



STORMWATER INFILTRATION REPORT

Walnut Street - Chalfont

New Britain Township, Bucks County, Pennsylvania

September 9, 2025

Revised January 8, 2026

Prepared for:

Hanover Company

7200 Wisconsin Avenue, Suite 820

Bethesda, Maryland 20814

Attn: Taylor M. (Gelinis) Riley, P.E.

Site Development Associates - Industrial

Prepared by:

Geo-Technology Associates, Inc.

Geotechnical and Environmental Consultants

Construction Observation and Testing

2405 John Fries Highway

Quakertown, Pennsylvania 18951

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GTA Project No: 31251589

GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS



A Practicing Geoprofessional Business Association Member Firm

September 9, 2025
Revised January 8, 2026

Hanover Company

7200 Wisconsin Avenue, Suite 820
Bethesda, Maryland 20814

Attn: Taylor M. (Gelinas) Riley, P.E.

Re: Stormwater Infiltration Report
Walnut Street - Chalfont
New Britain Township, Bucks County, Pennsylvania

Dear Ms. Riley:

In accordance with our agreement, Geo-Technology Associates, Inc. (GTA) has conducted a subsurface exploration and performed infiltration testing at the above-referenced property in New Britain Township, Bucks County, Pennsylvania. The purpose of the exploration and testing was to evaluate the feasibility of the on-site soils for infiltration within the proposed stormwater management (SWM) facilities. This report and the attachments are instruments of service. The subject matter of this report is limited to the facts and matters stated herein. Absence of a reference to any other conditions or subject matter shall not be construed by the reader to imply approval by the writer.

GTA appreciates the opportunity to have been of assistance to you on this project. Please contact our office if you have questions regarding this report.

Sincerely,
GEO-TECHNOLOGY ASSOCIATES, INC.

Shannon K. Giampa, SEO
Staff Scientist

Michael W. Derr, P.E.
Vice President



SKG/MWD
31251589

Attachments:

- | | | |
|-----------------------------|----------------------------|--------------------|
| - Site Location Map | - Site Web Soil Survey Map | - Site Geology Map |
| - Exploration Location Plan | - Stormwater Summary Table | - Test Pit Logs |

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1.0 INTRODUCTION

GTA observed the excavation of preliminary stormwater test pits and performed infiltration testing in support of the proposed three one-story warehouses in July 2025. GTA returned to the site in December 2025 to conduct a supplemental investigation and testing. The fieldwork consisted of excavating a total of 58 test pits and conducting 116 *in-situ* infiltration tests utilizing double-ring infiltrometer methodology. The stormwater testing was conducted in general accordance with the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual) prepared by the Pennsylvania Department of Environmental Protection (PADEP).

For our use in preparation of this report, GTA was provided with the *Concept Plan*, dated April 3, 2024 revised August 22nd 2025, prepared by Bohler Engineering. The plan depicts the existing site features, topography, property boundaries, testing locations, and the recreational site layout. This report summarizes the results of the field exploration and infiltration testing and provides recommendations regarding design and construction of the SWM facilities.

It should be noted that GTA also performed a geotechnical study in conjunction with the proposed building and site layout. The geotechnical study included an additional 28 Standard Penetration Test (SPT) borings.

2.0 PROJECT DESCRIPTION

2.1 Site Location

The subject site is located at 56 Walnut Street in New Britain Township, Bucks County, Pennsylvania. Specifically, the southern portion of the subject site is accessible by Walnut Street; and the Northern portion of the subject site is accessible by Stewart Lane at the end of the col de sac. Adjacent properties include commercial properties.

2.2 Existing Site Conditions

At the time of GTA's subsurface exploration, the site consisted of cornfields, forested areas, and existing residences throughout the site. The topography of the site is moderately-sloping south-east toward the existing creek. Approximate ground surface elevations range from a low elevation (EL) of 264 feet at the center of the site, to a high of EL 304 within the northern corner of the site. Refer to the attached *Site Location Map*, included herein as Figure 1 for additional information.

2.3 Proposed Construction

Based on the aforementioned *Grading and Drainage Plan*, the site will be redeveloped into three one-story warehouses for commercial use with associated new pavements. Based on correspondence with the client and pertinent to this report, the preliminary post-construction stormwater management (PCSM) design includes proposed infiltration basins. However, it is GTA's understanding that the final site layout and grading may be subject to change based on the results of this study.

2.4 Mapped Site Soils

Based on a review of the *United States Department of Agriculture and Natural Resources Conservation Service (USDA NRCS) Web Soil Survey*, the soils on the site are mapped as belonging to the Abbottstown, Bowmansville, Buckingham, Readington, Reaville and Rowland series. The soils observed during the field exploration generally confirmed the mapped soil. Refer to the above-referenced soil map and *Site Web Soil Survey Map*, included herein as Figure 2 for additional information.

2.5 Geologic Review

According to *Pennsylvania Department of Conservation and Natural Resources (DCNR) Pennsylvania GEOlogic Data Exploration* mapping tool and the DCNR *Map 13 Physiographic Provinces of Pennsylvania*, the site is located within the Gettysburg-Newark Lowland Section of the Piedmont Physiographic Province of Pennsylvania. Specifically, the site is indicated to be underlain by the Triassic-Aged Brunswick Formation. The Brunswick Formation consists of reddish-brown, mudstone, siltstone, and shale. Refer to the attached *Site Geology Map*, included herein as Figure 3 for additional information.

3.0 SUBSURFACE EXPLORATION

A total of fifty-eight test pits were excavated for infiltration testing at locations proposed by Bohler. The test pits were field-located by a GTA scientist utilizing a hand-held GPS unit as well as measuring from existing features. The test pits extended to approximate depths of 32 inches and 150 inches to the existing ground surface (bgs). Existing ground surface elevations were interpolated from the aforementioned *Grading and Drainage Plan* and should be considered approximate. The approximate test locations are indicated on the attached *Exploration Location Plans* identified as Figure 4A, 4B, and 4C.

3.1 Subsurface Conditions

The test pits encountered surficial topsoil, underlain by residual soils, and apparent bedrock. Topsoil thicknesses ranged from five inches to 22 inches. Below the surficial cover, the test pits encountered

residual soils visually-classified as USDA silt loam, sandy loam, silty clay loam, silty clay, and loamy sand. Varying amounts of gravels and channers were encountered within the soil matrix, generally increasing with depth. Indications of the seasonal high-water table and groundwater seeps were encountered within eight of the test pits excavated, specifically INF-8, INF-15, INF-27, INF-42, INF-46, INF-51, INF-52, and INF-58 at approximate depths ranging 42 to 120 inches bgs. Indications of Redoximorphic features on the test pit logs should not be considered a limiting zone on their own.

Apparent bedrock, inferred by excavator refusal, was encountered within all test pits except INF-42, INF-46, INF-51, INF-52, and INF-58 at approximate depths ranging between 32 inches and 150 inches bgs. For the purpose of this report, the top of bedrock is defined as the point at which the excavator bucket is unable to advance in a safe or timely manner. This is not a definite indicator of bedrock, as several factors can limit the ability of the excavator bucket to advance. Refer to the attached *Test Pit Logs* for a more detailed description of the soil profile at each location.

It should be noted that the subsurface conditions encountered within the 28 SPT borings were similar to the conditions encountered within the test pits.

3.2 Infiltration Testing

The preliminary fieldwork consisted of 116 *in-situ* infiltration tests utilizing double-ring infiltrometer methodology within the proposed SWM facilities and across the site. The infiltration tests were conducted at depths ranging between 0 inches and 96 inches bgs. Raw infiltration rates ranged between 0.0 inches per hour and 10.0+ inches per hour. Slower infiltration rates are likely due to the presence of firm consistency soils and higher fines content within the soil matrix. Refer to the attached *Stormwater Summary Table* for specific infiltration rates yielded at each test pit.

4.0 STORMWATER CONSIDERATIONS AND RECOMMENDATIONS

4.1 General Conclusions

Based on the results of the preliminary and supplemental subsurface testing, GTA considers stormwater infiltration within proposed infiltration basins to be very limited due to the shallow limiting zones and slow inconsistent and variable infiltration rates. Issues related to stormwater management include the relatively shallow bedrock observed in the central and northern portions of the site and areas of slower infiltration.

Testing revealed very thin soil layers that may have some infiltration capacity, but the more permeable soil layers are typically underlain by bedrock or fine grained low permeable soils. Additionally, due to topographic sloping, siting an infiltration bed that only bears within the more permeable soils is highly

unlikely. GTA recommends alternative SCMs to be considered for this project. Unlined systems, such as MRC, could be considered to maximize infiltration potential without relying on it for complete stormwater management. General stormwater recommendations related to the design and construction of the underground stormwater infiltration basins (if considered) are included in the following paragraphs.

4.2 General Stormwater Infiltration Recommendations

When more than two infiltration tests are employed for design purposes within the SWM facilities, the highest rate of the test results should be discarded, and the geometric mean should be used to determine the average rate of the remaining test results. A safety factor of at least 2.0 should be applied to the raw infiltration rates for design purposes. *Only infiltration rates obtained within the individual SWM facilities within one foot of the proposed subgrade elevations should be used for design. Averaging of all tests across the site is not recommended.*

According to the BMP Manual it is desirable to maintain a two-foot clearance above limiting zones such as bedrock, groundwater, and seasonal high-water table. Where possible, GTA recommends setting infiltration bed elevations a minimum of two feet above the observed bedrock. Indications of the season high-water table and groundwater were observed within eight of the test pits to the maximum depth explored.

