CITY OF BLOOMINGTON

BOARD OF ZONING APPEALS

February 17, 2022 @ 5:30 p.m.
https://bloomington.zoom.us/j/89654638337?pwd=UGFETnM4VHJWREN1bkN0OWhiaDJHQT09

Meeting ID: 896 5463 8337
Passcode: 267972
CITY OF BLOOMINGTON
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**Virtual Meeting:**

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PETITION MAP:

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ROLL CALL

**APPROVAL OF MINUTES:**
- October 21, 2021
- November 18, 2021

**No minutes for December 23, 2021 (hearing cancelled)**

REPORTS, RESOLUTIONS, AND COMMUNICATIONS:

**ELECTION OF OFFICERS:**

- Current President: Barre Klapper
- Current Vice-President: Jo Throckmorton

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PETITIONS:

CU-22-21 **Aidan Reef** (Cont. from 12/23 hearing)
1808 S. Rogers St.
Request: Conditional Use approval to allow the operation of a home bakery business in the R2 (Residential Medium Lot) zoning district.
**Case Manager: Jackie Scanlan**

V-23-21 **WS Property Group** (Cont. from 12/23 hearing)
106 E. Hillside Dr.
Request: Variance from the required 20’ front yard parking setback for the proposed construction of five 3-bedroom townhomes in the RM (Residential Multifamily) zoning district.
**Case Manager: Jackie Scanlan**

CU-24-21 **WS Property Group** (Cont. from 12/23 hearing)
106 E. Hillside Dr.
Request: Conditional Use approval to construct one building consisting of five 3-bedroom townhomes in an RM (Residential Multifamily) zoning district.
**Case Manager: Jackie Scanlan**

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**Next Meeting: March 24, 2022**

Auxiliary aids for people with disabilities are available upon request with adequate notice. Please call 812-349-3429 or e-mail human.rights@bloomington.in.gov.
V-01-22  **Catalent Indiana, Inc.**  
1600 S. Rogers St.  
Request: Variance from fence and wall standards, riparian buffer standards, and front parking setback standards to allow the construction of a new parking area.  
*Case Manager: Eric Greulich*

V-02-22  **Catalent Indiana, Inc.**  
1100 S. Strong Dr.  
Request: Variance from fence and wall standards, and Variance from architectural standards to allow an addition.  
*Case Manager: Eric Greulich*

**Next Meeting: March 24, 2022**

*Auxiliary aids for people with disabilities are available upon request with adequate notice. Please call 812-349-3429 or e-mail human.rights@bloomington.in.gov.*
PETITIONER: Aidan Reef  
1808 S Rogers St  
Bloomington, IN 47403

REQUEST: The petitioner is requesting conditional use approval for a home occupation.

REPORT: The property is located on the west side of S Rogers Street and is zoned R2 Residential Medium Lot. The property has been developed with a single family residence. The properties to the south and west are also single-family residences. The property to the east is developed with a park. The property to the north is developed with utility and industrial uses. The petitioner lives in the home and wishes to conduct a bakery as a home business. The proposed business would use the kitchen on the property for baking goods to be sold at the local farmer’s markets. This use requires approvals from City of Bloomington Utilities and the Monroe County Health Department. The entirety of the business operation would be contained in the existing structure.

HOME OCCUPATION STANDARDS: BMC 20.03.030(g)(6) lists use-specific standards for home occupations, as follows:

1. Operator Residency Required: The petitioner lives in the home.
2. Maximum Number of Nonresident Employees: The petitioner is the only employee.
3. Maximum Floor Area: The interior area of the house is approximately 2,194 square feet. The petitioner plans to use 234 square feet for the home occupation which is 12% of the interior. This meets the restriction that no more than 15% of the interior square footage will be used for the home occupation.
4. Multiple Home Occupations: Only one home occupation is planned.
5. Residential Character: The petitioner will not be making any additional changes to the exterior of the residence with this request.
6. Location and Entrance: The home occupation will take place entirely within the house.
7. Outdoor Display and Storage: No outdoor display is planned or permitted.
8. Sales: No direct sales are planned or permitted.
9. Off-street Parking and Loading: The existing driveway will serve as parking for the home occupation, but no on-site sales are planned.
10. Hours of Operation: The petitioner is aware of the limitation on the hours of operation of 8:00 AM to 8:00 PM and will not operate outside of these hours.
11. Commercially Licensed Vehicles: No commercial vehicles are proposed.
12. Deliveries: No deliveries are anticipated with this use outside of those typical for a residential use.

Criteria and Findings for Conditional Use Permits
20.06.040(d)(6) Approval Criteria

(B) General Compliance Criteria: All petitions shall be subject to review and pursuant to the following criteria and shall only be approved if they comply with these criteria.

i. Compliance with this UDO
ii. Compliance with Other Applicable Regulations
iii. Compliance with Utility, Service, and Improvement Standards
iv. Compliance with Prior Approvals

PROPOSED FINDING: The petition complies with the UDO, other applicable regulations, and utility, service, and improvement standards as required by the general compliance criteria. No prior approvals are found. The petitioner will be required to comply with CBU and Health Department regulations for this use.

(C) Additional Criteria Applicable to Conditional Uses

i. Consistency with Comprehensive Plan and Other Applicable Plans
   The proposed use and development shall be consistent with and shall not interfere with the achievement of the goals and objectives of the Comprehensive Plan and any other applicable adopted plans and policies.

PROPOSED FINDING: The Comprehensive Plan identifies this area as “Neighborhood Residential” and lists single family residential development as the primary land use with some additional uses permitted, including commercial and mixed-use. This home occupation will have no outward signs of any use separate from a typical single-family household. A home occupation would be consistent with the goals of this district.

ii. Provides Adequate Public Services and Facilities
   Adequate public service and facility capacity shall exist to accommodate uses permitted under the proposed development at the time the needs or demands arise, while maintaining adequate levels of service to existing development. Public services and facilities include, but are not limited to, streets, potable water, sewer, stormwater management structures, schools, public safety, fire protection, libraries, and vehicle/pedestrian connections and access within the site and to adjacent properties.

PROPOSED FINDING: The petitioner will be required to meet CBU requirements for home occupations. Direct retail sales are not permitted on the property so no increase in vehicle or pedestrian traffic is expected with this use.

iii. Minimizes or Mitigates Adverse Impacts
   1. The proposed use and development will not result in the excessive destruction, loss or damage of any natural, scenic, or historic feature of significant importance.
   2. The proposed development shall not cause significant adverse impacts on surrounding properties nor create a nuisance by reason of noise, smoke, odors, vibrations, or objectionable lights.
   3. The hours of operation, outside lighting, and trash and waste collection must not pose a hazard, hardship, or nuisance to the neighborhood.
4. The petitioner shall make a good-faith effort to address concerns of the adjoining property owners in the immediate neighborhood as defined in the pre-submittal neighborhood meeting for the specific proposal, if such a meeting is required.

PROPOSED FINDING: No exterior changes are being proposed with this home occupation. No additional lighting will be required for this proposed home occupation. Staff finds no nuisance regarding noise, smoke, odors, vibrations, or lighting. No special lighting or unusual hours of operation are proposed with this request. The business will not operate before 8:00 AM or after 8:00 PM. At this time, we have not received any comments from adjacent property owners regarding this petition.

RECOMMENDATION: Department recommends that the Board of Zoning Appeals adopts the proposed findings and recommends approval of CU-22-21 with the following conditions:

1. This conditional use is limited to the proposed use as described in the petitioner statement, no other use is approved.
2. The petitioner must meet all City of Bloomington Utilities standards before the Conditional Use permit is issued.
3. The petitioner must meet all Monroe County Health Department standards before the Conditional Use permit is issued.
I am writing this petitioner’s statement with the intent of obtaining home occupation approval for my Home-Based Vending business Frostfall Baked Goods located at 1808 S Rogers St.

The business uses the home kitchen, which is 13’ x 18’ and is located in the back of the house. All items that are baked and sold fall under the Monroe County Health Departments guidelines for Home Based Vending and IN code 16-42-5-29. All items are sold through farmer’s markets. The only area on the property that is used for the business is the kitchen. Baking happens between 5am and 11pm every Friday in preparation for markets on Saturday. Baking also happens throughout the week, between the hours of 5am and 5pm. All cooking and preparation surfaces are thoroughly cleaned before and after each baking session. The business will not produce any loud noises nor any other nuisances to adjacent properties as all work is done inside the building.
BLOOMINGTON BOARD OF ZONING APPEALS

STAFF REPORT

LOCATION: 106 E Hillside Drive

PETITIONER: WS Property Group
1507 S Piazza Drive,
Bloomington, IN 47401

REQUEST: The petitioner is requesting a variance from the required 20-foot front yard parking setback for the construction of five, 3-bedroom townhomes in the RM (Residential Multifamily) zoning district.

REPORT: The property is located at 106 E Hillside Drive and is zoned Residential Multifamily (RM) and is currently vacant as the previous home was demolished. The properties to the east and south are also zoned RM and have been developed with single-family and multifamily dwellings. The properties to the north across East Hillside Drive are zoned R3 and have been developed with detached single-family dwellings. The properties to the west are zoned MM and have been developed with single-family dwellings. Currently on the site there is a retaining wall that spans the entire site along Hillside Drive. The petitioner is proposing to construct a 5-unit structure on the site.

The Unified Development Ordinance (UDO) classifies this use as “Student Housing or Dormitory” due to the fact that more than 33% of the dwelling units have 3 bedrooms. For the use ‘Student Housing or Dormitory’, 20.03.030(b)(13)(A) in the UDO requires that any portions within the ground floor of a structure used for vehicular parking shall be located at least 20 feet behind the building facade facing a public street. The petitioner is requesting a variance to allow parking that encroaches into the 20 foot setback.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE

20.09.130 e) Standards for Granting Variances from Development Standards: A variance from the development standards of the Unified Development Ordinance may be approved only upon determination in writing that each of the following criteria is met:

1) The approval will not be injurious to the public health, safety, morals, and general welfare of the community.

PROPOSED FINDING: No adverse effect to the use or value of the adjacent properties is found as a result of this variance. The proposed use is required to obtain conditional use approval.

2) The use and value of the area adjacent to the property included in the Development Standards Variance will not be affected in a substantially adverse manner.

PROPOSED FINDING: No adverse impacts to the use and value of adjacent properties is found as a result of this petition. The variance will allow for adequate parking on-site. The improvements
to the sidewalk and tree plot will provide a more pedestrian friendly streetscape than what is currently existing. The site is currently a vacant lot with a large retaining wall along the sidewalk.

3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

**PROPOSED FINDING:** Practical difficulty is found in the combination of the size of the lot and the lack of on-street parking available. The lot would not allow for the construction of adequate on-site parking behind the building that would meet setback and dimensional requirements. Parking in the building that is adequate for the use is not possible while also meeting the front parking setback. No on-street parking is available on Hillside, and ground floor parking is typical for a development of this type.

**RECOMMENDATION:** Based upon the written findings above, the Department recommends that the Board of Zoning Appeals adopt the proposed findings and recommends approval of V-23-21 with the following conditions:

1. A grading permit is required before earth moving beings
2. The petitioners must obtain a building permit prior to construction.
December 16, 2021

Keegan Gulick
City of Bloomington Planning and Transportation Dept.
401 N. Morton Street
Bloomington, IN. 47402


Dear Keegan,

WS Property Group is proposing to redevelop a vacant lot at 110 E Hillside Drive. We are requesting a variance from 20.04.0?0(?) to allow a garage on the lower level of a townhome.

The project anticipates the construction of a single building comprised of 5 townhomes. Each townhome is comprised of 3 levels; parking, main-living, and bedroom. Recent changes in the Code make it illegal to park on the first floor of a building unless the garage wall is 20 feet behind the front wall of the building. We believe this “buffering” is unnecessary and creates an undue burden for a townhome type building.

We feel the approval of this variance will not be injurious to the public, nor adversely affect the use and value of the adjacent properties.

Please find attached the required information to render your approval.

Respectfully,
WS Property Group

Timothy A. Hanson
V.P. Development
To the BZA:

Thank you for the opportunity to address concerns regarding the proposal to build Student/Dormitory Housing at 106 E Hillside Drive.

Please deny this request. A change to conditional use will not result in a community good, such as a school, daycare, or place of worship.

Denial of the conditional use will allow the site to be developed according to current RM zoning. This would be an enormous opportunity to achieve many of the goals of the Comprehensive plan. Adding “missing middle” forms that blend with the established neighborhood and providing needed options of housing options for a large range of people would benefit the neighborhood and the city. Small housing forms with less intense use would benefit and attract young professionals, small families, workforce residents or empty nesters.

Sincerely,

Jan Sorby
Bloomington Restorations Inc., Chair of Endangered Historic Properties, Hillside property owner, Former President of the Bryan Park Neighborhood Association

20.06.040(d)(6) Approval Criteria: i. Consistency with Comprehensive Plan and Other Applicable Plans

The proposed use and development shall be consistent with and shall not interfere with the achievement of the goals and objectives of the Comprehensive Plan and any other applicable adopted plans and policies.

Objection

The proposed development does not agree with the Comprehensive Plan or acknowledge the unsafe conditions reported in the 2019 Bloomington Transportation Plan.

The Comprehensive Plan that recognizes that most new housing development the past decade has been student housing. Now, a primary goal is to change this trend and offer a wider variety of housing options built for a broader range of people. The location of the proposed development does not meet the criteria listed in the Comprehensive Plan for appropriate locales for Student/Dormitory Housing. Appropriate locations are close to campus that already have a high percentage of student-oriented housing, within easy walking distance to campus, have easy access to university-provided parking, and IU transit system. The Comprehensive Plan redirects Student/Dormitory housing away from the areas near downtown. The proposed site is currently serviced by city buses; however, it will soon be limited when Bloomington Transit changes the routes.

Promoting more housing opportunities in urban neighborhoods close to employment, shopping, and other amenities for young professionals, workforce residents, families, residents at different stages of life and household incomes, is a primary goal of the Comprehensive Plan. The proposed development meets none of the provisions above. Apartments with 3-bedrooms will limit who can afford an expensive large apartment. Many people will be priced out of the proposed development.

The proposed development does not promote housing solutions that mitigate against rapid price changes in the neighborhood. To the contrary, Student/Dormitory housing will bring more short-term residents to the neighborhood. At almost 70% rental the neighborhood is at risk of destabilization. Rental for young families, workforce housing and young professionals or owner-occupied multifamily could help stabilize the neighborhood. Housing that only students will be able to afford does just the opposite.

Below are quotations from the Comprehensive Plan that support the objection to this development.

- (Pg 64) Comprehensive Plan Objectives: Policy 5.3.4: Redirect new student-oriented housing developments away from the Downtown and nearby areas, and toward more appropriate location closely proximate to the IU campus that already contain a
relatively high percentage of student-oriented housing units, are within easy walking distance to the campus, and have direct access to university-provided parking as well as the university transit system

- (pg. 61) Housing and Neighborhood: Goals & Policies: 14: Offer a wide variety of quality housing options for all incomes, ages, and abilities.
- (pg. 61) Housing and Neighborhood: Policy 5.1.3: Encourage a wide range of housing types to provide a more diverse mix of housing opportunities and household income levels, preferably within neighborhoods and multi-family housing developments.
- (pg. 63) Housing and Neighborhood Goals & Policies: New multifamily housing projects catering largely to students must be better planned and distributed adjacent to campus or in underdeveloped commercial corridors along transit routes outside Downtown, but still relatively close to the university
- (pg. 63) Housing and Neighborhood Goals & Policies: 5.2.1: Evaluate all new developments and redevelopments in light of their potential to positively or adversely impact the overall health and well-being of the people who live in the surrounding neighborhood.
- (pg. 60) Housing and Neighborhood: Now that 1,900 new housing units have been constructed Downtown within the past decade (almost all of them apartments), the market dynamic is shifting. More market opportunities may exist to convert single-family homes from student-rental to owner occupied. This can allow more people to have a chance to live in urban neighborhoods, which are often closer to employment, shopping, and other amenities.
- (pg. 64) Housing and Neighborhood: Goal 5.4: Neighborhood Stabilization: Promote a variety of homeownership and rental housing options, mitigate against unforeseen eviction and rapid price changes, and promote opportunities for community interaction that are also aimed towards different stages of life, ages, and household incomes.
- (pg. 61) Housing and Neighborhood: Bloomington’s older urban, small scale, compact, single-family housing stock located primarily around the city center and university provide some of the city’s more affordable housing stock and must be protected. Building a growing stock of affordable housing requires assuring sustainability so unaffordable stock is not the only option for future generations. Mixed income neighborhoods are fundamental to successful, sustained, affordable housing stock. New multifamily housing projects catering largely to students must be better planned and distributed adjacent to campus or in underdeveloped commercial corridors along transit routes outside Downtown, but still relatively close to the university
- (Pg. 65) Housing and Neighborhood: Seek to expand compact urban housing solutions such as pocket neighborhoods, tiny houses, accessory dwelling units, and similar housing solutions, in a manner that attracts workforce and senior populations or otherwise complements the surrounding neighborhood

20.06.040(d)(6) Approval Criteria: ii. Provides Adequate Public Services and Facilities

Adequate public service and facility capacity shall exist to accommodate uses permitted under the proposed development at the time the needs or demands arise, while maintaining adequate levels of service to existing development. Public services and facilities include, but are not limited to, streets, potable water, sewer, stormwater management structures, schools, public safety, fire protection, libraries, and vehicle/pedestrian connections and access within the site and to adjacent properties.

Objection

The proposed development will adversely impact the overall health and well-being of people who live in the development as well as the surrounding neighborhood. Student/Dormitory housing use at this site is not appropriate, ill-advised and will endanger public safety.

The Hillside area presents enormous infrastructure challenges. Because of the traffic, this is a dangerous location. It is especially dangerous for the intensity of use that Student/Dormitory housing triggers. If built, it will require crossing Hillside to reach on-street parking for residents and visitors. Dangerous midblock crossings will be the norm. Pedestrians crossing Hillside from the north at the signaled intersection are impeded by a utility pole installed in the middle of the narrow sidewalk before reaching the pedestrian crosswalk. The 7’ tall wall obstructs sightlines in both directions at the signal. And the enormous turning radius encourages fast traffic. Hillside is narrow, lacking a tree plot, turning lane or bike lane. The Washington/Hillside intersection has extremely limited sightlines that force vehicles into the intersection and past the pedestrian crosswalk.
Mixed urban residential neighborhoods are described in the Comprehensive Plan as missing basic and essential utilities. This neighborhood is exactly such a neighborhood and has been skipped over for improvement for decades.

There are no sidewalks, storm sewers, curbs, gutters, or tree plots on Southern, Wilson, Grant, and Palmer streets. These streets are very narrow with high crowns and deep ruts on both sides, and the pavement is crumbling at the edges. Worn out water mains erupt on a regular basis in the neighborhood. The sidewalks on Hillside, Washington, and Lincoln are sub-standardly narrow with sections rated as the poorest condition in Bloomington on the Sidewalk Inventory Report.

The 2019 Bloomington Transportation Plan identifies the Hillside, Walnut, Washington area as a hotspot for pedestrian/motor vehicle accidents and as one of the least connected areas on the Bicycle Network Analysis map. Hillside is Bloomington’s main southern east/west corridor and carries a greater volume of daily traffic than is recommended for a general urban street. The traffic is extraordinarily fast and a digital traffic warning sign displaying speeds of motorist is now a permanent fixture on Hillside at Grant. As a general urban street, Hillside lacks the basic requirements such as on-street parking, 25mph speed, turning lanes, tree plots between sidewalk and street, or buffered/protected bike lanes.

