN & BIDDULPH LATERALS

NOT TO SCALE

WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/24/2016



Figure 1. Channel clear



Figure 5. Channel clear



Figure 7. Minor stream bank erosion



Figure 9. Culvert Channel Clear



Figure 2. Culvert clear



Figure 3. Culvert clear

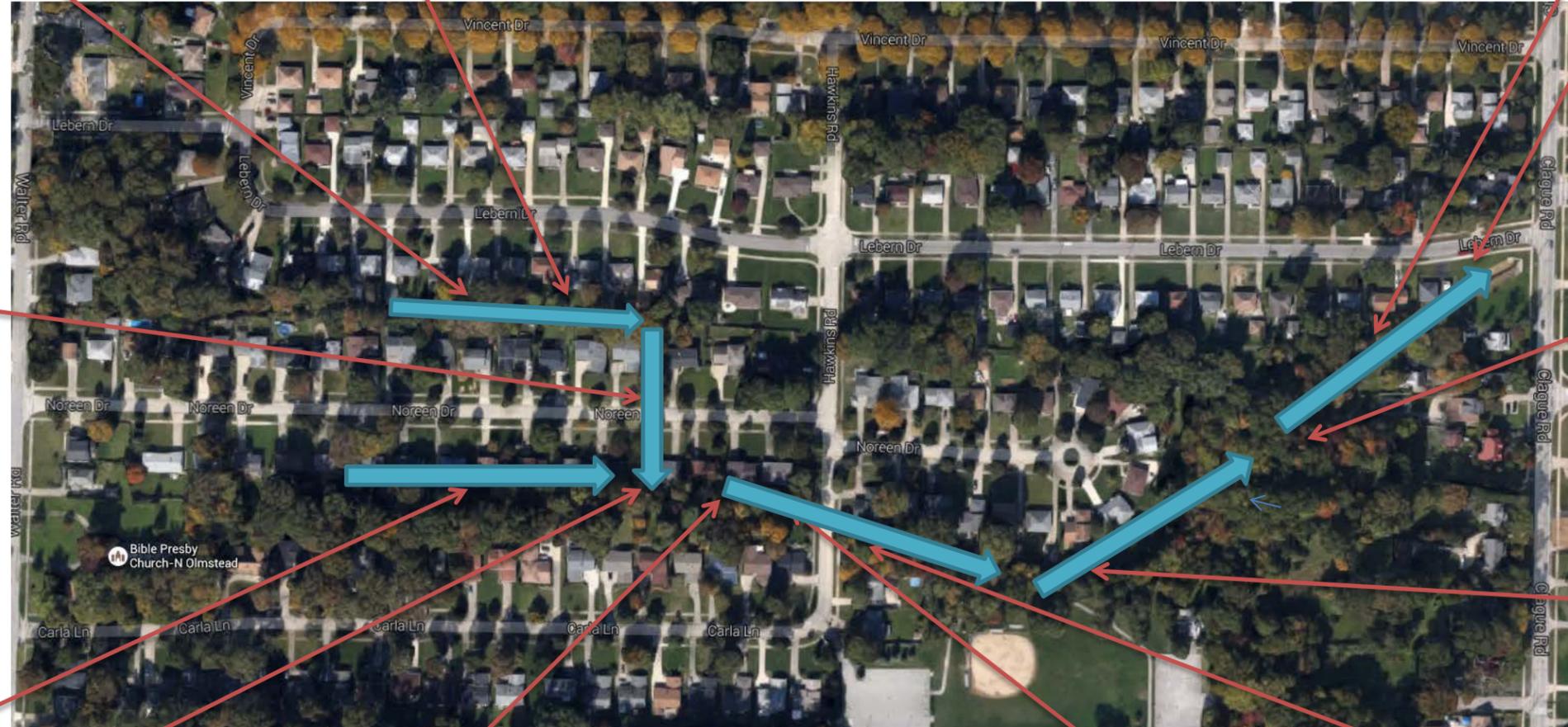


Figure 10. Channel clear



Figure 11. Channel clear



Figure 4. Culvert clear



Figure 6. Channel clear

HALL DITCH  
NOT TO SCALE  
WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/17/2016



