PARSONS

REMEDIAL WORK PLAN

ROCHESTER DRIVING PARK SITE
ROCHESTER, NEW YORK

Prepared for:

E. I. du Pont de Nemours and Company
Buffalo Avenue and 28th Street
Niagara Falls, New York 14302

Prepared by:

PARSONS
301 Plainfield Road, Suite 350
Syracuse, New York 13212

August 2012

NYSDEC Site # C828142
Parsons PN 446896.04020

New York State Department of Environmental Conservation
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Joe Martens
Commissioner

September 12, 2012

Paul F. Mazierski
Project Director
DuPont Corporate Remediation Group (CRG)
Buffalo Avenue & 26th Street
Niagara Falls, NY 14302

RE: E.I. DuPont Site 666 Driving Park Avenue (Site# C828142)
Revised Remedial Work Plan (July 2012)
Monroe(C), Rochester(C)

Dear Mr. Mazierski:

The New York State Department of Environmental Conservation (the Department) and the New York State Department of Health (NYSDOH) have reviewed the referenced document and it is hereby approved.

Please provide a clean copy of the revised work plan to this office, the NYSDOH project manager (Julia Kenney), and place one copy in the local document repository. Additional, please send me a revised electronic copy of the work plan. Thank you for your continued cooperation.

Sincerely,

Todd M. Caffoe, P.E.
Division of Environmental Remediation
Email: tmcaffoe@gw.dec.state.ny.us

ec: B. Putzig
M. Desmond
J. Kenney
D. Babcock

CERTIFICATION STATEMENT

The undersigned on behalf of Parsons certifies: that I am and at all pertinent times hereinafter mentioned was a Professional Engineer licensed or otherwise authorized under Article 145 of the Education Law of the State of New York to practice engineering; that I am the person who had primary direct responsibility for preparation of this work plan; and that all requirements of the Brownfield Site Cleanup Agreement between the State of New York and DuPont for this site have been complied with and all activities described in this work plan are in full accordance with the National Contingency Plan (NCP) and applicable guidance.

8/4/2012
Date

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ACRONYMS

Acronym	Definition / Description
C&D	Construction and Demolition
DuPont	E. I. du Pont de Nemours and Company
FEMA	Federal Emergency Management Agency
HASP	Health and safety plan
µg/L	Micrograms per liter
mg/kg	Milligram per kilogram
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
PAHs	Polynuclear (or polycyclic) aromatic hydrocarbons
PCBs	Polychlorinated biphenyls
RAAR	Remedial Alternatives Analysis Report
RAO	Remedial action objective
RCRA	Resource Conservation and Recovery Act
RI	Remedial investigation
USEPA	U. S. Environmental Protection Agency
VOCs	Volatile organic compounds

EXECUTIVE SUMMARY

Background

The Rochester Driving Park site is owned by E. I. du Pont de Nemours and Company (DuPont) and is located at 666 Driving Park Avenue, in Rochester, New York. The 10-acre site is currently undeveloped and fenced. Ground cover consists of remnant pavement, building slabs, and grass. DuPont checks the site weekly to maintain controlled access.

For 100 years (from 1895 through 1995), the site was used to manufacture photographic film and paper. Environmental impacts at the site are being remediated under the State of New York Brownfield Cleanup Program (NYSDEC and DuPont, 2007), with DuPont serving as primary responsible party.

DuPont has conducted multiple site investigations, prepared an analysis of remedial alternatives for addressing contamination at this site and is now preparing to implement the first portion of the site remedy with New York State Department of Environmental Conservation (NYSDEC) concurrence following a public comment period earlier in 2012. DuPont completed Remedial Investigation efforts and submitted Remedial Investigation (RI) Reports during 2008 and 2009 (DuPont Corporate Remediation Group, 2008 and 2009 and Parsons, 2009). DuPont completed an analysis of remedial alternatives that was finalized in March 2012 (Parsons, 2012). The NYSDEC issued a Decision Document for this site in March 2012 (NYSDEC, 2012).

This first portion of the site remedy will consist of excavating and disposing off site approximately 480 cubic yards of material exceeding statewide soil cleanup objectives for restricted residential land use. The excavations will be backfilled with clean fill.

Future efforts by DuPont in accordance with the selected site remedy will include preparing and implementing an Interim Site Management Plan, implementing an environmental easement to control site use, providing a site cover where needed depending on long-term land use, and developing a Final Site Management Plan that will include implementing and periodically documenting continued implementation of long-term site controls and monitoring as needed.

This Remedial Work Plan presents a brief site description, the remedy to be implemented based on remediation objectives established previously, the remediation work scope, how the remedy is to be implemented, monitoring and controls during construction, and a summary of post-construction efforts. This work plan has been prepared in accordance with applicable New York State Brownfield Cleanup Program guidance.

Remediation Objectives and Extent of Contamination

Remediation objectives for this action are to prevent ingestion and direct contact with site soils with concentrations of contaminants above the statewide soil cleanup objectives established by NYSDEC. Cadmium and silver are the primary contaminants in site soil, based on comparisons of site monitoring results with statewide soil cleanup objectives, so the excavation areas and depths have been delineated based on comparing investigation results with the soil cleanup objectives for cadmium and silver based on restricted residential future land use. Soil deeper than 10 feet below ground surface has not been found to exceed statewide soil cleanup objectives.

Organic compounds detected in site soils are polynuclear aromatic hydrocarbons (PAHs) and certain volatile organic compounds (VOCs). PAHs are common in urbanized soils. The extent to which PAHs in soils at this site warrant covering will be determined in the future when long-term land use is better defined. VOCs detected in site soils are below statewide soil cleanup

objectives for protection of public health. While chlorinated VOCs have been detected in groundwater samples collected from perimeter wells upgradient of the site, they are not related to former activities at this site. Potential impacts of VOCs will be addressed in the future by implementing vapor intrusion controls as warranted for any future building at the site

2012 Remediation Scope

The remedy to be implemented has been accepted by the NYSDEC based on a prior analysis completed on behalf of DuPont (Parsons, 2012). The remedy is to excavate and restore to existing grade at 24 different areas each of which are 100 up to 1,600 square feet in area. A total of approximately 480 cubic yards of contaminated site soils will be excavated and properly transported and disposed off site. The excavations will be to maximum soil depths of 2 to 10 feet below ground surface. In parallel with this remedy, suitable institutional controls (such as an approved Environmental Easement) will be implemented as needed to restrict access to the fenced site. Excavation areas and depths have been delineated based on future restricted residential land use as defined by the State of New York (NYSDEC and NYS Department of Health, 2006).

