



PROPOSED PLAN OF REMEDIAL ACTION

Chestnut Run Plaza DuPont Operable Unit 2 (OU-2)
AKA Chestnut Run Plaza Site OU-2
Wilmington, Delaware
DNREC Project No. DE-1778



September 2023

Delaware Department of Natural Resources and Environmental Control
Division of Waste and Hazardous Substances
Remediation Section
391 Lukens Drive
New Castle, Delaware 19720

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Approval:

This Proposed Plan meets the requirements of the Hazardous Substance Cleanup Act.

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| Approved by: |
|  |
| Qazi Salahuddin, Environmental Program Administrator Remediation Section |
| 9/13/2023 |
| Date |



What is the Proposed Plan of Remedial Action?

The Proposed Plan of Remedial Action (Proposed Plan) summarizes the clean-up (remedial) actions that are being proposed to address contamination found at the Chestnut Run Plaza DuPont Site (Site), also known as the Chestnut Run Plaza Site, for public comment. A legal notice is published in the newspaper for a 20- day comment period. The Delaware Department of Natural Resources and Environmental Control (DNREC) considers and addresses all public comments received and publishes a Final Plan of Remedial Action (Final Plan) for the Site.

What is the Chestnut Run Plaza DuPont OU-2 Site?

The Site is located at 984 Centre Road, 135 and 145 Innovation Boulevard, Wilmington (Figure 1). The Site originally consisted of one tax parcel. However, as part of the redevelopment, the Site was recently divided into numerous tax parcels, which are described in detail below.

The entire Site was formerly used as a research and development facility for Dupont until 2021. The Site consists of numerous buildings used for research and development as well as a credit union, day care and powerhouse. The property is currently owned by CRISP Partners LLC. The Brownfield Developer intends to redevelop the Site for commercial use.

The Chestnut Run Plaza DuPont Site is bordered by Centre Road to the west, Faulkland Road to the south, Delaware Valley Railroad and Silverbrook Cemetery to the east, and DuPont Chestnut Run Plaza, 974 Center Road, to the north. The New Castle Detention Center, Ferris School, and mixed residential and commercial development are present to the west, southwest, and south across Centre Road and Faulkland Road, respectively. A large apartment complex also borders the site to the northeast.

The Site has been broken into six (6) operable units (OUs) for redevelopment purposes. The location of the OUs is shown in Figure 2. Each OU is briefly described in the table below. Each OU will be addressed in a separate Proposed and Final Plan. This Proposed Plan addresses OU-2.

OU-2 consists of the soil and soil gas around nine (9) Buildings 700, 701, 702, 703, 704, 710, 724, 726 and 729 surrounded by grass/landscaping and parking (Figure 2).

| Operable Units | Description | Tax Parcels |
|-----------------------|--|--|
| OU-1 | Building 709 | 0703520209 and 0703520210 |
| OU-2 | Buildings 700, 701, 702, 703, 704, 710, 724, 726 and 729 | 0703520209, 0703510198, 0703230032, 0703230031, 0703240127, and 0703520211 |
| OU-3 | Building 750 and 751 | 0703520209 and 0703520213 |
| OU-4 | Buildings 707 and 708 | 0703520209, 0703240126 and 0703520212 |
| OU-5 | Groundwater for the entire Site | All Tax Parcels |
| OU-6 | Buildings 711, 712, 713, 714, 715, 717, & 718 | 0703520209, 0703510199, 0703510200, 0703520216, 0703520215, and 0703520214 |

Please note that although Figure 2 shows numerous other structures not noted in the table above, these other structures are not designed for continuous human occupancy. For example, Building 749 is a designed to store road salt. As a result, human health risks were not evaluated.

What happened at the Chestnut Run Plaza DuPont OU-2 Site?

The Site was farmland prior to the 1950s. The majority of the buildings on OU-2 were built in the 1950s and were used as research and development labs for fibers, imaging, chemicals, polymers, solar panels and hydrogen fuel-cells. Building 700 contained mostly office spaces, Building 710 was a guard shack, and Building 724 has been used as a credit union.

Chemicals used at OU-2 included chlorinated solvents, freon, per-and polyfluoroalkyl substances (PFAS), and halogenated solvents. Hazardous wastes were stored onsite. Specifically, Building 700, 701, and 702 may have used PFAS, based on Air Permits, and Building 702 is known to have used chlorinated solvents. Two 18,000-gallon #6 fuel oil underground storage tanks which were associated with Building 704 have been closed in place and received a Conditional No Further Action letter from the Delaware DNREC Tank Management Section.

