

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage1

Type: Other

Blockage Length (feet): 1

Debris Length (feet): 3

Location: Left

Photo 1 Direction:

Comments:

Photo taken facing upstream. Left side. Wood block piece from bridge.

Observation Location:

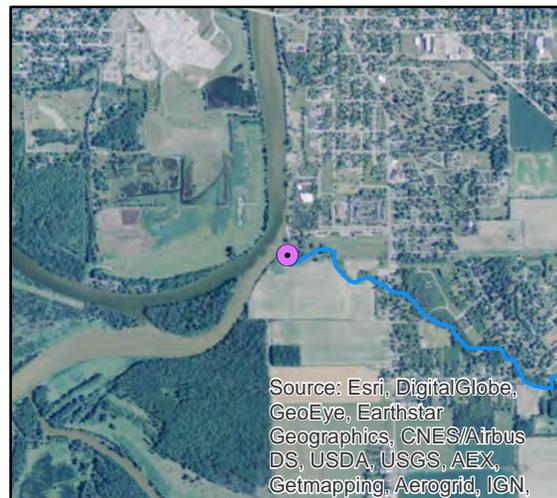


Photo 1



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Photo 3

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				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage2

Type: Excessive Vegetation

Blockage Length (feet): 30

Debris Length (feet): 10

Location: Left

Photo 1 Direction:

Comments:

Vegetation left side for 30 ft. Photo facing north.

Observation Location:

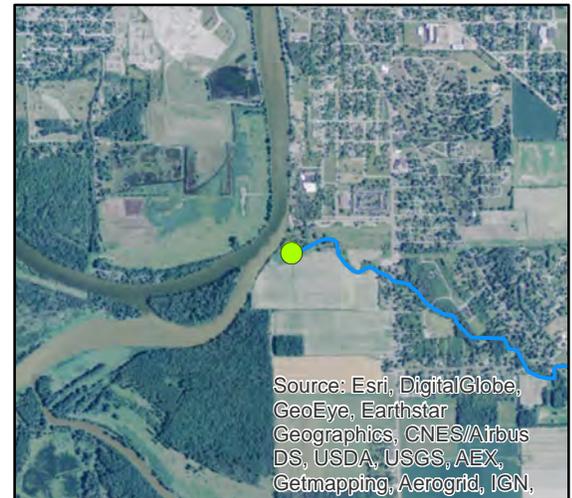


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage3

Type: Log Jam

Blockage Length (feet): 12

Debris Length (feet): 50

Location: Center

Photo 1 Direction:

Comments:

Log jam from left side upstream. Blocking to center of drain. Photo taken facing north.

Observation Location:

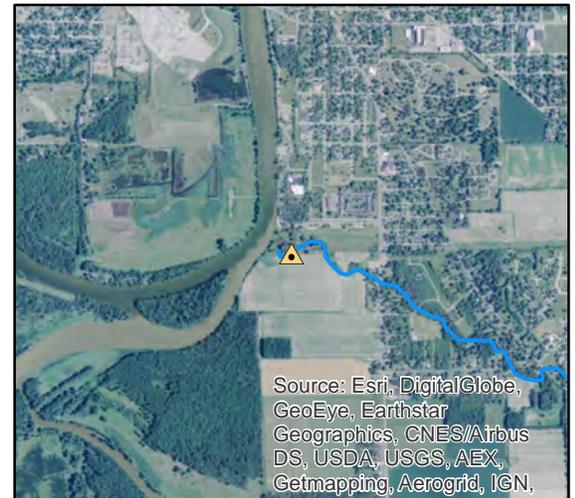


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage4

Type: Fallen Tree

Blockage Length (feet): 3

Debris Length (feet): 20

Location: Left

Photo 1 Direction:

Comments:

Left side. Fallen tree 3 ft blockage. 20 ft tree. Photo taken facing north.
Additional woody debris. 8 in diameter tree.

Observation Location:

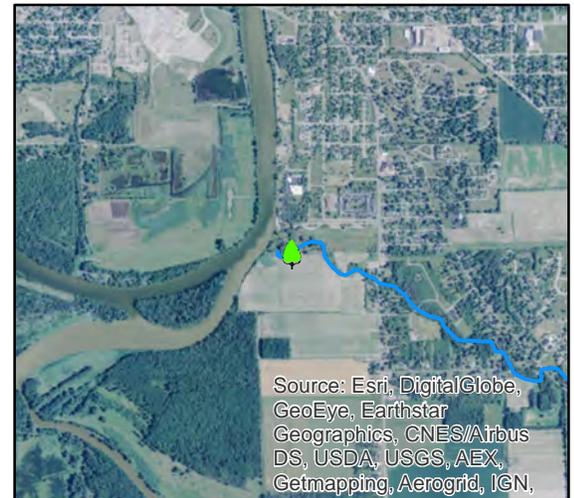


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage5

Type: Fallen Tree

Blockage Length (feet): 3

Debris Length (feet): 2

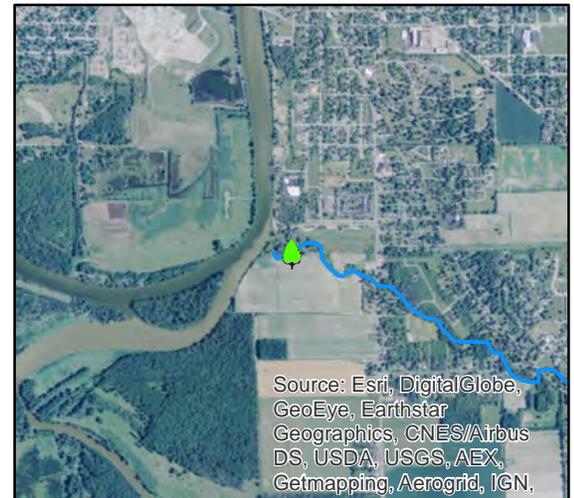
Location: Left

Photo 1 Direction:

Comments:

Photo facing upstream. Fallen tree on left side with diameter 12".

Observation Location:



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Photo 1



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Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage6

Type: Fallen Tree

Blockage Length (feet): 4

Debris Length (feet): 4

Location: Left

Photo 1 Direction:

Comments:

Upstream left side 40" diameter additional log on right side 30" diameter

Observation Location:

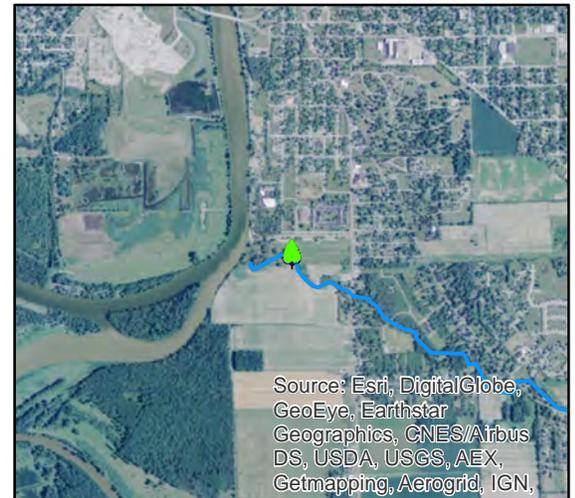


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage7

Type: Fallen Tree

Blockage Length (feet): 10

Debris Length (feet): 20

Location: Center

Photo 1 Direction:

Comments:

Scattered woody debris across drain. Photo 1 taken from left side facing upstream. Photo 2 facing southwest. At least 5 pieces. Estimate of 100 ft.

Observation Location:

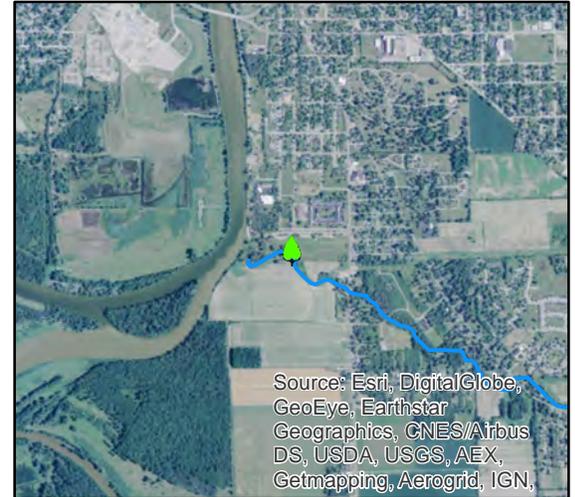


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage8

Type: Non-Vegetative Debris

Blockage Length (feet): 2

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Fence upstream left side

Observation Location:

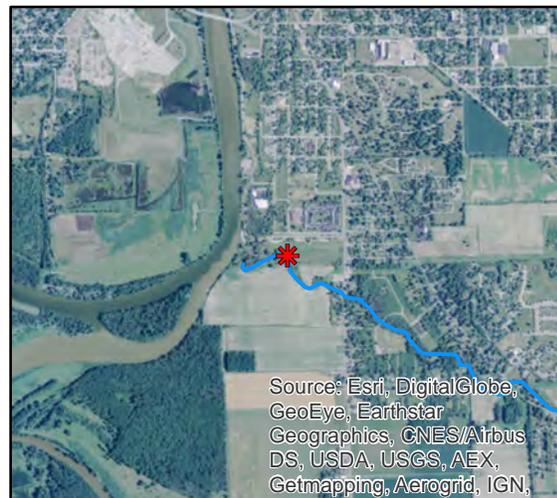


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage9

Type: Fallen Tree

Blockage Length (feet): 3

Debris Length (feet): 3

Location: Center

Photo 1 Direction:

Comments:

Photo facing upstream. Fallen trees and woody debris in center, 24" diameter. Additional fallen tree right side 8" diameter.

Observation Location:

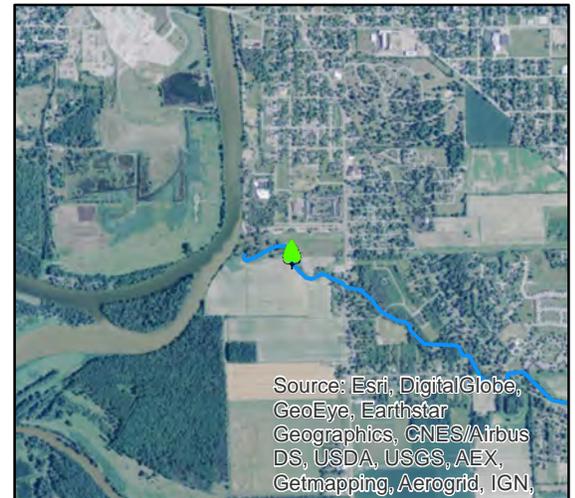


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage10

Type: Excessive Vegetation

Blockage Length (feet): 10

Debris Length (feet): 1200

Location: Left

Photo 1 Direction:

Comments:

1200 ft long along both sides of the drain. Left side facing upstream continuous. Right side facing upstream in clumps. Photo 1 taken facing downstream. Photo 2 taken facing upstream. Starts at 500 ft.

Observation Location:

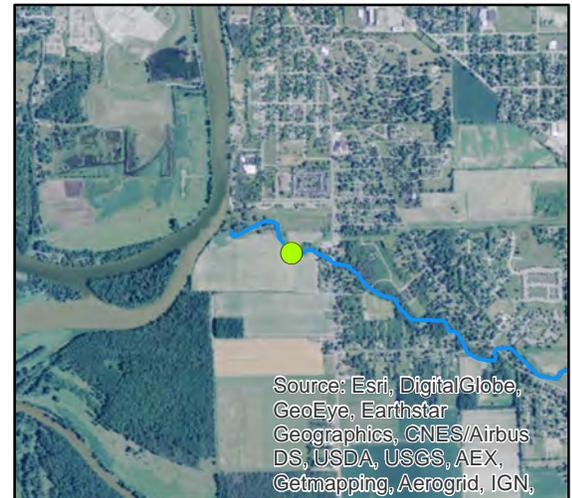


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage11

Type: Non-Vegetative Debris

Blockage Length (feet): 1

Debris Length (feet): 1

Location: Left

Photo 1 Direction:

Comments:

Tire on left side facing upstream. Photo taken facing north.

Observation Location:

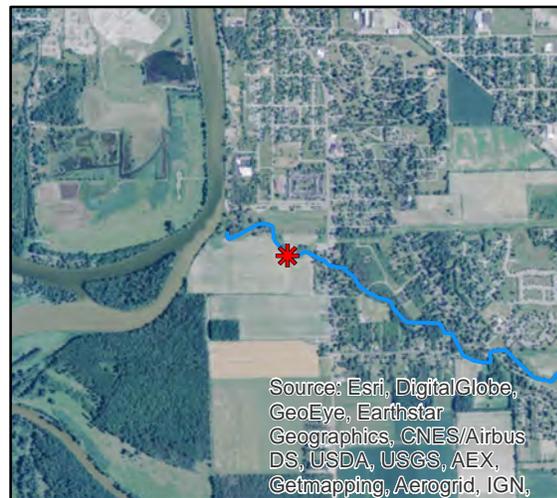


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage12

Type: Non-Vegetative Debris

Blockage Length (feet): 3

Debris Length (feet): 2

Location: Right

Photo 1 Direction:

Comments:

Upstream right side unknown objects

Observation Location:

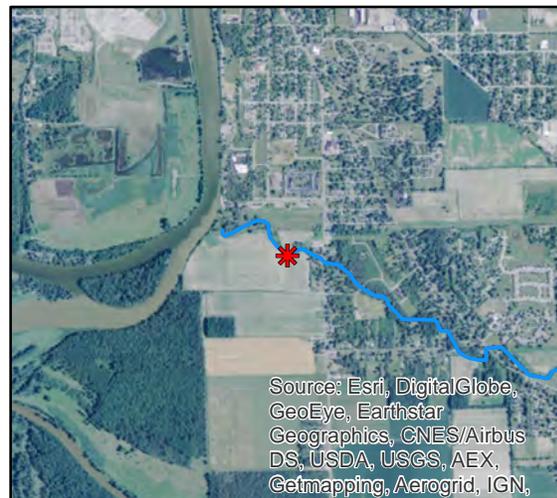


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Inspection Report for Observation:
Blockage13

Type: Log Jam

Blockage Length (feet): 5

Debris Length (feet): 4

Location: Right

Photo 1 Direction:

Comments:

Upstream right diameter up to 6"

Observation Location:

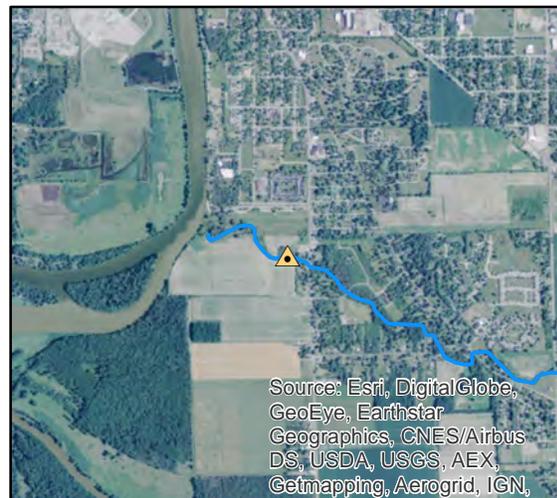


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Inspection Report for Observation:
Blockage14

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet): 25

Location: Right

Photo 1 Direction:

Comments:

6" diam tree on right side just upstream of farm crossing. Photo taken facing upstream.

Observation Location:

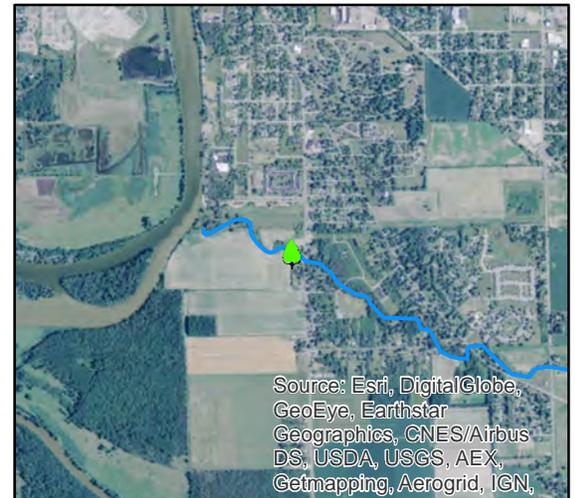


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage15

Type: Fallen Tree

Blockage Length (feet): 40

Debris Length (feet): 30

Location: Left

Photo 1 Direction:

Comments:

Fallen tree coming from left side facing upstream to center of drain.
Photo taken facing upstream. Additional fallen tree on right side.

Observation Location:

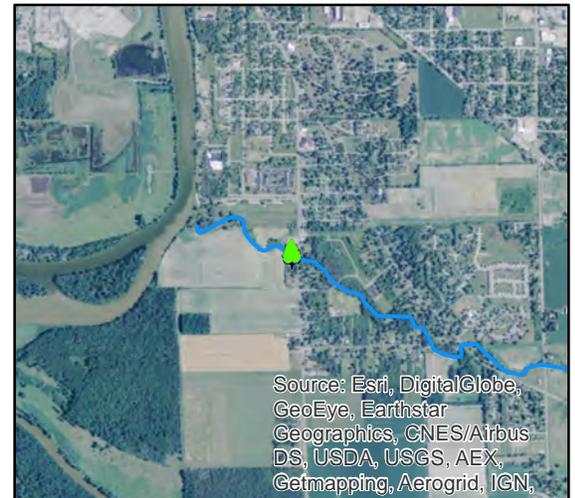


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage16

Type: Sediment

Blockage Length (feet): 40

Debris Length (feet): 15

Location: Right

Photo 1 Direction:

Comments:

Upstream right point sediment 40' long 15'wide

Observation Location:

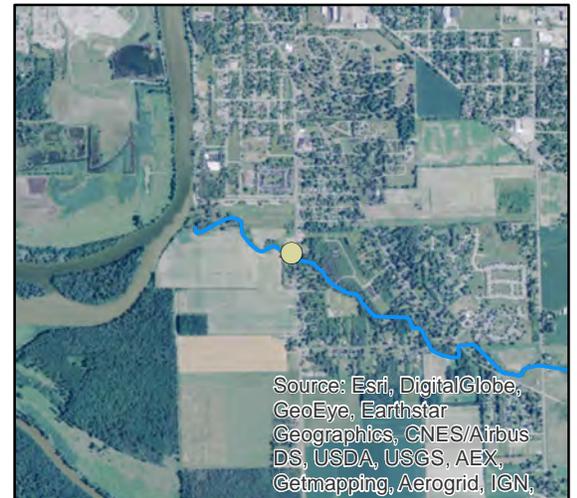


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage17

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet): 30

Location: Right

Photo 1 Direction:

Comments:

Broken tree limb hanging over drain. Will probably fall soon. Potential log jam. 8" diam. Photo facing north. Right side of drain.

Observation Location:

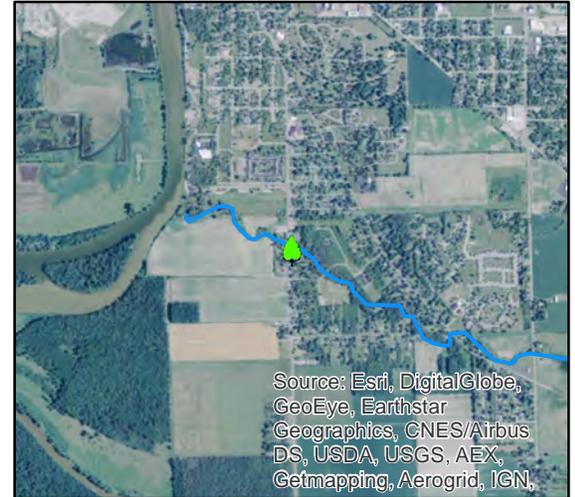


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage18

Type: Fallen Tree

Blockage Length (feet): 100

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Fallen branches and limbs in drain or overhanging drain. Originating from right side of drain. Photo facing upstream. Up to 4" diam. Next 50 ft.

Observation Location:

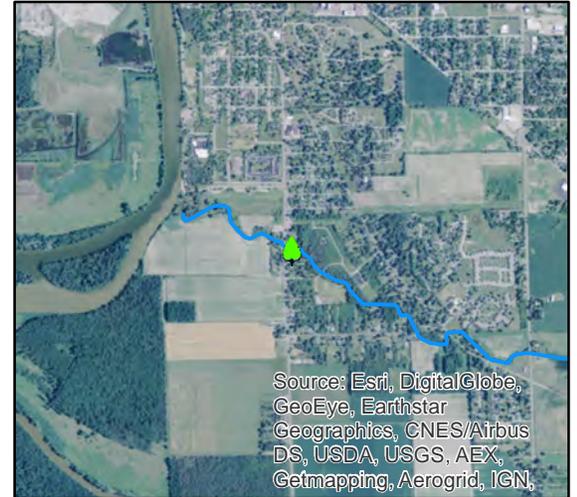


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage19

Type: Fallen Tree

Blockage Length (feet): 15

Debris Length (feet): 50

Location: Center

Photo 1 Direction:

Comments:

Three large fallen trees up to 14" diameter fallen in drain. Photo facing upstream.

Observation Location:

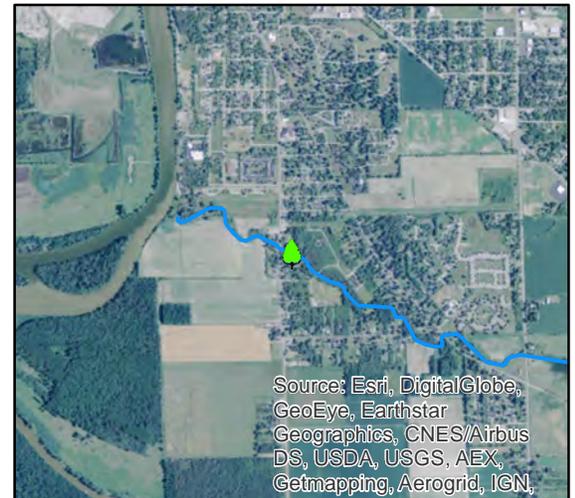


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage20

Type: Log Jam

Blockage Length (feet): 60

Debris Length (feet): 50

Location: Center

Photo 1 Direction:

Comments:

Several fallen trees causing log jam. Up to 16" diameter. Photo facing upstream.

Observation Location:

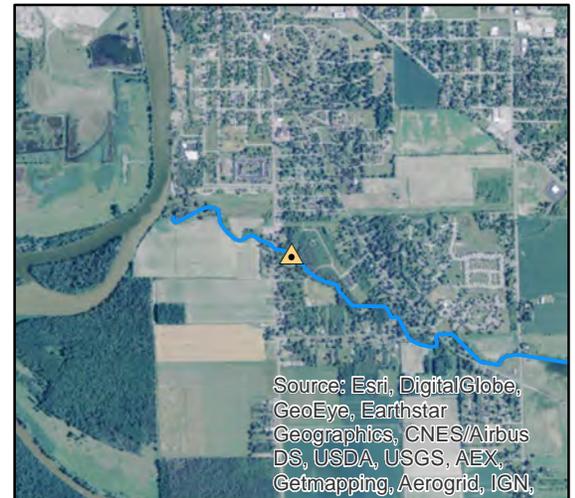


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage21

Type: Fallen Tree

Blockage Length (feet): 10

Debris Length (feet): 16

Location: Right

Photo 1 Direction:

Comments:

30" diam tree trunk on right side of drain. Additional 6" diameter log on tree limb on left side of drain. Photo facing north.

Observation Location:

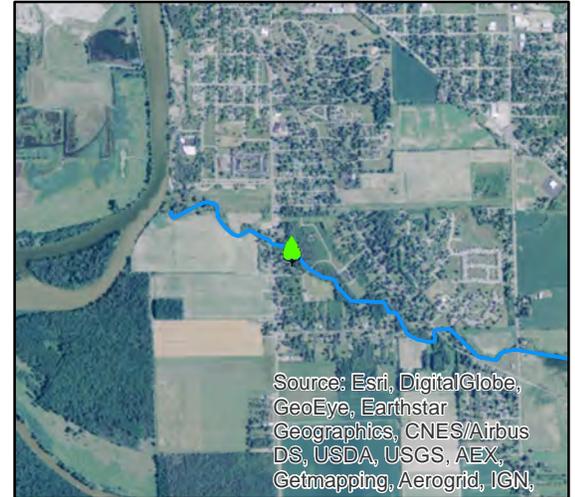


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage22

Type: Fallen Tree

Blockage Length (feet): 25

Debris Length (feet): 20

Location: Right

Photo 1 Direction:

Comments:

Fallen tree limbs and other woody debris. Up to 8" diameter. Photo facing upstream. Right side.

Observation Location:

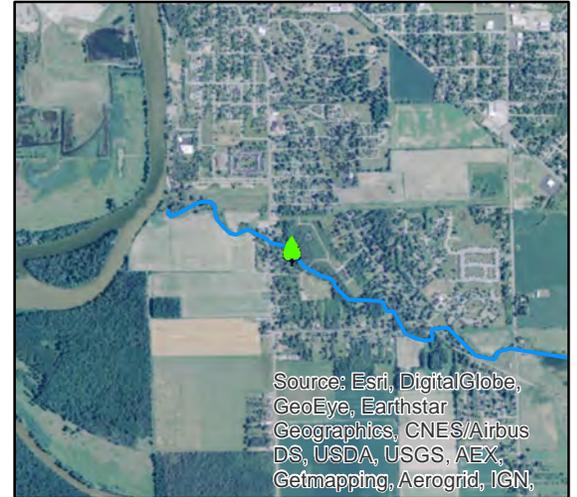


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage23

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet): 25

Location: Center

Photo 1 Direction:

Comments:

3" diam fallen tree and additional woody debris in drain. Photo facing upstream.

Observation Location:

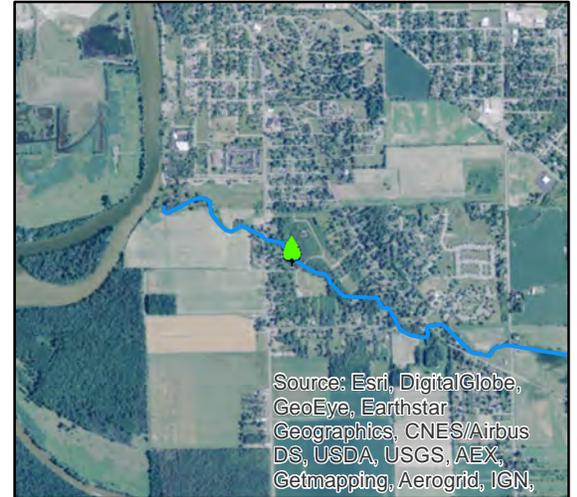


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Inspection Report for Observation:
Blockage24

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash in center of drain. Photo facing upstream.

Observation Location:

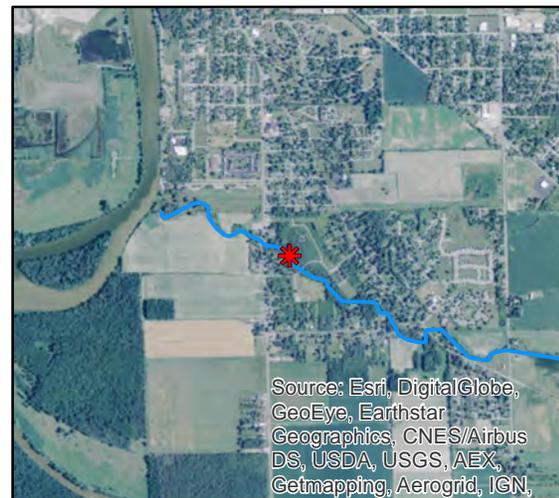


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Inspection Report for Observation:
Blockage25

Type: Sediment

Blockage Length (feet): 40

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Right side around bend. 40 ft. Photo facing upstream.

Observation Location:

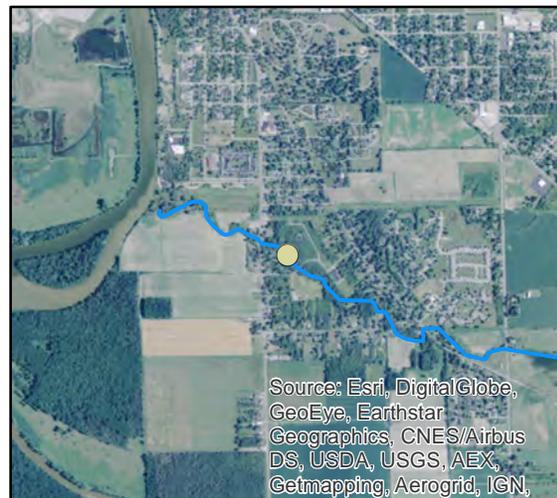


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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage26

Type: Log Jam

Blockage Length (feet): 40

Debris Length (feet): 60

Location: Center

Photo 1 Direction:

Comments:

Several fallen trees up to 8" diameter from both sides of drain causing log jam. Photo facing upstream. 40 ft.

