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August 18, 2015

Mr. Kelly Cloyd
New York State Department of Environmental Conservation
Division of Environmental Remediation
6274 East Avon-Lima Road
Avon, NY 14414-9519

Dear Mr. Cloyd:

CHEMOURS LYNDONVILLE – SITE MANAGEMENT PLAN

Per several past discussions, enclosed please find the revised Site Management Plan for the Lyndonville West Avenue Site in Lyndonville, NY. The revisions reflect details associated with a leachate collection system overhaul planned for this September. The scope of this overhaul construction event includes replacement of the leachate collection sump, the piping between the sump and the aboveground collection tank and reconfiguration of the fencing enclosing all of these assets.

Feel free to contact me (716) 278-5496, or Tim Pezzino (716) 278-5170 if you have any questions regarding this revised submittal.

Sincerely,

CORPORATE REMEDIATION GROUP

A handwritten signature in black ink, appearing to read "Paul F. Mazierski", written in a cursive style.

Paul F. Mazierski
Project Director

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mac

Attach.

cc: NYSDEC: Bart Putzig, Mike Cruden, Maureen Brady
NYSDOH: Ralph Van Houton
Lyndonville: Teri Woodworth, Yates Community Library



Environment

Submitted on behalf of
Chemours

Submitted by
AECOM
Sabre Building
Suite 300
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Site Management Plan

Lyndonville West Avenue
Lyndonville, NY
Rev: August 2015

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1.0 Introduction and Purpose

1.1 Overview and Objectives

The Lyndonville West Avenue site (the site) consists of several properties in the northwestern portion of the Village of Lyndonville, New York. The locations of the properties and portions of the properties subject to the requirements of this Site Management Plan (SMP) are shown in Figure 1-1. A large portion of the site is currently owned by H.H. Dobbins, Inc. (Dobbins), which currently operates a fruit cold storage and packaging facility. The site has been characterized during several previous investigations, which are summarized in Section 2.0 of this plan. Based on the results of the previous investigations, there are three areas of concern: the drainage swale, which runs east/west along the former railroad bed south of the Dobbins property; the landfill located on the Dobbins property, with an areal extent of approximately two acres; and leachate from the landfill. A remedy to address the three areas of concern at this site has been selected and approved by the New York State Department of Conservation (NYSDEC) and consists of the following:

- An asphalt cap (and soil cap for the minor north slope portion) and geosynthetic barrier layer (geomembrane) for the landfill
- Removal of soil in the drainage swale
- Continued operation of the leachate collection and disposal system
- Site fencing along the north slope of the landfill
- Site access and deed restrictions

The objectives of this SMP are to establish the provisions for the responsibilities of Chemours and the property owners, site access and security, environmental easements, cap maintenance, leachate system operation and maintenance (O&M), and ditch maintenance during the post-construction O&M phase of the remedial action.

1.2 Site History

Activities at the Lyndonville West Avenue site date back to the early 1900s with the development of fruit storage and processing facilities and construction of the Rome, Watertown, and Ogdensburg (RW&O) railroad. Industrial activities on the properties date back prior to the mid-1920s (Bel Adhesive Inc. and the Housel Packing Company). Barry Lime and Sulphur Company, Inc. began operations at the property in the early 1920s with the production of lime and sulfur solutions and dust mixtures. DuPont purchased Barry Lime and Sulphur in 1943 and continued with the formulation of agricultural sprays and dusts until approximately 1954.

Waste lime and sulfur sludge from Barry Lime and Sulphur Company and DuPont were disposed in a landfill, which is now part of the property currently owned by Dobbins. At the time the landfill was created, the property was owned by Lyndonville Ice and Cold Storage. It has also been alleged that the landfill was used by other local facilities for the disposal of rotting fruit and by-products of fruit processing operations. As stated above, a large portion of the site is currently used for fruit cold storage and packaging [Chemours Corporate Remediation Group (CRG), 2003].

2.0 Previous Investigations and Remedial Actions

2.1 Chronology

2.1.1 Previous Investigations

Numerous investigations were conducted by various regulatory agencies between 1978 and 1993. For the most part, these investigations focused on collecting soil, surface-water, and stormwater samples within the stormwater drainage system for the greater West Avenue area (see Figure 2-1). The site was reclassified from a class "2A" to a class "2" site on the New York State (NYS) Registry in March 1994. Notifications requesting site investigation were distributed in 1995 to Primary Responsible Parties (PRPs) including Monroe Electronics, Dobbins Ramage, Bowman Apple Products Company, and Chemours. Chemours was the only PRP to respond to the notifications.

Scopes of work for both a Supplemental Environmental Assessment (SEA) and Supplemental Remedial Investigation (SRI) were negotiated and implemented by Chemours. Chemours conducted the SEA in 1997 to identify the source of the odors along West Avenue and characterize the site. Findings of the SEA revealed that the largest contributor to nuisance sulfur odors along West Avenue was leachate generated from the landfill, which discharged to the West Avenue storm sewer.

In 2001, a SRI was implemented and completed by Chemours. The SRI focused on the collection of data to evaluate remedial alternatives for the site and to address areas not characterized during previous investigations. The SRI report was approved by the NYSDEC in November 2001.

In September 2003, a revised Focused Feasibility Study (FFS) was completed by Chemours. The purpose of the FFS was to evaluate and recommend selected remedial action alternatives for the Lyndonville West Avenue site. The FFS was approved by the NYSDEC in the Record of Decision (ROD).

2.1.2 Previous Remedial Actions

The remedial actions implemented by Chemours and the Town of Lyndonville included the following:

- Installing a junction box for leachate from the landfill
- Diverting stormwater flow upgradient of the landfill
- Collecting leachate for off-site disposal

In 1999, Chemours installed a sewer junction box that connected the 18-inch storm sewer underneath the landfill and a 6-inch polyvinyl chloride (PVC) sewer lateral pipe to the industrial sewer. This junction box eliminated the remaining open ditch section connecting the 18-inch and 6-inch sewer lines.