Figure 1. Overgrown vegetation



Figure 5. Culvert channel clear



Figure 7. Culvert channel clear



Figure 9. Minor stream bank erosion



Figure 2. Culvert channel clear



Figure 10. Culvert channel clear



Figure 3. Channel clear



Figure 11. Culvert channel clear



Figure 4. Culvert clear



Figure 6. Culvert clear

LIMPERT LATERAL  
NOT TO SCALE  
WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/29/2016



Figure 1. Channel clear



Figure 5. Culvert channel clear



Figure 7. Channel clear



Figure 9. Channel clear



Figure 2. Culvert channel clear

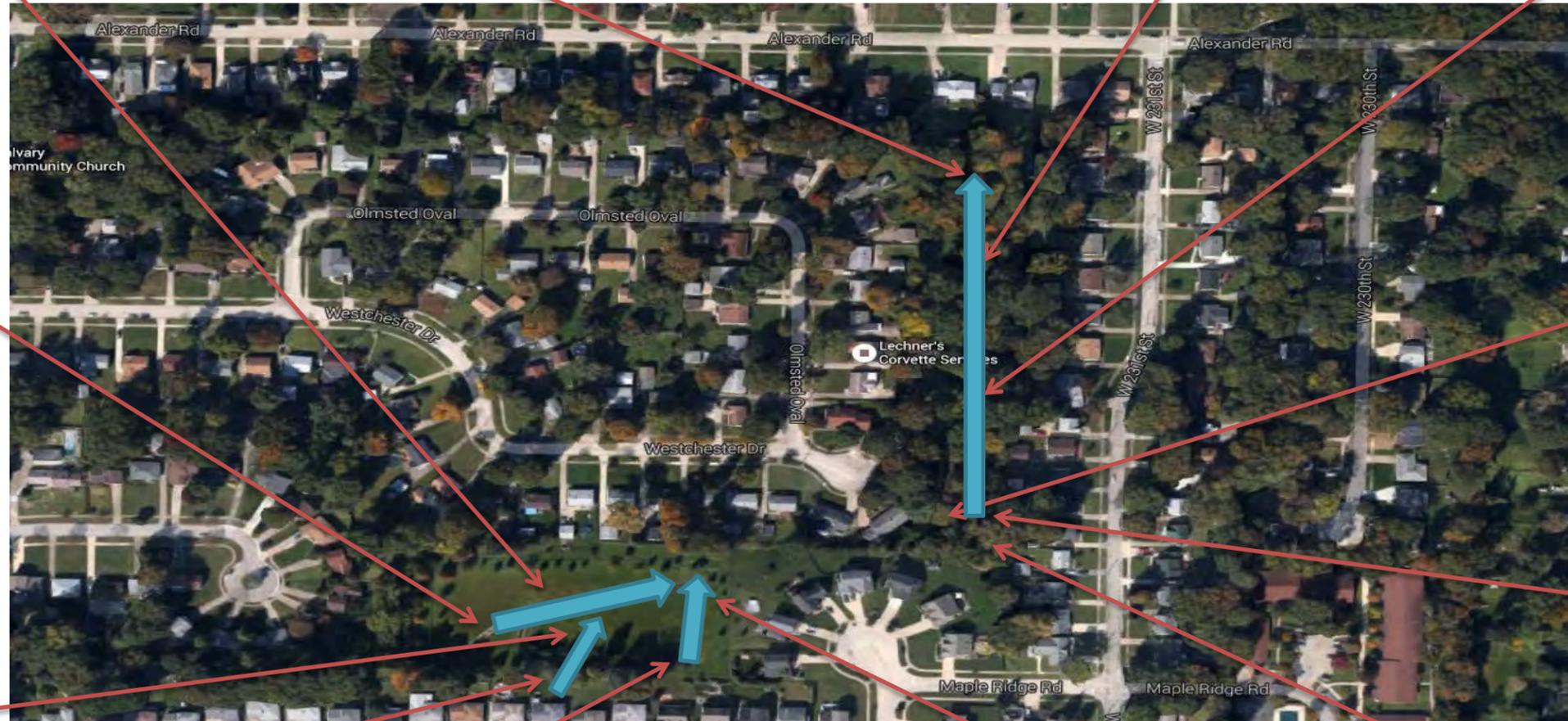


Figure 3. Channel has minor sediment build up and vegetation growing inside.



Figure 4. Culvert clear



Figure 6. Concrete channel has sediment, and vegetation growing inside.

RICE DITCH (EAST)  
NOT TO SCALE  
WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Minor stream bank erosion into residents' yard.