Post-Construction Plans

Following completion of the excavation work, DuPont will issue to NYSDEC a construction completion report that will include a summary of the remedial effort, results of confirmatory soil sampling, and a summary of an updated site survey.

An Interim Site Management Plan to be prepared by DuPont following excavation work described in this work plan will be implemented in the short term. The site perimeter fence and surface drains will be maintained, vegetation will be cut as needed, and other site features will be checked on a weekly basis.

A long-term institutional control for this site in the form of an Environmental Easement will be implemented (see NYSDEC and DuPont, 2007) to match future zoning with the excavation remedy being implemented. The purpose of an Environmental Easement is to provide rights and interests that can be effectively enforced to encourage site development that is safe for the specific intended land use. At the same time, the Environmental Easement can ensure operation, maintenance and monitoring warranted based on the appropriate future land use for this site.

A Final Site Management Plan will also be prepared by DuPont that describes institutional and engineering controls to be implemented for this site over the long term. This plan will include the Environmental Easement, provisions for addressing site soils based on possible forms of future site development, provisions for potential future excavations, and outlines for potential engineering controls identified for the site. For example, potential vapor intrusion monitoring and control for future buildings will be identified that could be implemented as appropriate based on plans for site development that have not yet been established.

1.0 INTRODUCTION

Parsons has prepared this Remedial Work Plan for the E. I. du Pont de Nemours and Company (DuPont) Rochester Driving Park Site (Site Code #8-28-142). The site is located at 666 Driving Park Avenue in the City of Rochester, New York. This work plan has been prepared in accordance with the New York State Brownfield Cleanup Program (NYSDEC and DuPont, 2007) and applicable NYSDEC guidance (such as NYSDEC, 2010a, 2010b, and 2010c). A timeline of investigations and remedial actions conducted to date at the site is included in the Remedial Alternatives Analysis Report (RAAR) for this site (Parsons, 2012).

1.1 Site Description

The Rochester Driving Park site is located at 666 Driving Park Avenue within the northwest quarter of the City of Rochester, Monroe County, New York (Figure 1.1). The property is owned by DuPont and was used to manufacture photographic film and paper from 1895 through 1995. The site is bordered on two sides by industrial development and an elevated, active rail track and on the other two sides by residential homes built many decades ago.

This 10-acre site is relatively flat and open with no buildings or trees. The site is surrounded on all four sides by an intact 6-foot–tall, chain-link fence with gates. Site ground cover is a mixture of remnant pavement, building slabs, and grass cover. The only remaining visible remnants of the former structures are concrete slab foundations from the former process area where photographic film and paper were manufactured. Underground utility lines from former industrial operations remain throughout the site. DuPont monitors the site weekly for fence breaches, other evidence of trespassing, and vegetation growth.

Drainage from the site is primarily toward the north. The ground surface elevation in the former process area in the southern portion of the site is approximately 8 feet higher than the ground surface in the paved area in the northern portion. Surface-water runoff is managed by storm-water catch basins and sewer lines located in the northern portion in the former parking area (DuPont, 2009). The site has no permanent surface water features.

Glacial and post-glacial unconsolidated deposits overlaying bedrock are glacial till. Native soils are tan to light-brown silt with trace amounts of fine sand. Soils are classified as urban land, which consists of soils that have been altered by urban works so that the natural state of the soil is not identifiable. Asphalt and gravel cover the surface of at least 30 to 40 percent of the site.

The glacial till is underlain by dolomite of the Lockport Formation and is estimated to be approximately 80 to 100 feet thick (DuPont, 2008). The depth to bedrock varies from approximately 4 feet at the south end of the site to approximately 12 feet at the north end based on available boring logs.

Significant quantities of fill have been placed at the site historically. Fill depths above bedrock at this site are up to 12 feet based on available boring logs.

Groundwater in the vicinity is contained within underlying bedrock and is not used as a source of potable water due to a readily available public water supply from surface water sources (DuPont, 2009). Soil depth to bedrock varies from approximately 4 feet at the south end of the site to approximately 12 feet at the north end. Shallow groundwater is

within bedrock and at least 3 to 5 feet below the top of bedrock. RI work has confirmed the absence of groundwater in the overburden and identified that the upper bedrock has a low hydraulic conductivity.

Land use adjacent to the site is industrial and single-family residential. Industrial operations are located to the south and west. Single-family homes are located directly to the east and north. Local City of Rochester zoning (available online at www.cityofrochester.gov) shows the industrial area that includes the site to be zoned for industrial use and the residential area to be zoned for single-family residential use.

No wetlands or floodplain sols exist on or adjacent to the site. The 100-year floodplain, as delineated in the early 1980s by the Federal Emergency Management Agency (FEMA), is not present within one mile of the site (FEMA website, November 2010).

1.2 Remedy to Implement

The remedy to be implemented at this site is to excavate soil from 24 localized areas, each ranging in size from 100 up to 1,600 square feet and to depths below grade up to 10 feet. Excavated soils will be properly hauled and managed off site. The 24 excavated areas will be covered and graded approximately to existing grades.

Following site preparation for short-term earthwork activities, soil will be excavated with debris staged, and then removed from the site by over-the-road haul trucks. Soil from the two areas where the toxicity characteristic for cadmium is exceeded (approximately 76 cubic yards) will be removed to a permitted and DuPont-approved hazardous waste management facility. Other soil to be excavated will be hauled to a local offsite landfill where the contaminated soils will be properly managed. Approximately 480 cubic yards of soil will be excavated based on exceedances of statewide soil cleanup objectives for a future land use called restricted residential (e.g., apartments and/or town houses) that have been established based on Part 375 in Title 6 of the State of New York Code of Rules and Regulations (NYSDEC and NYS Department of Health, 2006).