In 2000, the Town of Lyndonville (with funding by Chemours) installed a stormwater diversion system upgradient of the landfill. This system eliminated a major source of stormwater from entering the landfill. Stormwater was diverted around the landfill by grouting the box culvert and installing a new storm sewer pipe within the drainage swale. The stormwater from the new pipe, which no longer comes in contact with landfill material, is discharged to the Main Street storm sewer system.

In 2001, as part of the leachate collection system construction project, the 18-inch storm line from the landfill was connected to a new manhole. The 18-inch connection to the junction box was then grouted to eliminate discharge of leachate to the West Avenue storm sewer system. The junction box continues to serve as a collection point of storm drainage from the adjacent residential properties.

In 2001, an additional remedial action was installed to eliminate discharge of the leachate to the West Avenue storm sewer. The primary components of the leachate collection system are a leachate collection manhole and leachate storage tank (see Figure 2-2). The existing storm sewer line underneath the landfill is connected to the leachate collection manhole. The storm sewer line downgradient of the new manhole was grouted to prevent any leachate from entering the West Avenue storm sewer system. Leachate is pumped from the new manhole to an aboveground leachate storage tank. The leachate storage tank vent is equipped with carbon canisters to remove sulfide odors. The leachate is pumped into a tanker truck and transported to the Publicly-owned Treatment Works (POTW) in Niagara Falls, New York for treatment and disposal.

2.2 Nature and Extent of Contamination

Based on the results of the 1997 SEA, performed by Chemours, the report conclusions included the following:

- The drainage swale along the former railroad bed contained soils with concentrations of DDT, DDD, DDE and arsenic above New York Technical and Administrative Guidance Memorandum (TAGM) #4046 guidance criteria.
- Arsenic and copper were detected at uniform concentrations [approximately 300 milligrams per kilogram (mg/kg) for arsenic and 400 mg/kg for copper] within lime-dominated fill materials in the landfill. Pesticides were either not detected or were detected at very low concentrations in composite samples of the lime fill material. Deep samples collected at all soil boring locations indicated that downward migration of contaminants had not occurred. Toxicity Characteristic Leaching Potential (TCLP) results for composite lime fill samples were below toxicity characteristic regulatory levels. As such, the lime fill materials are not a characteristic hazardous waste.
- The presence of pesticides and metals in background surface-water samples suggests that there may be other contributing factors in the area, including the historic and widespread use of pesticides and metals for agricultural purposes.
- Lime fill materials disposed in the landfill are a possible source for the observed hydrogen sulfide gas occurrences; other fill materials disposed in the landfill may also be potential sources.
- Analytical results for groundwater samples did not indicate that groundwater has been impacted by any site-related activities at the former Chemours facility or the landfill (CRG, 1998).
- For the 2001 SRI, performed by Chemours, the report conclusions included the following:
 - Arsenic concentrations above background exist in the drainage swale between Monroe Electronics and the former box culvert south of the Dobbins facility. Arsenic concentrations generally decrease with increasing depth.

- Sediment at the terminus of the West Avenue industrial sewer has not been impacted above background levels by upgradient soil/sediment sources in the swale or by leachate that was produced by the landfill and discharged to the storm sewer before the leachate collection system was installed.
- Groundwater data obtained from a temporary monitoring well indicate that site-specific constituents are below groundwater standards near the swale and that groundwater does not appear to be a migration pathway for arsenic originating from the swale sediment.
- Former site operations or current soil conditions have not impacted groundwater (CRG, 2001).

3.0 Contemplated Use

Plans are for Dobbins to continue operations as a fruit cold storage and packaging facility. The drainage swale property owner has expressed an interest in using the eastern portion of the drainage swale for future storage operations. No other future changes in property use have been identified at this time.

4.0 Summary of Remedy

4.1 Remedy Implementation/Long-Term Maintenance

The primary areas of concern identified, based on previous investigations discussed in Section 2.0 of this plan, consist of soil in the drainage swale, soil and waste in the landfill, and leachate from the landfill. For soil in the drainage swale and landfill, arsenic, DDT, DDD, and DDE were identified as constituents of potential concern (COPCs) during historical investigations of the site (prior to investigations conducted by Chemours). However, remedial actions to address arsenic in these areas will also address the DDT, DDD, and DDE.

For the landfill leachate, specific contaminant cleanup criteria were not established because the primary exposure pathway has been eliminated through previous remedial actions. However, a qualitative Remedial Action Objective (RAO) was established for leachate, primarily to prevent future migration and exposure to leachate.

Based on these considerations, the specific RAOs for the site are as follows:

- Prevent or reduce the potential for human exposure by direct contact to soil within the drainage swale and landfill material.
- Prevent or reduce the potential for erosion and migration of drainage swale soil and landfill material.
- Prevent or reduce the potential for off-site migration of and exposure to landfill leachate.

To achieve the RAOs for this site, the following NYSDEC-approved actions will be implemented:

- An asphalt cap (and soil cap for the minor north slope portion) and geosynthetic barrier layer (geomembrane) for the landfill
- Removal of soil in the drainage swale
- Continued operation of the leachate collection and disposal system
- Site fencing along the north slope of the landfill
- Site access and deed restrictions

These actions are described in the September 2004 Cap Design, Lyndonville West Avenue Site, Lyndonville, New York, prepared by Chemours (CRG, 2004b). Remedy implementation is further discussed in the subsections below.

4.1.1 Soil Characterization

The drainage swale soil to be excavated and transported to an approved disposal facility was characterized during the SEA and SRI. Also, in response to NYSDEC comments on the April 12, 2002 FFS, Chemours collected an additional 95 soil samples in and around the drainage swale to horizontally and vertically delineate arsenic in the swale.

To characterize the soil for disposal purposes, Chemours collected three soil samples in accordance with the Waste Management Plan (previously submitted) from the drainage swale. A NYSDEC-approved laboratory analyzed the soil samples for TCLP metals [United States Environmental Protection Agency (EPA) Methods 7470A and 6010B],

pesticides (EPA Method 8081A), and herbicides (EPA Method 8151A). None of the results had detections above the regulatory limits. Based on the results, the soils to be excavated are non-hazardous. In a letter dated April 5, 2005, approval was granted by EPA and NYSDEC for the excavated soil to be transported to the Chemours Necco Park Landfill, located in Niagara Falls, New York, for use as alternate grading materials (AGMs). A copy of the letter was previously submitted.