Infiltration areas should not be exposed to unstabilized runoff and construction disturbance that may decrease infiltration rates. It will be important to limit disturbance and compaction of the infiltration surface during construction. The operation of heavy and rubber-tire equipment directly on the infiltration subgrades should be avoided. Fencing and erosion control should be set around the individual on-lot SWM facilities to reduce clogging from sediment runoff during construction. Construction oversight by competent engineering personnel during installation of the SWM facilities is critical to successful functioning of the system. Ideally, construction oversight should be provided by the geotechnical engineer, or qualified representative, retained by the project owner to document construction operations and assure that project specifications and special construction requirements are met.

5.0 LIMITATIONS

This report has been prepared in accordance with generally accepted engineering practice. The analysis and conclusions contained in this report are based on the data obtained from limited observations and testing. The observations do not necessarily reflect variations in geologic or hydrogeologic conditions that may exist beneath the site.

In the event that any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report are verified in writing. GTA is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or reuse of the subsurface data or engineering analysis without the expressed written authorization of GTA.

At completion, the test locations were backfilled with the excavated material and leveled off with the surrounding grades. No additional compaction effort or site restoration was conducted. Future settlement and consolidation of the soil replaced in the test locations may occur, resulting in a depression or hole that may require maintenance or restoration. GTA is not responsible for additional maintenance and restoration of the test pits.

Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, clients can benefit from a lowered exposure to the subsurface problems that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed below, contact your GBA-member geotechnical engineer. Active involvement in the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Geotechnical-Engineering Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a given civil engineer will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. *Those who rely on a geotechnical-engineering report prepared for a different client can be seriously misled.* No one except authorized client representatives should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one – not even you – should apply this report for any purpose or project except the one originally contemplated.*

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read it *in its entirety*. Do not rely on an executive summary. Do not read selected elements only. *Read this report in full.*

You Need to Inform Your Geotechnical Engineer about Change

Your geotechnical engineer considered unique, project-specific factors when designing the study behind this report and developing the confirmation-dependent recommendations the report conveys. A few typical factors include:

- the client's goals, objectives, budget, schedule, and risk-management preferences;
- the general nature of the structure involved, its size, configuration, and performance criteria;
- the structure's location and orientation on the site; and
- other planned or existing site improvements, such as retaining walls, access roads, parking lots, and underground utilities.

Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.*

This Report May Not Be Reliable

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, that it could be unwise to rely on a geotechnical-engineering report whose reliability may have been affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If your geotechnical engineer has not indicated an "apply-by" date on the report, ask what it should be, and, in general, if you are the least bit uncertain about the continued reliability of this report, contact your geotechnical engineer before applying it.* A minor amount of additional testing or analysis – if any is required at all – could prevent major problems.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface through various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing were performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgment to form opinions about subsurface conditions throughout the site. Actual sitewide-subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team from project start to project finish, so the individual can provide informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, *they are not final*, because the geotechnical engineer who developed them relied heavily on judgment and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* revealed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a full-time member of the design team, to:

- confer with other design-team members,
- help develop specifications,
- review pertinent elements of other design professionals' plans and specifications, and
- be on hand quickly whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction observation.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note conspicuously that you've included the material for informational purposes only*. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report, but they may rely on the factual data relative to the specific times, locations, and depths/elevations referenced. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may

perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely*. Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures*. If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. As a general rule, *do not rely on an environmental report prepared for a different client, site, or project, or that is more than six months old*.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, none of the engineer's services were designed, conducted, or intended to prevent uncontrolled migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will not of itself be sufficient to prevent moisture infiltration*. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team. *Geotechnical engineers are not building-envelope or mold specialists*.

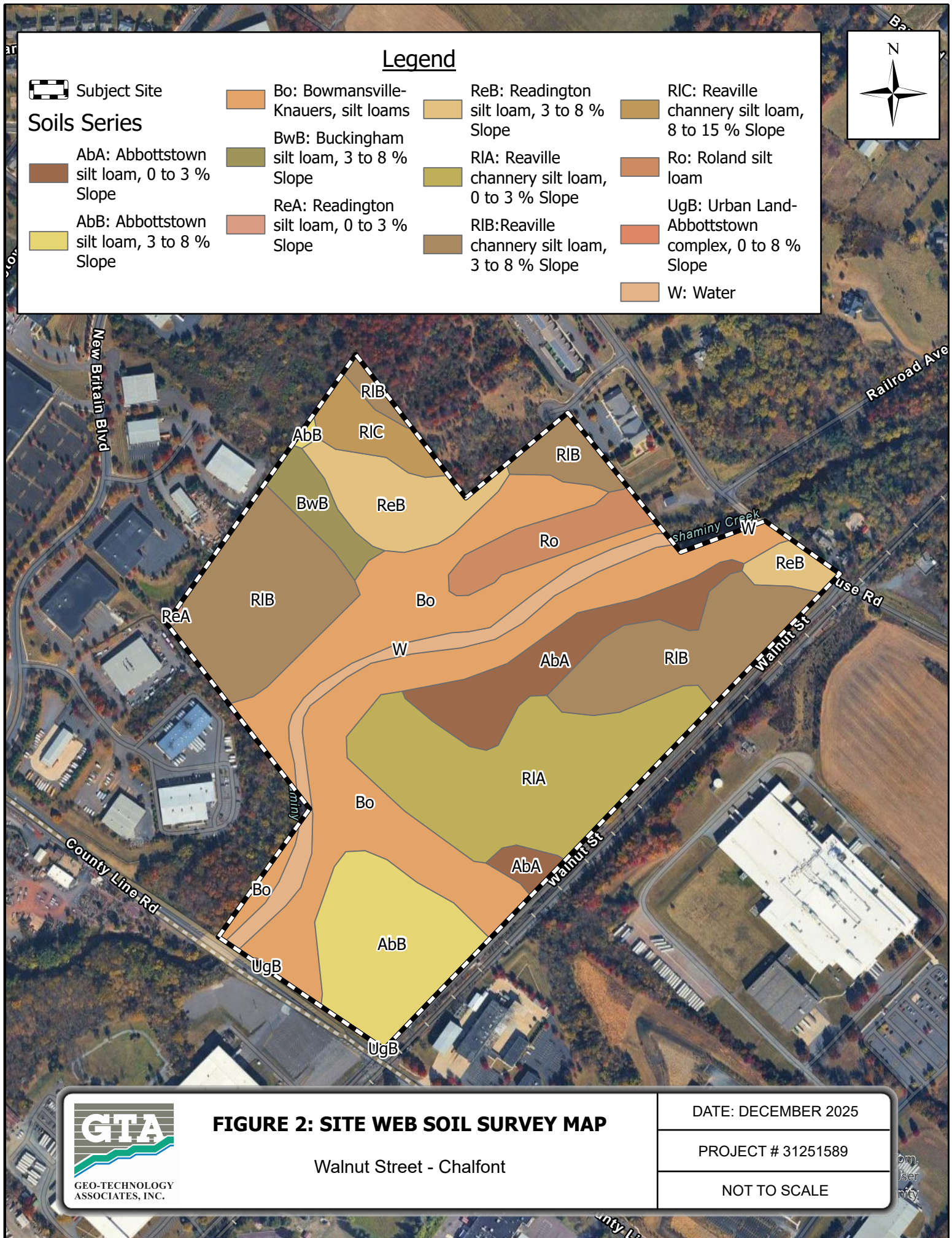


GEOPROFESSIONAL
BUSINESS
ASSOCIATION

Telephone: 301/565-2733

e-mail: info@geoprofessional.org www.geoprofessional.org





Legend



Subject Site



Trb: Brunswick
Formation
(Triassic)



Trl: Lockatong
Formation
(Triassic)