Figure 11. Culvert channel clear



Figure 10. Channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 7/11/2016



Figure 1. Channel clear



Figure 5. Culvert channel clear



Figure 7. Culvert clear



Figure 9. Channel clear



Figure 2. Culvert clear

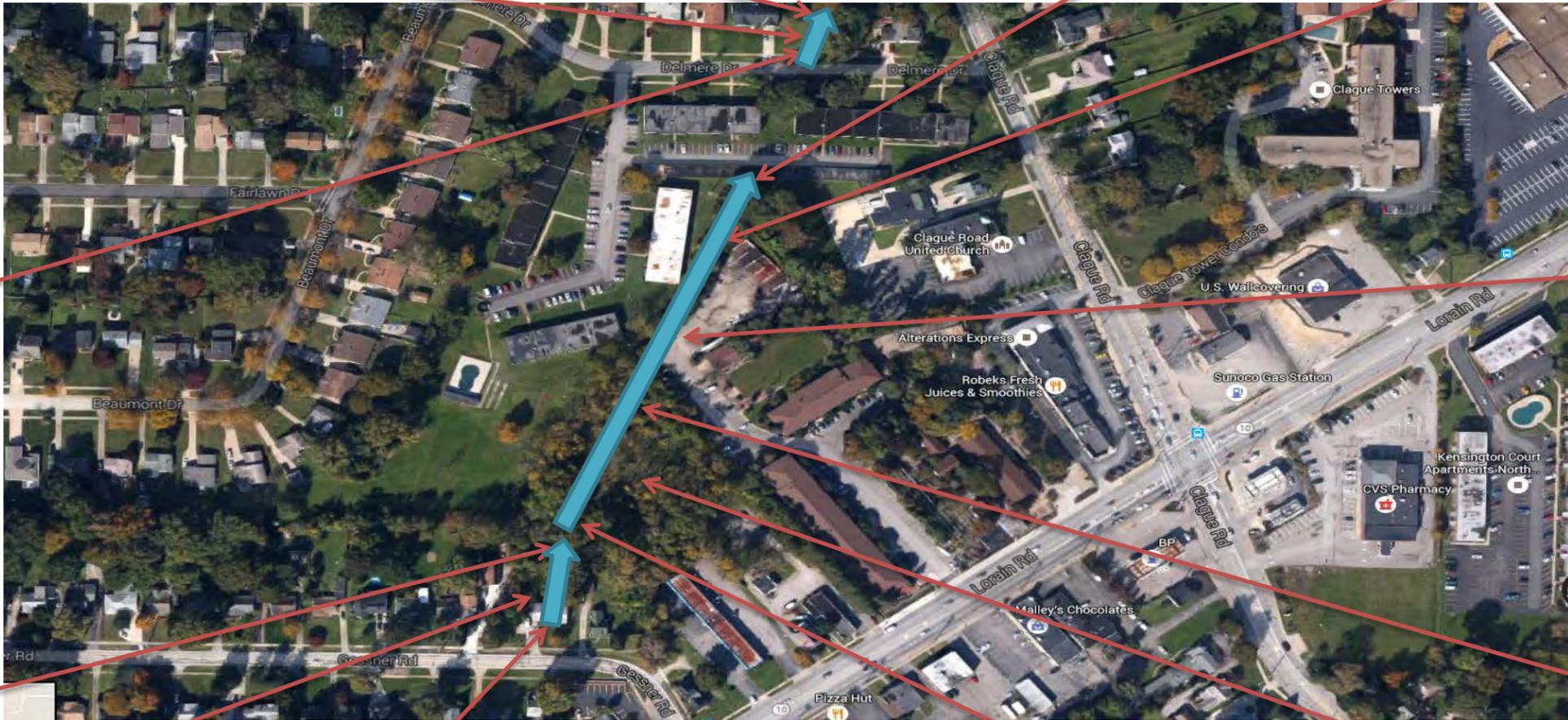


Figure 10. Channel clear



Figure 3. Culvert clear.



Figure 11. Channel clear



Figure 4. Channel clear



Figure 6. Culvert clear

RICE DITCH (WEST)  
NOT TO SCALE  
WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Channel Clear