4.1.2 Cover System

The landfill portion of the site will be capped. The proposed cap system has been developed to facilitate the ongoing industrial use of the property subsequent to construction. For the operational area of the existing Dobbins juice processing facility, the cap shall incorporate geosynthetic components and a paved final surface. The cap system cross-section for the asphalt cap consists of the following components from bottom to top.

- Prepared subgrade
- 60-mil geomembrane
- Geotextile Cushion
- 5 ½-inch New York Department of Transportation (NYDOT) Type 2 Aggregate subbase
- 5-inch NYDOT Type 1 Hot Mix Asphalt (HMA)
- 1 ½-inch NYDOT Type 7 HMA

The cap will also contain two vents located along the western boundary of the landfill in areas of elevated topography.

The cap system cross-section for the engineered soil cap consists of the following components from bottom to top.

- Prepared subgrade
- 60-mil geomembrane
- Geocomposite Drainage Layer
- 6-inch cover soil layer
- 6-inch amended cover soil layer

The proposed asphalt cap and soil cap consists of geosynthetic and asphaltic concrete paving or natural soil components and was designed to meet NYSDEC requirements while serving to protect the environment. Geosynthetic components were selected because of the performance advantages they offer relative to natural earthen materials (i.e., tensile strength, drainage capacity, long-term impermeability, etc.). In addition, geosynthetic materials are more readily installed and repaired.

4.1.3 Erosion Control

Erosion control procedures to be implemented during the construction phase of the remedial action are addressed in the Cap Design Report (CRG, 2004b). Post-construction erosion controls will be implemented for the drainage swale and the landfill. Following removal of existing vegetation and site-contaminated soil, the drainage swale will be restored with backfilled soil and will be re-seeded with a mix of natural vegetation.

During the first growing season following excavation, the drainage swale will be inspected monthly until vegetation is established that will minimize water and wind erosion.

With the engineered soil cap in the northern portion of the landfill, the cover soil and amended cover soil will function to sustain vegetative growth. A good vegetative stand will minimize water and wind erosion and increase evapotranspiration, which will serve to minimize infiltration. The remainder of the landfill will be paved with an asphalt cap. Monthly inspections of the cap will be performed, when allowed by weather conditions, for settling. Settlement associated with volume reduction due to compressible waste materials is expected to be minimal at the site. The landfill area has been utilized by the existing owner for a period of years (including frequent truck traffic) with no observable impact from settlement. Repairs will be made to the cap system when settlement either has exceeded an acceptable depth (i.e., impact to asphalt cap) or shows visible signs of failure. Asphalt cap maintenance will be performed on an as-needed basis.

Additionally, the final grading plan was developed to facilitate the diversion of stormwater off of the cap system. Grading will promote stormwater diversion in general conformance with drainage patterns currently present at the site. The proposed stormwater management system has been designed to accommodate a 25-year, 24-hour storm for culverts and a 10-year, 24-hour storm for drainage ditches, thereby minimizing the potential for erosion.

4.1.4 Institutional Controls

With the removal of the contaminated soil in the drainage swale, no deed restrictions are required for the drainage swale. As for the landfill, deed restrictions will include maintaining the commercial use designation for the property and prohibiting future residential use of the property. Site activities within the landfill, such as excavation, will be restricted unless specific personal protective equipment and other safety measures are in place. For access control, the installation of a fence along the northern slope of the landfill will reduce the potential for trespasser exposure to COPCs.

4.1.5 Maintenance

Maintenance activities for the landfill cap, leachate collection system, and drainage swale are discussed in Section 5.0 of this SMP.

4.2 Health and Safety

To address health and safety issues, Chemours has prepared a site-specific health and safety plan (HASP) that meets the Chemours requirements and the Occupational Safety and Health Administration's (OSHA's) requirements (CRG, 2004a). NYSDEC approved the HASP in a letter dated February 25, 2005.

5.0 Operation, Monitoring, and Maintenance Work Plan

An Operation, Monitoring, and Maintenance (OM&M) Work Plan has been prepared for the site and is provided in the following subsections. The OM&M Work Plan addresses Chemours and owner responsibilities, site access and security, environmental easements, cap maintenance, leachate system O&M, and ditch maintenance.

5.1 Chemours Responsibility

Chemours is responsible for site remediation and maintenance of the remedy. After construction completion, Chemours will be responsible for maintaining the landfill cap, operating and maintaining the leachate collection system, and implementing contingency plans for odor control from landfill cap vents and landfill cap expansion, if necessary.

5.1.1 Chemours/AECOM Project Team

To assist in OM&M of the remedial action, Chemours has contracted AECOM as the Project Manager (PM). The following lists the Project Team members by name, organization, and title:

- Mr. Paul Mazierski, Chemours Project Director. Mr. Mazierski has overall responsibility for the site and is the primary point of contact for Chemours in communications with the NYSDEC representative.
- Mr. Timothy Pezzino, AECOM Project Manager. Mr. Pezzino is responsible for OM&M of the remedial action.
- Mr. Gerald Shepard, AECOM O&M System Operator. Mr. Shepard performs the periodic operations and maintenance of the leachate collection system, including the carbon vent system.

5.1.2 NYSDEC Project Personnel and OM&M Contractors

The current NYSDEC, Division of Environmental Remediation, Region 8 representative for this project is Mr. Kelly Cloyd.

OM&M contractors will consist of licensed waste haulers equipped with a vacuum tanker truck to collect the accumulated landfill leachate. The leachate will be transported to the Niagara Falls POTW, or another qualified facility for disposal. As needed, an asphalt repair company will be contracted to repair the asphalt portion of the landfill cap. Other specialty contractors (electricians, pump repair/replacement) will be obtained on an as-needed basis.

5.2 Owner's Responsibilities

The property owner will be responsible for notifying Chemours of any future construction type activities with the potential to impact the landfill cap and/or leachate collection system. This includes any building demolition activities that could impact the size of the landfill cap. The current or future property owner will also be responsible for implementing and maintaining institutional controls and enforcement of the deed and land restrictions. This requires legal restrictions within the existing deed and any future deeds for the property.