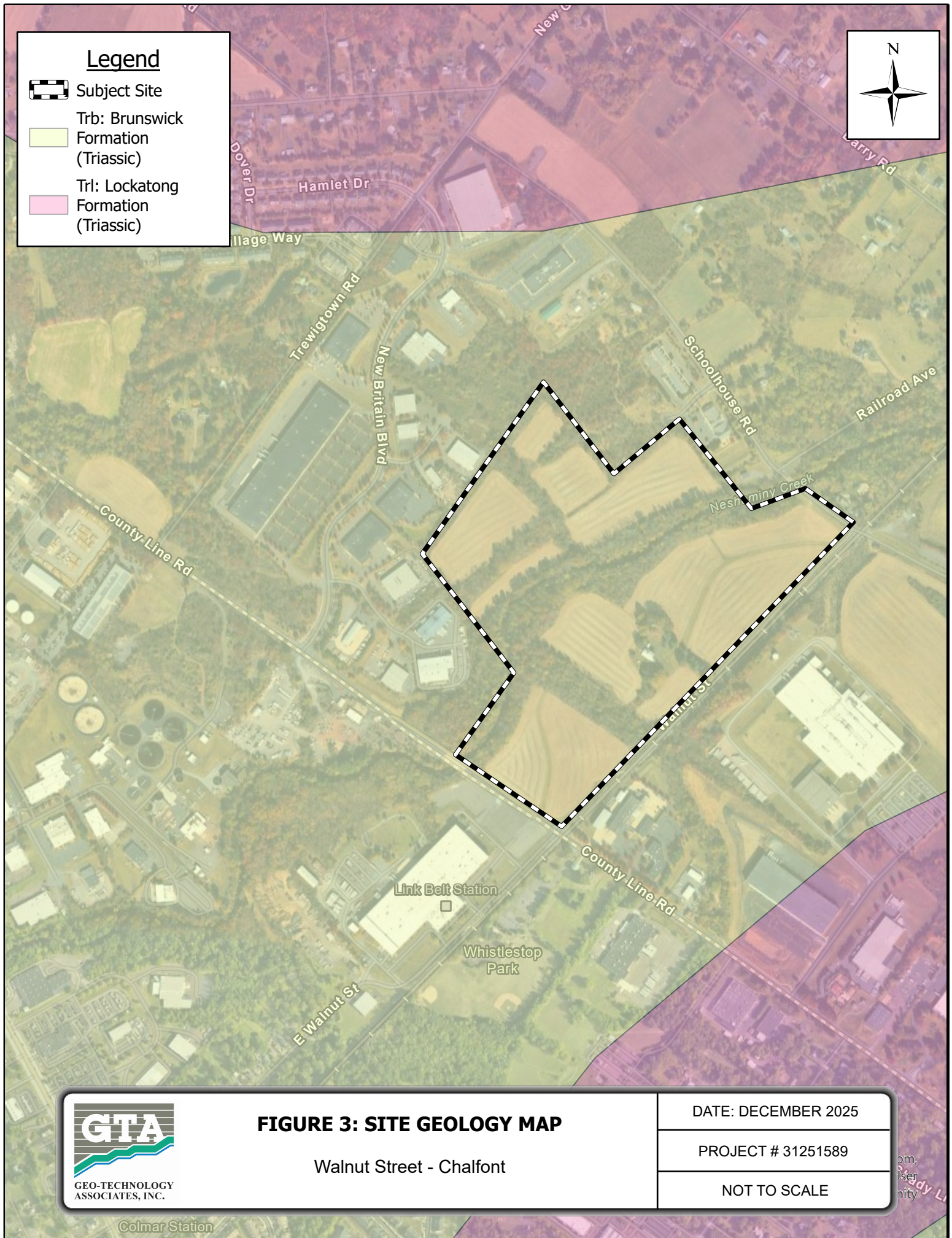


FIGURE 3: SITE GEOLOGY MAP

Walnut Street - Chalfont

DATE: DECEMBER 2025

PROJECT # 31251589

NOT TO SCALE



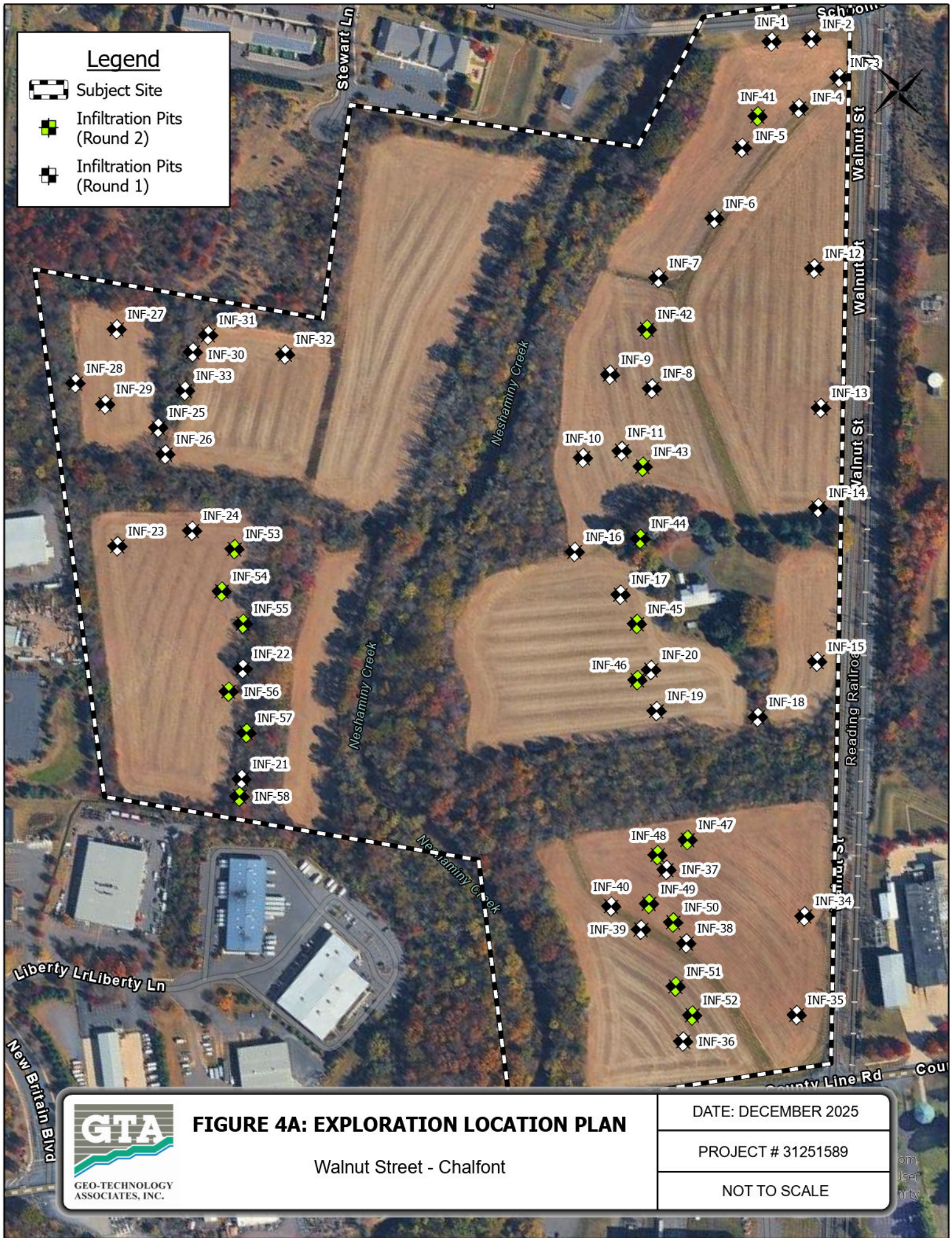


FIGURE 4A: EXPLORATION LOCATION PLAN

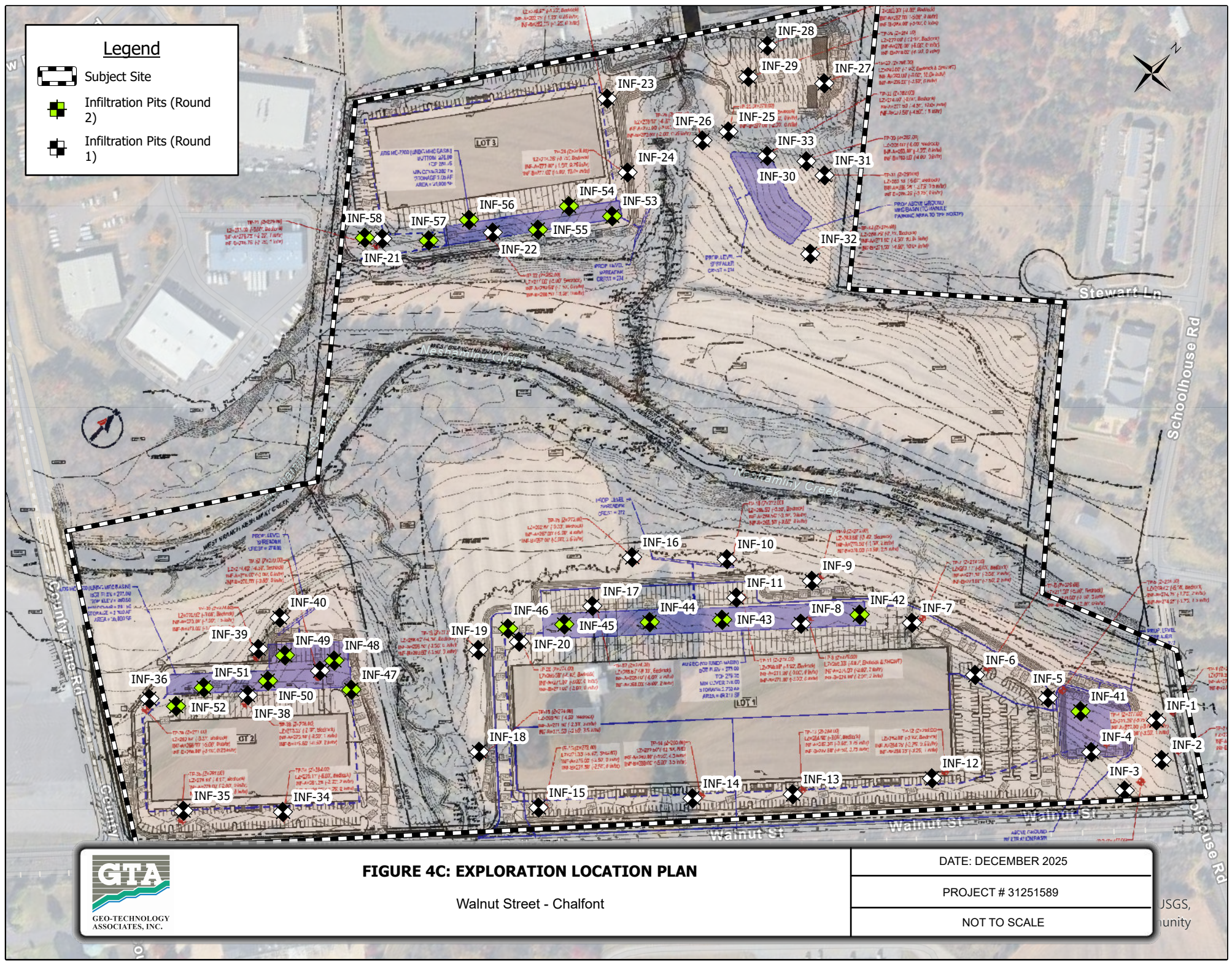
Walnut Street - Chalfont

DATE: DECEMBER 2025

PROJECT # 31251589

NOT TO SCALE

Tom User nity



Legend

- Subject Site
- Infiltration Pits (Round 2)
- Infiltration Pits (Round 1)

FIGURE 4C: EXPLORATION LOCATION PLAN

Walnut Street - Chalfont

DATE: DECEMBER 2025

PROJECT # 31251589

NOT TO SCALE

JSGS,
Community



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Project: Walnut Street - Chalfont

Project Number: 31251589

Project Location: New Britain Township, Montgomery County, Pennsylvania

Client: Hanover Company

Legend

N/E = Not Encountered

N/A = Not Applicable

EGS = Existing Ground Surface Elevation

SHWT = Seasonal High Groundwater Table

Test Pit Location	Existing Ground Surface Elevation (ft)	Limiting Zone Type / Encountered	Limiting Zone Depth (ft)	Limiting Zone Elevation (ft)	Infiltration Test	Infiltration Test Elevation	Infiltration Test Depth (ft)	Final Raw Infiltration Rate (in/hr)	Stormwater Facility Location
INF-1	275.0	N/A	4.50	Bedrock	IT-A	274.50	0.50	1.00	Building 1
					IT-B	274.50	0.50	1.00	
INF-2	277.0	N/A	5.00	Bedrock	IT-A	276.00	1.00	0.00	
					IT-B	276.00	1.00	0.00	
INF-3	277.0	N/A	5.42	Bedrock	IT-A	275.00	2.00	0.00	
					IT-B	275.00	2.00	0.50	
INF-4	277.0	N/A	5.75	Bedrock	IT-A	277.00	EGS	0.00	
					IT-B	274.00	3.00	1.00	
INF-5	276.0	N/A	6.58	Bedrock	IT-A	274.25	1.75	2.00	
					IT-B	274.25	1.75	1.50	
INF-6	276.0	N/A	5.00	Bedrock	IT-A	274.00	2.00	0.00	
					IT-B	274.00	2.00	0.00	
INF-7	274.0	N/A	6.83	Bedrock	IT-A	271.50	2.50	2.00	
					IT-B	271.50	2.50	2.00	
INF-8	276.0	N/A	6.67	Bedrock & SHGWT	IT-A	274.00	2.00	2.00	
					IT-B	274.00	2.00	2.00	
INF-9	272.0	N/A	3.42	Bedrock	IT-A	270.50	1.50	2.00	
					IT-B	270.50	1.50	2.50	
INF-10	272.0	N/A	5.50	Bedrock	IT-A	268.50	3.50	0.00	
					IT-B	268.50	3.50	0.00	
INF-11	274.0	N/A	5.92	Bedrock	IT-A	271.00	3.00	0.00	
					IT-B	271.00	3.00	0.00	
INF-12	288.0	N/A	5.92	Bedrock	IT-A	284.75	3.25	0.50	
					IT-B	284.75	3.25	1.00	
INF-13	288.0	N/A	3.08	Bedrock	IT-A	287.5	0.50	3.75	
					IT-B	287.50	0.50	3.75	
INF-14	285.0	N/A	12.50	N/E	IT-A	280.00	5.00	4.50	
					IT-B	280.00	5.00	3.50	
INF-15	278.0	N/A	6.67	SHGWT	IT-A	275.50	2.50	0.00	
					IT-B	275.50	2.50	0.00	
INF-16	272.0	N/A	9.33	Bedrock	IT-A	267.00	5.00	4.00	
					IT-B	267.00	5.00	3.50	
INF-17	274.0	N/A	8.33	Bedrock	IT-A	268.00	6.00	3.00	
					IT-B	268.00	6.00	2.00	
INF-18	274.0	N/A	4.50	Bedrock	IT-A	271.50	2.50	3.00	
					IT-B	271.50	2.50	3.50	
INF-19	273.0	N/A	4.58	Bedrock	IT-A	269.50	3.50	0.00	