Observation Location:

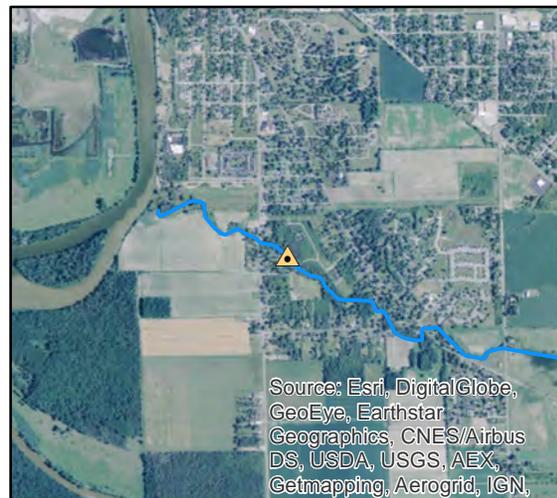


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Inspection Report for Observation:
Blockage27

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Trash in drain on right side. Photo facing northeast.

Observation Location:

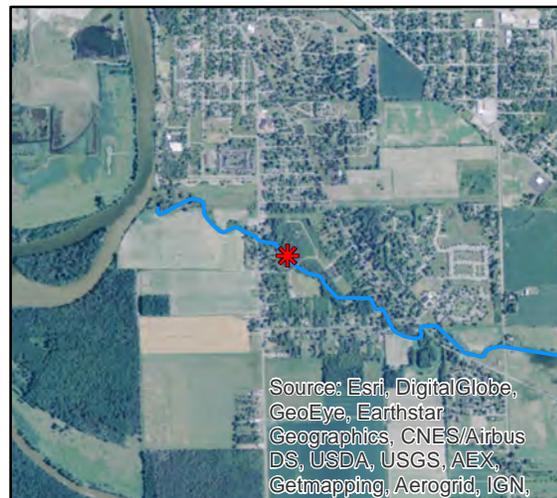


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage28

Type: Fallen Tree

Blockage Length (feet): 20

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Woody debris including vegetation from banks, 16" diam stump, and multiple logs in center of drain. Photo facing upstream.

Observation Location:

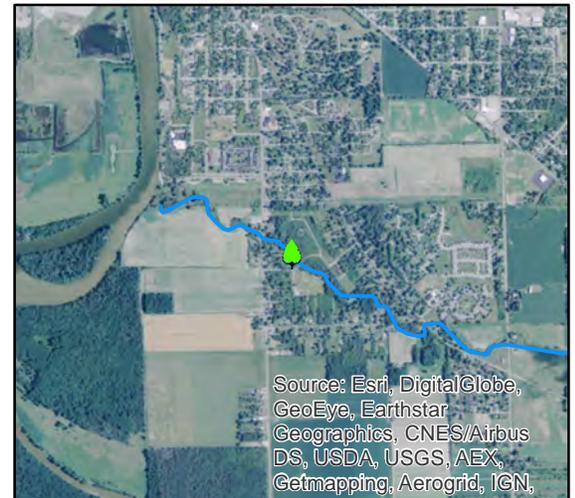


Photo 1



Photo 2

Photo 3

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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage29

Type: Fallen Tree

Blockage Length (feet): 12

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Woody debris on left side causing blockage. Photo facing upstream

Observation Location:

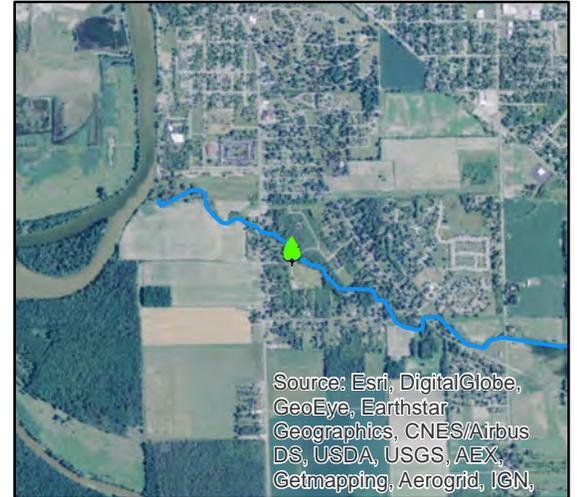


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage30

Type: Log Jam

Blockage Length (feet): 20

Debris Length (feet): 60

Location: Center

Photo 1 Direction:

Comments:

Fallen tree on left side of drain causing log jam blockage in center of drain. Photo1 facing northwest. Photo 2 facing downstream.

Observation Location:

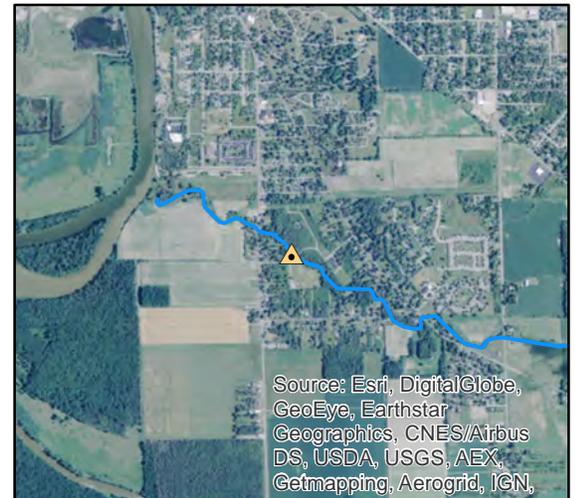


Photo 1



Photo 2



Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage31

Type: Fallen Tree

Blockage Length (feet): 80

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Fallen trees and other woody debris for next 80 ft up to crossing. Photo facing upstream.

Observation Location:

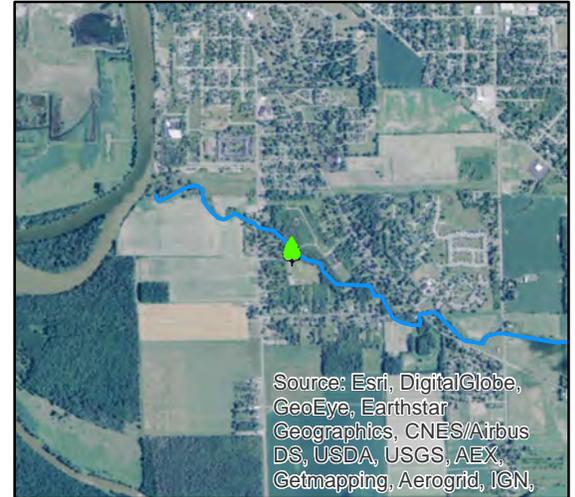


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage32

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash and other debris upstream of log jam. Photo 1 facing downstream.
Photo 2 facing upstream.

Observation Location:

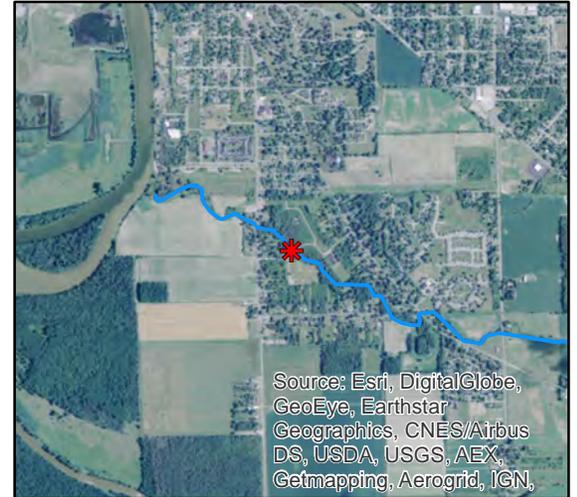


Photo 1



Photo 2



Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage33

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Debris on left side. Photo facing northeast.

Observation Location:

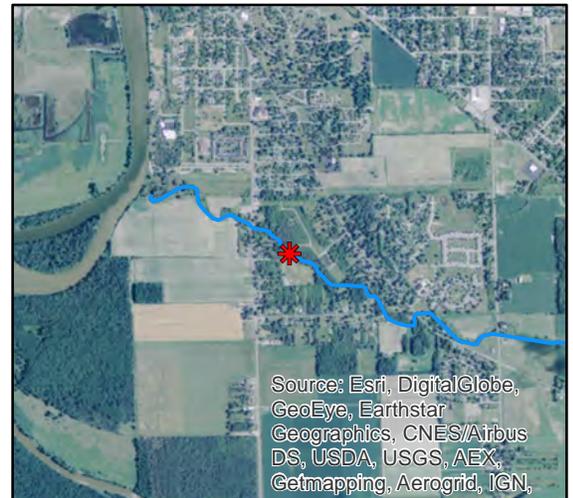


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage34

Type: Fallen Tree

Blockage Length (feet): 150

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Fallen limbs and scattered woody debris in center of drain over next 150 ft. Up to 6" diameter.

Observation Location:

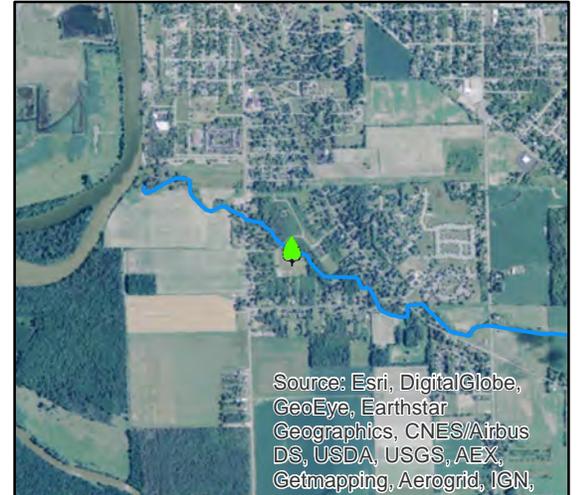


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage35

Type: Sediment

Blockage Length (feet): 40

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Excessive sediment buildup on left side of drain. Also log jam in this location. Loose sediment downstream of bar. Photo facing upstream.

Observation Location:

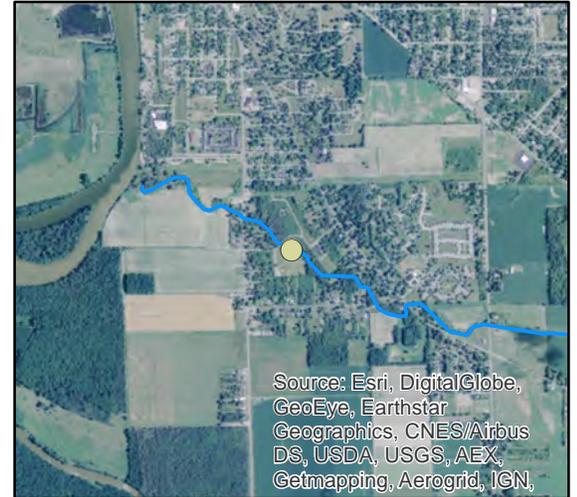


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage36

Type: Log Jam

Blockage Length (feet): 20

Debris Length (feet): 10

Location: Left

Photo 1 Direction:

Comments:

Log jam impeding flow. Sediment buildup upstream. Loose sediment and debris downstream. Photo facing south.

Observation Location:

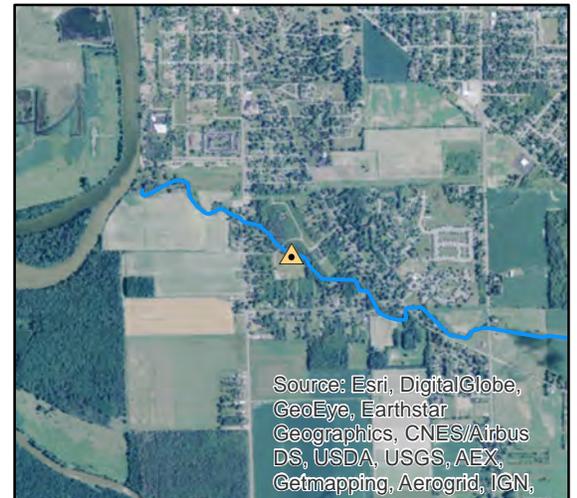


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage37

Type: Fallen Tree

Blockage Length (feet): 100

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Scattered wooden debris over next 100 ft. Photo facing upstream.

Observation Location:

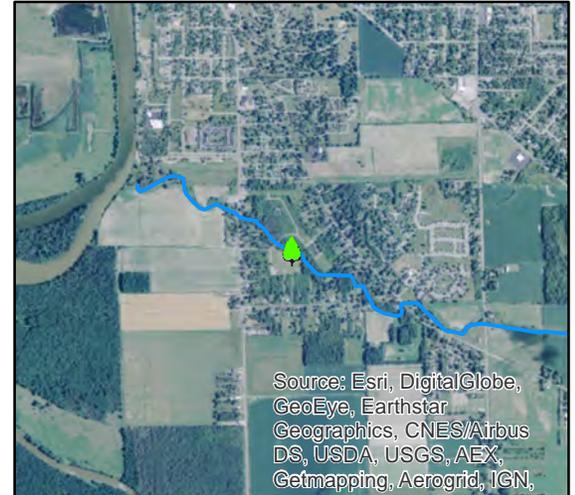


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage38

Type: Sediment

Blockage Length (feet): 20

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Sediment bar on right side. 20 ft long. 2 ft wide. Photo facing south.

Observation Location:

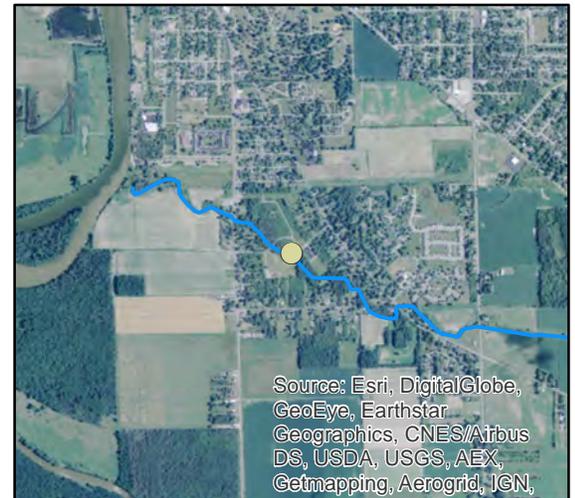


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage39

Type: Excessive Vegetation

Blockage Length (feet): 600

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation. 1"-3" diam trees growing at top of banks and within v. Heavy along banks. Next 600 ft. Photo facing upstream.

Observation Location:

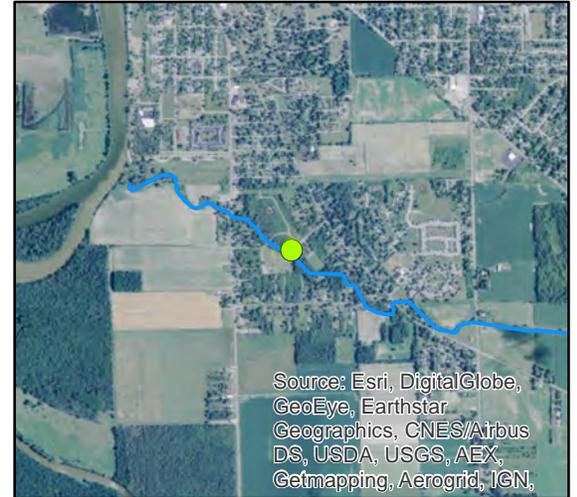


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage40

Type: Fallen Tree

Blockage Length (feet): 100

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Scattered woody debris next 100 ft. Photo facing upstream.

Observation Location:

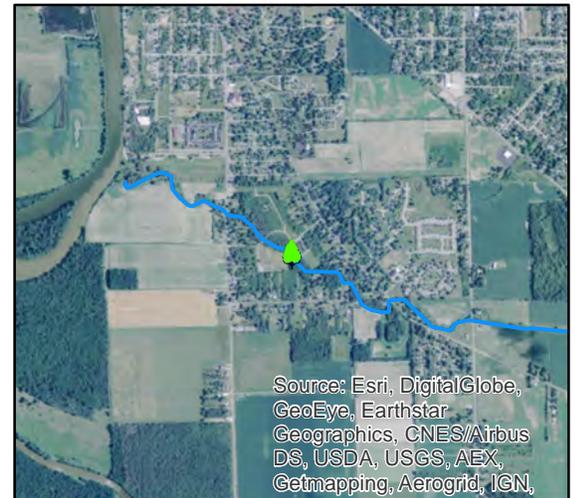


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage41

Type: Log Jam

Blockage Length (feet): 20

Debris Length (feet): 40

Location: Center

Photo 1 Direction:

Comments:

Significant long jam impeding flow in drain. Photo facing southwest.

Observation Location:

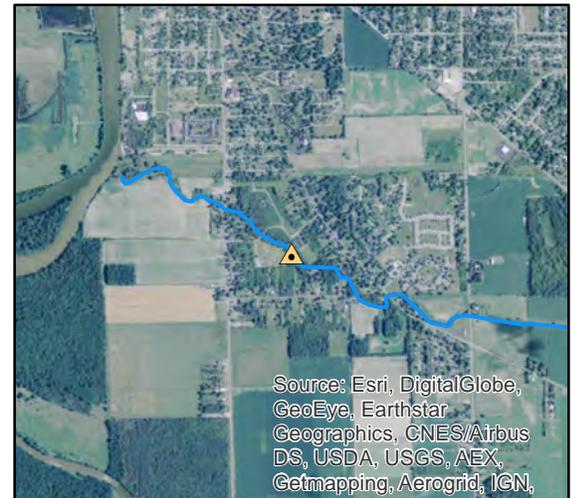


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage42

Type: Sediment

Blockage Length (feet): 8

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Sediment bar 8 ft long and 4 ft wide. Downstream of log jam. Photo facing upstream.

Observation Location:

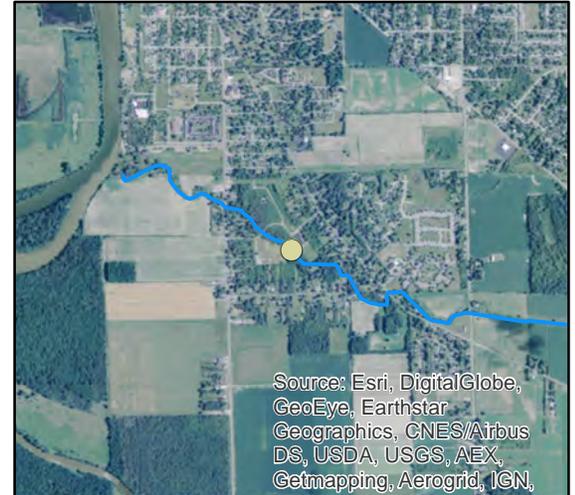


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage43

Type: Fallen Tree

Blockage Length (feet): 100

Debris Length (feet): 50

Location: Center

Photo 1 Direction:

Comments:

Up to 10" diameter. Next 100 ft. 3 large limbs and scattered woody debris. Photo1 facing upstream. Photo2 facing southwest.

Observation Location:

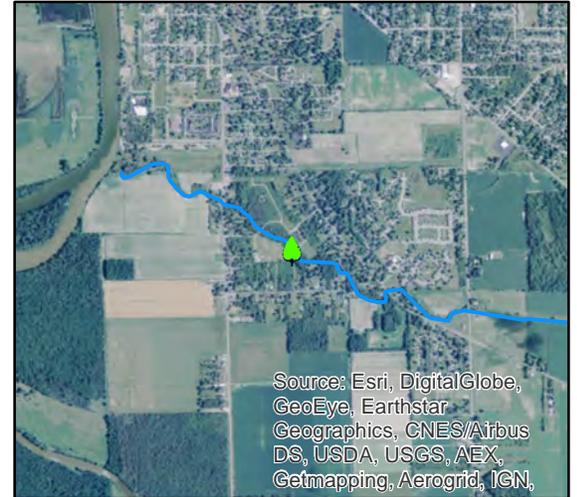


Photo 1



Photo 2



Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage44

Type: Log Jam

Blockage Length (feet): 60

Debris Length (feet): 70

Location: Center

Photo 1 Direction:

Comments:

Multiple fallen trees up to 4" diam causing log jam. Photo facing upstream.

Observation Location:

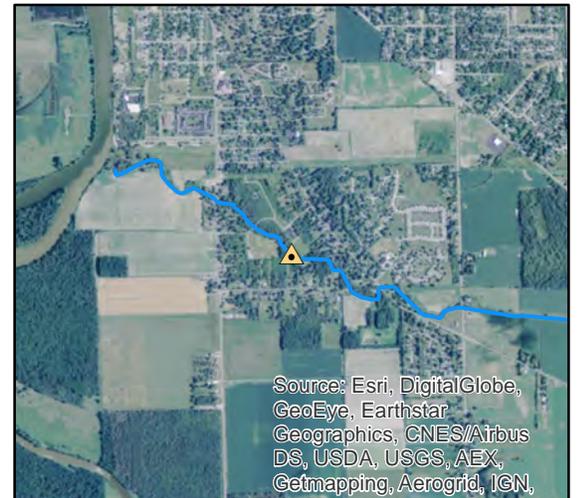


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage45

Type: Sediment

Blockage Length (feet): 80

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Point sediment bar on left side around bend for next 80 ft. Photo facing upstream.

Observation Location:

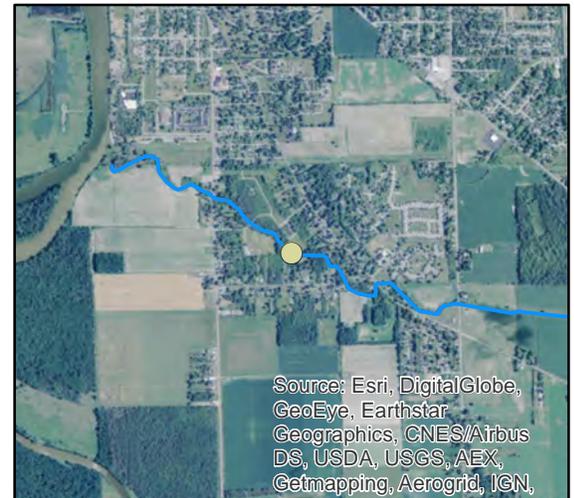


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage46

Type: Excessive Vegetation

Blockage Length (feet): 150

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation on both sides of drain next 150ft. Photo facing upstream. Mainly 1"-3" diam trees.

Observation Location:

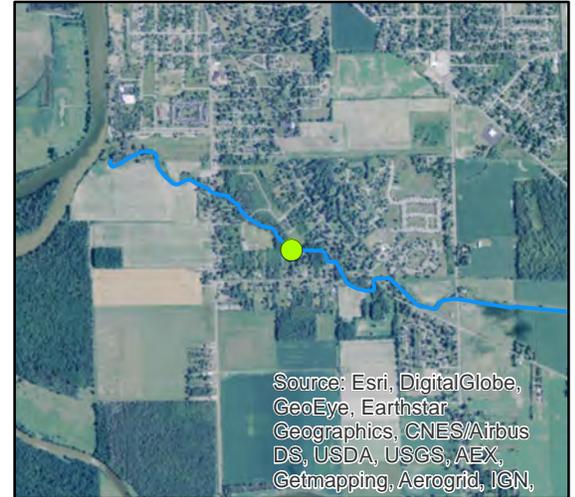


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage47

Type: Excessive Vegetation

Blockage Length (feet): 200

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Excessive vegetation on left side of drain next 200 ft. Photo facing upstream.

Observation Location:

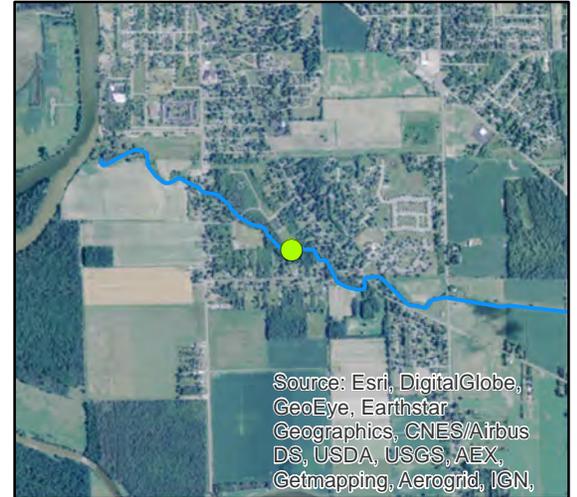


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage48

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Vegetation in bottom of channel. Low flow, high nutrients. Photo facing north.

Observation Location:

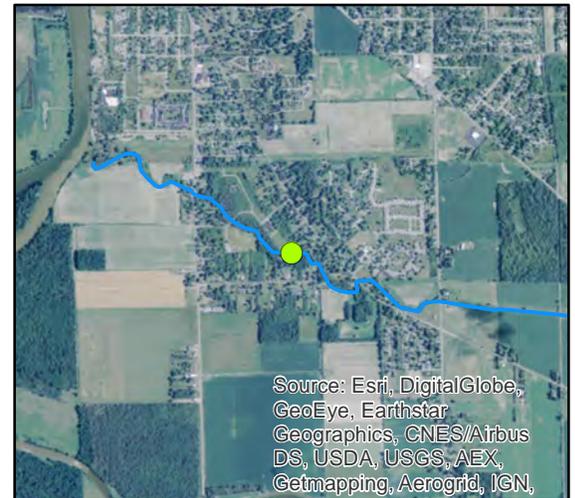


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage49

Type: Fallen Tree

Blockage Length (feet): 20

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

6" diam log on left and other woody debris. Photo facing upstream.

Observation Location:

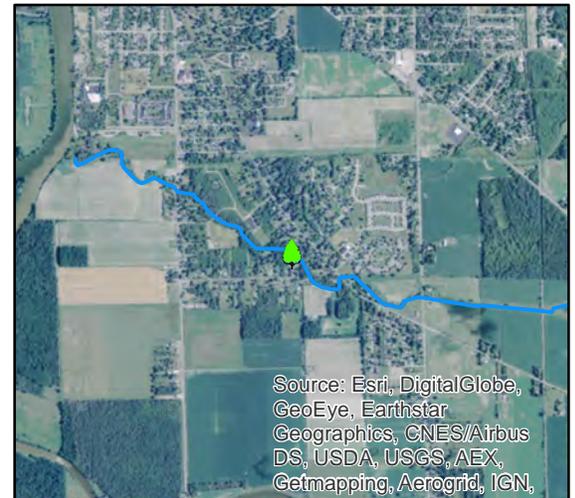


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage50

Type: Excessive Vegetation

Blockage Length (feet):

Debris Length (feet): 100

Location: Right

Photo 1 Direction:

Comments:

Excessive vegetation on right bank next 100 ft up to crossing. Photo facing upstream.

Observation Location:

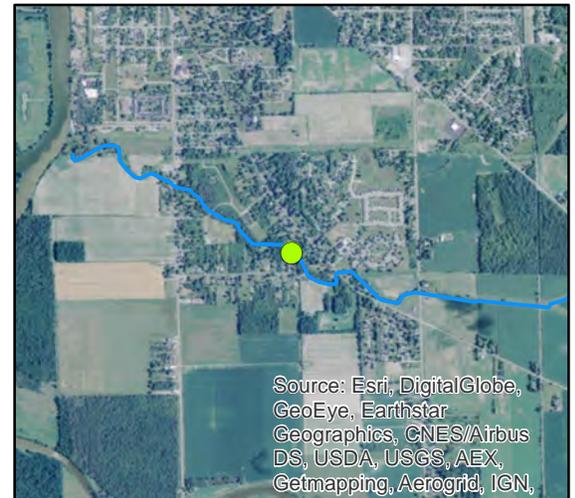


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage51

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Concrete block in drain. 3' x 6'.

Observation Location:

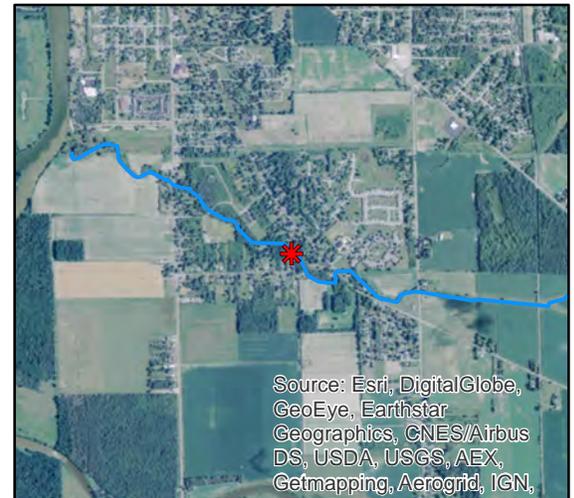


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage52

Type: Sediment

Blockage Length (feet): 15

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment bar with vegetation on left just downstream of Casey dr. Photo facing upstream.