5.3 Site Access and Security

In the event of additional construction activities such as landfill repairs, etc., the construction contractor will require employees and visitors to sign-in and sign-out of the site during work hours. During non-working hours, the contractor will be responsible for securing their equipment. Pending upgrades include the relocation of a chain-link fence along the northern portion of the landfill cap to restrict access to potential trespassers and provide additional room for maintenance and operation activities of the remedy.

5.4 Environmental Easement

H.H. Dobbins, Inc., the owner, has agreed to place an environmental easement on the property.

5.5 Cap Maintenance

5.5.1 Inspection/Repair

Visual inspections will be conducted on a monthly basis, primarily during the spring, summer, and fall. Inspections will be conducted during the winter months pending the absence of accumulated snow. Repairs to the cap will be made on an as-needed basis. Anticipated repairs will consist of cracks in the asphalt and settlement.

5.5.2 Contingencies

Two types of contingencies may arise for this project:

- Odors emanating from the two cap vents
- Cap expansion due to the demolition of existing site buildings

Should sulfide odors become evident from the landfill cap vents, the vents will be fitted with carbon canisters similar to the carbon canister used in conjunction with the leachate collection system. The leachate collection system is equipped with a 55-gallon drum containing CENTAUR HSV catalytic activated carbon supplied by either Calgon or Evoqua Corporation. AECOM will remove spent canisters for proper disposal. The leachate collection system is further discussed in Section 5.6 of this SMP.

The capped area contains Dobbins' juice building. Should future plans include the demolition of the juice building, two options will be evaluated:

- Extend the existing cap over the newly exposed landfill.
- If the building is constructed with a concrete slab, leave the concrete slab in place, thereby capping that portion of the landfill.

5.6 Leachate O&M System

5.6.1 Equipment and Process Description

The leachate collection system consists of an existing storm sewer line within the landfill, a collection manhole with a submersible pump, and a 6,500-gallon Baker tank with an off-loading pump. Rainwater that infiltrates through the landfill is collected by an existing storm sewer line, which drains to the concrete manhole. The water collected in the manhole is pumped to the storage tank where it is stored prior to shipment off-site. The

tank contents are emptied into a tanker truck and sent to the Niagara Falls POTW or other qualified facility for treatment and disposal. The following sections provide descriptions of the system components and process instrumentation controls and alarms.

Leachate Collection Manhole and Submersible Pump

An existing 17-inch vitrified clay pipe, located within the landfill, collects leachate generated by rainwater and groundwater that comes in contact with the landfill material. The concrete manhole was installed to intercept and collect the leachate accumulating in the pipe. The manhole is 4 feet in diameter with a depth of approximately 8.8 feet. The manhole capacity is approximately 810 gallons or 94 gallons per foot. The manhole is pre-cast concrete that has been treated with a waterproof bitumastic protective coating. The top of the manhole is flush with the surface of the landfill.

The manhole hatch is an aluminum CH-2AL style manufactured by Syracuse Castings Sales Corporation. The hatch is supplied with a gasket to control odors and is equipped with a heavy-duty pneumatic spring for ease of operation.

Water drains into the manhole by gravity and is pumped to the collection tank by a Flyght model SX-3 dewatering submersible pump (P-101). A built-in mercury float switch (LS-101) activates the submersible pump. The float switch allows automatic unattended operation of the submersible pump. Water is pumped through 1½-inch PVC below ground piping to the leachate storage tank. The underground piping is covered with fiberglass insulation and is designed to allow water to drain back to the manhole when the pump turns off to prevent freezing of the line during cold weather.

Leachate Storage Tank

The leachate is collected in a 6,500-gallon polypropylene storage tank, owned by Chemours. The storage tank is 12 feet high with a diameter of 10 feet. The amount of leachate collected can be determined by sounding the height of liquid and converting the liquid height to volume using the manufacturer's chart.

The tank has two 3-inch valves located on the bottom of the tank for unloading. The valves are locked closed except during tank emptying operations. The tank contents are emptied on an as-needed basis into a vacuum tanker trailer car and sent to the Niagara Falls POTW or another approved off-site facility for treatment/disposal.

Carbon Vent System

The tank vent is equipped with a carbon canister to remove sulfide odors. The vent line consists of a 4-inch PVC pipe connected to the tank manway access cover at the top of the tank. The vent line is equipped with a vacuum relief valve, which must be opened during tank emptying operations. The canister is a 55-gallon Ventsorb plastic drum containing CENTAUR HSV catalytic activated carbon supplied by Calgon Carbon Corporation. The canisters are replaced when the carbon is expended, and the used canisters are shipped for off-site recycling by Calgon.

Electrical Panel enclosure and System Controls and Alarms

The leachate collection system is designed for automatic unattended operation. The system includes instrumentation and alarms to automatically control leachate pumping and alert an off-site operator of system conditions. Electrical power and instrumentation signals are sent to the electrical panel enclosure. The electrical panel enclosure is a Hoffman stainless steel, floor mount, two-door, type 12 enclosure. The electrical panel

layout is as shown on the record drawings available with site records at Chemours Niagara Plant.

The system instrumentation and alarms are shown on the Process and Instrumentation Diagram previously submitted include:

- Submersible pump level switches (LS-101 and LS-102)
- Tank level switches (LS-201 and LS-202)

The submersible pump high level switch (LS-101) is designed to activate the pump when the pre-set high level is reached in the sump. This switch also automatically shuts down the pump at the pre-set low level. The submersible pump high-high level switch (LS-201) is set at 2.5 feet above the bottom of the manhole or 235 gallons. The high-high switch signal activates an alarm to alert the operator that water in the manhole is above normal pumping conditions. The submersible pump is not interlocked with this manhole high-high alarm and will continue to run under this alarm condition.