Institutional controls, such as an Environmental Easement, will also be applied to assure remedial action objectives (RAOs) for this site are met.

In the future, after long-term use of this site has been established, supplemental site cover work will be identified and implemented as appropriate to address soils containing PAHs above the appropriate statewide soil cleanup objectives.

In addition, the potential for vapor intrusion to future buildings will be assessed and control measures will be identified and implemented as appropriate based on plans for site development that have not yet been established.

1.3 Requirements for Soil Removal

Statewide soil cleanup objectives have been established under Title 6, Part 375 for four different types of land use: industrial, commercial, restricted residential (such as apartment complexes where there is common control of property), and unrestricted residential land use. The restricted residential land use, defined by NYSDEC as land containing residences with common control of property such as apartments and town houses, has been identified as the most reasonable stringent future land use for this site based on adjoining area land uses (NYSDEC, 2012).

The toxicity characteristic for defining a hazardous waste has been established under Title 6, Part 371 of New York State Rules and Regulations based on corresponding federal rules and regulations under the Resource Conservation and Recovery Act (RCRA).

New York State has requirements for erosion control and spill prevention that will be met as this remedial work is implemented. A separate Spill Prevention Control and Countermeasure Plan is not needed for this project, because the area to be disturbed will be less than one acre.

Other requirements associated with this remedy include requirements for specific remedial efforts such as transportation and disposal of site soils that may be excavated and removed from the site, federal and state occupational safety and health requirements, and local ordinances such as City of Rochester permission to park vehicles and permission to discharge wastewater to the sewer system.

2.0 REMEDIATION WORK SCOPE

Prior to construction activities, historical soil characterization data for the site will be provided to the disposal facilities. If additional sample information is required, composite samples will be collected and submitted for laboratory analyses.

Prior to excavation, the 24 excavation areas will be surveyed, a non intrusive geophysical investigation (assess for potential utilities or underground obstructions) will be completed, and temporary equipment staging areas will be laid out. Potential locations of decontamination pads, site routes, and drainage controls will also be established as warranted. Temporary exclusion areas associated with each individual excavation will be established in which no unauthorized personnel will be allowed to enter for safety reasons.

Soils will be excavated from each area, placed either directly into the over-the-road haul trucks or on underlined stockpiles, and subsequently sent to the approved disposal facility. Since the waste profile for disposal will be generally characterized as contaminated soils, debris encountered during excavation will be staged separately. Large broken concrete, pipe, or other such debris uncovered during excavation will be placed on a plastic tarp adjacent to the excavation. This material will be characterized as Construction and Demolition (C&D) waste and will be either used as backfill or sent offsite for disposal in a separate load(s).

Access to the site will continue to be controlled. Dust monitoring will be conducted, and dust will be controlled as warranted (see Section 3.5). Truck tops will be properly covered and secured prior to leaving the site. Following soil removal, each excavation area will be filled to existing grade with backfill that meets the requirements set forth by NYCRR Part 375-6.7(d) restricted residential use soil cleanup objectives.

2.1 BASIS FOR EXTENT OF SOIL EXCAVATIONS

Locations and depths of the 24 excavation areas have been delineated as shown on Figure 2.1 based on available soil data and exceedances of applicable statewide soil cleanup objectives for cadmium and silver. In addition, two of the soil sample results showed that a small volume of site soil exceeds the limits for cadmium (1.0 mg/L) used to determine whether soil when transported off site needs to be managed as a hazardous waste in accordance with New York State requirements based on RCRA.

Soil volumes estimated based on statewide soil cleanup objectives and limits for classifying soil to be managed off site as hazardous are presented in Figure 2.1. Soil volume estimates take into account concentrations of cadmium and silver detected above statewide soil cleanup objective as well as locations of former site operations. For portions of the site with exceedances of soil cleanup objectives, an excavation area of 10 feet by 10 feet was drawn around the location with exceedance. Following excavation, confirmation samples will be collected in accordance with NYSDEC Guidance Policy (NYSDEC, 2010a) from sidewalls and excavation bottoms to confirm impacted soil has been removed.

A portion of the soils to be excavated are located along the western boundary of DuPont property adjacent to CSX property and not far from a rail siding. A review of tax maps indicated a CSX right-of-way does not extend onto the DuPont property. CSX has no concerns with the proposed excavations as long as the excavations do not extend onto

CSX property and as long as construction efforts are conducted on DuPont property fence (i.e., excavators would not swing out over the CSX side of the fence line). CSX has also indicated there is no need to obtain any permits or other form of permission from CSX to perform the remedial excavations (Parsons and CSX, April 2012).

Site soils at two locations identified during the RI work exceed New York State criteria for determining whether soil to be managed off site would need to be managed as a hazardous waste. The basis for determining whether to manage soil as a hazardous waste when transported off site is called the toxicity characteristic. Soil exceeds the toxicity characteristic for cadmium at two locations.

Additionally, polychlorinated biphenyls (PCBs) were detected during the RI in one test pit sample (TP-L05) at concentrations exceeding the restricted residential cleanup objective. This test pit location will be excavated to a depth of 2 feet based on information provided in the RAAR (Parsons, 2012). The sample at TP-L05 indicated an exceedance for PCB's in the 0 to 2 ft interval.

In addition to metals and PCBs, polynuclear (or polycyclic) aromatic hydrocarbons (PAHs) are ingredients of asphalt commonly found in urban soils. PAHs are present at this site in historic fill based on their presence in soils beneath the former parking lots in the northern portion of the site. Elevated levels of PAHs are common in the fill material and concentrations in soils at this site are comparable to site-specific background concentrations. The extent to which PAHs in site soils warrant additional soil management will be determined in the future following the soil excavations when future long-term development of the site has been better defined.

Chlorinated VOCs have also been observed within bedrock in shallow groundwater exclusively from perimeter wells MW-3 and MW-7 located along the upgradient *(i.e.,* southern) border of the site, where industrial facilities not related to the DuPont operations are located. While concentrations of certain chlorinated VOCs are above statewide groundwater quality standards, the geographic extent of these exceedances in groundwater is limited to bedrock along the southern (i.e., upgradient) border of the site. The conclusion is that none of the VOCs are associated with former Rochester Driving Park site operations; however, any building placed in this vicinity in the future will need to be designed based on an assessment of the potential for soil vapor intrusion of these chlorinated VOCs as a precaution.