					IT-B	269.50	3.50	0.00	
INF-20	274.0	N/A	4.42	Bedrock	IT-A	271.00	3.00	0.00	
					IT-B	271.00	3.00	0.00	
INF-41	278.00	Bedrock	7.00	271.00	IT-A	275.00	3.00	0.50	
					IT-B	273.00	5.00	2.00	
INF-42	275.00	Groundwater	4.00	271.00	IT-A	274.00	1.00	1.00	
					IT-B	273.00	2.00	0.00	
INF-43	276.00	Bedrock	7.00	269.00	IT-A	276.00	EGS	1.00	
					IT-B	272.00	4.00	0.00	
INF-44	278.00	Bedrock	6.00	272.00	IT-A	278.00	EGS	1.00	
					IT-B	274.00	4.00	0.00	
INF-45	274.00	Weathered Rock	7.00	267.00	IT-A	270.00	4.00	1.00	
					IT-B	269.00	5.00	0.00	
INF-46	273.00	Groundwater	7.00	266.00	IT-A	269.00	4.00	0.00	
					IT-B	268.00	5.00	0.00	



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Project Number: 31251589
Project Location: New Britain Township, Montgomery County, Pennsylvania
Client: Hanover Company

Legend
N/E = Not Encountered
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EGS = Existing Ground Surface Elevation
SHWT = Seasonal High Groundwater Table

Test Pit Location	Existing Ground Surface Elevation (ft)	Limiting Zone Type / Encountered	Limiting Zone Depth (ft)	Limiting Zone Elevation (ft)	Infiltration Test	Infiltration Test Elevation	Infiltration Test Depth (ft)	Final Raw Infiltration Rate (in/hr)	Stormwater Facility Location
INF-34	284.0	N/A	5.83	Bedrock	IT-A	281.25	2.75	2.00	Building 2
					IT-B	281.25	2.75	2.00	
INF-35	281.0	N/A	4.17	Bedrock	IT-A	279.00	2.00	0.00	
					IT-B	279.00	2.00	0.00	
INF-36	271.0	N/A	8.33	Bedrock	IT-A	266.00	5.00	0.00	
					IT-B	266.00	5.00	0.25	
INF-37	279.0	N/A	4.58	Bedrock	IT-A	276.00	3.00	0.00	
					IT-B	276.00	3.00	0.00	
INF-38	276.0	N/A	2.67	Bedrock	IT-A	275.50	0.50	1.00	
					IT-B	275.50	0.50	2.00	
INF-39	274.0	N/A	3.08	Bedrock	IT-A	273.00	1.00	1.50	
					IT-B	273.00	1.00	2.50	
INF-40	274.0	N/A	3.00	Bedrock	IT-A	273.25	0.75	0.50	
					IT-B	273.00	1.00	0.00	
INF-47	279.00	Bedrock	8.00	271.00	IT-A	274.00	5.00	0.00	
					IT-B	274.00	5.00	0.00	
INF-48	277.00	Bedrock	7.00	270.00	IT-A	276.00	1.00	0.50	
					IT-B	273.00	4.00	1.00	
INF-49	277.00	Bedrock	7.00	270.00	IT-A	277.00	EGS	0.00	
					IT-B	277.00	EGS	0.00	
INF-50	278.00	Bedrock	5.00	273.00	IT-A	278.00	EGS	0.50	
					IT-B	276.00	2.00	1.00	
INF-51	271.00	Groundwater	10.00	261.00	IT-A	271.00	EGS	0.50	
					IT-B	263.00	8.00	0.00	
INF-52	271.00	Groundwater	10.00	261.00	IT-A	271.00	EGS	0.00	
					IT-B	263.00	8.00	0.00	



GEO-TECHNOLOGY ASSOCIATES, INC.
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Project: Walnut Street - Chalfont
Project Number: 31251589
Project Location: New Britain Township, Montgomery County, Pennsylvania
Client: Hanover Company

Legend
N/E = Not Encountered
N/A = Not Applicable
EGS = Existing Ground Surface Elevation
SHWT = Seasonal High Groundwater Table