The south side of Hillside is basically 2 “superblocks”, each 3 blocks long with the only cross street at Grant. Grant dead ends at Southern. Washington, Lincoln, Dunn, and Palmer dead end into Hillside. Southern is blocked from Walnut just west of Grant. The superblocks lack alleys or direct access to on-street parking. The alley west of the proposed development dead ends mid-block before reaching Southern and the exit onto Hillside is very close to the intersection. The prevailing development pattern in this area is exceptionally dense at about 0.12 acres (5,227 sq. ft.) per lot and most of the houses are modest in size. The area includes owner-occupied and rental, single-family and duplex/fourplex-multifamily. The neighborhood was built before modest families owned cars and therefore the few existing driveways were retrofitted. Washington, Lincoln, and the new Dunn PUD are the only streets offering alley parking opportunities. Hillside has limited driveways and no on-street parking. Washington and Lincoln provide the only on-street parking for all the residents and visitors in the area and are routinely congested. Washington has seen an increased use since the apartment building at Driscoll and Walnut was granted a parking variance for required on-site parking.

Creating a pedestrian friendly edge to the neighborhood along Hillside will be challenging but neighbors requested, and still hope for, a subarea plan to help find solution for this problematic area. Hillside could be a true asset for the neighborhood and the city. The South Dunn PUD demonstrates how wonderfully a street can be remade.

Below are quotations from the 2019 Bloomington Transportation Plan and the Comprehensive Plan that support the objection

2019 Bloomington Transportation Plan

- (pg. 11) Traffic Volumes: S Walnut St from E Wilson St to S Monon Dr, 2008, the average daily traffic volume was vehicles/day =27,052. General Urban Street. Auto traffic volume (ADT) should be 10,000-20,000.
- (pg. 14 Map) Hillside is categorized as forth busiest streets and a hotspot for motor vehicles-pedestrian crash density
- (pg. 18 map) Listed as one of the least connected areas on the Bicycle Network Analysis
- (pg. 36) General urban street specifications are: 2 auto travel lanes 10’ wide, on-street parking, recommends target speed 25mph, preferred Bike facility (2 buffered or protected bike lanes)

Comprehensive Plan

- (pg. 63) Housing & Neighborhoods: Goals & Policies: Policy 5.2.1: Evaluate all new developments and redevelopments in light of their potential to positively or adversely impact the overall health and well-being of the people who live in the surrounding neighborhood.
- (pg. 16) UDO Objectives: Objective: 11: Ensure all land development activity makes a positive and lasting community contribution
• (Pg. 63) Housing & Neighborhoods: Goals & Policies: Policy 5.2.1: Evaluate all new developments and redevelopments in light of their potential to positively or adversely impact the overall health and well-being of the people who live in the surrounding neighborhood.

• (pg. 63) Housing & Neighborhoods: Objective 13: Embrace all of our neighborhoods as active and vital community assets that need essential services, infrastructure assistance, historic protection, and access to small-scaled mixed-use centers

• (pg. 64) Housing & Neighborhoods: Neighborhood Stabilization: Goal 5.4: Enhance the appearance, safety, and walkability of sidewalks, multi-use paths and trails, and streets in all neighborhoods through proactive repair and cleaning programs to reinforce an open network connecting each neighborhood to adjacent land uses and to the city as a whole

• (Pg. 84) Mixed Urban Residential: Land Use: Mixed Urban Residential: Additionally, many of these areas were built without essential urban amenities such as storm sewers, curbs, and sidewalks.

20.06.040(d)(6) Approval Criteria: iii. Minimizes or Mitigates Adverse Impacts

1. The proposed use and development will not result in the excessive destruction, loss or damage of any natural, scenic, or historic feature of significant importance.

2. The proposed development shall not cause significant adverse impacts on surrounding properties nor create a nuisance by reason of noise, smoke, odors, vibrations, or objectionable lights.

Objection

The proposed development would be disruptive to the established relationship between the built environment and street. The proposed development is profoundly inconsistent with the historic development pattern in the area and will affect how the street feels and is used. The jarring shift in scale, bulk and orientation of the proposed building will make reclaiming Hillside as a walkable urban asset out of reach. In addition, the shadows cast on neighboring houses will stop the possibility for owners (on the east and west) of the proposed development, to utilize solar energy in the future.

The proposed development will deprive adjacent properties of natural light.

The Comprehensive Plan states that existing residential neighborhoods, or any portions of a neighborhood having a consistent built character, should be maintained at their prevailing pattern of development, building distribution, and scale. Guidance for appropriate site design in mixed urban residential areas stipulates that redevelopment and rehabilitation must respect the prevailing character and development pattern of adjacent properties in the older neighborhoods. In-fill development must continue to emphasize pre-WWII neighborhood characteristics regarding building mass, scale, and other site planning features. Guidance for land use development approvals require that vacant lots be redeveloped with compatible infill that reflects the prevailing character of the neighborhood.

The orientation, scale and building distribution of the proposed Student/Dormitory housing is not compatible with the prevailing historic development pattern. The historic development pattern surrounding the proposed development is a consistent human-scale, pre-auto, 1920s pattern. The distribution of these narrow buildings is close together with small side yards between each house. The scale is small, approximately 24’ to 28’ wide with one or two stories. The orientation of the existing buildings is with the narrow wall facing the street and the long wall to the side. The neighborhood commercial buildings follow the same historic development pattern in scale, distribution, and bulk. Altogether, this historic pattern creates a human-scale and walkable environment.

The develop pattern for the proposed project is suburban. It is characterized by wide buildings that are orientated with the broad side of the building facing the street. The design of the proposed development was used to build the University Manor complex in a suburban context on the north side of Bloomington. The proposed structure is very wide, about 100’, making it approximately four times as wide as the compact urban neighborhood context. The expanse of the proposed building is contrary to the compact urban human-scale surrounding the site.
Additionally, the site for this proposal is in the Monon Historic Study district. It has been an important study area since at least 2004 when it was listed in the City of Bloomington Interim Report. All eight adjacent houses are listed with the state of Indiana in their Indiana Historic Sites and Structures Inventory as either Notable or contributing. Breaking the historic building pattern will adversely impact these properties. This is not a locally designated district, and no design regulations are required beyond what is specified in the Comprehensive Plan for all Mixed Urban Residential neighborhoods.

Significant adverse impact will be created by the height of the proposed building which is located at the crest of a hill and will block access to natural light on the east and west of the site. Two different façade drawings are shown in the developer’s packet; one drawing shows a 3-story building and the other shows a 3.5-story building. Both drawings lack measurements for the total height of the proposed project. Regardless, the elevation of the hill exacerbates the reach the shadows cast on houses to the east and west. Owners to either side of this proposed development will be impeded by the shadows to use solar energy in the future.

Below are quotations from the Comprehensive Plan that support the objection
- (Pg. 84) Mixed Urban Residential: Land Use Development Approvals: Vacant lots should be redeveloped with compatible infill that reflects the prevailing character of the neighborhood.
- (pg. 84) Mixed Urban Residential: Land Use Development Approvals: Allow context sensitive multifamily redevelopment along higher volume roads, along district edges, and near major destinations when appropriately integrated with adjacent uses and styles.
- (pg. 63) Housing & Neighborhoods: Policy 5.2.6: Existing residential neighborhoods, or any portions of a neighborhood having a consistent built character, should be maintained at their prevailing pattern of development, building distribution, and scale. This built character may be complemented by both traditional and contemporary architecture.
- (pg. 63) Housing & Neighborhoods: Policy 5.2.4: Design and arrange new multifamily buildings, including entries and outdoor spaces, so that dwellings have a clear relationship with the public street and operate on a pedestrian scale.
- (Pg. 84) Mixed Urban Residential: Site Design: The majority of centrally located neighborhoods have been built out, so major changes will occur with redevelopment and rehabilitation of existing structures must respect the prevailing character and development pattern of adjacent properties. Although there may be various architectural styles that would be appropriately compatible with the existing architecture in these older neighborhoods, the district must continue to emphasize pre-WWII neighborhood characteristics regarding building mass, scale, landscaping, and other site planning features.
- (Pg. 84) Mixed Urban Residential: Land Use Development Approvals: Allow context sensitive multifamily redevelopment along higher volume roads, along district edges, and near major destinations when appropriately integrated with adjacent uses and styles.
- (pg. 63) Housing & Neighborhoods: Goals & Policies Principals: 11: Ensure all land development activity makes a positive and lasting community contribution
- (Pg. 85) Mixed Urban Residential: Form Based Code: To better respond to the relationship of buildings to the street, architectural massing, shape and design, and the location of on-site parking. A form-based code focuses on the physical shape and configuration of the build environment rather than land uses. Using this approach can offer more predictability than flexible Planned Units Developments processes offer. This strategy should not be used exclusively but rather in balance with use-based zoning. Land use decisions should be based both on compatible uses as well as on form.
- (Pg 96) Focus Areas & Strategies: Focus Areas are locations expected to see significant change in land use activities over the next decade; however, they should follow their respective development themes (Maintain, Enhance, and Transform)

iii. Minimizes or Mitigates Adverse Impacts
1. The petitioner shall make a good-faith effort to address concerns of the adjoining property owners in the immediate neighborhood as defined in the pre-submittal neighborhood meeting for the specific proposal, if such a meeting is required.

Although these was no requirement to meet with neighbors there was not a good-faith effort to address the concerns of the adjoining property owners when concerns were lodged through the Planning and Transportation Department.
The Unified Development Ordinance specifies that at least one sign should be posted on the property informing Bloomington residents of a proposed change in use. No notice was posted on the property.

The notice listed in the newspaper included an incorrect address for development on the parcel at 107 E Hillside. The notice to adjacent property owners also contained the wrong address.
BLOOMINGTON BOARD OF ZONING APPEALS
STAFF REPORT
LOCATION: 106 E Hillside Drive

PETITIONER: WS Property Group
1507 S Piazza Drive, Bloomington, IN 47401

CONSULTANT: Smith Design Group
2755 E Canada Drive, Bloomington, IN 47401

REQUEST: The petitioner is requesting Conditional Use approval to allow the use “Student Housing or Dormitory” in the Residential Multifamily (RM) zoning district to allow for one new building containing five, three-bedroom apartments.

REPORT: The property is located at 110 E. Hillside Drive and is currently zoned Residential Multifamily (RM). The properties to the south, east, and west are also zoned RM. The properties to the north are zoned Residential Urban (R4). The property is currently a vacant lot. The site is not within a historic district or any overlay districts.

The petitioner is proposing to construct a new three-story structure with ground floor parking spaces and five three-bedroom dwelling units. Since the proposed units will each contain 3 bedrooms, they are classified as student housing or dormitory use. Student housing is listed as a conditional use in the RM zoning district and the petitioner is therefore requesting conditional use approval to allow for this new construction. The petitioner previously received a variance under V-16-20 to allow for the front steps of the structure to encroach into the setback. The petitioner is also requesting a variance from the required front parking setback of 20’ to allow for ground floor parking, which will be heard by the Board of Zoning Appeals on December 23, 2021.

CRITERIA AND FINDINGS FOR CONDITIONAL USE PERMIT

20.06.040(d)(6) Approval Criteria
(B) General Compliance Criteria: All petitions shall be subject to review and pursuant to the following criteria and shall only be approved if they comply with these criteria.
   i. Compliance with this UDO
   ii. Compliance with Other Applicable Regulations
   iii. Compliance with Utility, Service, and Improvement Standards
   iv. Compliance with Prior Approvals

PROPOSED FINDING: There are use-specific standards that apply to student housing within the RM district. The UDO restricts the maximum floor plate for student housing uses in the RM district to 5,000 square feet per lot. The proposed building will be approximately 3,519 square feet and therefore meets the 5,000 square foot maximum floor plate allowance. This petition received a variance from front setback standards under V-16-20 and is currently requesting a variance from the required front parking setback which is pending. This petition complies with other applicable regulations, utility, service, and improvement standards as required by the general compliance criteria.
The UDO requires that student housing or dormitory uses outside of the Mixed-Use Student Housing (MS) zoning district be separated from other student housing or dormitory uses by at least 300 feet. Planning staff did not find any existing student housing or dormitory uses within 300 feet of this property.

(C) Additional Criteria Applicable to Conditional Uses
i. Consistency with Comprehensive Plan and Other Applicable Plans
The proposed use and development shall be consistent with and shall not interfere with the achievement of the goals and objectives of the Comprehensive Plan and any other applicable adopted plans and policies.

PROPOSED FINDING: This proposal is in line with the goals of the Comprehensive Plan. The Comprehensive Plan identifies this area as “Mixed Urban Residential.” Infill development within this district is encouraged as part of creating a compact urban form. This petition provides additional housing units on a property that is currently vacant. The construction of five dwelling units on this site is not expected to have any negative impacts.

ii. Provides Adequate Public Services and Facilities
Adequate public service and facility capacity shall exist to accommodate uses permitted under the proposed development at the time the needs or demands arise, while maintaining adequate levels of service to existing development. Public services and facilities include, but are not limited to, streets, potable water, sewer, stormwater management structures, schools, public safety, fire protection, libraries, and vehicle/pedestrian connections and access within the site and to adjacent properties.

PROPOSED FINDING: This site is well served by utility service and no problems with providing utility service to this site are expected. This site is near the 7 and 1 bus lines and intends to provide adequate parking for the residents.

iii. Minimizes or Mitigates Adverse Impacts
1. The proposed use and development will not result in the excessive destruction, loss or damage of any natural, scenic, or historic feature of significant importance.
2. The proposed development shall not cause significant adverse impacts on surrounding properties nor create a nuisance by reason of noise, smoke, odors, vibrations, or objectionable lights.
3. The hours of operation, outside lighting, and trash and waste collection must not pose a hazard, hardship, or nuisance to the neighborhood.
4. The petitioner shall make a good-faith effort to address concerns of the adjoining property owners in the immediate neighborhood as defined in the pre-submittal neighborhood meeting for the specific proposal, if such a meeting is required.

PROPOSED FINDING: There are no natural, scenic, or historic features that will be impacted. The creation of five dwelling units for student housing on this property is not expected to have any adverse impacts on surrounding properties. No additional lighting outside of what is typical
of a residential unit is being proposed. No nuisance regarding noise, smoke, odors, vibrations, lighting, or hours of operation is found. No pre-submittal neighborhood meeting is required.

RECOMMENDATION: The Department recommends that the Hearing Officer adopts the proposed findings and recommends approval of CU-24-21 with the following conditions:

1. This conditional use is limited to a maximum of five units and a maximum of three bedrooms per unit as submitted, no other use is approved.
2. A grading permit is required before construction can begin.
November 17, 2021

Keegan Gulick  
City of Bloomington Planning and Transportation Dept.  
401 N. Morton Street  
Bloomington, IN. 47402

RE: 110 Hillside Drive – Student Housing

Dear Keegan,

WS Property Group is proposing to redevelop a vacant lot at 110 E Hillside Drive and are requesting a variance from 20.04.0?0(?) to allow 5 three-bedroom townhomes to be constructed.

The project anticipates the construction of a single building comprised of 5 townhomes. Each townhome is comprised of 3 levels; parking, main-living, and bedroom. We believe the scale and scope of the project fits with the surrounding uses and will not be injurious to the public, nor adversely affect the use and value of the adjacent properties.

Please find attached the required information to render your approval.

Respectfully,

WS Property Group

Timothy A. Hanson  
V.P. Development
To the BZA:

Thank you for the opportunity to address concerns regarding the proposal to build Student/Dormitory Housing at 106 E Hillside Drive.

Please deny this request. A change to conditional use will not result in a community good, such as a school, daycare, or place of worship.

Denial of the conditional use will allow the site to be developed according to current RM zoning. This would be an enormous opportunity to achieve many of the goals of the Comprehensive plan. Adding “missing middle” forms that blend with the established neighborhood and providing needed options of housing options for a large range of people would benefit the neighborhood and the city. Small housing forms with less intense use would benefit and attract young professionals, small families, workforce residents or empty nesters.

Sincerely,

Jan Sorby
Bloomington Restorations Inc., Chair of Endangered Historic Properties, Hillside property owner, Former President of the Bryan Park Neighborhood Association

20.06.040(d)(6) Approval Criteria: i. Consistency with Comprehensive Plan and Other Applicable Plans
The proposed use and development shall be consistent with and shall not interfere with the achievement of the goals and objectives of the Comprehensive Plan and any other applicable adopted plans and policies.

Objection
The proposed development does not agree with the Comprehensive Plan or acknowledge the unsafe conditions reported in the 2019 Bloomington Transportation Plan.

The Comprehensive Plan that recognizes that most new housing development the past decade has been student housing. Now, a primary goal is to change this trend and offer a wider variety of housing options built for a broader range of people. The location of the proposed development does not meet the criteria listed in the Comprehensive Plan for appropriate locales for Student/Dormitory Housing. Appropriate locations are close to campus that already have a high percentage of student-oriented housing, within easy walking distance to campus, have easy access to university-provided parking, and IU transit system. The Comprehensive Plan redirects Student/Dormitory housing away from the areas near downtown. The proposed site is currently serviced by city buses; however, it will soon be limited when Bloomington Transit changes the routes.

Promoting more housing opportunities in urban neighborhoods close to employment, shopping, and other amenities for young professionals, workforce residents, families, residents at different stages of life and household incomes, is a primary goal of the Comprehensive Plan. The proposed development meets none of the provisions above. Apartments with 3-bedrooms will limit who can afford an expensive large apartment. Many people will be priced out of the proposed development.

The proposed development does not promote housing solutions that mitigate against rapid price changes in the neighborhood. To the contrary, Student/Dormitory housing will bring more short-term residents to the neighborhood. At almost 70% rental the neighborhood is at risk of destabilization. Rental for young families, workforce housing and young professionals or owner-occupied multifamily could help stabilize the neighborhood. Housing that only students will be able to afford does just the opposite.

Below are quotations from the Comprehensive Plan that support the objection to this development.
• (Pg 64) Comprehensive Plan Objectives: Policy 5.3.4: Redirect new student-oriented housing developments away from the Downtown and nearby areas, and toward more appropriate location closely proximate to the IU campus that already contain a
relatively high percentage of student-oriented housing units, are within easy walking distance to the campus, and have direct access to university-provided parking as well as the university transit system

- (pg. 61) Housing and Neighborhood: Goals & Policies: 14: Offer a wide variety of quality housing options for all incomes, ages, and abilities.

- (pg. 61) Housing and Neighborhood: Policy 5.1.3: Encourage a wide range of housing types to provide a more diverse mix of housing opportunities and household income levels, preferably within neighborhoods and multi-family housing developments.

- (pg. 63) Housing and Neighborhood Goals & Policies: New multifamily housing projects catering largely to students must be better planned and distributed adjacent to campus or in underdeveloped commercial corridors along transit routes outside Downtown, but still relatively close to the university

- (pg. 63) Housing and Neighborhood Goals & Policies: 5.2.1: Evaluate all new developments and redevelopments in light of their potential to positively or adversely impact the overall health and well-being of the people who live in the surrounding neighborhood.

- (pg. 60) Housing and Neighborhood: Now that 1,900 new housing units have been constructed Downtown within the past decade (almost all of them apartments), the market dynamic is shifting. More market opportunities may exist to convert single-family homes from student-rental to owner occupied. This can allow more people to have a chance to live in urban neighborhoods, which are often closer to employment, shopping, and other amenities.

- (pg. 64) Housing and Neighborhood: Goal 5.4: Neighborhood Stabilization: Promote a variety of homeownership and rental housing options, mitigate against unforeseen eviction and rapid price changes, and promote opportunities for community interaction that are also aimed towards different stages of life, ages, and household incomes.