The tank is equipped with two level switches (LS-201 and LS-202). The high level switch (LS-201) is set at 5.5 - 8.5 feet or 3,500 - 4,940 gallons to alert the operator that the tank is approximately 75% of the capacity of a tanker truck. The submersible pump will continue to run when this switch is activated. The high-high level switch (LS-202) is set at 9 – 9.5 feet or 5,200 -5,600 gallons (approximately 80% of the storage tank volume). This switch is interlocked to shut off the manhole submersible pump and also sends an alarm to the operator.

The tank alarms are relayed to the alarm autodialer housed in the electrical panel to alert the off-site operator of system conditions. The alarm autodialer is a Guard-It model from RACO Manufacturing and Engineering Company. The autodialer can be programmed with up to 8 different phone numbers. The alarm autodialer will continue to call the pre-programmed numbers until the alarm is acknowledged by the remote operator. The autodialer will call back the remote operator every 30 minutes until the alarm is acknowledged on-site at the electrical control panel. Standard Operating Procedures

This section provides a description of the following procedures:

- Routine operations
- Non-routine operations
- Maintenance activities

Routine Operating Procedures

Normal operations should require minimal attention by the operator because the system is designed for automatic unattended operation. Therefore, under normal operating conditions, the operator will only need to perform periodic visual inspections of the system. The following items should be visually inspected during each visit to the site:

1. Lift the manhole cover to check the water level in the manhole and check the condition of the submersible pump and discharge piping.
2. Activate the submersible pump with the float switch to check proper pump operations.
3. Check for leaks around piping and tank valves.
4. Check that locks are in place on tank valves.
5. Check tank manway to ensure that all openings are sealed.

6. Note source of any odors observed.
7. Sound tank to determine approximate tank volume.

Non-Routine Operating Procedures

Non-routine operating conditions include tank emptying and carbon canister change-out.

Tank Emptying

The frequency of tank emptying operations will depend on the time of year and amount of leachate generated. The tank will be emptied into a vacuum tanker trailer truck by a licensed waste hauler. The operator will be present during all tank emptying operations such that the operations are safely conducted in accordance with the HASP and the following procedures.

To empty the tank contents, complete the following steps:

1. Open the vacuum relief valve for the vent line carbon canister.
2. Unlock the valve lock and remove the cap.
3. Connect hose to the outlet valve on the bottom of the tank, or valve outlet on pumphouse.
4. Open outlet valve, inspect hose for leaks, and begin transferring water to the tanker truck.
5. After tanker truck is filled, close the valve and disconnect the hose.
6. Secure and lock the valve lock and valve cap.
7. Close the vacuum relief valve for the vent line carbon canister.
8. Turn on the submersible pump by using the main disconnect switch on the electrical enclosure.

Carbon Canister Change-out

The frequency of the carbon canister change-out will depend on the efficiency of odor removal. The canisters will be removed if odors are observed at the canister outlet during routine inspections.

To change the carbon canister, complete the following steps:

1. Turn off the submersible pump by using the main disconnect switch on the electrical enclosure.
2. Open the vacuum relief valve for the vent line carbon canister.
3. Disconnect the vent piping from the canister inlet coupling.
4. Plug inlet and outlet connections of spent canister. Label spent canister as specified in the Waste Management Plan (Located with Site Records at Chemours Niagara Plant).
5. Remove any plugs on the inlet or outlet fittings for the new canister supplied by Calgon or Evoqua.
6. Connect the vent piping to the new canister inlet coupling.
7. Close the vacuum relief valve for the vent line carbon canister.

8. Turn on the submersible pump by using the main disconnect switch on the electrical enclosure.

Maintenance Activities

The system will require very little routine maintenance under normal operating conditions. However, periodic maintenance may be required for the pump or instrumentation repairs and replacements. The manufacturer's recommended maintenance procedures should be consulted for these activities.

The submersible pump is equipped with a quick disconnect to facilitate pump inspections, repairs, and replacements. A spare pump is located within the electrical supply enclosure. Under normal maintenance activities, personnel entrance to the manhole will not be required. If entrance to the manhole is required, confined space entry procedures described in Appendix B of the HASP must be followed.

5.6.2 Safety Procedures

Because the site is undergoing remedial activities under an order with NYSDEC, a site-specific HASP has been prepared for the leachate collection system. The HASP provides descriptions of expected chemical and physical hazards as well as minimum safety procedures for construction and operation of the system. Chemours also performed a project safety analysis (PSA), which is provided in the HASP. The PSA will be updated as conditions warrant. Descriptions of facility safety equipment and specific lockout/tagout procedures are provided in this section.

Facility Safety Equipment

The facility is (will be) equipped with the following safety equipment:

- Fire extinguisher-Class C for electrical type fires, located within the electrical panel enclosure
- Portable eyewash station, located adjacent to the leachate storage tank

Electrical Lockout/Tagout Procedures

Electrical lockout/tagout will be required during any maintenance or repairs of the leachate collection system components. Prior to any work on the system components, the component will be locked, tagged, cleared, and tried to ensure that the component is de-energized. The main disconnect switch on the exterior of the panel enclosure will de-energize the entire system and is the recommended lock-out location for maintenance or repair activities. If warranted, the individual circuits may be isolated as indicated on the electrical drawings.

5.6.3 Waste Management Procedures

Waste management procedures for the leachate collection system are included in the previously submitted Waste Management Plan.

5.7 Ditch Maintenance

Ditch maintenance will consist of periodic visual inspections until a full stand of natural vegetation is established in the excavated area (first growing season following excavation). Deed restrictions are not required because the contaminated soil has been removed.

6.0 Notification and Reporting

Post-construction reporting will consist of annual reporting. The annual letter report will follow the same format of the current Lyndonville Annual Progress Reports and will summarize the leachate collection system O&M activities and the annual inspections of the landfill cap and repairs, if required. Should conditions change at the site (i.e., sulfide odors from the landfill vents or demolition of the Dobbins' juice building), NYSDEC will be immediately notified of the site change by telephone, followed up in writing with proposed corrective actions.

7.0 References

Chemours Corporate Remediation Group (CRG). 2004a. *Health and Safety Plan for Lyndonville West Avenue Site, Cap Construction*, Lyndonville, New York.

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_____. 1998. *Supplemental Environmental Assessment Report*, Lyndonville – West Avenue, Lyndonville, New York.