Test Pit Location	Existing Ground Surface Elevation (ft)	Limiting Zone Type / Encountered	Limiting Zone Depth (ft)	Limiting Zone Elevation (ft)	Infiltration Test	Infiltration Test Elevation	Infiltration Test Depth (ft)	Final Raw Infiltration Rate (in/hr)	Stormwater Facility Location
INF-21	279.0	N/A	6.00	Bedrock	IT-A	276.75	2.25	1.00	Building 3
					IT-B	276.75	2.25	1.00	
INF-22	282.0	N/A	5.00	Bedrock	IT-A	280.50	1.50	0.00	
					IT-B	280.50	1.50	0.00	
INF-23	284.0	N/A	5.33	Bedrock	IT-A	282.75	1.25	0.25	
					IT-B	282.75	1.25	0.00	
INF-24	278.0	N/A	3.75	Bedrock	IT-A	277.00	1.00	9.75	
					IT-B	277.00	1.00	10.0+	
INF-25	279.0	N/A	5.42	Bedrock	IT-A	277.00	2.00	0.00	
					IT-B	277.00	2.00	0.00	
INF-26	275.0	N/A	4.33	Bedrock	IT-A	273.00	2.00	0.50	
					IT-B	273.00	2.00	0.25	
INF-27	298.0	N/A	7.92	Bedrock & SHGWT	IT-A	292.00	6.00	10.0+	
					IT-B	295.50	2.50	0.00	
INF-28	292.0	N/A	9.00	Bedrock	IT-A	287.00	5.00	0.00	
					IT-B	287.00	5.00	0.00	
INF-29	284.0	N/A	12.00	Bedrock	IT-A	278.00	6.00	0.00	
					IT-B	278.00	6.00	0.00	
INF-30	287.0	N/A	6.00	Bedrock	IT-A	283.00	4.00	0.00	
					IT-B	283.00	4.00	0.00	
INF-31	290.0	N/A	6.67	Bedrock	IT-A	286.25	3.75	0.50	
					IT-B	272.25	3.75	0.00	
INF-32	276.0	N/A	7.25	Bedrock	IT-A	277.50	4.50	10.0+	
					IT-B	271.50	4.50	10.0+	
INF-33	282.0	N/A	8.00	Bedrock	IT-A	277.50	4.50	10.0+	
					IT-B	277.50	4.50	1.50	
INF-53	276.00	Bedrock	5.00	271.00	IT-A	276.00	EGS	0.00	
					IT-B	275.00	1.00	4.00	
INF-54	283.00	Weathered Rock	3.60	279.40	IT-A	283.00	EGS	2.00	
					IT-B	282.00	1.00	2.00	
INF-55	283.00	Weathered Rock	5.50	277.50	IT-A	280.00	3.00	10.0+	
					IT-B	280.00	3.00	10.0+	
INF-56	284.00	Weathered Rock	4.50	279.50	IT-A	284.00	EGS	0.00	
					IT-B	284.00	EGS	0.00	
INF-57	280.00	Bedrock	5.50	274.50	IT-A	280.00	EGS	0.00	
					IT-B	276.50	3.50	2.50	
INF-58	278.00	Groundwater	6.50	271.50	IT-A	275.00	3.00	1.50	
					IT-B	275.00	3.00	2.00	



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2405 John Fries Highway, Quakertown, PA 18951
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TEST PIT LOG: TP-1

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 275

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES	COMMENTS
A	0-7	10YR 3/4	Gravelly Silt Loam	Granular/SubAng	Friable		Topsoil
B t	7-54	10YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Firm		Residual
R	54+						Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 54 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 54 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 0.50 B: 0.50 Final Raw Infiltration Rates (in/hr): A: 1.0 B: 1.0	

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-2

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 277

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-6	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B t	6-23	5YR 4/3	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B tx	23-34	10YR 5/6	Silty Clay Loam	Prismatic	Very Firm	MP	Redox Depletions	Residual
B t	34-60	5YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	60+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 60 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 60 inches Water Seeps: NE Seasonal High Water Table Depth: 23 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 1.0 B: 1.0 Final Raw Infiltration Rates (in/hr): A: 0.00 B: 0.00		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-3

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 277

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-11	10YR 3/4	Silt Loam	Granular	Friable			Topsoil
B t	11-26	10YR 5/6	Silty Clay Loam	Subangular Blocky	Firm			Residual
B tx	26-40	10YR 5/8	Channery Silty Clay Loam	Prismatic	Very Firm	MP	Redox Depletions	Residual
C	40-65	7.5YR 4/4	V Channery Silt Loam	Angular Blocky	Firm			Residual
R	65+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 65 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 65 inches Water Seeps: NE Seasonal High Water Table Depth: 26 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.0 B: 2.0 Final Raw Infiltration Rates (in/hr): A: 0.00 B: 0.50		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-4

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 277

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-11	10YR 3/4	Silt Loam	Granular	Friable			Topsoil
B tx	11-37	10YR 5/6	Channery Silty Clay Loam	Angular Blocky	Very Firm	MP	Redox Conc/Depl	Residual
B t1	37-47	5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	47-69	5YR 4/3	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	69+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 69 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 69 inches Water Seeps: NE Seasonal High Water Table Depth: 11 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: EGS B: 3.0 Final Raw Infiltration Rates (in/hr): A: 0.00 B: 1.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-5

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 276

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-8	5YR 4/4	Silt Loam	Subangular Blocky	Friable			Topsoil
B t1	8-41	5YR 4/3	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	41-79	5YR 4/3	V Channery Silty Clay Loam	Angular Blocky	Very Firm			Residual
R	79+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 79 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 79 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 1.75 B: 1.75 Final Raw Infiltration Rates (in/hr): A: 2.0 B: 1.5		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-6

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 276

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-14	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B t	14-27	5YR 4/3	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B tx	27-39	10YR 5/6	Silty Clay Loam	Prismatic	Very Firm	MP	Redox Depletions	Residual
B t	39-60	5YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	60+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 60 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 60 inches Water Seeps: NE Seasonal High Water Table Depth: 27 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.0 B: 2.0 Final Raw Infiltration Rates (in/hr): A: 0.00 B: 0.00		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-7

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 274

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-10	5YR 4/4	Silt Loam	Subangular Blocky	Friable			Topsoil
B t	10-34	5YR 3/4	Channery Silt Loam	Angular Blocky	Friable			Residual
B tx	34-47	10YR 5/6	Channery Silty Clay Loam	Prismatic	Very Firm	CP	Redox Depletions	Residual
B t	47-82	10YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	82+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 82 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 82 inches Water Seeps: NE Seasonal High Water Table Depth: 34 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.5 B: 2.5 Final Raw Infiltration Rates (in/hr): A: 2.0 B: 2.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-8

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 276

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-16	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B tx1	16-41	5YR 4/3	Channery Silty Clay Loam	Angular Blocky	Firm	CP	Redox Depletions	Residual
B tx2	41-80	10YR 5/6	Channery Silty Clay Loam	Prismatic	Very Firm	MP	Redox Depletions	Residual
R	80+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 80 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 80 inches Water Seeps: NE Seasonal High Water Table Depth: 16 inches Perched Water: 80 inches			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.0 B: 2.0 Final Raw Infiltration Rates (in/hr): A: 2.0 B: 2.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-9

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County,
Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 272

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-6	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B tx	6-22	10YR 5/6	Channery Silty Clay Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
B t	22-41	10YR 5/6	Channery Silty Clay Loam	Prismatic	Very Firm			Residual
R	41+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 41 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 41 inches Water Seeps: NE Seasonal High Water Table Depth: 6 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 1.50 B: 1.50 Final Raw Infiltration Rates (in/hr): A: 2.0 B: 2.50		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-10

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 272

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B tx	9-29	10YR 5/6	Channery Silty Clay Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
B t	29-66	10YR 4/4	Channery Silty Clay Loam	Prismatic	Very Firm	CF	Redox Depletions	Residual
R	66+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 66 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 66 inches Water Seeps: NE Seasonal High Water Table Depth: 9 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 3.50 B: 3.50 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-11

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/10/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 274

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-8	5YR 4/4	Silt Loam	Granular	Friable			Topsoil
B tx	8-26	10YR 4/3	Channery Silty Clay Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
B t	26-41	5YR 4/3	Channery Silty Clay Loam	Prismatic	Very Firm	CF	Redox Depletions	Residual
B t	41-71	5YR 4/3	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R								Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 71 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 71 inches Water Seeps: NE Seasonal High Water Table Depth: 8 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 3.0 B: 3.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-12

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 288

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A 1	0-7	10YR 3/4	Silt Loam	Platy	Friable			Topsoil
A 2	7-14	7.5YR 3/4	Silty Clay Loam	Subangular Blocky	Friable			Topsoil
B tx	14-41	5YR 5/6	Silty Clay Loam	Prismatic	Very Firm	MP	Redox Depletions	Residual
B t	41-71	5YR 5/6	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	71+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 71 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 71 inches Water Seeps: NE Seasonal High Water Table Depth: 14 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 3.25 B: 3.25 Final Raw Infiltration Rates (in/hr): A: 0.50 B: 1.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-13