- (pg. 61) Housing and Neighborhood: Bloomington’s older urban, small scale, compact, single family housing stock located primarily around the city center and university provide some of the city’s more affordable housing stock and must be protected. Building a growing stock of affordable housing requires assuring sustainability so unaffordable stock is not the only option for future generations. Mixed income neighborhoods are fundamental to successful, sustained, affordable housing stock. New multifamily housing projects catering largely to students must be better planned and distributed adjacent to campus or in underdeveloped commercial corridors along transit routes outside Downtown, but still relatively close to the university

- (Pg. 65) Housing and Neighborhood: Seek to expand compact urban housing solutions such as pocket neighborhoods, tiny houses, accessory dwelling units, and similar housing solutions, in a manner that attracts workforce and senior populations or otherwise complements the surrounding neighborhood

20.06.040(d)(6) Approval Criteria: ii. Provides Adequate Public Services and Facilities
Adequate public service and facility capacity shall exist to accommodate uses permitted under the proposed development at the time the needs or demands arise, while maintaining adequate levels of service to existing development. Public services and facilities include, but are not limited to, streets, potable water, sewer, stormwater management structures, schools, public safety, fire protection, libraries, and vehicle/pedestrian connections and access within the site and to adjacent properties.

Objection
The proposed development will adversely impact the overall health and well-being of people who live in the development as well as the surrounding neighborhood. Student/Dormitory housing use at this site is not appropriate, ill-advised and will endanger public safety.

The Hillside area presents enormous infrastructure challenges. Because of the traffic, this is a dangerous location. It is especially dangerous for the intensity of use that Student/Dormitory housing triggers. If built, it will require crossing Hillside to reach on-street parking for residents and visitors. Dangerous midblock crossings will be the norm. Pedestrians crossing Hillside from the north at the signaled intersection are impeded by a utility pole installed in the middle of the narrow sidewalk before reaching the pedestrian crosswalk. The 7’ tall wall obstructs sightlines in both directions at the signal. And the enormous turning radius encourages fast traffic. Hillside is narrow, lacking a tree plot, turning lane or bike lane. The Washington/Hillside intersection has extremely limited sightlines that force vehicles into the intersection and past the pedestrian crosswalk.
Mixed urban residential neighborhoods are described in the Comprehensive Plan as missing basic and essential utilities. This neighborhood is exactly such a neighborhood and has been skipped over for improvement for decades.

There are no sidewalks, storm sewers, curbs, gutters, or tree plots on Southern, Wilson, Grant, and Palmer streets. These streets are very narrow with high crowns and deep ruts on both sides, and the pavement is crumbling at the edges. Worn out water mains erupt on a regular basis in the neighborhood. The sidewalks on Hillside, Washington, and Lincoln are sub-standardly narrow with sections rated as the poorest condition in Bloomington on the Sidewalk Inventory Report.

The 2019 Bloomington Transportation Plan identifies the Hillside, Walnut, Washington area as a hotspot for pedestrian/motor vehicle accidents and as one of the least connected areas on the Bicycle Network Analysis map. Hillside is Bloomington’s main southern east/west corridor and carries a greater volume of daily traffic than is recommended for a general urban street. The traffic is extraordinarily fast and a digital traffic warning sign displaying speeds of motorist is now a permanent fixture on Hillside at Grant. As a general urban street, Hillside lacks the basic requirements such as on-street parking, 25mph speed, turning lanes, tree plots between sidewalk and street, or buffered/protected bike lanes.

The south side of Hillside is basically 2 “superblocks”, each 3 blocks long with the only cross street at Grant. Grant dead ends at Southern. Washington, Lincoln, Dunn, and Palmer dead end into Hillside. Southern is blocked from Walnut just west of Grant. The superblocks lack alleys or direct access to on-street parking. The alley west of the proposed development dead ends mid-block before reaching Southern and the exit onto Hillside is very close to the intersection. The prevailing development pattern in this area is exceptionally dense at about 0.12 acres (5,227 sq. ft.) per lot and most of the houses are modest in size. The area includes owner-occupied and rental, single-family and duplex/fourplex-multifamily. The neighborhood was built before modest families owned cars and therefore the few existing driveways were retrofitted. Washington, Lincoln, and the new Dunn PUD are the only streets offering alley parking opportunities. Hillside has limited driveways and no on-street parking. Washington and Lincoln provide the only on-street parking for all the residents and visitors in the area and are routinely congested. Washington has seen an increased use since the apartment building at Driscoll and Walnut was granted a parking variance for required on-site parking.

Creating a pedestrian friendly edge to the neighborhood along Hillside will be challenging but neighbors requested, and still hope for, a subarea plan to help find solution for this problematic area. Hillside could be a true asset for the neighborhood and the city. The South Dunn PUD demonstrates how wonderfully a street can be remade.

Below are quotations from the 2019 Bloomington Transportation Plan and the Comprehensive Plan that support the objection

**2019 Bloomington Transportation Plan**

- (pg. 11) Traffic Volumes: S Walnut St from E Wilson St to S Monon Dr, 2008, the average daily traffic volume was vehicles/day =27,052. General Urban Street. Auto traffic volume (ADT) should be 10,000-20,000.
- (pg. 14 Map) Hillside is categorized as forth busiest streets and a hotspot for motor vehicles-pedestrian crash density
- (pg. 18 map) Listed as one of the least connected areas on the Bicycle Network Analysis
- (pg. 36) General urban street specifications are: 2 auto travel lanes 10’ wide, on-street parking, recommends target speed 25mph, preferred Bike facility (2 buffered or protected bike lanes)

**Comprehensive Plan**

- (pg. 63) Housing & Neighborhoods: Goals & Policies: Policy 5.2.1: Evaluate all new developments and redevelopments in light of their potential to positively or adversely impact the overall health and well-being of the people who live in the surrounding neighborhood.
- (pg. 16) UDO Objectives: Objective: 11: Ensure all land development activity makes a positive and lasting community contribution
• (Pg. 63) Housing & Neighborhoods: Goals & Policies: Policy 5.2.1: Evaluate all new developments and redevelopments in light of their potential to positively or adversely impact the overall health and well-being of the people who live in the surrounding neighborhood.

• (pg. 63) Housing & Neighborhoods: Objective 13: Embrace all of our neighborhoods as active and vital community assets that need essential services, infrastructure assistance, historic protection, and access to small-scaled mixed-use centers.

• (pg. 64) Housing & Neighborhoods: Neighborhood Stabilization: Goal 5.4: Enhance the appearance, safety, and walkability of sidewalks, multi-use paths and trails, and streets in all neighborhoods through proactive repair and cleaning programs to reinforce an open network connecting each neighborhood to adjacent land uses and to the city as a whole.

• (Pg. 84) Mixed Urban Residential: Land Use: Mixed Urban Residential: Additionally, many of these areas were built without essential urban amenities such as storm sewers, curbs, and sidewalks.

20.06.040(d)(6) Approval Criteria: iii. Minimizes or Mitigates Adverse Impacts

1. The proposed use and development will not result in the excessive destruction, loss or damage of any natural, scenic, or historic feature of significant importance.

2. The proposed development shall not cause significant adverse impacts on surrounding properties nor create a nuisance by reason of noise, smoke, odors, vibrations, or objectionable lights.

Objection

The proposed development would be disruptive to the established relationship between the built environment and street. The proposed development is profoundly inconsistent with the historic development pattern in the area and will affect how the street feels and is used. The jarring shift in scale, bulk and orientation of the proposed building will make reclaiming Hillside as a walkable urban asset out of reach. In addition, the shadows cast on neighboring houses will stop the possibility for owners (on the east and west) of the proposed development, to utilize solar energy in the future.

The proposed development will deprive adjacent properties of natural light.

The Comprehensive Plan states that existing residential neighborhoods, or any portions of a neighborhood having a consistent built character, should be maintained at their prevailing pattern of development, building distribution, and scale. Guidance for appropriate site design in mixed urban residential areas stipulates that redevelopment and rehabilitation must respect the prevailing character and development pattern of adjacent properties in the older neighborhoods. In-fill development must continue to emphasize pre-WWII neighborhood characteristics regarding building mass, scale, and other site planning features. Guidance for land use development approvals require that vacant lots be redeveloped with compatible infill that reflects the prevailing character of the neighborhood.

The orientation, scale and building distribution of the proposed Student/Dormitory housing is not compatible with the prevailing historic development pattern. The historic development pattern surrounding the proposed development is a consistent human-scale, pre-auto, 1920s pattern. The distribution of these narrow buildings is close together with small side yards between each house. The scale is small, approximately 24’ to 28’ wide with one or two stories. The orientation of the existing buildings is with the narrow wall facing the street and the long wall to the side. The neighborhood commercial buildings follow the same historic development pattern in scale, distribution, and bulk. Altogether, this historic pattern creates a human-scale and walkable environment.

The develop pattern for the proposed project is suburban. It is characterized by wide buildings that are orientated with the broad side of the building facing the street. The design of the proposed development was used to build the University Manor complex in a suburban context on the north side of Bloomington. The proposed structure is very wide, about 100’, making it approximately four times as wide as the compact urban neighborhood context. The expanse of the proposed building is contrary to the compact urban human-scale surrounding the site.
Additionally, the site for this proposal is in the Monon Historic Study district. It has been an important study area since at least 2004 when it was listed in the *City of Bloomington Interim Report*. All eight adjacent houses are listed with the state of Indiana in their *Indiana Historic Sites and Structures Inventory* as either Notable or contributing. Breaking the historic building pattern will adversely impact these properties. This is not a locally designated district, and no design regulations are required beyond what is specified in the *Comprehensive Plan* for all Mixed Urban Residential neighborhoods.

Significant adverse impact will be created by the height of the proposed building which is located at the crest of a hill and will block access to natural light on the east and west of the site. Two different façade drawings are shown in the developer’s packet; one drawing shows a 3-story building and the other shows a 3.5-story building. Both drawings lack measurements for the total height of the proposed project. Regardless, the elevation of the hill exacerbates the reach the shadows cast on houses to the east and west. Owners to either side of this proposed development will be impeded by the shadows to use solar energy in the future.

**Below are quotations from the Comprehensive Plan that support the objection**

- *(Pg. 84)* Mixed Urban Residential: Land Use Development Approvals: Vacant lots should be redeveloped with compatible infill that reflects the prevailing character of the neighborhood.

- *(pg. 84)* Mixed Urban Residential: Land Use Development Approvals: Allow context sensitive multifamily redevelopment along higher volume roads, along district edges, and near major destinations when appropriately integrated with adjacent uses and styles.

- *(pg. 63)* Housing & Neighborhoods: Policy 5.2.6: Existing residential neighborhoods, or any portions of a neighborhood having a consistent built character, should be maintained at their prevailing pattern of development, building distribution, and scale. This built character may be complemented by both traditional and contemporary architecture.

- *(pg. 63)* Housing & Neighborhoods: Policy 5.2.4: Design and arrange new multifamily buildings, including entries and outdoor spaces, so that dwellings have a clear relationship with the public street and operate on a pedestrian scale.

- *(Pg. 84)* Mixed Urban Residential: Site Design: The majority of centrally located neighborhoods have been built out, so major changes will occur with redevelopment and rehabilitation of existing structures must respect the prevailing character and development pattern of adjacent properties. Although there may be various architectural styles that would be appropriately compatible with the existing architecture in these older neighborhoods, the district must continue to emphasize pre-WWII neighborhood characteristics regarding building mass, scale, landscaping, and other site planning features.

- *(Pg. 84)* Mixed Urban Residential: Land Use Development Approvals: Allow context sensitive multifamily redevelopment along higher volume roads, along district edges, and near major destinations when appropriately integrated with adjacent uses and styles.

- *(pg. 63)* Housing & Neighborhoods: Goals & Policies Principals: 11: Ensure all land development activity makes a positive and lasting community contribution

- *(Pg 85)* Mixed Urban Residential: Form Based Code: To better respond to the relationship of buildings to the street, architectural massing, shape and design, and the location of on-site parking. A form-based code focuses on the physical shape and configuration of the build environment rather than land uses. Using this approach can offer more predictability than flexible Planned Units Developments processes offer. This strategy should not be used exclusively but rather in balance with use-based zoning. Land use decisions should be based both on compatible uses as well as on form.

- *(Pg 96)* Focus Areas & Strategies: Focus Areas are locations expected to see significant change in land use activities over the next decade; however, they should follow their respective development themes (Maintain, Enhance, and Transform)

### iii. Minimizes or Mitigates Adverse Impacts

1. **The petitioner shall make a good-faith effort to address concerns of the adjoining property owners in the immediate neighborhood as defined in the pre-submittal neighborhood meeting for the specific proposal, if such a meeting is required.**

Although these was no requirement to meet with neighbors there was not a good-faith effort to address the concerns of the adjoining property owners when concerns were lodged through the Planning and Transportation Department.
The Unified Development Ordinance specifies that at least one sign should be posted on the property informing Bloomington residents of a proposed change in use. No notice was posted on the property.

The notice listed in the newspaper included an incorrect address for development on the parcel at 107 E Hillside. The notice to adjacent property owners also contained the wrong address.
BLOOMINGTON BOARD OF ZONING APPEALS

CASE #: V-01-22

STAFF REPORT

DATE: February 17, 2022

Location: 1600 S. Rogers Street

PETITIONER: Catalent Indiana, LLC
1300 S. Patterson Drive, Bloomington

CONSULTANT: Bledsoe, Riggert, Cooper, and James
1351 W. Tapp Road, Bloomington

REQUEST: The petitioner is requesting a variance from fence and wall standards, riparian buffer standards, and front parking setback requirements to allow the construction of a new parking area.

REPORT: This 7.6 acre property is located at 1600 S. Rogers Street and is located on Tract C within the Thomson PUD. The property was most recently used by IMI Materials as a gravel and concrete facility. Surrounding land uses include Hays Trucking and a Duke electrical substation to the south and east, Catalent manufacturing facility to the north, and undeveloped land within the Thomson PUD to the west. There is portion of the floodplain of West Branch of Clear Creek that encroaches onto the far eastern portion of this property.

As part of recent expansions and increased production requirements at the Catalent facilities for work associated with government contracts to manufacture the COVID-19 vaccine, the petitioner has had to substantially increase employees at the site. As a result, there is an increased demand for parking for the new employees around the facility. The petitioner has purchased this contiguous property to the south of the facility to redevelop for a new parking area. The petitioner is proposing to construct a new surface parking area with 523 parking spaces, which would also include a 7’ tall fence around the perimeter. The parking area would include a minimum of 21 electric vehicle charging stations and 11 bicycle parking spaces.

The property currently shares an access drive onto Rogers Street with the trucking company to the south, which will be reconstructed with this petition in the same approximate location. The drivetcut meets separation requirements from adjacent drives. The eastern portion of the proposed driveway and a new sidewalk are located in the floodplain of the West Branch of Clear Creek. Any work within the floodplain must receive a permit from Indiana Department of Natural Resources prior to issuance of any local permits.

The Catalent building to the north is approximately 600’ west of Rogers Street. Since there will be portions of the proposed fence that are more than 4’ tall between the building and the street, the petitioner is requesting a variance to allow for a 7’ tall fence that is forward of the building façade. The petitioner is also requesting a variance from the front parking setback standards to allow for portions of the proposed parking area to not be located 20’ behind the front façade of the building. Although the proposed parking area will be approximately 400’ away from Rogers Street, it will extend approximately 200’ forward of the building façade and therefore not meet the 20’ setback behind the building front. Since there is a creek between the proposed parking area and the buildings to the north, the petitioner is proposing to construct two elevated walkways from the parking area to
the building. The creek is subject to the Riparian Buffer standards and the petitioner is requesting a variance from the riparian buffer standards to allow the construction of the walkways.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE

20.09.130 e) Standards for Granting Variances from Development Standards:

A variance from the development standards of the Unified Development Ordinance may be approved only upon determination in writing that each of the following criteria is met:

1) *The approval will not be injurious to the public health, safety, morals, and general welfare of the community.*

PROPOSED FINDING:

**Front Parking Setback:** The granting of the variance to allow portions of the parking to not be setback 20’ from the building facade will not be injurious to the public health, safety, morals, or general welfare of the community. The location of the parking does not affect access to the main building or the interface of the site with the public way, as it is setback approximately 400’ from Rogers Street.

**Fence Height:** The granting of the variance to allow the fence to be 7’ tall will greatly increase the security of the property to help with the production of a vaccine to address the global public health emergency. This directly promotes the public health, safety, and general welfare of the community. Additionally, the distance of the parking from Rogers Street ameliorates concerns about tall fences between buildings and the road.

**Riparian Buffer:** The granting of the variance to allow the proposed minor disturbance to a small portion of the top of bank area to install the elevated walkways will not be injurious to the public health, safety, morals, or general welfare of the community. The granting of the variance would improve public safety by providing a safe way to access the building from the parking area. The construction will not be allowed without IDEM approval.

2) *The use and value of the area adjacent to the property included in the Development Standards Variance will not be affected in a substantially adverse manner.*

PROPOSED FINDING:

**Front Parking Setback:** No adverse impacts to the use and value of surrounding properties as a result of the requested variance are found. The parking area will be setback approximately 400’ from Rogers Street and will not affect the use or value of the area surrounding the property.

**Fence Height:** No adverse impacts to the use and value of surrounding properties as a result of the requested variance are found. The fence will be setback approximately 400’ from...
Rogers Street and the sidepath on Rogers and therefore is not expected to have a negative effect on the adjacent area.

**Riparian Buffer:** No adverse impacts to the use and value of surrounding properties is expected as a result of the proposed walkways and minor disturbance to the riparian buffer area. Any trees removed will be replaced and the area will be reseeded and planted with native vegetation.

3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

**PROPOSED FINDING:**

**Front Parking Setback:** The Department finds that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties of the use of the property because it would require the parking area to be placed substantially further back into the property than is practical. The practical difficulties are peculiar condition to this property in that the adjacent building is setback approximately 600’ from Rogers Street and creates a substantial restriction on the location of parking to serve the site. The granting of the variance will allow an existing substantially non-conforming site to be redeveloped according to most other current Unified Development Ordinance regulations.

**Fence Height:** The Department finds that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties of the use of the property because it would not allow the fencing needed to provide appropriate security for this property. The practical difficulties are peculiar condition to this property in that the location of the lot in relation to the building does not allow for the parking to occur behind the building, where a 7 foot fence would be allowed. The granting of the development standards variance will allow the petitioner to meet the stated safety standards for this facility to address the public health emergency.

**Riparian Buffer:** The Department finds that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property as they would not allow the minor work necessary for the pedestrian bridges. The installation of elevated walkways in this area will not require any substantial grading or disturbance of vegetation. In addition, the Thomson PUD was approved prior to the current riparian buffer standards. The Thomson PUD also only identified the West Branch of Clear Creek as a dominant stream through this area. Peculiar condition is found in the limited amount of area along this portion of the site that is available for pedestrian crossings and that the intermittent stream along the south side of the building had been previously straightened and altered during development within the PUD. The Thomson PUD anticipated development within existing disturbed areas. The proposed encroachment is not excessive and is in keeping with the development pattern within the PUD.
RECOMMENDATION: The Department recommends that the Board of Zoning Appeals adopt the proposed findings and approve V-01-22 with the following condition:

1. A permit from the Indiana Department of Natural Resources is required prior to the issuance of any permit related to the pedestrian crossings.
2. The variance approves a maximum number of parking spaces between the front building wall and Rogers Street as shown in the site plan with this application. Final site plan details will be reviewed with the minor site plan approval.
3. Disturbed areas around walkways will be replanted with native vegetation. Any trees removed in the riparian buffer area will be replaced with a 2:1 factor.
4. The variance approves a fence with a maximum height of 7 feet, and does not allow barbed wire or any other materials restricted by the Unified Development Ordinance.
January 20, 2022

City of Bloomington Board of Zoning Appeals
401 N. Morton Street
Bloomington, IN 47403

RE: Request for Variances for Catalent Biologics’ South Parking Lot at 1600 S. Rogers Street

Dear BZA Members:

The number of employees at Catalent Biologics continues to grow and Catalent’s need for appropriate parking for their employees remains a challenge. Catalent now has 4,000 employees at their Patterson Street Campus. There are currently 896 on-site parking spaces. In an effort to address the parking problem, Catalent leases parking spaces from nearby parking lots and shuttles employees from two remote parking areas.