New York State Department of Environmental Control (NYSDEC). 1994. Technical and Administrative Guidance Memorandum (TAGM) #4046 *Description of Soil Cleanup Objectives and Cleanup Levels*.

Figures

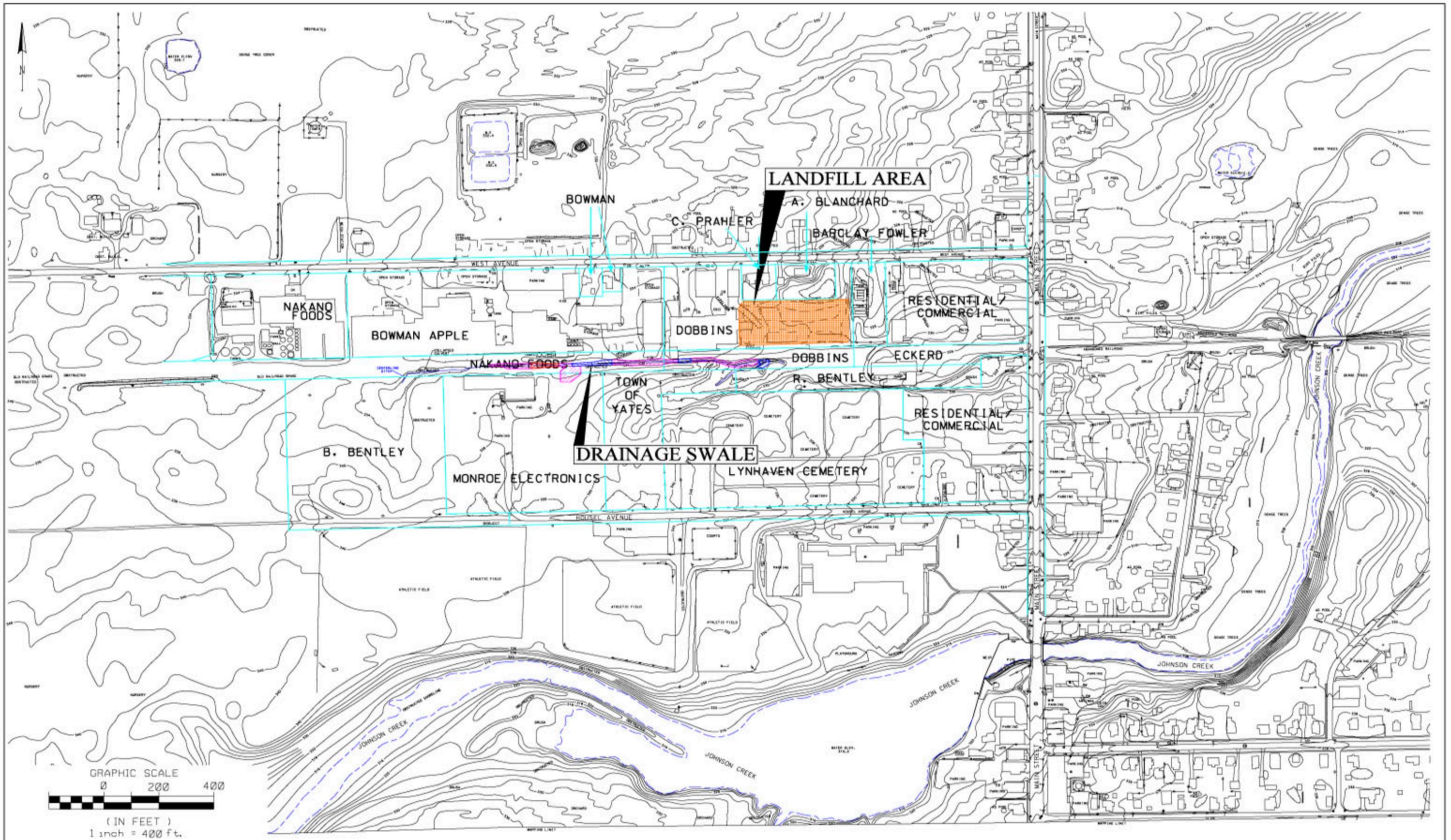


Figure 1-1
 Chemours Inc., LLC
 Corporate Remediation Group

TITLE
 SITE MANAGEMENT PLAN
 SITE MAP WITH PROPERTY BOUNDARIES
 LYNDONVILLE - WEST AVENUE SITE, LYNDONVILLE, NEW YORK

DRAWN	GEB	DESIGNED	GEB	FILE NUMBER
CHECKED	JMK	APPROVED	JMM	FIGURE NO Figure 1-1
DATE	8/5/03	REVISION	0	

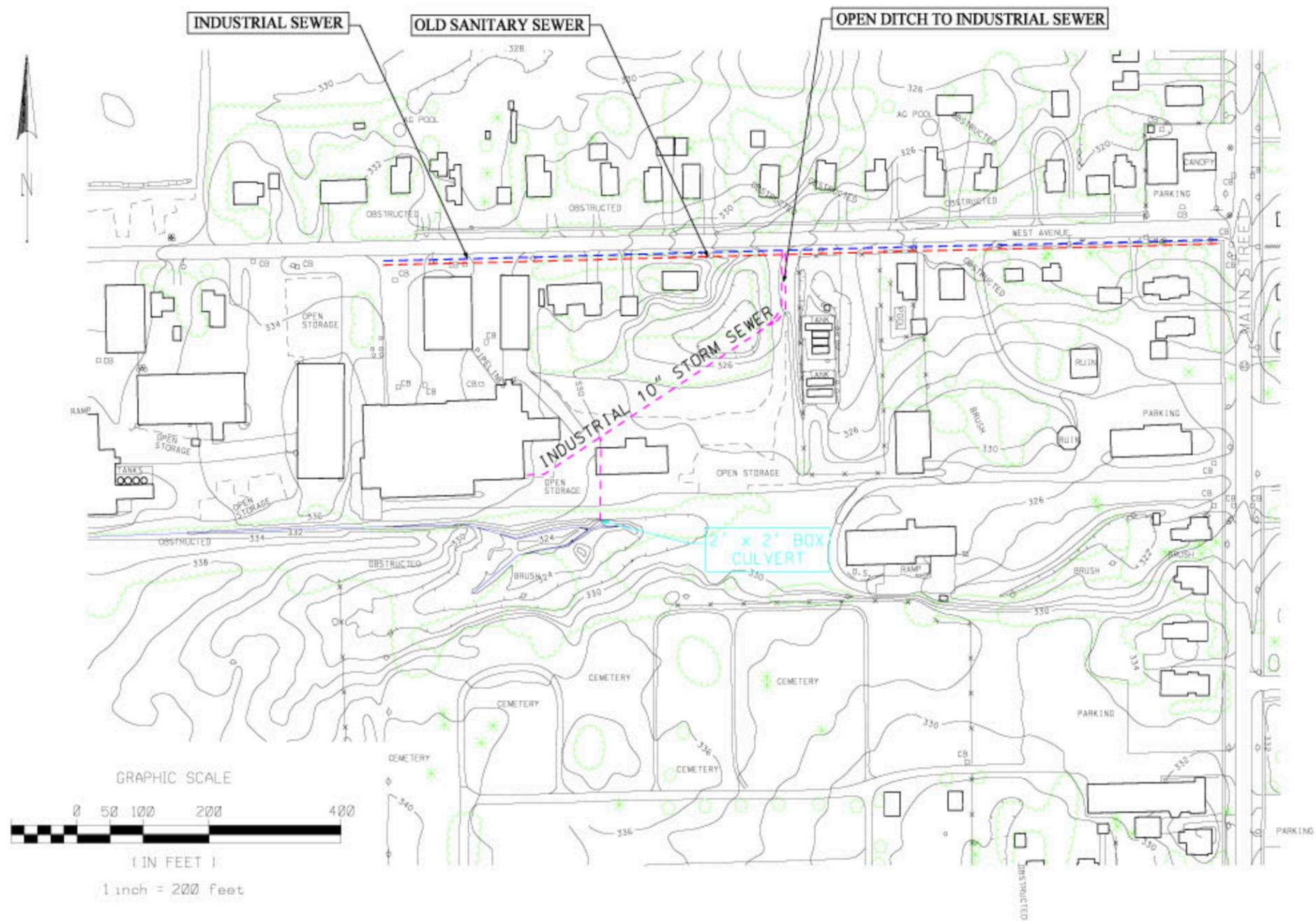


Figure 2-1
 Chemours FC, LLC
 Corporate Remediation Group

TITLE
 SITE MANAGEMENT PLAN
 STORM SEWER CONFIGURATION PRIOR TO 1975
 LYNDONVILLE - WEST AVENUE SITE, LYNDONVILLE, NEW YORK