3.0 REMEDY IMPLEMENTATION

3.1 Organization and Schedule

The NYSDEC is the lead regulatory agency for this remedy based on the Brownfield Cleanup Agreement for this site (NYSDEC and DuPont, 2007). The NYSDEC will reviews and approve plans, reports, and schedules for remediating this site. Mr. Todd Caffoe, P.E. is NYSDEC's Project Manager located in Avon, NY.

DuPont is responsible for the design and implementation of the site remedy. Mr. Paul Mazierski of DuPont's Corporate Remediation Group and located in Niagara Falls, NY is the DuPont Project Director for this site. DuPont has retained Parsons to manage day-to-day implementation of the site remedy. DuPont has also retained URS Corporation to manage offsite disposal of soils and coordinate laboratory analyses, and a New York State Department of Transportation - (NYSDOT) qualified, DuPont-approved waste transporter to haul contaminated material offsite. An experienced construction firm will be hired by DuPont to complete the excavations.

The excavation work is being planned for the summer or early fall of 2012. Duration of the work on site will be approximately two to four weeks subject to factors such as weather conditions.

3.2 Preparations Prior to Mobilization

Construction safety risks will be addressed through the development and implementation of a site-specific Health and Safety Plan (HASP) for construction to be prepared in accordance with OSHA and DuPont requirements. The HASP for implementing this remedy will include measures to monitor and control, as needed, possible offsite adjacent impacts. For example, dust and wind direction will be monitored.

Most excavations are more than 50 feet away from any street right-of-way but some of the excavation areas (RR1 – RR12) are adjacent to a property line with CSX railroad along the western edge of the site (see Figure 2.1). At this time, we do not anticipate any impacts to railroad property, and excavations will not extend onto CSX property based on rail line stability considerations. However, confirmatory sample results may require CSX notification if excavations encroach onto their property. Excavations will be more than 50 feet away from site monitoring wells and therefore none of the wells need to be abandoned.

Location coordinates to be measured using hand-held equipment will be based on suitable horizontal and vertical datum. Measurements will be made to an accuracy of approximately +/- 0.1 foot horizontally and vertically. Pre-construction mark out surveys of utilities will be conducted as necessary.

Standard applicable quality assurance and quality control procedures will be compiled and applied during remedy implementation. Field sampling, soil management, laboratory analyses and data management will follow quality control procedures to ensure that data are scientifically sound and usable. Standard quality control protocols will be implemented. For example, laboratory analyses will be conducted by one or more laboratories that have demonstrated suitable quality control results and have been accepted by the State of New York to conduct such work.

3.3 Mobilization

Mobilization prior to the start of excavation will commence upon the receipt of all required authorizations including NYSDEC approval of this work plan. Mobilization activities will consist of the following tasks:

- Site-specific health and safety training for all site workers.
- Locating and setting excavation lines.
- Coordination of utility clearances and access to available power and potable water as needed.
- Site access coordination with DuPont before start to obtain access and approval.
- Development of initial site work areas and delivery of construction materials and construction equipment.
- Additional site specific plans as needed (*e.g.*, health and safety plan and work area description).

Dig Safely New York will be contacted to locate underground utilities in each work area prior to beginning any excavation effort. DuPont historical documentation of underground structures for the site will also be checked for facility utilities, sewer lines, or other obstructions that may pose a risk to health and safety. In addition, utility lines in the vicinity of any of the excavation areas will be checked using surface geophysics.

Excavation areas, equipment staging and soil stockpile areas, decontamination pads, and site drainage controls will be established with visible barriers to maintain site safety requirements and prevent waste migration. Barriers will be orange construction-style fencing (4-foot high) staked into the ground and have appropriate signage.

A decontamination pad will be installed and used to decontaminate excavation equipment. A decontamination pad will be approximately 20 feet by 40 feet in area constructed using impervious liner material and New York State Department of Transportation - NYSDOT Type 2 Material. The pad will be bermed to prevent run off and pitched to direct decontamination water to a sump and where the runoff will be transferred to a holding tank for characterization and disposal.

Planned erosion and sedimentation controls for this soil removal are:

- Temporary silt fence to intercept potentially erodible soils along the borders of disturbed site areas during construction (see the silt fence detail is provided as Figure 2.2); and
- A temporary decontamination pad will be constructed using earthen materials to create berms. Decon pad will be lined with poly or similar material to contain water. The decon pad will be graded so that water runs to a sump. (See the decon pad detail provided in Figure 2.2).

Dust is not expected to be a problem due to the relatively small area of exposure, and the short duration of excavation activities. However, as discussed in Section 3.5, excessive dust (concentrations between 100 to 150 micrograms per cubic meter) will be controlled by sprinkling of water onto surfaces where significant dust can be generated. Paved roads will be cleaned periodically as warranted during construction to prevent eroded soils from migrating offsite.

3.4 Soil Excavation and Removal

Anticipated limits for each excavation area as shown on Figure 2.1 will be located and staked prior to excavation work. The final depths of each excavation will be recorded prior to backfilling.

Debris encountered during excavation will be staged separate from excavated soil. Stockpiled material that is not concrete will be covered each night with plastic sheeting. Large pieces or concrete, surface asphalt, and other such large debris encountered during excavation efforts will be placed on a plastic tarp adjacent to the excavation and transported off site for proper disposal. Smaller pieces of debris will be broken up as warranted and practical before being placed back in the excavation.

Soil will be excavated from the 24 localized excavation areas using conventional equipment such as backhoes and bulldozers. Sheeting will be used at the discretion of the contractor and pending weather and site conditions during excavation. Some of the individual excavation areas adjacent to each other may be combined to form a single excavation. No excavation below the water table is anticipated. Measures to control releases of contaminants during soil handling will be implemented as warranted. Example control measures will include sweeping sides of trucks and shoveling any dirt spilled during loading of the trucks to control releases.