Observation Location:

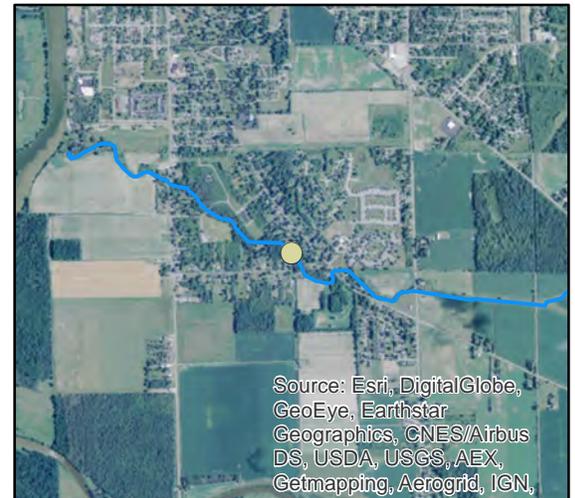


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage53

Type: Excessive Vegetation

Blockage Length (feet): 400

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation on both sides next 400 ft. Photo facing upstream.

Observation Location:

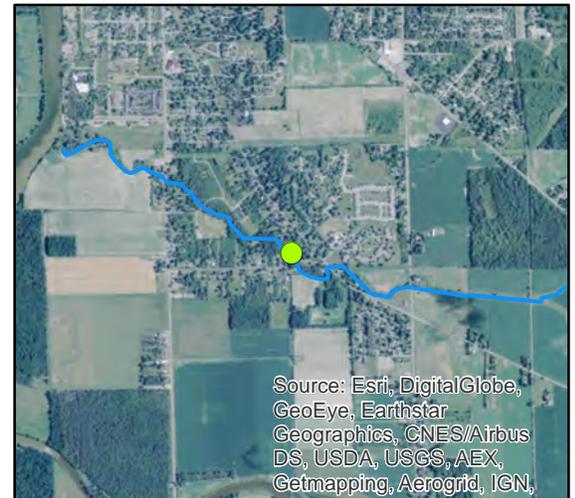


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage54

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash in drain adding to woody debris blockage. Photo facing upstream.

Observation Location:

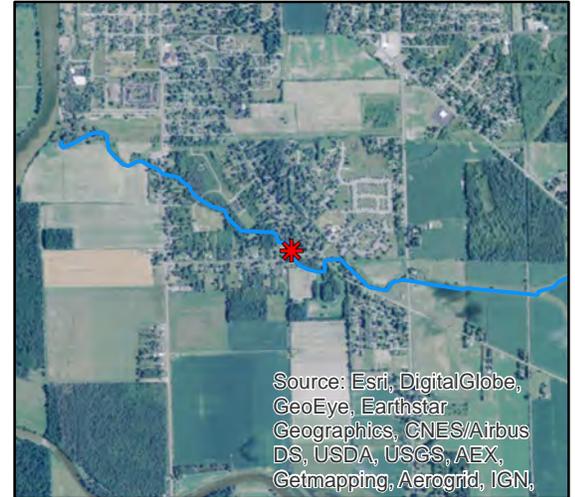


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage55

Type: Fallen Tree

Blockage Length (feet): 30

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Fallen woody debris in two locations. Photo facing upstream.

Observation Location:

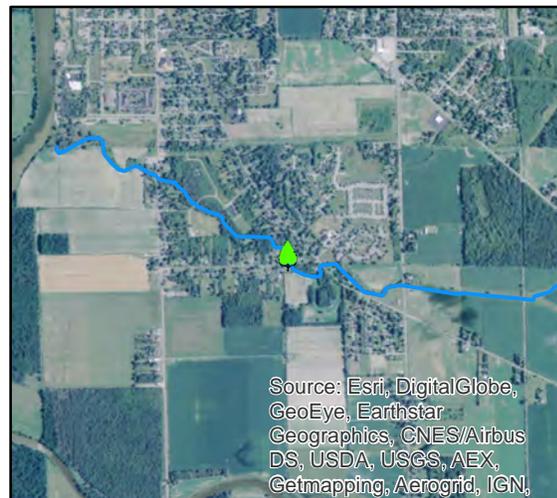


Photo 1



Photo 2

Photo 3

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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage56

Type: Log Jam

Blockage Length (feet): 15

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Log jam in center of drain impeding flow. Photo facing upstream.

Observation Location:

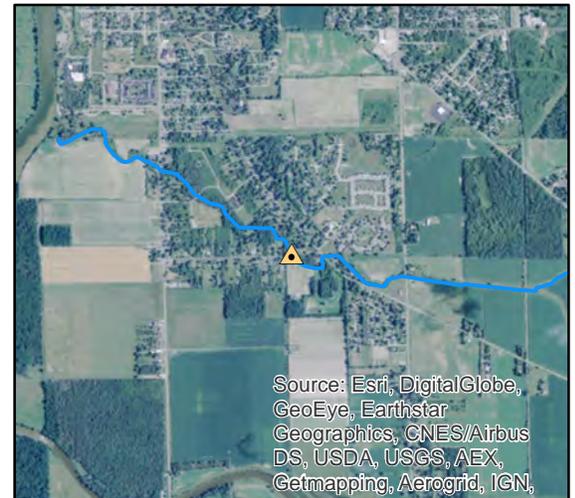


Photo 1



Photo 2

Photo 3

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				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage57

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Concrete block and other debris in center of drain. Photo facing upstream.

Observation Location:

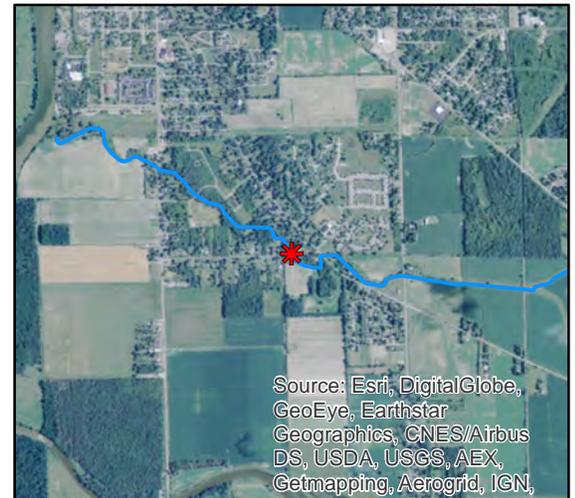


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage58

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Need to move! On right side. Stuck in bank. Photo facing northeast.

Observation Location:

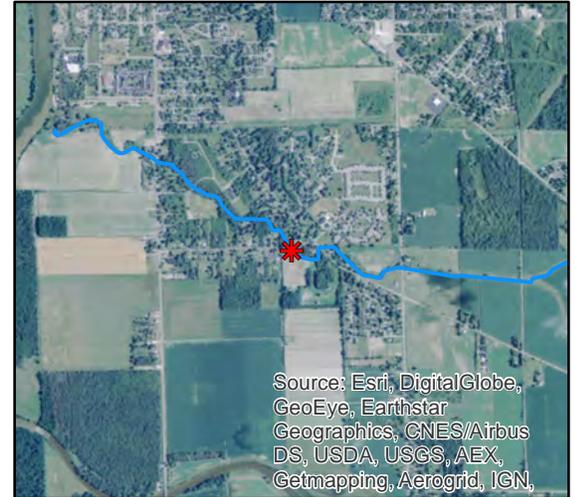


Photo 1



Photo 2

Photo 3

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				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage59

Type: Fallen Tree

Blockage Length (feet): 100

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Fallen trees up to 4" diam and scattered woody debris over next 100 ft.
Photo facing upstream.

Observation Location:

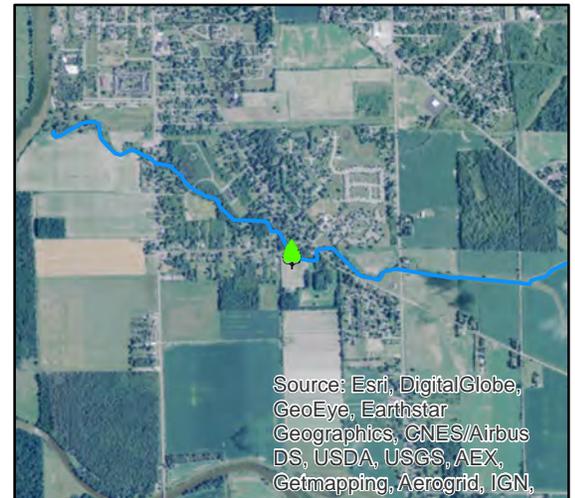


Photo 1



Photo 2

Photo 3

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				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage60

Type: Excessive Vegetation

Blockage Length (feet): 50

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Excessive vegetation clump on left side impeding flow in drain. Photo facing upstream. Downstream of field tile outlet.

Observation Location:

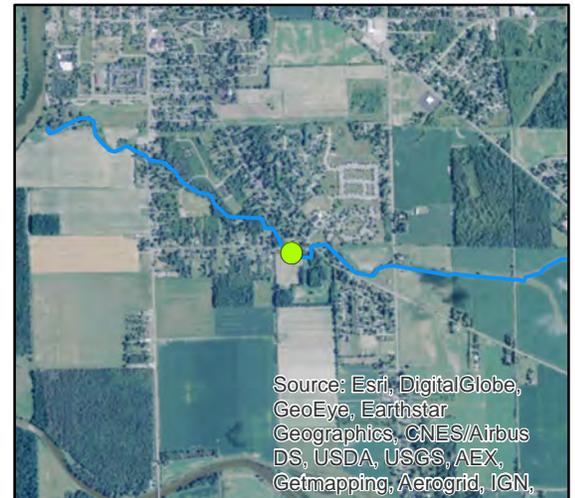


Photo 1



Photo 2

Photo 3

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				SCALE:	
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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage61

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Tire in center in of drain.

Observation Location:

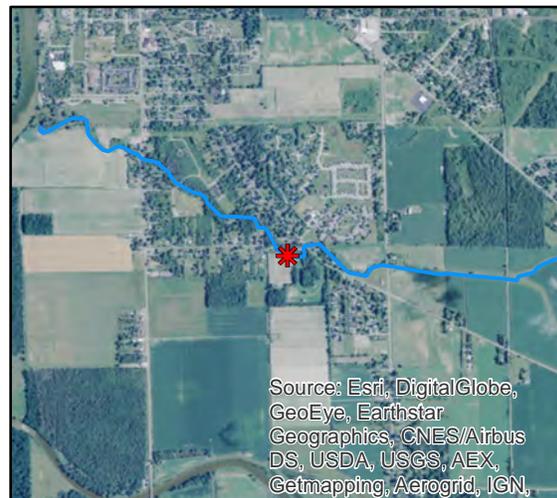


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage62

Type: Excessive Vegetation

Blockage Length (feet): 170

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation off both banks next 170ft up to crossing. Photo facing upstream.

Observation Location:

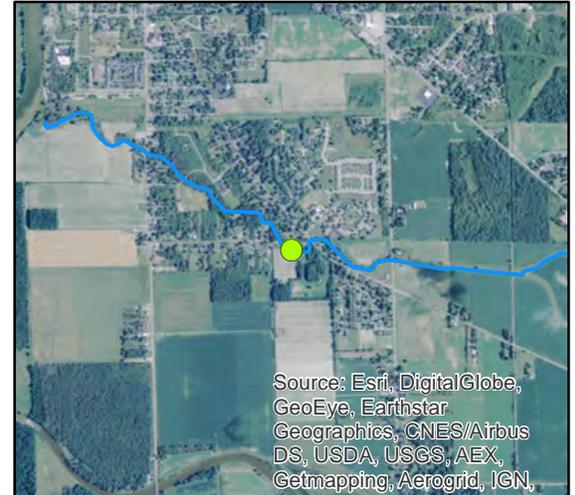


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage63

Type: Fallen Tree

Blockage Length (feet): 50

Debris Length (feet): 50

Location:

Photo 1 Direction:

Comments:

Three fallen trees ip to 8" diam in center of drain along with other woody debris. Photo facing upstream.

Observation Location:

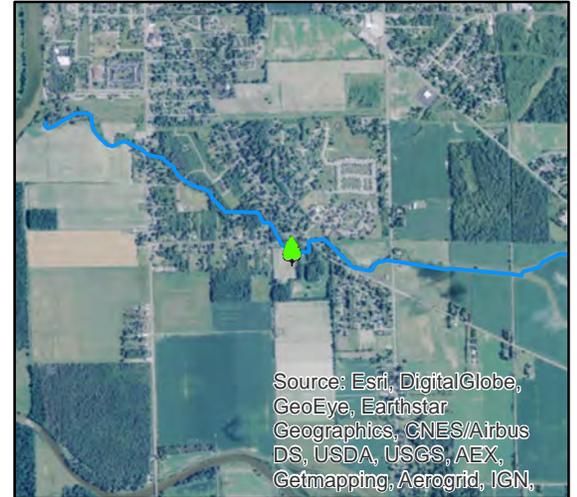


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage64

Type: Sediment

Blockage Length (feet): 30

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Sediment bar on left side within of fallen tree area. Erosion on right side. Photo facing upstream.

Observation Location:

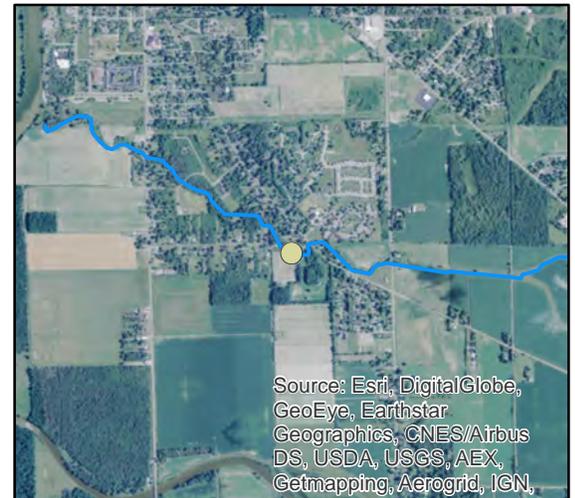


Photo 1



Photo 2

Photo 3

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				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage65

Type: Fallen Tree

Blockage Length (feet): 10

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Fallen tree overhanging the drain. Leaves and branches are causing blockage. 12" diam. Photo facing upstream.

Observation Location:

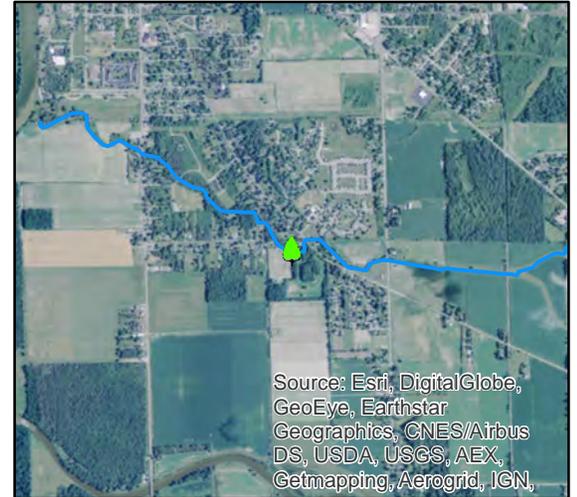


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage66

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Tire in center in of drain just downstream of crossing. Photo facing downstream.

Observation Location:

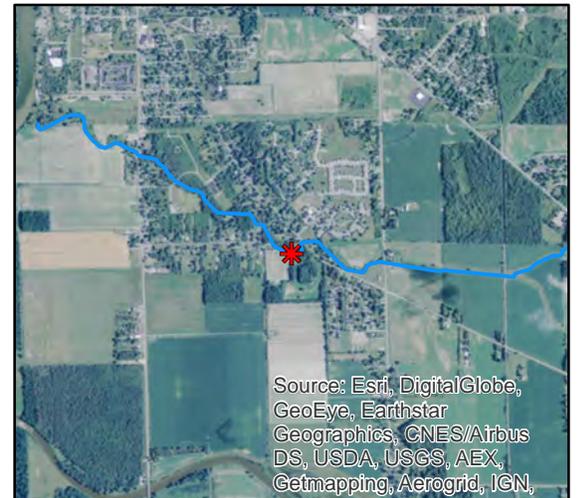


Photo 1

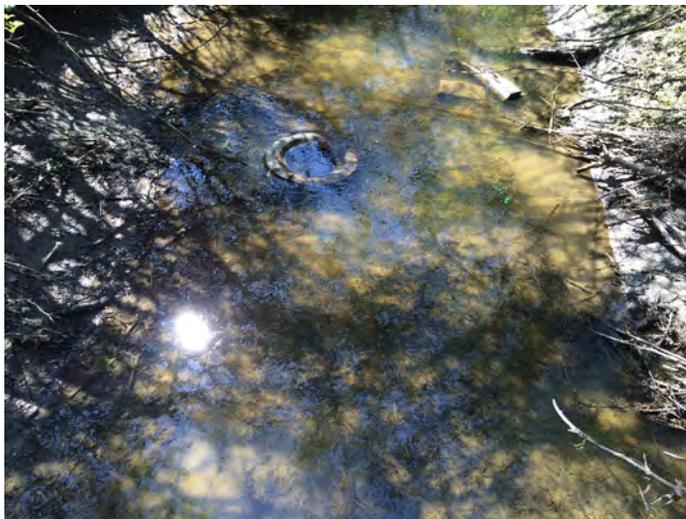


Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage67

Type: Fallen Tree

Blockage Length (feet): 20

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Fallen tree with 6" diam and other woody debris causing blockage upstream of crossing. Photo facing upstream.

Observation Location:

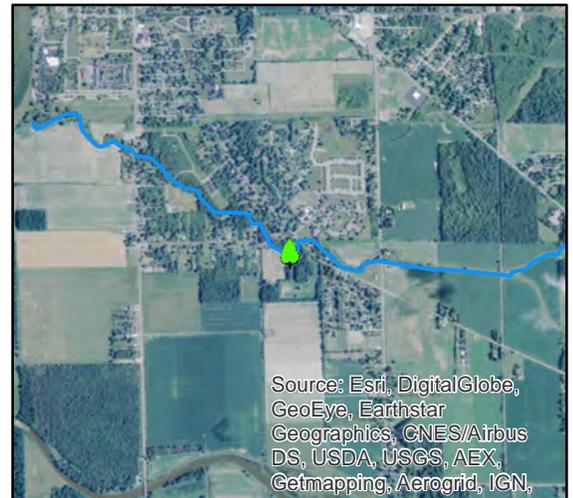


Photo 1

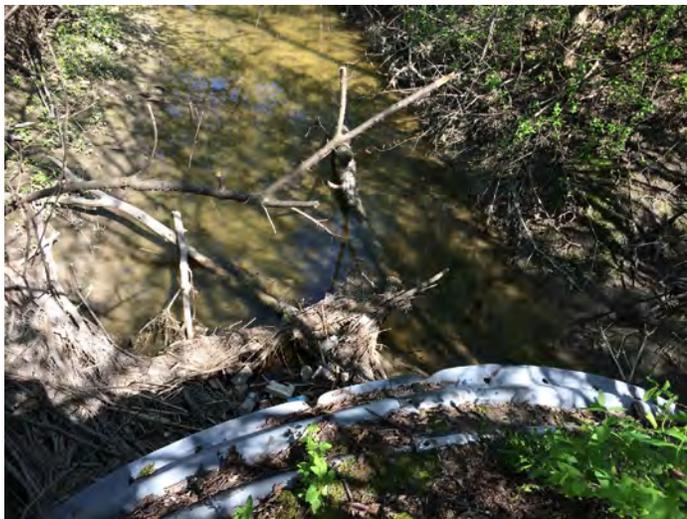


Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage68

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash and other debris in drain. Photo facing upstream.

Observation Location:

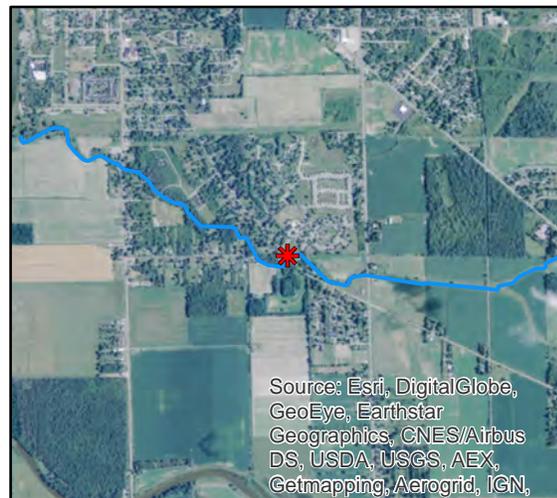


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage69

Type: Non-Vegetative Debris

Blockage Length (feet): 400

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Several pieces of trash on left bank for next 400 ft up to Washington rd.
Photo facing upstream.

Observation Location:

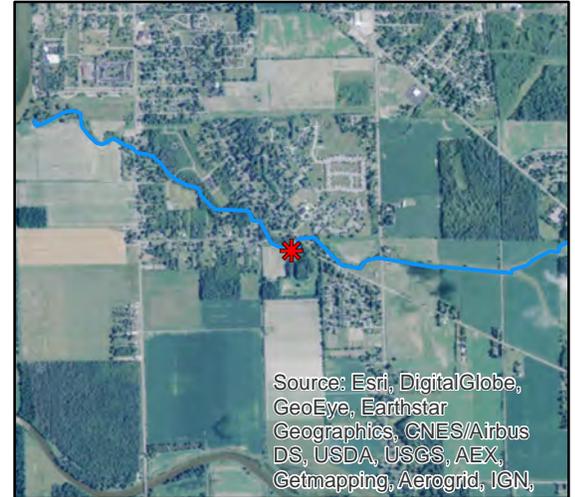


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage70

Type: Fallen Tree

Blockage Length (feet): 20

Debris Length (feet): 50

Location: Right

Photo 1 Direction:

Comments:

Fallen tree on right bank is collecting other woody debris and causing blockage in drain. 24" diam. Photo facing upstream.

Observation Location:

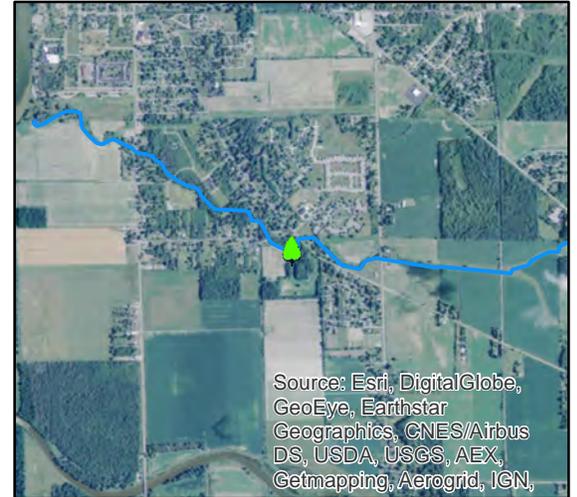


Photo 1



Photo 2

Photo 3

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				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage71

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Debris in center of drain. Photo facing upstream.

Observation Location:

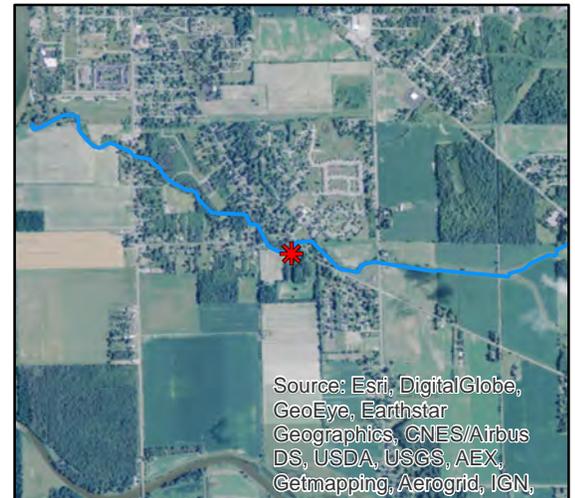


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage72

Type: Fallen Tree

Blockage Length (feet): 6

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Limbs, branches, and woody debris. Photo facing south.

Observation Location:

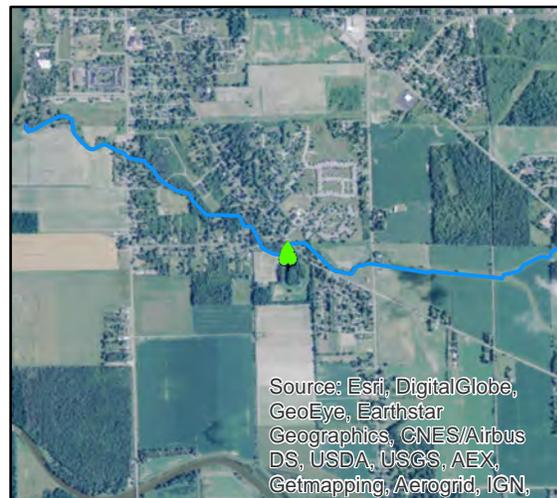


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage73

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Falling tree due to erosion at bank is overhanging drain. Photo facing south.

Observation Location:

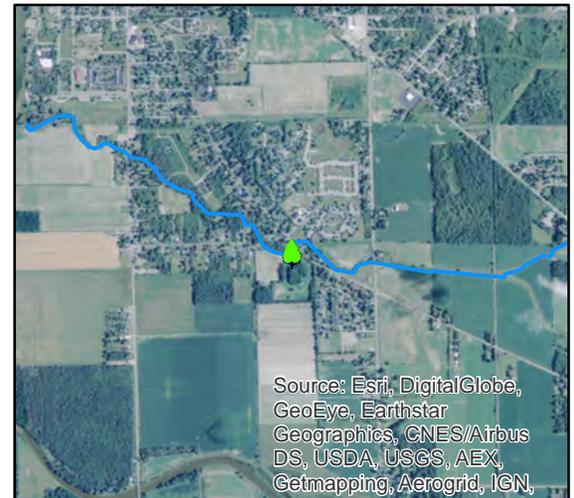


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage74

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Large fallen tree on top of bank. Right side. Photo facing east. 24" diam

Observation Location:

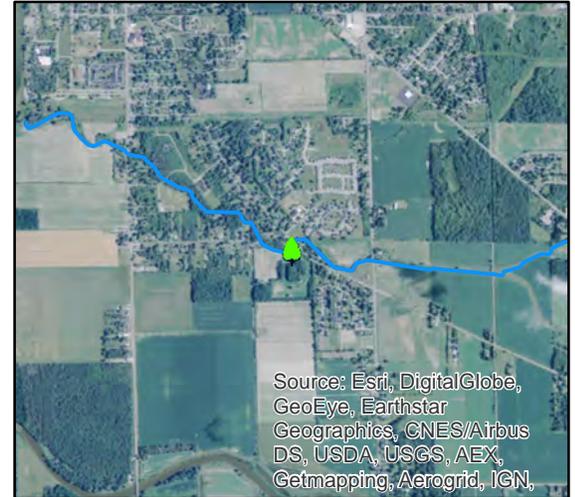


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage75

Type: Sediment

Blockage Length (feet): 6

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Mid channel sediment bar. 6 ft long. Photo facing upstream.

Observation Location:

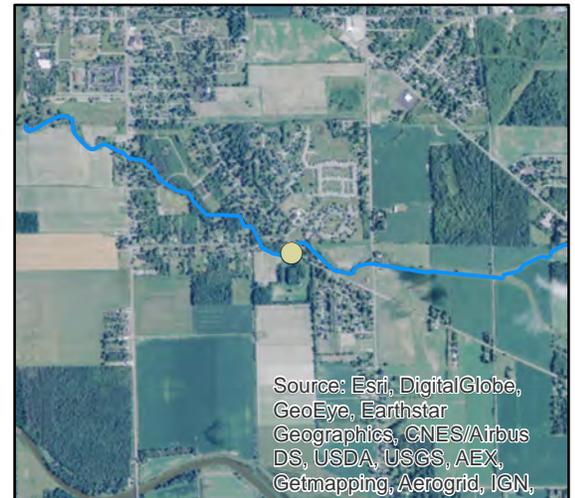


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage76

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Debris in center of drain. Photo facing upstream.