Releases likely occurred due to historic operations at OU-2.

What is the environmental problem at the Chestnut Run Plaza DuPont OU-2 Site?

A Brownfields Investigation performed at the site indicated elevated levels of the **poly-aromatic hydrocarbon (PAH)**, benzo(a) pyrene, and **metals**, including chromium, iron, manganese and thallium in site soils; However, based on a human health risk assessment, site soils within OU-2 did not pose an unacceptable risk under a residential use scenario.

Soil gas samples collected from under the concrete building slab (sub-slab) of Building 701 indicated a potential cancer and noncancer risk under a residential use scenario driven by 1,1,2-trichloroethane, 1,2-dichloroethane, and trichloroethene (TCE) and indoor worker use scenarios driven by 1,1,2-trichloroethane. However, indoor air samples did NOT exceed indoor air risk for residential or indoor worker use risk scenarios. The concrete slab is acting as a barrier to prevent vapors from entering Building 701.

Soil gas samples were collected twice from under the concrete building slab (sub-slab) of Building 702 which indicated a potential cancer and noncancer risk under the residential use scenario driven by benzene, cis-1,2-dichloroethene (cis-1,2-DCE), n-heptane, n-hexane, TCE, and tetrachloroethene (PCE) and indoor worker use scenarios driven by benzene, cis-1,2-DCE, TCE, and PCE. However, indoor air samples, which were also collected twice, did NOT exceed indoor air risk for residential use or indoor workers. The concrete slab is acting as a barrier to prevent vapors from entering Building 702.

Soil gas samples collected from under the concrete building slab (sub-slab) of Building 710 indicated that there is no unacceptable cancer or noncancer risk associated with residential exposure to Site soil gas via the indoor air pathway. Because the residential exposure scenario is the most conservative, it can be inferred that there is also no unacceptable risk to indoor workers.

Site groundwater is being evaluated and addressed under Operable Unit, OU-5.

What clean-up actions have taken place at the Chestnut Run Plaza DuPont OU-2 Site?

No interim actions have taken place on OU-2.

What does the owner want to do at the Chestnut Run Plaza DuPont OU-2 Site?

The developer is planning to refurbish the buildings for commercial reuse and build additional commercial use space in OU-2. Only Buildings 702 and 724 are currently being used. The buildings on OU-2 will not contain daycares or sensitive receptors. The sections below provide more details. Buildings will be sampled for vapor intrusion risk prior to being reused. The buildings to be sampled include a proposed hotel, 704, and 724. DNREC will advertise an amended OU-2 Proposed Plan prior to these buildings being reused.

What additional clean-up actions are needed at the Chestnut Run DuPont OU-2 Site?

Operable Unit 2 contains tax parcel 0703520209. This tax parcel extends over OU-1, 2, 3, 4 and 6. Since this tax parcel extends over multiple OUs, remedial requirements differ from other parcels within OU-2. Therefore, remedies for OU-2 are outlined by tax parcel.

DNREC proposes the following remedial actions for the Site, which need to be completed before a Certificate of Completion of Remedy (COCR) can be issued.

Tax Parcel 0703520209 (covers the entire Site); Tax Parcel 0703520211 (Building 700), Tax Parcel 0703230032, and Tax Parcel 0703510198–

1. **Environmental Management During Construction-** Develop and implement a contaminated materials management plan (CMMP) for use during all construction activities at the Site. [CMMP was approved by DNREC on July 6, 2022]

2. **Institutional Controls-**

- a) A proposed Environmental Covenant must be submitted to DNREC for approval within 60 days of the issuance of the Final Plan of Remedial Action.
- b) The Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (7 Del.C. Chapter 79, Subchapter II) must include the following activity and/or use restrictions:

- [a.] Use Restriction. Use of the Property shall be restricted to those non-residential type uses permitted within Commercial, Manufacturing, or Industrial Districts.
- [b.] Limitation of Groundwater Withdrawal. No groundwater wells shall be installed and no groundwater shall be withdrawn from any well on the Property without the prior written approval of DNREC-RS and DNREC Division of Water;
- [c.] Compliance with the CMMP. All work required by the CMMP must be performed to DNREC's satisfaction in accordance with the Plan.
- [d.] Prohibit building renovations or demolition without prior notification of DNREC-RS;
- [e.] Require a vapor intrusion evaluation for any new buildings, buildings with a change in use (commercial to residential) or significant changes to the building or buildings not already investigated prior to reuse on this tax parcel;

3. A Remedial Action Completion Report (RACR) must be submitted to DNREC within 60 days of the completion of the remedial actions required in this Proposed Plan. The remedial actions will be documented in the RACR.