Excavated soil that is not RCRA-hazardous will be stored on plastic sheeting or an impervious surface and covered with plastic to minimize contact with rain water. Surface water that inadvertently comes in contact with contaminated soils that are excavated will be containerized and managed in the same manner as water from the excavations. Soil from the two small areas where a toxicity characteristic was exceeded during RI characterization sampling (approximately 76 cubic yards) will be stored in transportable covered roll off containers and removed to a regional waste management facility permitted to receive RCRA-hazardous waste within 90 days of excavation. Other excavated soil will be removed by a state-licensed solid waste transporter to an appropriately-permitted offsite landfill where the contaminated soils will be managed in accordance with applicable state and federal rules and regulations.

Interim topographic survey data will be collected using hand-held equipment and recorded to verify dimensions at each excavation area.

The extent of soil removal will be determined primarily from confirmatory sample collected from the base of the sidewall and excavation bottom using the excavation bucket. Soil samples will be collected during excavation efforts and analyzed for cadmium, silver and/or PCBs as warranted based on prior results to check that soils analyzed previously and shown to be above statewide soil cleanup objectives have been removed. One composite sample will be collected from the base of each sidewall for every 30 linear feet of sidewall and one bottom sample for every 900 square feet (NYSDEC, 2010a). Each of the sidewall samples will be composited from four sub-samples to be collected during excavation. The locations of the samples will be recorded and marked on a site plan. Soil samples collected for this purpose will be analyzed in accordance with USEPA-approved laboratory methods. Results from this post-excavation sampling will be compared to the NYSDEC statewide soil cleanup objectives (NYSDEC and NYS Department of Health, 2006) to confirm the limits of each excavation. If results are below statewide soil cleanup objectives for restricted residential land use, no further excavation work will be conducted. If results are above statewide soil cleanup objectives for restricted residential land use, the need for additional excavation will be evaluated based on discussions with NYSDEC. Excavations along the

west property line will not extend further to the west due to a rail line located on adjacent CSX property.

Debris encountered during excavations will either be returned to the excavation or recycled or disposed off site depending on debris size and type.

Excavation areas will be restored to pre-excavation grade following soil removal by backfilling as needed with soil that meets requirements set forth by NYCRR Part 375-6.7(d) soil clean up objectives for restricted residential land use. The excavation areas will then be graded in a manner compatible with current site conditions.

Water that accumulates in an open excavation due to a rain event will be managed as needed either onsite or offsite and discharged in accordance with applicable local and State requirements.

Gross decontamination of the heavy construction equipment will be performed as needed inside the exclusion zone of each excavation, where contaminated soil and debris will be removed. Debris that is collected will be managed with the excavated soils. Heavy construction equipment will then proceed to the decontamination pad. Decontamination tools to be used at the decontamination pad are anticipated to include a combination of brooms, brushes, spades, high-pressure water sprays, low pressure hoses and detergent washing as warranted.

Truck traffic for transporting excavated site soils through the Rochester suburb area to an offsite facility outside the City of Rochester is unavoidable during weekday hours. At approximately 20 cubic yards per truckload, the number of truckloads of soil and slab concrete material to remove as part of this remedy is expected to be approximately 25 to 30 for the entire project. A preferred road route for the trucks is one that would move the trucks to a limited-access highway in a manner that does not impact homes, schools, and similar locations located along the route. Loads of excavated soil in trucks leaving the site will be covered with an impervious tarp in compliance with New York State Department of Transportation requirements. Trucks will be equipped with sealed gates, to prevent any spills or leaks. Prior to leaving the site, the trucks will be inspected to ensure that the loads are covered and that the load is secure.

Soil should be able to be removed from each of the excavation areas within a few weeks of initiating excavation efforts assuming delays due to weather and possibly other unavoidable items are not significant.

Given the site is relatively flat and open, water management should not be a significant short-term concern as long as surface drainage is properly managed during remediation. Previous investigations indicate that groundwater does not extend up into the soil above the top of bedrock. Water generated removing site residuals from construction equipment will be stored in a portable, above-ground tank and managed properly either off site or by discharging to a sanitary sewer line near the site.

3.5 Monitoring and Controls

Safety and air monitoring and short-term controls will be implemented during remediation to protect on site construction workers and, as warranted, for persons outside but close to the site perimeter. For example, an exclusion zone will be set up around each excavation in which only authorized personnel will be allowed. None of the excavations are located closer than 50 feet from the fenced site perimeter along a public right-of-way.

Dust monitoring will be conducted on-site for particulates during excavation activities in accordance with the NYSDOH's Generic Community Air Monitoring Plan (NYS Department of Health, 2000). A temporary gauge or sock will be installed at the site to indicate wind direction for daily set up of the upwind and downwind air monitoring stations. If downwind levels of particulates less than 10 microns in size from measurements integrated over 15 minutes is 100 micrograms per cubic meter or more over upwind levels, or if airborne dust is observed leaving the site, then engineering controls such as water misting will be used, as necessary, to keep dust to a minimum. Real-time air monitoring of total dust will be performed to provide immediate information for the total dust levels present. Short-term impacts during excavation due to volatile compounds detected in groundwater at the southern end of the site are not anticipated due to the distances between the excavation areas and the southern end of the site. As a precaution, limited monitoring of excavated soil for volatile organic compounds will be conducted with a photoionization detector at the five excavation areas closest to the southern end of the site (RR-19 through RR-23; see Figure 2.1).

Dust, noise and truck traffic on local streets will be monitored in coordination with City of Rochester requirements as appropriate.

Security measures that may be used include fences, gates, signs, and lighting. In areas where site work is ongoing, workers will post appropriate warning signs, barricades, and caution tape to protect members of the public from accidentally accessing the site.

Site workers will access the site from an east entrance gate, Gunnison Street, off of Argo Park as shown in Figure 2.1.

Haul trucks will enter and exit the site in one direction from Argo Park. Temporary roads may be constructed on site, if needed, between the excavation areas and Argo Park.

3.6 Post-Construction Efforts at the Site

The 24 excavation areas and associated work areas will be graded once excavation work is complete. Grades will be restored to approximate pre-excavation surface drainage patterns.

4.0 REPORTING AND POST-CONSTRUCTION PLANS

4.1 Construction Reporting

Field activities will be carefully documented in field logbooks. Entries will be of sufficient detail that a complete daily record of significant events, observations, and measurements is obtained. The field books will provide a legal record of the activities conducted at the site.

