Phase One Environmental Site Assessment

Garner Road (Wilson Street to Highway 403 Off-Ramp), Hamilton, Ontario

Contract C11-13-20, Municipal Class Environmental Assessment Phase 3 and 4

Final Report
January 23, 2023

Prepared for:

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1.0 Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by the City of Hamilton to conduct a Phase One Environmental Site Assessment (ESA) on the right-of-way of Garner Road (Highway 53) between Wilson Street and the Highway 403 off-ramp, in Hamilton, Ontario. The strip of land is approximately 20 metres (m) wide and 4,630 m long and is herein be referred to as the "Phase One Property" or the "Site". Stantec understands that this strip of land is owned by the City of Hamilton and will be part of an upcoming road reconstruction project.

The Phase One ESA was completed to determine if Areas of Potential Environmental Concern (APECs) exist at the Phase One Property, which may be present as a result of current and/or past potentially contaminating activities (PCAs) on the Phase One Property or adjacent/ neighbouring properties within 250 m of the perimeter of the Phase One Property ("Phase One Study Area"). Stantec understands the filing of a Record of Site Condition (RSC) under Ontario Regulation 153/04 (O.Reg.153/04) will not be required; however, the scope of work for this project was developed to generally meet the requirements of Schedule D of O.Reg.153/04.

A site plan and figures showing the regional topography, Phase One Study Area, and Phase One Property are provided in **Appendix A**.

Phase One Property Information

At the time of the site visit, the Phase One Property was a strip of land, approximately 20 m wide by 4,630 m long, extending from Wilson Street to the Highway 403 off-ramp. The Site primarily consists of asphalt or concrete pavement with some gravel areas, landscaped areas, and paved sidewalks. The Site is bounded with landscaped areas to the north and south. No buildings or other structures were present at the Phase One Property. The total area of the Phase One Property is approximately 96,200 m^2 (9.26 hectares).

The earliest available aerial imagery (a 1945 aerial photo) as well as the earliest available other information (historical mapping from the Ancaster Township in 1875) both show that the Phase One Property was occupied by a road and therefore the first developed use of the Phase One Property is unknown but would have occurred sometime prior to 1875.

Phase One Study Area

Surrounding property use to the Phase One Property included commercial and industrial to the north, south, and west (west of Shaver Road, at Panabaker Road, and at Fiddlers Green Road); community and residential to the north (between Shaver Road and east of the Highway 403 off-ramp); vacant lands and agricultural and community property use to the south (between Shaver Road and east of the Highway 403 off-ramp).

The following were identified as PCAs on the Site, adjacent and/or neighbouring properties that contribute to an APEC at the Phase One Property:

- Importation of fill material of unknown quality across the Site
- Current automotive service garage operations at 1184 Wilson Street West
- Historical transportation vehicle maintenance yard with reported spills
- Current and historical gasoline service station at 1180 Wilson Street West
- Current dry cleaning operations with waste generation at 1172 Wilson Street West
- Historical gasoline service station at 1254 Highway 53 (Garner Road West)
- Historical gasoline service station at 538 Fiddlers Green Road/12 Garner Road East and associated spills in the vicinity of the property including within the intersection
- Historical operations of an orchard with potential pesticide application at Gabel Court and approximately 50 m west of Gabel Court
- Historical operations of an orchard with potential pesticide application at the Highway 6 overpass

No other PCAs were identified within the Phase One Study Area that would be expected to contribute to an APEC at the Phase One Property.

Conclusions and Recommendations

The Phase One ESA has revealed an APEC at the Phase One Property as well as five APECs associated with PCAs within the Phase One Study Area. **Table 1** and **Figure No.3** summarize the APECs and related PCAs identified at the Phase One Property:

Table 1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
1	Entire Site	Imported Fill of Unknown Quality (PCA #30)	On-Site	PHCs, VOCs including BTEX, PAHs, and metals	Soil
2	Western portion of the north side of the Phase One Property, south of 1172, 1180, and 1184 Wilson Street West	Commercial Autobody Shops (PCA #10) – Current Automotive Service Garage	Off-site, 1184 Wilson Street West	PHCs, VOCs including BTEX, PAHs and metals	Soil and groundwater
		Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical and Current Gasoline Service Station	Off-site 1180 Wilson Street West	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
		Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical Gasoline Service Station Storage, maintenance, fueling and repair of equipment, vehicles and material used to maintain transportation systems (PCA #52) – Former Laidlaw Transportation Yard	Off-site 1180 Wilson Street West	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
		Operation of Dry Cleaning Equipment (PCA #37) – Current Dry Cleaner Operation	Off-site 1172 Wilson Street	PHCs and VOCs, including BTEX, PAHs and metals	Soil and groundwater
3	South side of Phase One Property, at Wilson Street and Garner Road West	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical Gasoline Service Station	Off-site 1254 Highway 53	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
4	Southwest and within the intersection of Garner Road West and Fiddlers Green Road	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Former Gasoline Service Station	Off-site 538 Fiddlers Green Road/12 Garner Road East	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
		Petroleum hydrocarbon spills	On-Site Within intersection	PHCs, VOCs including BTEX	Soil and groundwater

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
5	North side of Phase One Property, south of Gabel Court	Pesticides (PCA #40) – Former Orchard	Off-site, Gabel Court and including land approximately 50 m west of Gabel Court	OC Pesticides	Soil and groundwater
6	Eastern portion of the Phase One Property	Pesticides (PCA #40) – Former Orchard	Off-site, Highway 6, north of the Phase One Property (including the area between the on-ramps and off-ramps and the land approximately 40 m east of the on-ramp)	OC Pesticides	Soil and groundwater

[1]Contaminants include petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene and xylenes (BTEX), metals, organochloride pesticides (OC Pesticides) and polycyclic aromatic hydrocarbons (PAHs)

Based on the Phase One ESA, it is our opinion that a Phase Two ESA is required to investigate the above-mentioned APECs for the Phase One Property.

The statements made in this Executive Summary are subject to the project conditions described in the Closure (**Section 8.4**) and are to be read in conjunction with the remainder of this report.

2.0 Introduction

2.1 Phase One Property Information

Stantec Consulting Ltd. (Stantec) was retained by the City of Hamilton to conduct a Phase One Environmental Site Assessment (ESA) on the right-of-way of Garner Road between Wilson Street and the Highway 403 off-ramp, in Hamilton, Ontario. The strip of land is approximately 20 metres (m) wide and 4,630 m long and is herein referred to as the "Phase One Property" or the "Site". Stantec understands that this strip of land is owned by the City of Hamilton and will be part of an upcoming road reconstruction project.

The Phase One ESA was completed to determine if Areas of Potential Environmental Concern (APECs) exist at the Phase One Property, which may be present as a result of current and/or past potentially contaminating activities (PCAs) on the Phase One Property or nearby properties within 250 m of the perimeter of the Phase One Property. The Phase One Property and properties situated within 250 m of the Phase One Property are hereinafter collectively referred to as the Phase One Study Area. Stantec understands the filing of a Record of Site Condition (RSC) under Ontario Regulation 153/04 (O.Reg.153/04) will not be required; however, the scope of work for this project was developed to generally meet the requirements of Schedule D of O.Reg.153/04.

A site plan and figures showing the regional topography, Phase One Study Area, and Phase One Property are provided in **Appendix A**.

2.2 Contact Information

Contact information for the City of Hamilton (project client and Phase One Property owner) is as follows:

Owner/Client Contact:

Megan Salvucci, Project Manager
Capital Infrastructure Planning
Public Works
Engineering Services
City of Hamilton
71 Main Street West,
Hamilton ON,
L8P 4Y5

3.0 Scope of Investigation

3.1 Scope of Work

The Phase One ESA was completed to determine if APECs exist at the Phase One Property, which may be present as a result of current and/or past PCAs on the Phase One Property or adjacent/ neighbouring properties within 250 m of the perimeter of the Phase One Property ("Phase One Study Area"). The objectives of the Phase One ESA included the following:

- To develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in or under the Phase One Property.
- To provide a basis for carrying out the Phase Two ESA.
- To provide adequate preliminary information about environmental conditions in the land or water on, in or under the Phase One Property in order to conduct soil and ground water remediation following completion of a Phase Two ESA.

The Phase One ESA is intended to reduce, but not necessarily eliminate, uncertainty regarding the potential for contamination at a property. The Phase One ESA carried out by Stantec on this property generally satisfies the requirements of O.Reg.153/04; however, the filing of an RSC is not a requirement of this project, so in order to reduce costs to the client some cases the work was completed in 'the spirit of' O.Reg. 153/04 and may not meet some of the strict administrative requirements of the regulation. The scope of work consisted of the following:

- A review of records that included, but was not limited to, the following where available:
  - Publicly available city directories, aerial photographs, fire insurance plans, geological and topographic maps.
  - An ERIS report consisting of a search of databases within a 250 m search radius from the perimeter of the Phase One Property.
  - A request to the Ontario Ministry of the Environment, Conservation and Parks (MECP) for documents related to various environmental concerns associated with the Phase One Property (e.g., spills, incident reports, etc.).
  - A request to the Technical Standards and Safety Authority (TSSA) for records related to fuel storage tanks, spills, and contamination records for the Phase One Property.
  - A request to Opta Information Intelligence (Opta) for fire insurance plans and/or property underwriters' reports/plans available for the Phase One Property.
  - Other available environmental databases and records, as applicable.
- An interview with a person having specific knowledge of the Phase One Property, if available.

- A site reconnaissance to identify PCAs associated with:
  - Current on-site operations.
  - Waste generation.
  - Fuel, chemical and waste storage.
  - Exterior conditions including surface features, fill material and wells.
  - Off-site activities and operations.
- Evaluation of information from records reviewed, interviews and site reconnaissance.
- Preparation of a Phase One ESA report.

A Phase One ESA does not include sampling or testing of air, soil, ground water, surface water or building materials. This assessment did not include a review or audit of compliance with any environmental legislation applicable to the Phase One Property, or of any environmental management systems which may exist for the Phase One Property.

A site reconnaissance was conducted by Dorothy Yu of Stantec on April 30, 2021 and a follow-up site reconnaissance was conducted by Brent Ferguson of Stantec on September 17, 2021. The Phase One Property and readily visible and publicly accessible portions of adjoining and neighbouring properties within the Phase One Study Area were observed for PCAs. Stantec was not accompanied by a Site Representative during either of the site reconnaissance. At the time of the site reconnaissance, the Site primarily consisted of asphalt or concrete pavement with some gravel areas, landscaped areas, and paved sidewalks. The Site is bounded with landscaped areas to the north and south.

The findings of the Phase One ESA were used to develop a conceptual site model, which is depicted on **Figure No. 3**, **Appendix A** and discussed in **Section 7.4**.

3.2 Regulatory Framework

In Ontario, the roles and powers of the MECP when dealing with contaminated sites are outlined primarily in the *Environmental Protection Act* (R.S.O. 1990). The MECP has a mandate to address conditions where there is an adverse effect, or the likelihood of an adverse effect, associated with the presence or discharge of a contaminant. Ontario Regulation 153/04 provides roles and responsibilities for property owners and consultants to use when assessing the environmental condition of a property when determining whether or not restoration is required and in determining the kind of restoration needed to allow continued use or reuse of a property. The regulation includes generic numerical standards for soil and ground water quality for specific land and ground water uses. A Phase One ESA is an initial step in the site assessment process, which may lead to the requirement for restoration work if areas of potential environmental contamination are identified. During a Phase One ESA, samples are not collected; however, if there are previous soil or ground water sample results available, the results are compared to applicable Ontario site condition standards.

4.0 Records Review

4.1 General

4.1.1 Phase One Study Area Determination

The Phase One Study Area included the Phase One Property, properties immediately adjoining the Phase One Property, and neighbouring properties located wholly or partially within 250 m from the nearest point on the boundary of the Phase One Property. No properties located farther than 250 m from the Phase One Property were identified as PCAs that may contribute to an APEC at the Phase One Property.

4.1.2 First Developed Use Determination

The first developed use of the Phase One Property was determined through a review of the following historical sources and additional resources as listed in **Table 6** at the end of this report:

- Map of Township of Ancaster, Wentworth County, by Page and Smith 1875
- Aerial photographs taken in 1945, 1965 and 1986
- Aerial imagery obtained from Google Earth dated 1985, 2005, 2009 and 2012 to 2018

The earliest available aerial imagery (a 1945 aerial photo) as well as the earliest available other information (historical mapping from the Ancaster Township in 1875) both show that the Phase One Property was occupied by a road and therefore the first developed use of the Phase One Property is unknown but would have occurred sometime prior to 1875.

4.1.3 Fire Insurance Plans

Fire insurance plans (FIPs) were requested through Opta Information Intelligence. The only FIP available for the Phase One Study Area was a FIP dated 1960 that showed the intersection of Miller Drive and Roselawn Avenue, located approximately 200 m north of the Phase One Property. The FIP indicated a public school was present at the property, which is not expected to contribute to an APEC at the Phase One Property.

No other FIPs were available for the Phase One Property or neighbouring properties based on the search results reviewed.

4.1.4 Chain of Title

No chain of title search was provided to Stantec for review for the Phase One Property. If an RSC is required in the future then an up-to-date chain of title that shows owner's names and date of ownership for the Phase One Property based on a title search back to either the date of first developed land use or the Crown Grant would be required.

As noted in **Section 4.1.2**, currently available information does not provide documentation of first developed land use so if an RSC is required in future the title search for the property comprising the Phase One Property would likely need to be completed back to the Crown Grants.

4.1.5 Environmental Reports and Historical Company Records

No environmental reports or historical company records were provided to Stantec for review for the Phase One Property.

4.1.6 City Directories

A city directory search of years from 1959 to 2013 was conducted for selected adjacent/neighbouring lands by ERIS. This city directory search is documented in **Appendix D**. Relevant findings for the Phase One Study Area are discussed in **Section 6.3**.

4.2 Environmental Source Information

Available environmental databases and records were searched to determine if the Phase One Property and nearby lands within the Phase One Study Area were listed. The databases and search results are presented in the following subsections.

4.2.1 National Pollutant Release Inventory (NPRI)

ERIS searched the *National Pollutant Release Inventory* database for properties within the Phase One Study Area. One record was listed for the Site pertaining to release of natural gas in 2004 at the Union Gas Kirkwall/Dominion facility which is not expected to contribute to an APEC at the Phase One Property. No records were listed within the Phase One Study Area.

4.2.2 PCB Storage Sites and Inventory Databases

ERIS searched the *National PCB Inventory* and the *Ontario Inventory of PCB Storage Sites* databases for properties within the Phase One Study Area. No PCB storage sites were listed at the Site or within the Phase One Property.

4.2.3 Certificate of Approval / Environmental Compliance Approval

ERIS searched the the *Certificates of Approval* and *Environmental Compliance Approval* databases for properties within the Phase One Study Area.

Seven Certificate of Approvals and four Environmental Compliance Approvals were identified at the Site. Twenty-three Certificate of Approvals and thirty Environmental Compliance Approvals were identified in the Phase One Study Area. The records were related to municipal waste and sewage systems and air emissions systems, which are not expected to contribute to an APEC at the Phase One Property.

4.2.4 MECP Freedom of Information Requests

A request was submitted to the MECP's Freedom of Information and Protection of Privacy Office for occurrence reports and general information from the District Office, investigation documents from the Investigations and Enforcement Branch, waste generator information from the Environmental Monitoring and Reporting Branch, Certificates of Approval from the Environmental Assessment and Approvals Branch, and orders from the Sector Compliance Branch pertaining to the municipal address of the Site.

A response was received on January 11, 2023 from the MECP indicating two spill records were available for review. The spills were associated with the release of municipal sewage into ditches and a storm sewer pond in 2005 and 2020. Based on the information provided in the spill records, these two incidents are not expected to contribute to an APEC at the Site.

A copy of the responses and records from the MECP are provided in **Appendix D**.

4.2.5 Coal Gasification Plant Waste Sites

Stantec reviewed the report titled *Inventory of Coal Gasification Plant Waste Sites in Ontario, (Volumes I and II)*, dated April 1987, prepared by Intera Technologies Ltd. for the Ontario Ministry of the Environment (now MECP). The documents include an inventory of known coal gasification plants historically operating in Ontario.

No properties within 1 km of the Phase One Property were listed as former coal gasification plants.

4.2.6 Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars

Stantec reviewed the report titled *Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario, (Volumes I and II)*, dated November 1988, prepared by Intera Technologies Ltd. for the MECP. The documents identify industrial sites that produced and/or continue to produce or use coal tar and other related tars.

No properties within 1 kilometre (km) of the Phase One Property were listed as industrial sites producing or using coal tar.

4.2.7 Hazardous Waste Generators and Receivers

ERIS searched the *Ontario Regulation 347 Waste Generators Summary* and the *Ontario Regulation 347 Waste Receivers* databases for properties within the Phase One Study Area. Where necessary, Stantec also utilized *Regulation 347 Public Information Datasets* obtained from the MECP to assist in quantifying the reported waste generation at each applicable property.

No waste receivers were identified within the Phase One Study Area. The ERIS report identified 34 records in the *Ontario Regulation 347 Waste Generators Summary* for the properties immediately adjoining the Site and 247 other records within the Phase One Study Area.

Three of the 34 records for the properties immediately adjoining the Site were expected to contribute a PCA that would represent a potential APEC to the Site:

Table 2: Summary of Waste Generator Information

Address	Waste Generator	Historical Waste Generation
538 Fiddlers Green Road	Esso Petroleum Canada	Light fuels, other specified inorganics, oil skimmings & sludges, waste oils & lubricants
1172 Wilson Street West	Green Tie Cleaners	Aliphatic solvents and residues
	Gazben Developments Limited	Waste oils/sludges (petroleum based)
	1984012 Ontario Inc.	Aliphatic solvents and residues
1180 Wilson Street West	Pioneer Energy Management Inc.	Light fuels

Waste generated at 1172 and 1180 Wilson Street West contribute to APEC-2 and waste generated at 538 Fiddlers Green Road contribute to APEC-4 (see **Section 7.3**). Based on the nature of their operation associated with the generation of waste, the proximity to the Phase One Property and/or inferred groundwater flow direction in relation to the Phase One Property, the remaining waste generators listed in the ERIS report are not expected to contribute to an APEC at the Phase One Property.

4.2.8 Technical Standards and Safety Authority

A request to the TSSA included a search of outstanding instructions, incident reports, fuel oil spills, contamination records, retail facilities or licensed underground storage tanks (USTs) pertaining to the Site. It should be noted, however, that the Fuels Safety Division of the TSSA did not register private fuel USTs or above ground storage tanks (ASTs) prior to January 1990, or fuel oil tanks prior to May 1, 2002. Further, private waste oil tanks in apartments, office buildings, residences, etc. and above ground gas or diesel tanks are not registered with the TSSA.

A reply from the TSSA, dated February 22, 2021, indicated a search could not be performed on the Site without a municipal address.

ERIS searched the *TSSA Historic Incidents* database for properties within the Phase One Study Area. Three records for *TSSA Historic Incidents* were identified in the Phase One Study Area and are related to natural gas pipeline strikes. The natural gas incidents are not expected to contribute to an APEC at the Phase One Property.

ERIS searched the *Ontario Spills* for properties within the Phase One Study Area. Twenty-seven spills were identified in the Phase One Study Area and are discussed in further detail in **Section 4.2.13.2.**

4.2.9 Environmental Registry

ERIS searched the *Environmental Registry* database for properties within the Phase One Study Area.

Thirteen records for Environmental Registry were identified in the Phase One Study Area and are related to a municipal or industrial sewage works approvals or air emission approvals. The emissions associated with these approvals are not expected to contribute to an APEC at the Phase One Property.

4.2.10 Records of Site Condition (RSC)

ERIS searched the *Record of Site Condition* database for properties within the Phase One Study Area.

Four properties within the Phase One Study Area were listed in the *Record of Site Condition* database. One RSC was filed for a property located at 305 Garner Road West, which was listed as Ancaster Paving and was a waste generator of aliphatic solvents, aromatic solvents, light fuels, organic laboratory chemicals, petroleum distillates, paint/pigment/coating residues, polymeric resins, waste oils & lubricants. Based on the Phase 1 and 2 report prepared by Soil-Mat Engineers & Consultants Ltd in March 2018, two APECs were identified at the property relating to the importation of unknown fill material and the presence of an AST. The RSC was filed based on a soils remediation that was undertaken on the property. According to the CSM filed with the RSC there were no impacts identified that are anticipated to migrate offsite. This property is therefore not expected to contribute to an APEC at the Phase One Property.

The presence of an RSC at the three remaining properties are associated with residential developments and are not expected to contribute to an APEC at the Phase One Property.

4.2.11 Areas of Natural Significance

Information provided by ERIS indicated there are no Areas of Natural and Scientific Interest (ANSI) present within 2 km of the Phase One Property. The ANSI was sourced from the Ontario Ministry of Natural Resources, records dated March 2017. Based on the information provided, it is not expected that the Phase One Property would be deemed as an environmental sensitive site.

4.2.12 Waste Disposal Sites

The ERIS report included a search of the *Waste Disposal Sites* and *Anderson's Waste Disposal Sites* databases for properties within the Phase One Study Area. No landfills were identified within the Phase One Study Area.

4.2.13 ERIS Report

An ERIS report (included in **Appendix D**) was obtained as part of the Phase One ESA. The report consisted of a search of available databases (including unplottable records) within a 250 m radius of the perimeter of the Phase One Property.

Records provided within the ERIS report of relevance not already described in **Sections 4.2.1** to **4.2.12** are described in **Sections 4.2.13.1** to **4.2.13.9**. The remaining listings in the ERIS report were not expected to describe PCAs that would contribute to an APEC at the Phase One Property based on the nature of their operations and/or the separation distances between these operations and the Phase One Property.

4.2.13.1 Tanks

ERIS searched the *Delisted Fuel Tanks*, *List of Expired Fuels Safety Facilities, Fuel Storage Tank, Fuel Storage Tank – Historic, Private and Retail Fuel Storage Tanks, and Retail Fuel Storage Tan*ks databases for the Phase One Study Area. The following information was obtained from the records:

1254 Highway 53

- The property was registered under Duffs Corner Gas Bar and 518374 Ontario Ltd.
- In the *Fuel Storage Tank* database, there are six records from 2009 indicating there was one single wall UST installed in 1990 and five single wall USTs that were installed in 1991.
- From the *Private and Retail Fuel Storage Tanks* database, there were two records indicating a 15,016 L tank expired in 1992 and a 15,000 L retail tank expired in 1995.
- From the *Delisted Fuel Tanks* database, there were four records from 2009 indicating expired tanks and piping facilities.
- From the *List of Expired Fuels Safety Facilities,* there were six expired tank records created in 2009.
- This PCA contributes to APEC-3.

1180 Garner Road West

- The property was registered under Sunoco, Pioneer Gas Station, Pioneer Petroleums Management Inc., and Parkland Fuel Corporation.
- From the *Fuel Storage Tank – Historic* database, this property was a licensed retail fuel outlet with four single wall USTs installed in 1979. From the *Fuel Storage Tank* database, there were two double wall USTs installed in 2009.
- From the *Delisted Fuel Tanks* database, there were four records from 2009 indicating expired piping facilities.
- From the *List of Expired Fuels Safety Facilities,* there were four expired tank records created in 2009.
- This PCA contributes to APEC-2.

538 Fiddlers Green Road

- From the List of Expired Fuels Safety Facilities database, four of the records were associated with F M Rock Fuels and indicated the liquid fuel tanks were inactive as of 1990.
- From the Private and Retail Fuel Storage Tanks database, the property was listed with 140,600 L tanks.
- This PCA contributes to APEC-4.

658 Fiddlers Green Road

- From the *Private and Retail Fuel Storage Tanks* database, the property was listed with a 227,300 L tank owned by Fair Excavating Company Ltd.
- Based on the distance of the property being greater than 250 m downgradient from the Site, the presence of a UST does not represent a PCA that would contribute to an APEC on the Phase One Property.

44 Highway 53

- From the *Private and Retail Fuel Storage Tanks* database, the property was listed with a 2,273 L tank owned by Jerome Bros Potatoes Ltd.
- This tank was observed during the Phase One ESA site visit and based on its location (over 50 m downgradient from the Phase One Property) it does not represent a PCA that would contribute to an APEC on the Phase One Property.

345 Highway 53 West

- From the *Private and Retail Fuel Storage Tanks* database, the property was listed with a 4,546 L tank owned by Ancaster Paving Ltd.
- This tank is related to the RSC at 305 Garner Road West discussed in Section 4.2.10 and does not represent a PCA that would contribute to an APEC at the Phase One Property.

501 Shaver Road

- The *Fuel Storage Tank – Historic* database indicated this property was a private fuel outlet operated by the City of Hamilton Director Fleet Services with two fuel single wall USTs that were installed in 1990.
- From the *Private and Retail Fuel Storage Tanks* database, the property was registered to the Town of Ancaster with a 45,500 L tank.
- Based on the distance of the property being greater than 80 m from the Site, the current operations as a transportation vehicle maintenance yard or the UST documented from 1990 do not represent a PCA that would contribute to an APEC on the Phase One Property. In addition, the 45,500 L tank documented for this property can be seen in aerial imagery and is located approximately 240 m from the Phase One Property. Based on the distance of this tank from the Phase One Property, this tank does not represent a PCA that would contribute to an APEC on the Phase One Property.

4.2.13.2 Spills

ERIS searched the *Ontario Spills, Fuel Oil Spills and Leaks,* and *Pipeline Incidents* database for the Phase One Study Area. One record from the *Fuel Oil Spills and Leaks* database was identified within the Phase One Study Area pertaining to a natural gas release at a private dwelling. Twelve records for *Pipeline Incidents* within the Phase One Study Area were identified pertaining to natural gas pipeline strikes. Based on the nature of these incidents, these are not expected to contribute to an APEC at the Phase One Property.

Thirty-one records for *Ontario Spills* were identified within the Phase One Study Area. The spills records pertinent to this investigation include:

- Five records of truck-related incidents at the intersection of Fiddlers Green Road and Garner Road involving:
    - 250 L diesel spill in 1996 that was noted to result in soil contamination
    - An unknown volume of diesel and oil were released to a ditch east of Fiddlers Green Road in 1997, with possible multi-media pollution
    - 135 L of diesel was released to the road in 1994 with possible soil contamination
    - 900 L of diesel was released to the asphalt and ditch in 1994, with possible soil contamination
    - 40 to 50 L of diesel was released to the ground at the Sunoco gasoline service station in 1996, with confirmed soil contamination
    - 300 L of diesel was released at the parking lot of the Tim Horton's at this intersection in 1997, with confirmed soil contamination
    - The numerous occurrence of spills at this intersection is a PCA that would contribute to APEC-4 at the Phase One Property.

- One record pertaining to Laidlaw Transport at 1180 Wilson Street in 1993, involving 225 L diesel released onto the parking lot was noted to result in possible multi-media pollution. This is a PCA that would contribute to APEC-2 at the Phase One Property.

- One record at the intersection of Garner Road and Miller Road, which involved the release of a small amount of diesel and anti-freeze to Garner Road from a truck, was noted to result in possible soil contamination. Based on the quantity released to the road, this does not represent a PCA that would contribute to an APEC at the Phase One Property.

The remaining records either pertained to air emissions, the release of natural gas and wastewater sewage, spills that were greater than 50 m from the Site, or spills that were reported to not have an anticipated environmental impact. These incidents in these remaining records are not expected to contribute to an APEC at the Phase One Property.

4.2.13.3 Scott's Manufacturing Directory

ERIS searched the *Scott's Manufacturing Directory* database for properties within the Phase One Study Area. There were 43 records identified in the Phase One Study Area.

One record was listed at 1276 Sandhill Drive, approximately 50 m south of the Site on the western portion of the Phase One Study Area, as a manufacturer of metal products in 1984. Two records were listed at 1330 Sandhill Drive, located approximately 50 m south of the Site, on the western portion of the Phase One Study Area, as a millwork and a manufacturer of agricultural equipment and fertilizers in 1972 and general machinery manufacturing in 1979. Based on the location of these properties being downgradient from the inferred groundwater flow direction, these were not expected to represent a PCA that would contribute to an APEC at the Phase One Property.

Based on the operations and the distance of the properties being greater than 50 m from the Phase One Property, the remaining records identified from the *Scott's Manufacturing Directory* were not expected to represent a PCA that would contribute to an APEC at the Phase One Property.

4.2.13.4 Water Well Information System

ERIS searched the *Water Well Information System* database and identified 73 records within the Phase One Study Area. Additional details about the water wells are discussed in **Section 4.3.5.**

4.3 Physical Setting Sources

4.3.1 Aerial Photographs

Aerial photographs taken in 1945, 1965 and 1986 were received through ERIS from the National Air Photo Library to determine the historical activities at the Phase One Property and/or within the Phase One Study Area. Satellite images dated 1985, 2004, 2005, 2009, and 2012 to 2021 were also reviewed from Google Earth. No additional aerial imagery was obtained as the time period between photos was deemed adequate and no earlier aerial photographs were available prior to 1945.

The aerial imagery reviewed shows Garner Road and Wilson Street were present by 1945 and the surrounding properties to the Phase One Property were mostly used for agricultural purposes or were cleared for development or contained small structures of unknown use. Two orchards were present on the eastern extent of the Phase One Property, in the vicinity of what is currently Gabel Court and near the current location of the Highway 403 off-ramp. These orchards represent PCAs that contribute to APEC-5 and APEC-6 on the Phase One Property.

In the 1965 aerial photograph, there appears to be more buildings constructed adjacent to the Site and some may have been associated with agricultural use. A building appears to have been constructed at the location of 1180 Garner Road West and there is a residential development towards the eastern portion of the Phase One Property.

In the 1986 aerial photograph, Highway 403 has been constructed north of the Site and connects to Wilson Road. A commercial building has been constructed at 1180 Wilson Street West that appears to be the configuration of a gasoline service station.

Between 1986 and 2005, the commercial plaza in the vicinity of 1180 Wilson Street West has been redeveloped with additional buildings, which resemble the configuration observed at the time of the site reconnaissance. In the 2005 satellite image, residential properties have been developed between Shaver Road and the Highway 403 off-ramp. The Highway 403 off-ramp can be seen on the eastern extent of the Phase One Property in the 2005 photo and the orchard is no longer present west of this area.

The 2005 satellite image shows development of the surrounding area to the north and south of the Phase One Property. There is development observed across the properties north and south of the Phase One Property, including 305 Garner Road West, which shows multiple buildings and transportation trucks, inferring commercial or industrial operations at the property. A cemetery is present at 542 Garner Road West, approximately 200 m east of Shaver Road, and another is present at 254 Garner Road West, at the intersection of Panabaker Road and Garner Road. Immediately southeast of 305 Garner Road West are two buildings that resemble greenhouses or may be associated with industrial operations. The buildings are no longer present in the 2009 satellite image and the property appears to have been vacant since. Between 2005 and 2009 the commercial plaza immediately west of Shaver Road is undergoing construction. Towards the southwest of the Site, the commercial and industrial complex has been developed with multiple buildings, resembling the current configuration observed at the time of the site reconnaissance.

Between 2009 and 2013, the configuration of the gasoline service station and the associated plaza at 1180 Wilson Street West has been redeveloped. The car wash building associated with the gasoline service station on the southern portion of the property was redeveloped in 2014. The building for the Take 5 Oil Change service garage at 1184 Wilson Street West was constructed as of 2009 and resembles the configuration observed at the time of the site reconnaissance. The gas station and autobody shop represent PCAs that contribute to APEC-2 on the Phase One Property.

Between 2012 and 2018, the commercial properties located in the northwestern portion of the Phase One Study Area have been developed to the current configuration observed at the time of the site reconnaissance. In addition, the property at 305 Garner Road West appears to have been vacated in 2018.

Information gleaned from these images was used to determine the first developed use at the Phase One Property (see **Section 4.1.2**) and to determine if PCAs were present at nearby properties within the Phase One Study Area (see **Section 7.3**).

4.3.2 Topography, Hydrology, and Geology

4.3.2.1 Topography and Regional Drainage

Based on Ontario Ministry of Natural Resources – Ontario Base Map (2010), and the observed topography in the vicinity of the Phase One Property, the regional surface drainage (inferred ground water flow direction) on the west side appears to be southwesterly toward various tributaries of the Grand River, which are located immediately adjacent to the Phase One Property and flow southerly into the Grand River. To the east side of the Phase One Property near the Highway 403 off-ramp, the regional surface drainage appears to be northerly toward a tributary of the Ancaster Creek.

Based on review of the well records reviewed from the Ontario Ministry of Natural Resources – Well Record Map and from the ERIS report, the ground water table across the Phase One Study Area ranged from approximately 2.8 to 32 m below ground surface (m BGS).

Based on the site reconnaissance, the observed topography of the Site varied but was generally flat and sloping towards the south. Topographic highs were observed at Shaver Road, sloping towards the west toward Wilson Street, and at Woodmount Avenue, sloping towards the east toward the Highway 403 off-ramp.

The elevation of the local ground water table can generally mimic the local topography and may not reflect the regional trend in drainage. The local shallow ground water flow pattern also can be influenced by subsurface structures in the vicinity, such as building foundations, weeping tiles, and utility trenches.

4.3.2.2 Hydrology and Surface Water Drainage

The Phase One Property during the site reconnaissance primarily consisted of asphalt or concrete pavement with some gravel areas, landscaped areas, and paved sidewalks. The Site is bounded with landscaped areas to the north and south. Culverts were observed in multiple locations immediately adjacent to north and south of the Site and manholes were observed at the commercial properties within the Phase One Study Area. Therefore, storm water was anticipated to drain to catch basins and culverts, by infiltration, or by overland flow within the Phase One Study Area.

4.3.2.3 Surficial Geology

Based on information obtained from MNR Ontario Geological Survey Map (2010) titled *Surficial Geology of Southern Ontario*, native surficial soils in the vicinity of the Phase One Property reportedly consist of a predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor.

Based on the Surface Geology report prepared by ERIS, native surficial soils in the vicinity of the Phase One Property consisted of predominantly sand to silty clay matrix.

Based on the ERIS report, 12 boreholes were advanced within the Phase One Study Area to a maximum depth of 33.3 m BGS. Native surficial soils reportedly consist of predominantly silty sand to sandy silt during these investigations.

4.3.2.4 Bedrock Geology

Based on information obtained from MNR Ontario Geological Survey Map (2011), titled *Bedrock Geology of Ontario,* bedrock in the area of the Phase One Property is reported to consist of shale, limestone, dolostone, and/or siltstone of the Queenston Formation. The depth to bedrock was not indicated on the map.

Based on the ERIS report, 12 boreholes and 73 monitoring wells were advanced to a maximum depth of 50 m BGS in the Phase One Study Area. Bedrock was reportedly encountered between 27 to 33 m BGS during these drilling investigations.

4.3.3 Fill Materials

Based on a review of selected aerial photographs and topographic maps, no pits or quarries were identified at or near the Phase One Property. The original construction of the road on the Phase One Property may have used fill as road base and surrounding properties may have utilized fill during their development. The potential presence of fill of unknown origin on the Phase One Property represents a PCA that contributes to an APEC across the entirety of the Site.

4.3.4 Water Bodies and Areas of Natural Significance

A tributary of Ancaster Creek runs through the eastern portion of the Site, immediately west of the Highway 403 off-ramp, and flows northeasterly toward Ancaster Creek. Various small water bodies and unnamed wetlands are located within the Phase One Study Area, which flow southerly toward tributaries of the Grand River. No other bodies of water or areas of natural significance were identified on or in the immediate vicinity of the Phase One Property based on a review of the records summarized in **Table 6**.

4.3.5 Well Records

Information included in the ERIS report indicated that there is one municipal well that was installed in 1958; one industrial well installed in 1954; two observation wells that were installed in 2006; two irrigation wells installed in 1987 and 1991; eight commercial wells installed between 1957 to 1987; ten wells installed between 1954 and 2019 that were listed as abandoned; 11 wells of unknown use installed in 2005 and 2012; 11 monitoring wells installed between 2008 to 2019; and 27 wells listed for domestic use installed between 1954 and 2012; within the Phase One Study Area. No environmental concerns are associated with these water wells; however, some of these well records represent potable water wells and if still present would mean that at least some of the Phase One Property would be considered potable for application of Site Condition Standards.