Observation Location:

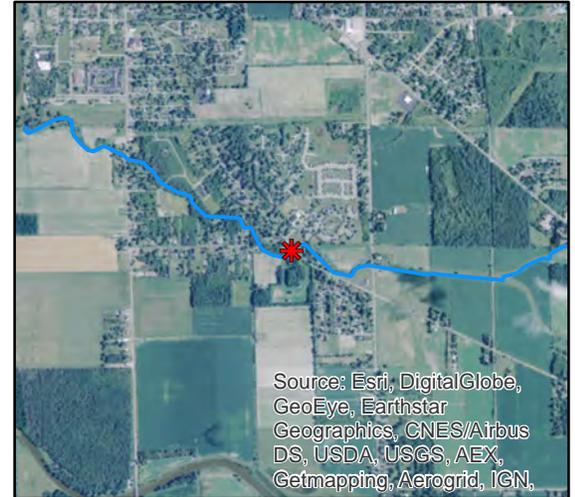


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage77

Type: Fallen Tree

Blockage Length (feet): 1

Debris Length (feet): 20

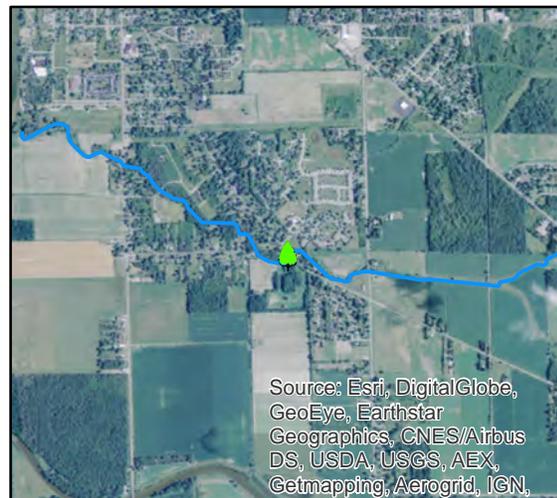
Location: Center

Photo 1 Direction:

Comments:

6" diam fallen tree in center of drain. Photo facing upstream.

Observation Location:



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage78

Type: Log Jam

Blockage Length (feet): 25

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

2 spots. Mixed with concrete and rocks. Causing riffle. Photo facing upstream.

Observation Location:

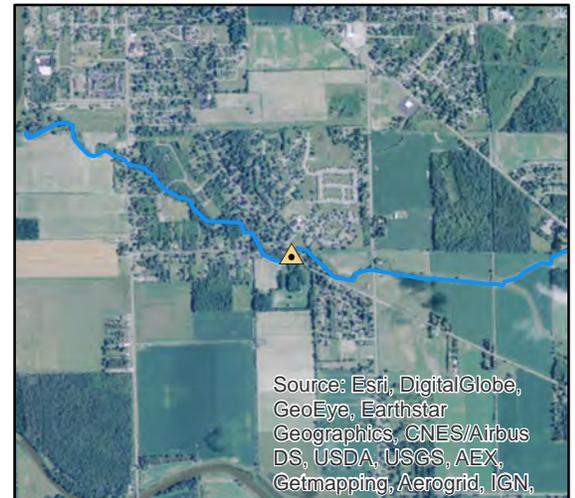


Photo 1



Photo 2

Photo 3

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NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage79

Type: Non-Vegetative Debris

Blockage Length (feet): 25

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Rocks and broken concrete. Mixed with logs in causing riffle. Probably falling from constructed bank on left. Photo facing upstream.

Observation Location:

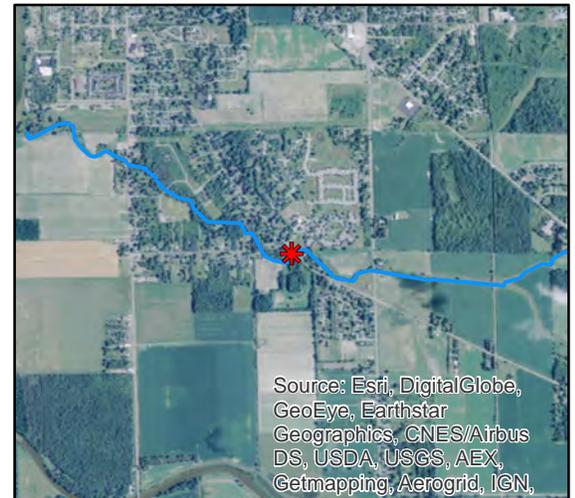


Photo 1

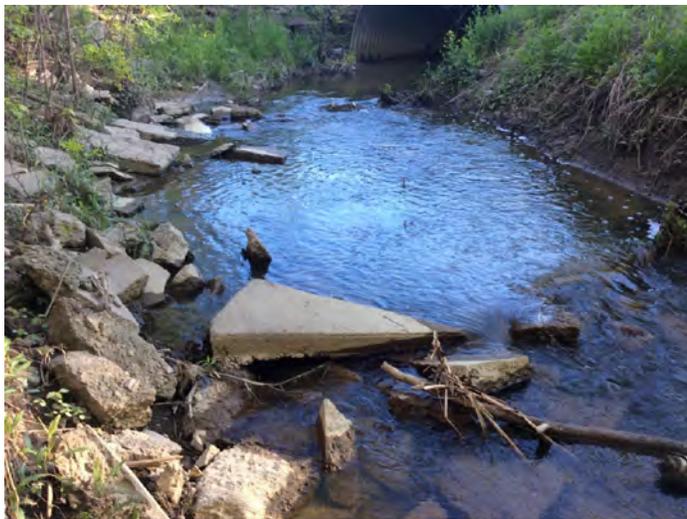


Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage80

Type: Non-Vegetative Debris

Blockage Length (feet): 5

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash with sediment buildup around it. Center of drain. Photo facing upstream.

Observation Location:

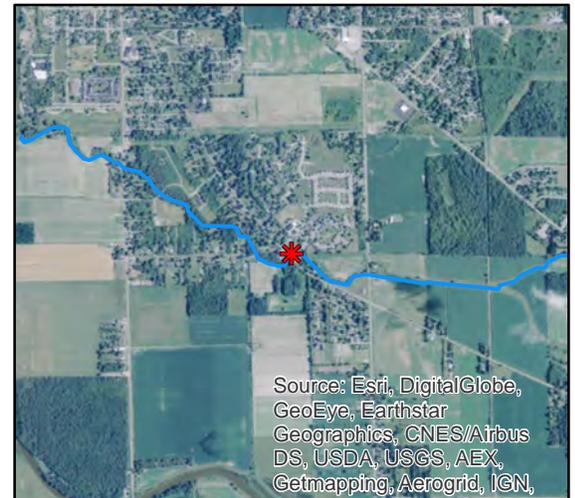


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage81

Type: Sediment

Blockage Length (feet): 25

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment buildup around trash in center of drain, and on right side upstream of trash. Photo facing upstream.

Observation Location:

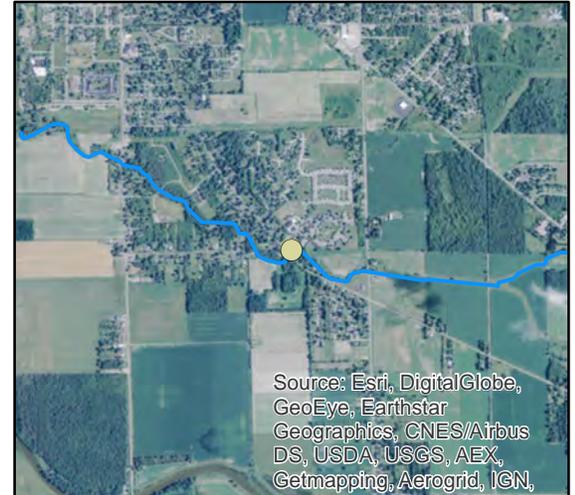


Photo 1



Photo 2

Photo 3

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NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage82

Type: Excessive Vegetation

Blockage Length (feet): 80

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Excessive vegetation on right side for 80 ft. Photo facing upstream.

Observation Location:

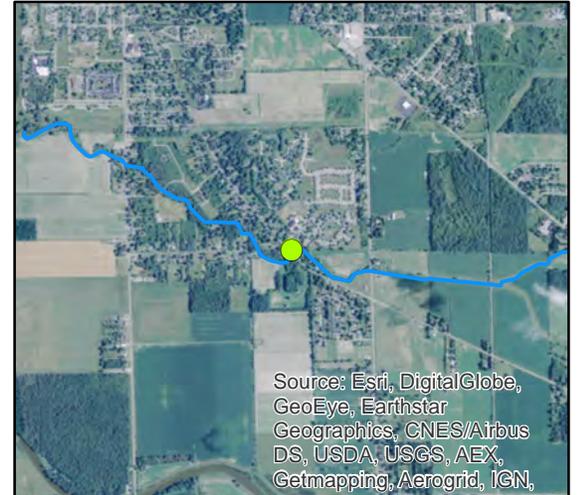


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage83

Type: Log Jam

Blockage Length (feet): 8

Debris Length (feet): 30

Location: Center

Photo 1 Direction:

Comments:

Two 6" diam logs are impeding flow. Photo facing upstream.

Observation Location:

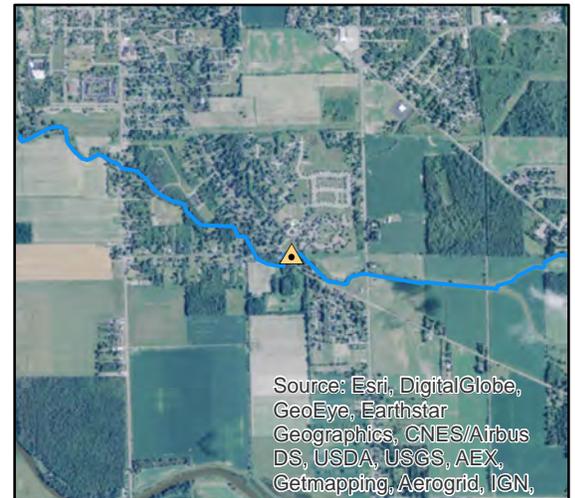


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage84

Type: Non-Vegetative Debris

Blockage Length (feet): 50

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Scattered trash including a tire. Photo facing upstream.

Observation Location:

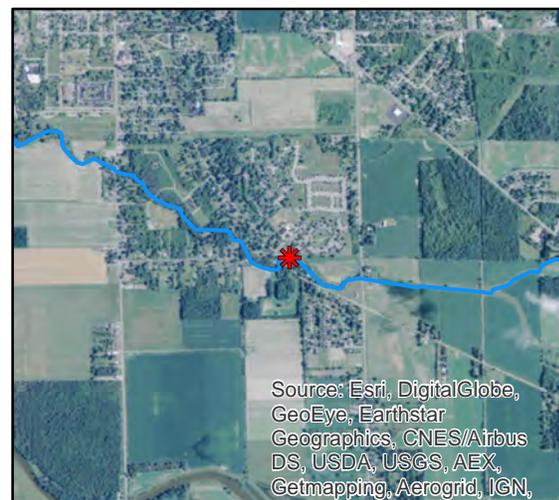


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage85

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Excessive vegetation on right side next 100 ft. Photo facing upstream.

Observation Location:

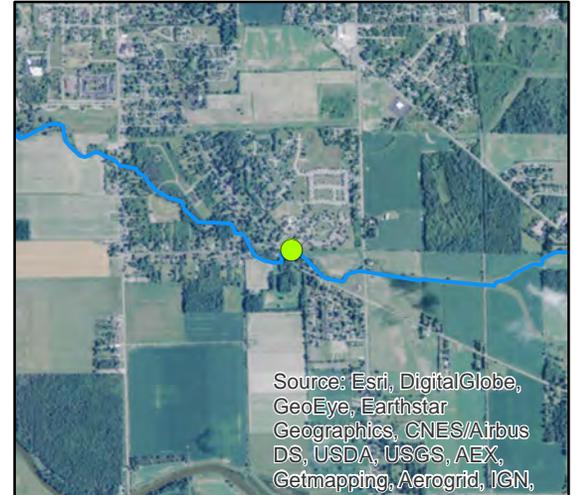


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage86

Type: Non-Vegetative Debris

Blockage Length (feet): 30

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Rocks in center of drain at surface outlet pipe. Might be from head wall.
Photo facing upstream.

Observation Location:

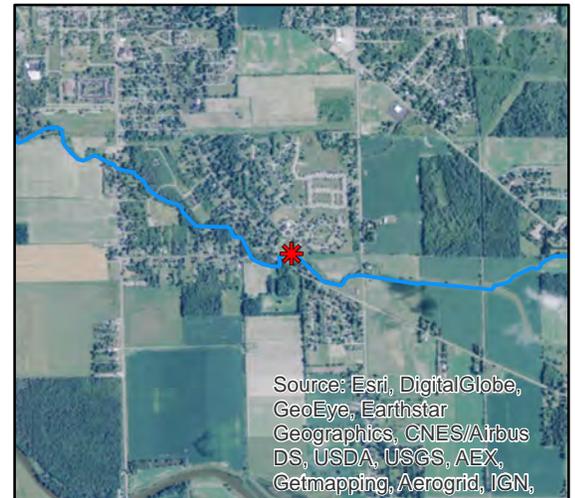


Photo 1



Photo 2

Photo 3

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NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage87

Type: Non-Vegetative Debris

Blockage Length (feet): 10

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

In bottom of drain. Photo facing upstream.

Observation Location:

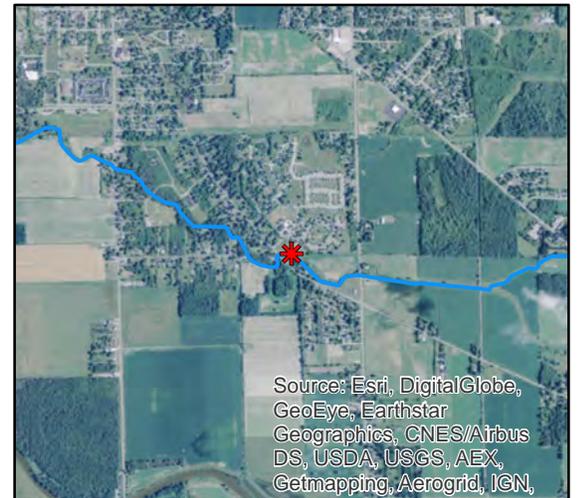


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage88

Type: Excessive Vegetation

Blockage Length (feet): 50

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation in bottom of drain. Next 50 ft. Photo facing upstream.

Observation Location:

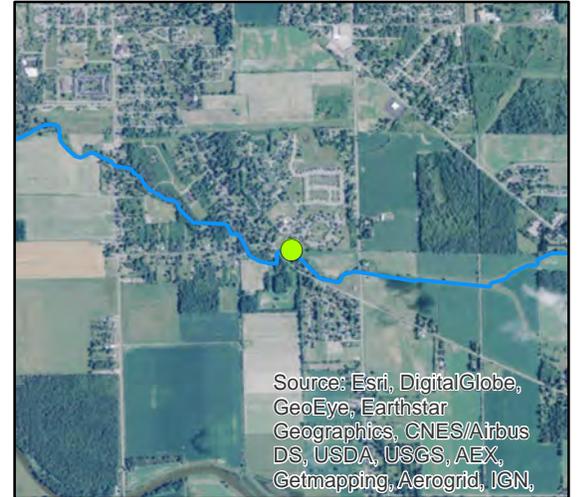


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage89

Type: Fallen Tree

Blockage Length (feet): 20

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Fallen tree in drain. 6" diam. Photo facing upstream.

Observation Location:

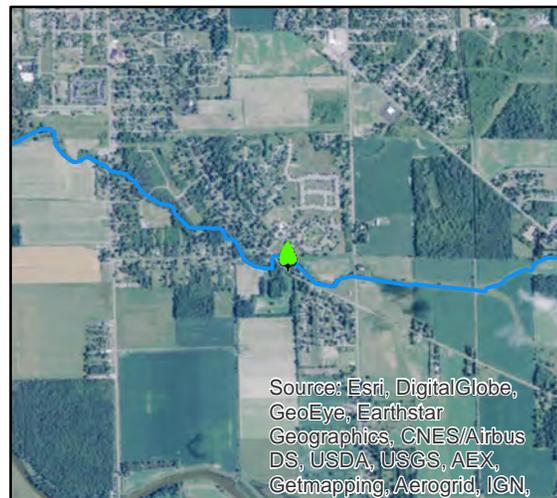


Photo 1



Photo 2

Photo 3

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NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage90

Type: Excessive Vegetation

Blockage Length (feet): 300

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation on banks. 1" diam trees. Next 300 ft. Photo facing upstream.

Observation Location:

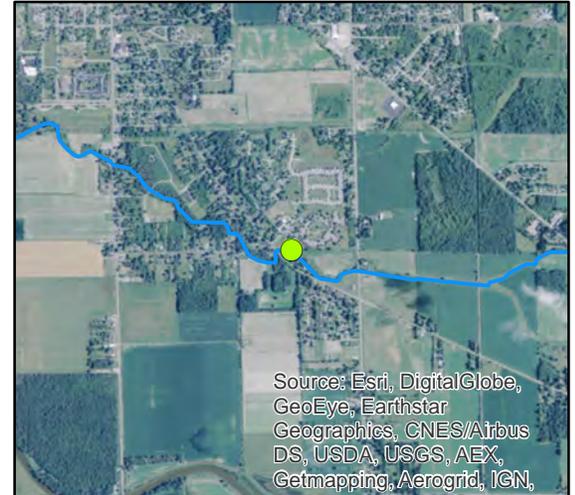


Photo 1

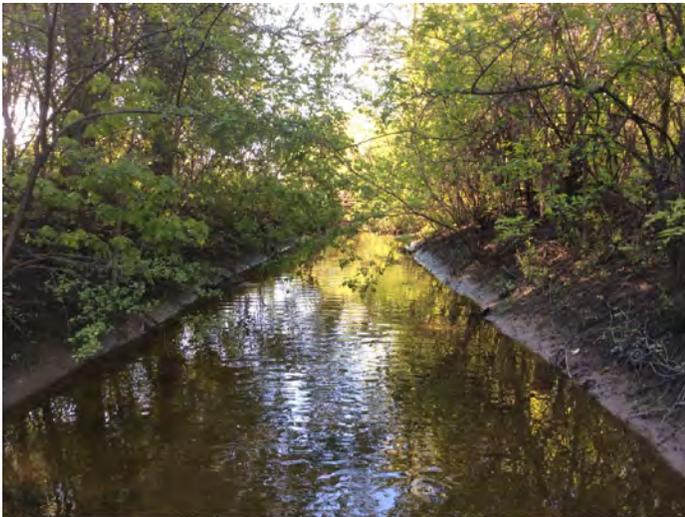


Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage91

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Fallen tree overhanging drain. Collecting debris and causing blockage.
Photo facing upstream.

Observation Location:

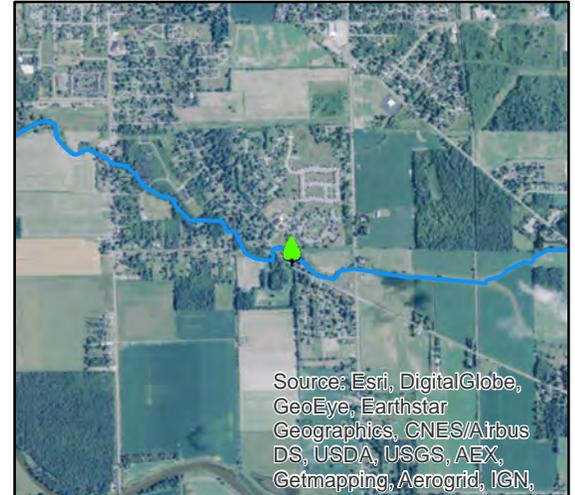


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage92

Type: Log Jam

Blockage Length (feet): 5

Debris Length (feet): 15

Location: Center

Photo 1 Direction:

Comments:

Log jam in center of drain. Photo facing upstream.

Observation Location:

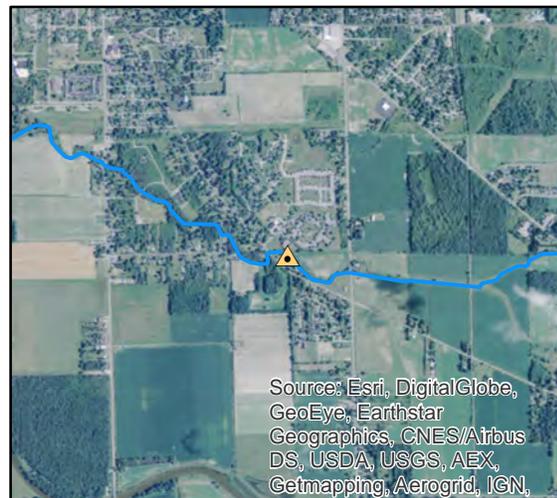


Photo 1

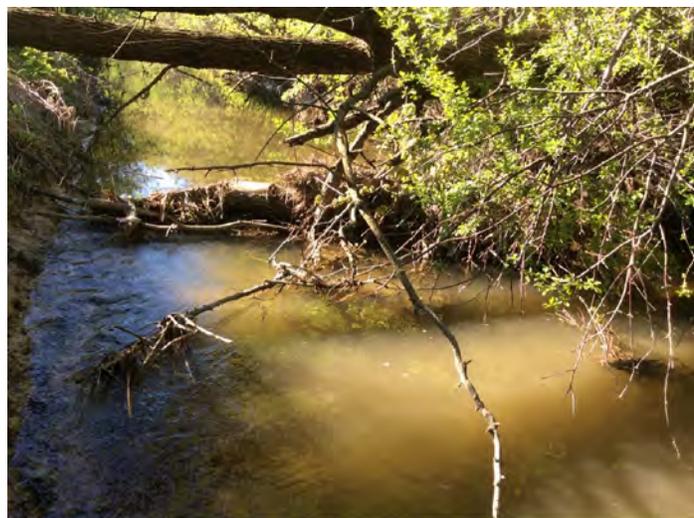


Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage93

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Photo facing downstream. 18" diam. Overhanging drain.

Observation Location:

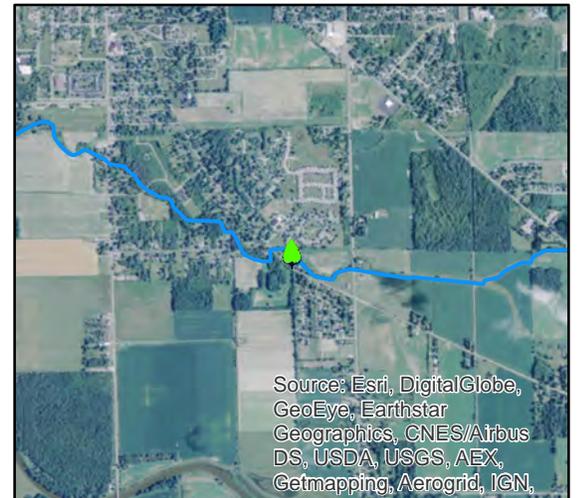


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage94

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

3" limb on right side. Photo facing upstream.

Observation Location:

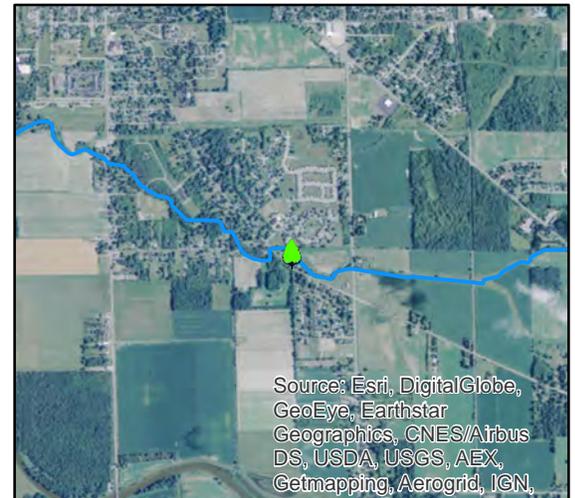


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage95

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation in bottom of drain next 100 ft. Photo facing upstream.

Observation Location:

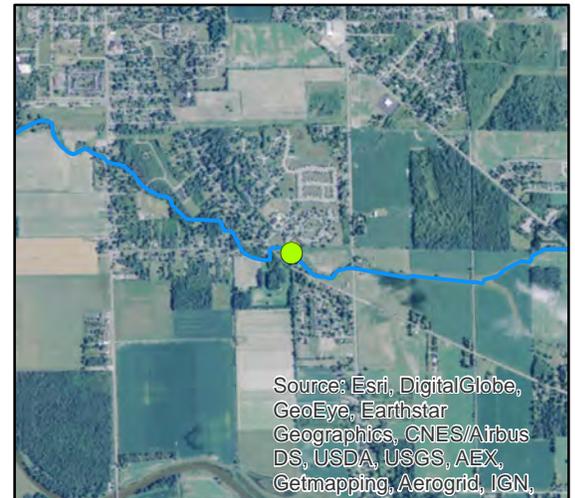


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage96

Type: Log Jam

Blockage Length (feet): 20

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Significant log jam along with trash and woody debris. Full for 20 ft.
Photo1 facing upstream. Photo2 facing downstream.

Observation Location:

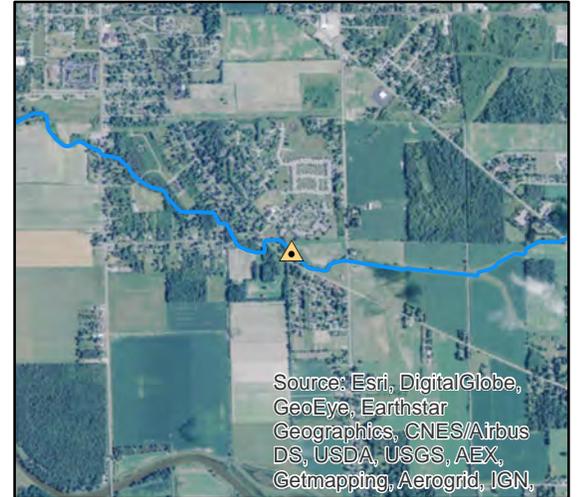


Photo 1



Photo 2



Photo 3



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage97

Type: Non-Vegetative Debris

Blockage Length (feet): 20

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash mixed in with log jam. Photo facing downstream.

Observation Location:

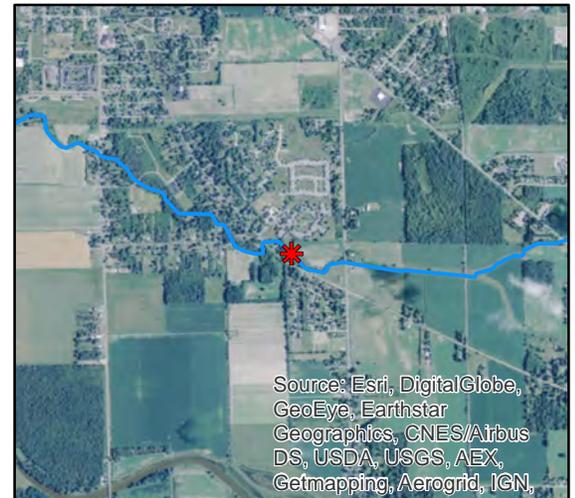


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage98

Type: Other

Blockage Length (feet): 5

Debris Length (feet): 8

Location: Left

Photo 1 Direction:

Comments:

Woody debris on left side facing upstream. Picture facing upstream.

Observation Location:

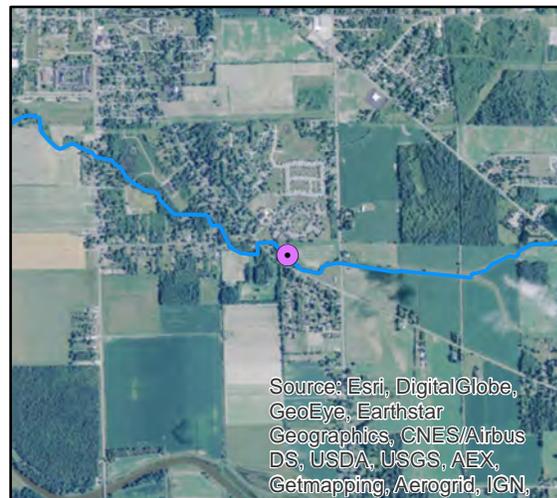


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage99

Type: Excessive Vegetation

Blockage Length (feet): 50

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation growing off banks over next 50 ft. Overhanging in some locations. Up to 2" diameter. Photo facing upstream.

Observation Location:

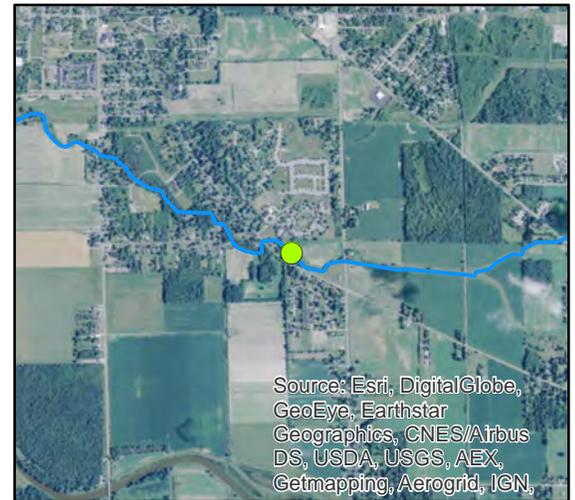


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage100

Type: Excessive Vegetation

Blockage Length (feet): 2

Debris Length (feet): 300

Location: Right

Photo 1 Direction:

Comments:

Excessive vegetation in drain. Right side merging into center of drain. Picture facing upstream. Grassy overgrowth from bottom of drain channel.