In a continued effort to address their employee parking needs, Catalent would like to construct a new parking lot at the old concrete plant at 1600 S. Rogers Street directly south of the main campus to provide 523 new parking spaces.

On behalf of Catalent Biologics, we respectfully request your consideration of the following variances from the Unified Development Ordinance (UDO) in support of the proposed south parking lot at 1600 S. Rogers Street:

1. Development Standards & Incentives Section 20.04.020(c), General Dimensional Standards to allow for parking to extend 195 feet in front of the east face of Catalent Biologic’s building to the north. The UDO parking set back for this property is 20 feet behind the front of the building. Compliance with this standard would result in a loss of 60 essential parking spaces. In this particular situation, the view of the proposed parking lot from Rogers Street is virtually obscured by Duke Energy’s substation, the Hays warehouse, the curvature of the driveway, and an existing wooded area within the West Branch Clear Creek Floodway.

2. Development Standards & Incentives Section 20.04.030(f), Riparian Buffers to allow for the proposed parking improvements to extend to the northern limits of old concrete plant and preserve the 50 feet of existing riparian buffer along the creek and allow for the construction of two pedestrian bridges over the creek. The UDO requires three 25 foot wide graduated buffer zones along intermittent or perennial streams, two of which currently exist and will be preserved. The third zone is the Fridge Zone with a primary function to filter runoff before it flows toward the stream. Compliance with this standard would result in a loss of 36 essential parking spaces. In this case the runoff from the proposed improvements will be collected, filtered, and detained before release to the existing tributary to West Branch Clear Creek.

3. Development Standards & Incentives Section 20.04.080(n), Fences and Walls to allow for the installation of a seven foot tall chain link perimeter security fence extending east beyond east face of Catalent Biologic’s building to the north. The UDO limits the height of fences located in front of the face of a building fronting a street to four feet. Unfortunately, a four foot high fence does not provide an adequate level of security to the proposed parking lot and protection of Catalent employees parking there. As noted in Item 1, this parking lot is relatively obscured and the fencing will not be noticeable from Rogers Street.

We believe that for each of the variances we are requesting the approval will not be injurious to the public health, safety, morals, and general welfare of the community; the use of value of the area adjacent to the Catalent property will not be affected in a substantially adverse manner; and the strict application of the terms of the UDO results in practical difficulties for the use of the property. These difficulties, including...
the need to provide as many secure and safe parking spaces as possible for the ever growing Catalent work force, are peculiar to Catalent Biologics’ success in our community. The variances we are seeking from the development standards will relieve those practical difficulties.

Your positive consideration of this request is greatly appreciated.

Sincerely,

William S. Riggert, PE
Good afternoon Eric,

Attached, please find the site landscape plan and photometric plan for the Catalent South Parking Lot project. You will also find a revised site plan illustrating the proposed property line shift for the Hays Warehouse site.

In addition, we determined the following open space percentages:

**Revised Hays lot**
- Overall Area: 57,447 sq.ft.
- Open Space Area: 27,295 sq.ft.
- Open Space: 47.5%

**Revised Catalent lot**
- Overall Area: 333,109 sq.ft.
- Open Space Area: 150,304 sq.ft.
- Open Space: 45.1%

**Catalent Campus - Patterson Drive**
- Overall Area: 2,152,539 sq.ft.
- Open Space Area: 647,153 sq.ft.
- Open Space: 30.1%

**Combined Catalent Properties**
- Overall Area: 2,485,648 sq.ft.
- Open Space Area: 797,457 sq.ft.
- Open Space: 32.1%

Please let us know if you have any questions.

Thank,

Bill

William S. Riggert, PE  Principal
wriggert@brjcivil.com
**GENERAL NOTES**

1. **SCALE:** 1" = 30'
2. **LIMITS OF NEW 4" THICK CONCRETE PAVING:**
   - PAVING STRIPING 2' O.C.
   - LIMITS OF ASPHALT PAVEMENT PATCH
3. **MARK DATE DESCRIPTION**

**PLAN NOTES**

- **PROJECT NO:** 30 x 42
- **CALL TOLL FREE:** 1-800-382-5544
- **PER INDIANA STATE LAW IC8-1-26.**
- **IT IS AGAINST THE LAW TO EXCAVATE BEFORE COMMENCING WORK.**

**LEGEND**

- [Legend items]

**SITE UTILITIES**

- [Legend items]

**BRCJ Project No:** 10563.2

1. PARKING LOT UNDERGROUND DETENTION SYSTEM. TOTAL 157 STORMCHAMBER SC-1820 STORAGE UNITS WITH CLEAN INDOT NO. 8 STONE BACKFILL - OR APPROVED EQUAL WITH MINIMUM TREATMENT FLOW
2. 4. CLEAN ACCUMULATED SEDIMENT FROM EXISTING INLET STRUCTURES AND SET INVERT EQUAL TO BOTTOM OF DETENTION SYSTEM DRAIN ROCK BASE LAYER. CONNECT TO OUTLET CONTROL STRUCTURE AS INDICATED.
3. REMOVE EXISTING INLET STRUCTURE AND INSTALL NEW 60" MANHOLE STRUCTURE.
4. 5. PARKING LOT UNDERGROUND DETENTION SYSTEM. TOTAL 54 STORMCHAMBER PERFORATED UNDERDRAIN AND 8" LATERAL FROM ADJACENT UNDERGROUND DETENTION SYSTEM. REFER TO ENLARGEMENT, SHEET C602.
5. 6. 48" MANHOLE STRUCTURE STR-310. REFER TO ENLARGEMENT, SHEET C602, FOR ARRANGEMENT OF CONNECTING PIPES.
6. 7. TRENCH DRAIN ACO SK2-00, OR ABT POLYDRAIN WITH VARIABLE CHANNEL DEPTH.
7. 8. TRENCH DRAIN ACO SK2-00, OR ABT POLYDRAIN WITH VARIABLE CHANNEL DEPTH.
Mr. Incledion:

This letter report presents the findings of a geotechnical investigation and evaluation completed by Ramboll Americas Engineering Solutions, Inc. (Ramboll) in connection with the design of a proposed 200,000 square foot parking lot for the Catalent Pharma Solutions (Catalent) facility in Bloomington, Indiana. The proposed parking lot site is located to the south of the existing Catalent facility and to the west of South Rogers Street. The proposed parking lot will be constructed on a former industrial site and will be used for employee parking.

SUBSURFACE INVESTIGATION

The subsurface investigation at the Catalent Bloomington, Indiana site was conducted between October 25 and November 4, 2021. The investigation consisted of 43 geotechnical soil borings drilled by GEOTILL, Inc. under contract with Ramboll, at the locations indicated on the boring layout on Figure 1. A geologist from Ramboll was present on-site to observe and document the drilling activities. The borings were drilled with a Diedrich D-50 Turbo truck-mounted drill rig.

As shown in Figure 1, proposed soil borings B-07, B-13, B-37 and B-44 could not be installed as planned. In the case of B-07 and B-13, Ramboll encountered steel reinforced concrete (rebar) that could not be penetrated with available drilling equipment, whereas the B-37 and B-44 boring locations could not be accessed with the drill rig. Additionally, a total of four soil borings were installed at location B-42 (B-42, B-42A, B-42B and B-42C); these additional soil borings were installed to evaluate environmental conditions in the vicinity of the site’s diesel fueling area, but are discussed herein for completeness.

The soil borings were drilled utilizing 3 ¼-inch inside diameter hollow stem augers in accordance with ASTM D1452 Standard Practice for Soil Investigation and Sampling by Auger Borings. The borings were sampled continuously varying from ground surface and 1-foot below ground surface (bgs) to depths between 7 and 11 feet bgs with a split spoon sampler. Split spoon sampling was conducted using an automatic hammer in accordance with ASTM D1586 Standard Method for Penetration Test and Split Barrel Sampling of Soils.
SUBSURFACE CONDITIONS

As previously mentioned, competent, reinforced concrete slabs were encountered at two soil boring locations (B-07 and B-13) which were abandoned as a result of these obstructions. Additional concrete slabs of significant thickness were also encountered near ground surface at B-03 (7 feet thick) and B-08 (9.5 feet thick). All four of these boring locations are situated in the same general area in the north-central portion of the site, and may represent a notable consideration depending on the cut and fill plans for the contemplated construction project.

Overall, the subsurface conditions encountered at the site can generally be characterized into three soil strata consisting of fill, clays, and weathered limestone. These strata are described in further detail below. Various layers of silt and sand lenses were found within the strata with thicknesses varying from 3 inches to 1 foot in thickness. The boring logs are presented in Attachment 1.

- **Fill Stratum** – Fill was encountered in 36 of the 43 borings from the ground surface to depths ranging between 2 and 9 feet bgs. The fill layers consisted of a mix of gravels, sands, silts and clays ranging in density from loose to very dense with unfactored blow counts from 3 blows per foot (bpf) to 50 blows per inch. Crushed concrete mixed with fill was found in borings B-02, B-30, B-31, and B-42.

- **Clay Stratum** – The clay stratum was encountered below the fill layer in 36 of the 43 borings and at the ground surface where fill was not encountered. The clay stratum ranged in depths from 7 feet bgs to termination of borings at 11 feet bgs. The clay layer consisted of a mix of lean and fat clays with various amounts of silt, sand, and gravel as well as sand and silt lenses interlayered within the clay stratum. The clay stratum ranged in densities from soft to hard with blow counts ranging from Weight of Hammer (WOH) to 50 blows over 3 inches.

- **Weathered Limestone** – The weathered limestone stratum was encountered below the clay soil stratum at depths ranging from 7 to 11 feet bgs and continued until termination of the borings in 10 of the 43 borings. The weathered limestone consisted of poorly graded sandy gravel with crushed white limestone fragments. The weathered limestone stratum was very dense with blow counts ranging between 50 blows over 3 inches to 50 blows over 5 inches.

Groundwater was observed within seven of the 43 boring locations at the time of drilling. The depths of the observed groundwater are summarized in Table 1 below.

<table>
<thead>
<tr>
<th>Boring</th>
<th>Depth BGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-21</td>
<td>4.0 ft</td>
</tr>
<tr>
<td>B-22</td>
<td>4.0 ft</td>
</tr>
<tr>
<td>B-23</td>
<td>10.75 ft</td>
</tr>
<tr>
<td>B-26</td>
<td>6.5 ft</td>
</tr>
<tr>
<td>B-32</td>
<td>6.35 ft</td>
</tr>
<tr>
<td>B-33</td>
<td>4.2 ft</td>
</tr>
<tr>
<td>B-36</td>
<td>5.9 ft</td>
</tr>
<tr>
<td>B-40</td>
<td>4.2 ft</td>
</tr>
</tbody>
</table>

GEOTECHNICAL LABORATORY TESTING

Following a review of the soil boring logs, a laboratory testing program was developed by Ramboll to analyze select soil samples to assess site-specific geotechnical properties of the fill material and the native soils. The laboratory testing program, performed by GEOTILL, Inc., included the evaluation of...
natural moisture content, Atterberg limits, and grain size distribution. A summary of the laboratory results is provided below. Detailed test results are provided in Exhibit A.

Natural Moisture Content

Natural moisture content tests were performed on soil samples taken of the fill and clay strata. The tests were completed in accordance with ASTM D2216 Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass. For the fill stratum, the moisture content was 8%. For the clay stratum, the moisture contents ranged from 25% to 33% with an average of 27.5%.

Atterberg Limits

Atterberg Liquid and Plastic Limit testing was conducted on two of the clay stratum samples. Atterberg limits were analyzed in accordance with ASTM D4318 Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

Table 2: Atterberg Limits Results

<table>
<thead>
<tr>
<th>Boring / Sample</th>
<th>Depth (ft)</th>
<th>Liquid Limit (LL)</th>
<th>Plastic Limit (PL)</th>
<th>Plasticity Index (PI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-10 / SP-2,3,4</td>
<td>3 to 9</td>
<td>40</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>B-20 / SP-2</td>
<td>3 to 5</td>
<td>42</td>
<td>20</td>
<td>22</td>
</tr>
</tbody>
</table>

Particle Size Analysis

Particle size analysis was performed on two soil samples taken from the clay strata and one from the fill strata in accordance with ASTM D4222 Standard Test Method for Particle – Size Analysis of Soil. The results of the testing are shown below.

Table 3: Particle Size Analysis Results

<table>
<thead>
<tr>
<th>Boring / Sample</th>
<th>Depth (ft)</th>
<th>Percent Gravel</th>
<th>Percent Sand</th>
<th>Percent Silt</th>
<th>Percent Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-10 / SP-2,3,4</td>
<td>3 to 9</td>
<td>1.4</td>
<td>13.2</td>
<td>41.4</td>
<td>44.1</td>
</tr>
<tr>
<td>B-20 / SP-2</td>
<td>3 to 5</td>
<td>1.1</td>
<td>12.4</td>
<td>36.6</td>
<td>48.6</td>
</tr>
<tr>
<td>B-28 / SP-1</td>
<td>1 to 3</td>
<td>18.8</td>
<td>56.6</td>
<td>12.1</td>
<td>12.4</td>
</tr>
</tbody>
</table>

SUMMARY OF FINDINGS

Earthwork

Based on the subsurface conditions observed, the earthwork for the parking area should commence with the complete removal of all topsoil, fill material and clay strata as necessary to attain proposed finished subgrade elevations. Areas which are unsuitable should be over-excavated to a suitable bearing stratum and backfilled with compacted structural fill. Based on the subsurface conditions observed and the anticipated earthwork, groundwater is not anticipated to be encountered. If groundwater is encountered, the excavations should be dewatered to a minimum depth of two feet below the proposed top of subgrade.

If existing building footings or underground utilities are in the vicinity of the earthwork performed for the proposed parking area, they should be protected by underpinning and/or a sheeting and shoring system designed by an engineer licensed in the State of Indiana and installed prior to excavation activity. If an excavation support system is required to protect existing building footings or underground utilities, a vibration monitoring program should be developed and implemented during
the installation of the support system. It is recommended that a geotechnical engineer be consulted to evaluate the proposed methods for protecting utilities and structures. Conventional open cut methods and/or trench boxes may be used for construction and installation of utilities.

Foundation and underground utility excavations should be protected from freezing conditions and maintained free of ponded water before concrete placement. The pavement sub-grade soils should be proof-rolled a minimum of six passes with a roller having a minimum weight of 20 tons.

**Structural Fill and Backfill Criteria**

Crushed stone placed as subbase below the pavement should meet the requirements of Indiana Department of Transportation (IDOT) dense graded aggregate base (IDOT 904.03 No. 73). Imported structural fill placed within the footprint of the proposed parking lot should consist of predominately granular soils, free from organic matter, ice, debris, or other deleterious material.

It is anticipated the on-site soils may be used as non-structural backfill in areas to be designated as grass-covered areas, provided on-site soils do not contain substantial amounts of organics or miscellaneous debris. Reuse of the on-site materials will be contingent upon gradation test results, proper placement, and compaction, including moisture control.

The Atterberg limits of the clay stratum tested for the site assessment had liquid limits of 40 and 42 and plasticity indices of 20 and 22. Based on the samples tested for index properties, the site soils are considered marginal for expansion potential.

On-site soils placed as non-structural backfill should be placed in horizontal lifts not to exceed 10 inches of loose lift thickness and compacted to a minimum of 90% of the maximum dry density as determined by ASTM Method D1557 “Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort”. Imported fill, backfill, and base course material beneath the pavement should be placed in horizontal lifts not to exceed 8 inches loose thickness, and should be compacted to 95% of maximum dry density according to the Modified Proctor Test.

**Pavements**

Site grading for the proposed pavement area should be performed in accordance with the construction drawings for the project, and site preparation, including proof-rolling, should be performed as described above. Organic and soft unsuitable clay soils should be removed, and the remaining soils should be compacted to at least 95 percent maximum laboratory dry density in accordance with ASTM D1557 (Modified Proctor) to a depth of at least 12 inches below the final proposed bottom of the graded aggregate base. If existing concrete slabs or foundations are encountered, they should be removed as necessary to place the aggregate base material. It is recommended that all aggregate base material be underlain with a woven geotextile or geogrid with the minimum strength that is equal to or greater than Mirafi 600X. If at any time soft or pumping soils are encountered within the pavement footprint, it is recommended that those soils be over excavated and replaced with an IDOT Coarse Aggregate 904.03 No. 8 or 9 underlain by a triaxial geogrid.

The dense graded aggregate base (IDOT 904.03 No. 73) should be compacted to at least 98% of its Modified Proctor Maximum Dry Density as determined by ASTM D1557. The hot-mix asphalt concrete should be compacted to at least 98% and no more than 102% of its maximum mix density, as determined by the Gyratory Mix Design procedure. All subgrade, base and pavement operations, materials and construction should meet the minimum requirements of the IDOT “Standard Specifications”, 2020 Version.

Mr. Mark Incledion
4/5
Subgrade Modulus
Based on the boring results the recommended subgrade modulus for the top one foot of the loose to very dense fill stratum that covers the majority of the site could range from 100 pounds/cubic inch to 200 pounds/cubic inch. The subgrade modulus provided in this report is based on and assumes that the site will be proof-rolled as recommended.

California Bearing Ratio
Based on the soil boring results, the recommended California Bearing Ratio (CBR) for the top one foot of the loose to very dense fill stratum that covers the majority of the site could range from 5 to 10. The CBR provided in this report is based on and assumes that the site will be proof-rolled as recommended.

LIMITATIONS
This geotechnical engineering letter report has been prepared by Ramboll for use in the design of the proposed parking lot area for the Catalent Pharma Solutions facility. The recommendations in this report are based on the information obtained from the subsurface investigation and our understanding of the proposed construction. Changes to the recommendations may be warranted if actual subsurface conditions vary from those anticipated based on the soil borings and geotechnical laboratory analyses, or if the proposed construction activities vary from those discussed in this report. In addition, construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions.

CLOSING
Ramboll appreciates the opportunity to be of service to Catalent. If you have any questions regarding this letter report or require further assistance, please do not hesitate to contact us at your convenience.