4.4 Site Operating Records

As the Phase One Property is not deemed an Enhanced Investigation Property, as defined in O.Reg.153/04, no additional operating records were required to be reviewed.

5.0 Interviews

Stantec was unaccompanied during the site reconnaissance but was able to conduct interviews with personnel knowledgeable of the Site as described below.

Megan Salvucci, a Project Manager with the Capital Infrastructure Planning sector of the Engineering Services department at the City of Hamilton, was contacted via email for additional information pertaining to the Site. Based on a response dated September 14, 2021, a request for environmental records was initiated to the Environmental Monitoring and Enforcement team at the City of Hamilton for any information on historical spills, violations related to the City's Sewer Use Bylaw, and whether the property is within 500 m of a landfill.

A reply dated December 20, 2021 from Martha Kariuki, Acting Superintendent of the Environmental Monitoring and Enforcement team at the City of Hamilton, did not indicate any records of violations of the City of Hamilton Sewer Use By-Law 14-090, or previous spill events originating from the site from 1991 to present. In addition, there were no records of former municipal landfill sites within 500 m of the Site from 1974 to present.

A copy of the response from the Environmental Monitoring and Enforcement team is provided in **Appendix D**.

6.0 Site Reconnaissance

6.1 General Requirements

A site reconnaissance at the Phase One Property was conducted by Dorothy Yu, B.A.Sc., E.I.T., of Stantec on April 30, 2021 under the supervision of Brent Ferguson, P.Geo., who is registered as a qualified person (QP) with the MECP per requirements of O.Reg.153/04. The field work was completed between 12:00 PM and 3:00 PM. The weather was overcast with sunny breaks and the temperature was approximately 8°C. The Phase One Property and readily visible and publicly accessible portions of nearby properties within the Phase One Study Area were observed for the presence of PCAs and potential contaminant pathways. Brent Ferguson also drove the length of the Phase One Property on September 17, 2021 between 4:00 PM and 5:00 PM to confirm the conditions at the Phase One Property in the vicinity of the APECs. Weather was overcast with sunny breaks and the temperature was approximately 25°C during the second site visit. The curricula vitae of the Phase One ESA team are provided in **Appendix C**.

Figures showing the Phase One Property and properties within the Phase One Study Area are included in **Appendix A**, while selected photographs of the Phase One Property are included in **Appendix B**.

6.2 Specific Observations at Phase One Property

6.2.1 Property Information

At the time of the site reconnaissance, the Phase One Property primarily consists of asphalt or concrete pavement with some gravel areas, landscaped areas, and paved sidewalks. The Site is bounded with landscaped areas to the north and south. The Phase One Property is a strip of land, approximately 20 m wide and 4,630 m long, extending from Wilson Street to the Highway 403 off-ramp in Hamilton, Ontario. The total area of the Phase One Property is approximately 96,200 m^2 (9.26 hectares).

6.2.2 Property Buildings & Structures

No buildings or structures were present on the Phase One Property at the time of the site reconnaissance.

6.2.3 Aboveground and Underground Storage Tanks

No chemical USTs or ASTs were identified to be present at the Phase One Property. Further, no vent or fill pipes indicating the potential presence of an abandoned or decommissioned UST were observed on the Phase One Property.

6.2.4 Underground Utilities and Services

Fire hydrants, manholes, culverts and storm sewer grates were observed during the site reconnaissance and indicate the presence of sanitary, storm sewer and water utilities to be buried on the Phase One Property. The exact location of these utilities was not determined during the site reconnaissance but were provided in a survey from the City of Hamilton, as shown in **Figure No. 2**.

No other underground utilities (Bell, telecommunications) were observed on the Phase One Property at the time of the site reconnaissance. Based on the presence of the neighbouring commercial plazas, institutions and residential developments located immediately adjacent to the Site, these underground utilities are likely present.

6.2.5 Site Building Features

No buildings were present at the Phase One Property during the site reconnaissance.

6.2.6 Wells

No wells were observed on the Phase One Property during the site reconnaissance.

6.2.7 Sewage Works

Various storm sewer grates and manholes were observed on the road at the time of the site reconnaissance. The approximate location of the sanitary sewer, storm sewer and watermains are provided in **Figure No. 2**.

6.2.8 Surface Features

The surfaces of the Phase One Property consisted of an asphalt or concrete pavement with some gravel areas, concrete sidewalks, and landscaped areas. The Phase One Property was bounded by landscaped areas to the north and south. Various culverts and ditches were observed immediately north and south of the Site, across the length of the Phase One Study Area.

Various watercourses are identified within the Phase One Study Area, as shown in **Figure No. 2** and **Figure No. 3.**

No pits or lagoons were identified on the Phase One Property and no standing water or surface staining was observed.

6.2.9 Current or Former Railway Lines or Spurs

No evidence of current or former railway lines or spurs was observed at the Phase One Property.

6.2.10 Surface Staining and Stressed Vegetation

No stained surficial materials or stressed vegetation that would be expected to contribute to an APEC at the Phase One Property were observed.

6.2.11 Imported Fill and Debris

Based on the site reconnaissance, no obvious fill material was observed; however, the original construction of the road on the Phase One Property may have used fill as road base and surrounding properties may have utilized fill during their development. The potential presence of fill of unknown origin on the Phase One Property represents a PCA that contributes to APEC-1 across the entirety of the Site. Trace amounts of litter were also observed across the length of the Phase One Property; however, nothing of significance.

No other evidence of imported fill material was observed at the Phase One Property at the time of the site reconnaissance. In addition, no deleterious debris or dumped refuse was identified on the Phase One Property.

6.2.12 Enhanced Investigation Property

The Phase One Property was undeveloped and is not considered an Enhanced Investigation Property, as defined in O.Reg.153/04.

6.3 Phase One Study Area

The current activities observed on nearby properties at the time of the site reconnaissance and a summary of historical information gathered through the records review are presented below:

6.3.1 North

Commercial and industrial properties comprise the properties present immediately to the north, between Wilson Street and Shaver Road. Based on the aerial photographs, the commercial plaza located west of Shaver Road was constructed between 2005 and 2009. Based on the operations observed at the time of the site reconnaissance, these properties are not expected to represent a PCA that would contribute to an APEC at the Site.

6.3.1.1 Western portion

The property at 1180 Wilson Street West, located at the intersection of Wilson Street and Garner Road West is occupied by a gasoline service station. Based on the aerial photographs, a commercial building has been present at the property since at least 1945 and the gasoline service station was redeveloped between 2004 and 2015. Based on the ERIS report, this property was formerly occupied by Laidlaw Transport in 1965 and then Pioneer Petroleums Management since 1979. A spill of 250 L of diesel was reported in the parking lot at the Laidlaw Transport in 1993 with possible multi-media pollution.

The gasoline service station was listed with three single-walled USTs for gasoline and one single-walled UST for diesel, that were installed in 1979. There were also records of two double-walled USTs installed in 2009. The property has been listed as a waste generator of light fuels since 2009. Based on the city directories, the property was occupied by Sunoco in 2008 then Pioneer Gas Station since 2013. Based on the properties being upgradient from the inferred groundwater flow direction and the proximity to the Site, this property is considered to represent PCAs that would contribute to APEC-2 at the Site.

The property at 1184 Wilson Street West is occupied by Take 5 Oil Change, an automotive service garage. Based on the aerial photographs, this building was constructed in 2013. Based on the property being upgradient from the inferred groundwater flow direction and the proximity to the Site, the site operations are considered to represent PCAs that would contribute to APEC-2 at the Site.

Based on the ERIS report, the property at 1172 Wilson Street was listed as a waste generator of aliphatic solvents and residues between 2015 and 2020 then of waste oils/sludges, since 2020. The property has been occupied by various property names including Green Tie Cleaners, 1984012 Ontario Inc., and Gazben Developments Limited. Based on the satellite images provided by Google, this property is still occupied by Green Tie Cleaners, which is a dry-cleaning facility. Based on the property being located upgradient of the inferred groundwater flow direction, the site operations are expected to represent a PCA that would contribute to APEC-2 at the Phase One Property.

Further north is Wilson Street, followed by a Toyota car dealership with a service garage, and a commercial plaza. Based on the aerial photographs, the car dealership was constructed in 2009. Based on the location of the Toyota service garage across Wilson Street, it is not expected to represent a PCA that would contribute to an APEC at the Site.

6.3.1.2 Central Portion

Residential, commercial, parkland, and institutional properties comprise the area between Shaver Road and the Highway 403 off-ramp. During the site reconnaissance, the area primarily consisted of residential properties with a sports field, school, and a park. An unnamed wetland was also observed between Panabaker Drive and Braithwaite Avenue. Based on aerial photographs, the residential properties were developed between 1965 and 2005 and the portion of land that now contains Gabel Court as well as land 50 m west of Gabel court contained an orchard from at least 1945 to 1986. Pesticides may have been applied to orchards during that time period so this is a PCA that contributes to APEC-5 at the Phase One Property.

Based on the ERIS report, the property at 305 Garner Road West was occupied by Ancaster Paving and was listed as a waste generator of aliphatic solvents, aromatic solvents, light fuels, organic laboratory chemicals, petroleum distillates, polymeric resins, paint/pigment/coating residues, waste oils & lubricants between 2001 and 2015. The property was not observed during the site reconnaissance and appears to have been vacant since 2018 based on the satellite images provided on Google. An RSC was filed for the property in 2018 for Liv Developments Inc. for a proposed residential development. Both the RSC and the Phase Two Conceptual Site Model (CSM) used to complete the RSC were reviewed and based on the detail provided in these documents, this property is not expected to contribute to an APEC at the Site.



Based on the ERIS report, the property at 345 Garner Road West was listed with a private retail tank of unknown details under Ancaster Paving. No additional information was provided for this property in the ERIS report. Based on review of aerial photographs, this property was occupied by greenhouses since at least 1965. At the time of the site reconnaissance, this property was not observed and appears to have been vacant since 2009 based on the satellite images provided on Google. Based on the information provided above for Ancaster Paving at 305 Garner Road West and the aerial photographs, the historical presence of a private tank at this property is not expected to represent a PCA that would contribute to an APEC at the Phase One Property.

6.3.1.3 Eastern Portion

Properties north of the east end of the Phase One Property are comprised of the Highway 403 off-ramp followed by residential properties. Based on the aerial photographs, the Highway 403 off-ramp was constructed between 1986 and 2005 and the residential development immediately east to John Frederick Street, was constructed starting in 2012. Aerial imagery from 1945, 1965, and 1986 all show an orchard was present on this property prior to the Highway's construction. Pesticides may have been applied to orchards during that time period so this is a PCA that contributes to APEC-6 at the Phase One Property.

6.3.2 East

Property to the east of the Phase One Property consist of the continuation of Garner Road to the east.

6.3.3 South

The properties to the south of the Phase One Property primarily consist of vacant lands and properties for agricultural, community, and residential use. During the site reconnaissance, a church with a cemetery was present at 542 Garner Road West, approximately 200 m east of Shaver Road, and another cemetery was present at 254 Garner Road West, at the intersection of Panabaker Road and Garner Road. Based on the satellite images provided on Google, this cemetery has been in operation since at least 2005. Based on the properties being located downgradient of the inferred groundwater flow direction, the operations at these cemeteries are not expected to represent a PCA that would contribute to an APEC at the Phase One Property.

6.3.3.1 Central Portion

A Union Gas transmission station was present approximately 20 m southwest of Hamilton Drive. Based on the aerial photographs, this transmission station may have been constructed around 1965. During the site reconnaissance, the Union Gas transmission station was observed to be at a lower elevation than the Site. Based on the property being located downgradient of the inferred groundwater flow direction and the topography between the Site and the property, the operations at the Union Gas property are not expected to represent a PCA that would contribute to an APEC at the Phase One Property.

A commercial building was observed to be under construction immediately west of the intersection at McClure Road and Garner Road. Based on the aerial photographs, this property has been vacant since at least the 1940s.

6.3.3.2 Eastern Portion

Avondale Food Stores was observed at 12 Garner Road West, located at the southwest corner of Fiddlers Green Road and Garner Road. Based on the city directories, the property has been occupied by Avondale Food Stores since 2003. Prior to this, it was occupied by Bill & Norm's Esso Service in 1959, Frank's Esso in 1963, and then by Bristol's Farm Produce between 1973 and 1988. The property was vacant in 1968. Details were not provided in the ERIS report about the operation of a gasoline service station at this address between 1959 and 1968.

As discussed in **Section 4.2.13**, a gasoline service station was present at 538 Fiddlers Green Road between 1988 to 1998. Two spills were reported at the intersection of Highway 2 and Highway 53 in 1993 and 1994, which were associated with Esso Petroleum Canada. There are no occupants listed at 538 Fiddlers Green Road in the city directories and FIPs were not available for this property. Based on this information, the gasoline service station was likely associated with 12 Garner Road West.

During the site reconnaissance, there was no evidence of a gasoline service station at 12 Garner Road West and due to the low resolution of the aerial photographs, the presence of a gasoline service station cannot be confirmed at the intersection of Garner Road and Fiddlers Green Road between 1986 and 2005. Based on the property being located immediately adjacent to the Site, the inferred historical site operations as a gasoline service station with associated USTs at this intersection are expected to represent a PCA that would contribute to APEC-4 at the Site.

The property at 44 Highway 53 East, approximately 40 m east of Fiddlers Green Road, was observed to be occupied by Jerome Brother Potatoes Ltd. Based on the ERIS report, this property was listed with a private 2,273 L tank of unknown use. Based on the city directories, this property was listed at 14 Garner Road East for residential use between 1959 and 2003 and then occupied by Jerome Bros. Potatoes Ltd. since 2003 to present. It is inferred that Jerome Bros Potatoes Ltd. is associated with both addresses. During the site visit, an aboveground storage tank was observed greater than 50 m south of the Site. Therefore, based on the proximity to the Site and the property being located downgradient to the inferred groundwater flow to the Site, the presence of the private tank is not expected to represent a PCA that would contribute to an APEC at the Site.

6.3.3.3 Western Portion

Towards the western portion of the Site, at the intersection of Wilson Street and Garner Road West, a commercial plaza was present. Based on the ERIS report, there was a former gasoline service station located at 1254 Highway 53 since at least 1990. There is evidence of development at this property in the 1954,1965 and 1986 aerial photographs but it cannot be determined if a gasoline service station was present. There was no evidence of a gasoline service station at the time of the site reconnaissance.

Based on the satellite images provided on Google, the commercial plaza was present since 2005, which infers the gasoline service station was decommissioned prior to this year. Based on the proximity of this property to the Phase One Property, the historical operations of a gasoline service station is expected to represent a PCA that would contribute to APEC-3 at the Site.

6.3.4 West

The properties to the west of the Phase One Property consist of the continuation of Garner Road to the west as well as commercial and industrial properties that are present to the west of the intersection of Wilson Street and Garner Road. During the site reconnaissance, a Ministry of Transportation maintenance yard was observed west of the intersection of Wilson Street and Garner Road. To the southwest of this intersection, across Wilson Street, was a complex consisting of commercial and industrial warehouses and manufacturers. Various waste generators are listed in this complex as referenced in the ERIS report in **Appendix D**. Based on the distance from the site and the properties being located cross-gradient and downgradient from the inferred ground water flow direction, the waste generation at these properties are not expected to represent a PCA and contribute to an APEC at the Phase One Property.

6.4 Written Description of Investigation

Section 4.0 presents the findings of the records review for the Phase One Property and **Section 5.0** presents the findings of the interviews with the site contacts. **Section 6.2** presents the findings of the site reconnaissance of the Phase One Property and the Phase One Study Area. No additional investigations were undertaken during the Phase One ESA to assess potential environmental concerns noted or identified during the site reconnaissance. A summary of the findings relevant to the existence of APECs at the Phase One Property, if any, is provided below in **Section 7.3**.

7.0 Review and Evaluation of Information

7.1 Current and Past Uses of the Phase One Property

Based on the aerial photographs, the Site has been used as a road allowance for Garner Road East since the road was constructed prior to 1875. It is assumed the Site was vacant and agricultural prior to its development into a road allowance. The presence of imported fill of unknown environmental quality at the Site presents a PCA, which has contributed to an APEC at the Phase One Property.

7.2 Potentially Contaminating Activities

As discussed in previous sections of this report, Stantec has identified ten PCAs that have contributed to the six APECs at the Phase One Property. The following table summarizes the PCAs:

Table 3: Potentially Contaminating Activities

#	PCA	Location	Description
1	Imported Fill of Unknown Quality (PCA #30) – Entire Phase One Property	On-site	Possible fill of unknown environmental quality at the Phase One Property is a PCA that has contributed to an APEC on the Phase One Property (APEC-1).
2	Commercial Autobody Shops (PCA #10)	Off-site 1184 Wilson Street West	During the site reconnaissance, an automotive service garage was observed and was assumed to have a waste oil AST or oil-water separator on the property. The presence of a waste oil tank represents a PCA that has contributed to an APEC at the Phase One Property. (APEC-2)
3	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Current and former gasoline service station with USTs	Off-site 1180 Wilson Street West	A gasoline service station with associated USTs occupied the property since at least 1979. Based on the records of historical fuel tanks provided by ERIS and the aerial photographs, the gasoline service station was redeveloped around 2009 with USTs installed during that year. The former and current operations of a gasoline service station and the associated USTs represent PCAs that have contributed to APECs at the Phase One Property. (APEC-2)
4	Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems (PCA #52) – Former Laidlaw Transport System yard	Off-site 1180 Wilson Street West	Based on the ERIS report and the aerial photographs, the property was occupied by Laidlaw Transport System since at least 1945. The inferred operations of the property as a maintenance yard for buses and reported spill at the property represent a PCA that has contributed to an APEC at the Phase One Property. (APEC-2)

#	PCA	Location	Description
5	Operation of Dry-Cleaning Equipment (PCA #37)	Off-site 1172 Wilson Street West	Based on the waste generation records provided by ERIS, a dry-cleaning facility generated aliphatic solvents and residues between 2015 and 2020 and then waste oils/sludges since 2020. Based on the Google satellite images, a dry-cleaning facility is still in operation. The historical waste generation and dry-cleaning operations represent a PCA that has contributed to an APEC at the Phase One Property. (APEC-2)
6	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Former gasoline service station with USTs	Off-site 1254 Highway 53	Based on the records of historical fuel tanks provided by ERIS, a gasoline service station was developed around 1990. Based on the satellite images provided on Google, this property was developed into a commercial plaza, inferring the gasoline service station was likely decommissioned before 2005. The former and current operations of a gasoline service station and the associated USTs represent PCAs that have contributed to APECs at the Phase One Property. (APEC-3)
7	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Former gasoline service station with USTs Spills of petroleum hydrocarbons	Off-site 538 Fiddlers Green Road/12 Highway 53 On-Site Spills within the intersection	Based on the waste generation records provided by ERIS, a gasoline service station generated light fuels, other specified inorganics, oil skimmings and sludges, waste oils and lubricants between 1988 and 1998. Various spill records were identified at the intersection of Fiddlers Green Road and Garner Road between 1994 and 1997 and were associated with this gasoline service station. The former operations of a gasoline service station and the associated USTs represent PCAs that have contributed to APECs at the Phase One Property. (APEC-4)
8	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications (PCA #40) – Former orchard	Off-site Gabel Court and 50 m west of Gabel Court	The aerial photographs indicate an orchard was present since at least the mid-1940s until Gabel Court was constructed around the early 2000s. The large-scale application of pesticides represents a PCA that has contributed to an APEC at the Phase One Property. (APEC-5)
9	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications (PCA #40) – Former orchard	Off-site Highway 6 (including the area between the on-ramps and off-ramps and the land approximately 40 m east of the on-ramp)	The aerial photographs indicate an orchard was present since at least the mid-1940s until Highway 6 and Highway 403 were constructed around the early 2000s. The large-scale application of pesticides represents a PCA that has contributed to an APEC at the Phase One Property. (APEC-6)

7.3 Areas of Potential Environmental Concern

The table below summarizes the APECs and related PCAs identified at the Phase One Property:

Table 4: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
1	Entire Site	Imported Fill of Unknown Quality (PCA #30)	On-Site	PHCs, VOCs including BTEX, PAHs, and metals	Soil
2	Western portion of the north side of the Phase One Property, south of 1172, 1180, and 1184 Wilson Street West	Commercial Autobody Shops (PCA #10) – Current Automotive Service Garage	Off-site, 1184 Wilson Street West	PHCs, VOCs including BTEX, PAHs and metals	Soil and groundwater
		Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical and Current Gasoline Service Station	Off-site 1180 Wilson Street West	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
		Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical Gasoline Service Station Storage, maintenance, fueling and repair of equipment, vehicles and material used to maintain transportation systems (PCA #52) – Former Laidlaw Transportation Yard	Off-site 1180 Wilson Street West	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
		Operation of Dry Cleaning Equipment (PCA #37) – Current Dry Cleaner Operation	Off-site 1172 Wilson Street	PHCs and VOCs, including BTEX, PAHs and metals	Soil and groundwater
3	South side of Phase One Property, at Wilson Street and Garner Road West	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical Gasoline Service Station	Off-site 1254 Highway 53	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
4	Southwest and within the intersection of Garner Road West and Fiddlers Green Road	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Former Gasoline Service Station	Off-site 538 Fiddlers Green Road/12 Garner Road East	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
		Petroleum hydrocarbon spills	On-Site Within intersection (spills)	PHCs, VOCs including BTEX	Soil and groundwater
5	North side of Phase One Property, south of Gable Court	Pesticides (PCA #40) – Former Orchard	Off-site, Gabel Court and including land approximately 50 m west of Gabel Court	OC Pesticides	Soil and groundwater
6	Eastern portion of the Phase One Property	Pesticides (PCA #40) – Former Orchard	Off-site, Highway 6, north of the Phase One Property (including the area between the on-ramps and off-ramps and the land approximately 40 m east of the on-ramp)	OC Pesticides	Soil and groundwater

[1]Contaminants include petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene and xylenes (BTEX), metals, organochloride pesticides (OC Pesticides) and polycyclic aromatic hydrocarbons (PAHs)

7.4 Phase One Conceptual Site Model

In developing the Conceptual Site Model for the Phase One Property and Phase One Study Area, the following physical characteristics/pathways were evaluated to assess whether PCAs have contributed to an APEC at the Phase One Property:

Table 5: Conceptual Site Model

Physical Characteristics/ Pathways	Description
Subsurface Soils	Based on information obtained from MNR Ontario Geological Survey Map (2010) titled *Surficial Geology of Southern Ontario*, native surficial soils in the vicinity of the Phase One Property reportedly consist of a predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor. The characteristic permeability of these soil deposits is low. Based on the Surface Geology report prepared by ERIS, native surficial soils in the vicinity of the Phase One Property consisted of predominantly sand to silty clay matrix. Based on ERIS report, 12 boreholes were advanced within the Phase One Study Area to a maximum depth of 33.3 m BGS. Native surficial soils reportedly consist of predominantly silty sand to sandy silt during these investigations.
Bedrock	Based on information obtained from MNR Ontario Geological Survey Map (2011), titled *Bedrock Geology of Ontario,* bedrock in the area of the Phase One Property is reported to consist of shale, limestone, dolostone, and/or siltstone of the Queenston Formation. The depth to bedrock was not indicated on the map. Based on ERIS report, 12 boreholes and 73 monitoring wells were advanced to a maximum depth of 50 m BGS in the Phase One Study Area. Bedrock was reportedly encountered between 27 and 33 m BGS during these drilling investigations.
Inferred Ground water Flow Direction	Based on an Ontario Base Map, Atlas Toporama, and the observed topography in the vicinity of the Phase One Property, the regional surface drainage (inferred ground water flow direction) on the western portion of the Site appears to be southwesterly towards various tributaries of the Grand River. On the eastern portion of the Site, the inferred ground water flow direction appears to be northerly toward Ancaster Creek, which runs through the Phase One Property and flows northeasterly. Based on the Ontario Base Map – Well Records, the ground water table across the Phase One Study Area is approximately 2.0 to 32 m BGS.
Underground Utilities	Several underground utilities (sanitary, storm, water, electricity, telecommunications, and gas services) associated with the commercial and residential developments are located on the Phase One Property as shown on Figure 2a to 2d.

Discussion of Uncertainty or Absence of Information

The figures provided in **Appendix A** include features and details in relation to the Phase One Study Area and the Phase One Property. In general, the figures illustrate the following where applicable: road names and existing buildings and structures; water bodies; location of areas of natural significance; presence of drinking water wells at the Phase One Property; adjoining property usage types; PCAs; APECs; locations and types of known tanks; general direction of ground water flow in the vicinity of the Phase One Property; and the approximate locations of underground utilities or structures, if known.

The past use of the Phase One Property is well understood based on historical information sources obtained and reviewed during the Phase One ESA. The physical characteristics of the area comprising the Phase One Property are inferred from past subsurface investigation work within the Phase One Study Area. No other potential uncertainties or missing information were encountered during completion of the Phase One ESA.

8.0 Conclusions

8.1 Whether Phase Two Environmental Site Assessment Required Before Record of Site Condition Submitted

Stantec recommends a Phase Two ESA be competed at the Phase One Property to evaluate the soil and ground water quality in the vicinity of the above-mentioned APECs, and prior to submitting a Record of Site Condition, if needed.

8.2 Record of Site Condition based on Phase One Environmental Site Assessment alone

It is Stantec's opinion that an RSC cannot be filed based on the findings of this Phase One ESA; however, Stantec understands the filing of an RSC under O.Reg.153/04 will not be required.

8.3 Signatures

The site reconnaissance and reporting was completed by Dorothy Yu, B.A.Sc., and reviewed by Brent Ferguson, P.Geo, QPESA. Credentials of the project team members are provided in Appendix C.

Dorothy Yu, B.A.Sc..
Environmental Site Assessor
Phone: 437 230 4520
Dorothy.Yu@stantec.com

Brent Ferguson, P.Geo., QPESA QP_{ESA}
Senior Geoscientist
Phone: 905 691 8198
Brent.Ferguson@stantec.com

The objectives and requirements set out in Ontario Regulation 153/04 for a Phase One Environmental Site Assessment were applied in carrying out the environmental site assessment and in preparing this report.

8.4 Closure

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

The opinions in this report can only be relied upon as they relate to the condition of the portion of the identified property that was assessed at the time the work was conducted. Activities at the property subsequent to Stantec's assessment may have significantly altered the property's condition. Stantec cannot comment on other areas of the property that were not assessed.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition. This report should not be construed as legal advice.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

This report is limited by the following:

- The site reconnaissance was conducted as a windshield survey, therefore the condition of the Phase One Property and the Phase One Study Area are limited to what could be observed from the roadway. The buildings within the Phase One Study Area were not accessed at the time of the site reconnaissance.

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures should be confirmed and Stantec assumes no liability for damage to them.



Conclusions
January 23, 2023

The conclusions are based on the site conditions encountered by Stantec at the time the work was performed at the specific testing and/or sampling locations, and conditions may vary among sampling locations. Factors such as areas of potential concern identified in previous studies, site conditions (e.g., utilities) and cost may have constrained the sampling locations used in this assessment. In addition, analysis has been carried out for only a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire site. As the purpose of this report is to identify site conditions which may pose an environmental risk, the identification of non-environmental risks to structures or people on the site is beyond the scope of this assessment.

Should additional information become available which differs significantly from our understanding of conditions presented in this report, Stantec specifically disclaims any responsibility to update the conclusions in this report.

9.0 References

Information sources obtained and reviewed as part of the records review are listed below:

Table 6: References

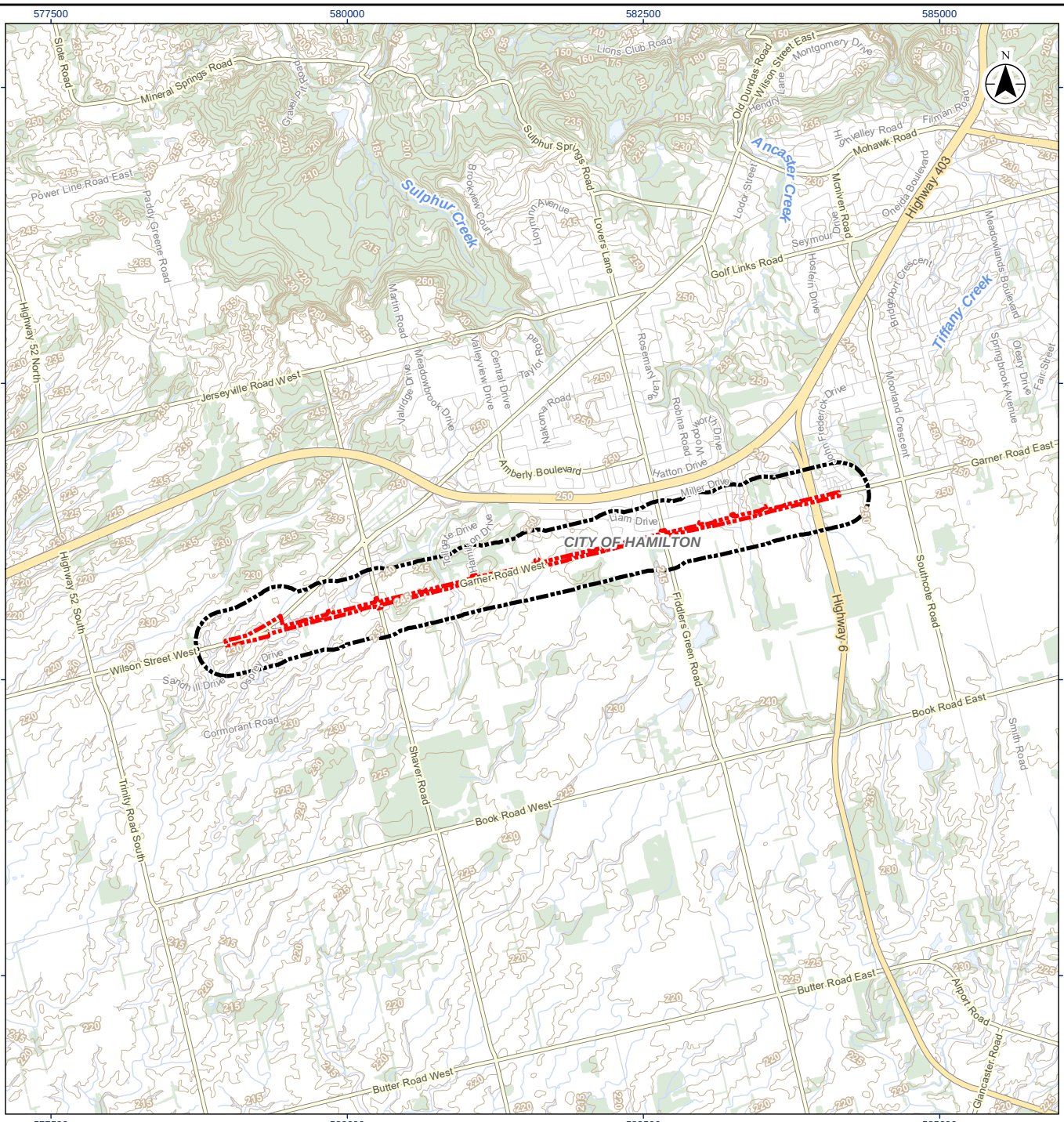
Reference Type/Source	Information/Documents Obtained
Aerial Photographs	• University of Toronto Library - 1954 • National Air Photo Library – 1945, 1965, 1986 • Google Earth Pro images – 2005, 2009 and 2012 to 2021
City Directories	• ERIS – 1959, 1963, 1968, 1973, 1978, 1983, 1988, 1993, 1998, 2003. 2008 and 2013
Fire Insurance Plans	• OPTA - 1960
Company Records	• None Provided
Geotechnical Reports	• None Provided
Regulatory Infractions	• ERIS – Compliance and Convictions
Reportable Spill Occurrences	• ERIS – Ontario Spills
Contaminated Sites	• “Inventory of Coal Gasification Plant Waste Sites in Ontario” (Volumes I and II), dated April 1987. • “Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario” (Volumes I and II), dated November 1988. • ERIS – Environmental Registry
Hazardous Waste Generators	• ERIS – Ontario Regulation 347 Waste Generators Summary
Landfills	• "Waste Disposal Site Inventory" (June 1991) • ERIS – Waste Disposal Sites • ERIS – Anderson's Waste Disposal Sites
Water Well Records	• ERIS – Water Well Information System • Ontario Base Map – Well Records (Ontario Ministry of Natural Resources, 2010)
ERIS	• ERIS Report (250 m radius around perimeter of Phase One Property) • Area of Natural and Scientific Interest (Ontario Ministry of Natural Resources, March 2017) • Ontario Base Map (Ontario Ministry of Natural Resources, 2010) • Bedrock Geology of Ontario (Ontario Geological Survey 2011) • Physiography of Southern Ontario (Chapman, L.J. and Putnam, D.F., 2007) • Detailed Soil Survey (ON Soils) (Agriculture and Agri-Food Canada, 2014) • Surficial Geology of Southern Ontario (Ontario Geological Survey, 2010)

References
January 23, 2023

Reference Type/Source	Information/Documents Obtained
Geologic Maps	• Ontario Geological Survey 2010. Surficial Geology of Southern Ontario; Ontario Geological Survey, Data 128, Scale 1:50,000 • Ontario Geological Survey 2011. Bedrock Geology of Ontario; Ontario Geological Survey, Data 126 – Revision 1, Scale 1:250,000
Survey Plans	• None Provided
Previous Reports	• None Provided
Other Available Information	• Map of Township of Ancaster, Page and Smith, 1875 • Record of Site Condition - #224682 – 305 Garner Road West, Ancaster, ON • Phase Two Conceptual Site Model for RSC Submission for 305 Garner Road West, Ancaster, Ontario, prepared by Soil-Mat Engineers & Consultants Ltd., March 2018. • MECP Access and Privacy Office – Letter “Re: MECP FOI A-2021-01771, Your Reference #: 20210510130059600 – Records Release Letter” dated January 11, 2023 (attachments to the letter included information on sewage spill incidents in 2005 and 2020).

APPENDICES

Appendix AFigures





Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
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3. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
4. m AMSL - metres above mean sea level.