Figure 1. Overgrown vegetation



Figure 5. Culvert channel clear

**CITY OF NORTH OLMSTED  
DRAINAGE DITCH INSPECTIONS**

BY: KLOTZBACH  
DATE 6/13/2016



Figure 7. Culvert channel clear



Figure 9. Minor stream bank erosion



Figure 2. Culvert / channel clear

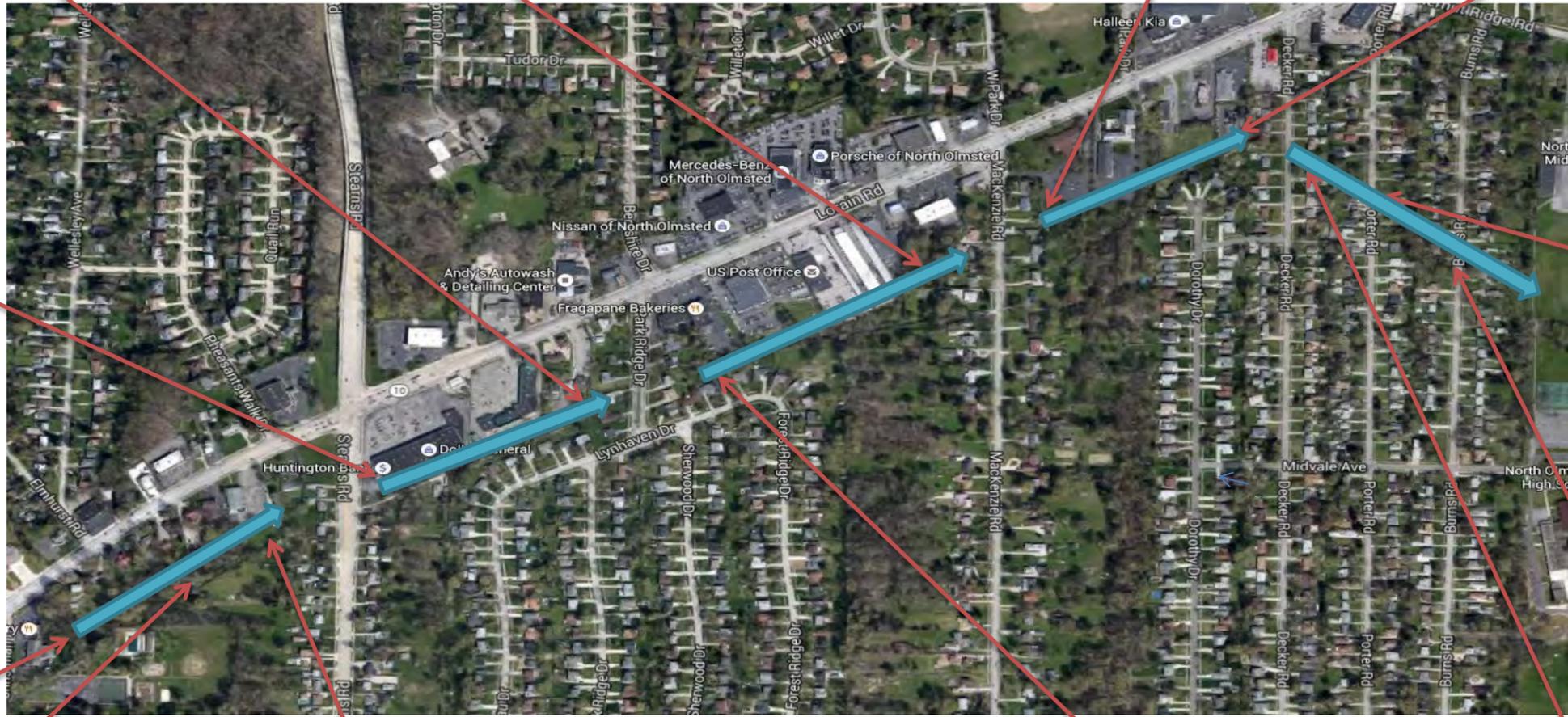


Figure 10. Culvert channel clear



Figure 3. Channel clear



Figure 11. Culvert channel clear



Figure 4. Channel clear



Figure 6. Culvert clear

**ROOT DITCH - LORAIN RD**

**NOT TO SCALE**

**WATER FLOW**



Figure 8. Channel clear



Figure 12. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 8/22/2016



Figure 1. Channel Clear



Figure 5. Channel clear



Figure 7. Channel clear



Figure 9. Culvert Clear



Figure 2. Culvert clear.