Yours sincerely,

Dave T. Farber, PE
Senior Division Manager
D +1 315-956-6221
M +1 315-956-6221
David.Farber@ramboll.com

Frederick V. Loneker
Principal
D +1 609-951-9056
M +1 609-356-9862
floneker@ramboll.com

Attachments:
Figure 1
Attachment 1 - Soil Boring Logs
Exhibit A –Laboratory Test Results
FIGURE 1
GEOTECHNICAL SOIL BORING LOCATION PLAN
Note:
**Soil borings not completed due to the presence of shallow concrete with rebar (2 to 6 inches below grade in B-07 and B-13) or surface obstructions/lack of drill rig accessibility (B-37 and B-44).**
ATTACHMENT 1
BORING LOGS
### Soil Boring Log

**Project:** Supplemental Investigation  
**Client:** Catalent Pharma Solutions  
**Location:** 1600 S Rogers St., Bloomington, IN  
**Inspector:** Vitaliy Morozov  
**Date Started:** 11/1/2021  
**Date Completed:** 11/1/2021

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>Stratum</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.25</td>
<td>3</td>
<td>23&quot;</td>
<td>30 / 27 / 37 / 35</td>
<td>64</td>
<td>SM: Silty sand with 20% gravel, well graded fine to coarse, moist, loose fill. Gray in color, crushed concrete with fibrous debris.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fill</td>
</tr>
<tr>
<td>2.25</td>
<td>3</td>
<td>3</td>
<td>23&quot;</td>
<td>30 / 27 / 37 / 35</td>
<td>64</td>
<td>SM: Same fill as above but dark green, mottled gray to black with wood debris</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Wood/Fill</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>7</td>
<td>14&quot;, 12 / 50/5&quot;</td>
<td>N/A</td>
<td>11</td>
<td>SM: Silty sand with 15% gravel, well graded, fine to coarse, moist to wet, loose fill material. Pale brown to greenish gray with wood fragments</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fill</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>6&quot;</td>
<td>7 / 5 / 6 / 9</td>
<td>11</td>
<td>11</td>
<td>SM: Same fill as 3-5’ increment, slight odor with no PID hits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fill</td>
</tr>
<tr>
<td>7</td>
<td>7.5</td>
<td>8</td>
<td>24&quot;</td>
<td>6 / 6 / 2 / 2</td>
<td>8</td>
<td>SM: Same fill as increments 3-5’ and 5-7’, slight odor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fill</td>
</tr>
<tr>
<td>7.5</td>
<td>8</td>
<td>8</td>
<td>24&quot;</td>
<td>6 / 6 / 2 / 2</td>
<td>8</td>
<td>MH: Clayey silt with trace fine sand, moist to wet, low plasticity, soft. Yellow white to tan in color.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Silt</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>9</td>
<td>24&quot;</td>
<td>6 / 6 / 2 / 2</td>
<td>8</td>
<td>OH: Clay, moist to wet, medium to high plasticity, soft. Dark gray brown, mottled light gray.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Clay</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>9</td>
<td>24&quot;</td>
<td>6 / 6 / 2 / 2</td>
<td>8</td>
<td>OH: Clay, moist to wet, medium to high plasticity, soft. Very soft, dark brown mottled light gray, very slight odor with weathered black nodules.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Clay</td>
</tr>
</tbody>
</table>

**Notes:**  
PID= 0.0-0.1ppm; borehole collapsed to 2.0’ bgs, dry, no samples taken
### General Stratum Description

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>20.5'</td>
<td>9 / 26 / 46 / 50/3'</td>
<td>72</td>
<td>SM: Silty sand with 10% gravel, well graded, fine to coarse, loose fill. Light gray to light brown. 1-2' dry. 2-3' moist to wet.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>8.5'</td>
<td>41 / 50/1'</td>
<td>N/A</td>
<td>SM: Silty sand with 15% gravel, well graded, fine to coarse, loose fill. 3-4.5' moist, gray to brown. 4.5-5' dry, gray to white, crushed concrete.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>7.5'</td>
<td>50/4'</td>
<td>N/A</td>
<td>SM: Silty sand with 20% gravel, well graded, fine to coarse, dry. Tan to light gray white, crushed concrete.</td>
<td>Concrete</td>
<td></td>
</tr>
</tbody>
</table>

#### Notes:

PID= 0.0-0.1ppm; borehole collapsed to 3.0' bgs, dry, no samples taken, refusal at 7' in concrete
### SOIL BORING LOG

**BORING ID:** B-03  
**INSPECTOR:** Vitaly Morozov  
**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 10/25/2021  
**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 10/25/2021  
**JOB #:** 1690023695  
**BORING LOC.:** See Map  
**FINAL STATIC WL:** N/A  
**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A  
**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A  
**RIG TYPE:** Diedrich D-50Turbo, Truck Mount  
**SAMPLER TYPE:** N/A  
**ELEVATION:** N/A  
**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Concrete</td>
<td>Concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>24'</td>
<td>21 / 18 / 22 / 21</td>
<td>40</td>
<td>6-6.75’ Concrete</td>
<td>Clay</td>
<td>6-6.75’ Concrete, CL, silty clay with 5% fine sand, dry to moist, non-plastic, stiff. 6.75-6’ light gray brown. 7-8’ light brown gray.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>24'</td>
<td>2 / 2 / 2 / 2</td>
<td>4</td>
<td>CH: Clay</td>
<td>Clay</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** Dry, no samples taken
# SOIL BORING LOG

**BORING ID:** B-04  
**INSPECTOR:** Vitaly Morozov  
**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 11/3/2021  
**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 11/3/2021  
**JOB #:** 1690023695  
**BORING LOC.:** See Map  
**FINAL STATIC WL:** N/A

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A  
**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A  
**RIG TYPE:** Diedrich D-50 Turbo, Truck Mount  
**SAMPLER TYPE:** N/A  
**ELEVATION:** N/A  
**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>M Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SW: Silty sand, fine to coarse, dry to moist, loose. Brown in color.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>1</td>
<td>24&quot;</td>
<td>6 / 8 / 9 / 5</td>
<td>17</td>
<td></td>
<td>CL: Clay with 5% fine sand and few gravel, dry to moist, medium plasticity, firm. Dark brown with red brown mottles</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GM: Sandy gravel with 10% fines, well graded, dry, loose. Crushed concrete and fill, tan white in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>1.75</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay, dry to moist, high plasticity, soft. Light grey to brown with dark brown mottles</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>0</td>
<td>4 / 2 / 1 / 5</td>
<td>5</td>
<td></td>
<td>No recovery, rock in shoe</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5.75</td>
<td>24'</td>
<td>2 / 3 / 1 / 5</td>
<td>6</td>
<td></td>
<td>CH: Clay, dry to moist, high plasticity, soft to firm. Red brown with light brown mottles and black nodules. Tree root @ 4.5'</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5.75</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft. Brown with light gray mottles</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6.75</td>
<td>24&quot;</td>
<td>3 / 2 / 1 / 4</td>
<td>4</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, firm.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>6.75</td>
<td>7.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay, moist, medium plasticity, very soft.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7.25</td>
<td>8</td>
<td>24&quot;</td>
<td>3 / 3 / 4 / 4</td>
<td>7</td>
<td></td>
<td>CL: Clay with 15% gravel, dry to moist, high plasticity, firm</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9.5</td>
<td>24&quot;</td>
<td>3 / 3 / 4 / 6</td>
<td></td>
<td></td>
<td>CH: Clay, dry to moist, high plasticity, soft to firm. Brown with grey mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9.5</td>
<td>9.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: same as 8-9.5' but moist to wet</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9.75</td>
<td>10</td>
<td>24&quot;</td>
<td>3 / 3 / 4 / 4</td>
<td></td>
<td></td>
<td>CL: same as 8-9.5' but with mixed fine gravel and fine sand</td>
<td>Clay</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** Dry, PID Readings: 0-2' = 0.2, 2-4' = N/A, 4-6' = 0.3, 6-8' = 0.1, 8-10' = 0.1, no samples taken
## SOIL BORING LOG

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE STARTED:** 11/3/2021

**INSPECTOR:** Vitaliy Morozov  
**JOB #:** 1690023695  
**DATE COMPLETED:** 11/3/2021

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A

**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A

**RIG TYPE:** Diedrich D-50 Turbo, Truck Mount  
**SAMPLER TYPE:** N/A  
**ELEVATION:** N/A

**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>19.5&quot;</td>
<td>7 / 5 / 6 / 5</td>
<td>11</td>
<td>SM: Silty sand with 15% gravel, fine to coarse, dry, loose. Fill/topsoil with grass and roots. Tan to gray brown.</td>
<td>Fill/Topsoil</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>2</td>
<td>10&quot;</td>
<td>WOH / WOH / 4 / 4</td>
<td>N/A</td>
<td>CL: Clay with fine sand and trace gravel, dry, non-plastic, soft. Brown with orange brown and light gray mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>24'</td>
<td>6 / 5 / 4 / 4</td>
<td>9</td>
<td></td>
<td>CL: Clay, dry to moist, non-plastic to low plasticity, soft to firm. Brown with orange brown and light gray mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6.5</td>
<td>24'</td>
<td>4 / 3 / 5 / 7</td>
<td>8</td>
<td></td>
<td>CL: Clay with 5% fine to coarse sand, dry to moist, low plasticity, soft. Brown with light brown and orange brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9.5</td>
<td>24'</td>
<td>2 / 50 / 4&quot;</td>
<td>N/A</td>
<td></td>
<td>CL: Clay with trace fine to coarse sand and gravel, moist to wet, high plasticity, soft to firm. Brown with gray mottles and orange and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9.75</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SM: Silty sand with 20% gravel, well graded, fine to coarse, moist, loose. Crushed limestone, tan to gray.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** Water on rods at 6', borehole collapsed to 3.5', dry, no samples taken
## SOIL BORING LOG

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 11/1/2021  
**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 11/1/2021  
**JOB #:** 1690023695  
**BORING LOC.:** See Map  
**FINAL STATIC WL:** N/A  
**BORED ID:** B-06  
**INSPECTOR:** Vitaly Morozov

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** NA  
**FOREMAN:** Micah  
**HAMMER / FALL:** NA / N/A  
**RIG TYPE:** Diedrich D-50 Turbo, Truck Mount  
**EASTING:** NA  
**PURPOSE:** Geotechnical Boring  
**SAMPLER TYPE:** NA / N/A  
**RIG TYPE:** Geotechnical Boring  
**ELEVATION:** N/A  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A

### Sample Log

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.5</td>
<td>3</td>
<td>20&quot;</td>
<td>8 / 4 / 15 / 16</td>
<td>19</td>
<td>SM: Silty sand with 15% gravel, well graded, fine to coarse, dry, loose. Brown in color.</td>
<td>Fill</td>
<td>NA / NA / NA / NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SM: Silty sand with 15% gravel, well graded, fine to coarse, moist, loose. Black cinders and gray white crushed concrete.</td>
<td>Fill / Concrete</td>
<td>NA</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
<td>14.5&quot;</td>
<td>8 / 2 / 1 / 3</td>
<td>3</td>
<td>CL: Sandy clay with trace gravel, dry, non-plastic, soft. Brown in color.</td>
<td>Clay</td>
<td>NA / NA / NA / NA</td>
</tr>
<tr>
<td>3</td>
<td>3.5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>CL: Sandy clay with trace gravel, moist, medium plasticity, soft. Brown gray in color.</td>
<td>Clay</td>
<td>NA / NA / NA / NA</td>
</tr>
<tr>
<td>4</td>
<td>4.5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>SW: Sand with 5% gravel, well graded, fine to coarse, dry to moist, loose. Cinders, black in color.</td>
<td>Sand</td>
<td>NA / NA / NA / NA</td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>5.75</td>
<td></td>
<td></td>
<td></td>
<td>CL: Silty clay with 10% gravel, dry to moist, medium plasticity, soft. Brown in color.</td>
<td>Clay</td>
<td>NA / NA / NA / NA</td>
</tr>
<tr>
<td>6</td>
<td>5.25</td>
<td>5.75</td>
<td>24&quot;</td>
<td>2 / 3 / 2 / 3</td>
<td>5</td>
<td>SM: Fine sand with some clay/silt, poorly graded, moist, loose. Light yellow brown in color.</td>
<td>Sand</td>
<td>NA / NA / NA / NA</td>
</tr>
<tr>
<td>7</td>
<td>7.5</td>
<td>9</td>
<td>NA</td>
<td>1 / 1 / 1 / 1</td>
<td>2</td>
<td>CL: Silty clay with 15% gravel, dry to moist, medium plasticity, soft. Brown with light yellow brown mottles.</td>
<td>Clay</td>
<td>NA / NA / NA / NA</td>
</tr>
<tr>
<td>8</td>
<td>7.5</td>
<td>9</td>
<td>NA</td>
<td>WOH / WOH / WOH / 4</td>
<td>NA</td>
<td>OH: Clay, dry to moist, medium to high plasticity, soft. Brown red with gray brown mottles and black nodules.</td>
<td>Clay</td>
<td>NA / NA / NA / NA</td>
</tr>
</tbody>
</table>

### NOTES:

PID = 0.0-0.1 ppm, borehole collapsed to 2.0' bgs, dry, no samples taken.
## SOIL BORING LOG

**BORING ID:** B-08  
**INSPECTOR:** Vitaliy Morozov

### General Information

<table>
<thead>
<tr>
<th>PROJECT:</th>
<th>Supplemental Investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SITE NAME:</td>
<td>Catalent Bloomington</td>
</tr>
<tr>
<td>CLIENT:</td>
<td>Catalent Pharma Solutions</td>
</tr>
<tr>
<td>SITE LOC.:</td>
<td>1600 S Rogers St., Bloomington, IN</td>
</tr>
<tr>
<td>DATE STARTED:</td>
<td>10/25/2021</td>
</tr>
<tr>
<td>DATE COMPLETED:</td>
<td>10/25/2021</td>
</tr>
<tr>
<td>JOB #:</td>
<td>1690023695</td>
</tr>
<tr>
<td>BORING LOC.:</td>
<td>See Map</td>
</tr>
<tr>
<td>FINAL STATIC WL:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Drilling Details

| DRILLING CONT.:        | Geotill                    |
| DRILLING METHOD:       | Split Spoon                |
| NORTING:               | N/A                        |
| FOREMAN:               | Micah                      |
| HAMMER / FALL:         | NA / NA                    |
| EASTING:               | N/A                        |
| RIG TYPE:              | Diedrich D-50Turbo, Truck Mount |
| SAMPLER TYPE:          | N/A                        |
| ELEVATION:             | N/A                        |
| PURPOSE:               | Geotechnical Boring        |
| SAMPLER DIAMETER:      | N/A                        |
| DATUM:                 | N/A                        |

### Sample Data

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>9.5</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Concrete</td>
<td>Concrete</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** Concrete to 9.5', dry, no samples taken
**SOIL BORING LOG**

**BORING ID:** B-09  
**INPECTOR:** Vitaliy Morozov

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 11/3/2021

**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St. Bloomington, IN  
**DATE COMPLETED:** 11/3/2021

**JOB #:** 1690023695  
**BORING LOC.:** See Map  
**FINAL STATIC WL:** N/A

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A

**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A

**RIG TYPE:** Diedrich D-50Turbo, Truck Mount  
**SAMPLER TYPE:** N/A  
**ELEVATION:** N/A

**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>9.5&quot;</td>
<td>4 / 4 / 3 / 4</td>
<td>7</td>
<td></td>
<td>SM: Silty sand with 10% gravel, well graded, fine to coarse, dry to moist, loose. Brown gray to tan in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3.5</td>
<td>24&quot;</td>
<td>2 / 3 / 4 / 5</td>
<td>7</td>
<td></td>
<td>CL: Clay with 5% fine to coarse sand, dry to moist, medium to high plasticity, soft to firm. Light brown with black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Silty clay, moist to wet, low plasticity, soft. Light yellow brown with dark green mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5.5</td>
<td>24&quot;</td>
<td>2 / 2 / 1 / 3</td>
<td>3</td>
<td></td>
<td>CM: Clay, dry to moist, high plasticity, firm to stiff. Light brown with light yellow and light gray mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5.75</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Clay, moist to wet, low to medium plasticity, soft. Brown gray with light brown mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>6-8</td>
<td>24&quot;</td>
<td>3 / 3 / 4 / 5</td>
<td></td>
<td>7</td>
<td></td>
<td>CM: Clay, dry to wet, high plasticity, soft. Light brown with light gray mottles and black nodules. 5-10% silt at 6.5' and 7.5' with lower plasticity.</td>
<td>Clay</td>
<td>1600</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>24&quot;</td>
<td>WOH / 4 / 50/2&quot;</td>
<td>N/A</td>
<td></td>
<td>CM: Clay, dry to moist, high plasticity, soft. Light brown with light gray mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9.75</td>
<td>24&quot;</td>
<td>WOH / 4 / 50/2&quot;</td>
<td>N/A</td>
<td></td>
<td>CM: same as 8-9’ but with light brown gray and light brown mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9.75</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Sandy clay, with trace gravel, moist to wet, low to medium plasticity, very soft. Light gray brown with orange brown mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>10-12</td>
<td>10.5</td>
<td>9&quot;</td>
<td>50/4&quot;</td>
<td>N/A</td>
<td></td>
<td>GM: Sandy gravel, poorly graded, fine to coarse, dry, loose. Weathered white limestone.</td>
<td>Weathered limestone</td>
<td>1622</td>
</tr>
<tr>
<td>10.5</td>
<td>10.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** No water in temporary well installed to 10.75' bgs, cave in depth 10', dry, refusal at 10.75'

**PID readings:** 0-2' = 0.3, 2.4' = 0.2, 4-6' = 0.2, 6.8' = 0.2, 8-10' = 0.3, 10-10.75' = 1.3

PAGE: 1 of 1
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td></td>
<td>13.5&quot;</td>
<td>2 / 8 / 6 / 3</td>
<td>14</td>
<td></td>
<td>SM: Silty sand with 15% gravel, well graded, fine to coarse, dry, loose. Light gray to gray white fill.</td>
<td>Fill</td>
<td>11-35</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>24&quot;</td>
<td>5 / 3 / 4 / 5</td>
<td>7</td>
<td></td>
<td>CL: Clay, dry to moist, medium to high plasticity, soft. Brown with black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>24&quot;</td>
<td>3 / 4 / 5 / 7</td>
<td>9</td>
<td></td>
<td>CL: Clay with 15% gravel and 5% fine to coarse sand, dry to moist, medium to high plasticity, firm to stiff. Light brown with orange brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>24&quot;</td>
<td>3 / 3 / 50/1&quot;</td>
<td>6</td>
<td></td>
<td>CL: Clay with 20% gravel and 5% fine to coarse sand, moist, high plasticity, soft. Light brown with orange brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>12.5&quot;</td>
<td>50/5&quot;</td>
<td>N/A</td>
<td></td>
<td>SM: Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Light gray to gray tan weathered limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
<tr>
<td>9.75</td>
<td></td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

Water on rod at 8', collapsed to 4' bgs, dry

PID Readings: 1-3' = 0.5, 3-5' = 0.1, 5-7' = 0.1, 7-9' = 0.2, 9-11' = 0.3
### Soil Boring Log

**Project:** Supplemental Investigation  
**Job #:** 1690023695  
**Client:** Catalent Pharma Solutions  
**Site Loc.:** 1600 S Rogers St., Bloomington, IN  
**Date Started:** 10/27/2021  
**Date Completed:** 10/27/2021  
**Boring ID:** B-11  
**Inspector:** Vitaly Morozov

**Drilling Contact:** Geotill  
**Drilling Method:** Split Spoon  
**NORTHING:** N/A  
**EASTING:** N/A  
**Rig Type:** Diedrich D-50 Turbo, Truck Mount  
**Sampler Type:** N/A  
**Purpose:** Geotechnical Boring  
**Sample Diameter:** N/A  
**Datum:** N/A

#### Sample Log

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>Material Description</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>3</td>
<td>11&quot;</td>
<td>18 / 15 / 16 / 7</td>
<td>31</td>
<td>SM: Silty sand with 15% gravel, well graded, fine to coarse, dry, loose fill. Tan to brown white in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>6</td>
<td>4&quot; / 6 / 10</td>
<td>4 / 8 / 6 / 10</td>
<td>14</td>
<td>GW: Sandy gravel with 10% fines, fine to medium, dry, loose. Light brown in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>0</td>
<td>0&quot;</td>
<td>5 / 6 / 7 / 4</td>
<td>13</td>
<td>No Recovery. Rock in shoe.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7.75</td>
<td>19.5</td>
<td>5 / 4 / 2 / 2</td>
<td>4 / 8 / 6 / 10</td>
<td>6</td>
<td>ML: Clayey silt with 10% poorly graded fine sand and few gravel, moist, non-plastic, soft. Light brown in color.</td>
<td>Silt/Clay</td>
<td></td>
</tr>
<tr>
<td>8.5</td>
<td>9</td>
<td>24&quot;</td>
<td>WOH / 13 / 2 / 1</td>
<td>15</td>
<td></td>
<td>CH: Clay with trace gravel, dry to moist, medium to high plasticity, soft. Brown red with light brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** PID= 0.0-0.2 ppm, borehole collapsed to 7.6' bgs, dry, no samples taken
VITALY MOROZOV

Supplemental Investigation

SITE NAME: Catalent Bloomington
DATE STARTED: 10/27/2021

CLIENT: Catalent Pharma Solutions
SITE LOC.: 1600 S Rogers St., Bloomington, IN
DATE COMPLETED: 10/27/2021