Observation Location:

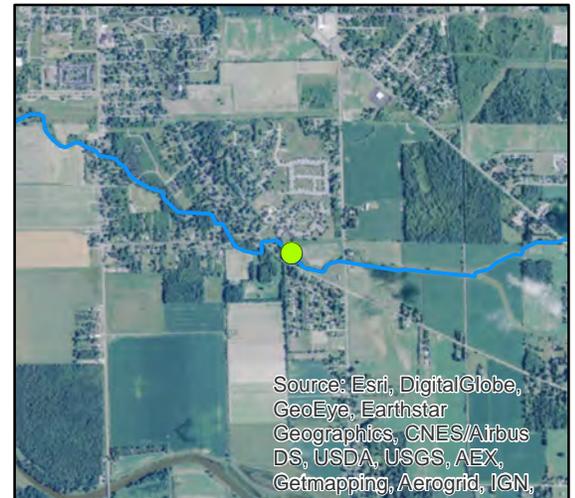


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage101

Type: Non-Vegetative Debris

Blockage Length (feet): 8

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Trash on right side. Photo facing upstream.

Observation Location:

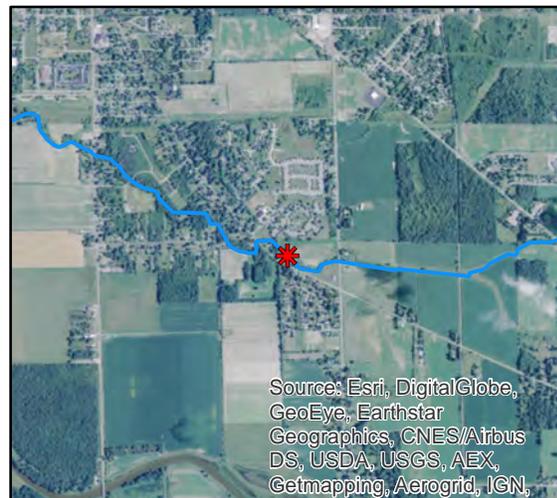


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage102

Type: Fallen Tree

Blockage Length (feet): 1

Debris Length (feet): 100

Location:

Photo 1 Direction:

Comments:

Excessive woody debris. Scattered short logs on left side of drain facing upstream. 5 in diameter. Picture facing upstream.

Observation Location:

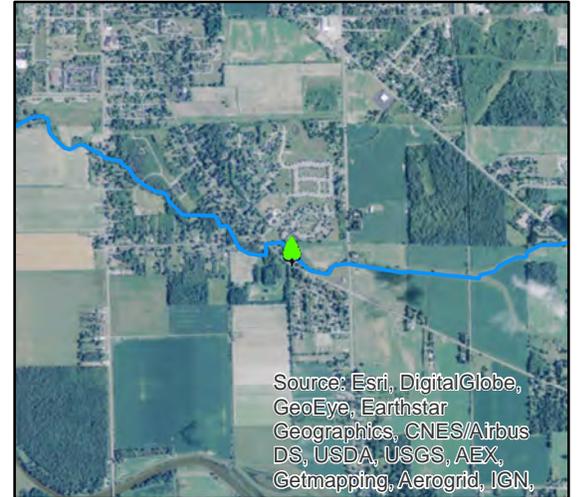


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage103

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Cable stretching across the drain tied to wooden post about 40 ft high. Overhanging drain. Being used to support tree. Photo facing southwest. Cable supporting tree on right side, goes over the drain, and anchors on left side.

Observation Location:

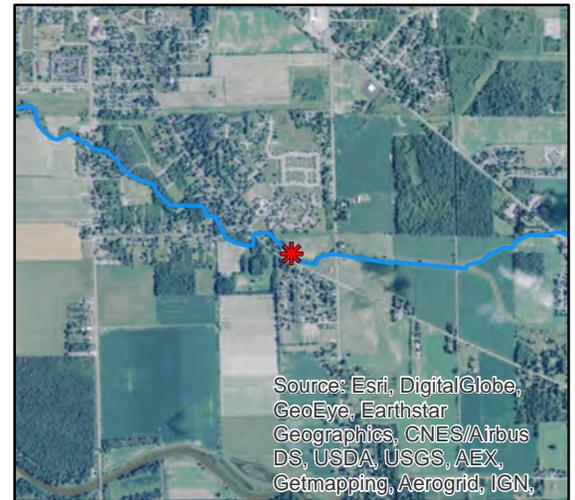


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage104

Type: Excessive Vegetation

Blockage Length (feet): 350

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Excessive vegetation on right side for next 300 ft. Photo facing upstream.

Observation Location:

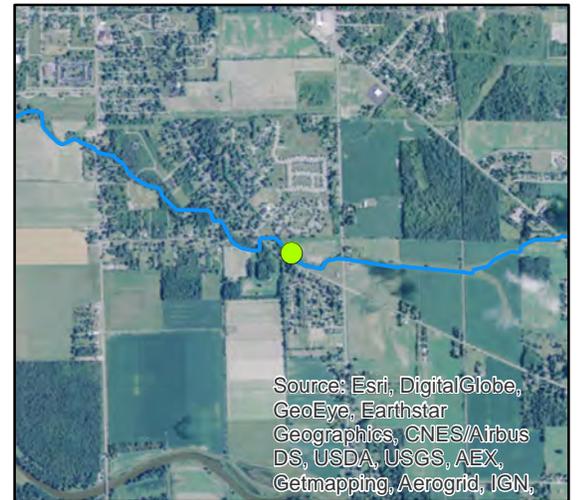


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage105

Type: Sediment

Blockage Length (feet): 2

Debris Length (feet): 3

Location: Right

Photo 1 Direction:

Comments:

Sediment blockage on right side of drain merging into center. 3 ft long. Trash on sediment. Photo facing upstream.

Observation Location:

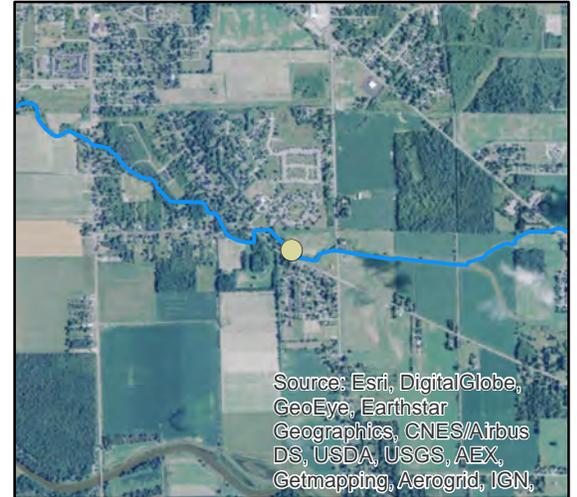


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage106

Type: Non-Vegetative Debris

Blockage Length (feet): 100

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

3 Rubber tires in center of drain on sediment bar. Photo facing upstream.

Observation Location:

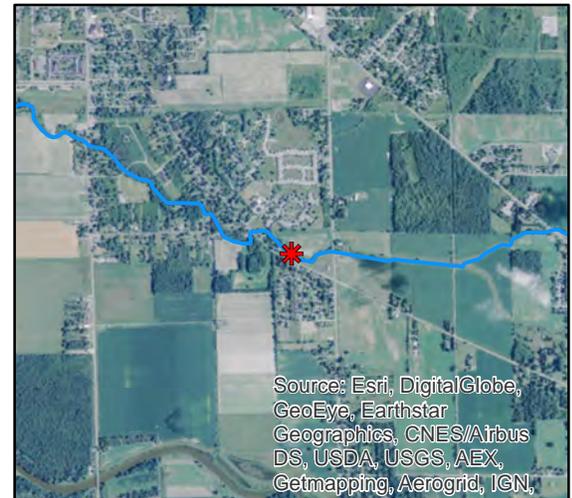


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage107

Type: Sediment

Blockage Length (feet): 100

Debris Length (feet): 0

Location:

Photo 1 Direction:

Comments:

3 sediment bars. One on left side of drain and then on right side. Water flows meander between left and right. Trash scattered in sediment bars. 50 ft farther is another sediment bar on left side of drain. Smaller in size. About 3 ft. Photos facing upstream.

Observation Location:

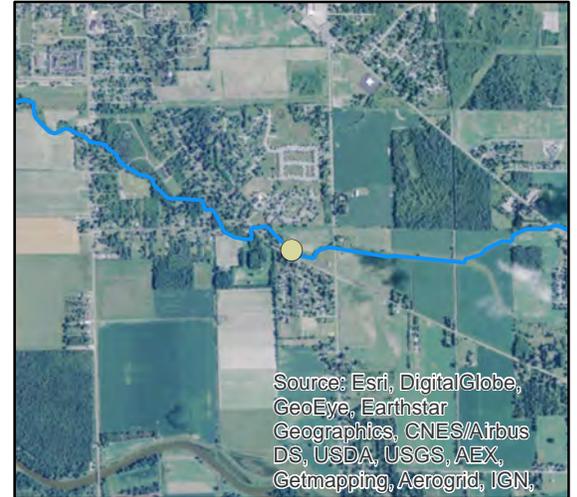


Photo 1



Photo 2



Photo 3

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NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage108

Type: Fallen Tree

Blockage Length (feet): 50

Debris Length (feet): 1

Location:

Photo 1 Direction:

Comments:

Woody debris next to both sediment bars. Left side and right side of drain. Trash scattered throughout woody debris. Photo facing upstream.

Observation Location:

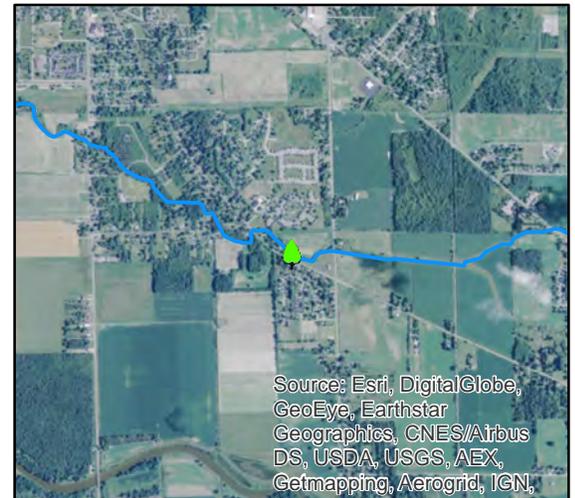


Photo 1



Photo 2

Photo 3

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				SCALE:	
NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage109

Type: Fallen Tree

Blockage Length (feet): 10

Debris Length (feet): 1

Location:

Photo 1 Direction:

Comments:

Woody debris log (1 ft in length) on left side of drain. Right side of drain woody debris. 10 ft total blockage length. Photo facing upstream.

Observation Location:

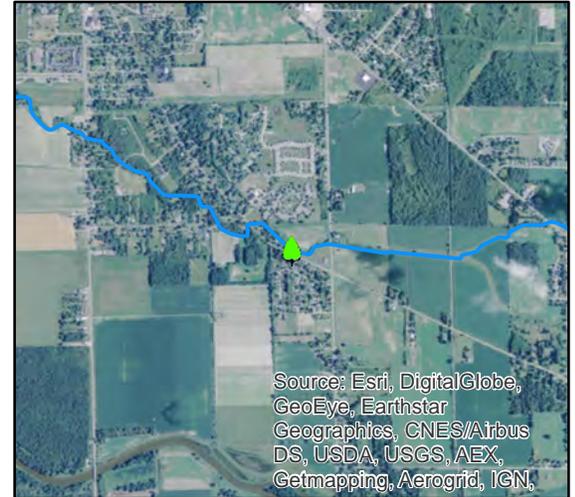


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage110

Type: Sediment

Blockage Length (feet): 10

Debris Length (feet): 0

Location: Left

Photo 1 Direction:

Comments:

Sediment bar on left side of drain. About 10 ft in length. Photo facing upstream.

Observation Location:

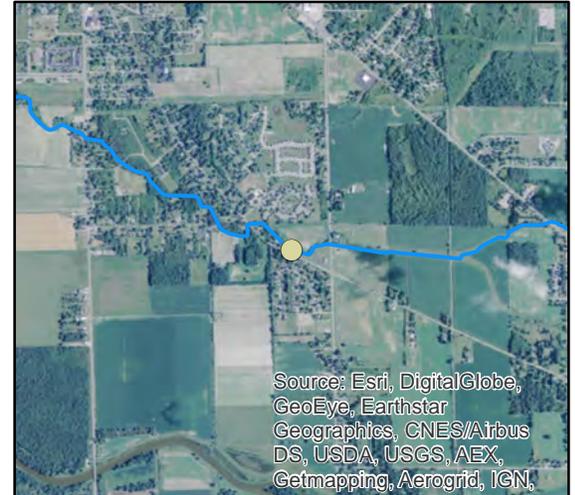


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage111

Type: Excessive Vegetation

Blockage Length (feet): 250

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation in bottom of drain channel. Grassy overgrowth. Next 250 ft. Photo facing upstream.

Observation Location:

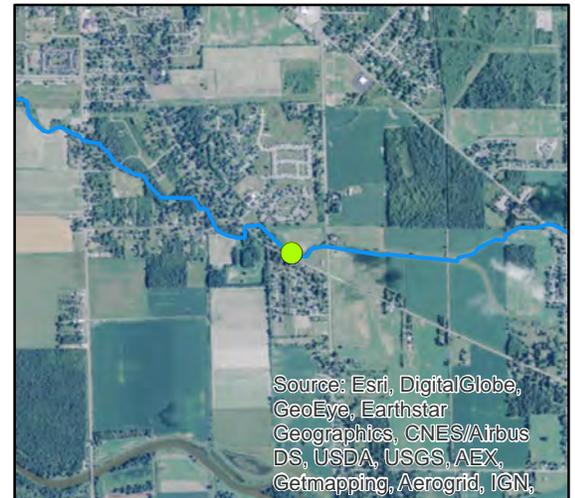


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage112

Type: Excessive Vegetation

Blockage Length (feet):

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Large tree on left side has branches overhanging across the full width of the drain channel. Photo facing upstream.

Observation Location:

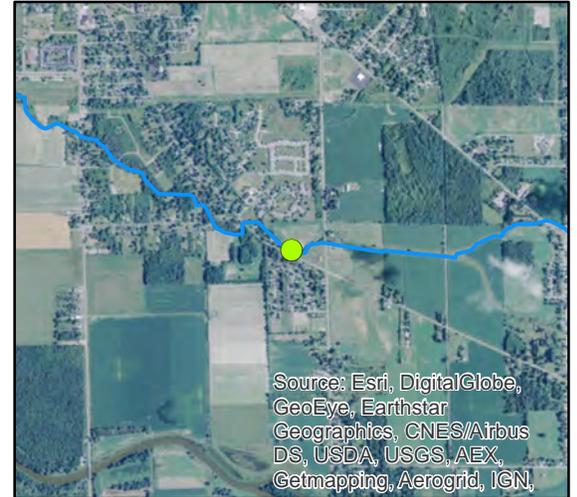


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage113

Type: Excessive Vegetation

Blockage Length (feet):

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Tree branch overhanging drain. Tree is on left. Photo facing upstream.

Observation Location:

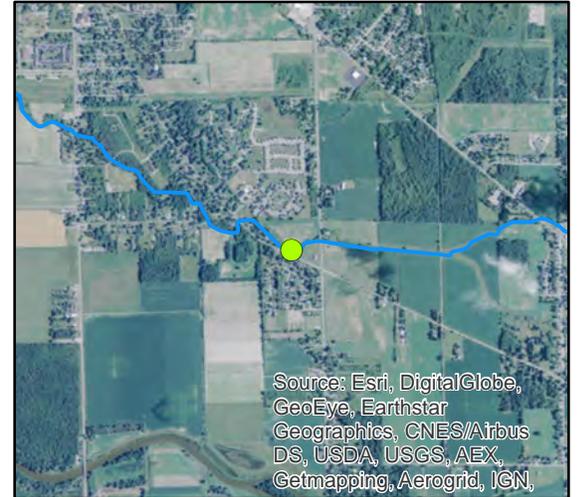


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage114

Type: Fallen Tree

Blockage Length (feet): 20

Debris Length (feet): 30

Location: Right

Photo 1 Direction:

Comments:

Fallen trees for about 40 ft on right side of drain. Photo 1 taken facing upstream. Additional woody debris on upstream side of bend. Photo 2 taken facing southeast.

Observation Location:

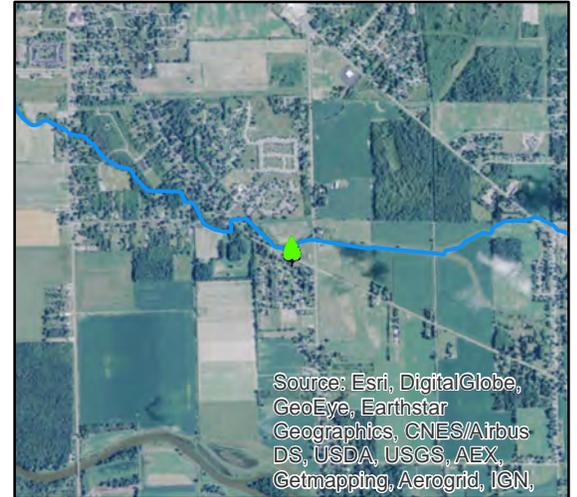


Photo 1



Photo 2



Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage115

Type: Non-Vegetative Debris

Blockage Length (feet): 20

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Bricks and other trash in center of drain over 20 ft. Photo facing downstream.

Observation Location:

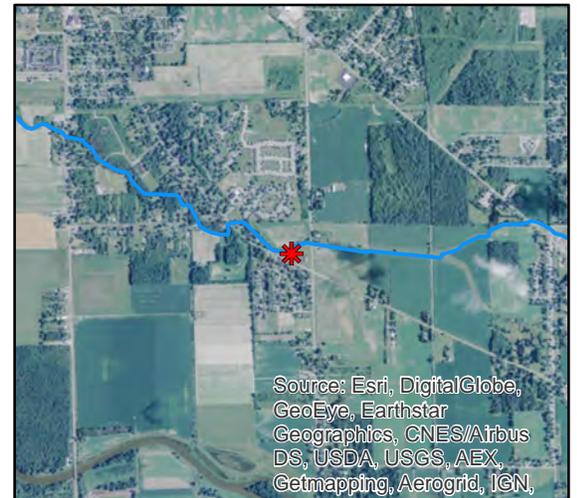


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage116

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation on both banks. 1-3" diam trees within v. Next 100 ft. Photo facing upstream.

Observation Location:

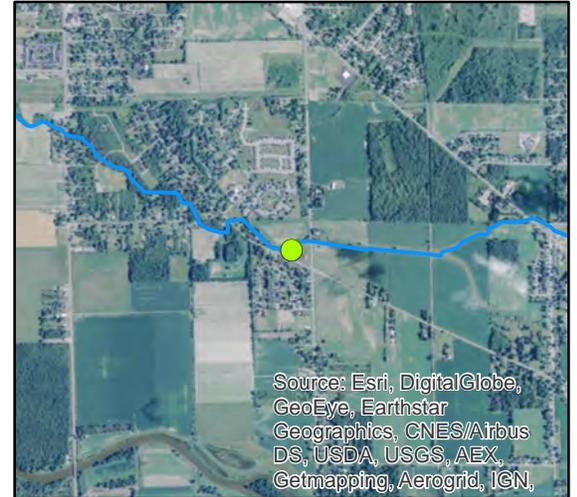


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage117

Type: Sediment

Blockage Length (feet): 5

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Point sediment bar on right side. 5 ft long. Photo facing upstream.

Observation Location:

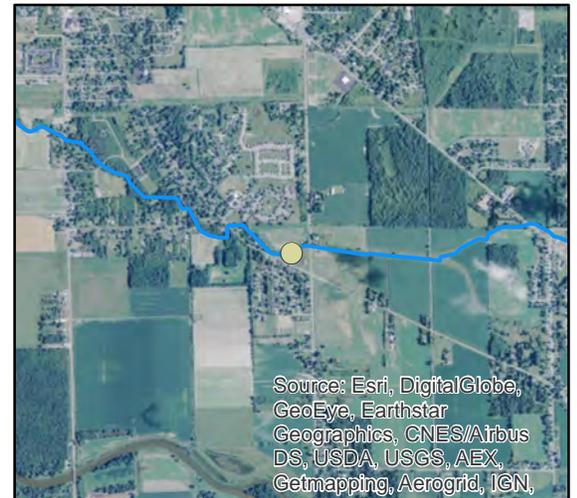


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage118

Type: Sediment

Blockage Length (feet): 0

Debris Length (feet): 5

Location:

Photo 1 Direction:

Comments:

Trash on both sides of drain. Photo 1 facing northwest. Photo 2 facing southeast (old pipes/wires).

Observation Location:

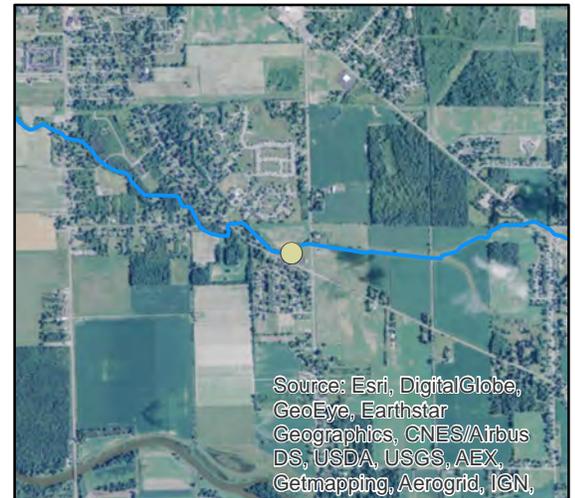


Photo 1



Photo 2



Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage119

Type: Excessive Vegetation

Blockage Length (feet): 400

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation growing from the bottom of the drain. Mostly centered. Goes thru drain curve. Photo taken facing upstream.

Observation Location:

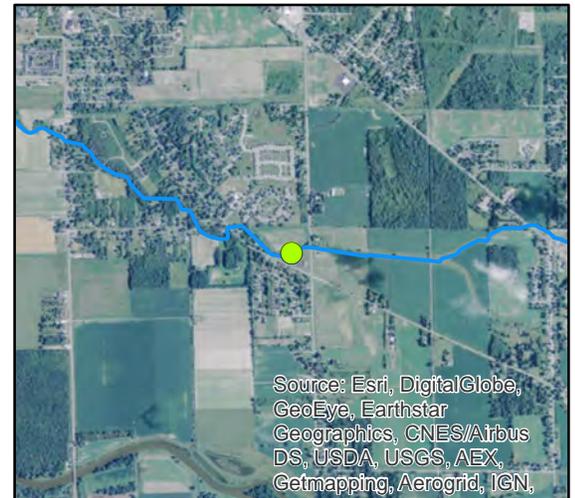


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage120

Type: Log Jam

Blockage Length (feet): 5

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Log jam in center of drain. Photo facing west.

Observation Location:

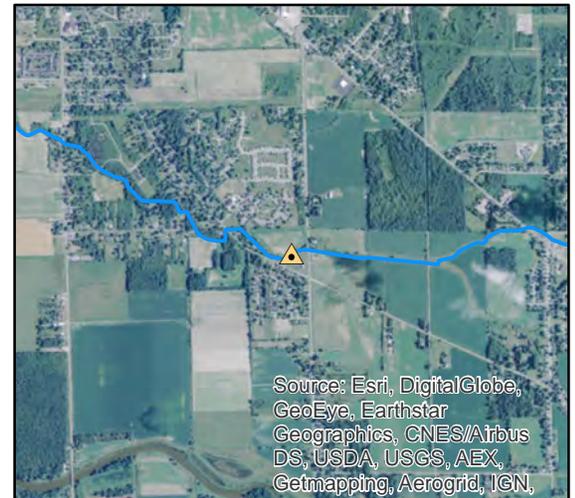


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage121

Type: Non-Vegetative Debris

Blockage Length (feet): 4

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Several blocks of concrete on right side of drain. No outlet visible, but look for one when excavating. Photo facing southeast.

Observation Location:

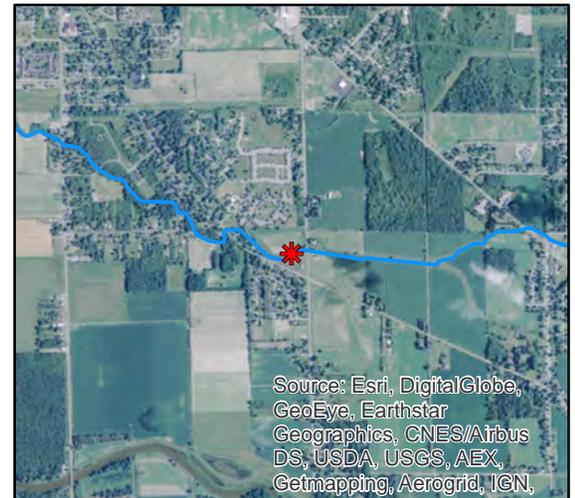


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage122

Type: Excessive Vegetation

Blockage Length (feet): 250

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation on both sides from banks overhanging drain. Photo facing upstream.

Observation Location:

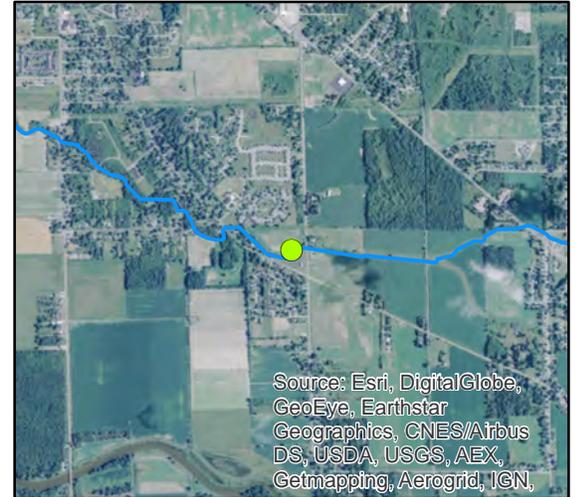


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage123

Type: Excessive Vegetation

Blockage Length (feet): 40

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Excessive vegetation on left side for 40 ft. Reduces width of channel by 3 ft. Photo facing upstream.

Observation Location:

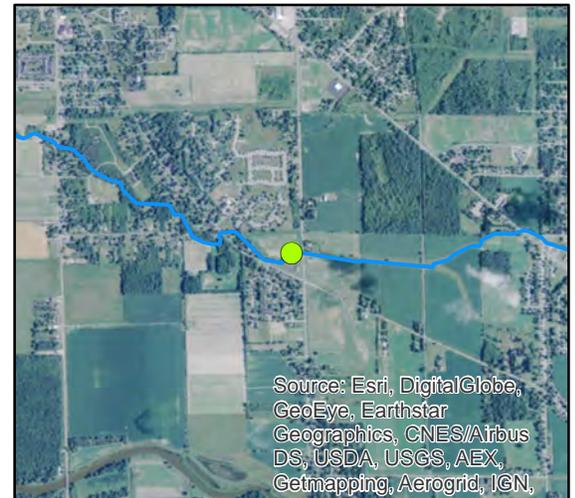


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage124

Type: Non-Vegetative Debris

Blockage Length (feet): 3

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Trash on right side of drain.

Observation Location:

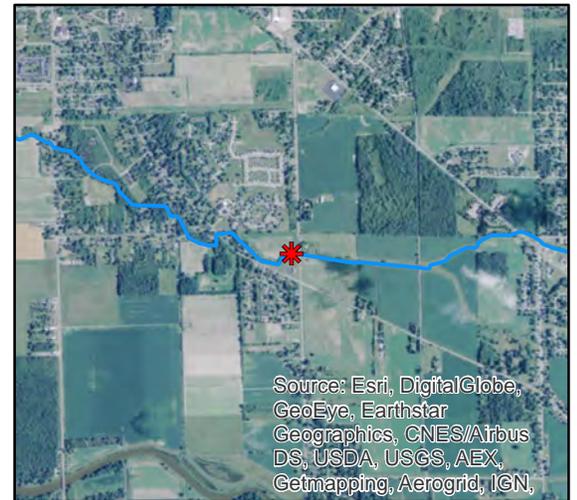


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage125

Type: Fallen Tree

Blockage Length (feet): 50

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Woody debris on both sides next 50 ft. Photo facing upstream.