Legend

- Phase One Study Area
- Phase One Property
- Municipal Boundary - Lower Tier
- Expressway / Highway
- Major Road
- Minor Road
- Topographic Contour (m AMSL)
- Watercourse
- Waterbody
- Wooded Area

0 1,000 2,000 metres

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Stantec

Project Location
City of Hamilton

165001196
Prepared by SVD on 2/1/2022
Technical Review by BF on 1/31/2022

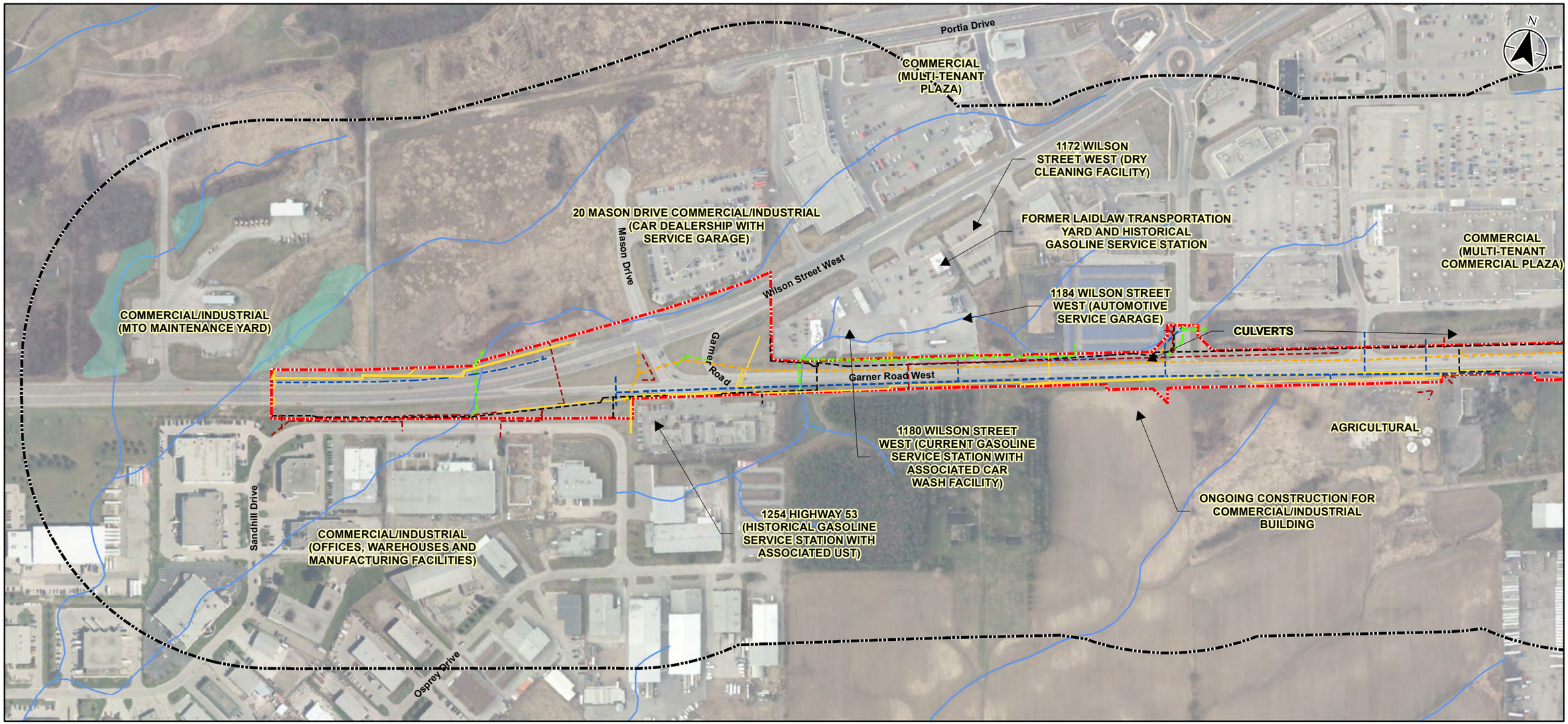
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PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
CITY OF HAMILTON
GARNER ROAD (BETWEEN WILSON STREET AND HIGHWAY 403 OFF-RAMP)

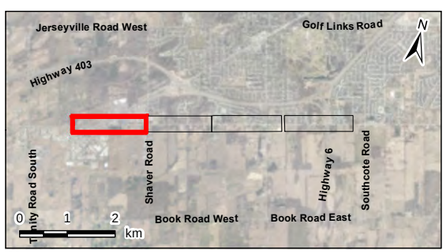
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Title
Site Location

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6. Location of underground utilities provided by the City of Hamilton, 2021.

Legend

- Phase One Property
- Phase One Study Area
- Bell
- Gas
- Hydro
- Sanitary Sewer
- Storm Sewer
- Watermain
- Watercourse (as per mapping provided by Ontario Ministry of Natural Resources and Forestry)
- Wetland, Not evaluated per Ontario Wetland Evaluation System (OWES)

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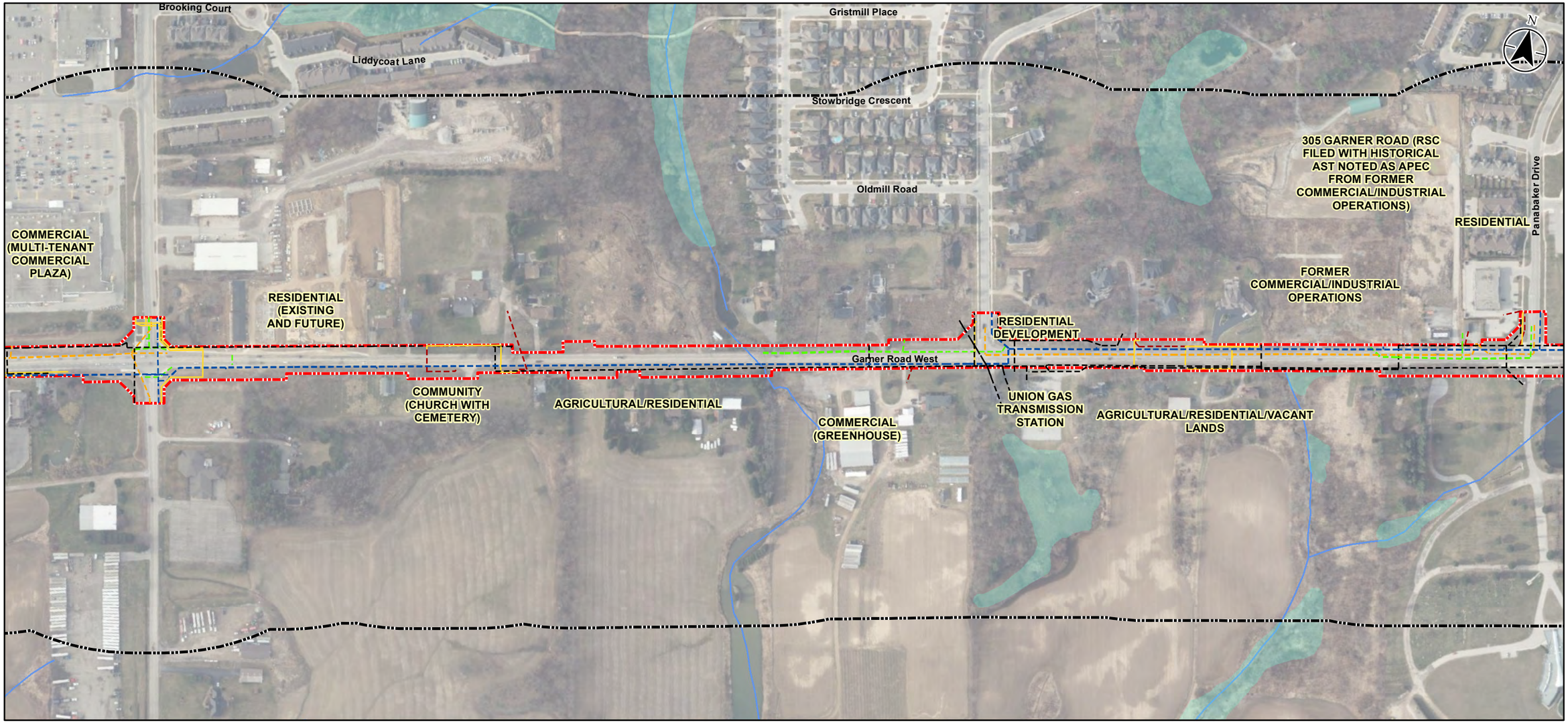
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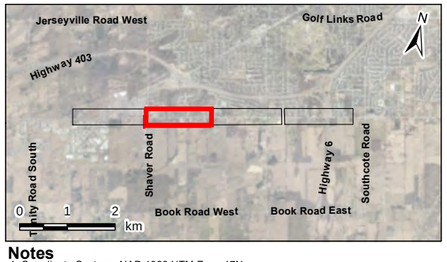
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2a

Title
Phase One Study Area

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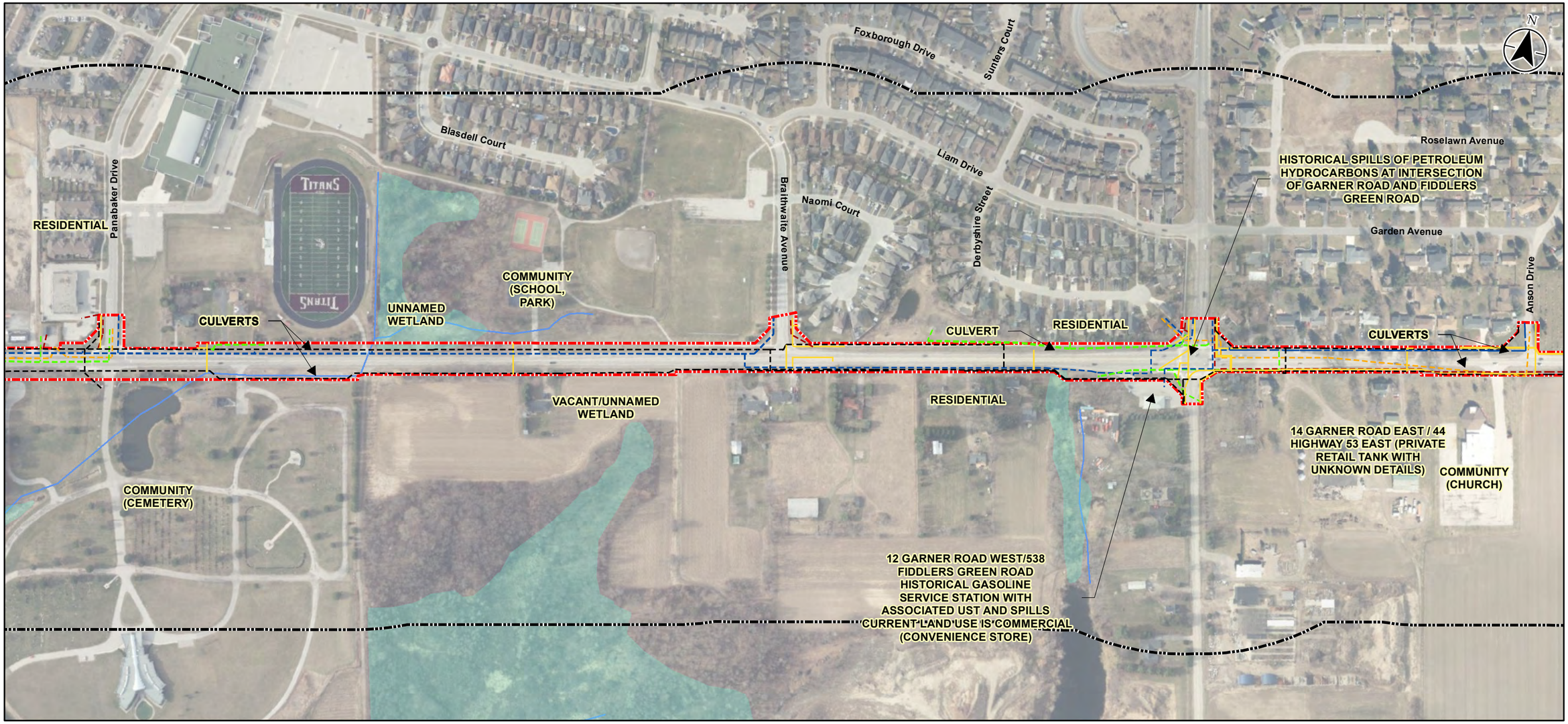
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PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
CITY OF HAMILTON
GARNER ROAD (BETWEEN WILSON STREET AND HIGHWAY 403 OFF-RAMP)

Figure No.
2b

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Phase One Study Area

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Stantec

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Technical Review by BF on 1/31/2022

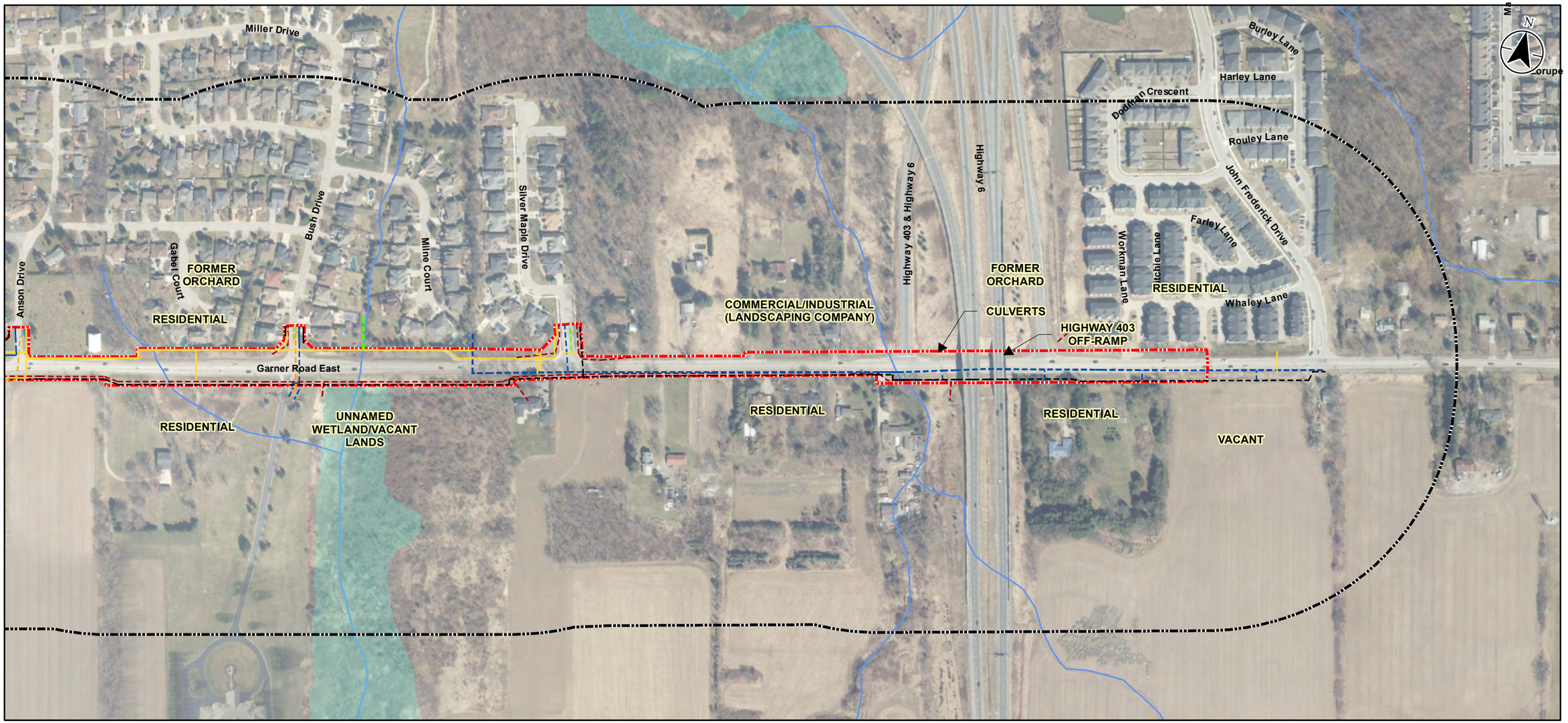
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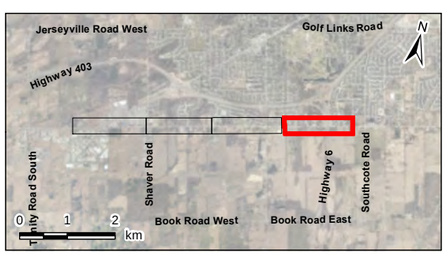
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Phase One Study Area

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City of Hamilton

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Prepared by SVD on 2/1/2022
Technical Review by BF on 1/31/2022

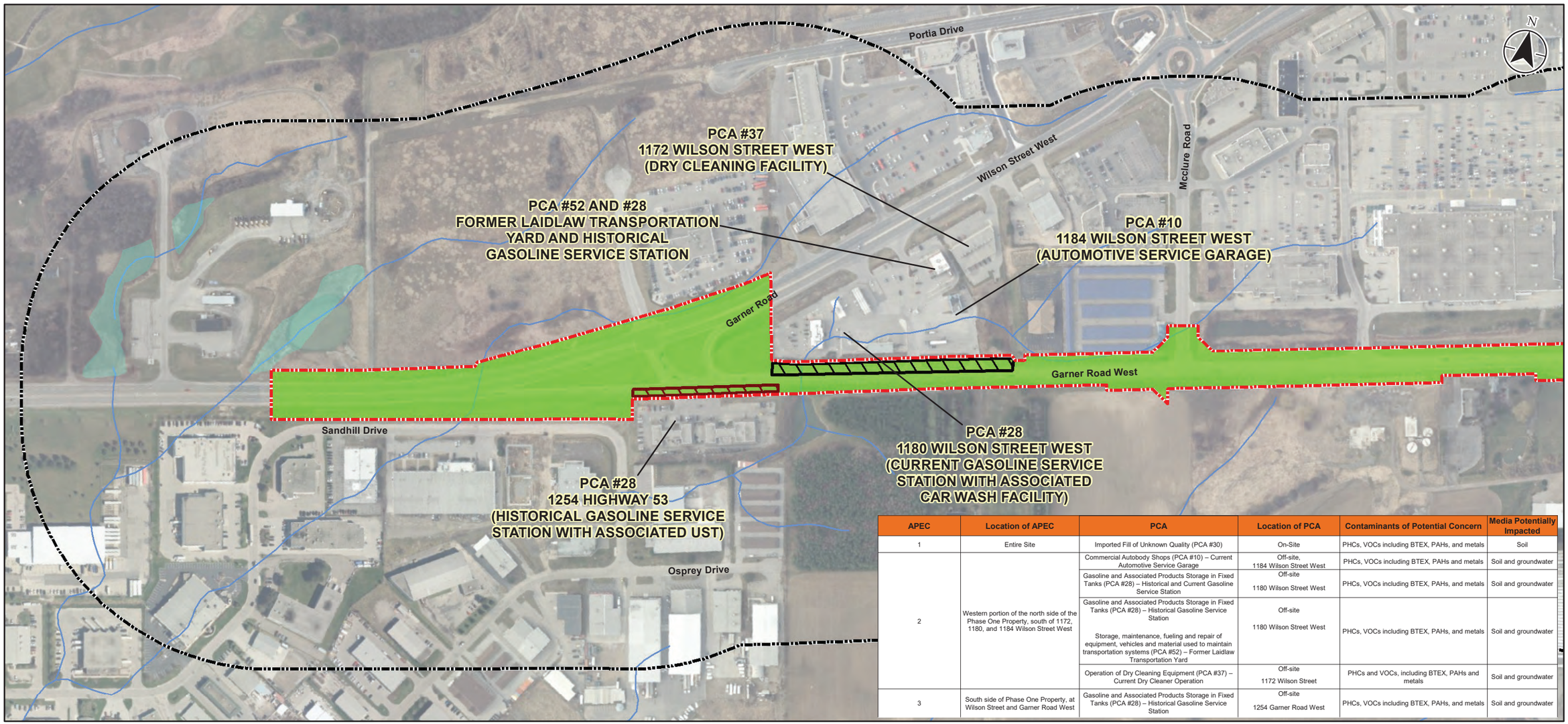
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CITY OF HAMILTON
GARNER ROAD (BETWEEN WILSON STREET AND HIGHWAY 403 OFF-RAMP)

Figure No.
2d

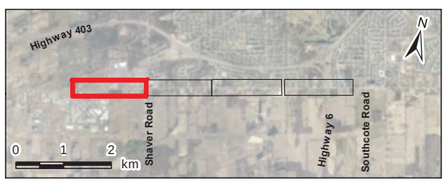
Title
Phase One Study Area

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APEC	Location of APEC	PCA	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
1	Entire Site	Imported Fill of Unknown Quality (PCA #30)	On-Site	PHCs, VOCs including BTEX, PAHs, and metals	Soil
2	Western portion of the north side of the Phase One Property, south of 1172, 1180, and 1184 Wilson Street West	Commercial Autobody Shops (PCA #10) – Current Automotive Service Garage	Off-site, 1184 Wilson Street West	PHCs, VOCs including BTEX, PAHs and metals	Soil and groundwater
		Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical and Current Gasoline Service Station	Off-site 1180 Wilson Street West	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
		Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical Gasoline Service Station Storage, maintenance, fueling and repair of equipment, vehicles and material used to maintain transportation systems (PCA #52) – Former Laidlaw Transportation Yard	Off-site 1180 Wilson Street West	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater
		Operation of Dry Cleaning Equipment (PCA #37) – Current Dry Cleaner Operation	Off-site 1172 Wilson Street	PHCs and VOCs, including BTEX, PAHs and metals	Soil and groundwater
3	South side of Phase One Property, at Wilson Street and Garner Road West	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28) – Historical Gasoline Service Station	Off-site 1254 Garner Road West	PHCs, VOCs including BTEX, PAHs, and metals	Soil and groundwater



Legend

- Phase One Property
- Phase One Study Area
- APEC-1
- APEC-2
- APEC-3
- Watercourse (as per mapping provided by Ontario Ministry of Natural Resources and Forestry)
- Wetland, Not evaluated per Ontario Wetland Evaluation System (OWES)

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9. VOC - Volatile Organic Compounds.
10. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes.
11. PAH - Polycyclic Aromatic Hydrocarbons.
12. OC Pesticides - Organochlorine Pesticides.

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Stantec

Project Location
City of Hamilton

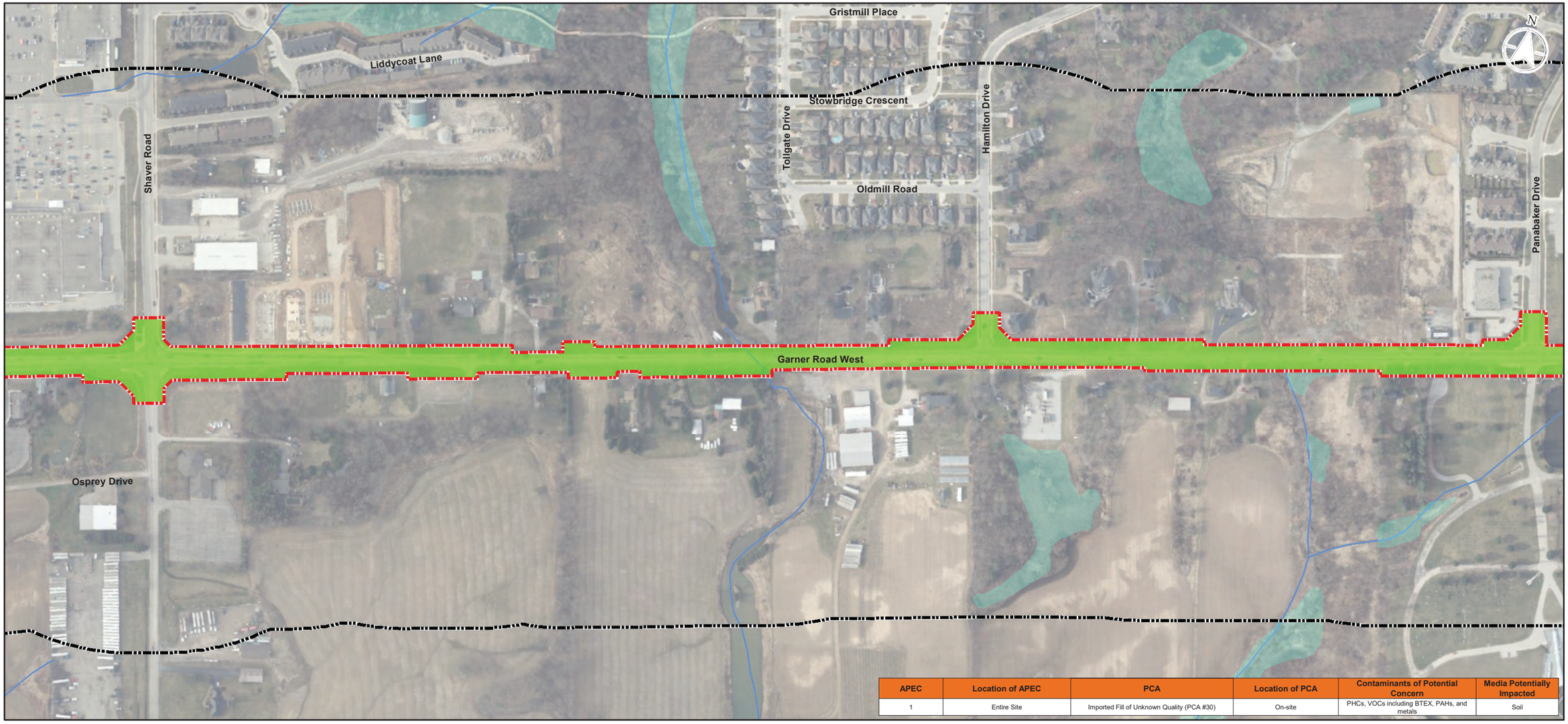
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Prepared by SVD on 2/1/2022
Technical Review by BF on 1/31/2022

Client/Project
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
CITY OF HAMILTON
GARNER ROAD (BETWEEN WILSON STREET AND HIGHWAY 403 OFF-RAMP)

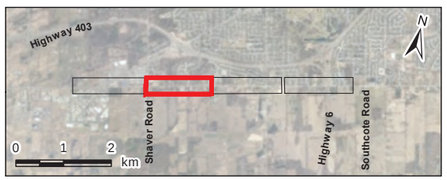
Figure No.
3a

Title
Phase One Conceptual Site Model

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APEC	Location of APEC	PCA	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
1	Entire Site	Imported Fill of Unknown Quality (PCA #30)	On-site	PHCs, VOCs including BTEX, PAHs, and metals	Soil



Notes

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- Phase One Study Area
- APEC-1
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Stantec

Project Location
City of Hamilton

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Prepared by SVD on 2/1/2022
Technical Review by BF on 1/31/2022

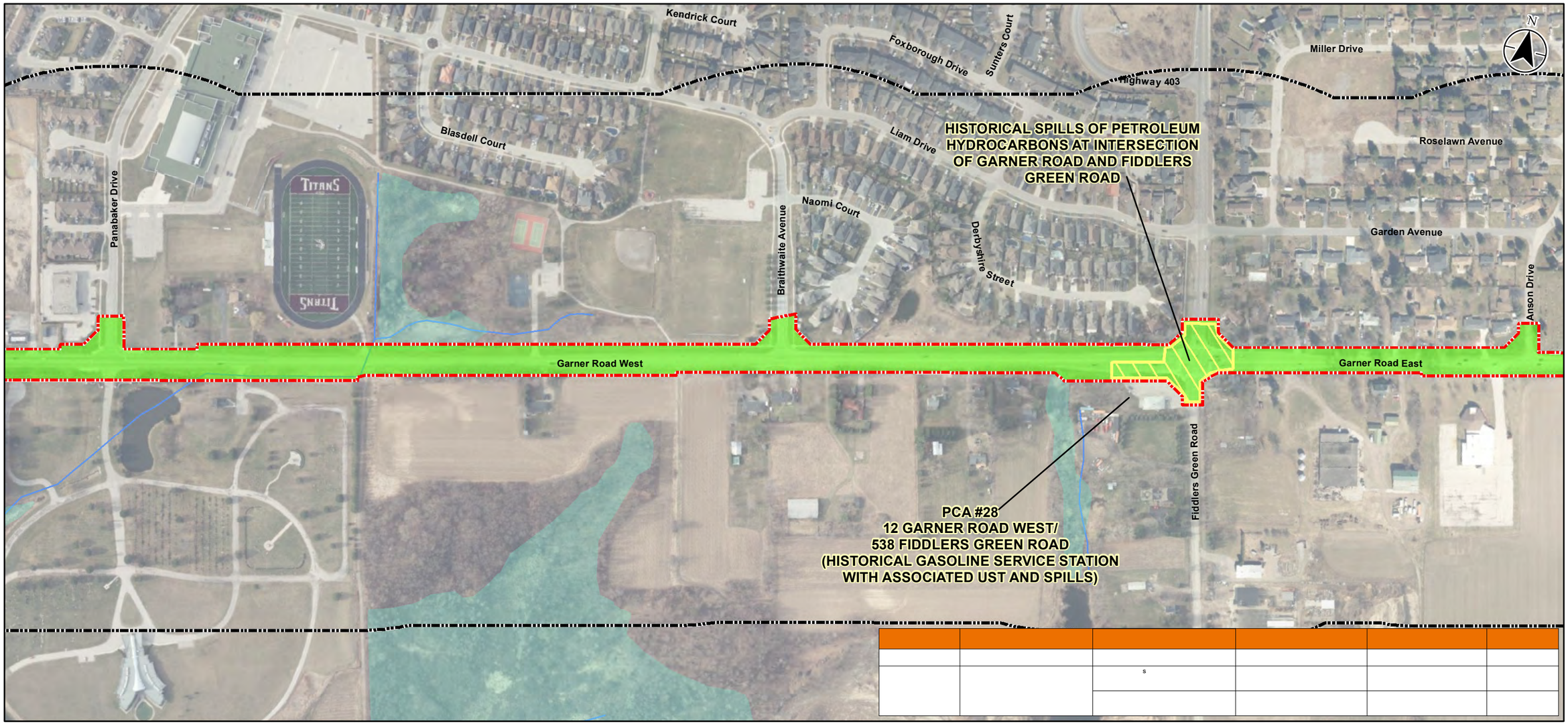
Client/Project
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
CITY OF HAMILTON
GARNER ROAD (BETWEEN WILSON STREET AND HIGHWAY 403 OFF-RAMP)

Figure No.
3b

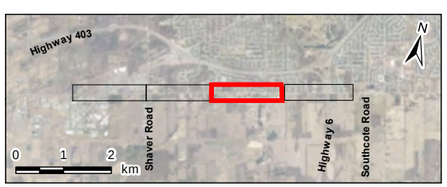
Title
Phase One Conceptual Site Model

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Legend

- Phase One Property
- Phase One Study Area
- APEC-1
- APEC-4
- Watercourse (as per mapping provided by Ontario Ministry of Natural Resources and Forestry)
- Wetland, Not evaluated per Ontario Wetland Evaluation System (OWES)

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Stantec

Project Location
City of Hamilton

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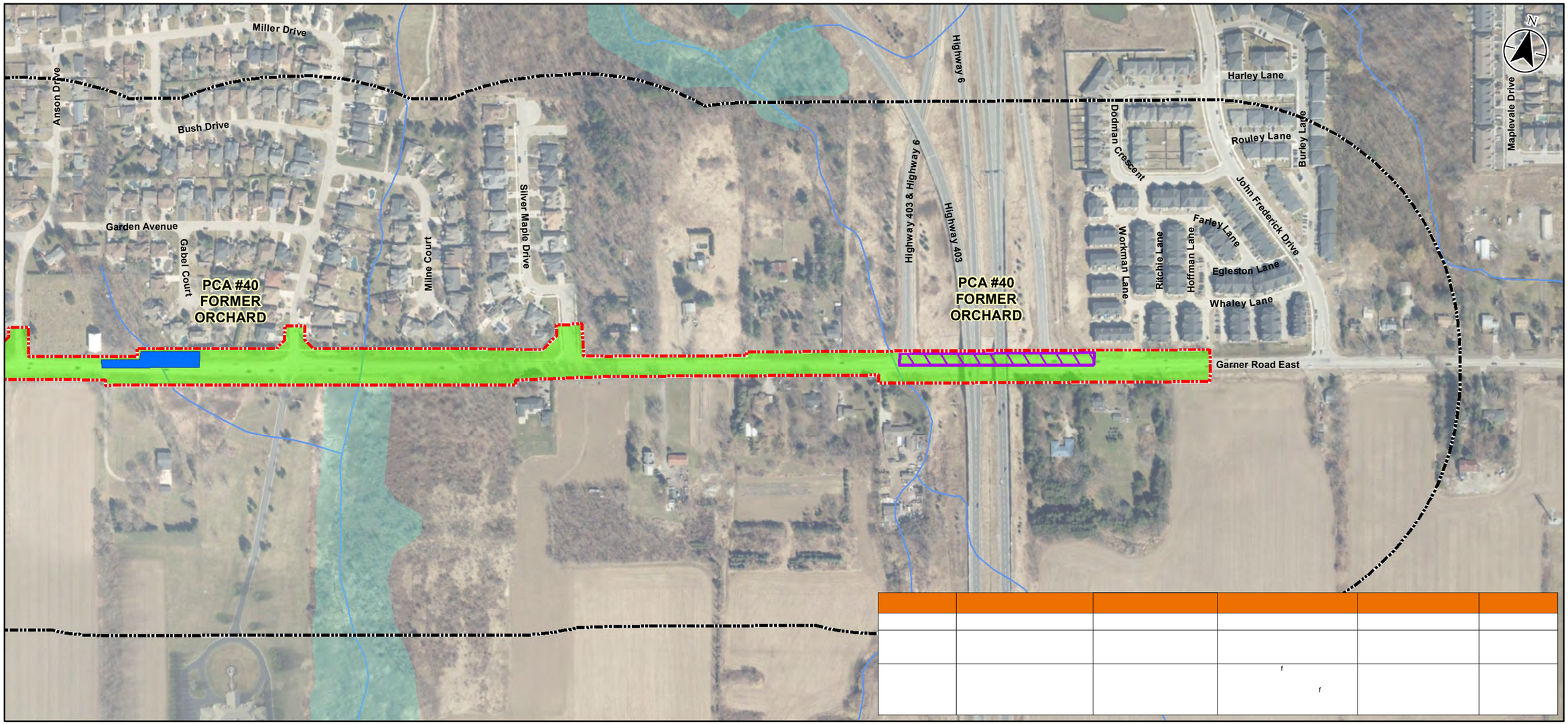
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PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
CITY OF HAMILTON
GARNERR OAD(BETWEEN WILSON STREET AND HIGHWAY 403 OFF-RAMP)

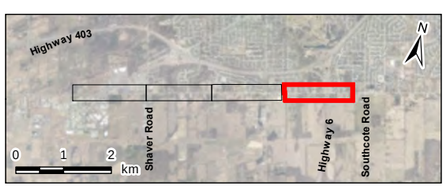
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Title
Phase One Conceptual Site Model

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Legend

- Phase One Property
- Phase One Study Area
- APEC-1
- APEC-5
- APEC-6
- Watercourse (as per mapping provided by Ontario Ministry of Natural Resources and Forestry)
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PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
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Figure No.
3d

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Phase One Conceptual Site Model

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Appendix B Site Reconnaissance Photographs



Photo 1: View of eastern portion of the Phase One Property, adjacent to Highway 403 off-ramp, facing southeast. The Phase One Property primarily consisted of asphalt or concrete paved areas.



Photo 2: Portions of the Phase One Property consisted of paved sidewalks, view facing east



Photo 3: View of ditch observed on the north side of Garner Road, near residential developments. Phase One Property was generally flat but there were areas with observed elevation changes.



Photo 4: View of one of many culverts observed on the north and south sides of the Phase One Property.



Photo 5: Portions of the Phase One Property covered in gravel and adjacent to unnamed wetlands. View taken from the south side of Phase One Property, facing west.



Photo 6: View of the western portion of the Phase One Property, from the south side of the intersection at Wilson Street and Garner Road East, facing north



Photo 7: Gasoline service station at 1180 Wilson Street, east of the intersection at Wilson Street and Garner Road



Photo 8: Car wash facility associated with the gasoline service station at 1180 Wilson Street West



Photo 9: Take Five Oil Changers located at 1184 Wilson Street West, east of the intersection of Wilson Street and Garner Road



Photo 10: Importation of unknown fill associated with various residential developments observed on the north side of Phase One Study Area



Photo 11: Importation of unknown fill associated with various residential developments observed on the north side of Phase One Study Area



Photo 12: Importation of unknown fill associated with various commercial developments observed on the north side of Phase One Study Area



Photo 13: Former gasoline service station at 538 Fiddlers Green Road, which is inferred to be located at 12 Garner Road West



Photo 4: Former gasoline service station listed at 1254 Highway 53 that may have been decommissioned for the construction of the commercial plaza in 2005

Appendix C Project Team Members

Brent Ferguson B.Sc., P.Geo.

Associate / Senior Geoscientist / Project Manager
22 years of experience · Stoney Creek, Ontario

Brent Ferguson, B.Sc., P.Geo. has worked as a project manager, environmental geologist and hydrogeologist within the environmental consulting industry since 2000. He has been involved with, project management or reviewed hundreds of Phase II Environmental Site Assessments (ESAs) and remediations in Ontario and Atlantic Canada, and has project managed, conducted or reviewed hundreds of Phase I ESAs in various Canadian provinces and U.S. states. Brent is a registered professional geoscientist in Ontario and is considered a Qualified Person for Environmental Site Assessment and Remediation (QPESA) by the Ontario Ministry of the Environment and Parks (MECP). Internationally, he has provided management and supervision of field work for a contaminated soil and groundwater assessment in the United Arab Emirates. Brent has managed or assisted in the management of both large and small scale federal Canadian Environmental Assessment Agency (CEAA) and provincial Environmental Assessments (EAs), Nova Scotia, New Brunswick and Ontario provincial regulatory approval projects, and environmental management plans for various types of industry. In addition, in support of federal and provincial EAs, Brent has undertaken large and small scale hydrogeological assessments, and has completed numerous contaminant hydrogeological projects. Prior to employment in the environmental consulting industry, Brent worked in the Canadian oil and gas industry as a geologist on both land based drilling leases in Alberta and on offshore drilling leases in the North Atlantic near Sable Island, Nova Scotia.