JOB #: 1690023695
BORING LOC.: See Map

DRILLING CONT.: Geotill
DRILLING METHOD: Split Spoon
NORTHING: N/A

FOREMAN: Micah
HAMMER / FALL: NA / NA
EASTING: N/A

RIG TYPE: Diedrich D-50 Turbo, Truck Mount
SAMPLER TYPE: N/A
ELEVATION: N/A

PURPOSE: Geotechnical Boring
SAMPLER DIAMETER: N/A
DATUM: N/A

NOTES: PID= 0.0-0.3 ppm, borehole collapsed to 3.0’ bgs, dry, no samples taken

---

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Blows/6&quot;</th>
<th>Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.5</td>
<td>16.5’</td>
<td>10 / 23 / 24 / 13</td>
<td>47</td>
<td>GM: Silty sand with 15% gravel, fine to coarse, dry to moist, loose. Brown Fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>2</td>
<td>16.5’</td>
<td>2 / 2 / 3 / 4</td>
<td>5</td>
<td>GM: Silty sand with 20% gravel, fine to coarse, dry, loose. Tan fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>7’</td>
<td>9 / 9 / 6 / 5</td>
<td>15</td>
<td>ML: Sandy silt with 5% clay and trace gravel, dry, non-plastic, loose. Very pale brown in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>7’</td>
<td>9 / 9 / 6 / 5</td>
<td>15</td>
<td>ML: Sandy silt with 5% clay and trace gravel, dry, non-plastic, loose. Very pale brown in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5.2</td>
<td>22’</td>
<td>2 / 2 / 3 / 4</td>
<td>5</td>
<td>GM: Silty sand with 10% gravel, fine to coarse, dry, loose. Gray brown fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>7</td>
<td>22’</td>
<td>2 / 2 / 3 / 4</td>
<td>5</td>
<td>GM: Silty sand with 10% gravel, fine to coarse, dry, loose. Gray brown fill.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8.5</td>
<td>24’</td>
<td>WOH / 3 / 3 / 5</td>
<td>6</td>
<td>CH: Clay with trace gravel and 1” sand seam @ 7.75’, dry to moist, medium to high plasticity, soft. Brown red with brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8.5</td>
<td>9</td>
<td>24’</td>
<td>WOH / 3 / 3 / 5</td>
<td>6</td>
<td>CH: Clay with trace gravel and 1” sand seam @ 7.75’, dry to moist, medium to high plasticity, soft. Brown red with brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9.5</td>
<td>24’</td>
<td>WOH / 3</td>
<td>N/A</td>
<td>CL: Clayey silt, moist to wet, non-plastic, slightly cohesive, soft. Light brown in color with 1” dark brown unit at 8.5’.</td>
<td>Silt</td>
<td></td>
</tr>
<tr>
<td>9.5</td>
<td>10</td>
<td>24’</td>
<td>WOH / 3</td>
<td>N/A</td>
<td>CL: Clayey silt, moist to wet, non-plastic, slightly cohesive, soft. Light brown in color with 1” dark brown unit at 8.5’.</td>
<td>Silt</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>24’</td>
<td>WOH / 3</td>
<td>N/A</td>
<td>CH: Clay, dry to moist, high plasticity, soft. Brown red with brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>24’</td>
<td>WOH / 3</td>
<td>N/A</td>
<td>CH: Clay, dry to moist, high plasticity, soft. Brown red with brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

NOTES: PID= 0.0-0.3 ppm, borehole collapsed to 3.0’ bgs, dry, no samples taken

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PAGE: 1 of 1
# Soil Boring Log

**Project:** Supplemental Investigation  
**Client:** Catalent Pharma Solutions  
**Site Location:** 1600 S Rogers St., Bloomington, IN  
**Job #:** 1690023695  
**Boring ID:** B-14  
**Inspection:** Vitaliy Morozov  
**Date Started:** 11/2/2021  
**Date Completed:** 11/2/2021  
**Final Static WL:** N/A

**Drilling Contact:** Geotill  
**Drilling Method:** Split Spoon  
**North: N/A**  
**Easting: N/A**  
**Datum: N/A**

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>Drift</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>0</td>
<td>2</td>
<td>21.5&quot;</td>
<td>18 / 35 / 33 / 11</td>
<td>68</td>
<td>SM: Silty sand with 15% gravel, well graded, fine to coarse, dry to moist, loose fill. Light gray to light brown in color.</td>
<td>Fill 1510</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>4</td>
<td>18.5&quot;</td>
<td>3 / 3 / 4 / 6</td>
<td>7</td>
<td>CH: Clay with trace gravel, dry to moist, high plasticity, soft. Brown with brown gray mottles.</td>
<td>Clay</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>5</td>
<td>24&quot;</td>
<td>2 / 2 / 2 / 3</td>
<td>4</td>
<td>CH: Clay with 10% gravel, dry to moist, high plasticity, firm. Brown with light gray mottles. Well graded fine to coarse brown sand seam @4.25'.</td>
<td>Clay</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>8</td>
<td>24&quot;</td>
<td>3 / 2 / 2 / 3</td>
<td>4</td>
<td>CH: Clay with trace gravel, moist, medium to high plasticity, soft. Brown in color</td>
<td>Clay</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>8</td>
<td>24&quot;</td>
<td>WOH / WOH / 6 / 13</td>
<td>N/A</td>
<td>CH: Clay, dry to moist, high plasticity, soft to firm. Light brown in color.</td>
<td>Clay</td>
</tr>
<tr>
<td>8</td>
<td>8.5</td>
<td>9.5</td>
<td>9.5</td>
<td>N/A</td>
<td>N/A</td>
<td>CH: Clay, dry to moist, high plasticity, soft to firm. Light brown in color.</td>
<td>Clay</td>
</tr>
<tr>
<td>9.5</td>
<td>10</td>
<td>10</td>
<td>9.5</td>
<td>N/A</td>
<td>N/A</td>
<td>GM: Sandy gravel, fine to coarse, wet to saturated, loose. Weathered light brown to tan limestone.</td>
<td>Weathered limestone</td>
</tr>
</tbody>
</table>

**Notes:** Collapsed depth of 7' bgs, dry.  
**PID Readings:** 0-2' = 0.6, 2-4' = 0.4, 4-6' = 0.3, 6-8' = 0.2, 8-10' = 0.2
### Soil Boring Log

**Boring ID:** B-15  
**Inspector:** Vitaliy Morozov  
**Project:** Supplemental Investigation  
**Client:** Catalent Pharma Solutions  
**Job #:** 1690023695  
**Site:*** Catalent Bloomington  
**Date Started:** 11/2/2021  
**Date Completed:** 11/2/2021  
**Site Loc.:*** 1600 S Rogers St., Bloomington, IN

**Drilling Method:** Split Spoon  
**Hammer/Fall:** NA / NA  
**Rig Type:** Diedrich D-50 Turbo, Truck Mount  
**Sampler Type:** Geotill  
**Purpose:** Geotechnical Boring  
**Sample Diameter:** N/A

#### notes:

- Water on rod @ 6', collapsed borehole depth = 5' bgs, dry
- PID Reading: 1-3' = 0.5, 3-5' = 0.2, 5-7' = 0.2, 7-9' = 0.3, 9-11' = 0.2

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>Depth (ft.)</th>
<th>Permeability / Recovery</th>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td>1</td>
<td>15.5&quot;</td>
<td>13 / 36 / 24 / 14</td>
<td>60</td>
<td>SM: Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Tan to gray white fill.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>24&quot;</td>
<td>3 / 3 / 3 / 5</td>
<td>6</td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft to firm. Brown with light gray brown mottles. Dry, non-plastic, loose silt pocket @ 3.5'.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>24&quot;</td>
<td>2 / 1 / 1 / 3</td>
<td>2</td>
<td>CH: Clay with trace gravel, dry to moist, medium to high plasticity, soft to firm. Light brown with brown gray mottles and black nodules.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>24&quot;</td>
<td>2 / 1 / 1 / 3</td>
<td>2</td>
<td>CL: Clay with 10% fine sand, moist to wet, low plasticity, very soft. Gray brown in color.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>24&quot;</td>
<td>WOH / WOH / 5 / 45</td>
<td>N/A</td>
<td>CL: Clay with 5% fine sand and 5% gravel, moist to wet, low plasticity, very soft to soft. Brown with brown gray mottles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.75</td>
<td>24&quot;</td>
<td>WOH / WOH / 5 / 45</td>
<td>N/A</td>
<td>SM: Silty sand, fine to coarse, wet, loose. Tan to light gray.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.25</td>
<td>24&quot;</td>
<td>15 / 8 / 6 / 9</td>
<td>14</td>
<td>SW: Gravely sand with 15% gravel and 5% clay, fine to coarse, wet to saturated, loose. Light gray in color.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9.5</td>
<td>24&quot;</td>
<td>15 / 8 / 6 / 9</td>
<td>14</td>
<td>CL: Clay, dry to moist, high plasticity, firm.</td>
<td></td>
</tr>
</tbody>
</table>

**Field Testing**

- **Time**
  - 1650

**Elevation:** N/A  
**NORTHING:** N/A  
**EASTING:** N/A  
**Datum:** N/A

---

**Soil Boring Logs - Catalent - 1600 S. Rogers St.xlsx**
# SOIL BORING LOG

**BORING ID:** B-16  
**INSPECTOR:** Vitaly Morozov

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 10/29/2021

**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 10/29/2021

<table>
<thead>
<tr>
<th>JOB #: 1690023695</th>
<th>BORING LOC.: See Map</th>
<th>FINAL STATIC WL: N/A</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>DRILLING CONT.: Geotill</th>
<th>DRILLING METHOD: Split Spoon</th>
<th>NORTHING: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREMAN: Micah</td>
<td>HAMMER / FALL: NA / NA</td>
<td>EASTING: N/A</td>
</tr>
<tr>
<td>RIG TYPE: Diedrich D-50Turbo, Truck Mount</td>
<td>SAMPLER TYPE: N/A</td>
<td>ELEVATION: N/A</td>
</tr>
<tr>
<td>PURPOSE: Geotechnical Boring</td>
<td>SAMPLER DIAMETER: N/A</td>
<td>DATUM: N/A</td>
</tr>
</tbody>
</table>

## Sample Table

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>11&quot;</td>
<td>20 / 6 / 7 / 6</td>
<td>4</td>
<td>13</td>
<td>SM: Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Tan to gray white fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>24&quot;</td>
<td>3 / 1 / 3 / 4</td>
<td>4</td>
<td>5</td>
<td>CH: Clay, dry to moist, medium plasticity, soft. Gray brown</td>
<td>Clay</td>
<td>Time</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>11&quot;</td>
<td>3 / 2 / 3 / 3</td>
<td>5</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft to firm. Dark brown with brown gray mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>11&quot;</td>
<td>3 / 2 / 3 / 3</td>
<td>5</td>
<td></td>
<td>Collapsed material from above intervals, mixture of fill and clay material from 1-5'.</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9.5&quot;</td>
<td>2 / 3 / 3 / 8</td>
<td>6</td>
<td></td>
<td>CH: Clay, dry to moist, high plasticity, soft. Brown with brown gray mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>24&quot;</td>
<td>7 / 3 / 50/4&quot;</td>
<td>N/A</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft. Brown with orange brown mottles and black nodules. At 10' there is 1&quot; seam: SC: Clayey sand with 15% gravel, fine to coarse, wet to saturated, soft. Light brown in color.</td>
<td>Clay/Sand</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Clay with 5% sand, moist to high plasticity, soft. Brown with orange brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
</tbody>
</table>

## Notes

PID readings 0.0-2.0ppm, collapsed borehole depth = 2'8", dry, no samples taken

---

**Page:** 1 of 1
**SOIL BORING LOG**

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 10/27/2021

**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 10/27/2021

**JOB #:** 1690023695  
**BORING LOC.:** See Map

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A

**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A

**RIG TYPE:** Diedrich D-50 Turbo, Truck Mount  
**SAMPLER TYPE:** N/A  
**ELEVATION:** N/A

**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A

### Material Description

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>13&quot;</td>
<td>13 / 8 / 5 / 6</td>
<td>13</td>
<td>SM: Silty sand with 15% gravel and 5% clay, well graded, fine to coarse, dry, loose fill. Brown gray in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>6.5&quot;</td>
<td>11 / 5 / 3 / 4</td>
<td>8</td>
<td>SM: Silty sand with 20% gravel, well graded, fine to coarse, dry, loose fill. Gray in color. Possible water on rod at 5’ bgs.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>5.5&quot;</td>
<td>3 / 1 / 4 / 3</td>
<td>5</td>
<td>SM: Silty sand with 20% gravel, well graded, fine to coarse, dry to moist, loose. Gray in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>19&quot;</td>
<td>2 / 2 / 4 / 3</td>
<td>6</td>
<td>CH: Clay, dry to moist, high plasticity, soft. Brown red with light brown mottles and few black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>WOH / 2 / 1 / 2</td>
<td></td>
<td>3</td>
<td>CH: Clay with 5% gravel, dry to moist, medium to high plasticity, soft. Brown red with red and light brown mottles. At 9.5' 1&quot; seam: GC Gravely sand with 10% clay, well graded, moist, loose. Light gray in color.</td>
<td>Clay/Sand</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:

- PID= 0.0-0.1 ppm, borehole collapsed to 5.5’ bgs, dry, no samples taken, apparent void in borehole at 2-4’
### Geotechnical Boring Log

**Sample No.** | **Sample Start Depth (ft.)** | **Sample End Depth (ft.)** | **Penetration / Recovery** | **Blows/6"** | **N* Value** | **MATERIAL DESCRIPTION** | **General Stratum Description** | **Field Testing** |
--- | --- | --- | --- | --- | --- | --- | --- | --- |
1 | 3 | 5.5" | 3 / 3 / 3 / 3 | 6 | GM: Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Light gray fill. | Fill |
3 | 5 | 6" | 4 / 50 / 5" | N/A | GM: Silty sand with 10% gravel, well graded, fine to coarse, dry, loose. Tan fill. | Fill |
5 | 6 | 16" | 12 / 8 / 4 / 4 | 12 | GM: Gravely sand with 15% fines, well graded, fine to coarse, dry, loose. Brown tan crushed concrete fill. | Fill |
6 | 7 | 19" | 10 / 4 / 4 / 6 | 8 | CH: Clay, dry to moist, medium to high plasticity, soft. Orange brown with light brown and black mottles. | Clay |
7 | 9 | 22" | 6 / 3 / 5 / 7 | 8 | CH: Clay, dry to moist, medium to high plasticity, soft. Red brown with light brown mottles and black nodules. | Clay |

**NOTES:** PID readings 0.0-0.1ppm, collapsed depth of borehole = 4', dry, no samples taken
### SOIL BORING LOG

**BORING ID:** B-19  
**INSPECTOR:** Vitaliy Morozov  
**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 10/27/2021  
**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 10/27/2021  
**JOB #:** 1690023695  
**BORING LOC.:** See Map  
**FINAL STATIC WL:** N/A  

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A  
**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A  
**RIG TYPE:** Diedrich D-50 Turbo, Truck Mount  
**SAMPLER TYPE:** N/A  
**ELEVATION:** N/A  
**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A  

### MATERIAL DESCRIPTION

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>17&quot;</td>
<td>38 / 50 / 5&quot;</td>
<td>N/A</td>
<td>N/A</td>
<td>SM: Silty sand with 5% gravel, well graded, fine to coarse, dry, loose. Tan to light brown to light gray fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>22&quot;</td>
<td>6 / 6 / 8 / 9</td>
<td>14</td>
<td>N/A</td>
<td>CH: Clay, dry to moist, low to medium plasticity, firm to stiff. Brown red with light brown mottles and black nodules.</td>
<td>Clay</td>
</tr>
<tr>
<td>4</td>
<td>4.5</td>
<td>24&quot;</td>
<td>6 / 4 / 5 / 5</td>
<td>9</td>
<td>N/A</td>
<td>MH: Sandy silt with trace gravel and 5% clay, dry, non-plastic, loose. Light brown in color</td>
<td>Silt</td>
</tr>
<tr>
<td>4.5</td>
<td>5.5</td>
<td>24&quot;</td>
<td>6 / 4 / 5 / 5</td>
<td>9</td>
<td>N/A</td>
<td>CH: Clay, dry to moist, medium plasticity, firm. Orange brown, mottled dark brown and tan with black nodules.</td>
<td>Clay</td>
</tr>
<tr>
<td>5.5</td>
<td>5.75</td>
<td>6</td>
<td>1600 S Rogers St., Bloomington</td>
<td>10/27/2021</td>
<td>1690023695</td>
<td>SM: Silty sand with 5% gravel, well graded, fine to coarse, dry, loose. Tan to light brown to light gray fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>5.75</td>
<td>6</td>
<td>24&quot;</td>
<td>6 / 3 / 5 / 6</td>
<td>8</td>
<td>N/A</td>
<td>CH: Clay with trace gravel, dry to moist, medium plasticity, firm. Orange brown with red and light brown mottles and black nodules.</td>
<td>Clay</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>16.5&quot;</td>
<td>3 / 2 / 3 / 4</td>
<td>5</td>
<td>N/A</td>
<td>CH: Clay with trace gravel, dry to moist, medium to high plasticity, soft. Brown with black nodules.</td>
<td>Clay</td>
</tr>
</tbody>
</table>

**NOTES:** PID readings: 0.0-0.1 ppm, collapsed depth = 6', dry, no samples taken
### General Stratum Description
- **GW**: Sandy gravel, well graded, medium, dry to moist, loose. Light gray weathered limestone.
- **OH**: Clay, dry to moist, high plasticity, soft to firm. Dark brown and organic with black material/discoloration at 4'.
- **GW**: Sandy gravel, well graded, fine to coarse, dry, loose. Tan to light gray to light brown fill.
- **CH**: Clay, dry to moist, medium to high plasticity, firm. Brown red with black and light brown mottles.
- **GW**: Sandy gravel, well graded, fine to coarse, dry to moist, loose. Light brown weathered limestone.
- **SW**: Gravely sand, well graded, fine to coarse, dry to moist, loose. Light brown weathered limestone.
- **CH**: Clay, dry to moist, medium to high plasticity, firm. Brown red with black mottles.
- **GW**: Sandy gravel, well graded, medium, dry to moist, loose. Light gray to tan weathered limestone.
- **SW**: Gravely sand, well graded, fine to coarse, dry, loose. Tan to light gray to light brown fill.
- **GW**: Sandy gravel, well graded, fine to coarse, dry to moist, loose. Light gray weathered limestone.