Observation Location:

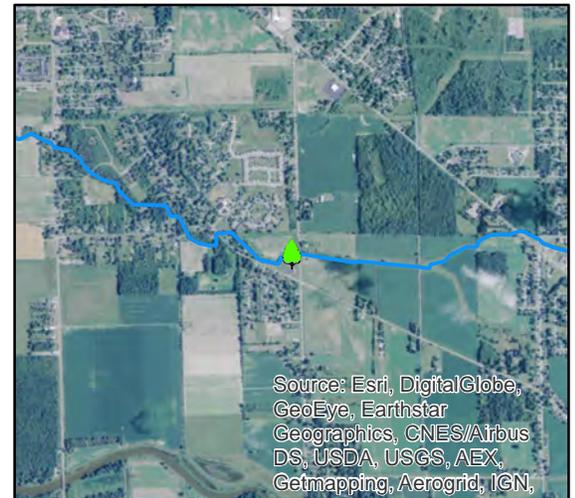


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage126

Type: Non-Vegetative Debris

Blockage Length (feet): 2

Debris Length (feet): 1

Location: Left

Photo 1 Direction:

Comments:

Concrete pieces on left side of drain. Photo taken facing upstream.

Observation Location:

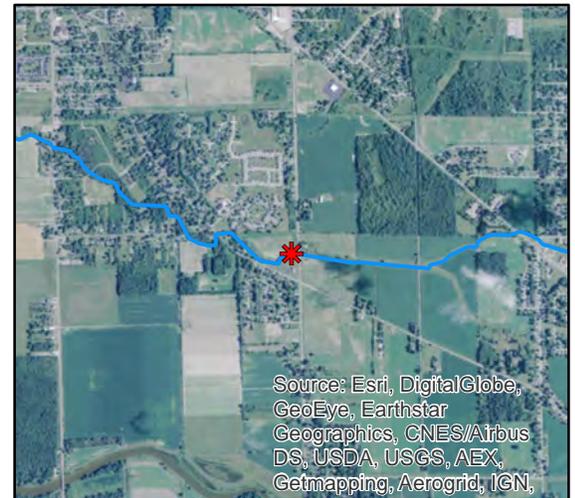


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage127

Type: Fallen Tree

Blockage Length (feet): 10

Debris Length (feet): 10

Location: Left

Photo 1 Direction:

Comments:

Fallen tree on left side of drain. Photo taken facing upstream.

Observation Location:

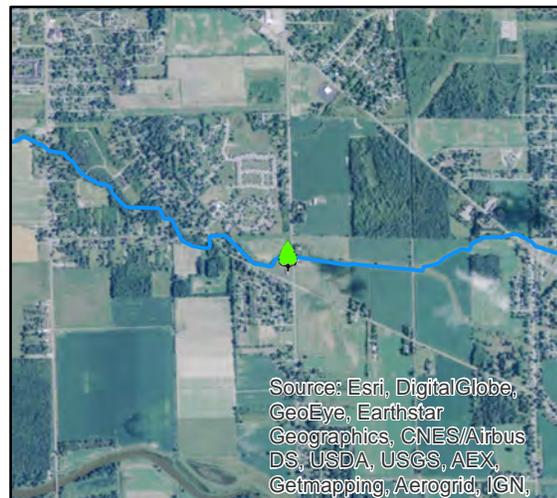


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage128

Type: Excessive Vegetation

Blockage Length (feet): 15

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation on sediment bar in center of drain. 15 ft long, 3 ft wide. Photo facing upstream.

Observation Location:

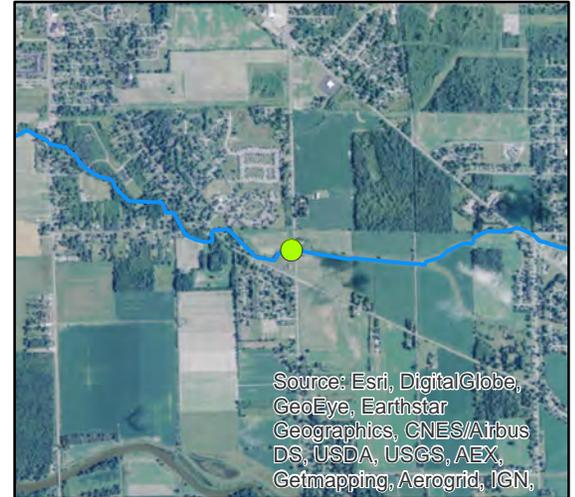


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage129

Type: Sediment

Blockage Length (feet): 15

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Sediment bar in center of drain with heavy vegetation growing one it. 15 ft long, 3 ft wide. Photo facing upstream.

Observation Location:

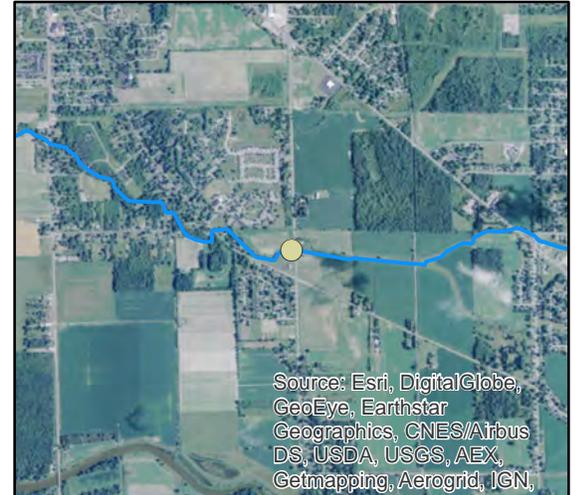


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage130

Type: Sediment

Blockage Length (feet): 30

Debris Length (feet): 0

Location: Left

Photo 1 Direction:

Comments:

Sediment bar on left side of drain. About 30 ft long. Photo taken facing upstream.

Observation Location:

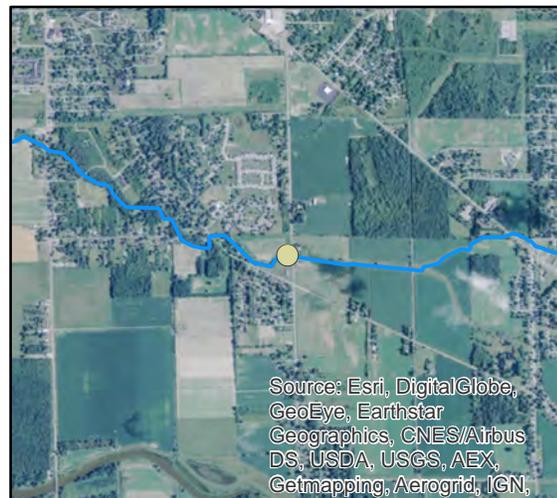


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage131

Type: Excessive Vegetation

Blockage Length (feet): 740

Debris Length (feet): 0

Location:

Photo 1 Direction:

Comments:

Excessive vegetation in the drain growing from the bottom. Photo 1 taken facing upstream. Photo 2 taken looking down at drain.

Observation Location:

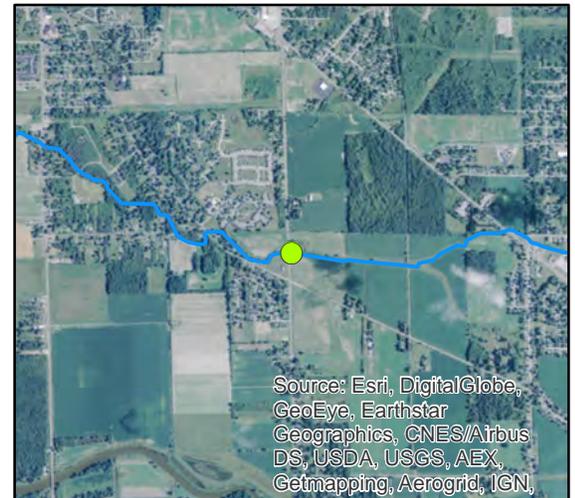


Photo 1



Photo 2



Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage132

Type: Sediment

Blockage Length (feet): 20

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Sediment bar on right side with excessive vegetation growing on it. Next 20 ft. Photo1 facing upstream. Looks like it settled on some kind of debris. Photo3 facing downstream.

Observation Location:

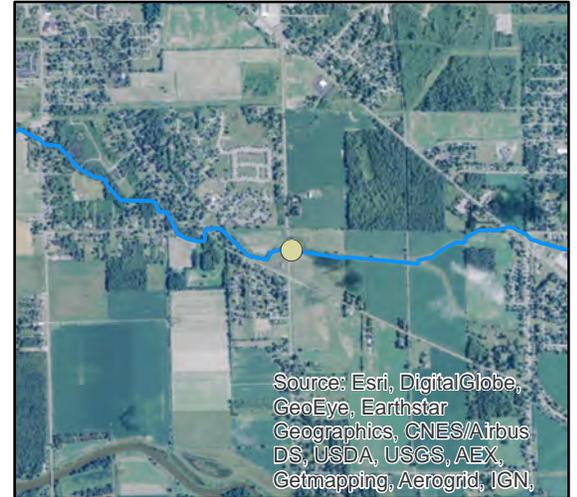


Photo 1



Photo 2



Photo 3



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NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage133

Type: Excessive Vegetation

Blockage Length (feet): 50

Debris Length (feet): 4

Location:

Photo 1 Direction:

Comments:

Overhanging excessive vegetation. 1 small tree on right side of drain. About 20 feet farther 2 larger branches on left side of drain. Larger branches about 10 ft high. 20 ft farther down drain are smaller branches on right side of drain. Photo taken facing upstream.

Observation Location:

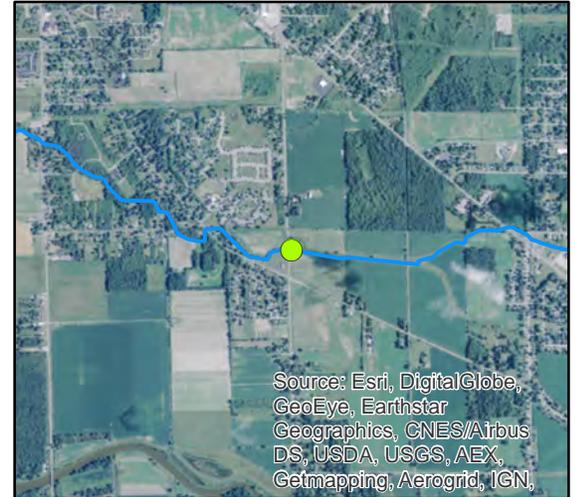


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage134

Type: Sediment

Blockage Length (feet): 10

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Sediment bar on right side due to bank erosion. Photo facing upstream.

Observation Location:

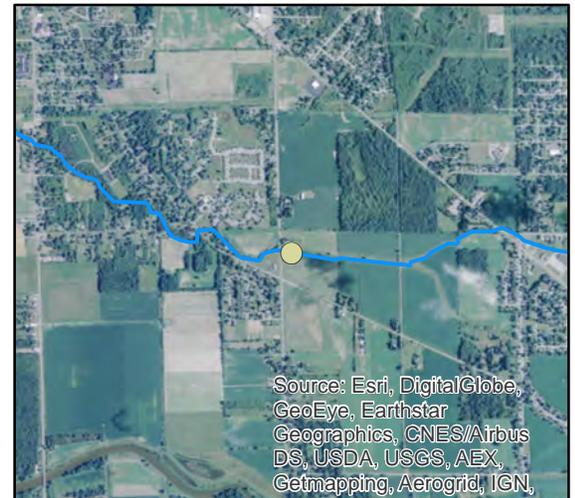


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage135

Type: Excessive Vegetation

Blockage Length (feet): 30

Debris Length (feet): 2

Location: Right

Photo 1 Direction:

Comments:

Excessive vegetation overhanging on right side of drain. Branches like 2 ft. in length. Photo taken facing upstream.

Observation Location:

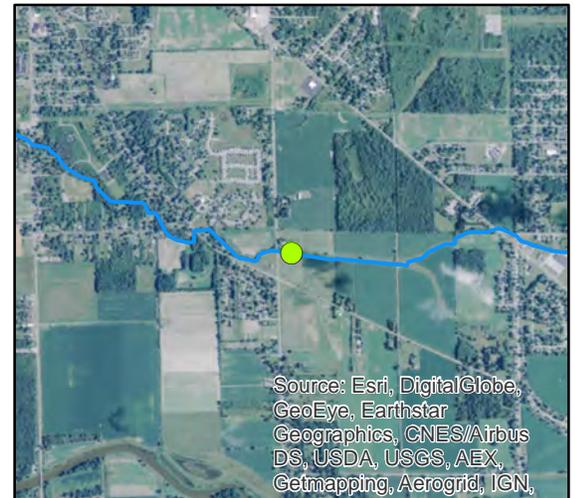


Photo 1

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Photo 3

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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage136

Type: Fallen Tree

Blockage Length (feet): 10

Debris Length (feet): 10

Location: Right

Photo 1 Direction:

Comments:

Fallen tree on right side with 8" diam. Photo facing downstream.

Observation Location:

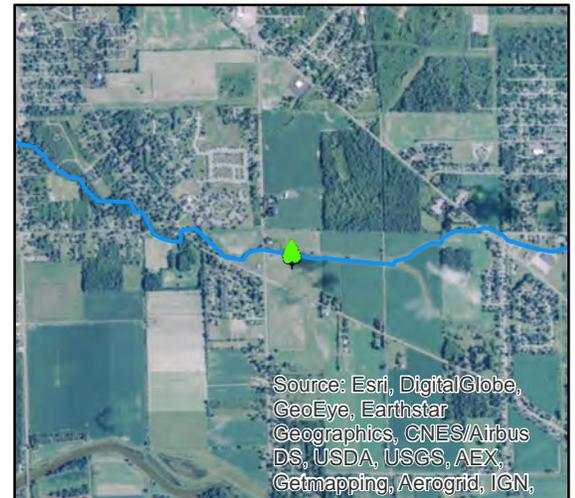


Photo 1



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Photo 3

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NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage137

Type: Excessive Vegetation

Blockage Length (feet): 180

Debris Length (feet): 3

Location:

Photo 1 Direction:

Comments:

Overhanging excessive vegetation on both sides of drain facing upstream. About 3 ft branches. Photo taken facing upstream.

Observation Location:

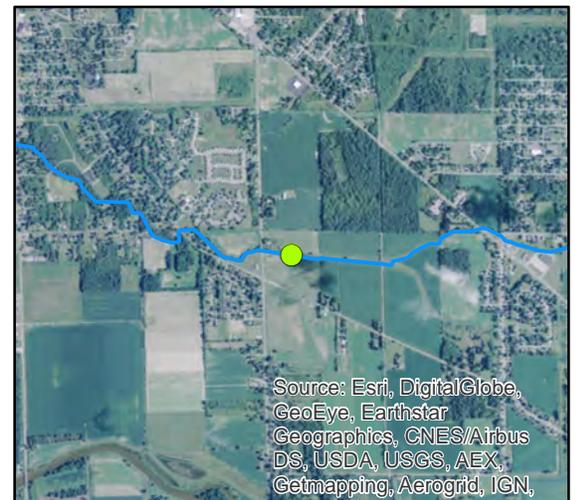


Photo 1



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Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage138

Type: Sediment

Blockage Length (feet): 50

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment deposits on both sides. Also, no vegetation in bottom over this 50 ft stretch. Just downstream of field tile outlet. Photo facing downstream.

Observation Location:

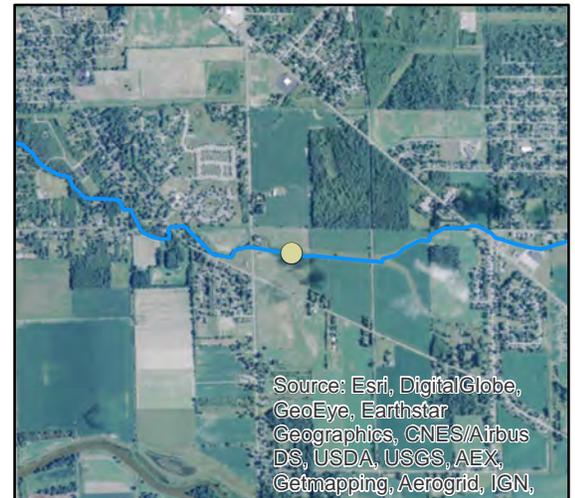


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage139

Type: Sediment

Blockage Length (feet): 25

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Sediment with vegetation growing on left side for 25 ft. Flow meanders around it. Photo facing upstream.

Observation Location:

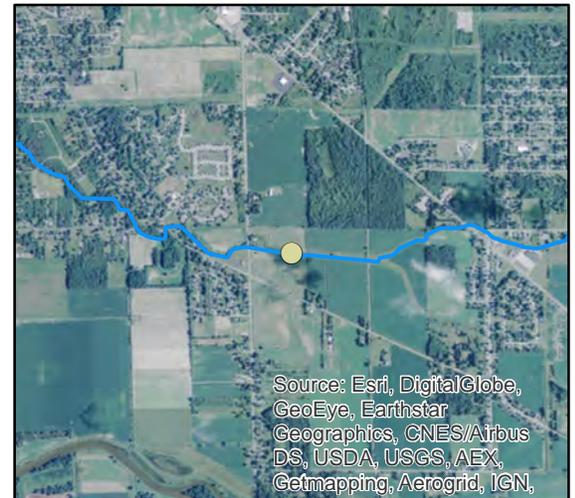


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage140

Type: Sediment

Blockage Length (feet): 20

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Sediment bar on left side with vegetation growing. 2 segments. Photo facing upstream.

Observation Location:

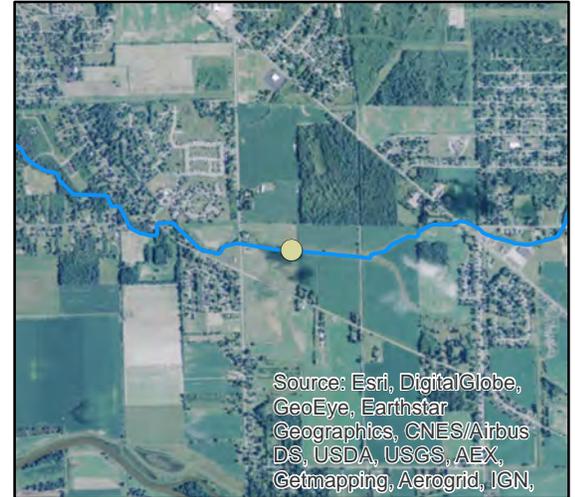


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage141

Type: Non-Vegetative Debris

Blockage Length (feet): 6

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Wire fence on right bank within v of channel. Photo facing south.

Observation Location:

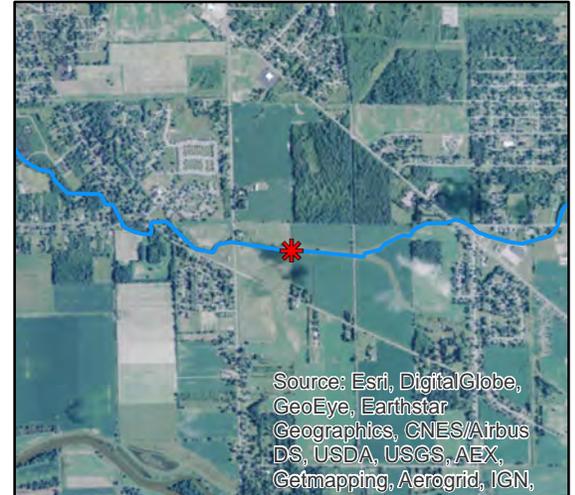


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage142

Type: Excessive Vegetation

Blockage Length (feet): 5

Debris Length (feet): 10

Location: Right

Photo 1 Direction:

Comments:

Overhanging excessive vegetation on right side of drain. Blockage length about 5 ft. Branch about 10 ft in length. Photo taken facing upstream.

Observation Location:

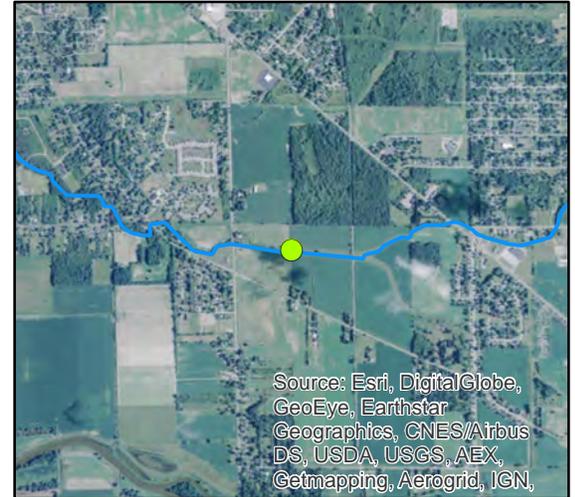


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage143

Type: Sediment

Blockage Length (feet): 20

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Loose sediment buildup on right side for 20 ft at bend. Photo facing upstream.

Observation Location:

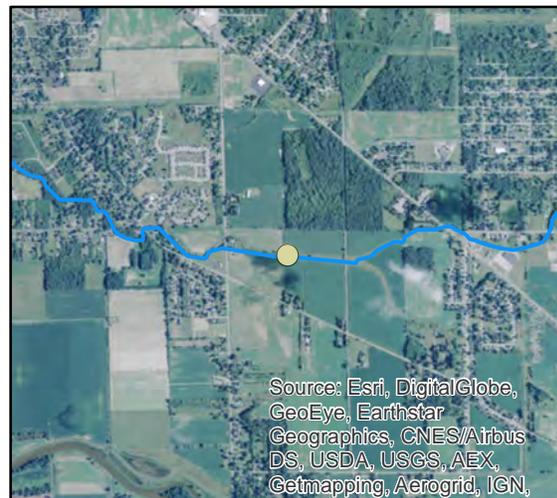


Photo 1



Photo 2

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage144

Type: Excessive Vegetation

Blockage Length (feet): 1700

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation growing from bottom of drain. Photo taken facing upstream. Photo taken 500 ft upstream from data point.

Observation Location:

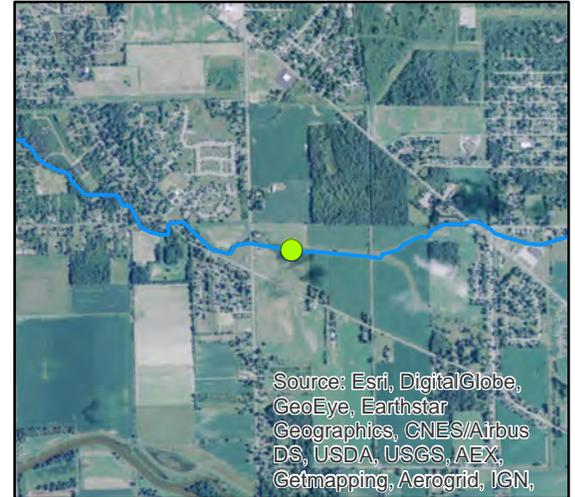


Photo 1



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Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage145

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet): 3

Location: Right

Photo 1 Direction:

Comments:

Excessive vegetation on right side of drain and overhanging trees. About 50 ft of blockage. Photo taken facing upstream.

Observation Location:

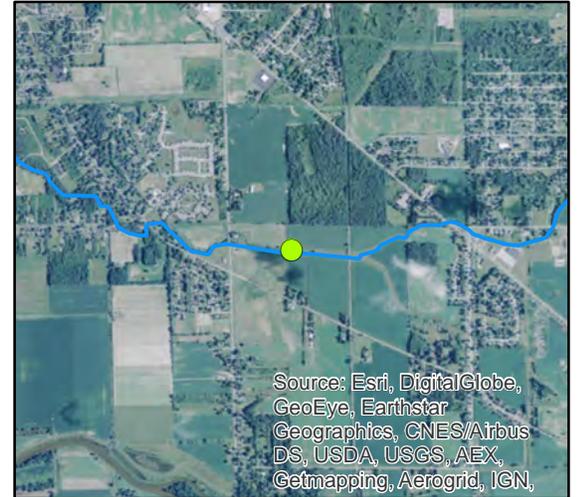


Photo 1



Photo 2

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage146

Type: Sediment

Blockage Length (feet): 250

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment deposits in scattered clumps with vegetation over next 250 ft up to crossing. Photo facing upstream.

Observation Location:

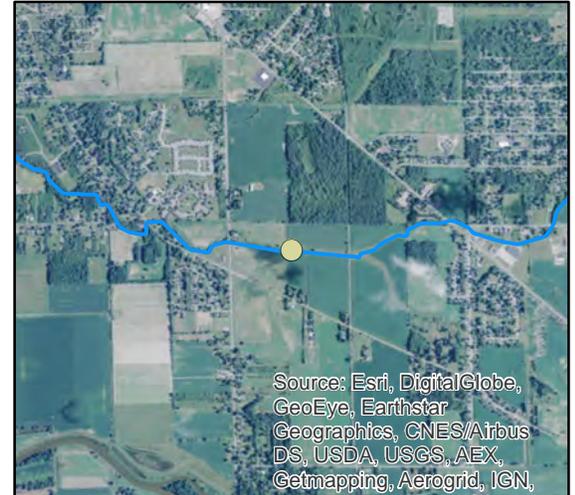


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage147

Type: Sediment

Blockage Length (feet): 15

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

On right side in between field tile outlet and farm crossing. Photo facing upstream.

Observation Location:

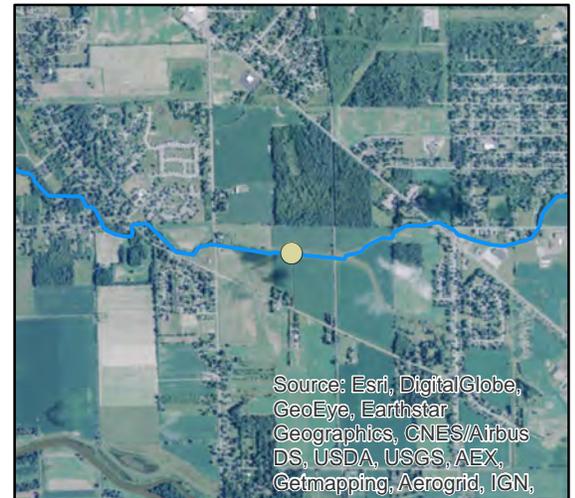


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage148

Type: Sediment

Blockage Length (feet): 700

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment in clumps on either bank with vegetation. Next 700 ft. Photo facing upstream.

Observation Location:

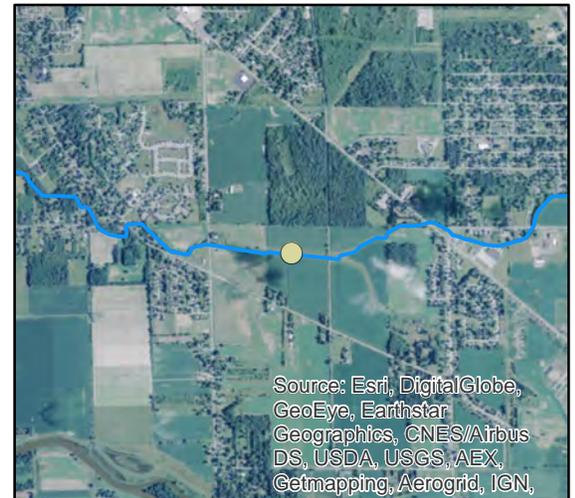


Photo 1



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Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage149

Type: Excessive Vegetation

Blockage Length (feet): 2

Debris Length (feet): 20

Location: Left

Photo 1 Direction:

Comments:

Overhanging excessive vegetation. Photo taken facing upstream.

Observation Location:

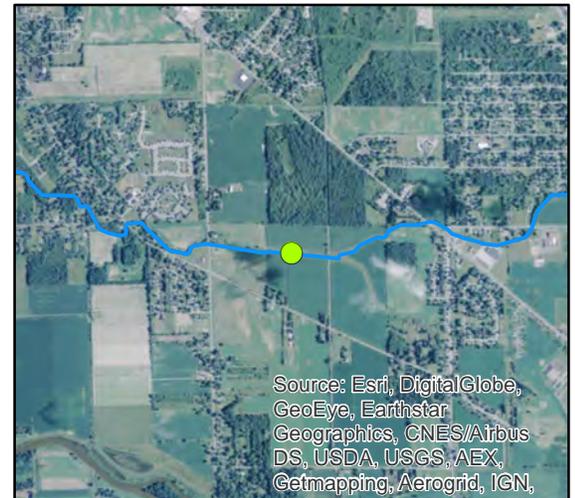


Photo 1



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NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage150

Type: Fallen Tree

Blockage Length (feet): 3

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Fallen woody debris on right side. Photo facing upstream.