DRAWN	GEB	DESIGNED	GEB	FILE NUMBER
CHECKED	JAK	APPROVED	JMM	FIGURE NO
DATE	8/5/03	REVISION	0	Figure 2-1

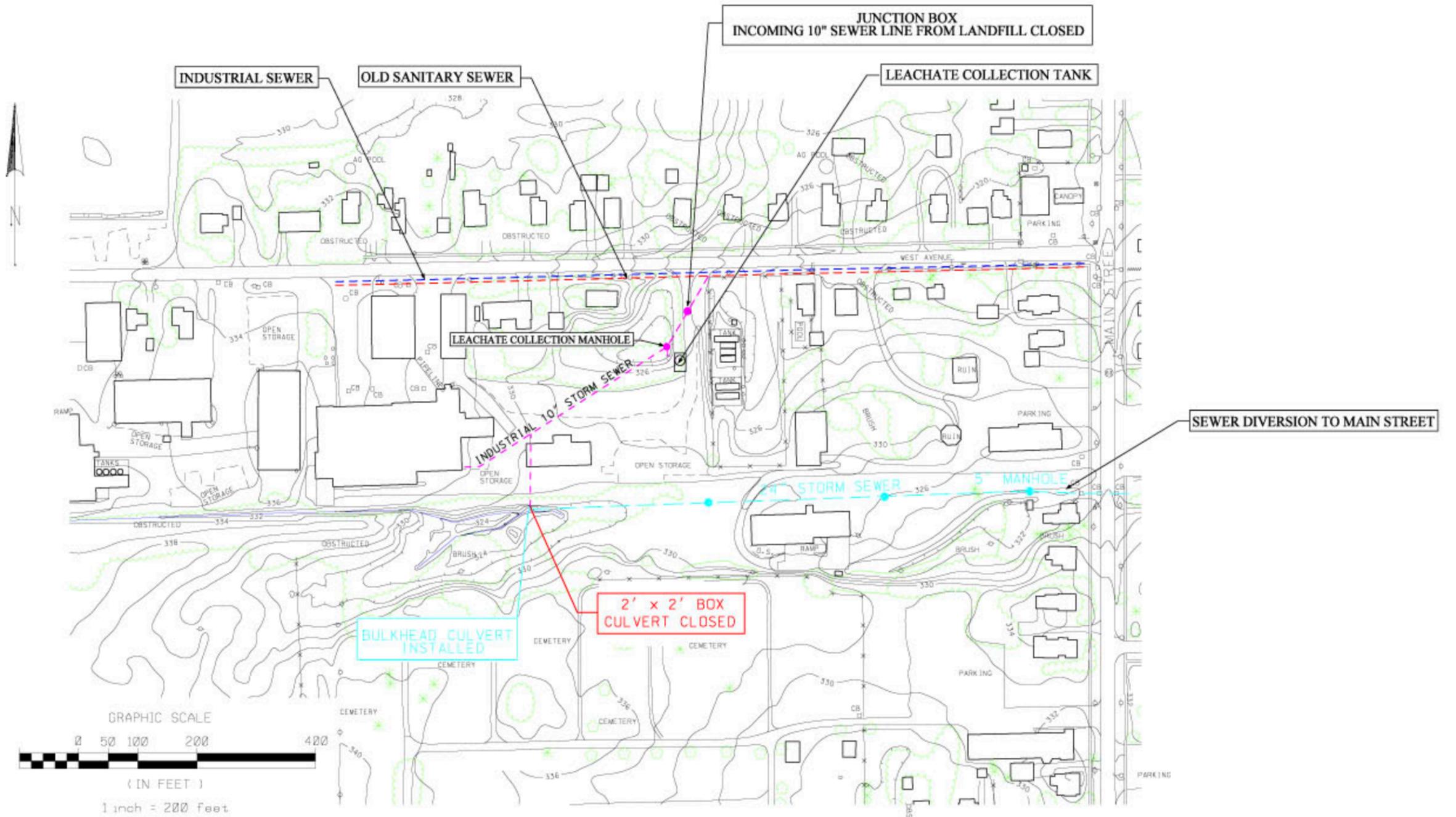
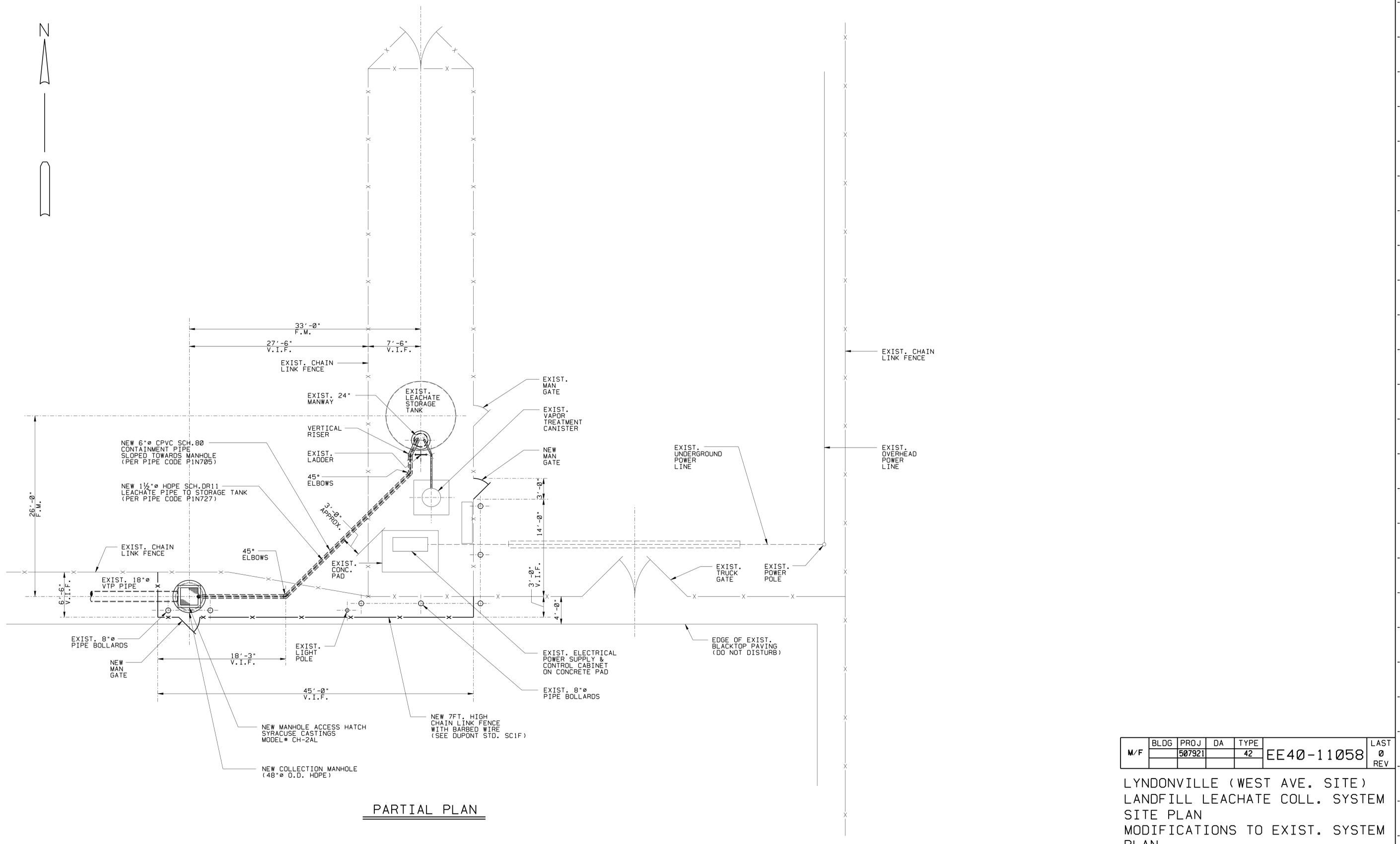


Figure 2-2
 Chemours FC, LLC
 Corporate Remediation Group

TITLE
SITE MANAGEMENT PLAN
STORM SEWER CONFIGURATION AFTER LANDFILL LEACHATE REMEDIAL ACTIONS
LYNDONVILLE - WEST AVENUE SITE, LYNDONVILLE, NEW YORK

DRAWN	GEB	DESIGNED	GEB	FILE NUMBER
CHECKED	JAK	APPROVED	JMM	FIGURE NO
DATE	8/5/03	REVISION	0	Figure 2-2



PARTIAL PLAN

M/F	BLDG	PROJ	DA	TYPE	EE40-11058	LAST 0 REV
		507921		42		

LYNDONVILLE (WEST AVE. SITE)
LANDFILL LEACHATE COLL. SYSTEM
SITE PLAN
MODIFICATIONS TO EXIST. SYSTEM
PLAN

PROJ NO	REVISION	RVSD	CHKD	APPD	DATE	PROJ NO	REVISION	RVSD	CHKD	APPD	DATE	PROJ NO	REVISION	RVSD	CHKD	APPD	DATE	STANDARDS	REFERENCE DRAWINGS	PROJECT	SCALE	DATE	
																			EE40-11059 MISC DETS	507921	1" = 5'-0"	7/11/14	
<p>Figure 2-3 Chemours FC, LLC Corporate Remediation Group</p>																				<p>APPROVED - DESIGN RELEASE</p>		<p>APPROVED - CONSTR. RELEASE</p>	
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