### Field Testing Time
- **0.0 ppm**

### Notes
- Dry, no samples taken

### Sample Log
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>'N' Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.5</td>
<td>19&quot;</td>
<td>50 / 14 / 6 / 8</td>
<td>20</td>
<td>N/A</td>
<td>SW: Gravely sand, well graded, fine to coarse, dry, loose. Tan to light gray to light brown fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>1.5</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SW: Gravely sand, well graded, fine to coarse, dry to moist, loose. Brown gray fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>2.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OH: Clay, dry to moist, low to medium plasticity, soft to firm. Dark brown with black discoloration at 3'. PID reading at 3' = 0.0 ppm</td>
<td>Clay</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>19&quot;</td>
<td>4 / 5 / 5 / 5</td>
<td>10</td>
<td>N/A</td>
<td>OH: Clay, dry to moist, high plasticity, soft to firm. Dark brown and organic with black material/discoloration at 4'.</td>
<td>Clay</td>
</tr>
<tr>
<td>5</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OH: Clay with 10% sand, dry to moist, medium to high plasticity, firm. Dark brown in color.</td>
<td>Clay</td>
</tr>
<tr>
<td>5.5</td>
<td>6.5</td>
<td>18&quot;</td>
<td>3 / 50/5&quot;</td>
<td>N/A</td>
<td></td>
<td>OH: Clay, dry to moist, medium to high plasticity, firm. Brown red with black and light brown mottles.</td>
<td>Clay</td>
</tr>
<tr>
<td>6.5</td>
<td>6.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SW: Gravely sand, well graded, fine to coarse, saturated, loose. Light brown weathered limestone.</td>
<td>Weathered limestone</td>
</tr>
<tr>
<td>6.75</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GW: Sandy gravel, well graded, medium, dry to moist, loose. Light gray to tan weathered limestone.</td>
<td>Weathered limestone</td>
</tr>
<tr>
<td>7</td>
<td>8.75</td>
<td>16&quot;</td>
<td>50/4&quot;</td>
<td>N/A</td>
<td></td>
<td>OH: Clay, dry to moist, medium to high plasticity, firm. Brown red with black mottles.</td>
<td>Clay</td>
</tr>
<tr>
<td>8.75</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GW: Sandy gravel, well graded, medium, dry, loose. Light gray to tan weathered limestone.</td>
<td>Weathered limestone</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>16&quot;</td>
<td>50 / 50/3&quot;</td>
<td>N/A</td>
<td></td>
<td>GW: Sandy gravel, well graded, medium, dry, loose. White to light gray weathered limestone.</td>
<td>Weathered limestone</td>
</tr>
</tbody>
</table>

### Site Information
- **Project:** Supplemental Investigation
- **Client:** Catalent Pharma Solutions
- **Job #:** 1690023695
- **Boring LOC.:** See Map
- **Date Started:** 10/26/2021
- **Date Completed:** 10/26/2021
- **Final Static WL:** N/A
## SOIL BORING LOG

**Boring ID:** B-21  
**Inspector:** Vitaly Morozov  

### General Information
- **Project:** Supplemental Investigations  
- **Client:** Catalent Pharma Solutions  
- **Job #:** 1690023695  
- **Location:** 1600 S Rogers St., Bloomington, IN  
- **Date Started:** 10/28/2021  
- **Date Completed:** 10/28/2021  
- **Site Name:** Catalent Bloomington  

### Drill Details
- **Drilling Method:** Split Spoon  
- **Rig Type:** Diedrich D-50 Turbo, Truck Mount  
- **Sampler Type:** Geotill  
- **Sample Diameter:** N/A  

### Field Testing
- **General Stratum Description:**  
- **Blows/6"**  
- **N' Value**  

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>7.5</td>
<td>5 / 7 / 8 / 9</td>
<td>15</td>
<td>GM</td>
<td>Silty sand with 20% gravel and lenses of silty clay, well graded, fine to coarse, dry, loose. Tan to light gray fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.25</td>
<td>14</td>
<td>5 / 1 / 2 / 2</td>
<td>3</td>
<td>CL</td>
<td>Silty clay with 15% fine to coarse sand, dry, low plasticity, soft. Dark brown gray in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3.25</td>
<td>3.75</td>
<td>11.5</td>
<td>WOH / WOH / 2 / 2</td>
<td>N/A</td>
<td>SM</td>
<td>Silty sand with trace gravel, fine to coarse, dry, loose. Tan fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3.75</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>CH</td>
<td>Clay, dry to moist, high plasticity, soft. 3.75-4.5': orange brown with light brown mottles. 4.5-5': gray brown with light brown and orange brown mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>11</td>
<td>WOH / WOH / 2 / 2</td>
<td>N/A</td>
<td>CH</td>
<td>Clay, moist to wet, high plasticity, soft. Pale orange brown with light brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7.5</td>
<td>24</td>
<td>4 / 50 / 4</td>
<td>N/A</td>
<td>CH</td>
<td>Clay with 5% fine to medium sand, dry to moist, high plasticity, soft. Light brown in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7.5</td>
<td>8</td>
<td>24</td>
<td>4 / 50 / 4</td>
<td>N/A</td>
<td>CL</td>
<td>Silty clay with 10% fine to medium sand, wet to saturated, very soft. Light brown in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>50 / 2</td>
<td></td>
<td>N/A</td>
<td>CH</td>
<td>Clay with trace gravel and 15% fine to coarse sand, medium to high plasticity, firm. Brown with light gray mottles and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- **PDI Readings = 0.0-0.1ppm, collapsed depth = 8.5', DTW = 4.0' bgs, no samples taken**

---

\mwindfps\Shared\Active Projects\C\Catalent Pharma Solutions\1600 Rogers St. Bloomington\Soil Boring Logs - Catalent - 1600 S. Rogers St.xlsx
### Soil Boring Log

#### General Information
- **Project:** Supplemental Investigation
- **Client:** Catalent Pharma Solutions
- **Job #:** 1690023695
- **Site Name:** Catalent Bloomington
- **Site Loc.:** 1600 S Rogers St., Bloomington, IN
- **Date Started:** 10/29/2021
- **Date Completed:** 10/29/2021
- **Final Static Wl.:** 4.0' bgs

#### Boring Details
- **Boring ID:** B-22
- **Inspector:** Vitaliy Morozov
- **Drilling Cont.:** Geotill
- **Drilling Method:** Split Spoon
- **Hammer / Fall:** NA / NA
- **Rig Type:** Diedrich D-50Turbo, Truck Mount
- **Sampler Type:** N/A
- **Purpose:** Geotechnical Boring
- **Sample No.**

#### Sample Data

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>15&quot;</td>
<td>22 / 25 / 18 / 18</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3.5&quot;</td>
<td>6 / 6 / 6 / 3</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>13&quot;</td>
<td>WOH</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>19.5&quot;</td>
<td>WOH</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10.25</td>
<td>20.5&quot;</td>
<td>3 / 8 / 27 / 21</td>
<td>35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.25</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Material Description
- **GW:** Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Gray white, tan, and white fill. Crushed concrete from 1-1.25".
- **ML:** Sandy silt with 5% gravel, moist, non-plastic, loose. Light brown in color. Poor recovery.
- **CL:** Clay with 5% fine to medium sand, moist to wet, low to medium plasticity, soft. Brown gray in color.
- **CL:** Silty clay with 10% fine sand and trace gravel, wet to saturated, low plasticity, soft. Dark gray brown in color.
- **CL:** Silty clay with 10% fine to coarse sand and trace gravel, moist, medium to high plasticity, soft. Orange brown with dark brown mottles and black nodules.
- **GC:** Clayey sand with 20% gravel, well graded, fine to coarse, wet to saturated, loose. Tan to pale brown in color.

#### Notes
- PIP readings = 0.0 ppm, collapsed depth = 6", DTW = 4.0' bgs, no samples taken.
**SOIL BORING LOG**

**BORING ID:** B-23  
**INSPECTOR:** Vitaliy Morozov

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington  
**DATE STARTED:** 10/27/2021

**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 10/27/2021

**JOB #:** 1690023695  
**BORING LOC.:** See Map  
**FINAL STATIC WL:** 4" at bottom

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A

**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A

**RIG TYPE:** Diedrich D-50Turbo, Truck Mount  
**SAMPER TYPE:** N/A  
**ELEVATION:** N/A

**PURPOSE:** Geotechnical Boring  
**SAMPER DIAMETER:** N/A  
**DATUM:** N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>15&quot;</td>
<td>2 / 1 / 3 / 8</td>
<td>4</td>
<td>GM</td>
<td>Silty sand with 15% gravel, well graded, fine to coarse, moist, loose. Gray fill.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>22.5&quot;</td>
<td>7 / 21 / 43 / 45</td>
<td>64</td>
<td>GM</td>
<td>Gravel with 15% fines, well graded, fine to coarse, dry to moist. Light gray fill.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>48&quot;</td>
<td>7 / 12 / 14 / 12</td>
<td>26</td>
<td>GM</td>
<td>Silty sand with 15% gravel, well graded, fine to coarse, moist, loose. Light brown gray fill.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8.75</td>
<td>18.5&quot;</td>
<td>6 / 4 / 2 / 3</td>
<td>6</td>
<td>GM</td>
<td>Silty sand with 15% gravel, well graded, fine to coarse, moist, loose. Light brown gray fill.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.75</td>
<td>9</td>
<td>22&quot;</td>
<td>WOH</td>
<td>N/A</td>
<td>CL</td>
<td>Silty clay with 5% sand and 5% gravel, dry to moist, medium to high plasticity, soft. Dark brown in color.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9.25</td>
<td>22&quot;</td>
<td>WOH</td>
<td>N/A</td>
<td>CL</td>
<td>Sandy clay with 5% gravel, moist to wet, low plasticity, soft. Dark brown in color.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.25</td>
<td>10.5</td>
<td>22&quot;</td>
<td>WOH</td>
<td>N/A</td>
<td>CH</td>
<td>Clay, dry to moist, medium to high plasticity, soft. Orange brown in color.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** PID readings = 0.0-0.1ppm, collapsed depth = 5', 4" of standing water at depth, no samples taken
### Soil Boring Log

**Sample No.** | **Sample Start Depth (ft.)** | **Sample End Depth (ft.)** | **Penetration / Recovery** | **Blows/6"** | **"N" Value** | **MATERIAL DESCRIPTION** | **Field Testing** | **General Stratum Description** | **Time** |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
0 | 2 | 22.5" | 23 / 23 / 36 / 50 | 59 | GM: Silty sand with 15% gravel, well graded, fine to coarse, dry, loose. Light gray to tan to light brown fill. | Fill | | | |
2 | 4 | 18.5" | 10 / 40 / 22 / 29 | 62 | GC: Clayey sand with 10% gravel, well graded, fine to coarse, dry to moist, loose. 2-3': light gray brown, 3-4': dark black, brown, and gray with cinders and block fragments. | Fill | | | |
4 | 6 | 6" | 4 / 3 / 3 / 4 | 6 | ML: Sandy silt with 5% clay and 5% gravel, dry, non-plastic, loose. Light pale brown in color. | Silt | | | |
6 | 8 | 48" | 2 / 3 / 4 / 5 | 7 | CK: Clay, dry to moist, medium to high plasticity, soft to firm. Red brown with light brown mottles and black nodules. 1" seam of well graded sand, dry, loose, dark gray in color. | | | | |
8 | 10 | 48" | 4 / 5 / 6 / 10 | 11 | CK: Clay with trace gravel, dry to moist, medium to high plasticity, firm. Brown red with light gray mottles. | Clay | | | |

**NOTES:** PID Readings = 0.0-0.2 ppm, collapsed depth = 4' bgs, dry, no samples taken.
**SOIL BORING LOG**

**BORING ID:** B-25  
**INSPECTOR:** Vitaliy Morozov

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington

**CLIENT:** Catalent Pharma Solutions  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN

**JOB #:** 1690023695  
**BORING LOC.:** See Map

**DATE STARTED:** 10/26/2021  
**DATE COMPLETED:** 10/26/2021

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon

**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA

**RIG TYPE:** Diedrich D-50 Turbo, Truck Mount  
**ELEVATION:** N/A

**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>19&quot;</td>
<td>22 / 26 / 16 / 21</td>
<td>42</td>
<td>SW</td>
<td>Gravely sand, well graded, fine to coarse, dry, loose. Pale brown to light gray to light brown crushed gravel fill.</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3.5</td>
<td>48&quot;</td>
<td>19 / 39 / 10 / 11</td>
<td>49</td>
<td>SW</td>
<td>Gravely sand, well graded, fine to coarse, dry, loose. Light gray to tan to light brown crushed gravel fill.</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>CL</td>
<td>Silty clay with trace sand, dry to moist, low to medium plasticity, firm. Red brown to dark brown in color.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>48&quot;</td>
<td>6 / 3 / 4 / 5</td>
<td>7</td>
<td>CH</td>
<td>Clay, dry to moist, medium plasticity, firm. Orange brown with tan mottling and approximately 1 mm black nodules.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>48&quot;</td>
<td>4 / 5 / 8 / 10</td>
<td>13</td>
<td>CH</td>
<td>Clay, dry to moist, medium to high plasticity, firm. Red brown with tan mottles and black nodules.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>48&quot;</td>
<td>3 / 5 / 6 / 10</td>
<td>11</td>
<td>CH</td>
<td>Clay, dry to moist, medium to high plasticity, firm. Orange brown with tan and light brown to red brown mottles and black nodules.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** Collapsed depth = 4.5' bgs, dry, no samples taken

PAGE: 1 of 1
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration/Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>48&quot;</td>
<td>3 / 4 / 5 / 8</td>
<td>9</td>
<td></td>
<td>Clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>48&quot;</td>
<td>4 / 5 / 7 / 12</td>
<td>12</td>
<td></td>
<td>Clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6.9</td>
<td>48&quot;</td>
<td>4 / 4 / 5 / 50/3&quot;</td>
<td>9</td>
<td></td>
<td>Clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>12&quot;</td>
<td>50/4&quot;</td>
<td>N/A</td>
<td></td>
<td>Clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9.5</td>
<td>12&quot;</td>
<td>4 / 50/4&quot;</td>
<td>N/A</td>
<td></td>
<td>Clay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Weathered limestone</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** DTW: 6.51’ bgs, no samples taken
# Soil Boring Log

**Project:** Supplemental Investigation  
**Client:** Catalent Pharma Solutions  
**Job #:** 1690023695  
**Date Started:** 10/25/2021  
**Date Completed:** 10/25/2021

**Drilling Cont.:** Geotill  
**Drilling Method:** Split Spoon  
**Foreman:** Micah  
**Hammer / Fall:** NA  
**Rig Type:** Diedrich D-50 Turbo, Truck Mount  
**Purpose:** Geotechnical Boring  
**Sample No.**  
**Sample Start Depth (ft.)**  
**Sample End Depth (ft.)**  
**Penetration / Recovery**  
**Blows/6"**  
**% V. N.**  
**Material Description**  
**General Stratum Description**  
**Field Testing Time**

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>% V. N.</th>
<th>General Stratum Description</th>
<th>Field Testing Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>24&quot;</td>
<td>21 / 23 / 11 / 11</td>
<td>34</td>
<td>GW: Well graded gravel, dry, loose. Mixed tan fill and concrete debris.</td>
<td>Fill/Concrete</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4.5</td>
<td>13&quot;</td>
<td>17 / 11 / 5 / 6</td>
<td>16</td>
<td>GW: Well graded gravel, dry, loose. Mixed tan fill and concrete debris.</td>
<td>Fill/Concrete</td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>5</td>
<td>48&quot;</td>
<td>4 / 4 / 5 / 8</td>
<td>9</td>
<td>CH: Clay, moist, high plasticity, soft. Dark brown red with black mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>10&quot;</td>
<td>50/3&quot;</td>
<td>N/A</td>
<td>CH: Clay, moist, medium plasticity, soft to firm. Dark brown red with black mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7.5</td>
<td>13&quot;</td>
<td>21 / 23 / 11 / 11</td>
<td>34</td>
<td>GW: Well graded gravel, dry, loose. Mixed tan fill and concrete debris.</td>
<td>Fill/Concrete</td>
<td></td>
</tr>
<tr>
<td>7.5</td>
<td>8</td>
<td>50/3&quot;</td>
<td>21 / 23 / 11 / 11</td>
<td>34</td>
<td>GW: Well graded gravel, dry, loose. Mixed tan fill and concrete debris.</td>
<td>Fill/Concrete</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** Refusal at 8' bgs, dry, no samples taken

---

![Image of Soil Boring Log](image)
SOIL BORING LOG

PROJECT: Supplemental Investigation
SITE NAME: Catalent Bloomington
DATE STARTED: 10/29/2021

CLIENT: Catalent Pharma Solutions
SITE LOC.: 1600 S Rogers St., Bloomington, IN
DATE COMPLETED: 10/29/2021

INSPER: Vitaly Morozov
BING: B-28

DRILLING CONT.: Geotill
DRILLING METHOD: Split Spoon
NORTHING: N/A
EASTING: N/A

FOREMAN: Micah
HAMMER / FALL: NA / NA
SAMPLER TYPE: N/A

RIG TYPE: Diedrich D-50Turbo, Truck Mount
SAMPLER DIAMETER: N/A
ELEVATION: N/A

PURPOSE: Geotechnical Boring
DATUM: N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery Percentage</th>
<th>Blows/6&quot;</th>
<th>MATERIAL DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>15°</td>
<td>20 / 29 / 14 / 7</td>
<td>43</td>
<td>GM: Silty sand with 15% gravel, well graded, fine to coarse, dry, loose. Light gray to tan to light brown fill.</td>
</tr>
<tr>
<td>3</td>
<td>3.75</td>
<td>11°</td>
<td>3 / 2 / 2 / 3</td>
<td>4</td>
<td>SM: Silty sand with 5% gravel, well graded, fine to coarse, dry, loose. Tan fill.</td>
</tr>
<tr>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay, dry to moist, high plasticity, soft. Orange brown with gray brown mottles and black nodules.</td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>24°</td>
<td>4 / 4 / 5 / 7</td>
<td>9</td>
<td>CL: Silty clay with 10% fine to medium sand and 5% gravel, dry to moist, medium to high plasticity, soft. Brown gray in color.</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>21.5°</td>
<td>2 / 4 / 50/3°</td>
<td>N/A</td>
<td>CH: Clay with 5% fine to coarse sand and 5% gravel, dry to moist, low plasticity, soft to firm. Red brown with light gray mottles and black nodules.</td>
</tr>
<tr>
<td>9</td>
<td>10.5</td>
<td>13°</td>
<td>50/5&quot;</td>
<td>N/A</td>
<td>CM: Silty clay with 10% fine to medium sand and 1% gravel, dry to moist, low plasticity, soft to firm. Red brown with light gray mottles and black nodules.</td>
</tr>
<tr>
<td>10.5</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td>Weathered grey white limestone.</td>
</tr>
</tbody>
</table>

NOTES: PID readings = 0.0ppm, collapsed depth = 4'8", minimal moisture at bottom of borehole, no samples taken.
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>‘N’ Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.5</td>
<td>3</td>
<td>18&quot;</td>
<td>5 / 3 / 4 / 4</td>
<td>7</td>
<td>SW: Sand with 5% gravel, well graded, fine to medium, moist, loose. Brown gray fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GM: Silty sand with 20% gravel and 10% clay, well graded, fine to coarse, moist, loose. Light gray fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>22&quot;</td>
<td>4 / 6 / 4 / 3</td>
<td>10</td>
<td></td>
<td>GM: Silty sand with 15% gravel and 10% clay, well graded, fine to coarse, moist, loose. Light gray fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6.5</td>
<td>22&quot;</td>
<td>2 / 1 / 4 / 4</td>
<td>5</td>
<td></td>
<td>GM: Silty sand with 15% gravel and 10% clay, well graded, fine to coarse, moist, loose. Light gray fill.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>6.5</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay with 5% sand, dry to moist, medium to high plasticity, soft. Dark brown gray to brown in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>14&quot;</td>
<td>2 / 3 / 3 / 5</td>
<td>6</td>
<td></td>
<td>GM: Sandy gravel with 10% fines, well graded, fine to coarse, saturated, loose. Very light gray weathered limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay with 5% sand, dry to moist, medium to high plasticity, soft. Brown with red brown mottles.</td>
<td>Clay</td>
<td></td>
</tr>
</tbody>
</table>

NOTES: PID readings = 0.0-0.2ppm, collapsed depth = 1.6’ bgs, dry, no samples collected
## Soil Boring Log

**Project:** Supplemental Investigation  
**Inspector:** Vitaliy Morozov

**Client:** Catalent Pharma Solutions  
**Site Name:** Catalent Bloomington  
**Date Started:** 10/26/2021  
**Date Completed:** 10/26/2021