Observation Location:

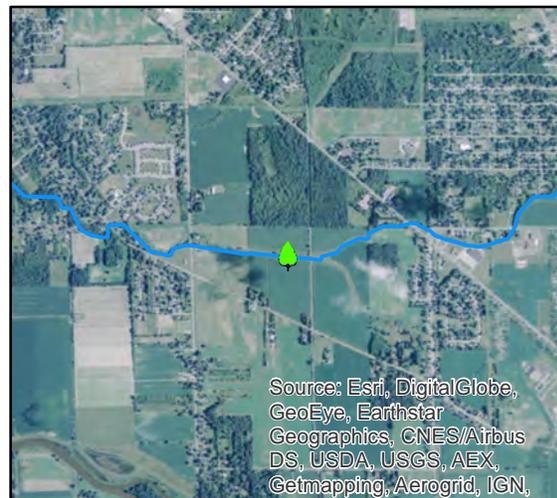


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage151

Type: Excessive Vegetation

Blockage Length (feet): 30

Debris Length (feet): 2

Location:

Photo 1 Direction:

Comments:

Excessive overhanging vegetation on both sides of drain. 1st branch on right side. 20 ft farther 2 trees on either side. Photo taken facing upstream.

Observation Location:

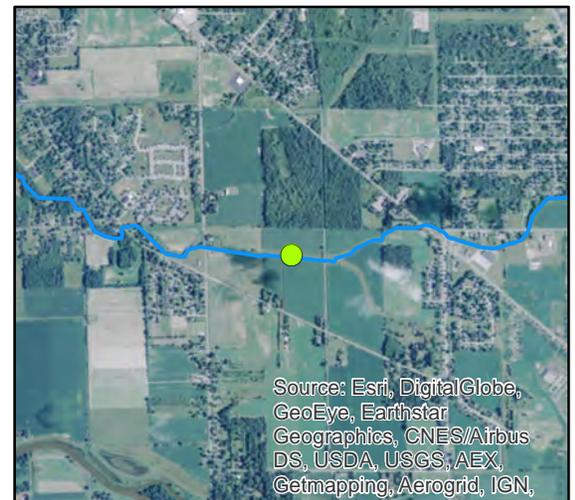


Photo 1



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Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage152

Type: Non-Vegetative Debris

Blockage Length (feet): 0

Debris Length (feet): 0

Location: Left

Photo 1 Direction:

Comments:

Styrofoam/garbage on left side of drain. Less than 1 ft in length. Photo taken facing north.

Observation Location:

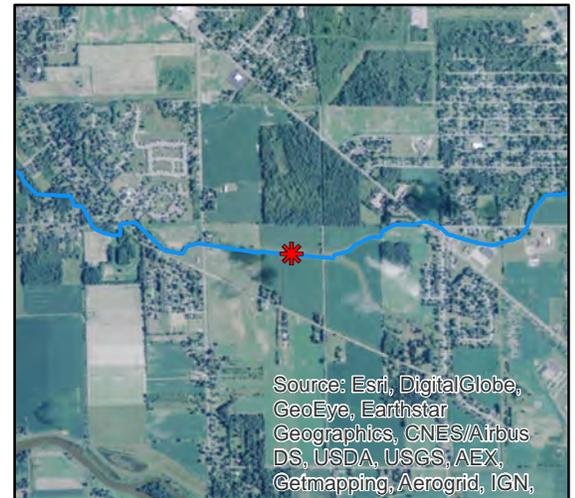


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage153

Type: Excessive Vegetation

Blockage Length (feet): 50

Debris Length (feet): 0

Location:

Photo 1 Direction:

Comments:

Excessive vegetation on both sides of drain. Photo taken facing downstream.

Observation Location:

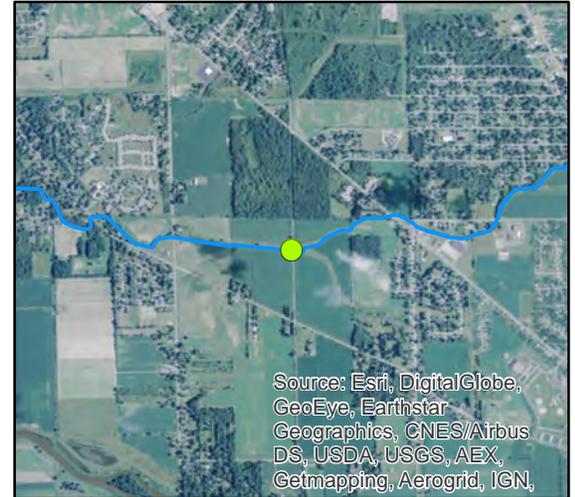


Photo 1



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Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage154

Type: Excessive Vegetation

Blockage Length (feet): 50

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation growing on sediment bars upstream, underneath, and downstream of railroad crossing. Photo facing upstream.

Observation Location:

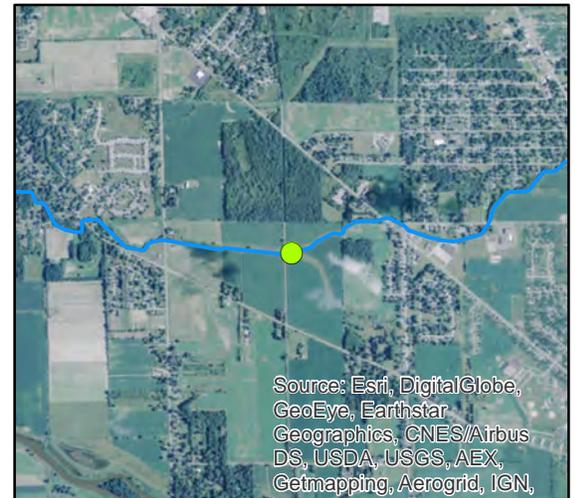


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage155

Type: Non-Vegetative Debris

Blockage Length (feet): 30

Debris Length (feet): 10

Location:

Photo 1 Direction:

Comments:

Blocks of wood debris. About 10 ft long. 1st block crossing drain then 30 ft down another block on left side of drain. Photo facing upstream.

Observation Location:

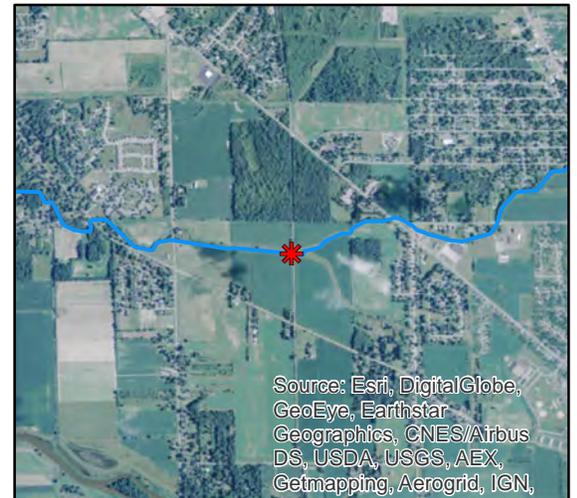


Photo 1



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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage156

Type: Sediment

Blockage Length (feet): 20

Debris Length (feet): 0

Location:

Photo 1 Direction:

Comments:

Sediment on both sides of drain and under railroad. Water kind of meanders through sediment bars. Photo taken facing upstream.

Observation Location:

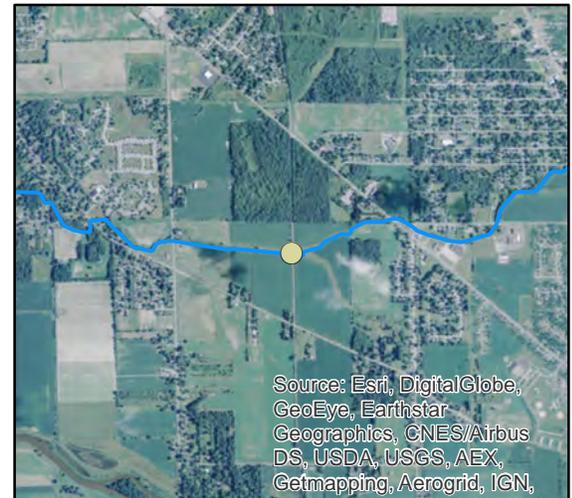


Photo 1



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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage157

Type: Excessive Vegetation

Blockage Length (feet): 180

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation. Overgrowth on bottom. Next 180 ft up to farm crossing.

Observation Location:

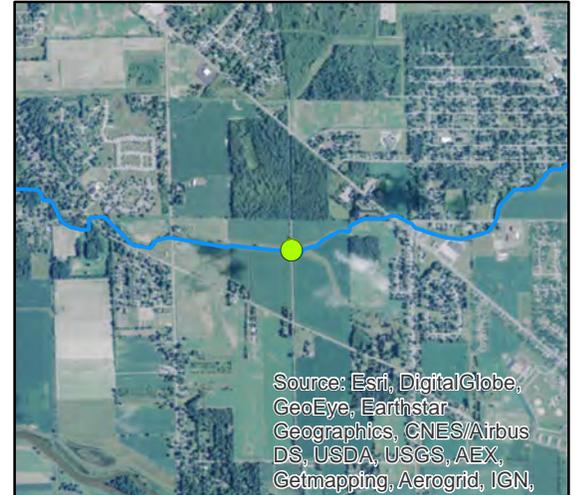


Photo 1



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Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage158

Type: Excessive Vegetation

Blockage Length (feet): 180

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation. Overgrowth of small trees on banks next 180 ft up to farm crossing.

Observation Location:

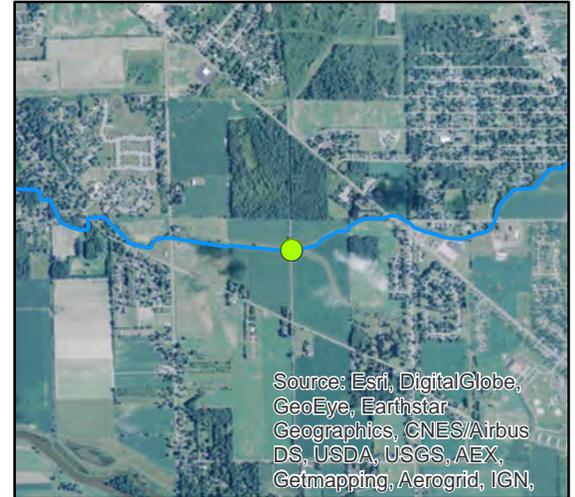


Photo 1



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Photo 3

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				SCALE:	
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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage159

Type: Sediment

Blockage Length (feet): 180

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment deposits at banks in clumps with vegetation. Next 180 ft up to farm crossing. Photo facing upstream.

Observation Location:

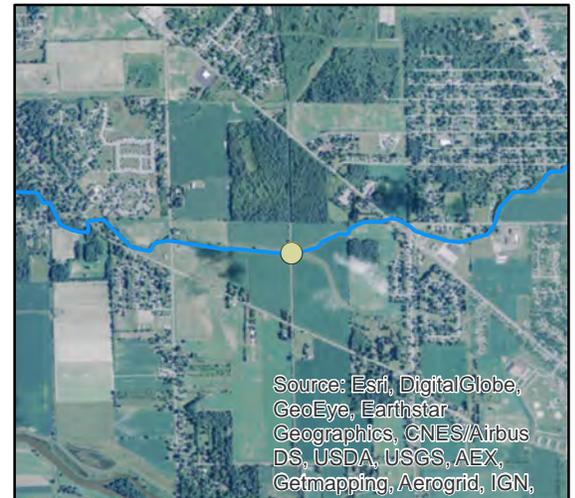


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage160

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Concrete blocks on right side. No field tile visible. Photo facing south.

Observation Location:

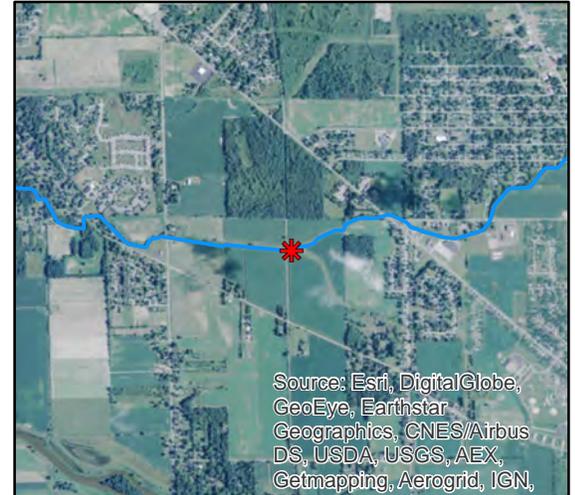


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage161

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Concrete blocks on right bank. Evidence of erosion, but no field tile or surface outlet pipe visible. Photo facing south.

Observation Location:

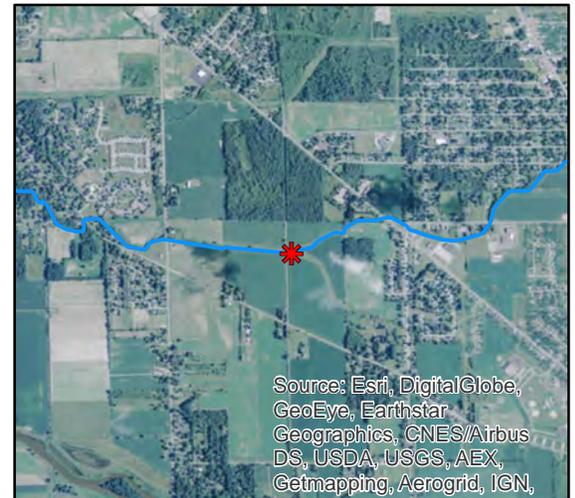


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage162

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet): 0

Location:

Photo 1 Direction:

Comments:

Excessive vegetation growing from bottom of drain. After farm crossing.
Photo taken facing upstream.

Observation Location:

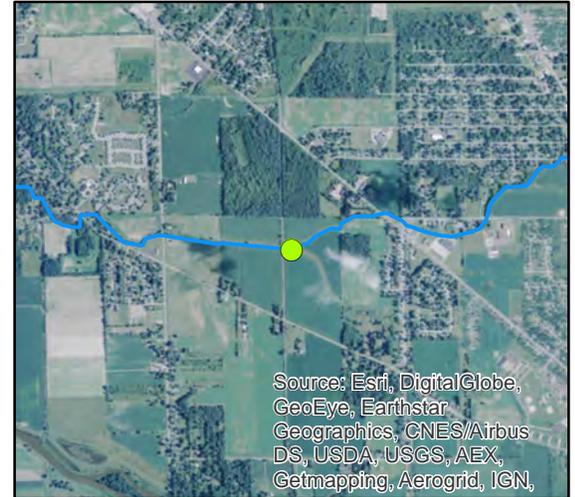


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage163

Type: Sediment

Blockage Length (feet): 20

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Sediment bars on right side of drain. After farm crossing. Along steel rods. Photo taken facing upstream.

Observation Location:

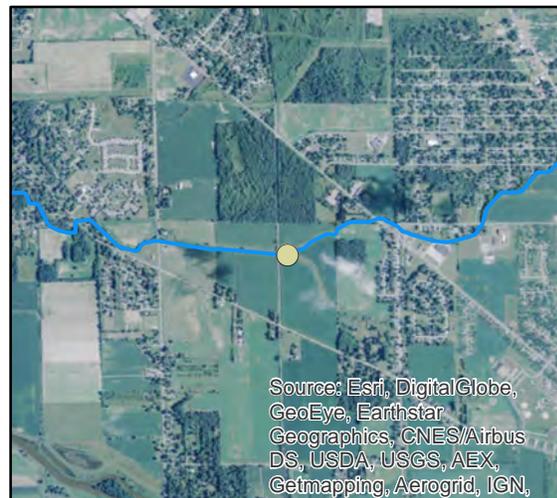


Photo 1



Photo 2

Photo 3

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				SCALE:	
NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage164

Type: Sediment

Blockage Length (feet): 300

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment deposits on both sides next 300 ft. Photo facing upstream.

Observation Location:

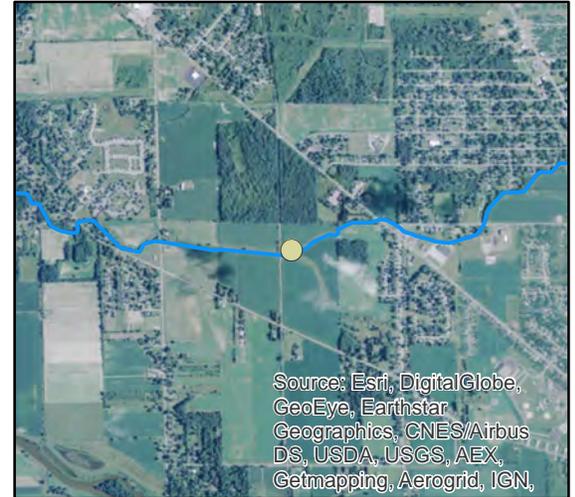


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage165

Type: Excessive Vegetation

Blockage Length (feet): 300

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation at bottom of drain channel next 300 ft. Photo facing upstream.

Observation Location:

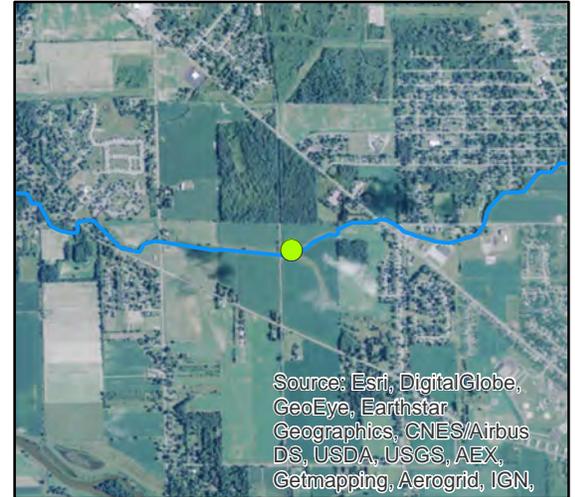


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage166

Type: Excessive Vegetation

Blockage Length (feet): 20

Debris Length (feet): 5

Location:

Photo 1 Direction:

Comments:

Excessive overhanging vegetation on left side of drain. After farm crossing. About 20 ft. of blockage. Photo taken facing upstream.

Observation Location:

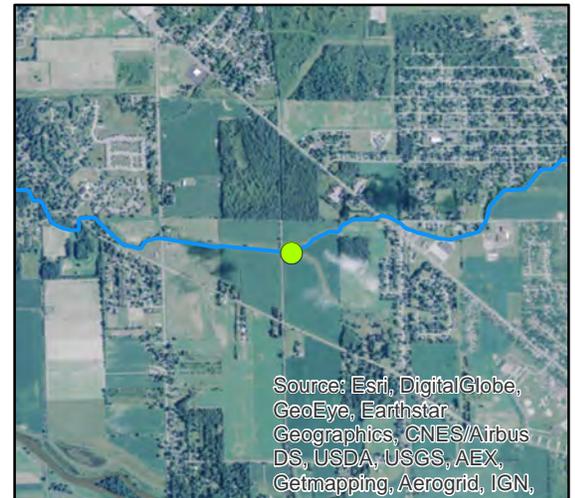


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage167

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation growing from bottom of drain. About 100 ft from one curve to the other. Photo taken facing upstream.

Observation Location:

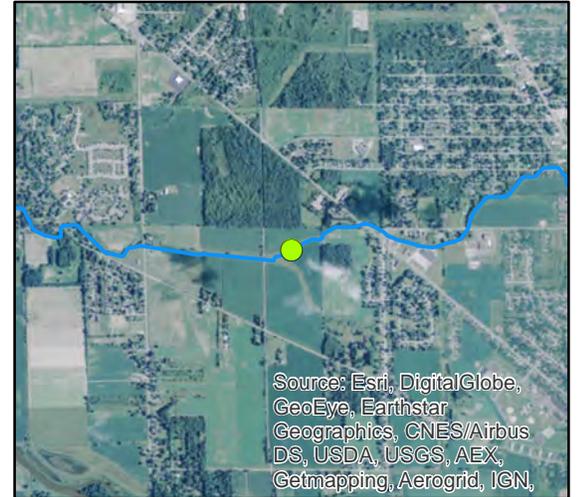


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage168

Type: Sediment

Blockage Length (feet): 60

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Significant sediment deposit with heavy vegetation on left side around bend. Restricting flow channel width. Photo facing upstream.

Observation Location:

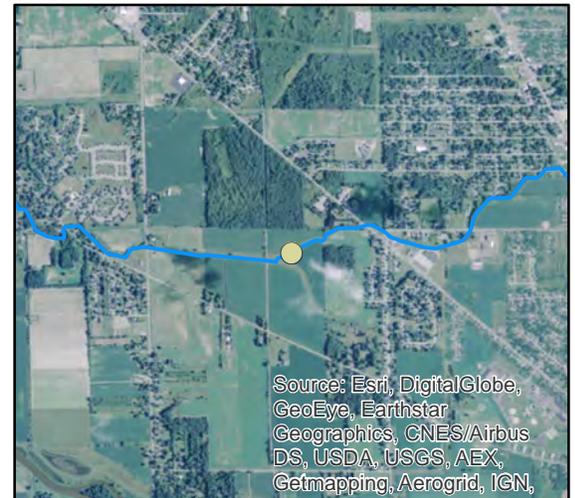


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage169

Type: Sediment

Blockage Length (feet): 15

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment bar on right side of drain. About 15 ft. Photo taken facing upstream.

Observation Location:

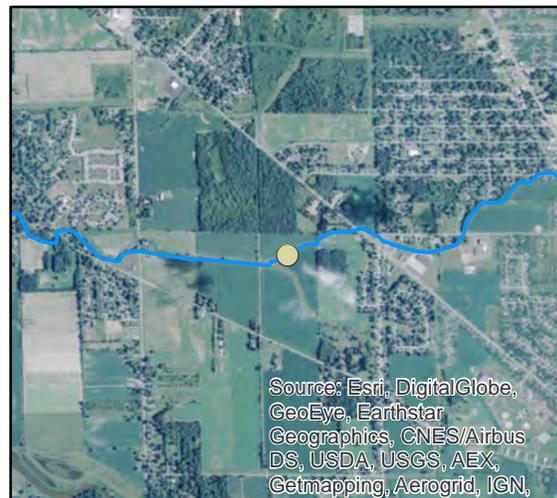


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage170

Type: Excessive Vegetation

Blockage Length (feet): 10

Debris Length (feet): 3

Location:

Photo 1 Direction:

Comments:

Islands of overgrown vegetation blocking flow. About 10 ft from first to last. Photo taken facing downstream.

Observation Location:

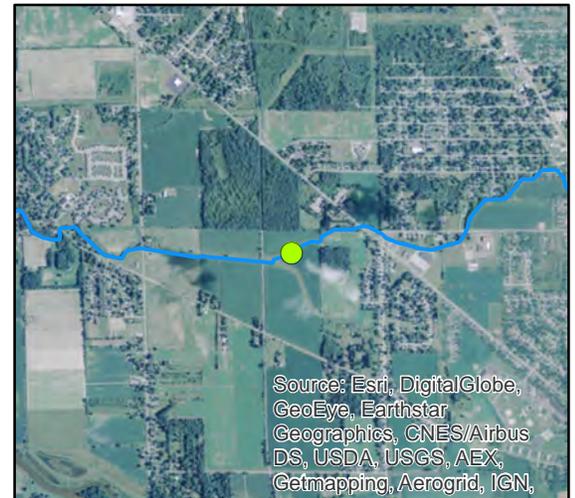


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage171

Type: Excessive Vegetation

Blockage Length (feet): 300

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation at bottom of drain channel over next 300 ft. Photo facing upstream.

Observation Location:

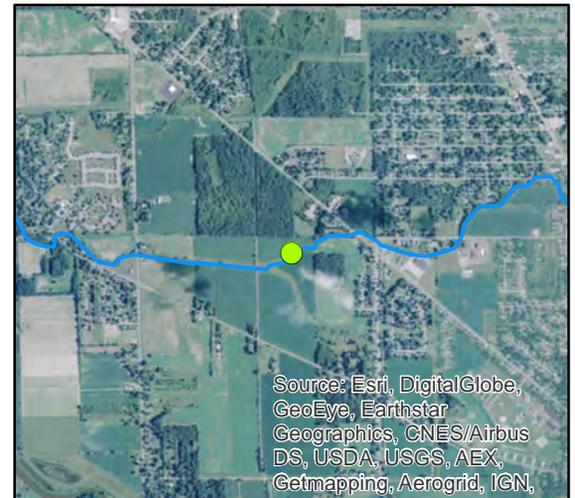


Photo 1



Photo 2

Photo 3

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				SCALE:	
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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage172

Type: Sediment

Blockage Length (feet): 300

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment deposits on both sides of drain with vegetation growing. Continuous next 300 ft. Photo facing upstream.

Observation Location:

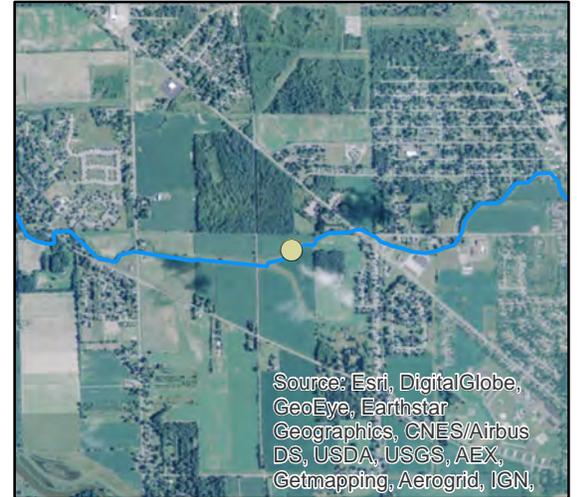


Photo 1



Photo 2

Photo 3

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				SCALE:	
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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage173

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet): 0

Location: Left

Photo 1 Direction:

Comments:

Excessive vegetation overgrown on both sides of bank. About 100 ft.
Photo taken facing upstream.

Observation Location:

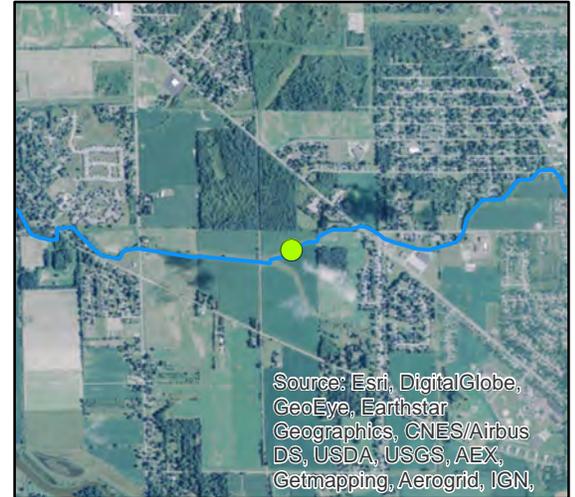


Photo 1

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Photo 3

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				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage174

Type: Sediment

Blockage Length (feet): 6

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Mid channel sediment bar with vegetation. Photo facing upstream.

Observation Location:

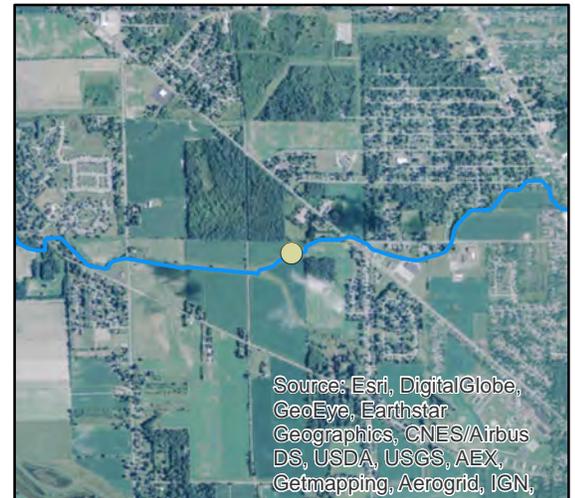


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage175

Type: Excessive Vegetation

Blockage Length (feet): 40

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Tall shrubs on right side of drain in channel on bank. 40 ft. Photo facing upstream.

Observation Location:

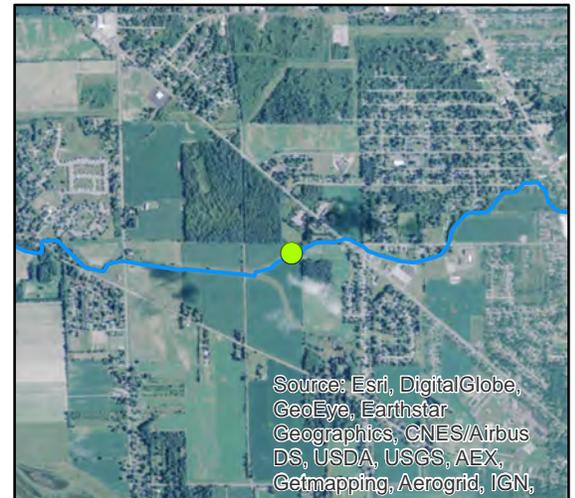


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage176

Type: Excessive Vegetation

Blockage Length (feet): 80

Debris Length (feet): 0

Location:

Photo 1 Direction:

Comments:

Excessive vegetation growing from bottom of drain. About 80 ft. Photo taken facing upstream.