4. A request for a COCR must be submitted to DNREC within 60 days of approval of the RACR.

Tax Parcel 0703240127- Building 701 / Tax Parcel 0703230031-Building 702

1. **Environmental Management During Construction-** Develop and implement a CMMP for use during all construction activities at the Site. [CMMP was approved by DNREC on July 6, 2022]

2. **Institutional Controls-**

- a) A proposed Environmental Covenant must be submitted to DNREC for approval within 60 days of the issuance of the Final Plan of Remedial Action.
- b) The Environmental Covenant, consistent with Delaware's Uniform Environmental Covenants Act (7 Del.C. Chapter 79, Subchapter II) must include the following activity and/or use restrictions:

- [a.] Use Restriction. Use of the Property shall be restricted to those non-residential type uses permitted within Commercial, Manufacturing, or Industrial Districts. The use shall also be restricted for adult sensitive sub-population uses including hospitals, daycare facilities, elderly housing and convalescent facilities.
 - [b.] Limitation of Groundwater Withdrawal. No groundwater wells shall be installed and no groundwater shall be withdrawn from any well on the Property without the prior written approval of DNREC-RS and DNREC Division of Water;
 - [c.] Compliance with the CMMP. All work required by the CMMP must be performed to DNREC's satisfaction in accordance with the Plan.
 - [d.] Compliance with Long-Term Stewardship Plan. All work required by the Long-Term Stewardship (LTS) Plan must be performed to DNREC's satisfaction in accordance with the LTS Plan.
 - [e.] Prohibit building renovations or demolition without prior notification of DNREC-RS;
 - [f.] Require a vapor intrusion evaluation for any new buildings, buildings with a change in use (commercial to residential) or significant changes to the building or buildings not already investigated prior to reuse on this tax parcel;
3. LTS must be submitted to DNREC within 60 days of the issuance of the Final Plan of Remedial Action. The LTS will require air monitoring of Building 701 and Building 702 to ensure that the slab remains protective for vapors.
 4. A Remedial Action Completion Report (RACR) must be submitted to DNREC within 60 days of the completion of the remedial actions required in this Proposed Plan. The remedial actions will be documented in the RACR.
 5. A request for a COCR must be submitted to DNREC within 60 days of approval of the RACR.

What are the long-term plans for the Site after the cleanup?

The property is currently owned by CRISP Partners LLC. The Brownfield Developer intends to redevelop the Site for commercial use.

How can I find additional information or comment on the Proposed Plan?

The complete file on the Site including the Brownfields Investigation (BFI), OU-2 Building 701 Vapor Intrusion (VI) Letter Report, OU-2 Building 710 VI Letter Report and the various reports are available online at:

<https://den.dnrec.delaware.gov>

The 20-day public comment period begins on September 17, 2023 and ends at close of business (4:30 pm) on October 9, 2023. Please send written comments to the DNREC to Rick Galloway, Project Officer or via email to RS_Public_Comments@delaware.gov.