EDUCATION

Bachelor of Science, Acadia University, Geology, Wolfville, Nova Scotia, Canada, 1997

Post Graduate Certificate, Niagara College, Environmental Management, Niagara-on-the-Lake, Ontario, Canada, 2000

MEMBERSHIPS

Practicing Member, Association of Professional Geoscientists of Ontario, 2010

PROJECT EXPERIENCE

ENVIRONMENTAL SITE ASSESSMENTS PHASE I, II, III

Brownfield Development | Waterloo, Ontario | 2011-Present | Project Manager/Technical and Peer Reviewer

Stantec completed a Phase I ESA and a Phase II ESA at a Canada Post Corporation (CPC) site in Waterloo that was planned for divestment. The property was found to be a flow through site for chlorinated solvent groundwater impacts assumed to be originating from a former upgradient dry cleaner. CPC currently have a purchase and sale agreement in place with a potential buyer with the caveat that the purchaser obtain a Record of Site Condition (RSC) for the Site prior to the sale being finalized. The purchaser's consultants have completed a Phase I ESA, Phase II ESA and are currently conducting a Risk Assessment that the MECP have stated will be a wider area of abatement. Stantec has been contracted to provide peer review on behalf of CPC of the various technical reports that are being generated by the purchaser's consultants in support of the RSC filing.

Site Assessment and Risk Assessment – Amiens, Mons and Vimy Rifle Ranges CFB Borden, Ontario | 2016-2017 | Task Manager/Senior Technical Reviewer

Stantec completed a Field Investigative Work Plan (FIWP), Phase III ESA and Preliminary Quantitative Risk Assessment (PQRA) for three rifle ranges at Canadian Forces Base (CFB) Borden. Intrusive site activities were planned to realize efficiencies with two other Stantec site assessments occurring at the base at the same time. Metal contaminants previously identified at the site included those typically associated with firing ranges (e.g., antimony, copper, lead, zinc). Nitrates/nitrites were also previously identified in groundwater. The purpose of the site assessment was to delineate impacts and also assess the potential for contaminant fate and transport. Monitoring wells were installed, and groundwater and soil sampling were conducted. A hydrological assessment was conducted to evaluate if there were surface water and sediment impacts associated with overland flow. Synthetic Precipitation Leaching Procedure (SPLP) analyses were conducted to assess if metals in soil in the butt stops were leaching in simulated rainwater leachate tests. The PQRA assessed typical human and ecological receptors that would be exposed to contaminants at the site using federal guidance. A species at risk assessment was conducted. Based on the data collected, risks were determined to be acceptable. National Classification System for Contaminated Sites (NCSCS) scores were prepared for each of the sites. The project received high Contractor Performance Evaluation Report Form (CPERF) scores from Defence Construction Canada (DCC).

Phase III Environmental Site Assessment – Former Disposal Site, CFB Borden, Ontario | 2016-2017 | Project Manager/Senior Technical Reviewer

Stantec completed a FIWP and a Phase III ESA at a former munition disposal site at CFB Borden. Intrusive site activities were planned to realize efficiencies with other Stantec site assessments (four separate sites) occurring at the base at the same time. The purpose of the work was to assess (to determine if still present) and delineate (if present) previously identified metal impacts in soil and groundwater at the Site. In addition to metals, soil and groundwater at the site was assessed for munition indicator parameters including chloride, orthophosphate, phenols, sulfate, sulfide, sulfur, glycol, and volatile organic compounds (VOCs). A biologist conducted a site visit to determine if the gully area being assessed would be considered a waterbody in relation to the selection of applicable assessment standards at the site, a geophysical assessment was conducted to confirm munitions were not present at drilling locations, monitoring wells were installed, and groundwater and soil sampling were conducted. Based on the data collected, the gully area was determined to not be a waterbody and concentrations of contaminants of concern in soil and groundwater were below current allowable concentrations at the site. Therefore, Stantec recommended completion of the Federal Contaminated Sites Action Plan (FCSAP) site Closure Tool. The project received high CPERF scores from DCC.

Phase I ESA and RSC Filing on land previously containing a temporary road | Kitchener, Ontario | 2015-2017 | Phase I ESA Senior Reviewer, QP_{ESA}

Stantec conducted a Phase I ESA and filed an RSC based on a Phase I ESA alone on a property in Kitchener that previously contained a temporary road and was to be developed as residential lots. The work was completed and the RSC was acknowledged by the Ministry of the Environment and Climate Change (MOECC) (now the MECP).

Portfolio of Five First Nation Assessment Sites (4 Phase I ESAs and 1 Phase II ESA), Various Northern Ontario Sites | 2016-Present | Task Manager/Senior Technical Reviewer

To help facilitate property transactions, the work included completion of Phase I ESAs of proposed land to be acquired for the Aroland, Alderville, Moose Deer Point and Nibinamik First Nations. Where applicable, potential environmental concerns, best management practices and health and safety concerns were noted at the sites and recommendations for future work were provided in technical reports. In addition, the work included the completion of a Phase II ESA of a potentially contaminated site adjacent to the Mattagami First Nation. The assessed site was a historical Ministry of Natural Resources (MNR) camp including a sea plane refueling base and associated buildings. The work program included installing and sampling groundwater monitoring wells at the site and documenting the findings in a Phase II ESA report for our client. Further, two of the Phase I ESA sites (Nibinamik and Aroland) had additional information provided at the end of the fiscal year so an additional contract was provided to incorporate the new information into the reports. The Phase I ESAs for Nibinamik and Aroland were revised with the updated information and then finalized.

Phase III Environmental Site Assessment – Vehicle Refueling Facility #2, CFB Borden, Ontario | 2016-2017 | Project Manager/Senior Technical Reviewer

Stantec completed a FIWP and a Phase III ESA at a former vehicle refueling facility at CFB Borden. Intrusive site activities were planned to realize efficiencies with other Stantec site assessments (four separate sites) occurring at the base at the same time. The purpose of the work was to assess (to determine if still present) and delineate (if present) previously identified benzene, toluene, ethylbenzene, and xylene (BTEX), petroleum hydrocarbon (PHC), metal, and polycyclic aromatic hydrocarbon (PAH) impacts in soil and groundwater at the Site. Monitoring wells were installed, and groundwater and soil sampling were conducted. Based on the data collected, concentrations of contaminants of concern in soil and groundwater were below current allowable concentrations at the site and therefore, with the exception of recommending one additional round of groundwater sampling to corroborate the current results, Stantec recommended completion of the FCSAP site Closure Tool. The project received high CPERF scores from DCC.

Phase II Environmental Site Assessment – Canada Centre for Inland Waters (CCIW) | Burlington, Ontario | Project Manager/Senior Technical Reviewer

Stantec completed a Phase II ESA at CCIW for Public Services and Procurement Canada (PSPC) and their client Environment and Climate Change Canada (ECC). The assessment included drilling boreholes and the installation of monitoring wells to assess fill on the site, the original Hamilton Harbour lake bed, fueling locations, former underground storage tanks (USTs), and chemical storage areas. Soil and groundwater were assessed for the presence of VOCs, PHC, PAHs, polychlorinated biphenyls (PCBs), dioxins and furans, and metal and inorganic parameters.

Data Gap Analysis, Site Investigation (Phase III ESA), Risk Assessment Update, Remedial/Risk Management Option Analysis, Risk Mitigation Plan, and Specification Development, near the Neskantaga First Nation Community of Lansdowne House, Ontario | 2016-Present | Task Manager/Senior Technical Reviewer

Project work included coordinating and conducting a Phase III ESA at a remote former weather station in Northern Ontario so that the information could be used to update a previously completed risk assessment and to conduct a remedial option analysis for the site. Field work included borehole drilling, monitoring well installation and sampling, and a habitat assessment at the site. We completed a Risk Mitigation Plan (RMP) and a Specification for the RMP. Stantec is currently contracted to monitor the contractor that has been hired to complete the work related to the implementation of the specification which is to construct a soil cap on the site over a PAH hot-spot. That work is ongoing.

Phase I ESA, Nursing Home | Burlington, Ontario | 2009-2016 | Task Manager/Senior Technical Reviewer

Project work included conducting a Phase One ESA at an active nursing home facility to be compliant with Ontario Regulation 153/04 so that a Risk Assessment and an RSC could be completed for the property. Since it was an active healthcare facility, privacy concerns of the residents were a factor that Stantec took into consideration when completing the assessment of the site. Due to the length of time between the original report completion and present, the information was updated in order to file the RSC.

Canada Post Corporation | Various, Southwestern Ontario | 2009-2016 | Project Manager/Regional Lead

Mr. Ferguson was the Regional Lead and Project Manager for work on various Canada Post Corporation (CPC) sites in Southwestern Ontario. The Regional Lead role entailed high level project management to ensure that project tasks completed by Stantec (e.g., Phase I/II ESAs, Risk Assessments, Geotechnical Assessments, Hazardous Material Surveys, Property Surveys, and Physical Planning Studies) were completed on schedule/budget. The project management role on these sites included providing technical work plans and costing; completing structured reports for Phase I/II/III ESAs outlining historical and subsurface conditions, identifying and delineating areas of potential or actual environmental concern, determining effluent quality of groundwater for potential discharge to storm water systems, and determining waste classification for soil material to be potentially removed from the sites; advising on future risk management, remedial actions and/or monitoring requirements; conducting site meetings to review project objectives and completing site reconnaissance activities; completing health and safety plans including the coordination of underground services clearances; evaluation of soil and groundwater analytical results and comparing these results to pertinent federal and provincial standards/guidelines; and communicating impact on the sites to CPC both through live presentations and by written technical reports.

Phase I ESA and Phase II ESA, Proposed Oakville Hospital | Oakville, Ontario | 2011 | Task Manager/Senior Technical Reviewer

The work included completion of a Phase I and Phase II ESA on five different neighbouring parcels of land to help facilitate land transfers to allow for the development of the new Oakville Hospital. Based on the findings of the assessments, individual recommendations were made for each of the parcels and this facilitated the necessary land transfers to allow for construction of the Oakville Hospital. In addition, the reports provided guidance relating to soil handling during the future development of the Site.

Phase I & II ESA of Property Formerly Containing a Chemical Laboratory | Hamilton, Ontario | 2010-2011 | Project Manager, Environmental Geologist, Hydrogeologist, Phase I ESA Senior Technical Reviewer

Stantec conducted a pre-purchase due diligence Phase I and II ESA of a property that was part of a former chemical laboratory. The Phase II ESA included a borehole/monitoring well program to assess soil and/or groundwater for various contaminants including PHC, heavy metals, PAHs, PCBs, VOCs, and dioxins and furans.

Phase I/II ESA and Remediation | Toronto, Ontario | 2008 | Phase I ESA Senior Reviewer

Stantec conducted a Phase I ESA, Phase II ESA and remediation work on a property in downtown Toronto to address environmental impacts from fill, a former dry cleaner and various other offsite potential sources. The work was completed and an RSC was filed for the property and acknowledged by the MOECC (now the MECP).

Modified Phase I ESA & Limited Phase II ESA Material Management Assessment | Ottawa, Ontario | 2007 | Project Coordinator, Environmental Geologist

The investigation included a Modified Phase I ESA and a Limited Phase II ESA to determine potential impacts on three Ottawa streets. Material management options for soil and groundwater were supplied in support of a proposed integrated road, water and sewer rehabilitation project.

Subsurface Environmental Investigation | Jebel Dhanna, United Arab Emirates | 2005-2006 | Onsite Field Supervisor, Environmental Geologist, Hydrogeologist

This environmental investigation in the United Arab Emirates included subsurface soil and groundwater assessments within the Jebel Dhanna Terminal and along the associated pipeline to assess for the presence of released crude oil. The scope included supervision of foreign drilling crews, as well as the production of environmental and hydrogeological assessment reports for the sites.

Contaminant Overview Study (COS) and Excess Materials Management Plan (EMMP) and Preliminary Site Screenings (PSS) | Ontario Ministry of Transportation | Schomberg, Ontario | 2014-2016 | Task Manager

Stantec completed a Contaminant Overview Study (COS) to support preliminary design service activities associated with replacement of bridge sites on Highway 400 at North Canal and Holland Marsh near Schomberg, ON. The COS was a modified Phase I ESA, which included a review of publicly available historical records pertaining to potential environmental concerns, the completion of a windshield survey to verify information gathered in the review of historical records, and the preparation of a report which documented the findings. The supplemental Excess Materials Management Plan (EMMP) involved soil sampling for contaminants of concern identified during the COS so that suitable management protocols for this material could be developed. In addition, Stantec completed Preliminary Site Screenings (PSS) on two properties required to be purchased for the site development. The PSS used information from a site visit and from the COS to document environmental information specific to the individual parcels of land.

Phase I ESA, Various Sites in Canada and the USA | 2000-Present | Project Manager, Site Assessor, Senior Reviewer

Over 500 Phase I ESAs have been conducted or reviewed by Mr. Ferguson on both large portfolio projects, as well as smaller single site locations. Types of sites have included (but are not limited to) First Nation reserves, port facilities, postal facilities, wharves, lighthouses, seafood processing plants, warehouses, dry cleaners, gasoline service stations, furniture manufactures, lumberyards, sawmills, automotive dealerships, railways, railway yards, multi-tenant commercial/industrial buildings, industrial manufacturing facilities, retail stores, commercial shopping centres, restaurants, hotels, residential apartment buildings, residential homes, water lots, and vacant lots.

ENVIRONMENTAL SITE REMEDIATION

Residential Fuel Oil Spill Remediation | North York, Ontario | 2008-Present | Project Manager, Environmental Geologist, Hydrogeologist

Stantec conducted site assessment and remediation work on two neighbouring residential properties. The first property was remediated by underpinning the residential building to allow for an excavation of the PHC impacted soil. A non-permeable barrier was constructed below grade along the property line with a down gradient property, and then a program of in-situ chemical oxidization (ISCO) was initiated on this downgradient property to remediate the portion of PHC impacted soil on that property. The ISCO program reduced the areal extent and concentrations of the PHC impacted soil, and subsequent studies were conducted to delineate the PHC-impacted soil and groundwater at the site and to complete groundwater modelling and a Monitored Natural Attenuation (MNA) assessment to provide an opinion as to the likelihood whether the PHC-impacts would reach the downgradient property line. The work was used to settle the legal dispute between the neighbouring properties.

Residential Fuel Oil Spill Remediation | Hartington, Ontario | 2007-2015 | Project Manager, Environmental Geologist, Hydrogeologist

Project work included conducting site assessment and remediation work and follow-up groundwater monitoring to address impacts from a fuel oil spill that occurred at a residential home next to a lake. The property was considered a sensitive site for the application of assessment and remediation standards. A Risk Assessment was completed and an RSC was filed for the property and acknowledged by the MOECC (now the MECP).

Environmental Consulting Services Prior to Site Development – Railway Lands West | Toronto, Ontario | 2009-2010 | Project Manager, Environmental Geologist, Hydrogeologist, Phase I ESA Senior Technical Reviewer

The work included project management of the completion of a Phase I ESA to determine the potential environmental concerns on the site based in part on reviews of background and historical documentation on the usage of the property; providing a costing and technical proposal to Toronto Community Housing (TCHC) for completion of the Phase II ESA and remediation of the site; project management of a test pitting and drilling program to assess and delineate the potential contaminants of concern identified in the Phase I ESA; meetings with TCHC and contractors to discuss project progress; completion of a site specific health and safety plan for all portions of the Stantec work on the site; project management of a stratified remediation of the site that included overseeing Stantec field staff that observed (or otherwise confirming with the contractor) the removal of 58,015 tonnes of soil for offsite disposal and confirming through sample analyses that all soil verification samples obtained from the final extent of the soil on the walls and floors of the remedial excavations and the groundwater on the site achieved the applicable Ontario Stratified Standards and that soil used for backfill was suitable for use as surface soil of the stratified approach by peer reviewing environmental reports completed by others from the source properties and by the collection of a limited number of quality control samples for contaminants of concern; and the filing of an RSC on behalf of TCHC under Ontario Regulation 153/04 of the Environmental Protection Act.

Remediation of Surplus Seaway Lands | St. Catharines, Ontario | 2008-2009 | Assistant Project Manager

Provided project management, environmental oversight, and contract administration on behalf of Public Works Government Services Canada (PWGSC) for the remediation of surplus seaway lands in St. Catharines including excavation, treatment, and removal of 61,163 tonnes of lead and/or PAH impacted hazardous waste located in the surface soils of an 8.5 hectare former skeet range owned by Transport Canada. Tasks included: monitoring of the project health and safety plan, monitoring environmental mitigation measures implemented under CEAA, monitoring & tracking remediation activities, monitoring confirmatory & quality control sampling, review/approval of contractor contemplated change notices and invoices, and writing a technical report detailing the findings of the remediation. Through monitoring activities unforeseen additional contamination on the property that would have prevented the successful completion of an RSC required for divestment of the property was discovered. Therefore an additional requirement for a Phase III ESA was communicated to PWGSC, a technical and cost proposal was prepared, and the Stantec field staff completing the work were supervised during the supplemental delineation investigation which included the excavation of test pits on the site and the collection of soil samples for the contaminants of concern to assess the vertical and horizontal distribution of the subject fill. The results of the investigation were reported in a technical document that was to be used as a basis for the future planned remediation of the fill.

ASSESSMENTS, PERMITTING, AND COMPLIANCE

Environmental Assessment of the Rhodena Rock Quarry | Mulgrave, Nova Scotia | 2005-2007 | Project Coordinator, Hydrogeologist

The project included completing an Environmental Assessment and Industrial Approvals for a quarry project in Mulgrave, Nova Scotia.

Soil Landfarm Environmental Subsurface Investigation (ESI), Landfarm Alteration Plan (LAP), and Waste Environmental Certificate of Approval (ECA) | Nova Chemicals (Canada) Ltd. | Corunna, Ontario | 2012-2016 | Task Manager

Completed an Environmental Subsurface Investigation (ESI) and portions of a Landfarm Alteration Plan (LAP) in support of the preparation and submission of an amendment to the Waste Environmental Certificate of Approval (ECA) for a soil landfarm that is used to treat petroleum hydrocarbons at a petrochemical industrial facility. The Waste ECA amendment was required to allow for the development of future infrastructure (e.g., flare tower, pipe racks, and associated structures) within a soil landfarm. The ESI included drilling boreholes, installing monitoring wells, and assessing the soil and groundwater in the landfarm for contaminants of concern including PHC F1 to F4, PAHs, VOCs, and metal and inorganic parameters. The findings of the ESI were used to advise the client as to the environmental requirements associated with development in the landfarm. Sufficient LAP details were provided within the Waste ESA submission and the ECA amendment was approved in October 2016.

Baseline Groundwater Study for a Gravel Pit Operation | Nictaux, Nova Scotia | 2006 | Project Manager Hydrogeologist

The project included conducting a baseline hydrogeological study on the proposed gravel pit site to determine background water chemistry and water table characteristics prior to development of the pit.

Baseline Conditions Study | Bearhead, Nova Scotia | 2005-2006 | Environmental Geologist, Hydrogeologist

The project included environmental baseline studies of the property for a proposed liquefied natural gas (LNG) facility. The study included chemical and biophysical studies of surface water, groundwater, soils and marine sediment.

CEAA Environmental Assessment of the Bear Head Pipeline | Bearhead to Goldboro, Nova Scotia | 2005-2006 | Hydrogeologist

The project included conducting a CEAA Environmental Assessment of a LNG pipeline from the Bear Head facility to the main transmission pipeline at Goldboro, Nova Scotia.

Environmental Assessment and Permitting of the Sovereign Resources Quarry Modification | Waverly, Nova Scotia | 2005-2006 | Hydrogeologist

The project included completing an Environmental Assessment and Industrial Approvals for a controversial quarry project in Waverly, Nova Scotia.

PROJECT MANAGEMENT

Environmental Profession Support and Project Management Assistance – Clearance and Remediation of Former Camp Ipperwash | Public Works and Procurement Canada (PSPC) on behalf of Department of National Defence (DND) | Stoney Point, Ontario | Project Manager

The project includes assisting DND with their overall project management of the project which includes both the clearance of unexploded explosive ordinance (UXO) that remains on the Former Camp Ipperwash Site and the site assessment and remediation of the potential environmental concerns on the site. The work is being conducted on land that was formerly the reserve for the Stony Point First Nation and is therefore both culturally and archaeologically sensitive and all work conducted on the site needs to be conducted in accordance with a Cultural Protocol developed by the Chippewas of Kettle and Stony Point First Nation (CKSPFN). The site is also the home to numerous species at risk which have to be accounted for in project activities. Stantec's role on the project includes assisting DND with overall project management of the project, aboriginal consultation and engagement, completing gap analyses of previously completed studies on the site, compilation of previous collected data on the site, development of a clearance and remediation plan for the site, creating master copies of databases of information and GIS mapping, assistance with managing other environmental consultants, and peer reviewing technical reports by other consultants. Stantec is also assisting DND with communications with the CKSPFN and to this end Stantec has had numerous meetings with elders and CKSPFN band council members as well as developed a website for communication purposes.

Dorothy Yu B.A.Sc., EIT

Junior Environmental Site Assessor
8 years of experience · Markham, Ontario

Dorothy holds a Bachelor of Science in Chemical Engineering with a specialization in the bio-environmental stream. She started at an environmental consulting firm as a Technical Assistant who diligently prepared interim groundwater monitoring reports, Phase One/Two Environmental Site Assessments and remediation reports. She was actively involved in setting up field programs (including health and safety plans) and checking on the sample integrity for large quantities of soil, groundwater and air samples prior to lab submission. Her efficiency and attention to detail when performing any task led to an opportunity to manage 80+ groundwater monitoring sites at downstream and upstream facilities in Alberta. After successfully coordinating field operations and reporting for these low-budget sites, she spearheaded a $1 million national long-term radon testing program for approximately 500 federal sites. Her team consisted of senior project managers, field technicians, industrial hygienists, report writers, and draftspersons. Based on these experiences, she has played a significant role in preparing other national contracts with team leaders in her sector.

Dorothy joins the Field Specialists team to pursue hands-on experience that will complement her project coordination skills with site investigations and remediation projects.

EDUCATION

Bachelor of Science, Queen's University, Kingston, Ontario, Canada, 2012

CERTIFICATIONS & TRAINING

Radon Measurement Professional, Canadian National Radon Proficiency Program (C-NRPP), Saskatoon, Saskatchewan, Canada, 2017

Standard First Aid & CPR/AED Level C, Canadian Red Cross, Oshawa, Ontario, Canada, 2018

POST 2021 LEVEL 2 - BBS - Orientation and Test, Markham, Ontario, 2021

REGISTRATIONS

Engineer-In-Training #100190355, Professional Engineers Ontario, 2012 to Present

PROJECT EXPERIENCE

GROUNDWATER MONITORING AND REPORTING

National Groundwater Monitoring and Sampling Program* | Alberta | CAD 1.5M | 2016 to 2019 | Junior Project Manager

Dorothy coordinated logistics for an annual groundwater monitoring and sampling program for 90 downstream and upstream oil and gas sites in Alberta. She resolved inefficiencies during the field program in a timely manner in order to meet a strict budget. In addition to providing support to the field staff and resolving laboratory issues, she was the primary report writer for all sites within Alberta and in other provinces.

Petroleum Industry (Various Retail Outlets and Bulk Storage) | Various , Ontario | 2019 | Field Technician

Dorothy assesses water level and liquid petroleum hydrocarbon thickness. She conducts groundwater monitoring and sampling with both manual and automatic methods, as well as analysis of field parameters. She has experience in surveying elevations of monitoring wells for groundwater contour maps and has been responsible for coordinating utility locates for monitoring well repairs and borehole drilling.

RADON ASSESSMENT AND MITIGATION

National Radon Testing Program * | 2017 to 2018 | Project Coordinator

Dorothy was the primary coordinator for a national radon testing program at over 100+ sites owned by a Crown Corporation. Drawing from her experience in managing groundwater sampling programs out-of-province, she was a major resource for project managers at five other offices when preparing the field programs including organizing training for employees, developing the health and safety program, overseeing a global order of supplies and equipment, and performing integrity checks on large batches of samples prior to laboratory submission. She worked closely with the Program Managers to develop a national report template and provided support for the report writers.

ENVIRONMENTAL ASSESSMENTS – AIR QUALITY

Suspect Soil Management Program | Toronto, Ontario | 2019-2020 | Field Technician

Dorothy closely monitored the air quality while contractors were performing excavation activities in soil with known contamination. In the event impacted soil was encountered, she would provide environmental sampling services before the excavation would continue to progress.

** denotes projects completed with other firms*

ENVIRONMENTAL SITE ASSESSMENTS PHASE I, II, III

Remediation, Down-stream Oil and Gas Client, Schomberg, Ontario | Suncor Energy Inc. | Schomberg, Ontario | 2019 | Field Technician

Dorothy was the lead field technician of a complex remediation at a residential property impacted by industrial activities. This was the third phase of a two-year remediation program. Field activities included test pitting, remedial excavation, segregation and removal of soil and site restoration. The work was sensitive as it involved third party consultant and their legal counsel.

Appendix D Supporting Documentation

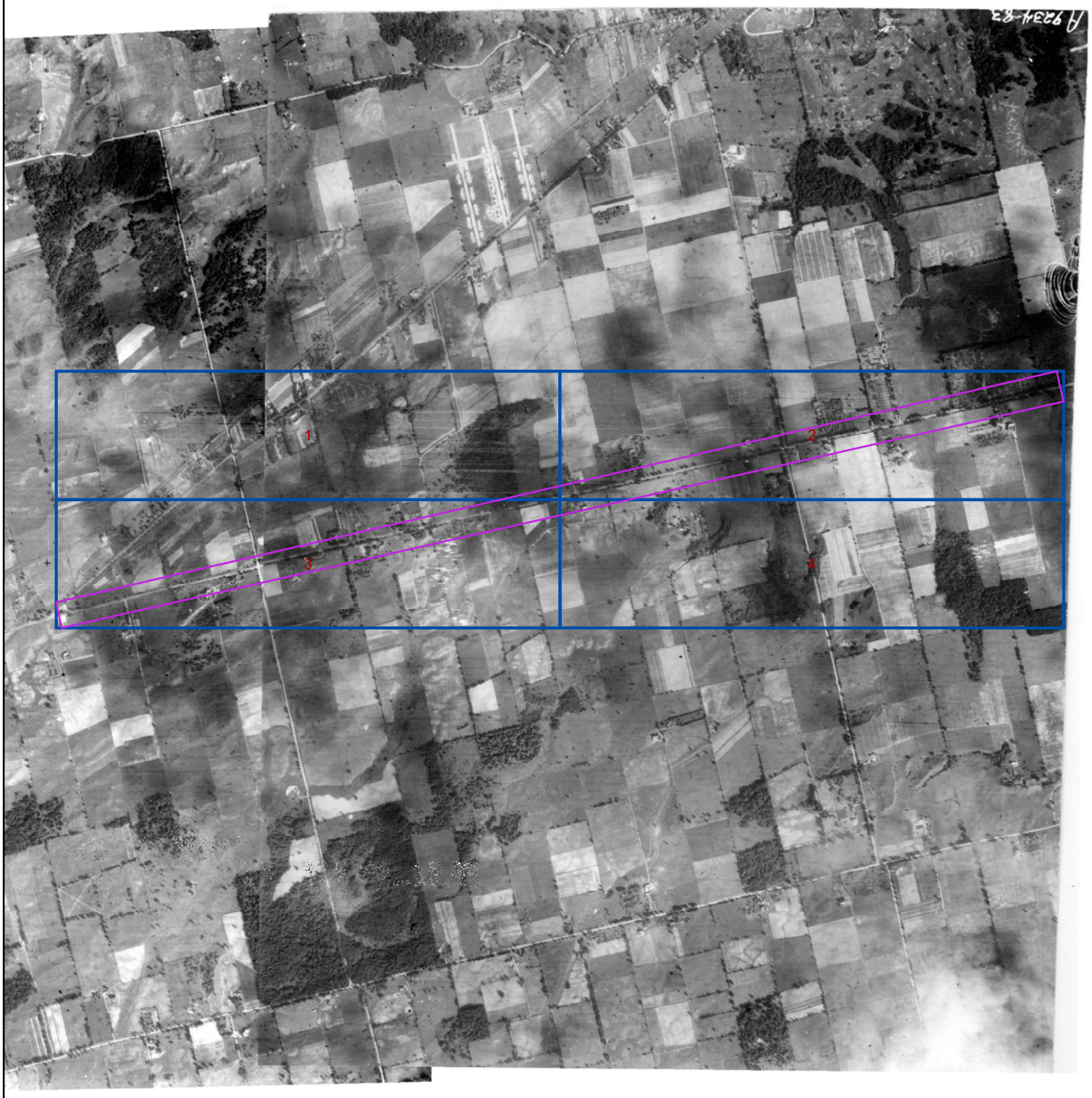
HISTORICAL AERIALS

Project Property:	Garner Rd W Garner Rd W Hamilton ON
Project No:	
Requested By:	Stantec Consulting Ltd.
Order No:	21061700860
Date Completed:	June 18, 2021

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Decade	Year	Image Scale	Source
1940	1945	20000	NAPL
1940	1945	20000	NAPL
1960	1965	15000	NAPL
1960	1965	25000	NAPL
1980	1986	25000	NAPL
1980	1986	25000	NAPL

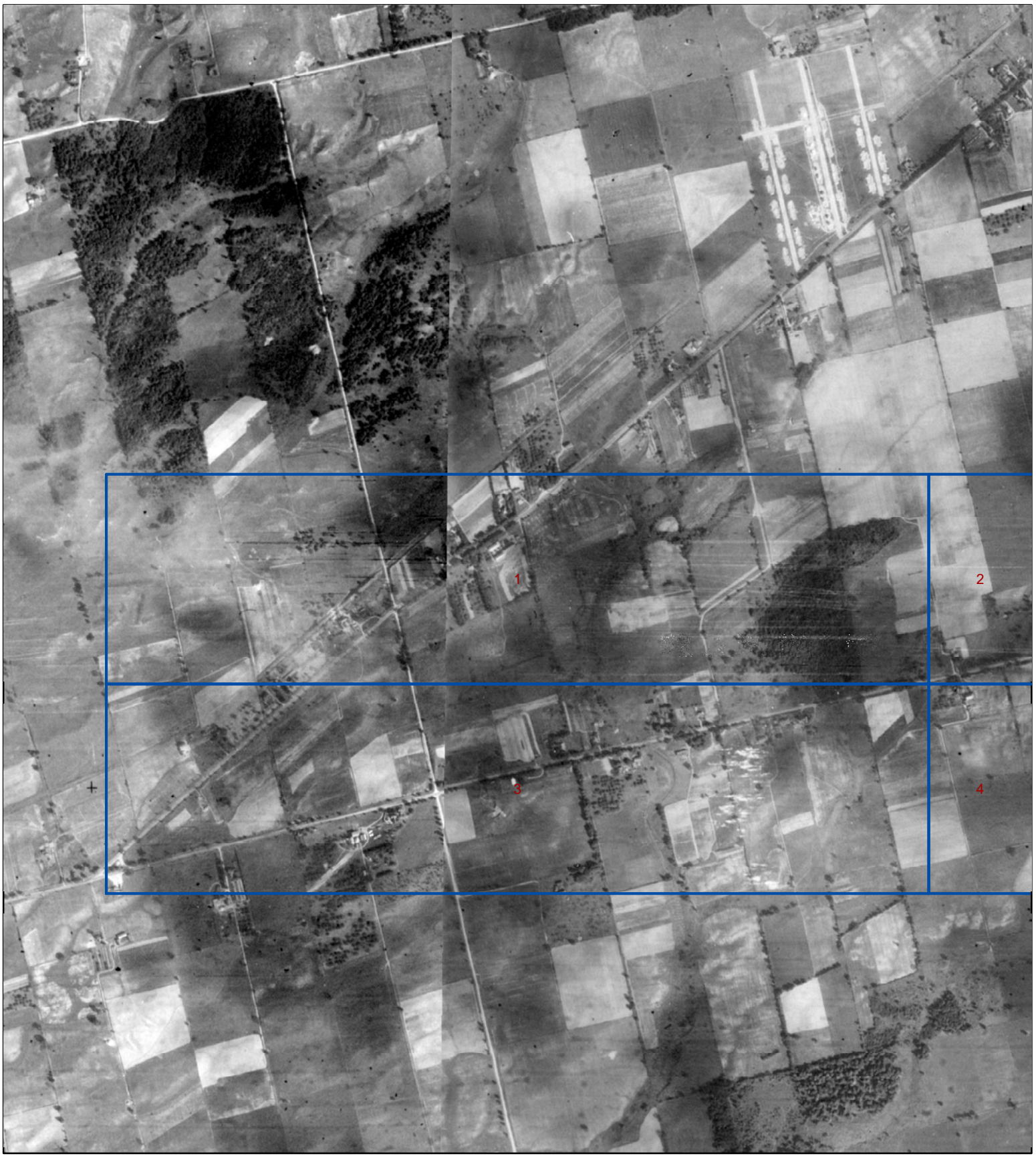
Aerial Maps included in this report are produced by the sources listed above and are to be used for research purposes including a phase I report. Maps are not to be resold as commercial property. No warranty of Accuracy or Liability for ERIS: The information contained in this report has been produced by ERIS Information Inc.(in the US) and ERIS Information Limited Partnership (in Canada), both doing business and ERIS Information Limited Partnership (in Canada), both doing business as 'ERIS', using aerial photos listed in above sources. The maps contained in this report does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein. Although ERIS has endeavored to present you with information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.