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 288

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A 1	0-5	10YR 3/4	Silt Loam	Platy	Friable			Topsoil
A 2	5-11	7.5YR 3/4	Silt Loam	Subangular Blocky	Friable			Topsoil
B t1	11-26	5YR 4/4	V Channery Silty Clay Loam	Subangular Blocky	Very Firm	CD	Redox Depletions	Residual
B t2	26-37	5YR 4/4	V Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
R	37+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 37 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 37 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 0.50 B: 0.50 Final Raw Infiltration Rates (in/hr): A: 3.75 B:3.75		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-14

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 285

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-12	10YR 3/4	Silt Loam	Platy	Friable			Topsoil
B tx	12-39	10YR 5/6	Silty Clay Loam	Subangular Blocky	Very Firm	MP	Redox Conc/Depl	Residual
B t1	39-90	5YR 4/4	Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	90-120	5YR 4/3	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B t3	120-150	5YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 150 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: NE Water Seeps: 90 inches Seasonal High Water Table Depth: 12 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 5.0 B: 5.0 Final Raw Infiltration Rates (in/hr): A: 4.50 B: 3.50		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-15

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 278

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-7	10YR 3/4	Silt Loam	Platy	Friable			Topsoil
B t	7-23	10YR 5/6	Silty Clay Loam	Subangular Blocky	Very Firm			Residual
B tx	23-49	5YR 4/4	Silty Clay Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
B t1	49-80	5YR 4/3	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 80 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: NE Water Seeps: NE Seasonal High Water Table Depth: 23 inches Perched Water: 80 inches			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.50 B: 2.50 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity:	Contrast:	Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2%	/F: Faint	Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20%	/D: Distinct	Clay Films: Illuviation of clay particles
M/: >20%	/P: Prominent	Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-16

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 272

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-12	10YR 3/4	Silt Loam	Granular	Friable			Topsoil
B t1	12-45	5YR 4/4	Silty Clay Loam	Subangular Blocky	Friable			Residual
B t2	45-79	5YR 4/4	Gravelly Silty Clay Loam	Subangular Blocky	Firm	FD	Redox Depletions	Residual
B t3	79-112	5YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Very Firm			Residual
R	112+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 112 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 112 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 5.0 B: 5.0 Final Raw Infiltration Rates (in/hr): A: 4.0 B: 3.50		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-17

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 274

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-8	10YR 4/4	Silt Loam	Granular	Friable			Topsoil
B tx	8-41	10YR 5/8	Silty Clay Loam	Subangular Blocky	Very Firm	MP	Redox Depletions	Residual
B t1	41-69	7.5YR 4/4	Silty Clay Loam	Subangular Blocky	Firm	FD	Redox Depletions	Residual
B t2	69-100	5YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	100+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 100 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 112 inches Water Seeps: NE Seasonal High Water Table Depth: 8 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 6.0 B: 6.0 Final Raw Infiltration Rates (in/hr): A: 3.0 B: 2.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-18

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 274

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A 1	0-7	5YR 4/4	Silt Loam	Granular	Friable			Topsoil
A 2	7-16	5YR 4/3	Silt Loam	Subangular Blocky	Firm			Topsoil
B t1	16-24	5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Very Firm	CP	Redox Depletions	Residual
B t2	24-54	5YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Very Firm			Residual
R	54+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 54 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 54 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.50 B: 2.50 Final Raw Infiltration Rates (in/hr): A: 3.0 B: 3.50		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-19

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/11/2025

TEST LOCATION: Building 1
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 273

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-11	5YR 4/3	Silt Loam	Granular	Friable			Topsoil
B t1	11-25	5YR 4/4	Silty Clay Loam	Subangular Blocky	Friable			Residual
B t2	25-45	5YR 5/4	Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
B t3	45-55	5YR 3/3	V Channery Silty Clay Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
R	55+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 55 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 55 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 3.5 B: 3.5 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-20

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/15/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 274

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-11	5YR 4/3	Silt Loam	Granular	Friable			Topsoil
B t1	11-32	5YR 4/4	Silty Clay Loam	Subangular Blocky	Friable			Residual
B t2	32-46	5YR 5/4	Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
B t3	46-53	5YR 3/3	V Channery Silty Clay Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
R	53+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 53 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 53 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 3.0 B: 3.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-21

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/15/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 279

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-10	7.5YR 4/4	Silt Loam	Platy	Friable			Topsoil
B tx	10-36	10YR 5/6	Channery Silt Loam	Angular Blocky	Firm	MP	Redox Conc/Depl	Residual
B t	36-57	5YR 4/4	Channery Silt Loam	Angular Blocky	Firm	CF	Redox Conc/Depl	Residual
C	57-72	5YR 4/3	V Channery Silt Loam	Angular Blocky	Very Firm			Residual
R	72+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 72 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 72 inches Water Seeps: NE Seasonal High Water Table Depth: 10 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.25 B: 2.25 Final Raw Infiltration Rates (in/hr): A: 1.0 B: 1.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-22

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/15/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 282

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-6	10YR 4/4	Silt Loam	Subangular Blocky	Friable			Topsoil
B t1	6-28	7.5R 4/4	Channery Silt Loam	Massive	Firm			Residual
B t2	28-60	5YR 4/4	V Channery Silt Loam	Massive	Firm			Residual
R	60+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 60 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 60 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 1.50 B: 1.50 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-23

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/15/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 284

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	10YR 4/3	Silt Loam	Subangular Blocky	Friable			Topsoil
B tx	9-34	10YR 5/4	Silt Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
B t1	34-48	7.5R 4/3	Silty Clay Loam	Angular Blocky	Firm	MD	Redox Depletions	Residual
B t2	48-64	5YR 4/4	V Channery Silt Loam	Angular Blocky	Very Firm			Residual
R	64+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 64 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 64 inches Water Seeps: NE Seasonal High Water Table Depth: 9 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 1.25 B: 1.25 Final Raw Infiltration Rates (in/hr): A: 0.25 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-24

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/15/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 278

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-5	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B t1	5-12	5YR 4/4	Channery Silt Loam	Subangular Blocky	Firm	MD	Redox Depletions	Residual
B t2	12-45	5YR 4/4	V Channery Silt Loam	Subangular Blocky	Very Firm			Residual
R	45+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 45 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 45 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 1.0 B: 1.0 Final Raw Infiltration Rates (in/hr): A: 9.75 B: 10.0+		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-25

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/15/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 279

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-5	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B t1	5-31	10YR 3/4	Silt Loam	Subangular Blocky	Friable/Firm			Residual
B t2	31-56	10YR 5/4	Silt Loam	Angular Blocky	Firm	MP	Redox Depletions	Residual
B t3	56-65	5YR 4/4	Channery Silt Loam	Angular Blocky	Very Firm	FD	Redox Depletions	Residual
R	65+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 65 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 65 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.0 B: 2.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-26

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/15/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 275

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-7	10YR 3/4	Silt Loam	Granular	Friable			Topsoil
B t1	7-19	7.5YR 4/4	Silt Loam	Subangular Blocky	Firm	CD	Redox Depletions	Residual
B t2	19-52	5YR 3/4	Channery Silt Loam	Subangular Blocky	Firm			Residual
R	52+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 52 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 52 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.0 B: 2.0 Final Raw Infiltration Rates (in/hr): A: 0.50 B: 0.25		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity:	Contrast:	Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2%	/F: Faint	Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20%	/D: Distinct	Clay Films: Illuviation of clay particles
M/: >20%	/P: Prominent	Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-27

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/16/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 298

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-12	7.5YR 3/4	Silt Loam	Platy	Friable			Topsoil
B tx	12-49	7.5YR 5/6	Channery Silt Loam	Angular Blocky	Very Firm	MP	Redox Depletions	Residual
B t	49-95	5YR 4/3	V Channery Silt Loam	Angular Blocky	Very Firm	FP	Redox Depletions	Residual
R	95+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 95 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 95 inches Water Seeps: NE Seasonal High Water Table Depth: 12 inches Perched Water: 95 inches			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 6.0 B: 2.50 Final Raw Infiltration Rates (in/hr): A: 10.0+ B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-28

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/16/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 292

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-14	7.5YR 4/4	Silt Loam	Granular	Friable			Topsoil
B t1	14-40	7.5YR 5/6	Silt Loam	Subangular Blocky	Friable	CP	Redox Depletions	Residual
B tx	40-51	7.5YR 5/6	Silty Clay Loam	Angular Blocky	Very Firm	MP	Redox Depletions	Residual
B t2	51-83	5YR 4/3	Channery Silt Loam	Angular Blocky	Very Firm			Residual
B t3	83-108	5YR 4/3	Channery Silt Loam	Angular Blocky	Very Firm			Residual
R	108+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 108 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 108 inches Water Seeps: NE Seasonal High Water Table Depth: 40 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 5.0 B: 5.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-29

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/16/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 284

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-8	7.5YR 3/4	Silt Loam	Granular	Friable			Topsoil
B tx	8-48	7.5YR 5/4	Silt Loam	Subangular Blocky	Very Firm	MP	Redox Depletions	Residual
B t1	48-72	5YR 4/4	Gravelly Silt Loam	Angular Blocky	Firm	CD	Redox Depletions	Residual
B t2	72-108	5YR 4/4	Channery Silt Loam	Angular Blocky	Firm			Residual
B t3	108-144	5YR 4/4	V Channery Silt Loam	Angular Blocky	Firm			Residual
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 144 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: NE Water Seeps: NE Seasonal High Water Table Depth: 8 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 6.0 B: 6.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-30