Figure 1: Site Location Map

Figure 2: OU-2 Site Map

RMG:dh; RMG23012.docx; DE-1778 II B8; QS23184

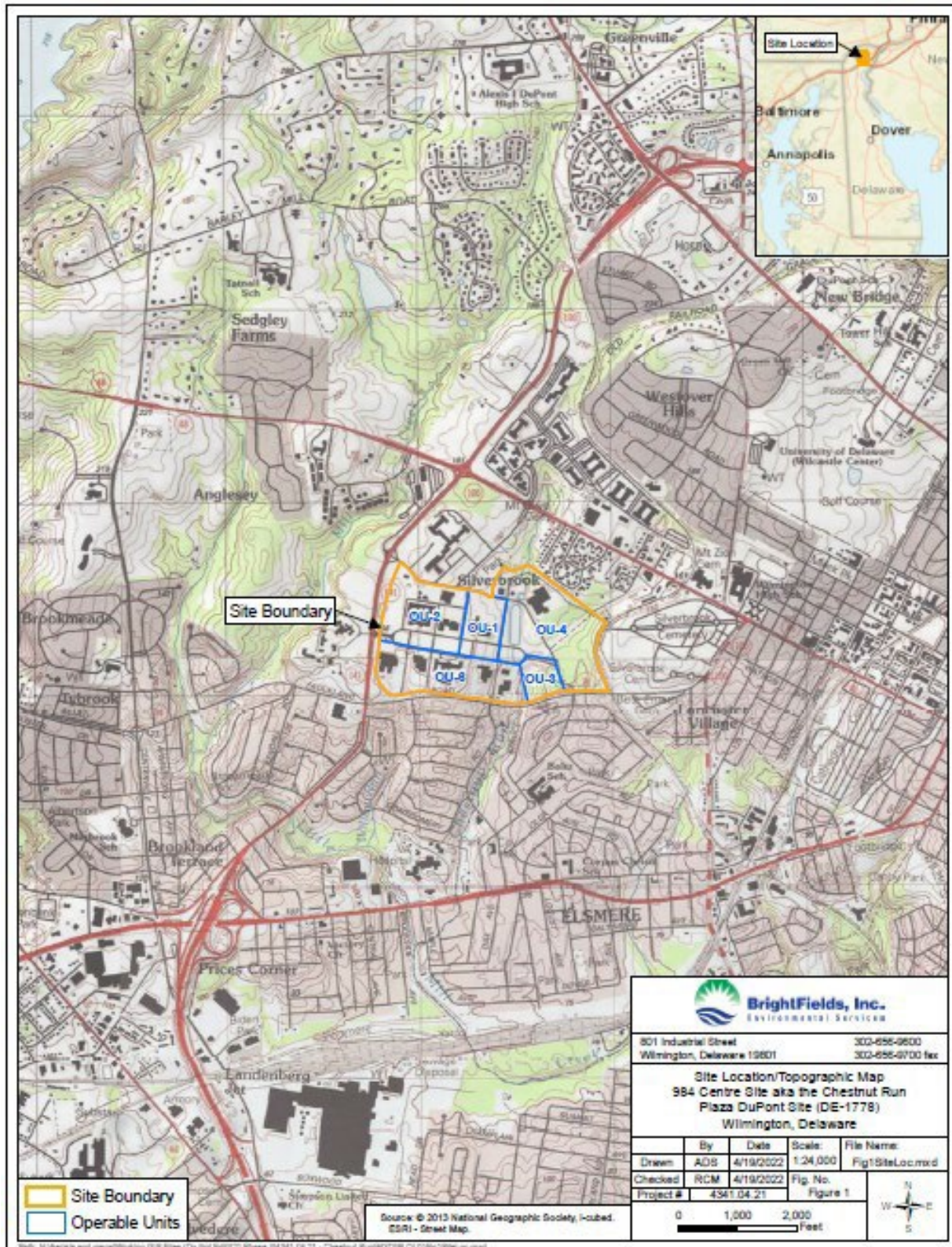


Figure 1

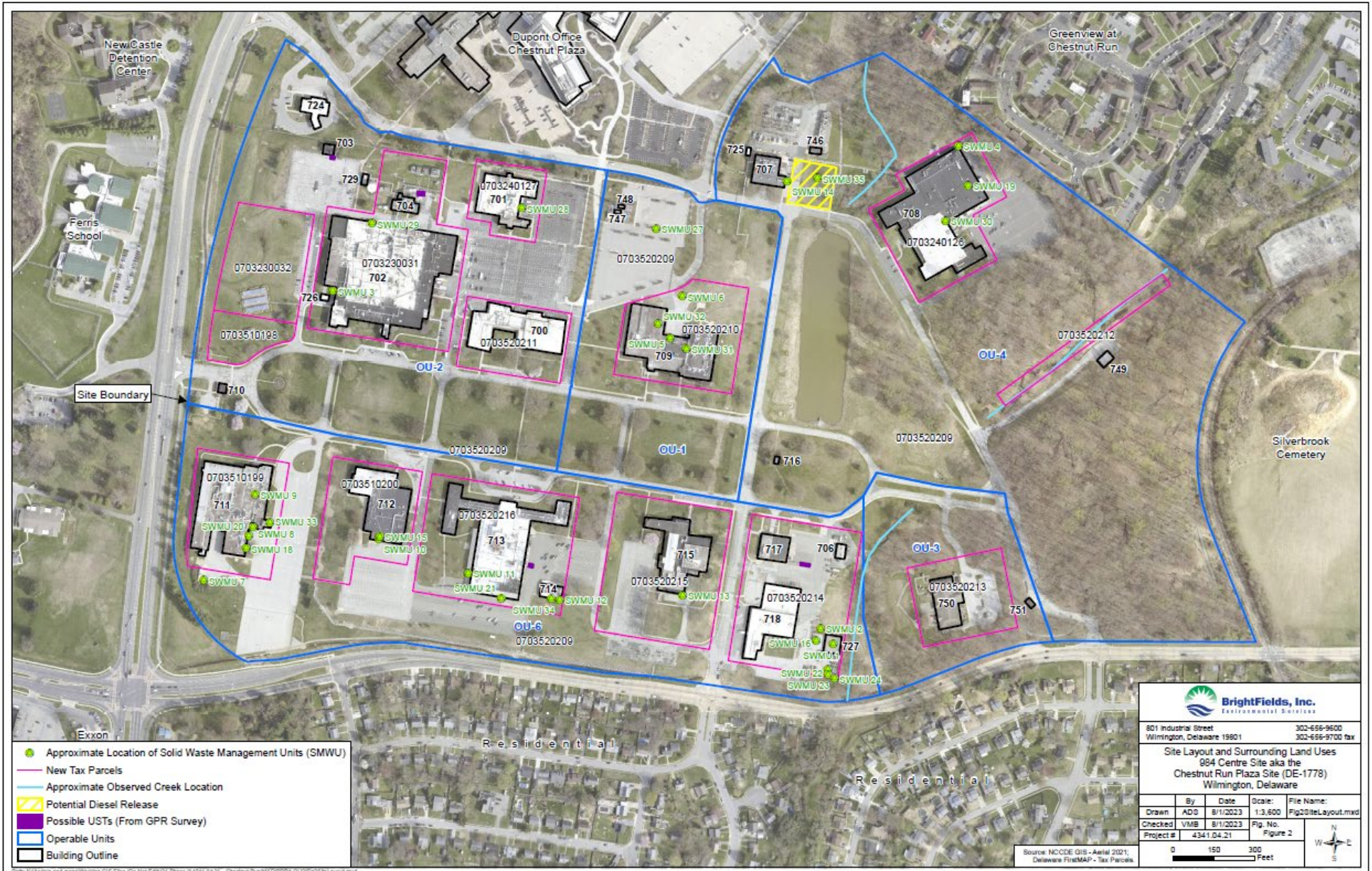


Figure 2

Glossary of Terms Used in this Proposed Plan

| | |
|---|---|
| Certification of Completion of Remedy (COCR) | A formal determination by the Secretary of DNREC that remedial activities required by the Final Plan of Remedial Action have been completed. |
| Contaminated Materials Management Plan (CMMP) | A written plan specifying how potentially contaminated material at a Site will be sampled, evaluated, staged, transported and disposed of properly. |
| Environmental Covenant | A legal document detailing restriction placed on the property in accordance with the Final Plan of Remedial Action. |
| Final Plan of Remedial Action | DNREC's adopted plan for cleaning up a hazardous site. |
| Halogenated solvents | Halogenated solvent is an organic solvent, which contains halogenic atoms: chlorine (Cl), fluorine (F), bromine (Br) or iodine (I). |
| Intuitional Controls | Documents that restrict the use of the Site or describe how the remedy will be inspected. |
| Long-term Stewardship (LTS) | Inspection program to ensure continued protectiveness of the selected remedy |
| Operable Unit (OU) | A separation of the site into management units due to differences in use, media, contamination distribution, etc. |
| Per- and Polyfluoroalkyl Substances (PFAS) | PFAS are widely used, long lasting chemicals, components of which break down very slowly over time. |