0 0.45 0.9 1.8 Kilometers

Order Number: 21061700860

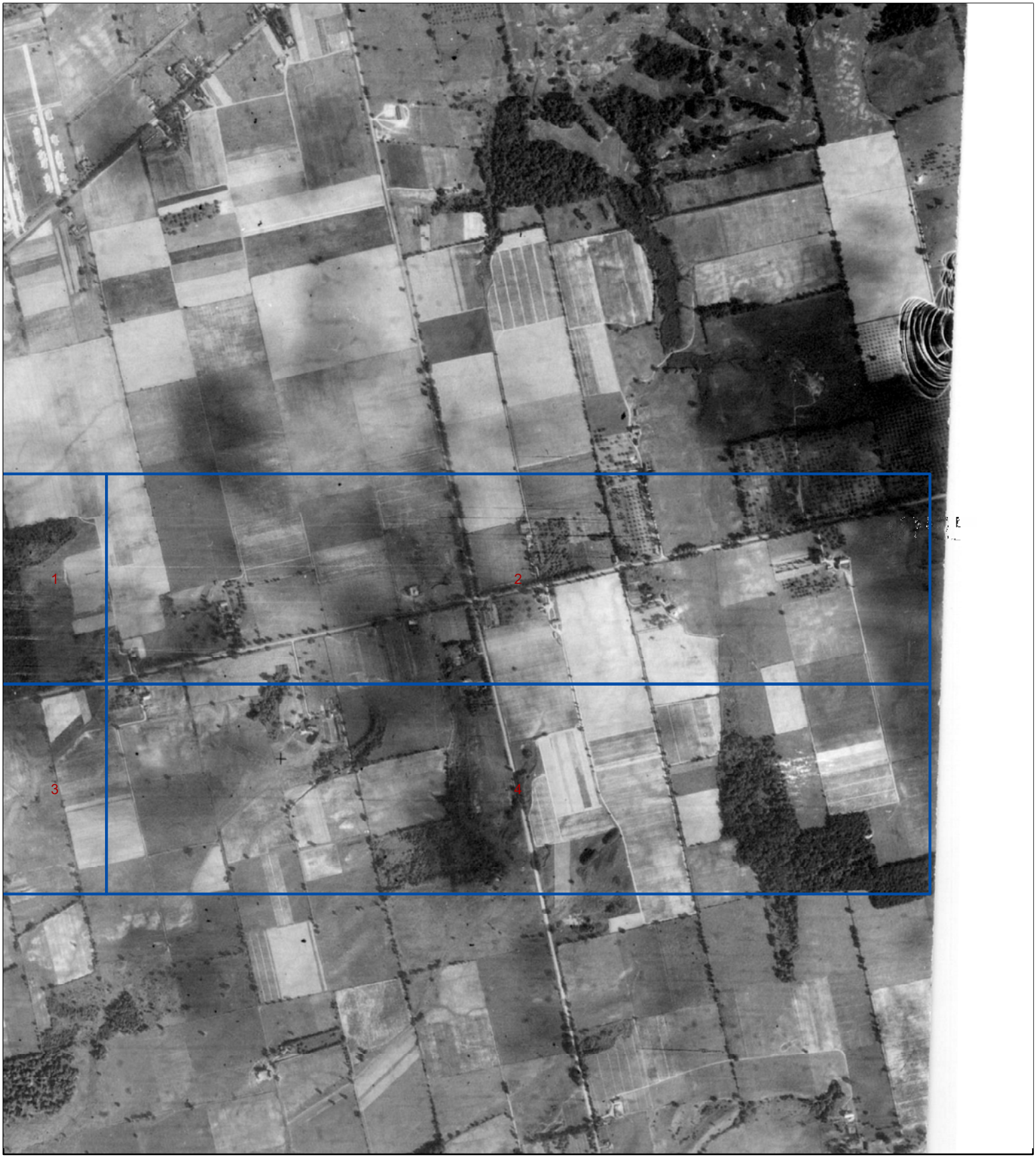
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Source: NAPL
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Comments:



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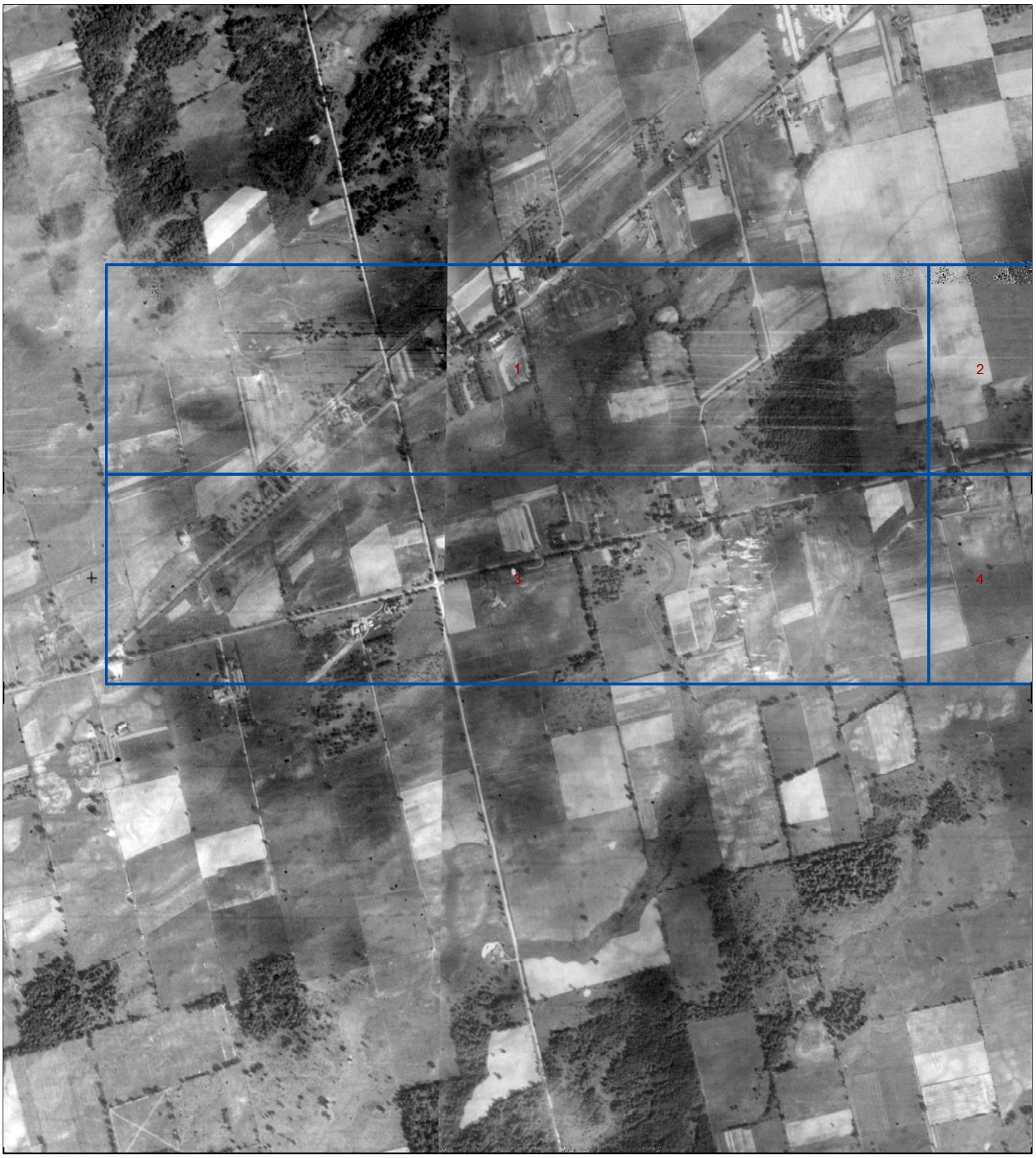
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Order Number: 21061700860

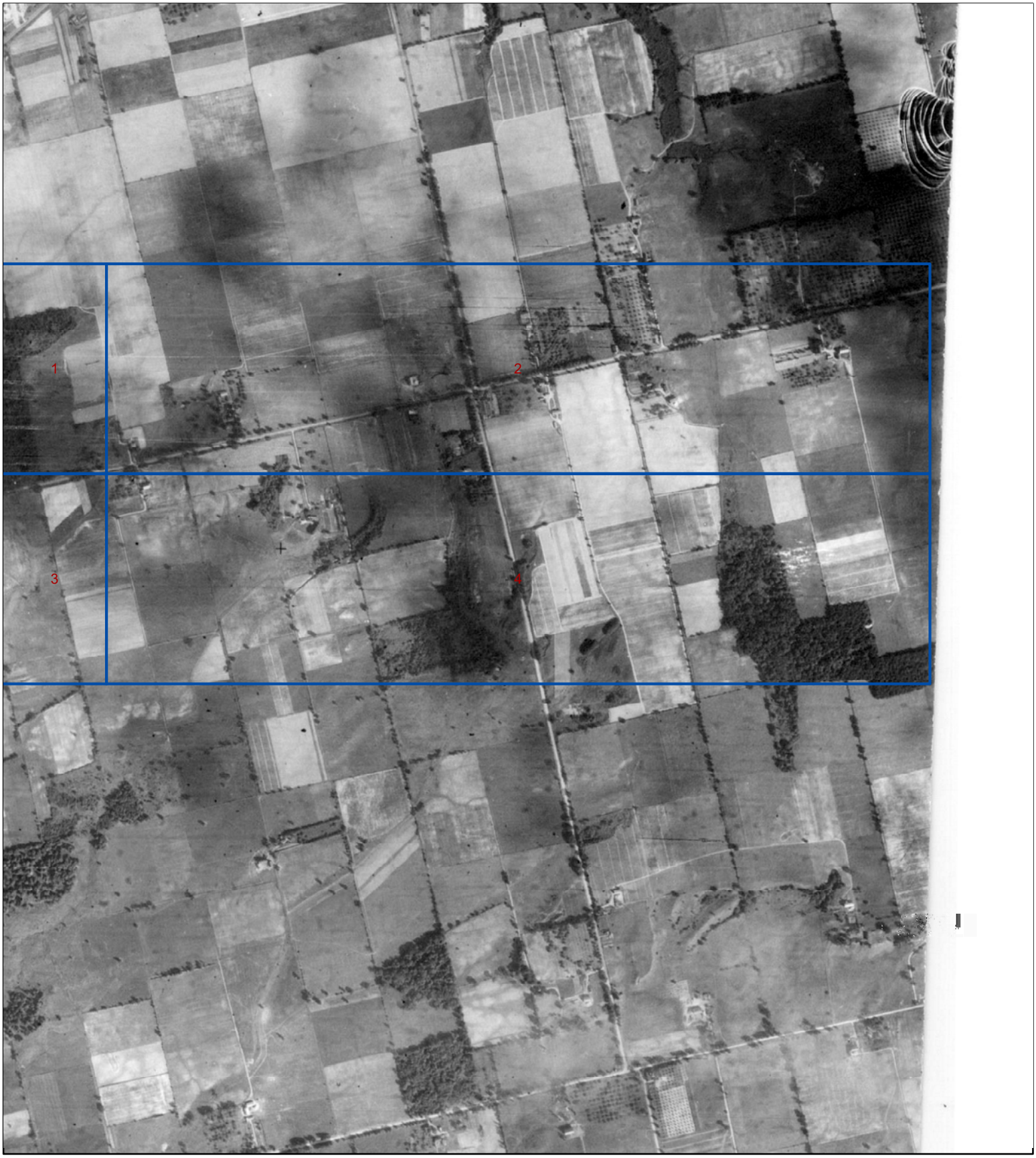
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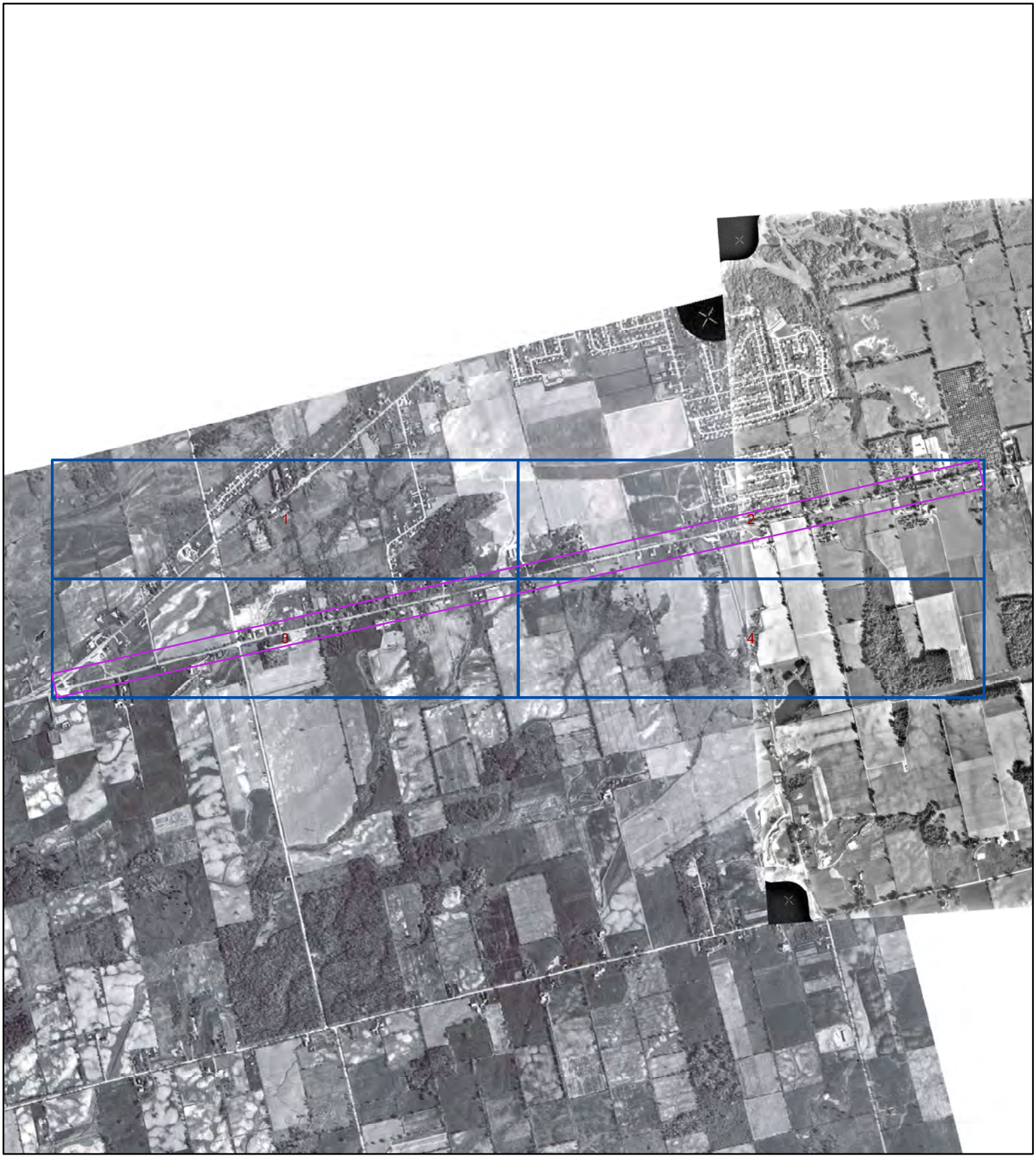
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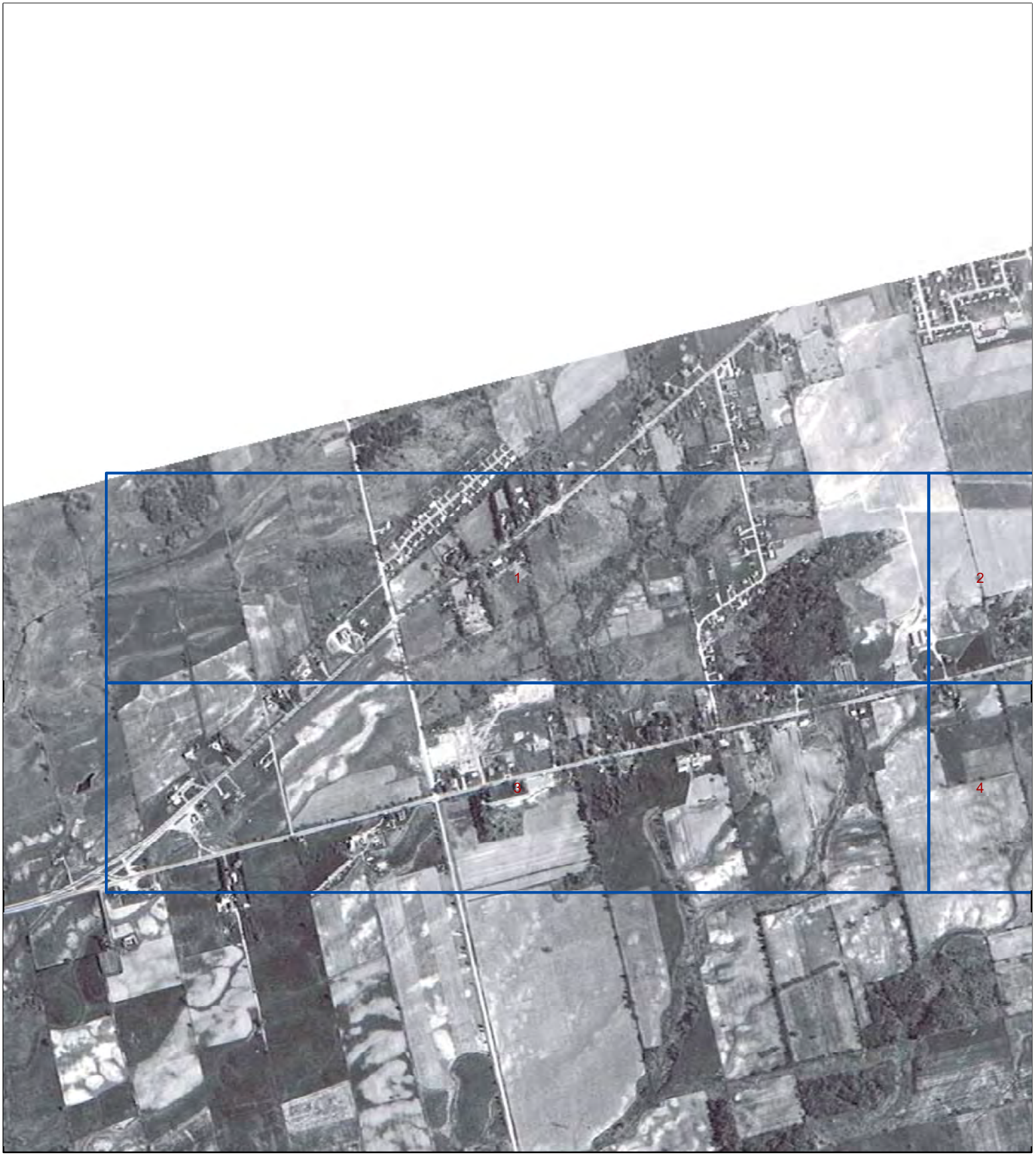
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Kilometers

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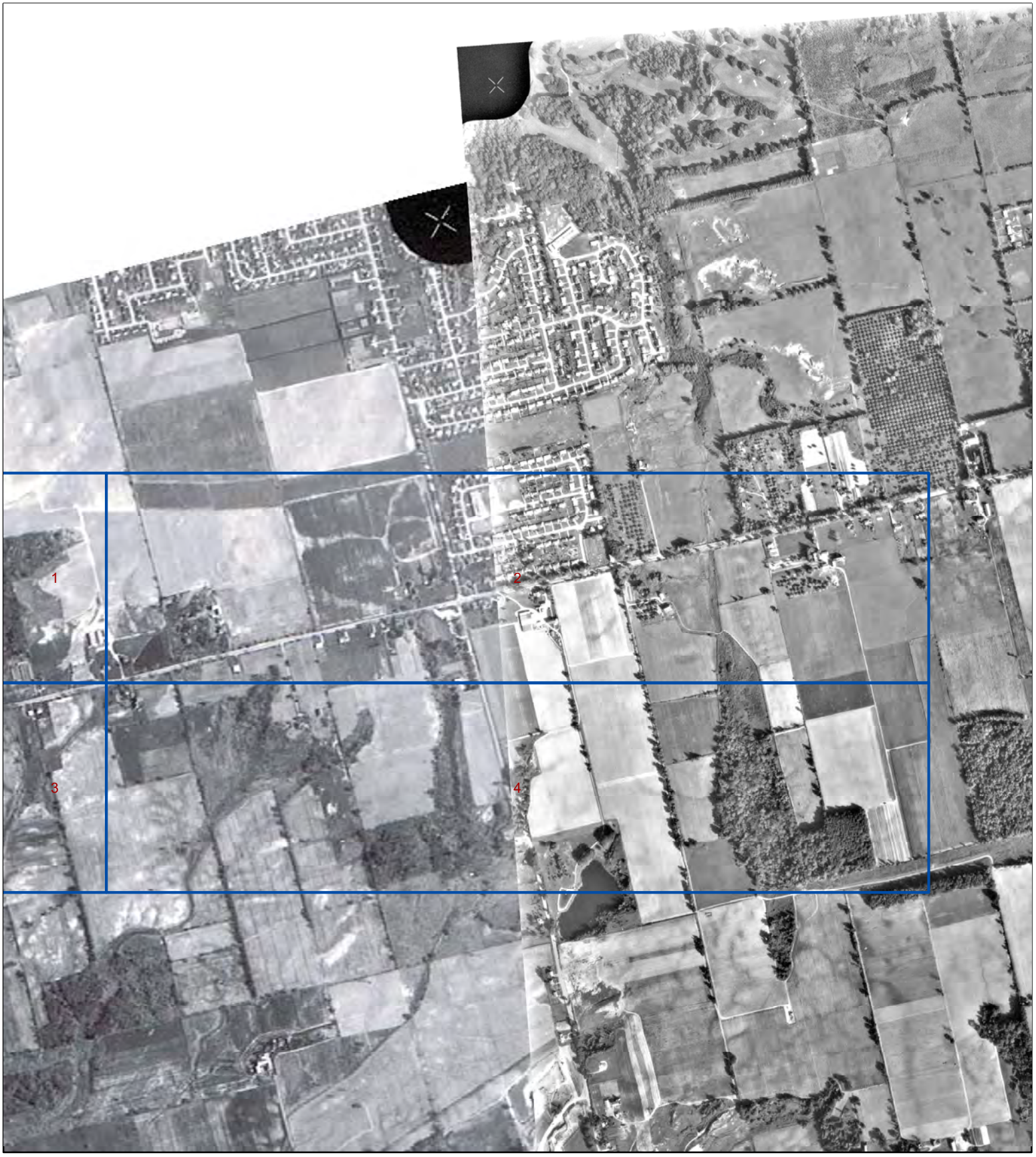
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Comments:



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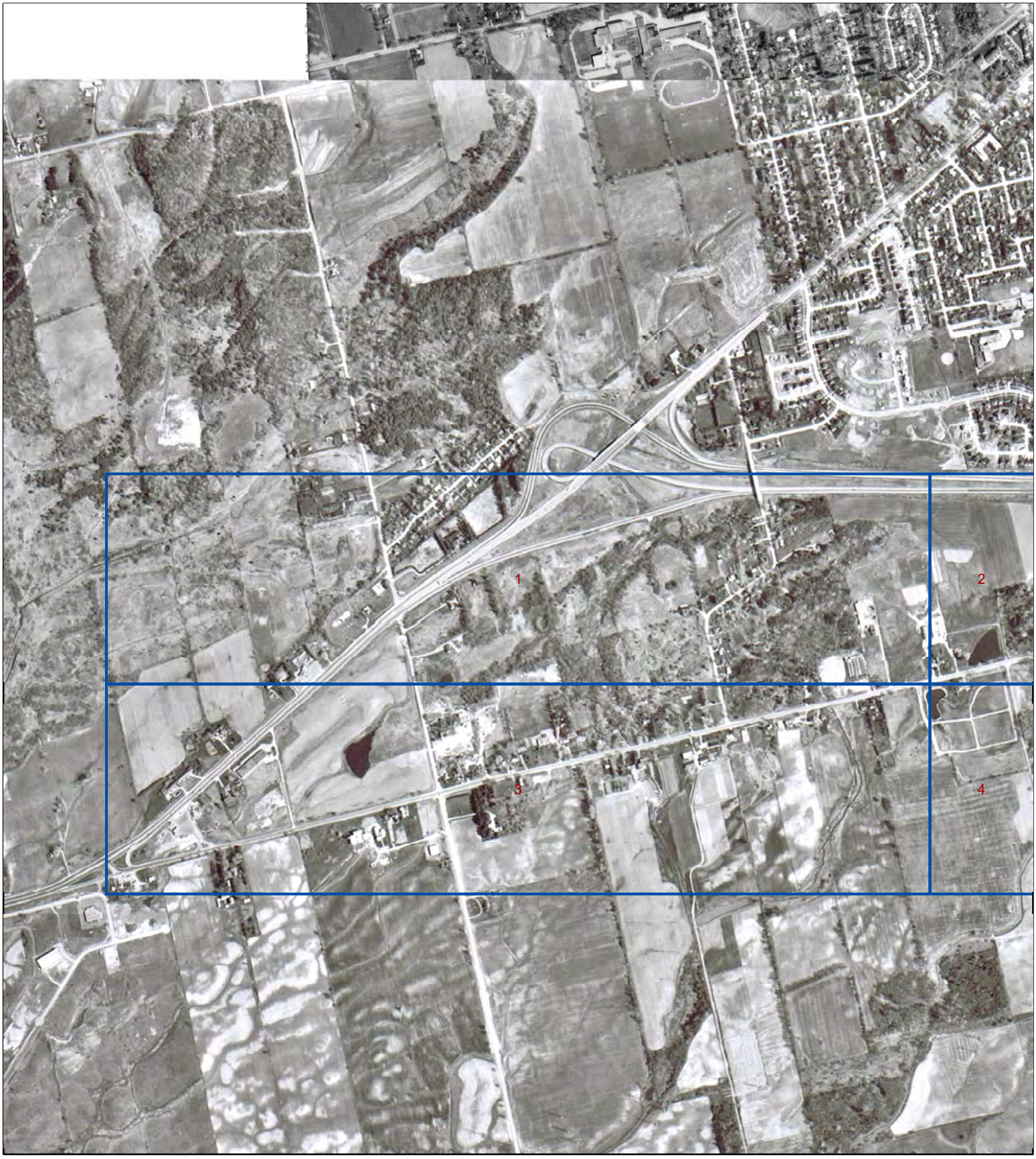


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Kilometers

Order Number: 21061700860

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Comments:

ERIS

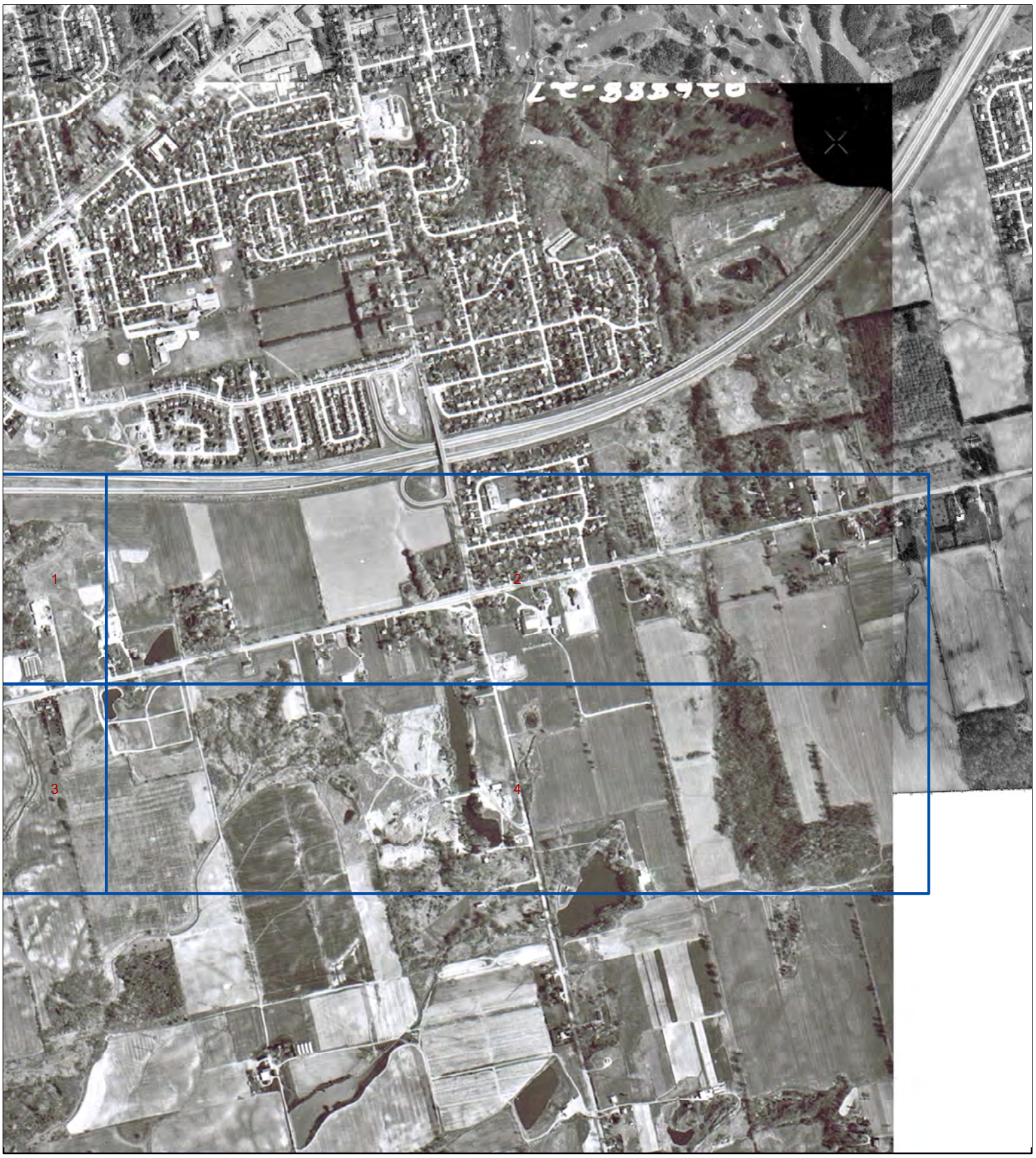


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Order Number: 21061700860

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ERIS



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Order Number: 21061700860

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Comments:

ERIS



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Order Number: 21061700860

Year: 1986
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Map Scale: 1: 34251
Comments:



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Order Number: 21061700860

Year: 1986
Source: NAPL
Map Scale: 1: 34251
Comments:



opta
INFORMATION INTELLIGENCE

enviroscan





An SCM Company

175 Commerce Valley Drive W
Markham, Ontario L3T 7Z3

T: 905-882-6300
W: www.optaintel.ca

Report Completed By:

Midori

Site Address:

1180 Wilson St. W. & 538 Fiddlers Green Rd., Ancaster, ON

Project No:

165001196 task 330

Opta Order ID:

92232

Requested by:

Dorothy Yu
Stantec Consulting Ltd.

Date Completed:

8/27/2021 1:59:31 PM

Project Name: Garner Road MCEA

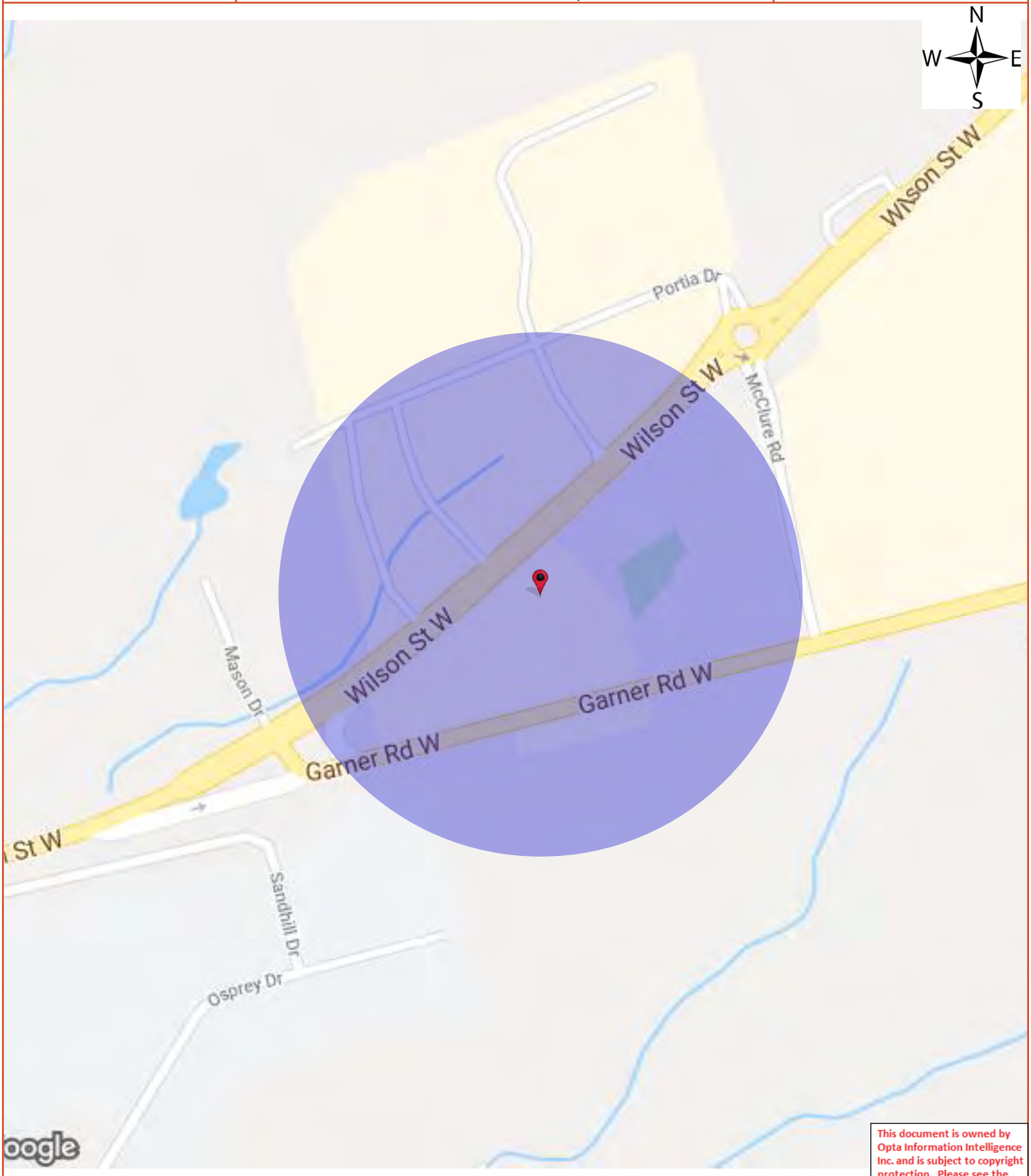
Project #: 165001196 task 330

ENVIROSCAN Report

Search Area: 1180 Wilson St. W. & 538 Fiddlers Green Rd., Ancaster, ON

Requested by:
Dorothy Yu
Date Completed: 08/27/2021 13:59:31

enviroscan
OPTA INFORMATION INTELLIGENCE



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Opta Historical Environmental Services Enviroscan™ Terms and Conditions

Report

The documents (hereinafter referred to as the "Documents") to be released as part of the report (hereinafter referred to as the "Report") to be delivered to the purchaser as set out above are documents in Opta's records relating to the described property (hereinafter referred to as the "Property"). Opta makes no representations or warranties respecting the Documents whatsoever, including, without limitation, with respect to the completeness, accuracy or usefulness of the Documents, and does not represent or warrant that these are the only plans and reports prepared in association with the Property or in Opta's possession at the time of Report delivery to the purchaser. The Documents are current as of the date(s) indicated on them. Interpretation of the Documents, if any, is by inference based upon the information which is apparent and obvious on the face of the Documents only. Opta does not represent, warrant or guarantee that interpretations other than those referred to do not exist from other sources. The Report will be prepared for use by the purchaser of the services as shown above hereof only.

Disclaimer

Opta disclaims responsibility for any losses or damages of any kind whatsoever, whether consequential or other, however caused, incurred or suffered, arising directly or indirectly as a result of the services (which services include, but are not limited to, the preparation of the Report provided hereunder), including but not limited to, any losses or damages arising directly or indirectly from any breach of contract, fundamental or otherwise, from reliance on Opta Reports or from any tortious acts or omissions of Opta's agents, employees or representatives.

Entire Agreement

The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or written, and there are no representations or warranties, or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver, or termination of the request shall be binding, unless confirmed in writing by the parties hereto.

Governing Document

In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

Law

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

Search Fee	$50.00

Selected Fire Insurance Plans

None

Selected Inspection Reports

None

Extra Addresses	$50.00

Total	$100.00

Project Name: Garner Road MCEA

Project #: 165001196 task 330

Excluded Fire Insurance Plans and Inspection Reports

Requested by:
Dorothy Yu
Date Completed: 08/27/2021 13:59:31

OPTA INFORMATION INTELLIGENCE

Excluded Fire Insurance Plans

(1960): Hamilton Volume 5, Volume Number 1: 555

Excluded Inspection Reports

(1986) COPE Report (distance = 160 metres*)

INFORMATION INTELLIGENCE

175 Commerce Valley Drive W
Markham, Ontario
L3T 7Z3

T: 905.882.6300
Toll Free: 905.882.6300
F: 905.882.6300

An SCM Company
www.optaintel.ca

From: Public Information Services
To: Yu, Dorothy
Subject: RE: Information Request for Garner Road, between
Date: Wednesday, March 31, 2021 8:25:15 AM
Attachments: image001.png
image002.png
image003.png
image004.png

Hello Dorothy,

Thank you for your email. Please kindly resubmit the request with Section D filled out with a municipal address or, if required, a Lot #, Concession #.