Following completion of the excavation work, DuPont will issue to NYSDEC a construction completion report for work described in this plan. The completion report will include a summary of the remedial effort, results of soil sampling, and a summary of an updated site survey.

4.2 Site Use Control – Environmental Easement

Institutional controls are widely recognized as suitable for use at sites affected with chemicals. Most institutional controls are administrative or legal methods implemented by the owner or governing entities to discourage human exposures to site-related residuals. Institutional controls typically supplement active response actions by reducing effects to human health. An interim site management plan to be prepared by DuPont following excavation work described in this work plan will explain how institutional controls will be implemented for this site.

A long-term institutional control for this site in the form of an Environmental Easement will be implemented (see NYSDEC and DuPont, 2007) to match future zoning with the excavation option implemented. The purpose of an Environmental Easement is to provide to NYSDEC rights and interests that can be effectively enforced to encourage site development that is safe for the specific intended land use. At the same time, the Environmental Easement can ensure operation, maintenance and monitoring warranted to ensure safe future land use. Such an easement can limit, for example, future site use, restrict use of surface soil or groundwater, prohibit well drilling, and define precautions needed for intrusive activities onsite.

Government controls can include requirements to control site use or site modifications and are implemented through zoning codes, property easements, or permits for building or excavation. These controls can be implemented at the discretion of the governing agency with jurisdiction over the site. They can be implemented by agency action or as court injunctions filed with a court of law.

Property controls can also consist of covenants in deeds for individual properties.

4.3 Future Land Use

Future land use will somewhat restricted by the Environmental Easement that would be implemented to guard against future use of the land that could be inconsistent with the implemented remedy. Given that the site is zoned industrial but adjacent to single-family homes within a city environment, various future land uses are plausible.

The extent to which soil, gravel, or asphalt will be used to restore the excavation areas over the long term which will be determined in the future consistent with long-term land use for this site, which has not yet been defined.

5.0 REFERENCES

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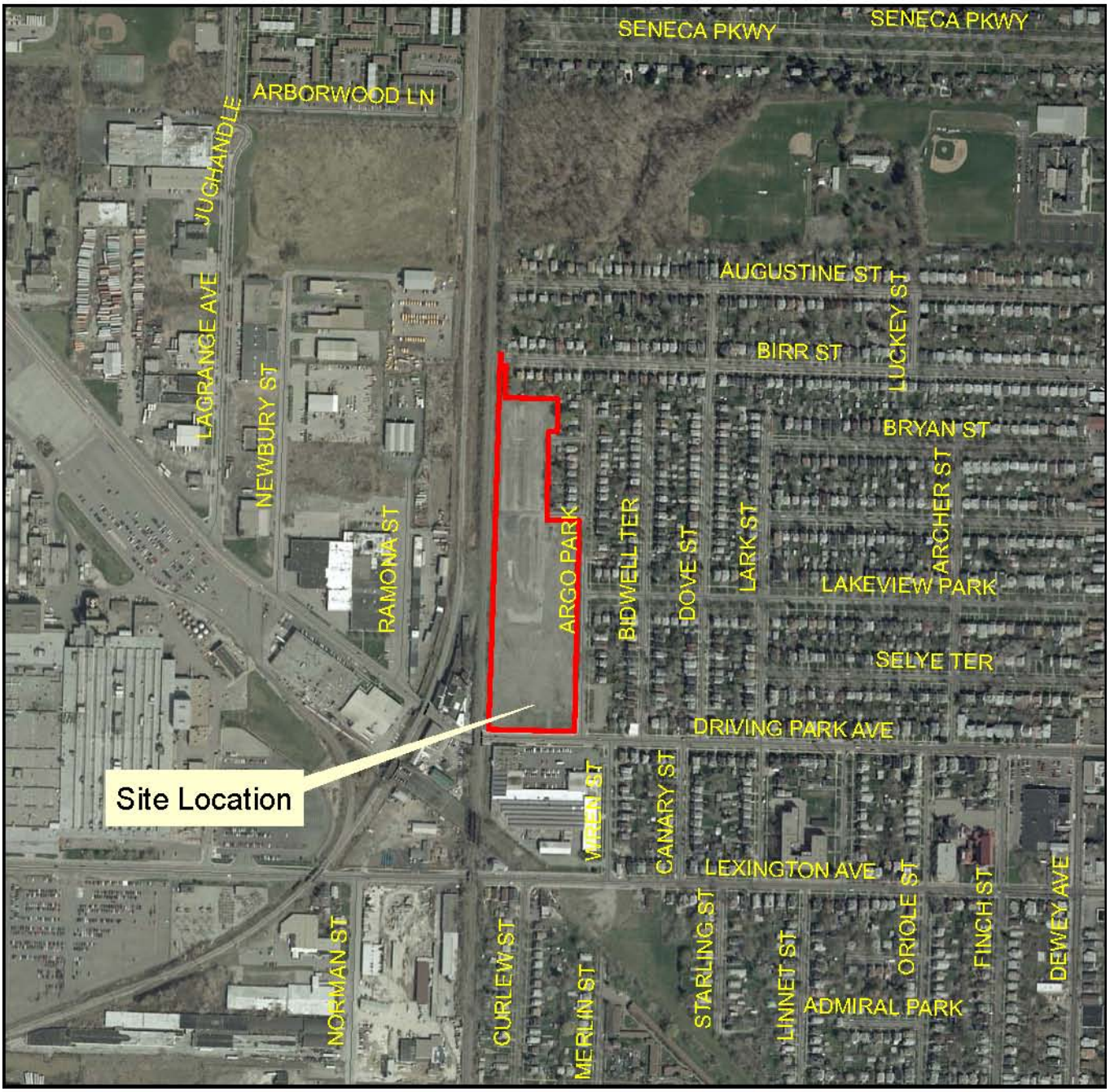
FIGURES