| Poly aromatic hydrocarbons (PAHs) | Poly aromatic hydrocarbons are a group of hydrocarbon molecules that have multiple carbon rings, and that include carcinogenic substances and environmental pollutants. |
| Proposed Plan of Remedial Action (Proposed Plan) | DNREC's plan that is being proposed to the public for cleaning up a hazardous site. |
| Remedial Action Completion Report (RACR) | This is a report documenting and detailing that the remedies required for the Site have been completed. |
| Risk | Likelihood or probability of injury, disease, or death. |
| Sensitive Receptors | Include, but not limited to, playgrounds/areas of open soil, hospitals, daycare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the potential adverse effects of exposure to toxic chemicals, pesticides, and other potential contaminants. Extra care and consideration must be taken when assessing sites with contaminants in close proximity to areas with recognized sensitive receptors. |
| Soil Gas Samples | A sample of gas or vapor collected from soil to see if vapors are migrating typically from the groundwater through the soil and into a building. |
| Sub-Slab Soil Gas sample | A soil gas sample collected under the concrete floor (aka slab) of a building. |
| Underground Storage Tanks (USTs) | Tanks that contain hazardous substances typically hydrocarbons like gasoline. |
| Vapor Intrusion (VI) | Migration of vapors typically from the groundwater through the soil and into a building. |