Kind regards,

Saara Torrison

Public Information Agent
Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-6222 | Fax: +1-416-734-3568 | E-Mail: publicinformationservices@tssa.org
www.tssa.org

From: Yu, Dorothy <Dorothy.Yu@stantec.com>
Sent: March 30, 2021 4:17 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Information Request for Garner Road, between

[CAUTION]: This email originated outside the organisation.
Please do not click links or open attachments unless you recognise the source of this email and know the content is safe.

I'd like to make a request for a records search for Garner Road between Wilson St to the Highway 403 Ramp in Hamilton. This will be for a Phase I ESA completed for the City of Hamilton. A site plan has been attached for your reference of the site location.
The public information form for the property is attached. **Please provide an electronic copy of the receipt for billing purposes referencing the project number 165001196.**

I appreciate your assistance in collecting this information. If you have questions or require additional information, do not hesitate to contact me.

Thank you,

Dorothy Yu B.A.Sc., E.I.T.
Junior Environmental Site Assessor

Mobile: (437) 230-4520

Stantec Consulting Ltd.
300W-675 Cochrane Drive
Markham ON L3R 0B8



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Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075
Téléc.: (416) 314-4285

Ontario

May 10, 2021

Dorothy Yu
Stantec Consulting Inc.
675 Cochrane Drive, Unit 300W
Markham, ON L3R 0B8

Dear Dorothy Yu:

RE: ***Freedom of Information and Protection of Privacy Act*** **Request**
Our File # A-2021-01771, Your Reference 20210510130059600

The Ministry is in receipt of your request made pursuant to the *Freedom of Information and Protection of Privacy Act* and has received your payment in the amount of $5.00 (non-refundable application fee).

The search will be conducted on the following: all environmental records pertaining to the road allowance along Garner Road, between Wilson Road and Highway 403 ramp, in Hamilton. If there is any discrepancy please contact us immediately.

You may expect a reply or additional communication as your request is processed. For your information, the Ministry charges for search and preparation time.

Due to the COVID-19 outbreak, requesters may experience some delays with FOI requests at this time.

If you have any questions regarding this matter, please contact Eric Giang at 416-274-2927 or eric.giang@ontario.ca.

Yours truly,

Original signed by

Noel Kent
Manager, Access and Privacy

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075

Ontario

January 11, 2023

Dorothy Yu
Stantec Consulting Inc.
675 Cochrane Drive, Unit 300W
Markham, Ontario L3R 0B8
Dorothy.Yu@stantec.com

Dear Dorothy Yu:

RE: MECP FOI A-2021-01771, Your Reference #: 20210510130059600 – Record Release Letter

This letter is further to your request made pursuant to the Freedom of Information and Protection of Privacy Act (the Act) relating to all environmental records pertaining to the road allowance along Garner Road, between Wilson Road and Highway 403 ramp, in Hamilton.

Attached is a copy of the records.

If you have any questions regarding this matter, contact Tara Hachey at tara.hachey@ontario.ca.

Yours truly,

Tara Hachey

For:

Ryan Gunn
Manager, (A), Access and Privacy Office

Attachment

Ontario

Ministry of the Environment

INCIDENT REPORT

Reference Number:	4543-6ACSQL	**File Storage Number:**	SI HW HA
Module:	Incident Reporting	**Module Type:**	Spill
Cross Reference:	(doc link)	**Task Link:**	3556-6ACT47
Originating Document:		**Created by:**	Diana Klanert
Date Created:	2005/03/10	**Date Completed:**	2005/03/23
Bring Forward Date:		**Bring Forward Reason:**	
Status:	Closed		
Program	Sewage - Municipal/Private and commercial	**Activity:**	Spills

Is this an **air emission** (measured or modelled) or **wastewater** (sewage) **discharge exceedance** that will become part of the Environmental Compliance Report?

(legislation, certificate of approval, order, or guideline)

○ Yes ● No ○ To be determined ***Click here for Guidance***

Caller or PO Information

Reported By:		**Name of Company:**
First Name	**Last Name**	City of Hamilton, Sewer-use Control
Chris	Banitsiotis	

Contact Mailing Address

Civic Address:			**Unit Identifier:**
330 Wentworth Street North			
Delivery Designator:			**Delivery Identifier:**
Municipality:	**Postal Station:**	**Province/State:**	**Postal Code:**
Hamilton		Ontario	
Telephone Number:	**Extension:**	**Other Number:**	**Email Address:**
(905)546-2424	4476	(905)540-5985	

Reported By:	

MOE Information

Date & Time Reported to MOE:	2005/03/10 15:42		
Office Receiving Incident Report:	Spills Action Centre		
Incident Info Received By:	Diana Klanert		
MOE Response:	No Field Response	**Site Region:**	West Central
Date & Time of MOE Arrival at Scene:			
Master Incident Report Number:			
SAC Action Class:	Spill to Land		
Non-Standard Procedure:	No		

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01

ERP Call-out Initiated:			

Client(s)

Client Details
City of Hamilton Mailing Address: 330 Wentworth Street North, Hamilton, Ontario, Canada, L8L 5W2 Physical Address: Concession: , Plan: , 330 Wentworth Street North, Hamilton, City, Ontario, Canada, L8L 5W2 Telephone: (905)546-2424, Extension: 7006, FAX: (905)546-2361 Client #: 7381-5QZHWG, Client Type: Municipal Government

Site(s)

Site Details
Sewer Manhole<UNOFFICIAL> Address: Lot: , Part: , 1151 Garner Road West, Hamilton, City, District Office: Hamilton - District

Incident Information

Incident Summary:	Hamilton-sewage discharge from manhole, to ditch *cannot be longer than 60 characters*
Incident Description:	Caller reports that he responded to a sewage spill out of a manhole due to a blockage. The manhole is located at 1151 Garner Road West between Wilson Street West and Shaver Road. Caller received the call at 14:15 from Sewer and Water Maintenance. Caller was on site at 15:00. The sewage is flowing into the ditch and running towards a local wetland area. Caller unsure of when the overflow started or the quantity that has discharged. There is a SARP vac truck on site which is trying to flush out the blockage as well as vac up the sewage. The caller can't determine whether the sewage is entering the wetland due to brush and snow. Caller is going to try and arrange to have another vac truck attend the scene to help prevent the sewage from entering the ditch. Caller states that he has no available resources to help contain the spill because any dykes, booms or means of containment would not prevent the sewage from flowing into the ditch. Caller states that the sewage would just bypass any of his means of containment. There are very few businesses in area and houses are few and far apart. Caller cell number is (905) 973-4213. Caller to update SAC with any new information. 15:59 - SAC (dk) to Hamilton MOE (Charlie Roland). Briefed. 16:17 - SAC (dk) to Hamilton Conservation Authority (Tony Horvat). Told of situation and redirected to call Grand River Conservation Authority at (519) 621-2761. 16:21 - SAC (dk) to Grand River Conservation Authority (Mark Anderson). Briefed. Asked if we could update them with any new information received regarding the wetland. Copy of report faxed (519)621-4945. - District office contacted City of Hamilton - vac truck on site - need to vac out sewer before can flush out/unplug blockage in sani sewer - gentle leak - clear discharge - no solids getting into drainage ditch - District supervisor updated - City to call SAC and notify of completion - City to update District staff in the Morning - 11 March - City contacted District office - sewer blockage flushed out by 1 am - all back to normal - no further action required

Attachments, Links & Comments:	

Date & Time of Incident	2005/03/10		
Source Type:	Other Plant - Sewage Municipal	**Sector Type:**	
Nearest Watercourse:	Great Lakes - St. Lawrence Lake Ontario Western Lake Ontario Tributaries Hamilton Harbour	**Watershed Category Code:**	2HB06
Environmental Impact:	Possible		
Nature of Impact:	Soil Contamination, Surface Water Pollution, Vegetation Damage		
Incident Cause:	Other Discharges	**Incident Reason:**	Other - Reason not otherwise defined
Damaged Party:	No		

Contaminants Table

Contaminant Name	Code	UN#	Limit	Quantity	[units]	[freq]
SEWAGE,RAW UNCHLORINATED	44	n/a				

Controller of Material:		**Owner of Material:**	
Estimated Clean Up Cost:		**Who Cleaned Up:**	
% Clean Up:	%	**Agencies Involved:**	

Voluntary / Mandatory Abatement

Is there Voluntary Abatement Activity?	○ Yes ○ No ○ To be determined

Voluntary / Mandatory Compliance Items

Type	Parent RefNo	Work Summary (may be truncated)	Date	AttainList

Offence(s)

Suspected Violation(s)/Offence(s):	
Act - Regulation - Section, Description {General Offence}	

Provincial Officer:

Name: Joanne Placko
Badge No: 978

Work Unit:
District/Area Office: Hamilton District Office

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03

Date: 2005/03/14

Signature:



Director:

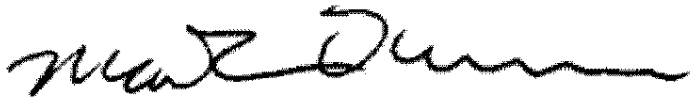
Name: Mark Dunn

Work Unit:

District/Area Office:

Date: 2005/03/23

Signature:



Ontario

Ministry of the Environment, Conservation and Parks
Ministère de l'Environnement, de la Protection de la nature et des Parcs

INCIDENT REPORT

Reference Number:

6838-BKNS4D

Client(s):

City of Hamilton
Mailing Address: Floor 6th - 71 Main St W, Hamilton, Ontario, Canada, L8P 4Y5
Physical Address: Floor 6th - 71 Main St W, Hamilton, City, Ontario, Canada, L8P 4Y5
Telephone: (905)546-2424, Extension: 5521, FAX: (905)546-4473, email: chad.sanders@hamilton.ca
Client #: 1563-5DNJD9, Client Type: Municipal Government, NAICS: 913910

Site(s):

CB in a blvd<UNOFFICIAL>
Address: Lot: , Part: , Wilson Street West and Garner Road, Hamilton, City,
District Office: Hamilton - District
GeoReference: Map Datum: , Zone: 17, Method: , UTM Easting: 579321, UTM Northing: 4782914, UTM Location Description: ,

Incident Summary:

CofHamilton: sewage spill to ditch and storm pond

Initial Incident Description:

Created: Jerome Price-Todd (Spills Action Centre) - 2020/01/09 03:32:33 PM

15:31h SAC(jpt) – Call from Mike Fama Environmental Enforcement Officer from the City of Hamilton (905-536-0738) reporting a spill of sewage from an air valve chamber on a forcemain.

Location: Wilson Street West and Garner Road, Ancaster in a blvd off the road.

Caller reports that the sewage is spilling into the ditch and discharging into the storm sewer. Caller reports that the sewer discharges into a storm pond from the storm pond back into the to city sewer system and then to another storm pond on Cormorant Road. Caller reports that the second pond may enter the natural waterway. Caller will check the second storm water pond for impacts.

Caller reports that they are trying to pump down in order to get repairs done. Caller reports that they have crews on site.

Caller reports that that the incident was first noticed at ~11:30 and caller that they were notified at ~ 12:30. Caller reports that they will notify the local HU.

Caller reports that they will check the second pond and update SAC.

15:59h SAC(jpt) – Call to MECP HA DO, C.O'Connor. Briefed on incident details. Caller will notify DW and requested to update DO if any further information.

16:14h SAC(jpt) – Call from S.Yeudall from the MECP HA (226-971-1268) requesting further details. Briefed on incident

details.

17:55h SAC(jpt) – Call to M.Fama from the CofHamilton. Left VM to call SAC.

19:12 SAC(jpt) briefed SAC(ad2).

20:38 SAC(ad2) to CofHamilton (Mike Fama): Mike states he has already spoken to S. Yeudall and provided an update. Leak was stopped at 17:15, no further discharge. Pipe-Tec is vacuuming the ditch. Issue was due to an "air valve", no further detail provided. Mike re-attended at 18:30, vacuuming is on-going and will continue throughout the night. Next update will be provided tomorrow.

****
January 10, 2020

10:17 SAC(jt) to Mike Fama
- Caller reports that the cleanup is still on-going
- QM Environmental is doing the work
- The caller states SAC will be updated this afternoon by the new on-call person or QM

13:02 Sherry Vanverheyven, Hamilton Water (905-973-0763) to SAC(ar).
Sherry states that City of Hamilton consultant QM has retained Badger to attend site and remove any residual spilled material and dig out impacted area to remove any remaining impact. Sherry states Badger is expected on site within an hour, total clean-up is expected to be done berfore the end of the day. Sherry will remain on site for the duration of the work and will contact SAC when clean-up is complete.

19:45 SAC(ad2) to Hamilton Water (Sherry V.): Crews are still working and not expected to be complete until midnight. SAC will be updated.

2020/01/11

01:01 Hamilton Water Sherry Vanverheyven 905-973-0763 to SAC(hm) reporting that the spill is taking longer than expected to clean-up. Caller says that they are roughly ¾ done at this point. There was some complications with the VAC truck on-site and so another one is being sent to finish the clean-up. Caller says that the excavator is continue to do its work until VAC truck arrives (ETA 1.5 hours). Caller says rain has been moderate and nothing has gone off-site. SAC to be updated later tonight with clean-up completion.

03:49 Hamilton Water (Sherry Vanverheyven) to SAC(PZ)
Hamilton Water is reporting clean-up is complete.

SWPIA*
Intake Protection Zone:3 ; score is 2
Significant Groundwater Recharge Area:Yes ; score is 2

Incident Description:

Last update: Jerome Price-Todd (Spills Action Centre) - 2020/01/09 04:06:21 PM

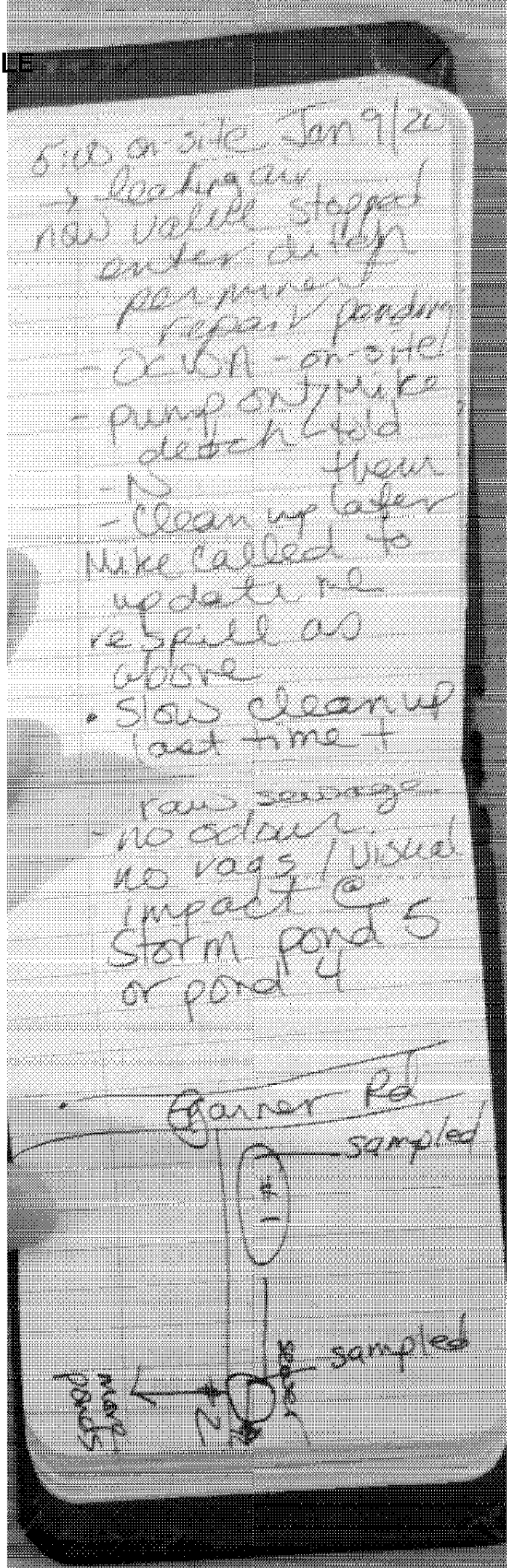
Source Protection Area.Grand River
Wellhead Protection Area:No
Wellhead Protection Area E (GUDI):No
Intake Protection Zone:3 ; score is 2
Issue Contributing Area:No
Significant Groundwater Recharge Area:Yes ; score is 2
Highly Vulnerable Aquifer:No
Event Based Area: No
Wellhead Protection Area Q1: No
Wellhead Protection Area Q2: No
Intake Protection Zone Q: No
The Significant threats for the vulnerable areas at this location can be found at this link.

Use the Policy search tab to see if any policies apply – for more details see the source protection plan

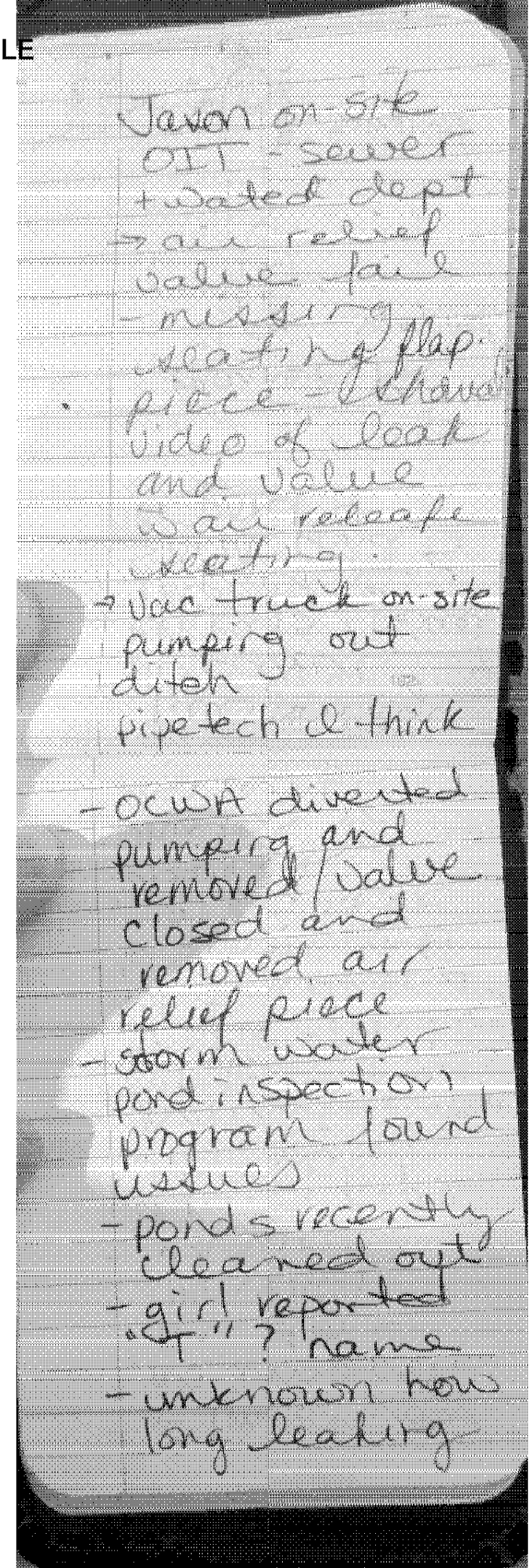
Information is current as of: January 31st, 2019

Voluntary / Mandatory Compliance Items:
Not Available

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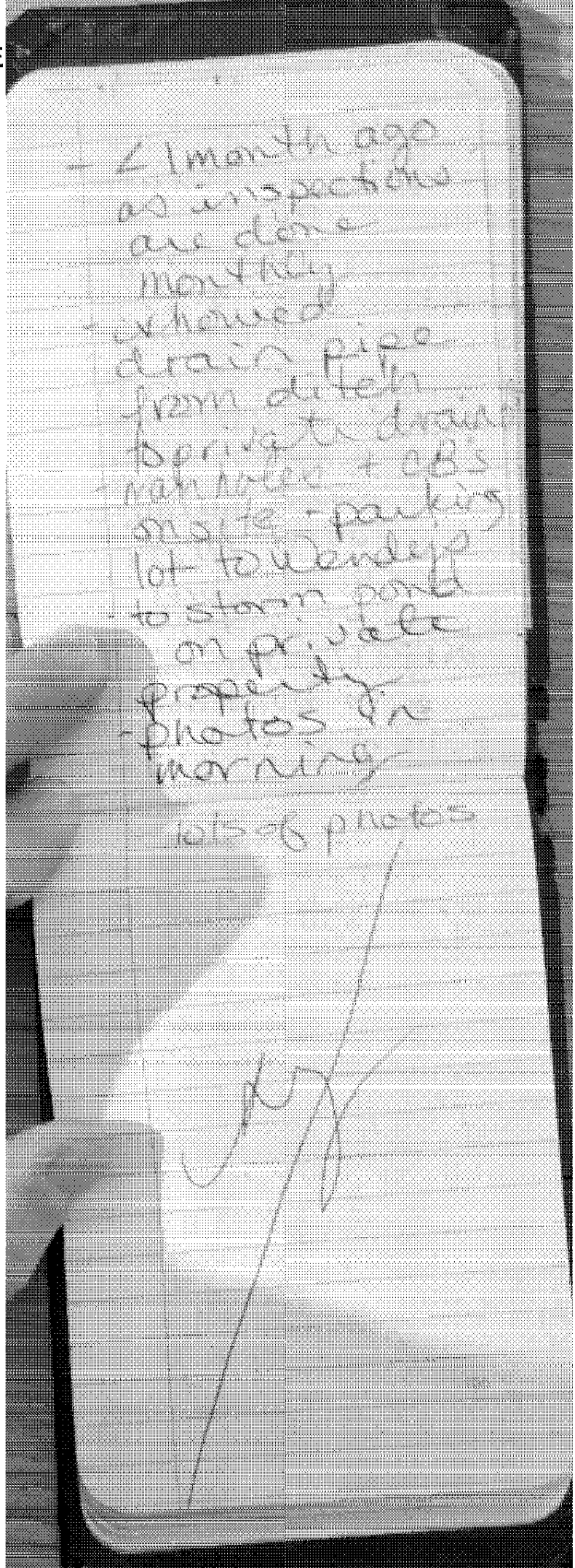


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Javon on-site
OIT - sewer
+ called dept
→ air relief
valve fault
- missing flap
piece - chewed
video of leak
and valve
→ air relief
valve
→ vac truck on-site
pumping out
ditch
pipetech & think
- OCWA diverted
pumping and
removed valve
closed and
removed air
relief piece
- storm water
pond inspection
program found
issues
- ponds recently
cleaned out
- girl reported
"it" ? name
- unknown how
long leaking

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Page 11

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Jerome Price - Todd
- Concurrent Encounter
- Industrial
- 62358 - BRNS4D
→ Forced Main
- Spill to storm ponds
→ Id. D Spilling on-site
Mike Fama
905-536-0738

→ ditch, storm
WSI. West

→ sewer
ditch → storm sewer
pond - city
ditch
pond
• natural water

① First yes
Second Storm pond
@
11:30 happened
12:30 called @
3:30 -

→ news onsite pumping
→ behind - Boulevard

Istorm

Kay - training
75978)

Tik 605 - 0178 - Ralph

Zafar Briefing w photos
Who
What
Where
When
Why
How
Mitigation Measures

Spill rpt - Volume estimate
- clean up
- sample tests
for + results
Oil + grease

LM for Mike Fama
LM for Cari - answered phone
Briefed on incident
Friday - spills report

72 BEST AVAILABLE COPY

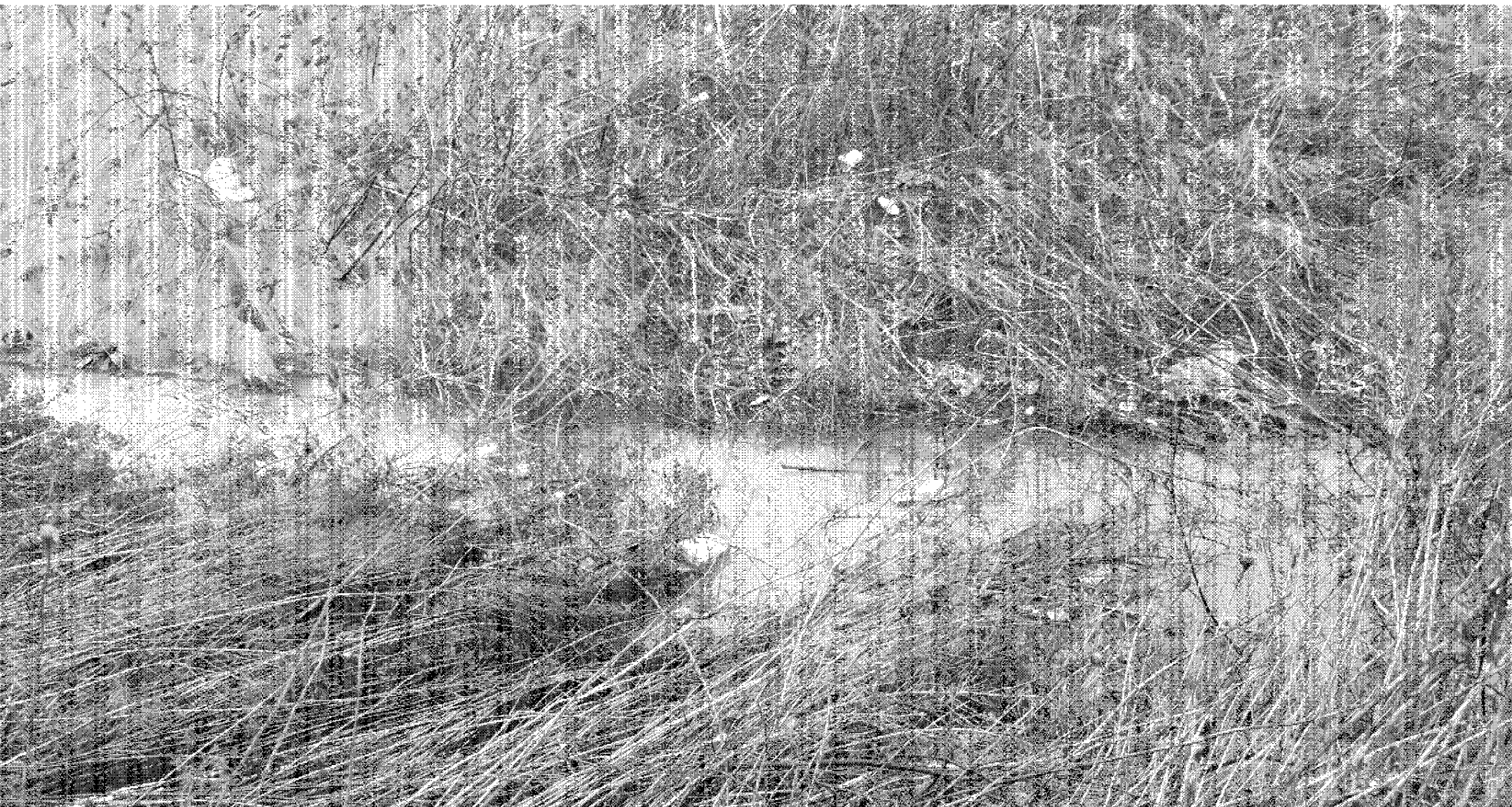
Jan 13/2020

9:00 left home for Wendy's spill clean up site.
- photos
- cleaned up excavator tracks looks cleaned up
- site covered in snow
- pond ~~out~~ clear
- 9am Friday AM still discoloured
- waiting update
- Friday night @ 6:55 pm in area and observed excavator drop off and clean up at decking. Hamilton City on-site lane blocked off on Wilson St dump truck etc.

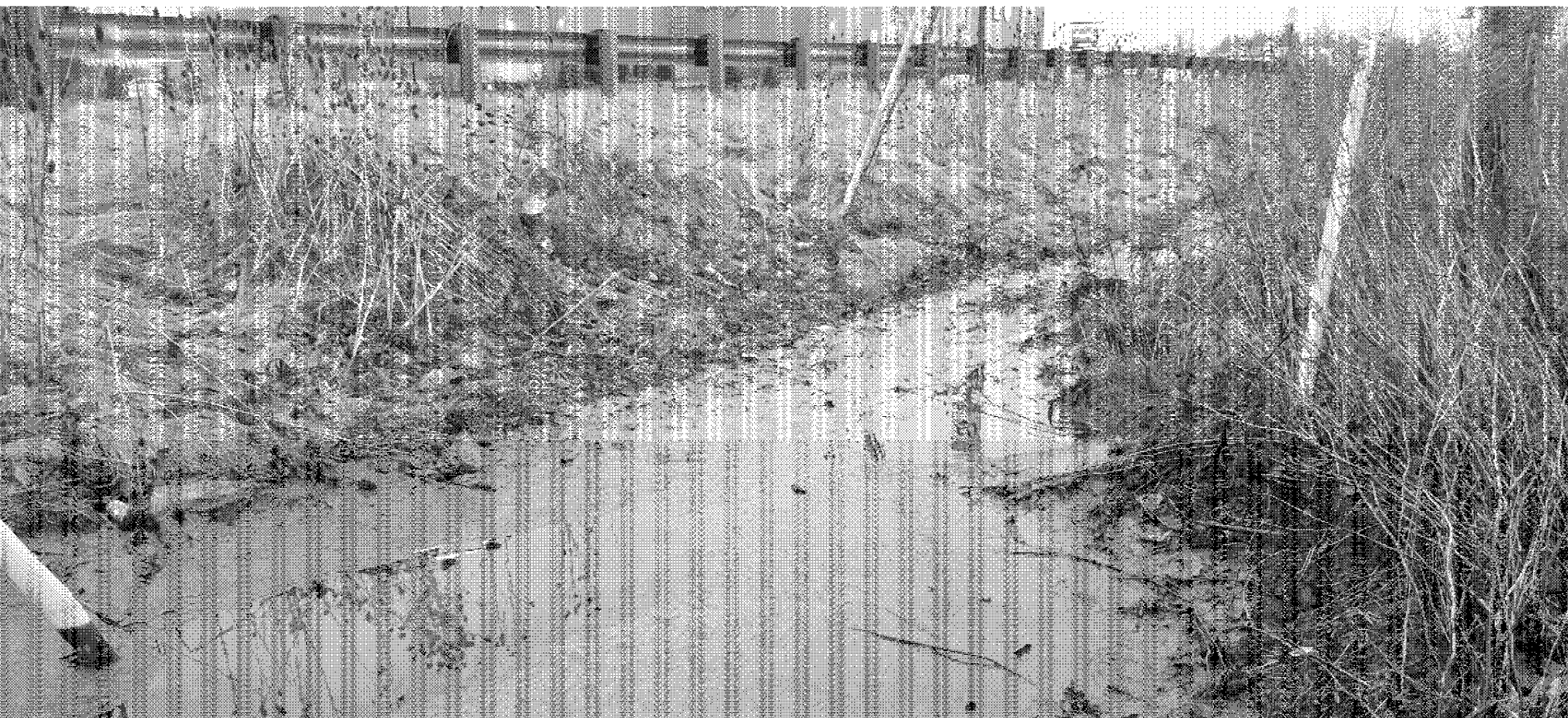
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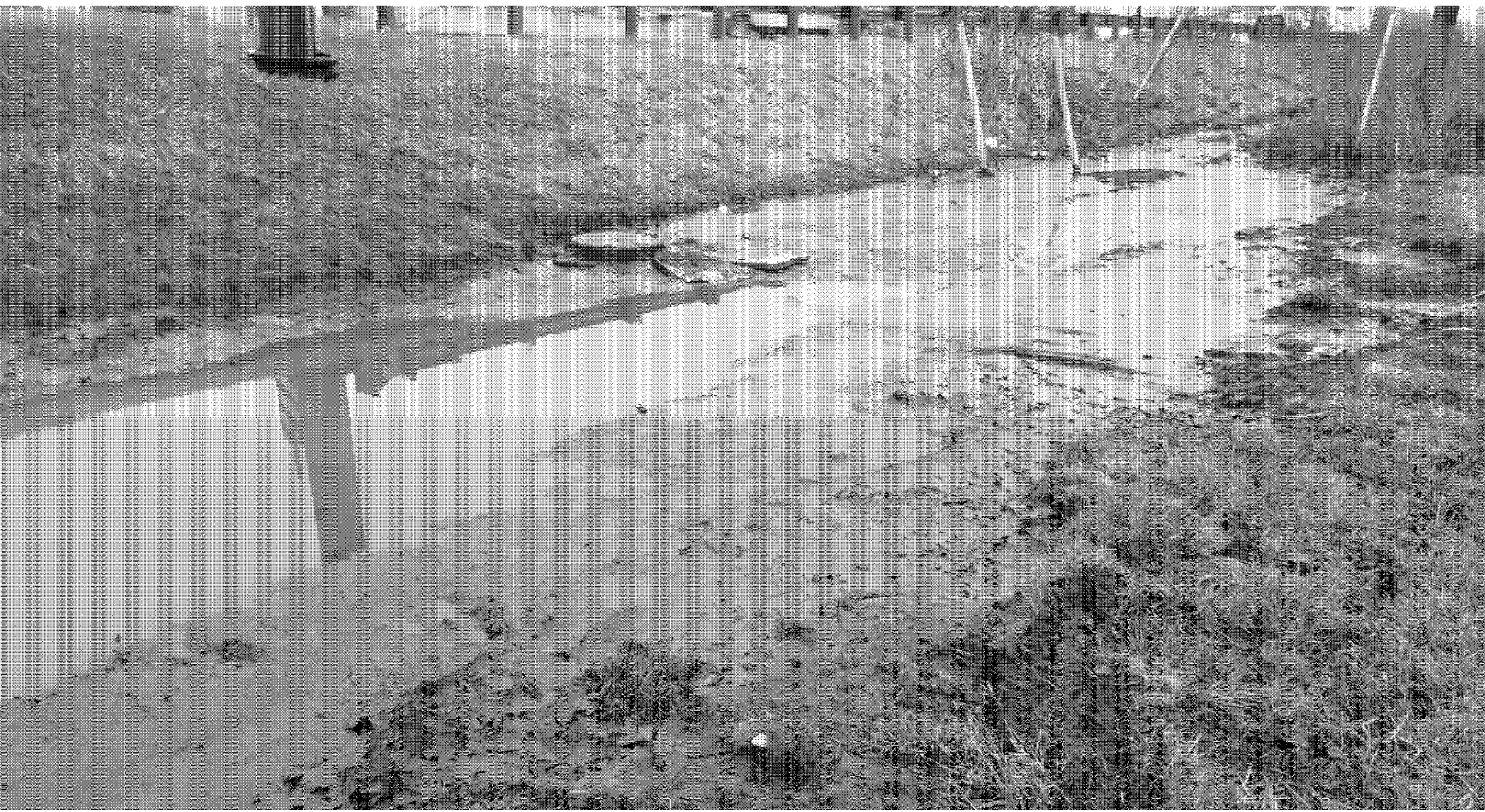