Figure 10. Culvert channel clear



Figure 3. Channel clear



Figure 11. Channel clear



Figure 4. Channel clear



Figure 6. Channel clear

ROOT DITCH - NOGC  
NOT TO SCALE  
WATER FLOW



Figure 8. Channel clear



Figure 12. Channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/10/2016



Figure 1. Overgrown vegetation



Figure 5. Culvert channel clear



Figure 7. Culvert channel clear



Figure 9. Minor stream bank erosion



Figure 2. Channel clear

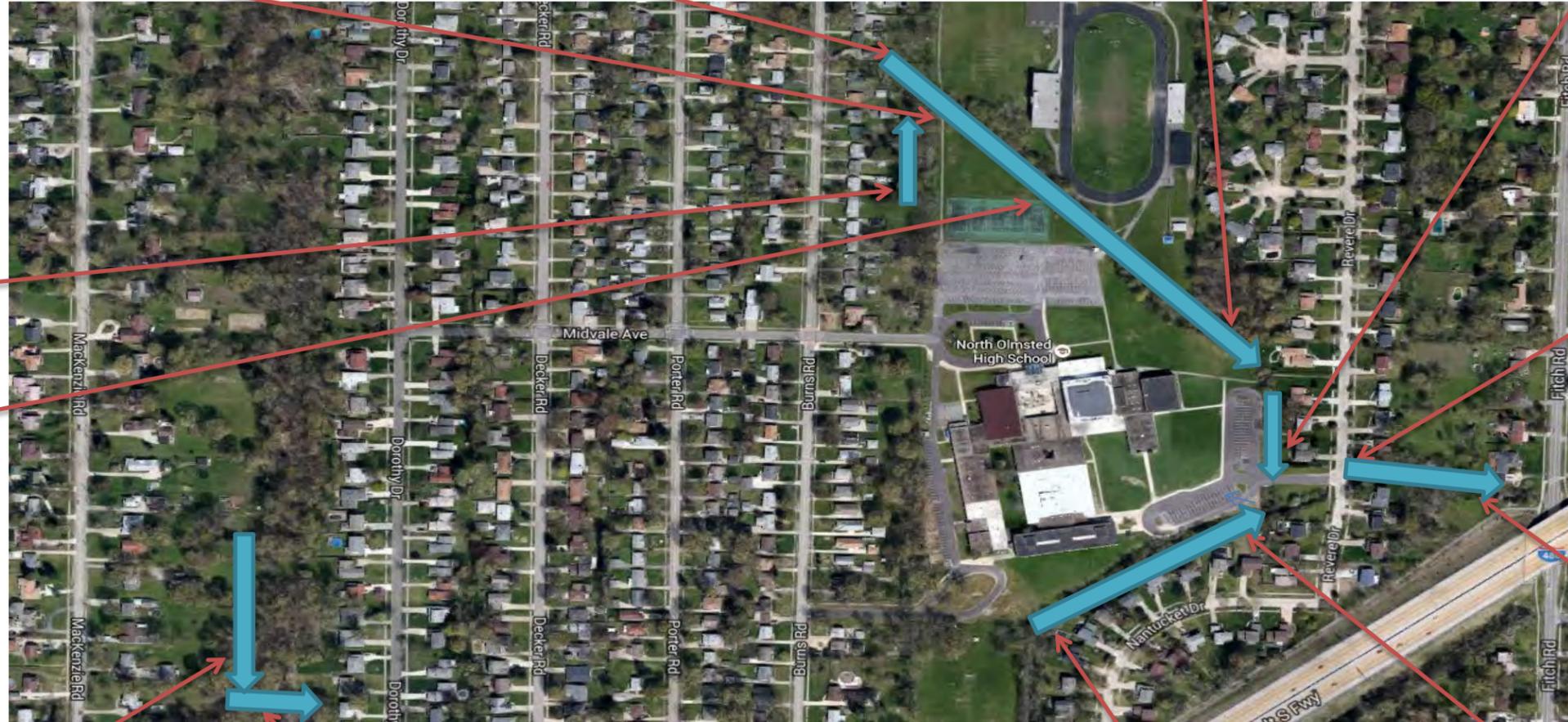


Figure 3. Channel clear



Figure 10. Channel clear



Figure 11. Culvert channel clear



Figure 4. Channel clear



Figure 6. Channel clear

ROOT DITCH - NOHS  
NOT TO SCALE  
WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Culvert channel clear



Figure 1. Channel Clear



Figure 5. Channel clear

**CITY OF NORTH OLMSTED  
DRAINAGE DITCH INSPECTIONS**  
BY: KLOTZBACH  
DATE 8/22/2016



Figure 7. Channel clear



Figure 9. Culvert Clear



Figure 2. Culvert clear.



Figure 3. Channel clear



Figure 10. Culvert channel clear



Figure 11. Channel clear



Figure 4. Channel clear



Figure 6. Channel clear

**ROOT DITCH - SPRINGVALE  
NOT TO SCALE  
WATER FLOW**



Figure 8. Channel clear



Figure 12. Channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/22/2016



Figure 1. Culvert channel clear



Figure 5. Culvert channel Partially blocked with silt, and debris.



Figure 7. Culvert channel clear. Stream bank overgrown with vegetation.