Figure 1-1
DuPont Site - 666 Driving Park Avenue
Rochester, New York



Monroe County 2002 Orthoimagery

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W E
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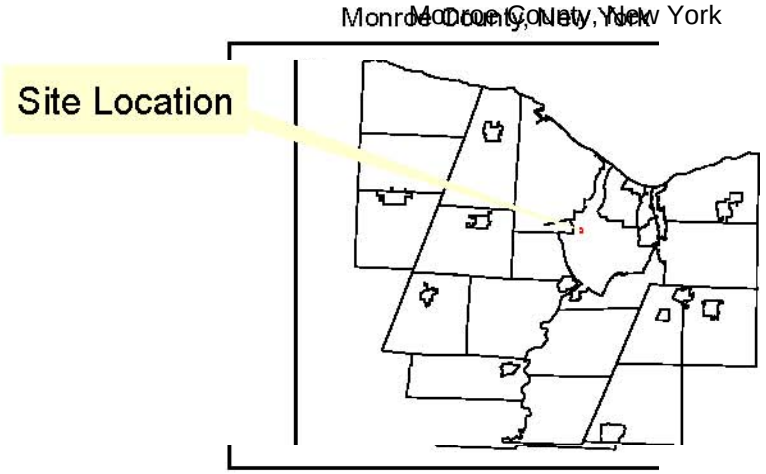
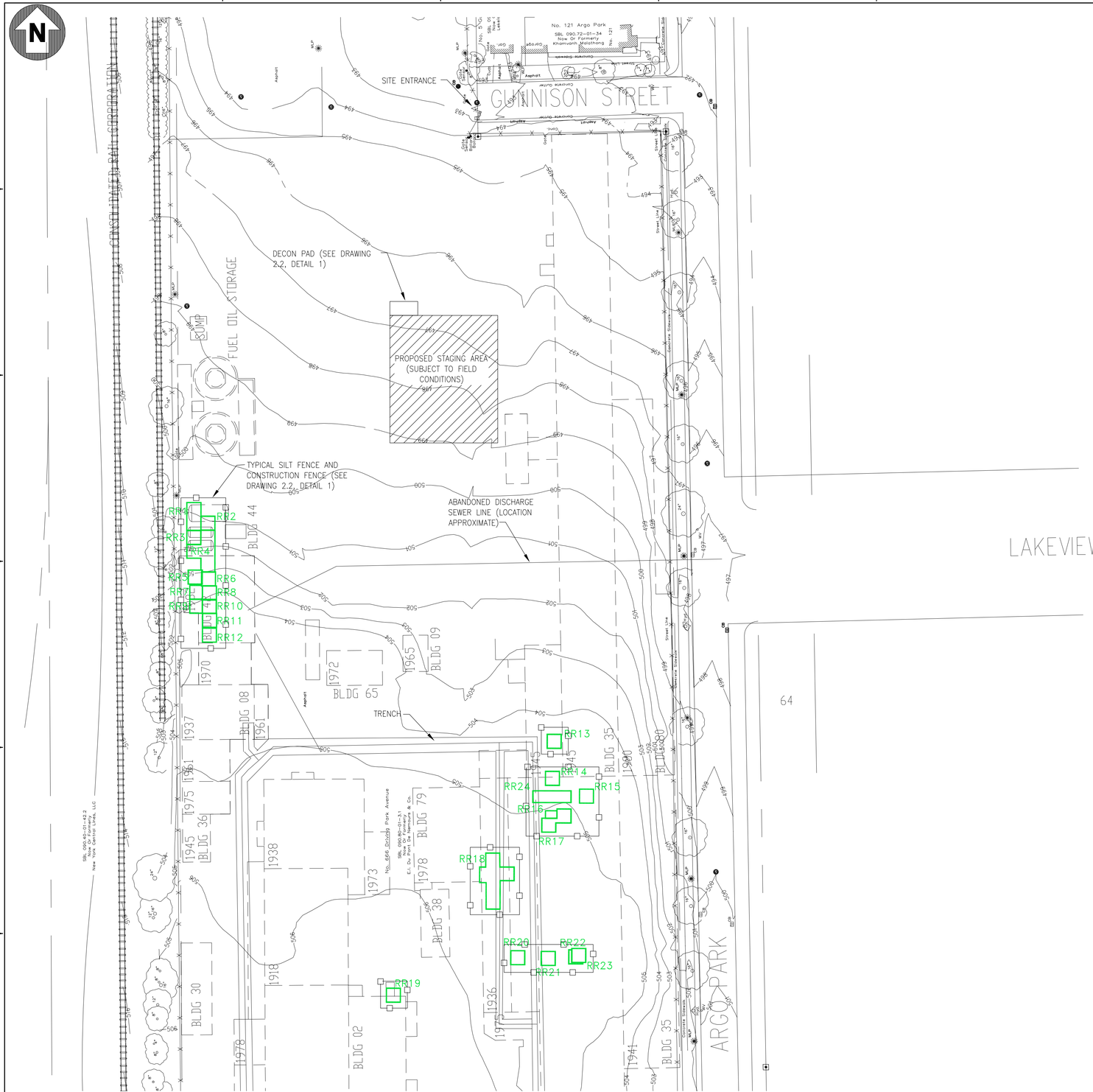
Feet



Monroe County



EXCAVATION AREAS

NAME	AREA (SQ FT)	EXCAVATION DEPTH	VOLUME (CU YDS)
RR1	200	2’	15
RR2	100	3’	11
RR3	100	3’	11
RR4	400	2’	30
RR5	100	4’	15
RR6	100	7.5’	28
RR7	91	2’	7
RR8	100	7’	26
RR9	90	3’	10
RR10	100	6’	22
RR11	100	2’	7
RR12	100	6’	22
RR13	100	3’	11
RR14	100	4.5’	17
RR15	100	4.5’	17
RR16	44	4.5’	7
RR17	203	6’	45
RR18	554	2’	41
RR19	100	6.8’	25
RR20	100	4’	15
RR21	100	10’	37
RR22	30	4’	4
RR23	100	6’	22
RR24	230	4.5’	38
	3342 SQ FT		483 CU YDS

NOTES:

1. SIDEWALL SAMPLING WILL INCLUDE MINIMUM OF ONE SAMPLE FROM THE BOTTOM OF EACH SIDEWALL FOR EVERY 30 LINEAR FT AT SIDEWALL AND ONE BOTTOM SAMPLE FOR EVERY 900 SQUARE FEET.
2. SILT FENCE INSTALLED AROUND ALL EXCAVATION AREAS.
3. TEMPORARY CONSTRUCTION FENCE WILL BE INSTALLED AROUND ALL EXCAVATIONS UNTIL BACKFILLED. CONSTRUCTION FENCE WILL BE ORANGE CONSTRUCTION STYLE STAKED IN GROUND WITH APPROPRIATE SIGNAGE UNTIL REMOVED.