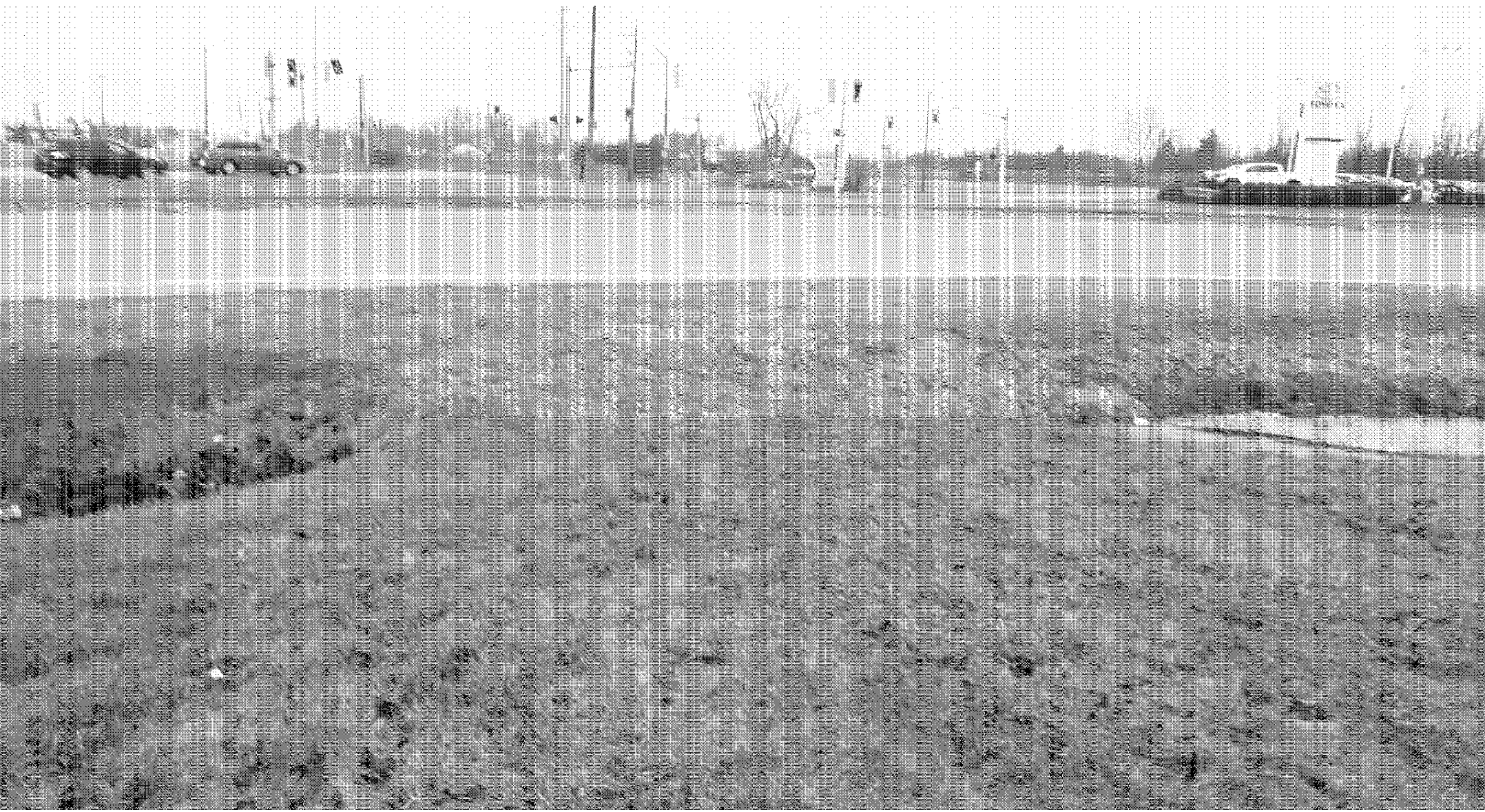




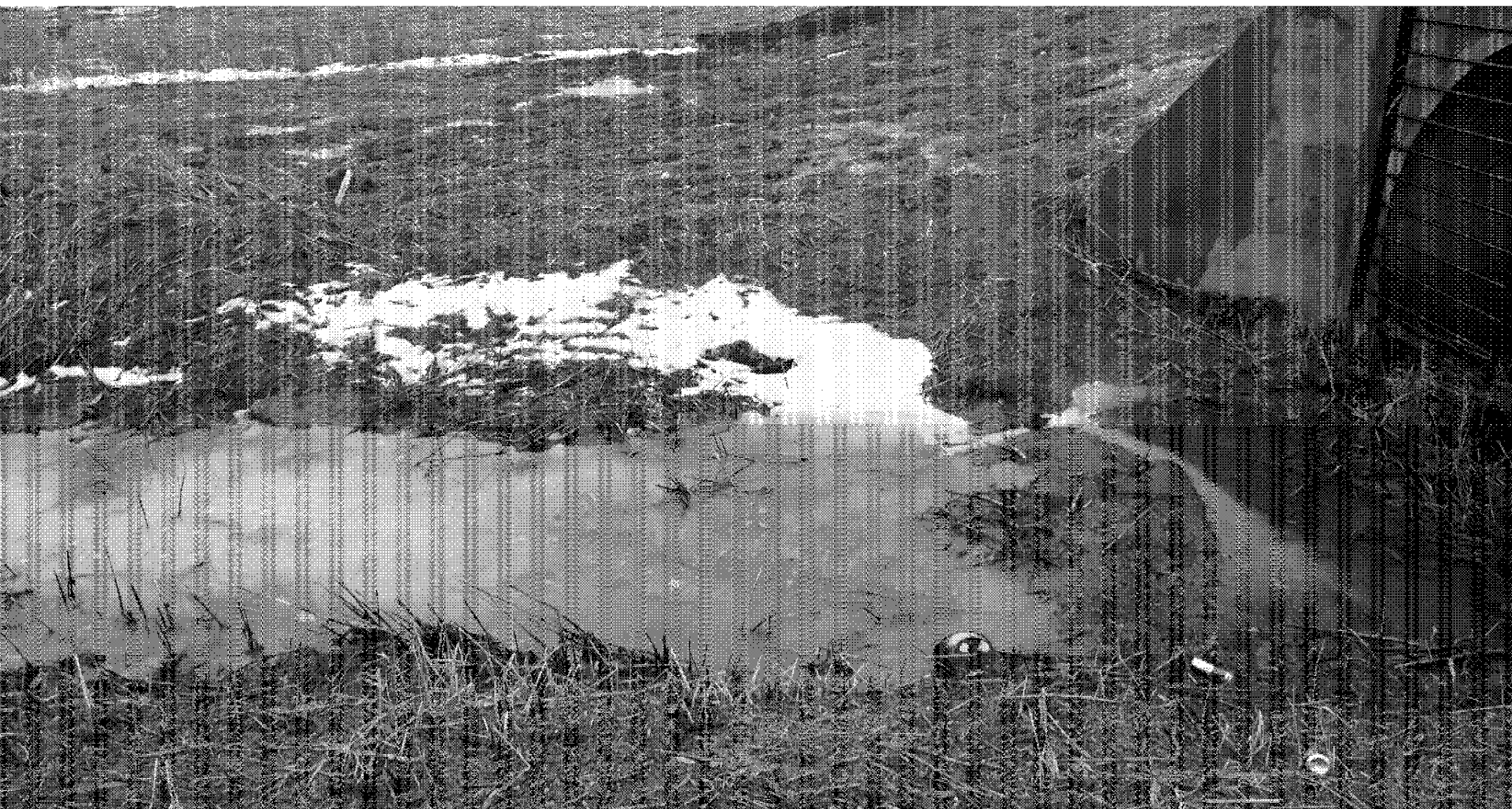










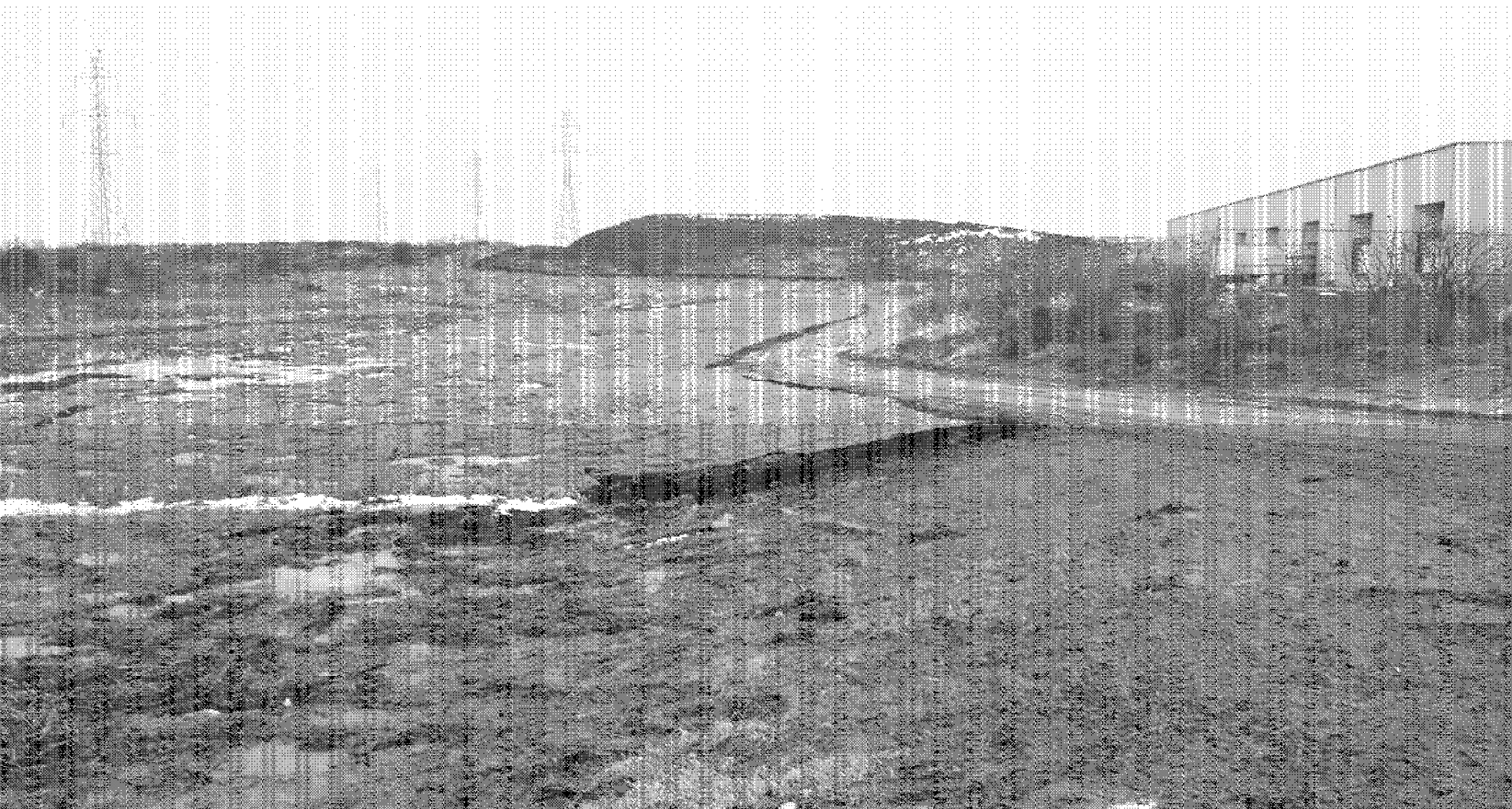




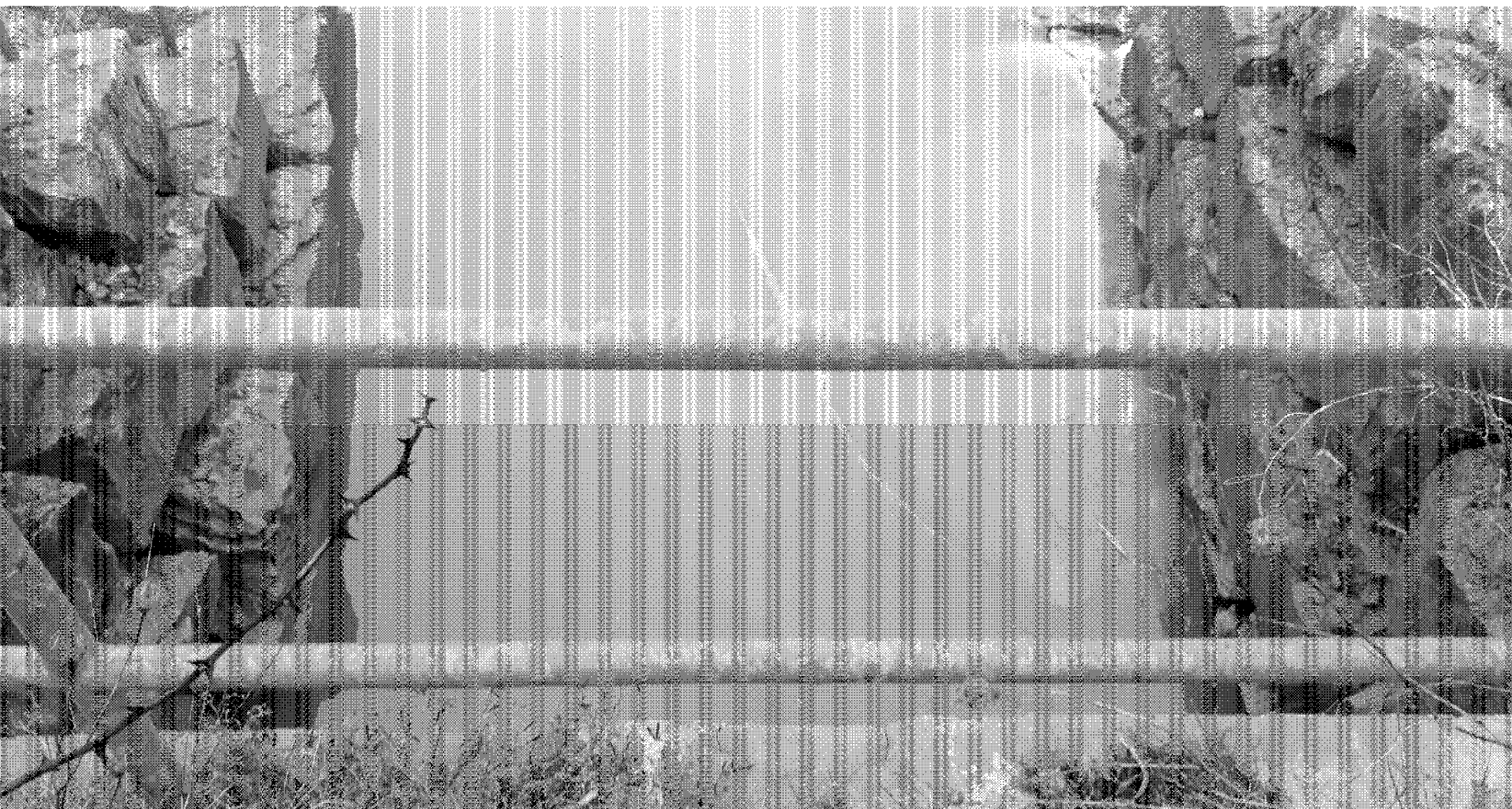








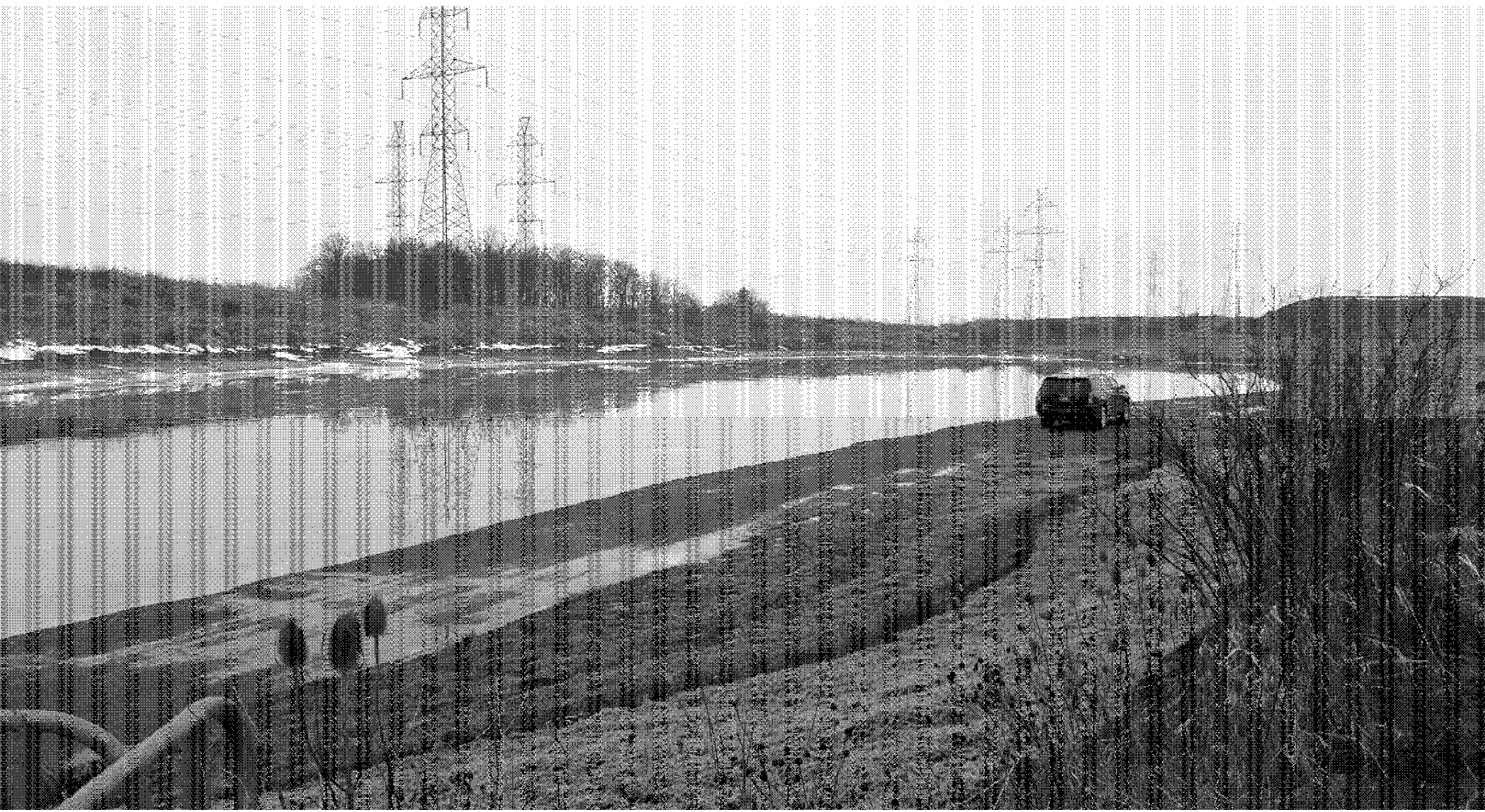


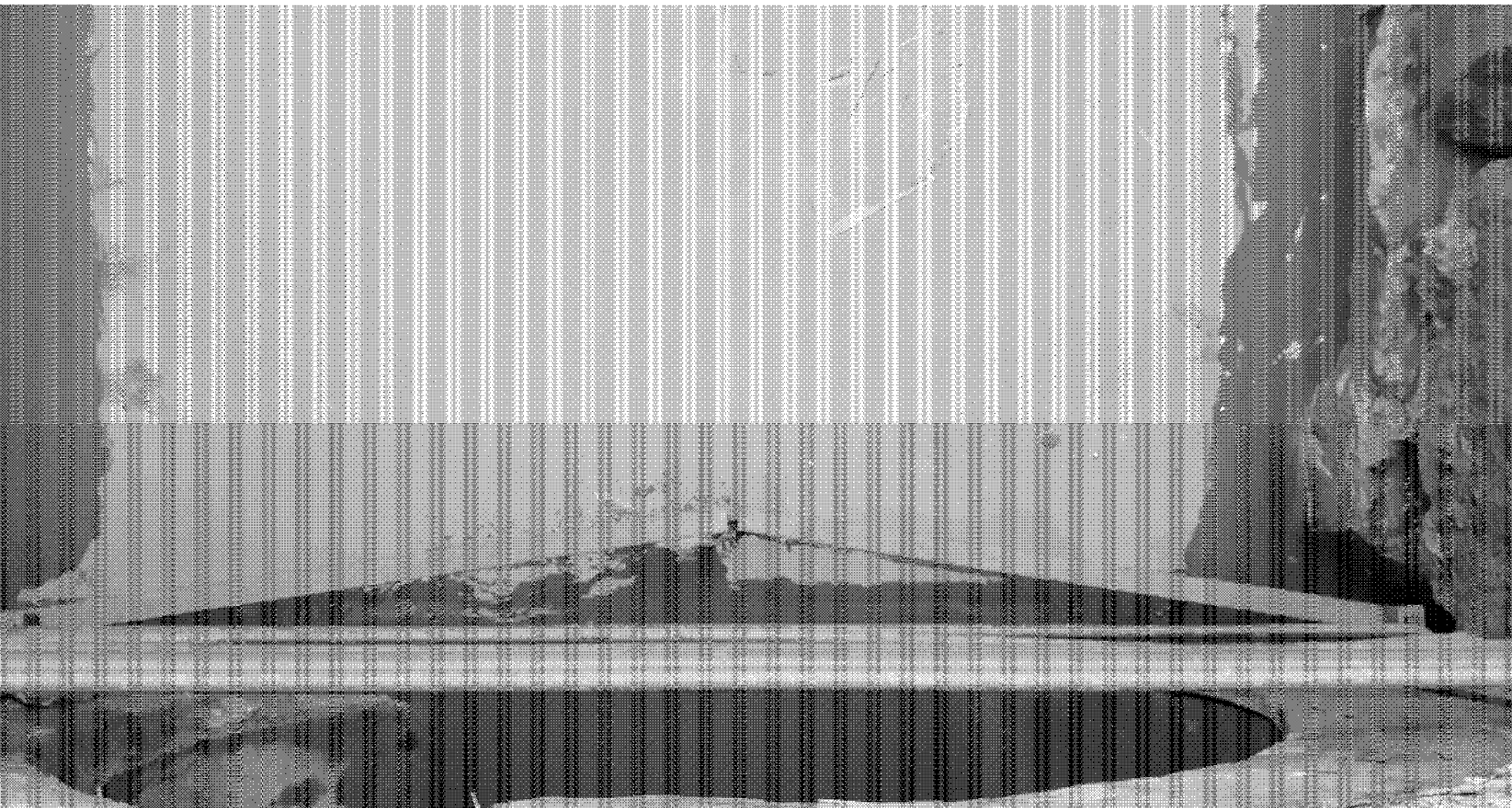


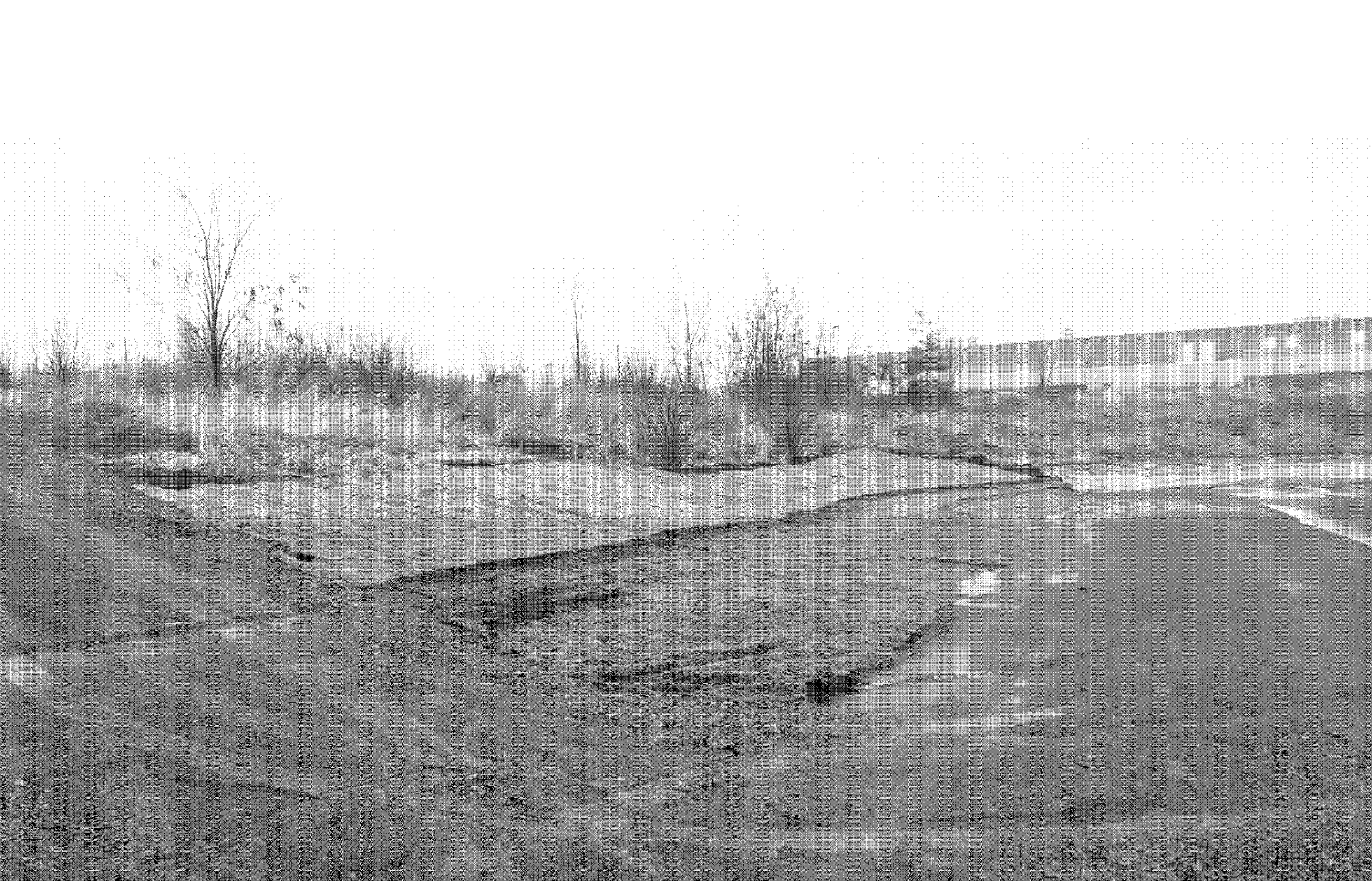


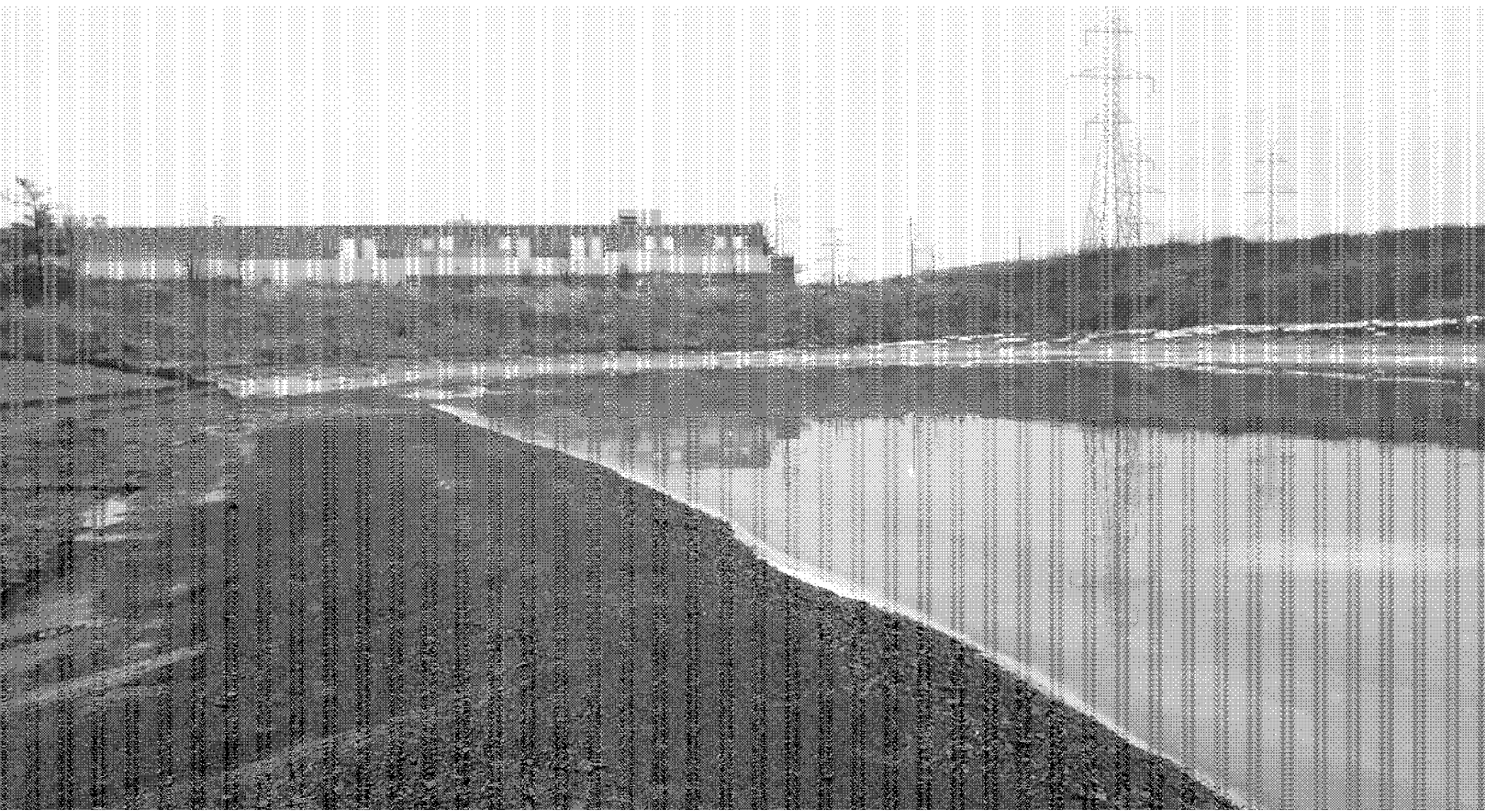




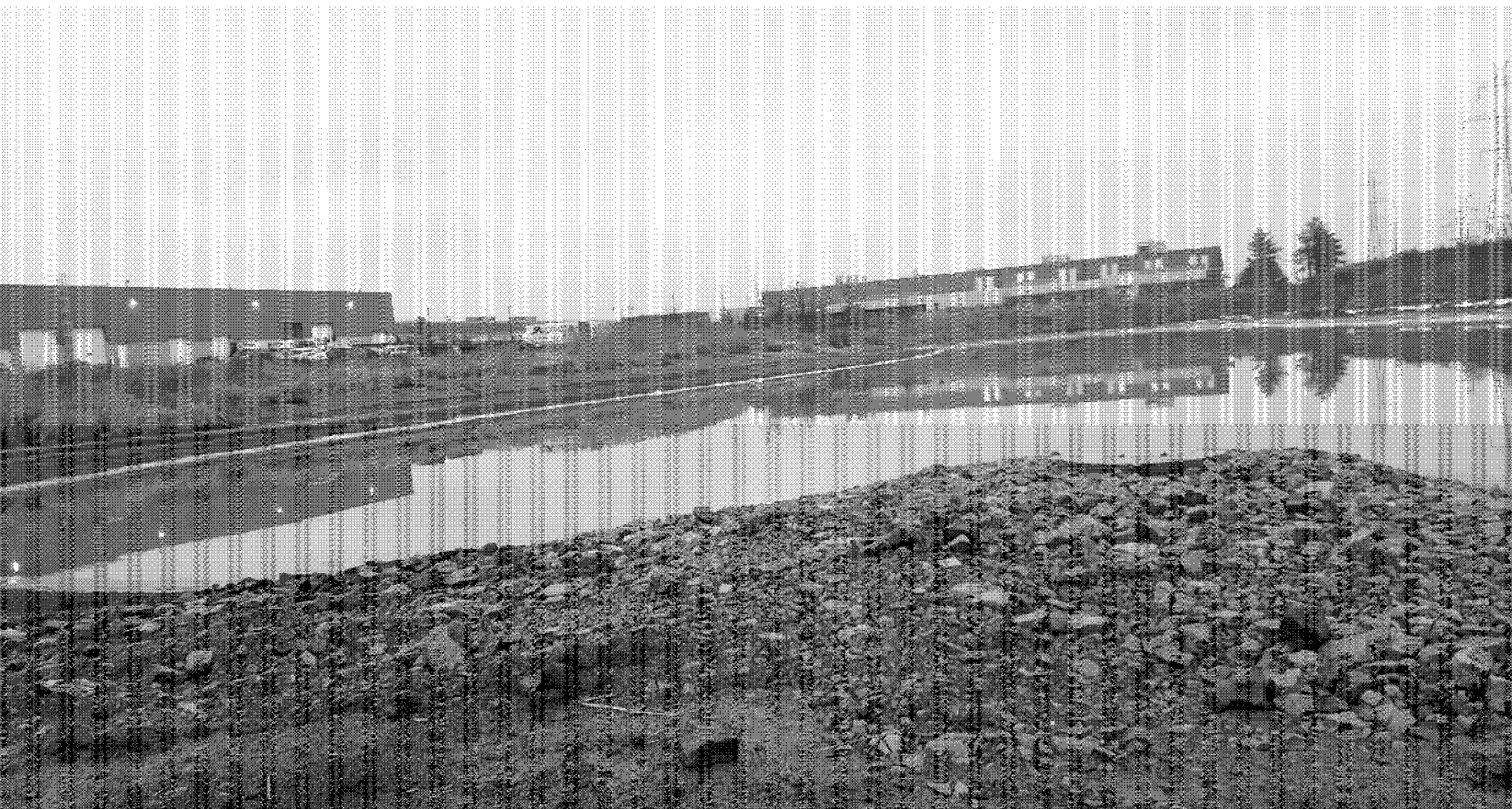


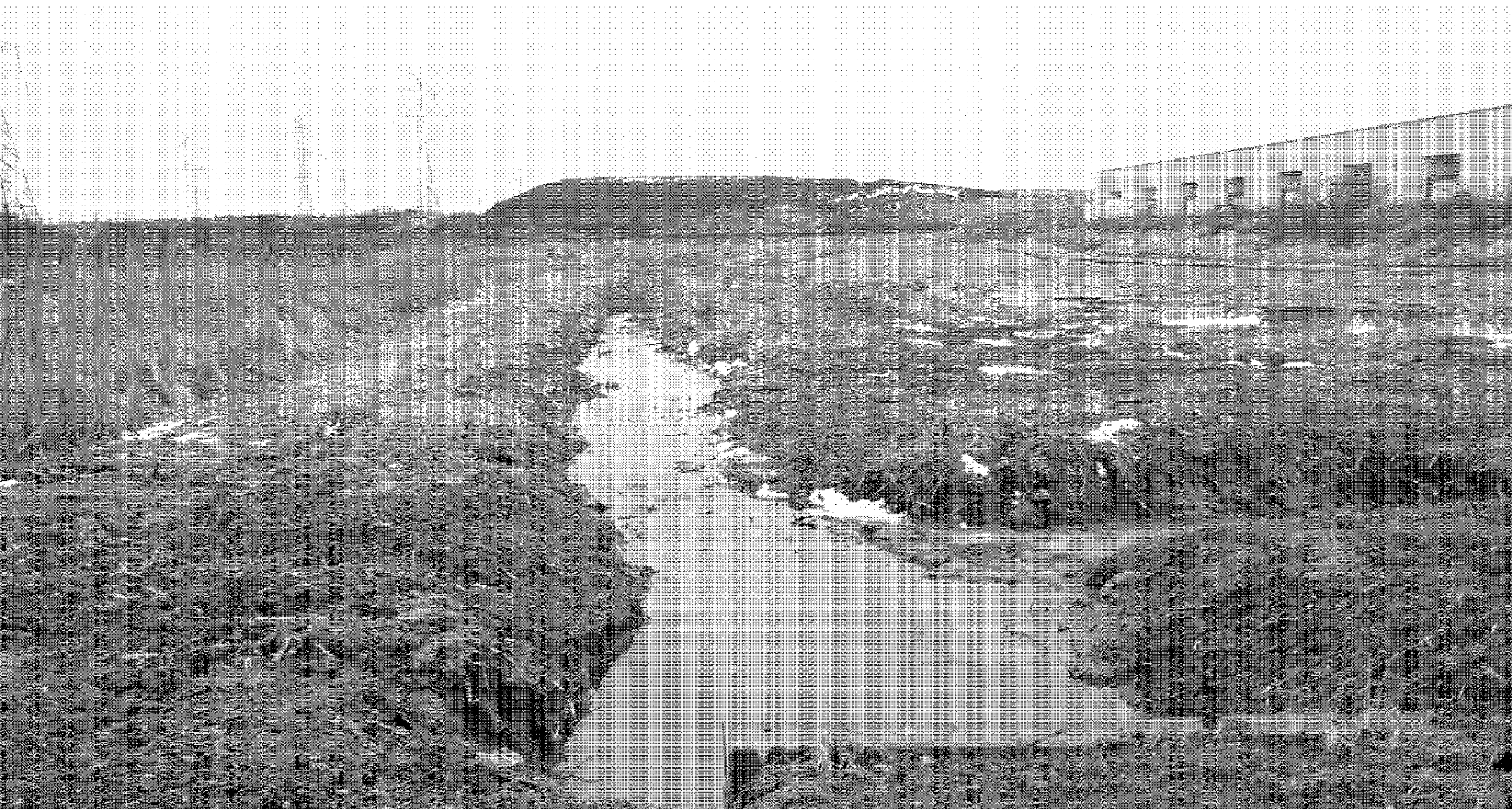




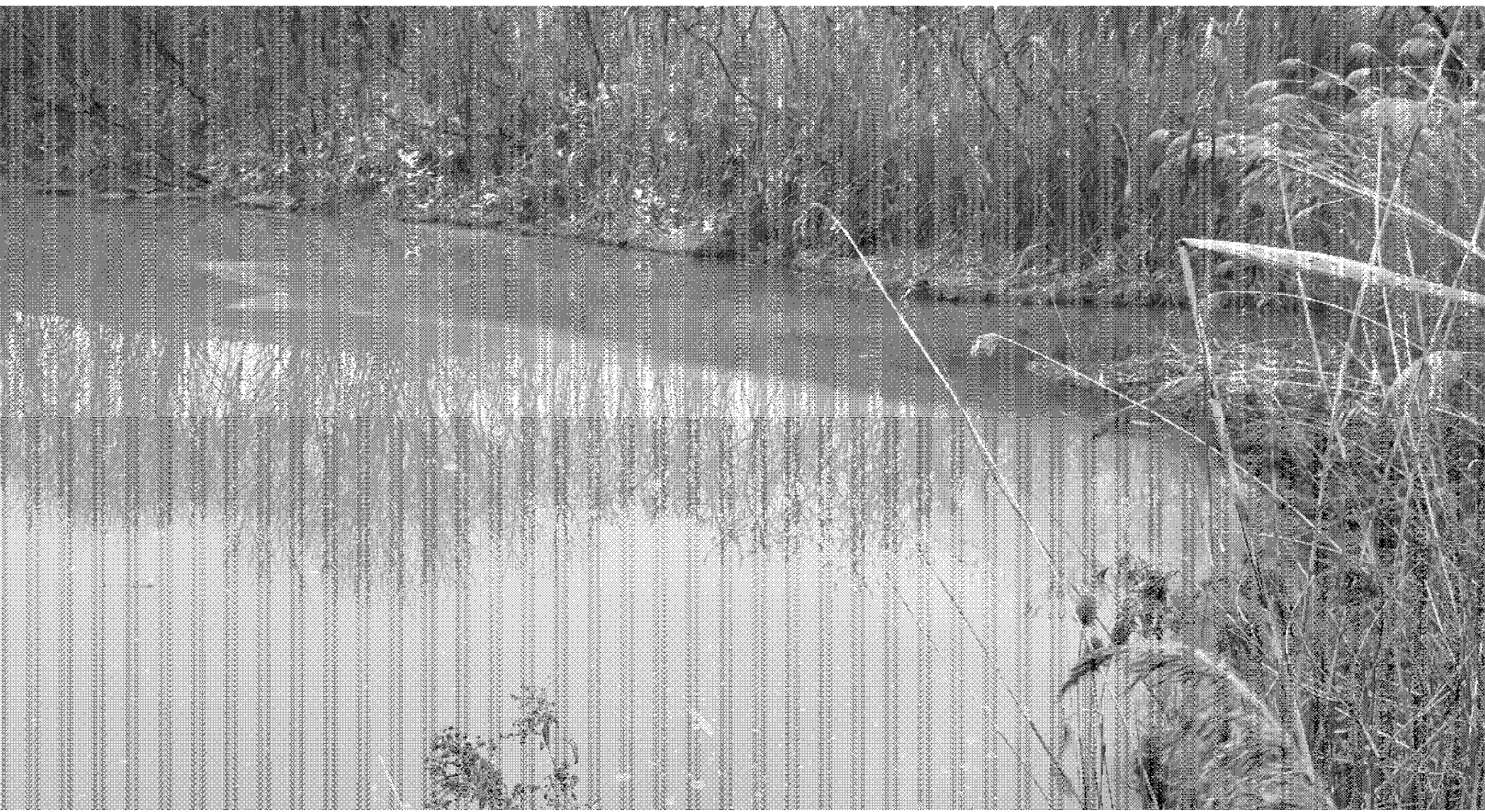


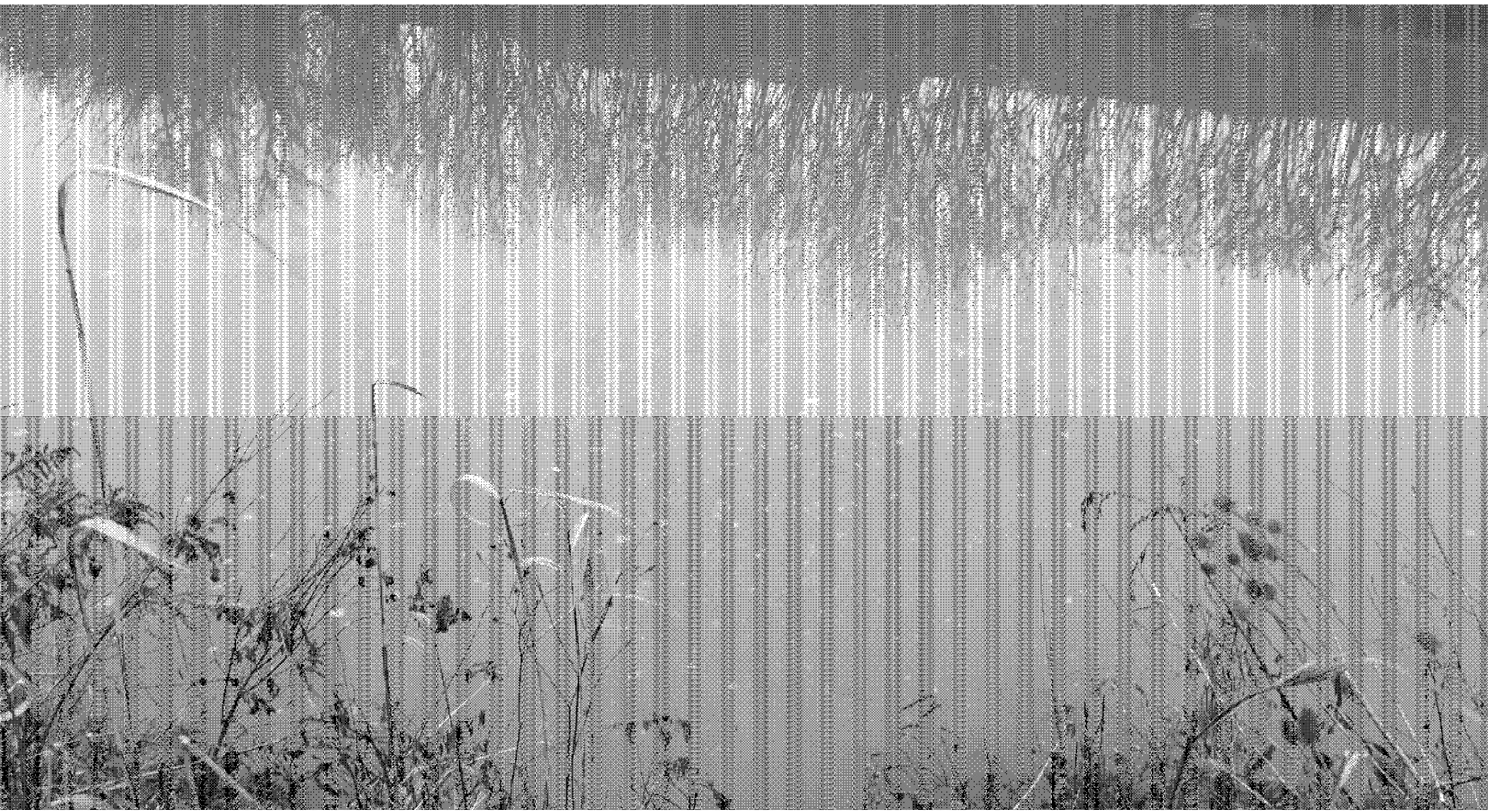












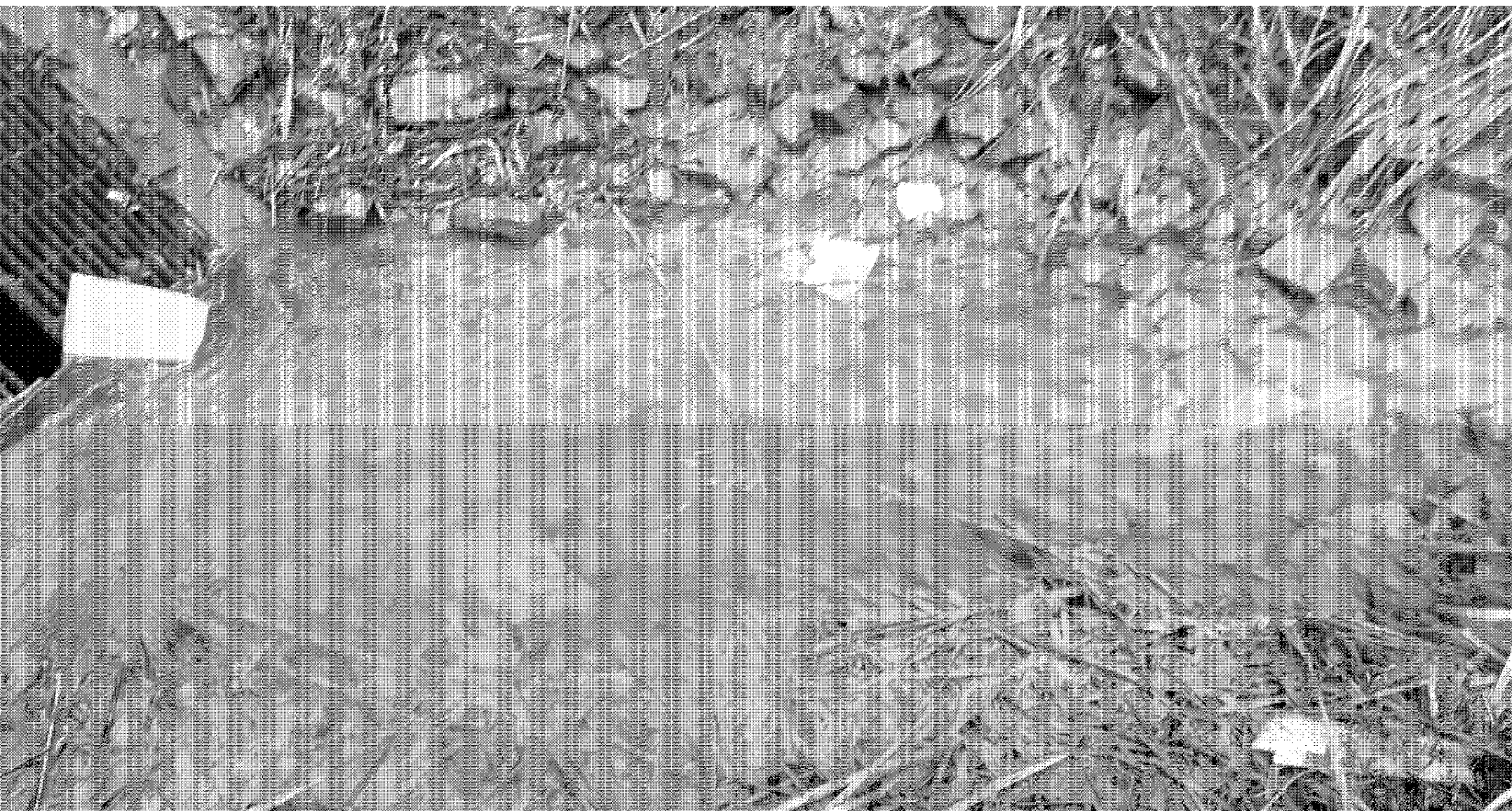












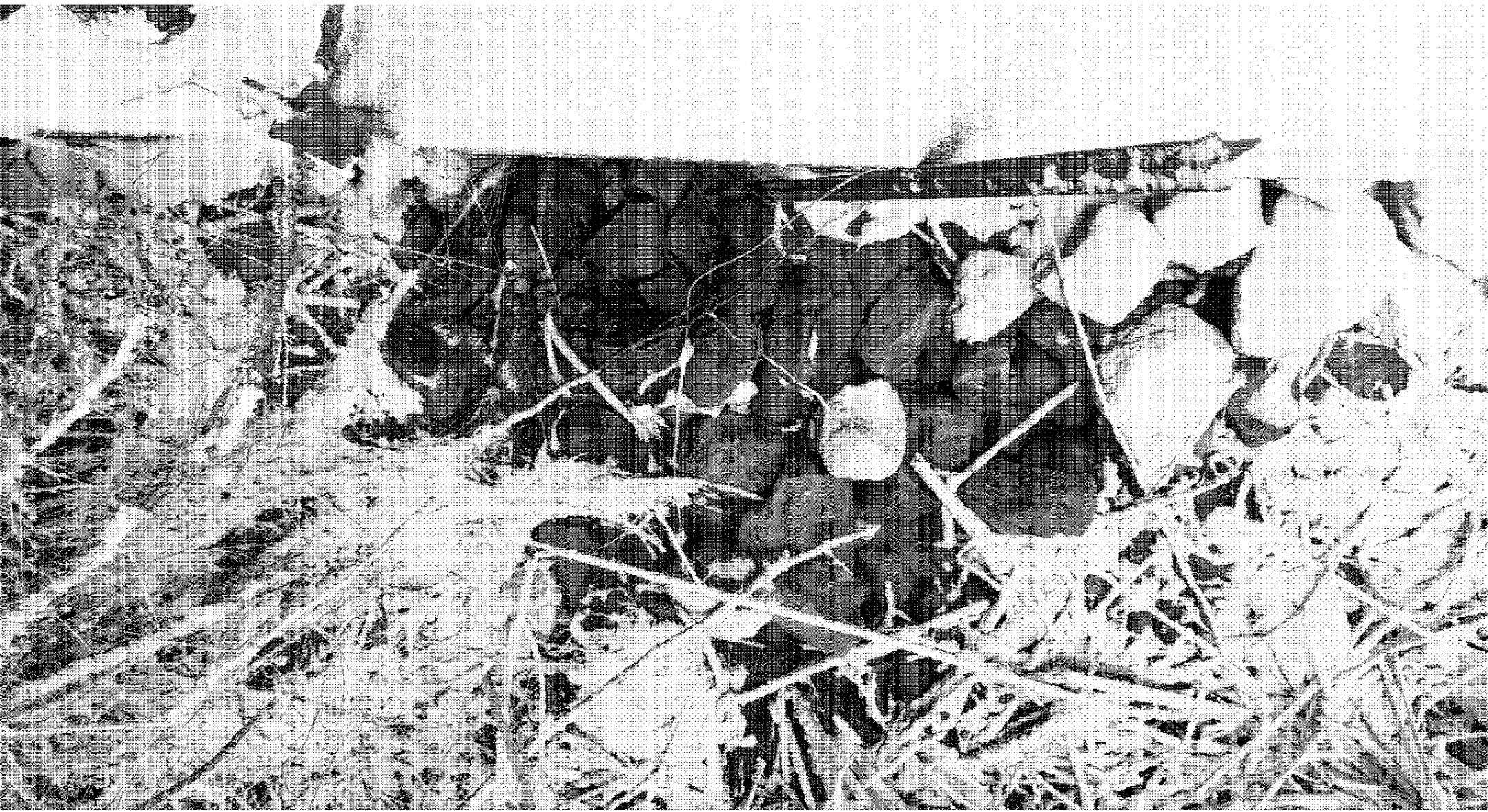






















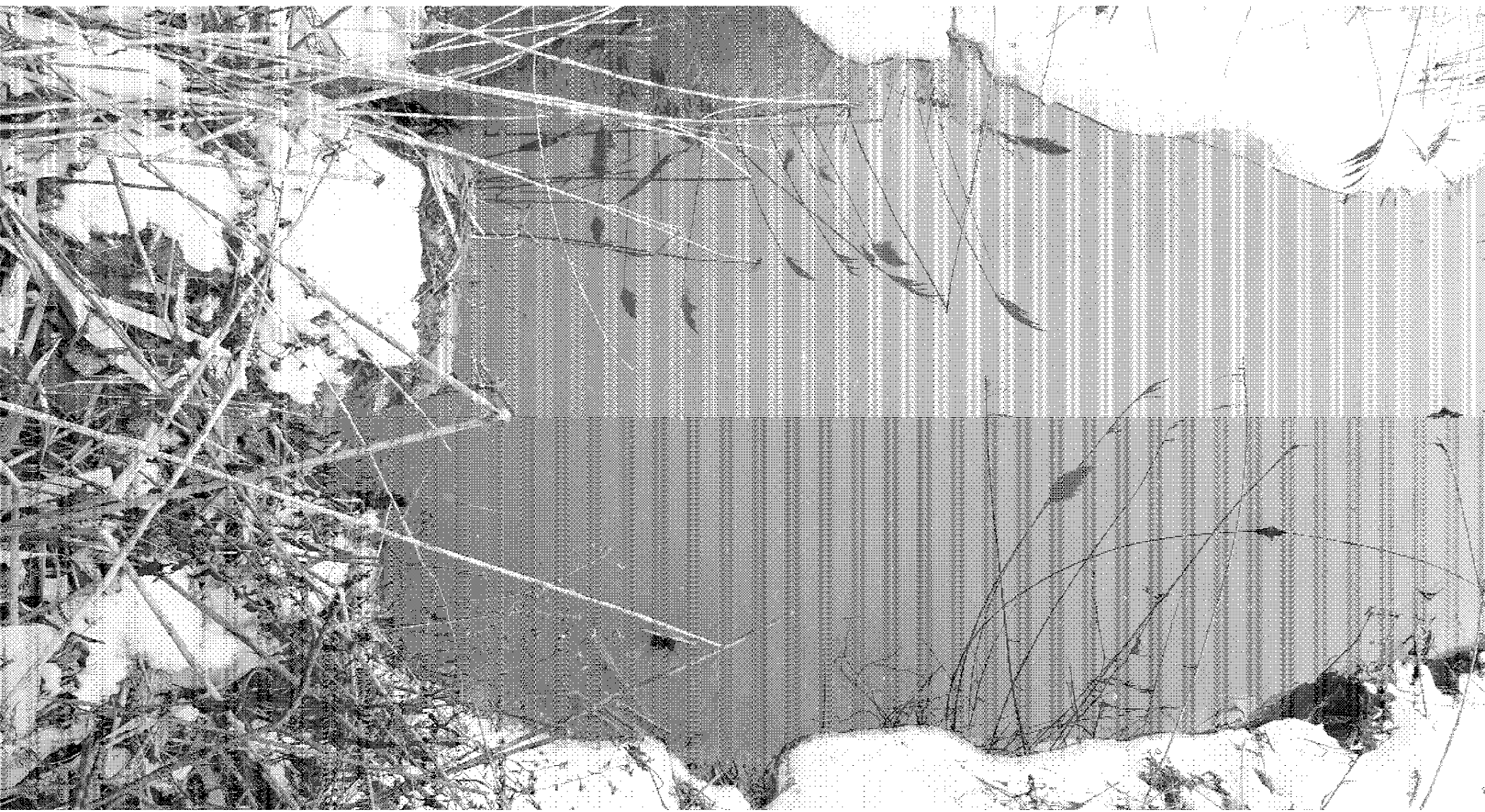


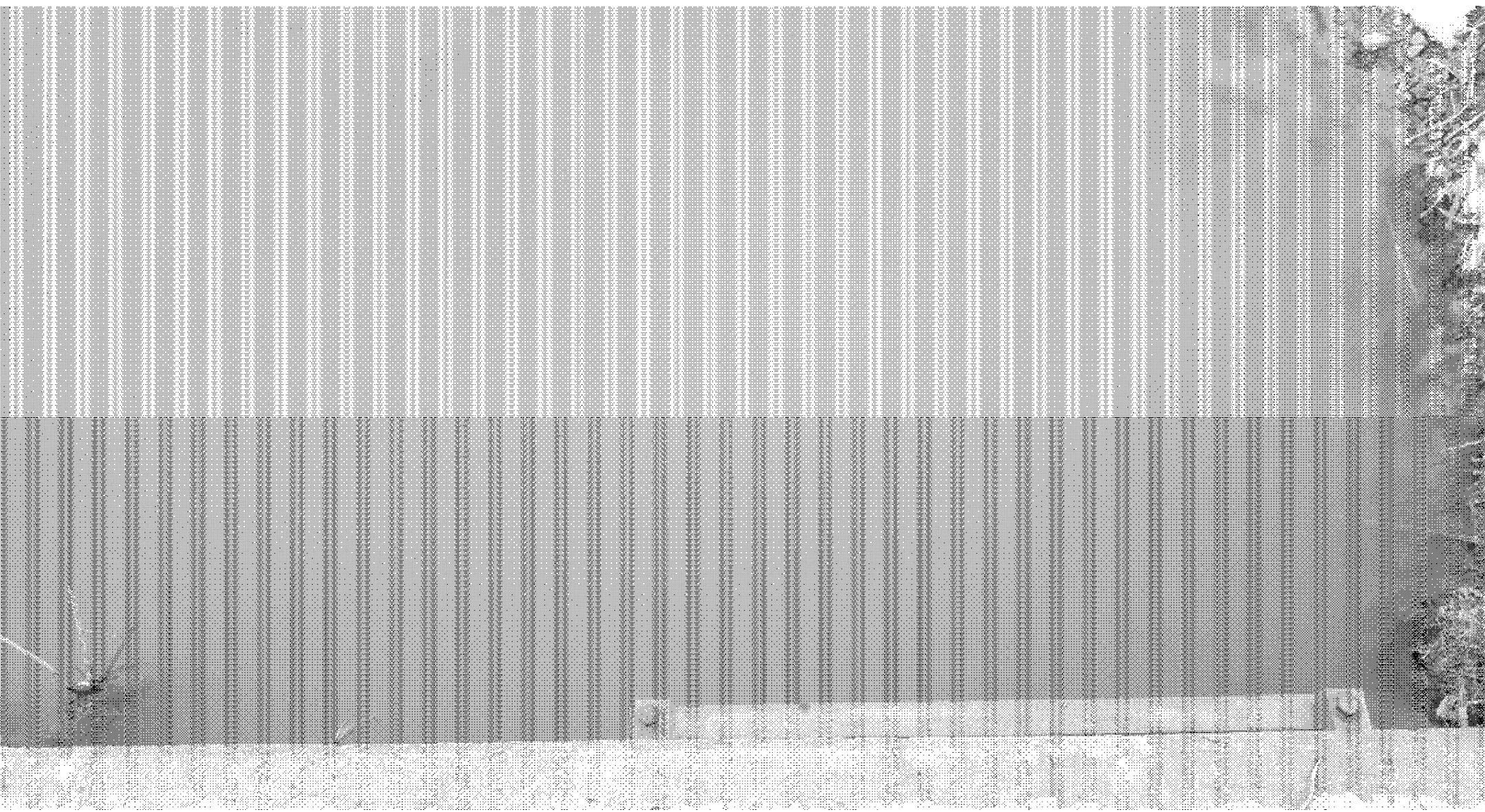


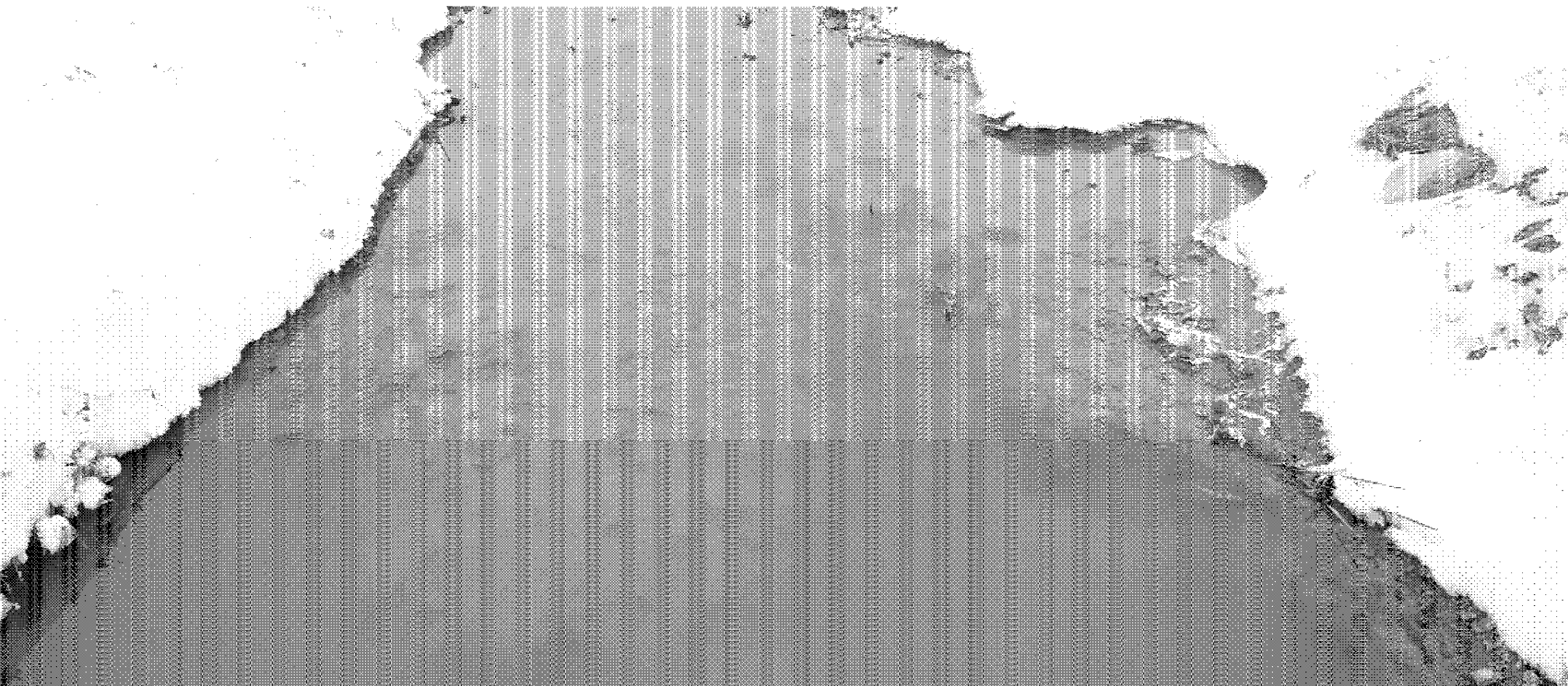




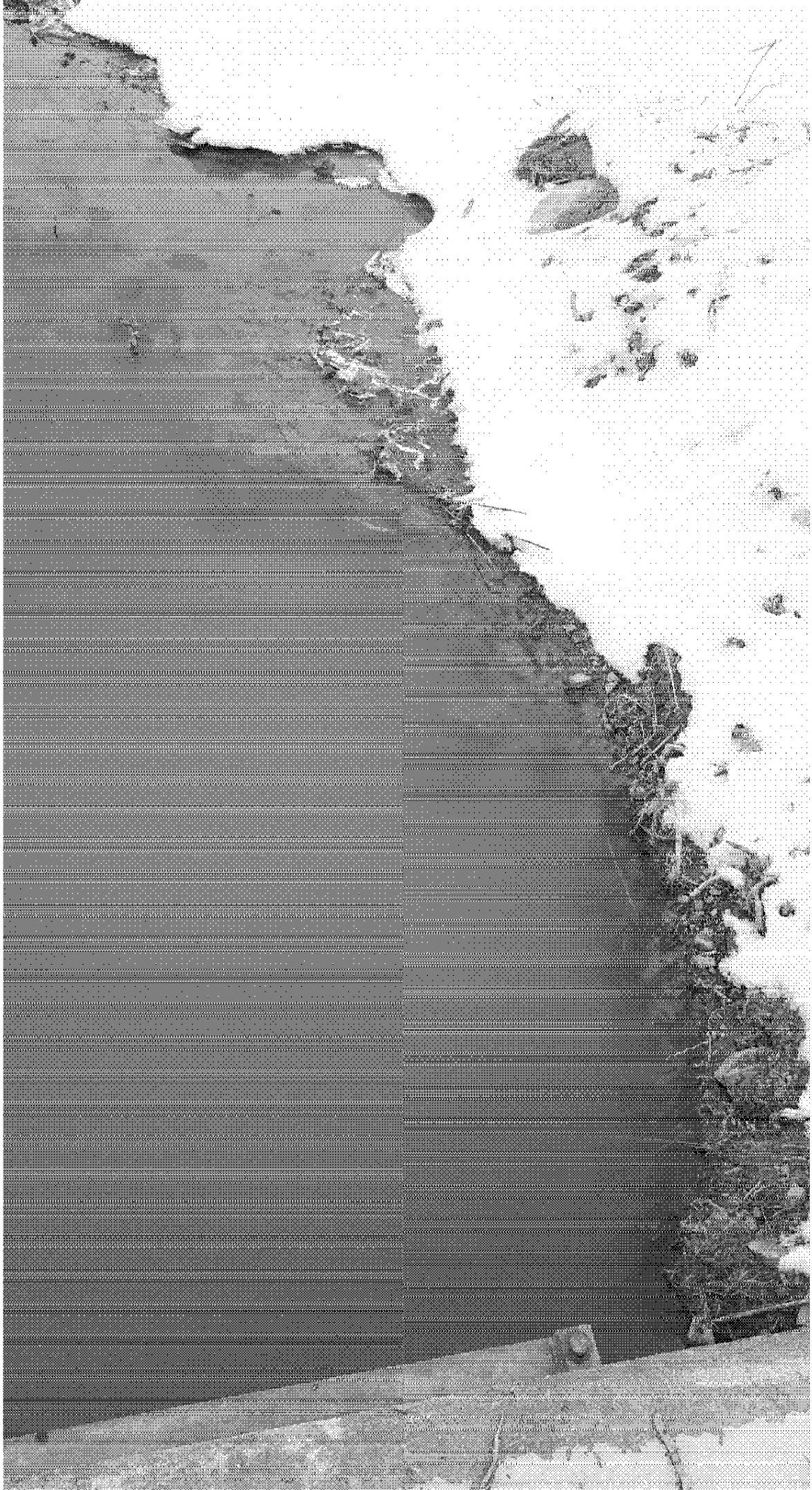
















ENVIRONMENTAL RISK INFORMATION SERVICES

CITY DIRECTORY

Project Property: *Highway 53 West, 12, Hamilton, ON*
Report Type: *City Directory*
Order No: *21061700860*
Information Source: *Vernon's Hamilton Suburban City Directory*
Date Completed: *25-06-2021*

City Directory Information Source

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Vernon's Hamilton Suburban City Directory

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 2013	
Site Listing:	-Avondale Stores
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Fair Excavating Co
Garner Road East, 14	-Jerome Brothers Potatoes
Mason Drive, 30,	-Ancaster Toyota
Shaver Road, 501	-Vacant
Shaver Road, 662	-Jrt Leasing -Tomlinson Systems
Wilson Street, 1172	-Ecs Coffee

	-Golden Pita -Oxford Learning Centres -The Great Canadian Gift Company
Wilson Street, 1180	-Wendy's Restaurant -Pioneer Gas Station

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 2008	
Site Listing:	-Avondale Stores
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Fair Excavating Co
Garner Road East, 14	-Jerome Brothers Potatoes
Mason Drive, 30,	-Ancaster Toyota
Shaver Road, 501	-Vacant

Shaver Road, 662	-Vacant
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Wendy's Restaurant -Sunoco -Emma's Backporch Roadhouse Bar & Grill

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 2003	
Site Listing:	-Avondale Stores
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Fair Excavating Co
Garner Road East, 14	-Jerome Brothers Potatoes
Mason Drive, 30,	-Street Not Listed

Shaver Road, 501	-Vacant
Shaver Road, 662	-Ron Hart Enterprise -Atlas Trucking Canada
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1998	
Site Listing:	-Vacant
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Fair Excavating Co
Garner Road East, 14	-No Return

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Town of Ancaster Operations Services
Shaver Road, 662	-Cramm R J Electric Limited
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1993	
Site Listing:	-Bristol's Produce Market
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Town of Ancaster Works Department
Shaver Road, 662	-Cramm R J Electric Limited
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1988	
Site Listing:	-Bristol's Produce Market
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Town of Ancaster Works Department
Shaver Road, 662	-Address Not Listed
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1983	
Site Listing:	-Bristol's Produce Market
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Town of Ancaster Works Department
Shaver Road, 662	-Address Not Listed
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1978	
Site Listing:	-Bristol's Produce Market
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Town of Ancaster Works Department
Shaver Road, 662	-Address Not Listed