Figure 9. Channel clear



Figure 2. Channel clear



Figure 3. Channel clear

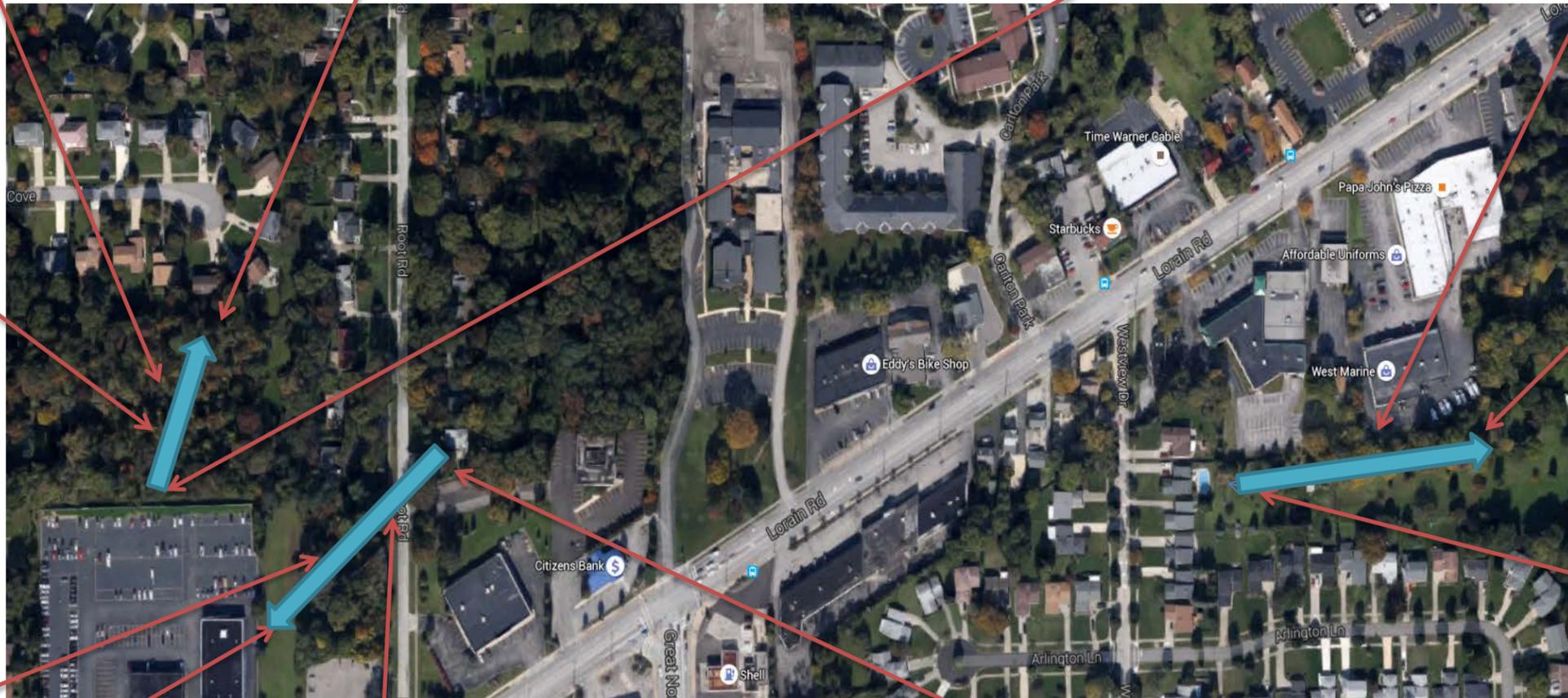


Figure 10. Culvert channel clear



Figure 11. Channel clear



Figure 4. Culvert clear



Figure 6. Culvert clear

ROOT RD & LORAIN RD

NOT TO SCALE

WATER FLOW



Figure 8. Culvert clear



Figure 12. Channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH

DATE 6/27/2016



Figure 1. Overgrown vegetation



Figure 2. Culvert channel clear



Figure 3. Channel clear

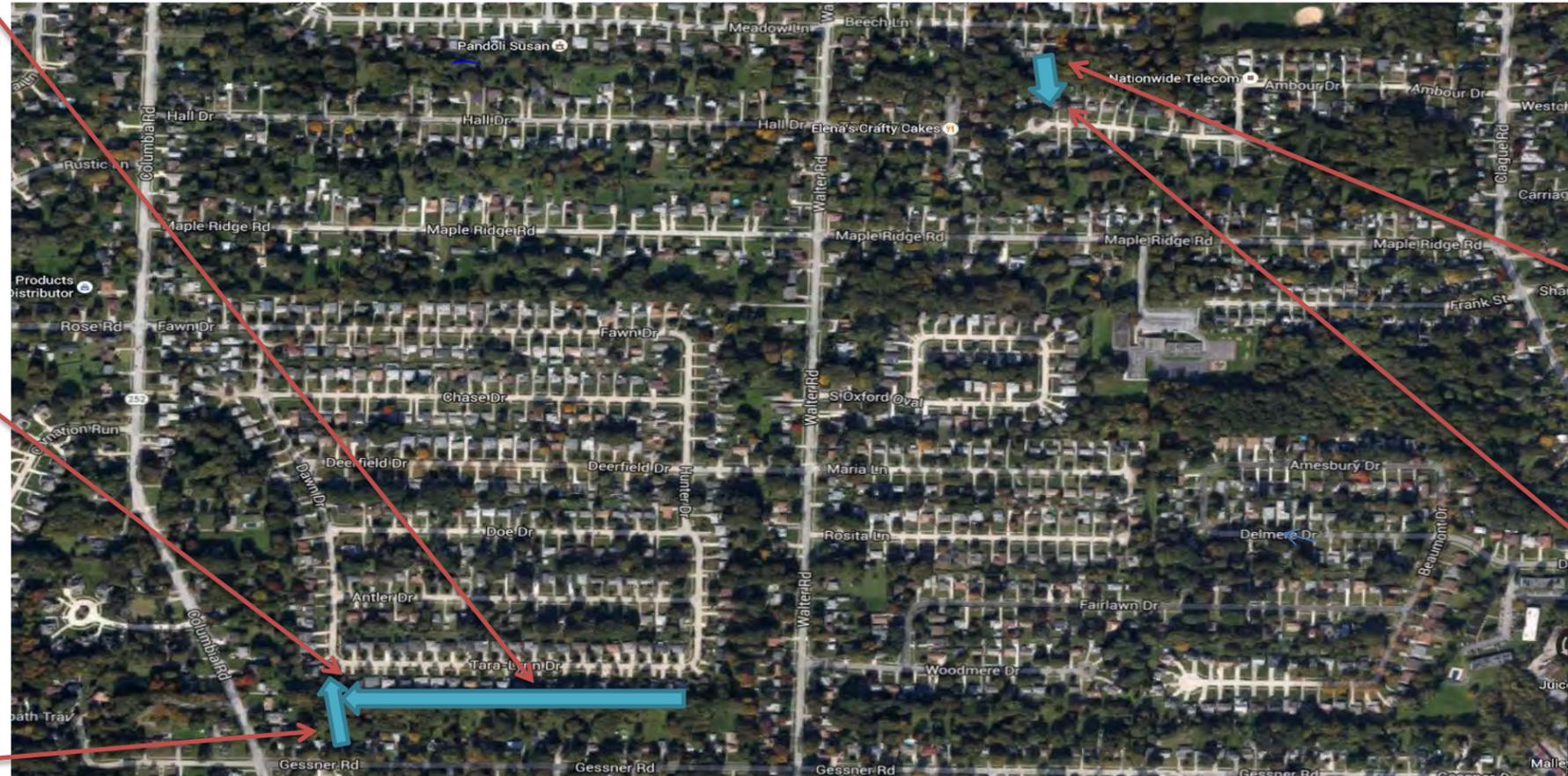


Figure 10. Culvert channel clear



Figure 11. Culvert channel clear

WALTER RD  
NOT TO SCALE  
WATER FLOW  
←



Figure 1. Overgrown vegetation



Figure 5. Culvert channel clear

# CITY OF NORTH OLMSTED DRAINAGE DITCH INSPECTIONS

BY: KLOTZBACH  
DATE 6/10/2016



Figure 7. Culvert channel clear



Figure 9. Minor stream bank erosion



Figure 2. Culvert channel clear



Figure 10. Culvert channel clear



Figure 3. Channel clear



Figure 11. Culvert channel clear



Figure 4. Culvert clear



Figure 6. Culvert clear

## WESTERLY & FITCH LATERALS

NOT TO SCALE  
WATER FLOW



Figure 8. Culvert channel clear



Figure 12. Culvert channel clear