40 20 0 40 80

SCALE: 1”=40’

LEGEND:

- FORMER BUILDING FOUNDATION
- PROPERTY LINE
- EXCAVATION AREA
- 501 — CONTOUR (1.0’ INTERVAL)
- WLP WOODEN LIGHT POLE
- MLP METAL LIGHT POLE
- FLP FIBERGLASS LIGHT POLE
- WUP WOODEN UTILITY POLE
- SHRUB
- SHRUBROW
- 2” DECIDUOUS TREE & SIZE
- DECIDUOUS TREE LINE
- CB RECTANGULAR CATCH BASIN
- CB ROUND CATCH BASIN
- HYDRANT
- WV WATER VALVE
- Meter WATER METER
- SEWER MANHOLE
- T TELEPHONE MANHOLE
- E ELECTRIC HANDHOLE
- C CITY HANDHOLE
- CHAIN LINK FENCE
- RAILROAD TRACK
- SCARP

NO.	DESCRIPTION	DATE	DRAWN	CHK’D	APPV’D
A	ISSUED FOR REVIEW		JR		

DRAWN BY	JR	DATE
CHECKED BY	HMP	DATE
APPROVED BY	MV	DATE
PROJECT MGR.		DATE

SEAL

PARSONS
COMMERCIAL TECHNOLOGY GROUP
OFFICE
301 PLAINFIELD ROAD
SYRACUSE, NY 13212
(315) 451-9560

JOB 446306

WBS –

PROJECT TITLE

DUPONT

666 Driving Park Site
Rochester, New York

DRAWING TITLE

EXCAVATION PLAN

SCALE SCALE 1”=40’ (IF PRINTED ON 22x34 SHEET)

DRAWING NO. FIGURE 2.1

REV. A

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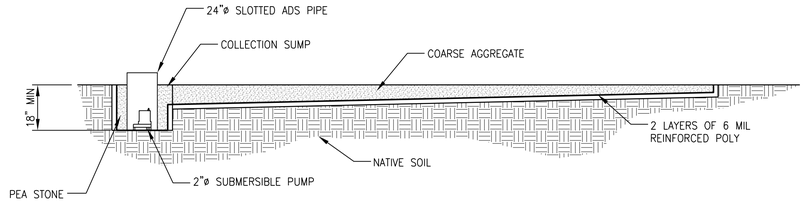
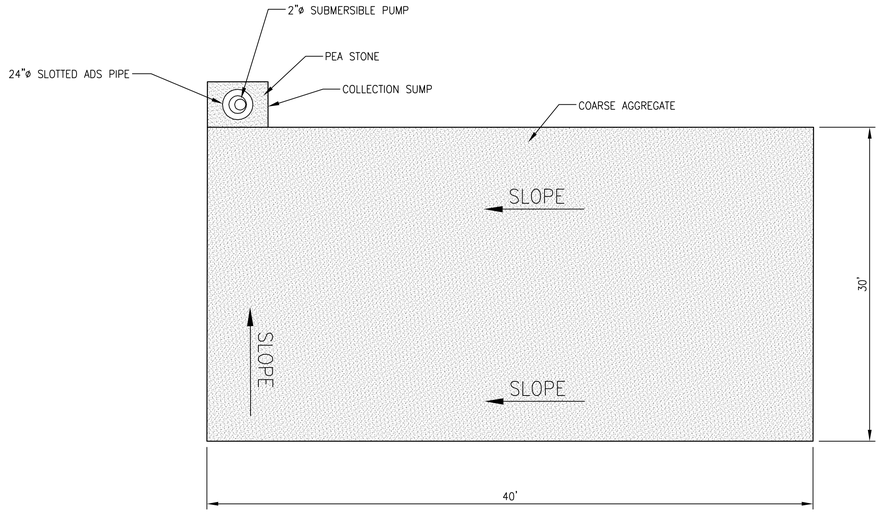


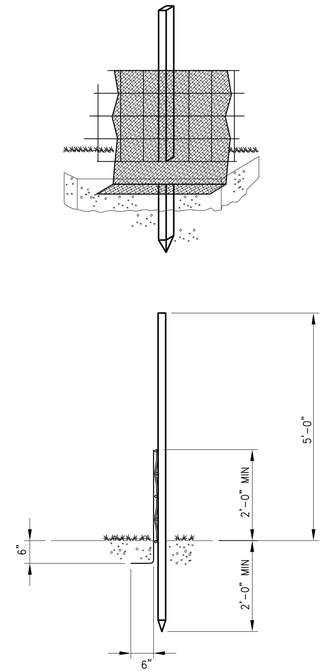
PROFILE VIEW



PLAN VIEW

1 C001 TYPICAL DECON PAD DETAIL

NOT TO SCALE



2 C001 TYPICAL SILT FENCE DETAIL

NOT TO SCALE

NOTE:
IF SILT FENCE CANNOT BE BURIED, THE BOTTOM OF THE FENCING WILL BE LINED WITH HAY BALES OR OTHER MEANS.

NO.	DESCRIPTION	DATE	DRAWN	CHK'D	APPV'D
A	ISSUED FOR REVIEW		JR		

DRAWN BY	JR	DATE	
CHECKED BY	HMP	DATE	
APPROVED BY	MV	DATE	
PROJECT MGR.		DATE	

SEAL

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COMMERCIAL TECHNOLOGY GROUP

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SYRACUSE, NY 13212
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JOB 446306

WBS –

PROJECT TITLE

DUPONT

666 Driving Park Site
Rochester, New York

DRAWING TITLE

DETAILS

SCALE AS SHOWN
(IF PRINTED ON 22x34 SHEET)

DRAWING NO. FIGURE 2.2

REV. A

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