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/16/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 287

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	10YR 4/3	Silt Loam	Granular	Friable			Topsoil
B tx	9-48	10YR 5/4	Silt Loam	Subangular Blocky	Very Firm	CD	Redox Depletions	Residual
B t	48-72	5YR 4/4	Gravelly Silt Loam	Angular Blocky	Firm			Residual
R	72+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 72 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 72 inches Water Seeps: NE Seasonal High Water Table Depth: 9 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 4.0 B: 4.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-31

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/16/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 290

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	9-40	7.5YR 4/4	Gravelly Silt Loam	Angular Blocky	Firm	CP	Redox Depletions	Residual
B t2	40-80	5YR 3/3	V Channery Silt Loam	Angular Blocky	Very Firm			Residual
R	80+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 80 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 80 inches Water Seeps: NE Seasonal High Water Table Depth: 9 inches Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 3.75 B: 3.75 Final Raw Infiltration Rates (in/hr): A: 0.50 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-32

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/16/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 276

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	9-26	7.5YR 5/4	Gravelly Silt Loam	Subangular Blocky	Firm	CP	Redox Depletions	Residual
B t2	26-57	7.5YR 4/3	Channery Silt Loam	Angular Blocky	Firm			Residual
C	57-87	7.5YR 4/3	V Channery Silt Loam	Angular Blocky	Very Firm			Residual
R	87+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 87 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 87 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 4.50 B: 4.50 Final Raw Infiltration Rates (in/hr): A: 10.0+ B: 10.0+		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-33

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/16/2025

TEST LOCATION: Building 3
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 282

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	2-29	7.5YR 5/4	Silt Loam	Subangular Blocky	Friable	FP	Redox Depletions	Residual
B t2	29-60	5YR 4/3	Channery Silt Loam	Angular Blocky	Firm			Residual
C	60-96	5YR 3/3	V Channery Silt Loam	Massive	Firm			Residual
R	96+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 96 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 96 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 4.50 B: 4.50 Final Raw Infiltration Rates (in/hr): A: 10.0+ B: 1.50		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-34

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County,
Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/17/2025

TEST LOCATION: Building 2
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 284

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-8	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	8-20	7.5YR 4/4	Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	20-39	7.5YR 4/4	Silty Clay Loam	Angular Blocky	Very Firm	CP	Redox Depletions	Residual
C	39-70	5YR 3/3	V Gravelly Silty Clay Loam	Angular Blocky	Very Firm			Residual
R	70+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 70 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 70 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 2.75 B: 2.75 Final Raw Infiltration Rates (in/hr): A: 2.0 B: 2.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-35

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/17/2025

TEST LOCATION: Building 2
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 281

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	9-40	7.5YR 4/4	Silty Clay Loam	Subangular Blocky	Firm			Residual
B t2	40-50	7.5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	50+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 50 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features:			Infiltration Results:		
			Bedrock Depth: 50 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Performed Infiltration Depth/Elevation(ft): A: 2.0 B: 2.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-36

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County,
Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/17/2025

TEST LOCATION: Building 2
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 271

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	9-31	7.5YR 4/4	Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	31-66	7.5YR 4/4	Silty Clay Loam	Angular Blocky	Very Firm	MP	Redox Depletions	Residual
B t3	66-100	5YR 3/3	V Channery Silt Loam	Angular Blocky	Very Firm	CP	Redox Depletions	Residual
R	100+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 100 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 100 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: 100 inches			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 5.0 B: 5.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.25		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-37

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/17/2025

TEST LOCATION: Building 2
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 279

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-10	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	10-48	7.5YR 4/4	Silty Clay Loam	Subangular Blocky	Firm	CP	Redox Depletions	Residual
B t2	48-55	5YR 4/4	Silty Clay Loam	Subangular Blocky	Firm	FP	Redox Depletions	Residual
R	55+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 55 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 55 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 3.0 B: 3.0 Final Raw Infiltration Rates (in/hr): A: 0.0 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-38

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/17/2025

TEST LOCATION: Building 2
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 276

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-9	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	9-32	7.5YR 4/4	Silty Clay Loam	Subangular Blocky	Firm	CP	Redox Depletions	Residual
R	32+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 32 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 32 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 0.50 B: 0.50 Final Raw Infiltration Rates (in/hr): A: 1.0 B: 2.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-39

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/17/2025

TEST LOCATION: Building 2
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 274

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-7	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	7-29	7.5YR 4/4	V Channery Silty Clay Loam	Subangular Blocky	Firm	FD	Redox Depletions	Residual
R	29+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 29 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 29 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 1.0 B: 1.0 Final Raw Infiltration Rates (in/hr): A: 1.50 B: 2.50		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity:	Contrast:	Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2%	/F: Faint	Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20%	/D: Distinct	Clay Films: Illuviation of clay particles
M/: >20%	/P: Prominent	Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: TP-40

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township, Bucks County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY: S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbors Excavating
EQUIPMENT: Bobcat E60
DATE STARTED: 7/17/2025

TEST LOCATION: Building 2
SLOPE: 3-8%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Fields
DATUM: Topo
ELEVATION: 274

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A	0-7	7.5YR 4/3	Silt Loam	Platy	Friable			Topsoil
B t1	7-35	7.5YR 4/4	V Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
R	35+							Bedrock
NOTES: The ground surface elevation should be considered approximate. The test pit was terminated at a depth of about 35 inches below the existing ground surface. Two double-ring infiltrometer tests were performed.			Soil Features: Bedrock Depth: 35 inches Water Seeps: NE Seasonal High Water Table Depth: NE Perched Water: NE			Infiltration Results: Performed Infiltration Depth/Elevation(ft): A: 0.75 B: 1.0 Final Raw Infiltration Rates (in/hr): A: 0.50 B: 0.0		

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast: Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
F/: <2% /F: Faint Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
C/: 2-20% /D: Distinct Clay Films: Illuviation of clay particles
M/: >20% /P: Prominent Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-41

PROJECT NAME: Walnut Street - Chalfont
 PROJECT NUMBER: 31251589
 PROJECT LOCATION: New Britain Township,
 Montgomery County, Pennsylvania
 CLIENT: Hanover Company
 LOGGED BY: S. Giampa
 CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
 EQUIPMENT: Bobcat E60
 DATE STARTED: 12/22/2025

TEST LOCATION: Building 1
 SLOPE: 2-4%
 LANDSCAPE POSITION: Backslope
 COVER: Agricultural Field
 DATUM: Topo
 ELEVATION*: 278.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-7	7.5YR 4/3	Silt Loam	Granular	Friable			Topsoil
B t	7-60	5YR 4/4	Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
C r	60-84	5YR 3/3	V Channery Silty Clay Loam	Angular Blocky	Firm			Weathered Rock
R	84+							Bedrock
Notes			Limiting Zones			Infiltration Test Results (double-ring infiltrometer)		
			Bedrock Depth: 84 inches Groundwater: NE Seasonal High Water Table Depth: NE			Test	Depth (inches)	Field Rate (in/hr)
						A	36	0.50
						B	60	2.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
 Gravelly (ex.): 15-35%
 V: Very: 36-65%
 X: Extremely 65-90%
 Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
 F/: <2% /F: Faint
 C/: 2-20% /D: Distinct
 M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
 Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
 Clay Films: Illuviation of clay particles
 Clay Depletion: Loss of clay due to prolonged elluviation processes



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TEST PIT LOG: INF-42

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 1
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 275.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-11	5YR 4/4	Silty Clay Loam	Granular	Friable			Topsoil
B t	11-48	5YR 4/4	Gravelly Silty Clay Loam	Subangular Blocky	Friable/Firm			Residual
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: 48 inches Seasonal High Water Table Depth: NE		Test	Depth (inches)	Field Rate (in/hr)
						A	12	1.00
						B	24	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes



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TEST PIT LOG: INF-43

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 1
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 276.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-8	7.5YR 3/4	Silty Clay Loam	Granular	Friable			Topsoil
B t1	8-48	5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	48-84	5YR 4/4	V Channery Silty Clay Loam	Subangular Blocky	Very Firm			Residual
R	84+							Bedrock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: 84 inches Groundwater: NE Seasonal High Water Table Depth: NE		Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	1.00
						B	48	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes



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TEST PIT LOG: INF-44

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 1
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 278.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-9	10YR 3/3	Silt Loam	Granular	Friable			Topsoil
B tx	9-36	7.5YR 4/4	Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
C r	36-72	7.5YR 4/4	V Channery Silty Clay Loam	Massive/Angular	Firm			Weathered Rock
R	72+							Bedrock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: 72 inches Groundwater: NE Seasonal High Water Table Depth: 9 inches		Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	1.00
						B	48	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