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1973	
Site Listing:	-Bristol's Farm Produce
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Address Not Listed
Shaver Road, 662	-Address Not Listed
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1968	
Site Listing:	-Vacant
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Address Not Listed
Shaver Road, 662	-Address Not Listed
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1963	
Site Listing:	-Frank's Esso
Adjacent Properties:	
Highway 53 West, 345	-Marshall's Potatoes
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Address Not Listed
Shaver Road, 662	-Address Not Listed
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

PROJECT NUMBER: 21061700860	
Site Address:	Highway 53 West, 12, Hamilton, ON
Year: 1959	
Site Listing:	-Bill & Norm's Esso Service
Adjacent Properties:	
Highway 53 West, 345	-Address Not Listed
Fiddlers Green Road, 538	-Address Not Listed
Fiddlers Green Road, 658	-Address Not Listed
Garner Road East, 14	-Res (1 Tenant)

Mason Drive, 30,	-Street Not Listed
Shaver Road, 501	-Address Not Listed
Shaver Road, 662	-Address Not Listed
Wilson Street, 1172	-Address Not Listed
Wilson Street, 1180	-Address Not Listed

** **Ancaster Ontario is only listed from 2013-1959 within the city directory****

-All listings for businesses were listed as they are in the city directory.

-Listings that are residential are listed as “residential” with the number of tenants. The name of the residential tenant is not listed in the above city directory.

City of Hamilton
City Hall, 71 Main Street West
Hamilton, Ontario
Canada L8P 4Y5
www.hamilton.ca

PW-WW-CR-EM-F-024-IR01-001

Environmental Monitoring & Enforcement
Hamilton Water Division, Public Works
Physical Address: 700 Woodward Avenue, Hamilton ON L8H 6P4
Phone: 905.546.2424 X5190 | Fax: 905.546.2661
E-mail: sewerusebylaw@hamilton.ca

File no: 2021-62

December 20, 2021

Capital Infrastructure Planning
Public Works
Engineering Services, City of Hamilton

Dear: Megan Salvucci, RPP

Re: Information Request – Garner Rd. ROW

In response to your request for information of December 14, 2021 regarding the above-noted property, we wish to inform you:

a) Our files, which are only accurate from 1991 to the present, indicate no record of violations of the City of Hamilton Sewer Use By-law 14-090, or previous spill events originating from the above-noted site.

b) Our records of former municipal landfill sites, which are only accurate from 1974 to the present, do not list the above-noted property within a 500m of a former landfill site.

In view of the limited information available to us, if the interested party wishes to completely satisfy themselves that the site was not used for the disposal of waste, we recommend that they utilize the services of a licensed and qualified geotechnical agency to carry out site testing to confirm existing subterranean conditions.

For further information on other issues, which are beyond the jurisdiction of the City of Hamilton, we suggest your department contact:

Ministry of the Environment, Conservation and Parks
West Central Region, Hamilton Regional Office
119 King Street West, 12th Floor
Hamilton ON L8P 4Y7
(905) 521-7640

December 20, 2021

Re: Information Request – Garner Rd. ROW

Cont'd…

Should you have any questions or require clarification regarding this matter, please contact me in writing.

Sincerely,

Martha Kariuki

Martha Kariuki
Acting Superintendent, Environmental Monitoring & Enforcement
Compliance & Regulations Section, Hamilton Water Division
Public Works

Copy to: R. Conley, Senior Project Manager, Landfills

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