Observation Location:

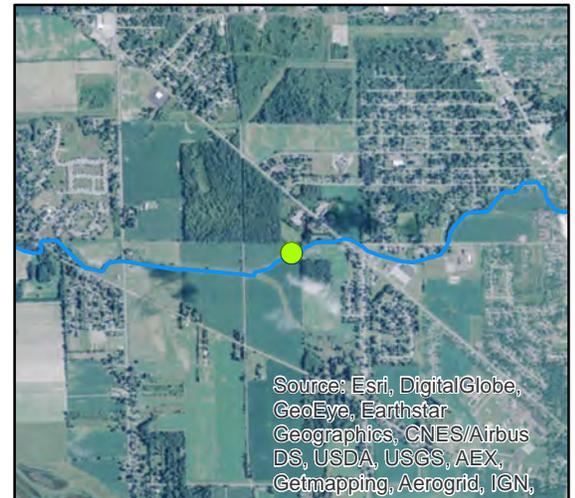


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
	NOTE				SCALE:
				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage177

Type: Sediment

Blockage Length (feet): 100

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment deposits on both banks next 100 ft with vegetation Photo facing upstream.

Observation Location:

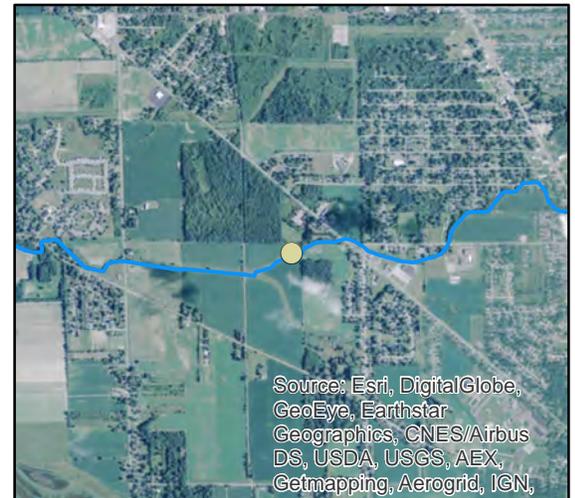


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage178

Type: Fallen Tree

Blockage Length (feet): 6

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Woody debris up to 2" diam clump on my right side. Photo facing upstream.

Observation Location:

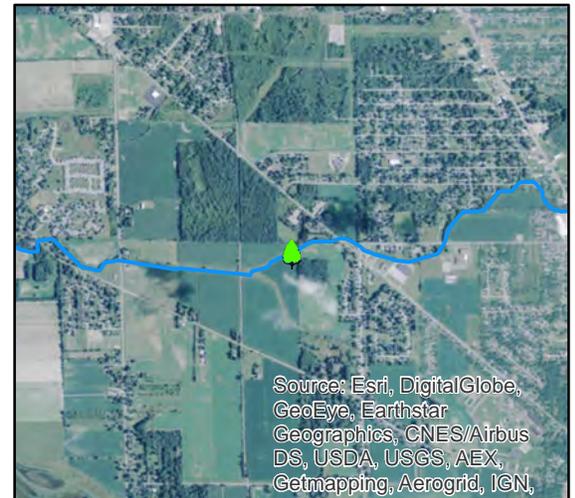


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage179

Type: Non-Vegetative Debris

Blockage Length (feet): 1

Debris Length (feet): 1

Location:

Photo 1 Direction:

Comments:

Tire on right side of drain underwater. About 1 ft. Photo taken facing south.

Observation Location:

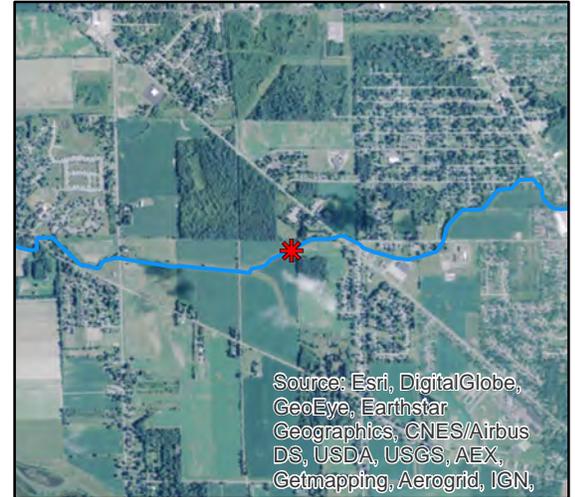


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage180

Type: Other

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

2 pieces of wood in center of drain. Photo facing upstream.

Observation Location:

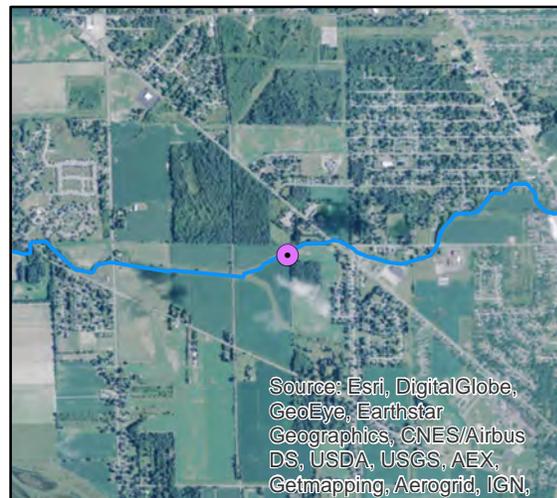


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage181

Type: Sediment

Blockage Length (feet): 60

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Sediment bar on left side. Photo facing upstream.

Observation Location:

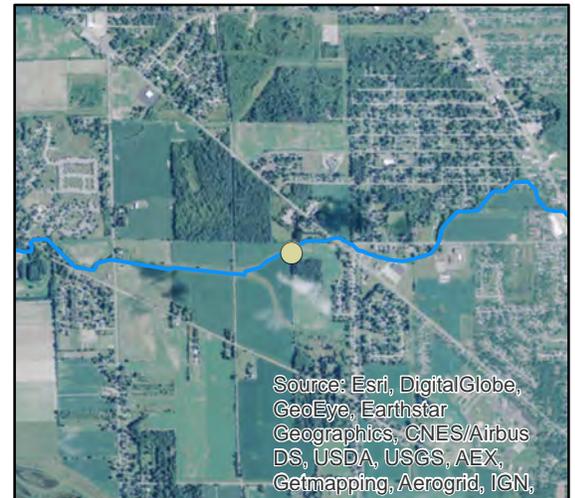


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage182

Type: Excessive Vegetation

Blockage Length (feet): 30

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Excessive vegetation on bottom of drain channel next 30 ft. Photo facing upstream.

Observation Location:

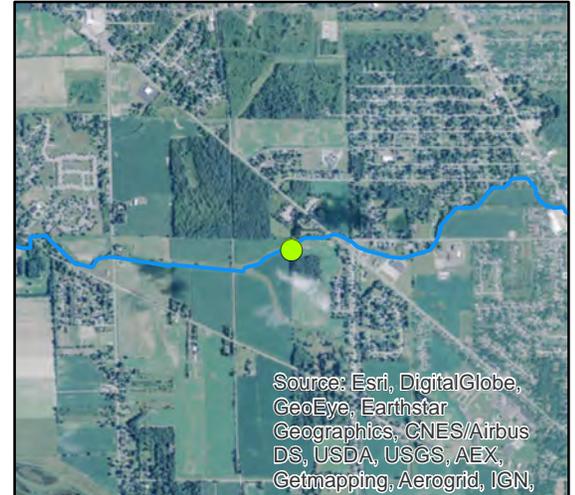


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage183

Type: Excessive Vegetation

Blockage Length (feet): 100

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation on left bank from trees next 100 ft. Photo facing upstream.

Observation Location:

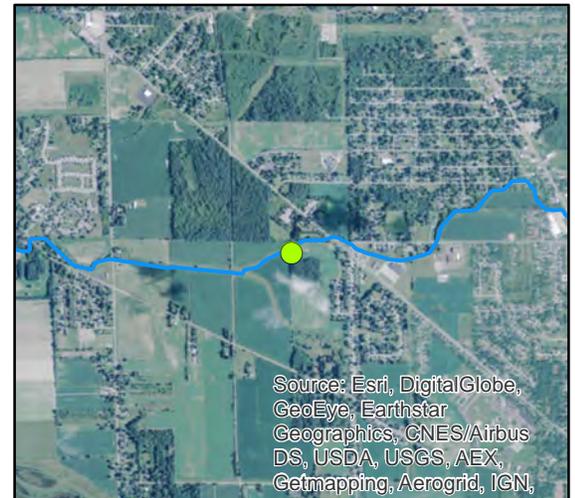


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage184

Type: Excessive Vegetation

Blockage Length (feet): 15

Debris Length (feet): 2

Location:

Photo 1 Direction:

Comments:

Excessive vegetation growing in drain blocking flow. Right side. Photo taken facing upstream.

Observation Location:

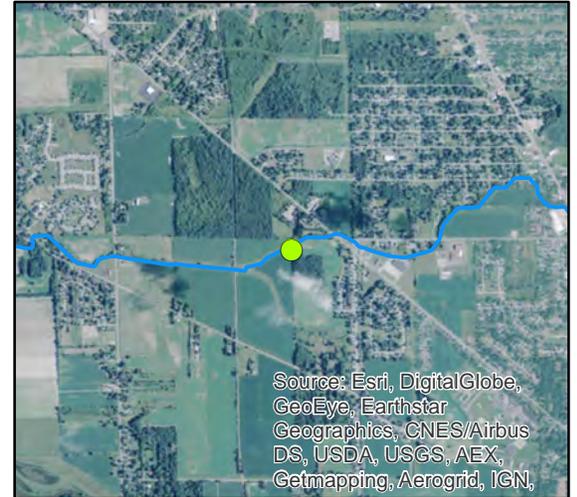


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage185

Type: Fallen Tree

Blockage Length (feet):

Debris Length (feet): 1

Location: Right

Photo 1 Direction:

Comments:

Log blocking some flow on right side of drain. About 1 ft long. Photo taken facing south.

Observation Location:

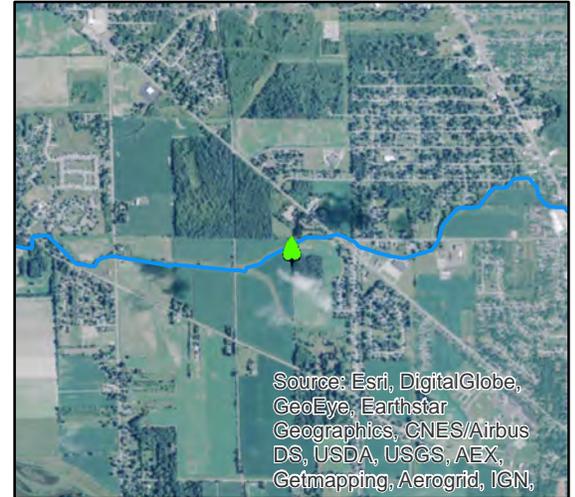


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage186

Type: Fallen Tree

Blockage Length (feet): 8

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Logs and woody debris on right side. 4" diam. Photo facing upstream.

Observation Location:

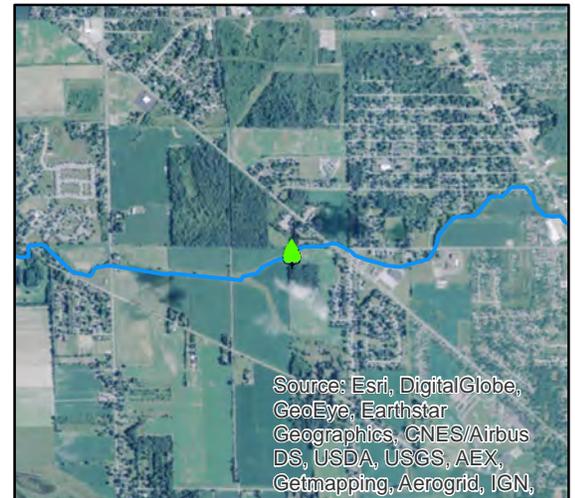


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016	
				SCALE:		
NOTE					SHEET #:	
					JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage187

Type: Excessive Vegetation

Blockage Length (feet): 600

Debris Length (feet): 10

Location:

Photo 1 Direction:

Comments:

Overhanging excessive vegetation on both sides of drain. Photo taken facing upstream.

Observation Location:

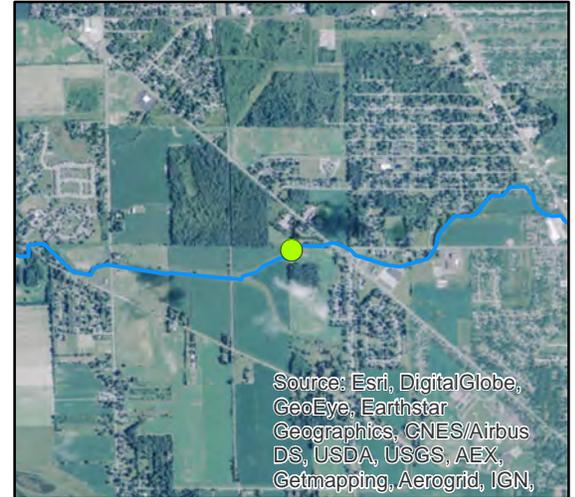


Photo 1

Photo 2



Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage188

Type: Fallen Tree

Blockage Length (feet): 100

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Woody debris up to 3" diam next 100 ft. Photo facing upstream.

Observation Location:

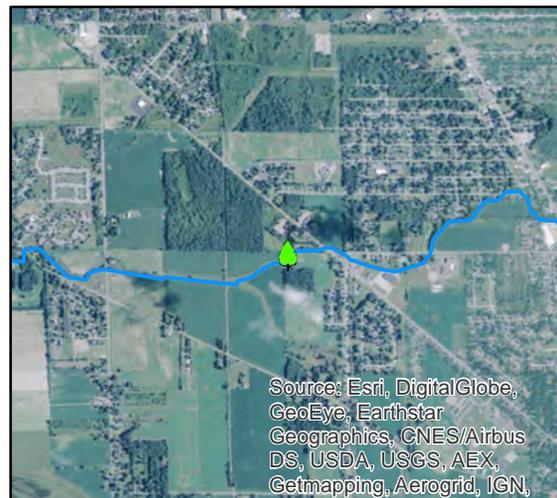


Photo 1



Photo 2

Photo 3

CLIENT	Saginaw County Public Works Commissioner	 HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915	555 Hulet Drive P.O. Box 824 Bloomfield Hills, MI 48303-0824 (248) 454-6300 http://www.hrc-engr.com	DATE:	08/16/2016
				SCALE:	
NOTE				SHEET #:	
				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage189

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash in center of drain. Photo facing upstream.

Observation Location:

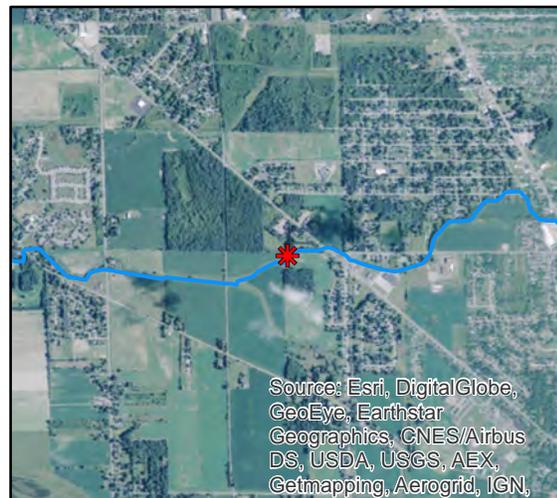


Photo 1



Photo 2



Photo 3

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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage190

Type: Excessive Vegetation

Blockage Length (feet): 600

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Excessive vegetation growing from bottom of drain. About 300 ft. Photo taken facing upstream.

Observation Location:

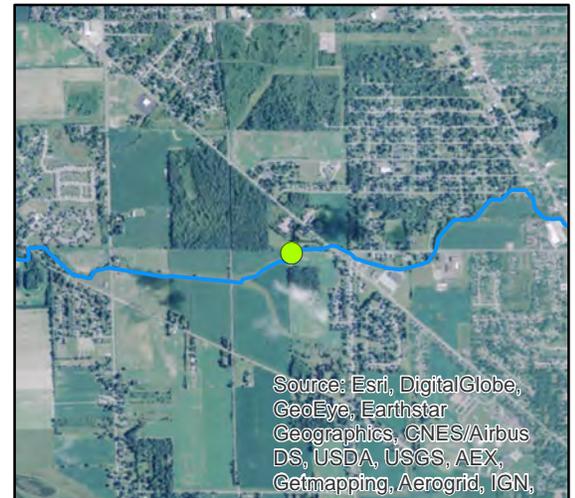


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage191

Type: Sediment

Blockage Length (feet): 12

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Point sediment bar on right for 12 ft. Photo facing upstream.

Observation Location:

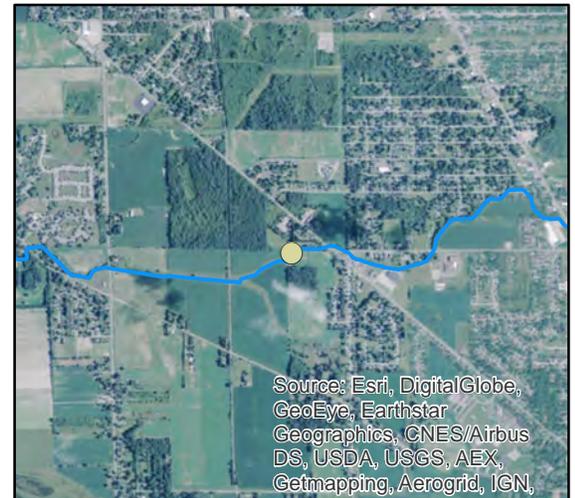


Photo 1



Photo 2

Photo 3

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				SCALE:	
NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage192

Type: Sediment

Blockage Length (feet): 60

Debris Length (feet):

Location:

Photo 1 Direction:

Comments:

Sediment deposits on both sides of drain. Flow meanders around them. Photo facing upstream.

Observation Location:

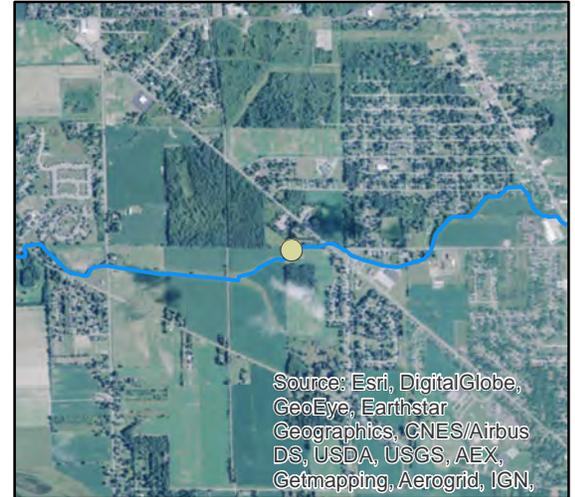


Photo 1



Photo 2

Photo 3

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NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage193

Type: Fallen Tree

Blockage Length (feet): 50

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Woody debris on left bank and in drain. Recently cut. Photo1 facing upstream at top of bank. Photo2 facing upstream in drain.

Observation Location:

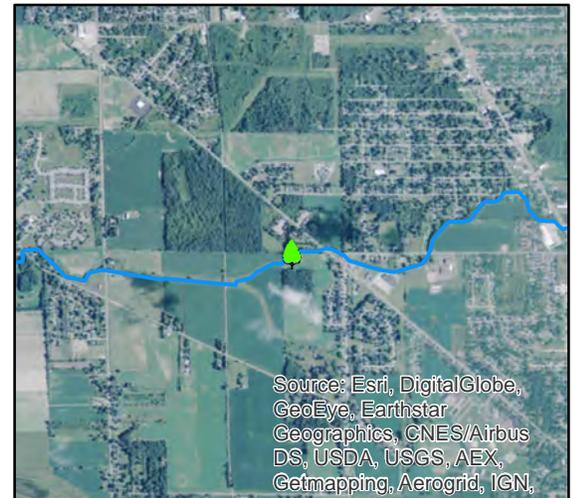


Photo 1



Photo 2



Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage194

Type: Non-Vegetative Debris

Blockage Length (feet):

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Tire in center of drain. Photo facing upstream.

Observation Location:

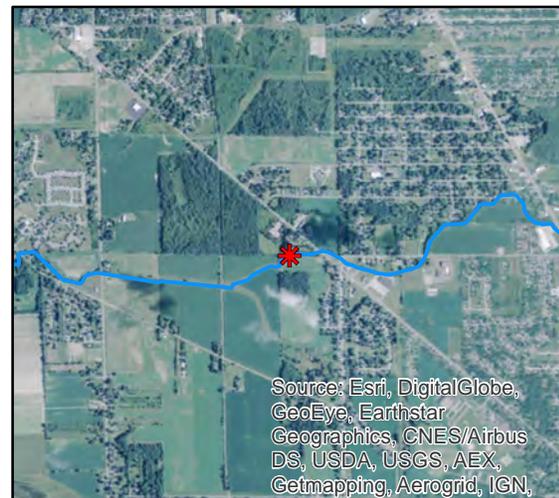


Photo 1



Photo 2

Photo 3

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NOTE				SHEET #:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage195

Type: Fallen Tree

Blockage Length (feet): 100

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Scattered woody debris up to 4" diam over next 100 ft. Photo facing upstream.

Observation Location:

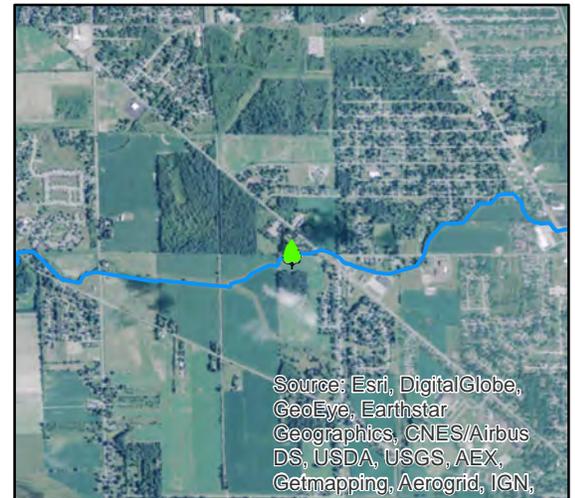


Photo 1



Photo 2

Photo 3

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				JOB #:	20160331

King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage196

Type: Excessive Vegetation

Blockage Length (feet): 50

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Overgrowth from trees on right bank overhanging drain. Photo facing downstream.

Observation Location:

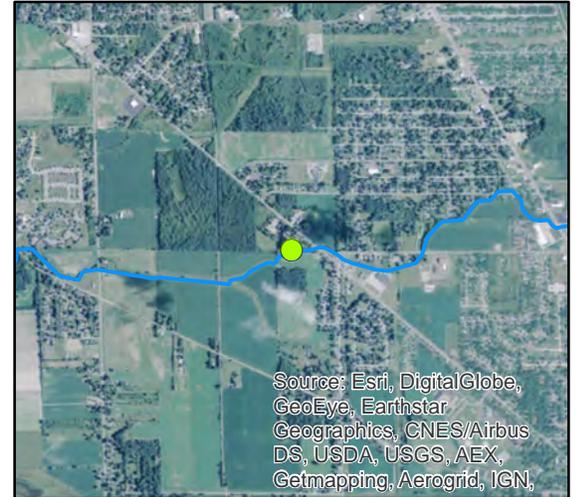


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage197

Type: Non-Vegetative Debris

Blockage Length (feet): 20

Debris Length (feet): 1

Location: Left

Photo 1 Direction:

Comments:

Trash and rocks on left side of drain. Photo taken facing upstream.

Observation Location:

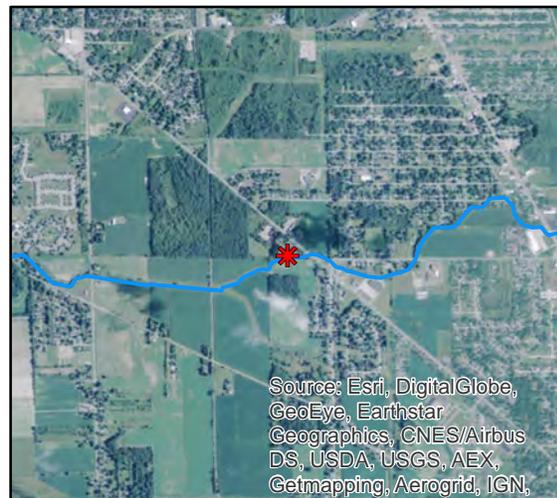


Photo 1



Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage198

Type: Non-Vegetative Debris

Blockage Length (feet): 0

Debris Length (feet):

Location: Left

Photo 1 Direction:

Comments:

Baby tire on left side of drain. About 6" diameter. Photo taken facing upstream.

Observation Location:

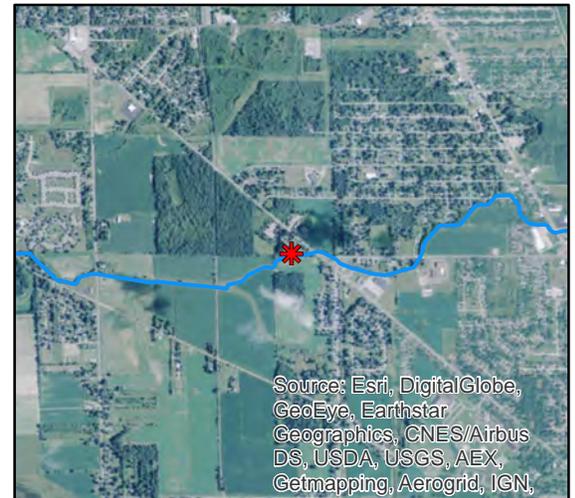


Photo 1

Photo 2

Photo 3

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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage199

Type: Sediment

Blockage Length (feet): 300

Debris Length (feet):

Location: Right

Photo 1 Direction:

Comments:

Several sediment bars on right side next 300 ft. Photo facing upstream.

Observation Location:

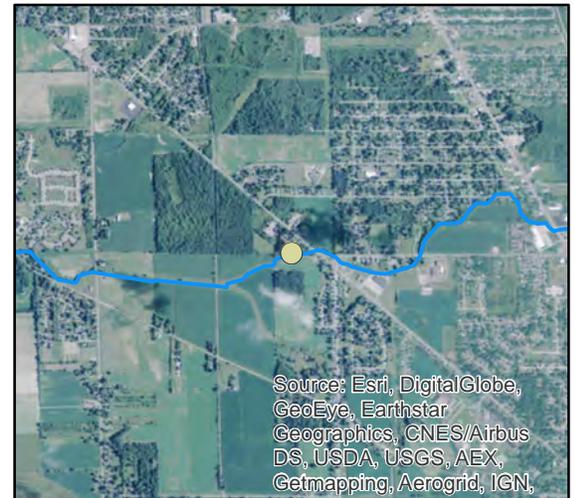


Photo 1



Photo 2

Photo 3

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				SCALE:	
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King Street Tile Drain Inspections

Inspection Report for Observation:
Blockage200

Type: Non-Vegetative Debris

Blockage Length (feet): 300

Debris Length (feet):

Location: Center

Photo 1 Direction:

Comments:

Trash and concrete blocks in drain next 300 ft. Photo facing upstream.

Observation Location:

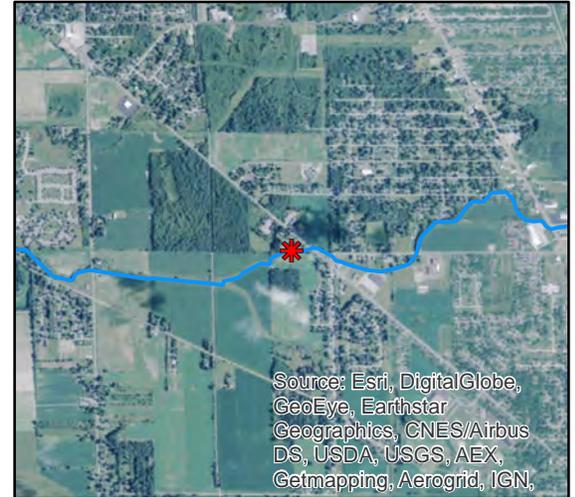


Photo 1



Photo 2

Photo 3

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