2405 John Fries Highway, Quakertown, PA 18951
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TEST PIT LOG: INF-45

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 1
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 274.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-9	5YR 3/4	Silty Clay Loam	Subangular Blocky	Friable			Topsoil
B tx	9-35	5YR 4/4	Channery Silty Clay Loam	Prismatic	Very Firm	MP	Redox Conc/Depl	Residual
C r	35-84	5YR 4/4	V Channery Silty Clay Loam	Subangular Blocky	Very Firm			Weathered Rock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: 84 inches Seasonal High Water Table Depth: 9 inches		Test	Depth (inches)	Field Rate (in/hr)
						A	48	0.00
						B	60	1.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes



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TEST PIT LOG: INF-46

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 1
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 273.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-13	7.5YR 4/4	Silt Loam	Subangular Blocky	Friable			Topsoil
B t	13-60	5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B C	60-84	5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Very Firm			Residual
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: 84 inches Seasonal High Water Table Depth: NE		Test	Depth (inches)	Field Rate (in/hr)
						A	48	0.00
						B	60	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-47

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 2
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 279.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-9	5YR 4/4	Silt Loam	Granular	Friable/Firm			Topsoil
B t	9-44	5YR 3/4	Gravelly Silty Clay Loam	Angular Blocky	Very Firm			Residual
C	44-96	5YR 3/4	Channery Silty Clay Loam	Angular Blocky	Very Firm			Residual
R	96+							Bedrock
Notes			Limiting Zones			Infiltration Test Results (double-ring infiltrometer)		
			Bedrock Depth: 96 inches Groundwater: NE Seasonal High Water Table Depth: NE			Test	Depth (inches)	Field Rate (in/hr)
						A	60	0.00
						B	60	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-48

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 2
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 277.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	07	5YR 4/4	Silt Loam	Granular	Friable			Topsoil
B t	7-47	5YR 3/4	Gravelly Silty Clay Loam	Angular Blocky	Firm			Residual
B C	47-84	5YR 3/4	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	84+							Bedrock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: 84 inches Groundwater: NE Seasonal High Water Table Depth: NE		Test	Depth (inches)	Field Rate (in/hr)
						A	12	0.50
						B	48	1.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquatic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-49

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 2
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 277.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-22	5YR 4/4	Silt Loam	Granular	Friable			Topsoil
B tx	22-42	10YR 3/4	Silty Clay Loam	Prismatic	Very Firm	MP	Redox Conc/Depl	Residual
B C	42-84	5YR 3/4	V Gravelly Silty Clay Loam	Angular Blocky	Very Firm			Residual
R	84+							
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: 84 inches Groundwater: NE Seasonal High Water Table Depth: 22 inches		Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	0.00
						B	EGS	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquatic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-50

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 2
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 278.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-13	5YR 4/4	Silt Loam	Granular	Friable			Topsoil
B t1	13-42	10YR 3/4	Gravelly Silty Clay Loam	Subangular Blocky	Firm			Residual
B t2	42-60	5YR 4/4	Channery Silty Clay Loam	Subangular Blocky	Very Firm			Residual
R	60+							Bedrock
Notes			Limiting Zones			Infiltration Test Results (double-ring infiltrometer)		
			Bedrock Depth: 60 inches Groundwater: NE Seasonal High Water Table Depth: NE			Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	0.50
						B	24	1.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquatic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-51

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Propoerty Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 2
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 271.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-9	5YR 3/3	Silt Loam	Granular	Friable			Topsoil
B tx	9-36	7.5YR 5/4	Silty Clay Loam	Angular Blocky	Very Firm	MP	Redox Conc/Depl	Residual
B t	36-84	5YR 4/4	Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
C	84-120	5YR 4/4	Channery Silty Clay	Massive	Firm			Residual
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: 120 inches Seasonal High Water Table Depth: 9 inches		Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	0.50
						B	96	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes



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TEST PIT LOG: INF-52

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 2
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 271.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-11	10YR 3/3	Silt Loam	Granular	Friable			Topsoil
B tx	11-33	10YR 5/6	Silty Clay Loam	Subangular Blocky	Very Firm	MP	Redox Conc/Depl	Residual
B t1	33-72	5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	72-120	5YR 4/4	Silty Clay	Massive	Friable			Residual
Notes			Limiting Zones			Infiltration Test Results (double-ring infiltrometer)		
			Bedrock Depth: NE Groundwater: 120 inches Seasonal High Water Table Depth: 11 inches			Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	0.00
						B	8	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-53

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 3
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 276.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-7	7.5YR 4/4	Silt Loam	Granular	Friable/Firm			Topsoil
B tx	7-24	10YR 5/6	Silty Clay Loam	Prismatic	Very Firm	MP	Redox Conc/Depl	Residual
B C	24-50	5YR 4/4	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
C r	50-60	5YR 4/4	V Channery Silty Clay Loam	Massive	Firm			Weathered Rock
R	60+							Bedrock
Notes			Limiting Zones			Infiltration Test Results (double-ring infiltrometer)		
			Bedrock Depth: 60 inches Groundwater: NE Seasonal High Water Table Depth: 7 inches			Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	0.00
						B	12	4.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquatic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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2405 John Fries Highway, Quakertown, PA 18951
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TEST PIT LOG: INF-54

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 3
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 283.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-12	7.5YR 4/4	Silty Clay Loam	Granular	Friable			Topsoil
B t	12-44	7.5YR 4/4	Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
C r	44+							Weathered Rock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: NE Seasonal High Water Table Depth: NE		Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	2.00
						B	12	2.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes



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TEST PIT LOG: INF-55

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 3
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 283.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-11	5YR 3/4	Silty Clay Loam	Granular	Friable			Topsoil
B t1	11-41	5YR 3/3	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
B t2	41-66	5YR 3/3	V Channery Silty Clay Loam	Angular Blocky	Firm			Residual
C r	66+							Weathered Rock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: NE Seasonal High Water Table Depth: NE		Test	Depth (inches)	Field Rate (in/hr)
						A	36	10.0+
						B	36	10.0+

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes



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TEST PIT LOG: INF-56

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 3
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 284.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-10	7.5YR 3/4	Silt Loam	Granular	Friable			Topsoil
B tx	10-36	10YR 4/6	Channery Silty Clay Loam	Subangular Blocky	Firm	MP	Redox Conc/Depl	Residual
B t	36-56	5YR 4/4	Channery Silty Clay Loam	Angular Blocky	Very Firm			Residual
C r	56+							Weathered Rock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: NE Seasonal High Water Table Depth: 10 inches		Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	0.00
						B	EGS	0.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes



GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

2405 John Fries Highway, Quakertown, PA 18951
A Practicing Geoprofessional Business Association Member Firm

TEST PIT LOG: INF-57

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Property Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 3
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 280.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-8	7.5YR 3/4	Silt Loam	Subangular Blocky	Friable/Firm			Topsoil
B tx	8-30	10YR 5/6	Silty Clay Loam	Subangular Blocky	Very Firm	MP	Redox Conc/Depl	Residual
B t	30-66	5YR 5/4	Channery Silty Clay Loam	Angular Blocky	Firm			Residual
R	66+							Weathered Rock
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: 66 inches Groundwater Seeps: 66 inches Seasonal High Water Table Depth: 8 inches		Test	Depth (inches)	Field Rate (in/hr)
						A	EGS	0.00
						B	42	2.50

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquatic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged eluviation processes



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TEST PIT LOG: INF-58

PROJECT NAME: Walnut Street - Chalfont
PROJECT NUMBER: 31251589
PROJECT LOCATION: New Britain Township,
County, Pennsylvania
CLIENT: Hanover Company
LOGGED BY S. Giampa
CHECKED BY: M. Derr

CONTRACTOR: Neighbor's Propoerty Management
EQUIPMENT: Bobcat E60
DATE STARTED: 12/22/2025

TEST LOCATION: Building 3
SLOPE: 2-4%
LANDSCAPE POSITION: Backslope
COVER: Agricultural Field
DATUM: Topo
ELEVATION*: 278.00

HORIZON	DEPTH (in.)	COLOR	TEXTURE	STRUCTURE	CONSISTENCE	REDOX FEATURES		COMMENTS
A p	0-9	5YR 4/4	Silty Clay Loam	Granular	Friable/Firm			Topsoil
B t1	9-20	5YR 4/6	Channery Silty Clay Loam	Subangular Blocky	Firm	CD	Redox Conc/Depl	Residual
B t2	20-78	5YR 4/4	V Channery Silty Clay Loam	Subangular Blocky	Firm			Residual
Notes				Limiting Zones		Infiltration Test Results (double-ring infiltrometer)		
				Bedrock Depth: NE Groundwater: 78 inches Seasonal High Water Table Depth: NE		Test	Depth (inches)	Field Rate (in/hr)
						A	36	1.50
						B	36	2.00

*The ground surface elevation should be considered approximate.

Coarse Fragments by Volume

No modifier: >15%
Gravelly (ex.): 15-35%
V: Very: 36-65%
X: Extremely 65-90%
Gravel (ex.) >90%

Redoxomorphic Features:

Quantity: Contrast:
F/: <2% /F: Faint
C/: 2-20% /D: Distinct
M/: >20% /P: Prominent

Redoximorphic Concentration: accumulation of Iron-Mn Oxides due to water cycling
Redoximorphic Depletions: loss of Iron-Mn Oxides due to prolonged aquic conditions
Clay Films: Illuviation of clay particles
Clay Depletion: Loss of clay due to prolonged elluviation processes