**Job #:** 1690023695  
**Boring Loc.:** See Map  
**Final Static WL:** N/A

**Drilling Cont.:** Geotill  
**Drilling Method:** Split Spoon  
**NORTHING:** N/A

**Foreman:** Micah  
**Hammer / Fall:** NA / NA  
**EASTING:** N/A

**Rig Type:** Diedrich D-50 Turbo, Truck Mount  
**Sampler Type:** N/A  
**Elevation:** N/A

**Purpose:** Geotechnical Boring  
**Sampler Diameter:** N/A  
**Datum:** N/A

### Sample Log

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>‘N’ Value</th>
<th>Material Description</th>
<th>General Stratum Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>48”</td>
<td>2</td>
<td>13 / 18 / 42 / 44</td>
<td>60</td>
<td></td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry to moist, loose. Tan to pale brown to light gray crushed concrete gravel.</td>
<td>Crushed concrete</td>
</tr>
<tr>
<td>2</td>
<td>48”</td>
<td>4</td>
<td>10 / 43 / 44 / 50</td>
<td>87</td>
<td></td>
<td>GW: Sandy gravel, well graded, dry to moist, wet from 2.5-3’, loose. Tan to pale brown fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>4</td>
<td>4.5</td>
<td>4.5</td>
<td>14” / 19 / 21 / 11 / 15</td>
<td>32</td>
<td></td>
<td>GW: Sandy gravel, well graded, moist, loose. Tan to pale brown fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>4.5</td>
<td>5.5</td>
<td>5.5</td>
<td>11” / 19 / 21 / 11 / 15</td>
<td>32</td>
<td></td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry, loose. Light gray to white crushed concrete.</td>
<td>Crushed concrete</td>
</tr>
<tr>
<td>5.5</td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>CL: Silty clay with 10% sand and 5% gravel, dry to moist, low to medium plasticity, soft. Dark brown fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>7</td>
<td>11” / 10 / 11 / 7 / 50/5”</td>
<td>18</td>
<td></td>
<td>CL: Sandy clay with 15% gravel, dry to moist, low plasticity, soft. Dark gray brown fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry, loose. Light gray to white crushed concrete.</td>
<td>Crushed concrete</td>
</tr>
</tbody>
</table>

**Notes:** Refusal at 8’, 2” of standing water at bottom of borehole, no samples taken
### Soil Boring Log

**Project:** Supplemental Investigation  
**Client:** Catalent Pharma Solutions  
**Job #:** 1690023695  
**Boring ID:** B-31  
**Inspector:** Vitaly Morozov  

**Site Name:** Catalent Bloomington  
**Site Loc.:** 1600 S Rogers St., Bloomington, IN  
**Date Started:** 10/26/2021  
**Date Completed:** 10/26/2021  

**Drilling Cont.:** Geotill  
**Drilling Method:** Split Spoon  
**Purpose:** Geotechnical Boring  

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>'N' Value</th>
<th>General Stratum Description</th>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>48&quot;</td>
<td>8 / 8 / 5 / 7</td>
<td>13</td>
<td></td>
<td>Crushed concrete</td>
<td>SW: Gravely sand, well graded, fine to coarse, moist, loose. Light gray crushed concrete fill.</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>19&quot;</td>
<td>3 / 23 / 31 / 15</td>
<td>54</td>
<td></td>
<td>Fill</td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry to moist, loose. Light gray to tan to light brown fill.</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>7&quot;</td>
<td>50/3&quot;</td>
<td>N/A</td>
<td></td>
<td>Fill</td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry to moist, loose. Light gray to tan to light brown fill. Very bottom is well graded, medium sand.</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>15&quot;</td>
<td>9 / 50/4&quot;</td>
<td>N/A</td>
<td></td>
<td>Fill</td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry, loose. Light brown to light brown gray fill.</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Crushed concrete</td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry, loose. White to light gray crushed concrete fill.</td>
</tr>
</tbody>
</table>

**Notes:** Collapsed depth = 5' bgs, dry, no samples taken.
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>Depth Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>‘N’ Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.75</td>
<td>21&quot; 11 / 5 / 5 / 5</td>
<td>10</td>
<td></td>
<td>GW: Gravel, well graded, fine to coarse, dry, loose. Light gray to tan to light brown in color.</td>
<td>Gravel</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4.5</td>
<td>13&quot; 4 / 3 / 4 / 19</td>
<td>7</td>
<td></td>
<td>OH: Clay, dry to moist, medium to high plasticity, firm. Dark red brown with brown gray mottling and organic/wood particles with associated black discoloration.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>7&quot; 24 / 19 / 3 / 5</td>
<td>22</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, firm. Red brown with brown gray and black motles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7.75</td>
<td>46&quot; 6 / 4 / 3 / 6</td>
<td>7</td>
<td></td>
<td>CL: Silty clay with 20% calcareous gravel, dry, low plasticity, soft. Light brown to gray in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9.75</td>
<td>24&quot; 50/3’ N/A</td>
<td>N/A</td>
<td></td>
<td>GP: Sandy gravel, poorly graded, medium to coarse, saturated, loose. Tan to light grey, well cemented fissiliferous limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
- DTW = 6.35', DTB = 10.04', Stickup = 17"
- B-32-GW sampled at 1540
-Collapsed depth = 6' bgs
### Soil Boring Log

**Site Name:** Catalent Bloomington  
**Date Started:** 11/2/2021  
**Date Completed:** 11/2/2021  
**Final Static WL:** 4.2' bgs

**Drilling Method:** Split Spoon  
**Hammer/Fall:** NA / NA  
**Northing:** N/A  
**Easting:** N/A  
**Elevation:** N/A  
** datum:** N/A

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>Material Description</th>
<th>General Stratum Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.2</td>
<td>16&quot;</td>
<td>14 / 16 / 8 / 16</td>
<td>30</td>
<td></td>
<td>GM: Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Light gray to tan crushed concrete fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>6&quot;</td>
<td>7 / 7 / 8 / 10</td>
<td>15</td>
<td></td>
<td>CL: Silty clay with 5% fine sand and trace gravel, dry to moist, non-plastic, soft. Dark brown in color.</td>
<td>Clay</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>16&quot;</td>
<td>14 / 16 / 8 / 16</td>
<td>30</td>
<td></td>
<td>GM: Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Light gray to tan crushed concrete fill.</td>
<td>Fill</td>
</tr>
<tr>
<td>4</td>
<td>6.5</td>
<td>24&quot;</td>
<td>5 / 7 / 8 / 10 / 7 / 9</td>
<td>8</td>
<td></td>
<td>CH: Clay, dry to moist, high plasticity, firm. Brown red with light brown mottles. Pockets of well graded fine to medium sand with 5% gravel, moist, loose, gray in color.</td>
<td>Clay</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>24&quot;</td>
<td>3 / 4 / 5 / 7</td>
<td>9</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, firm. Orange brown with light brown and orange mottling.</td>
<td>Clay</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>24&quot;</td>
<td>3 / 4 / 5 / 7</td>
<td>9</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, firm. Yellow brown with orange mottles and black nodules.</td>
<td>Clay</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>24&quot;</td>
<td>3 / 4 / 5 / 7</td>
<td>9</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, firm. Yellow brown with orange mottles and black nodules.</td>
<td>Clay</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>24&quot;</td>
<td>5 / 7 / 13 / 13</td>
<td>20</td>
<td></td>
<td>CL: Clay, dry to moist, non-plastic to low plasticity, firm to stiff. Orange brown with gray brown and red brown mottling.</td>
<td>Clay</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>24&quot;</td>
<td>5 / 7 / 13 / 13</td>
<td>20</td>
<td></td>
<td>CL: Clay, dry to moist, non-plastic to low plasticity, firm to stiff. Orange brown with gray brown and red brown mottling.</td>
<td>Clay</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>24&quot;</td>
<td>5 / 7 / 13 / 13</td>
<td>20</td>
<td></td>
<td>CL: Clay, dry to moist, non-plastic to low plasticity, firm to stiff. Orange brown with gray brown and red brown mottling.</td>
<td>Clay</td>
</tr>
</tbody>
</table>

**Notes:**  
PID Readings = 0.0 ppm, collapsed depth = 4.5' bgs, DTW 4.2' bgs, no samples taken
### Soil Boring Log

**Project:** Supplemental Investigation  
**Client:** Catalent Pharma Solutions  
**Site Name:** Catalent Bloomington  
**Job #:** 1690023695  
**Date Started:** 11/1/2021  
**Date Completed:** 11/1/2021  

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GW: Gravel, dry, loose. White, crushed concrete gravel.</td>
<td>Crushed concrete</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>2</td>
<td></td>
<td>5 / 5 / 5 / 7</td>
<td>10</td>
<td></td>
<td>CL: Sandy clay with 15% gravel, dry to moist, low plasticity, firm. Brown gray in color with cinders.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OH: Clay, dry to moist, medium to high plasticity, firm to stiff. Dark gray with red brown mottling.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GM: Silty sand with 20% gravel, well graded, fine to medium, moist, loose. Gray in color.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Silty clay with 15% sand and 5% gravel, dry to moist, low plasticity, soft. Light brown in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>3.75</td>
<td></td>
<td>4 / 3 / 2 / 3</td>
<td>5</td>
<td></td>
<td>GM: Sandy gravel with 10% fines, well graded, fine to coarse, dry to moist, loose. Multicolored: browns, black, oranges, and browns.</td>
<td>Gravel</td>
<td></td>
</tr>
<tr>
<td>3.75</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OK: Clay, moist, medium to high plasticity, soft. Brown gray with black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Sandy clay, fine to medium, moist to wet, low plasticity, soft. Dark gray in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>6</td>
<td></td>
<td>6 / 6 / 6 / 8</td>
<td>12</td>
<td></td>
<td>OK: Clay, moist to wet, high plasticity, soft. Dark orange brown with brown gray, light brown, and black mottling.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OH: Clay, dry to moist, medium to high plasticity, soft to firm. Light orange brown with light gray brown mottling.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td></td>
<td>18.5&quot;</td>
<td>N/A</td>
<td></td>
<td>ON: Clay, dry to moist, high plasticity, soft to firm. Light brown to brown red and orange brown mottling. Trace fine to medium sand from 7.5'8&quot;.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8.75</td>
<td></td>
<td>3 / 2 / 50/5&quot;</td>
<td>N/A</td>
<td></td>
<td>OH: Clay, moist, medium to high plasticity, soft. Brown in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8.75</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GP: Sandy gravel, poorly graded, fine to coarse, wet, loose. Gray white to tan weathered limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10.5</td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td>OH: Clay, moist, medium to high plasticity, soft. Brown in color. Possible slough.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>10.5</td>
<td>11</td>
<td></td>
<td>50/5&quot;</td>
<td>N/A</td>
<td></td>
<td>GP: Sandy gravel, poorly graded, fine to coarse, wet, loose. Gray white to tan weathered limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**  
PID Readings = 0.0-0.1ppm, collapsed depth = 3' bgs, dry, no samples taken.
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>%N Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1.75</td>
<td>12.5&quot;</td>
<td>10 / 4 / 10 / 18</td>
<td>14</td>
<td></td>
<td>CL: Silty clay with 10% gravel and 5% fine to medium sand, dry to moist, low to medium plasticity, soft to firm. Brown in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>1.75</td>
<td>2</td>
<td>5 / 2 / 19 / 23</td>
<td>21</td>
<td></td>
<td></td>
<td>GM: Clayey sand with 10% gravel, well graded, fine to coarse, dry to moist, loose. Dark brown to gray in color.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>15&quot;</td>
<td>5 / 2 / 19 / 23</td>
<td>21</td>
<td></td>
<td>CL: Silty clay with 10% fine sand and trace gravel, moist, low plasticity, soft. Brown in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.25</td>
<td>4</td>
<td>4 / 6 / 5 / 3</td>
<td>13</td>
<td></td>
<td>SC: Clayey sand with 5% gravel, poorly graded, fine to medium, dry, loose. Dark gray brown with cinders at 5'.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6.5</td>
<td>2 / 1 / 1 / 3</td>
<td>2</td>
<td></td>
<td></td>
<td>CL: Clayey sand with 10% fine sand and trace gravel, wet, low to medium plasticity, soft. Brown red with gray brown motting and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>3.75</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Silty clay with 10% fine sand, dry to moist, low plasticity, soft. Light brown with very dark brown motting.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6.25</td>
<td>8 / 10</td>
<td>8</td>
<td></td>
<td></td>
<td>CH: Clay with 5% fine to coarse sand, dry to moist, medium to high plasticity, firm to stiff. Brown with orange brown motting.</td>
<td>Clay</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** PID Readings = 0.0ppm, collapsed depth = 4.5' bgs, dry, no samples taken

**Page:** 1 of 1
**SOIL BORING LOG**

**BORING ID:** B-36  
**INSPECTOR:** Vitaliy Morozov

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.5</td>
<td>10.5&quot;</td>
<td>4 / 6 / 4 / 4</td>
<td>10</td>
<td></td>
<td>CL: Sandy clay with 15% fine to medium sand, moist, low plasticity, soft. Brown red with gray and orange mottles.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>1</td>
<td>19&quot;</td>
<td>8 / 11 / 9 / 11</td>
<td>20</td>
<td></td>
<td>SC: Clayey sand with trace gravel, well graded, fine to medium, dry to moist, loose. Brown in color.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>21&quot;</td>
<td>4 / 8 / 3 / 3</td>
<td>11</td>
<td></td>
<td>SM: Silty sand with 15% gravel and 5% clay, well graded, fine to coarse, moist, loose. Light brown in color.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td>SP: Sand with 5% fines, poorly graded, fine, moist to wet, loose. Orange to light brown in color.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SP: Sand with 10% clay, poorly graded, fine, moist, loose. Light brown in color.</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td>4.5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ML: Clayey silt, wet, non-plastic, soft. Light brown in color.</td>
<td>Silt</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Silty clay, wet to saturated, low plasticity, soft. Very light brown to cream in color.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5.25</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay with 5% gravel and trace fine to medium sand, moist, high plasticity, soft. Red brown with light brown motting and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GP: Sandy gravel, poorly graded, fine to medium, wet to saturated, loose. Tan to brown white weathered limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
<tr>
<td>7.25</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GP: Sandy gravel, poorly graded, fine to medium, wet to saturated, loose. Tan to brown white weathered limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GP: Sandy gravel, poorly graded, fine to medium, wet to saturated, loose. Tan to brown white weathered limestone.</td>
<td>Weathered limestone</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** PID Readings = 0.0-0.1ppm, DTW = 5.9' bgs. Collapsed depth 5'9" bgs, no samples taken

**PAGE:** 1 of 1
## SOIL BORING LOG

**Boring ID:** B-38  
**Inspector:** Vitaliy Morozov

<table>
<thead>
<tr>
<th>SAMPLE NO.</th>
<th>SAMPLE START DEPTH (ft.)</th>
<th>SAMPLE END DEPTH (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>16&quot;</td>
<td>18 / 17 / 4 / 10</td>
<td>21</td>
<td>GW</td>
<td>Sandy gravel, well graded, fine to coarse, loose. Moisture increases with depth. Crushed concrete gravel.</td>
<td>Crushed concrete</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.1</td>
<td>48&quot;</td>
<td>5 / 5 / 5 / 6</td>
<td>10</td>
<td>GW</td>
<td>Sandy gravel, well graded, fine to coarse, loose. Moisture increases with depth. Crushed concrete gravel.</td>
<td>Crushed concrete</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>5</td>
<td>48&quot;</td>
<td>4 / 6 / 8 / 9</td>
<td>14</td>
<td>CH</td>
<td>Clay, dry to moist, medium to high plasticity, firm. Red brown to brown with light brown mottling.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>12&quot;</td>
<td>50/4&quot;</td>
<td>N/A</td>
<td>CH</td>
<td>Clay, dry to moist, medium to high plasticity, firm. Red brown to brown with light brown mottling and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:** Refusal at 7.5’, evidence of limestone bedrock, dry, no samples taken

---

**PROJECT:** Supplemental Investigation  
**CLIENT:** Catalent Pharma Solutions  
**JOB #:** 1690023695  
**SITE NAME:** Catalent Bloomington  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE STARTED:** 10/26/2021  
**DATE COMPLETED:** 10/26/2021  
**FINAL STATIC WL:** N/A
<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.5</td>
<td></td>
<td>16&quot;</td>
<td>2 / 3 / 2 / 6</td>
<td>5</td>
<td>GW: Well graded gravel fill</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Concrete</td>
<td>Concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>48&quot;</td>
<td>20 / 48 / 44 / 38</td>
<td>92</td>
<td></td>
<td>SW: Gravely sand, well graded, fine to coarse, dry to moist, loose. Tan to light gray to light brown fill.</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7.25</td>
<td>48&quot;</td>
<td>10 / 9 / 9 / 10</td>
<td>18</td>
<td></td>
<td>SW: Gravely sand, well graded, fine to coarse, dry to moist, loose. Tan to light gray to light brown fill.</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.25</td>
<td>8</td>
<td>48&quot;</td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft to firm. Brown with black nodules.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>15&quot;</td>
<td>3 / 4 / 3 / 7</td>
<td>7</td>
<td></td>
<td>Same fill as 5-7.25', possible slough from borehole.</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>15&quot;</td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay with 5% sand, dry to moist, medium to high plasticity, soft. Red brown in color.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
1" of water at bottom of borehole, collapsed depth = 8’ bgs, no samples taken.
### SOIL BORING LOG

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Blows/6&quot; Penetration / Recovery</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>23.5</td>
<td>8 / 24 / 38 / 26</td>
<td>62</td>
<td>GM: Silty sand with 15% gravel, well graded, fine to coarse, dry to moist, loose. Tan to light gray with some light gray mottling. Fill.</td>
<td>Fill</td>
<td>8 / 24 / 38 / 26</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>5.5</td>
<td>4 / 7 / 3 / 4</td>
<td>10</td>
<td>SC: Clayey sand, well graded, fine to coarse, wet to saturated, loose. Very low recovery, light brown with light gray and red brown mottling.</td>
<td>Sand</td>
<td>4 / 7 / 3 / 4</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>24</td>
<td>4 / 5 / 3 / 6</td>
<td>8</td>
<td>GM: Gravely silt with 10% clay and 20% fine to coarse sand, well graded, fine to coarse, wet to saturated, non-plastic, soft to firm. Tan to light gray in color with wood fragments. Fill.</td>
<td>Fill</td>
<td>4 / 5 / 3 / 6</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>24</td>
<td>5 / 7 / 11 / 14</td>
<td>18</td>
<td>SC: Clayey sand, well graded, fine to coarse, wet to saturated, loose. Very low recovery, light brown with light gray and red brown mottling.</td>
<td>Fill</td>
<td>5 / 7 / 11 / 14</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>10.25</td>
<td>24</td>
<td>5 / 7 / 11 / 14</td>
<td>18</td>
<td>ML: Sandy silt with trace gravel, moist, non-plastic, soft. Light gray in color.</td>
<td>Silt</td>
<td>5 / 7 / 11 / 14</td>
<td></td>
</tr>
<tr>
<td>10.25</td>
<td>11</td>
<td>24</td>
<td>5 / 7 / 11 / 14</td>
<td>18</td>
<td>CM: Clay, dry to moist, medium to high plasticity, firm. Orange brown with gray brown mottling and black nodules.</td>
<td>Clay</td>
<td>5 / 7 / 11 / 14</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
- PID Readings = 0.0 ppm, DTW = 4.1' bgs, collapsed depth = 6' bgs, no samples taken.
### SOIL BORING LOG

#### Boring ID: B-41

- **INSPECTOR:** Vitaliy Morozov
- **PROJECT:** Supplemental Investigation
- **SITE NAME:** Catalent Bloomington
- **DATE STARTED:** 11/2/2021
- **CLIENT:** Catalent Pharma Solutions
- **SITE LOC.:** 1600 S Rogers St., Bloomington, IN
- **DATE COMPLETED:** 11/2/2021
- **JOB #:** 1690023695
- **BORING LOC.:** See Map
- **FINAL STATIC WL:** N/A

#### Boring Details
- **DRILLING CONT.:** Geotill
- **DRILLING METHOD:** Split Spoon
- **NORTHING:** N/A
- **FOREMAN:** Micah
- **HAMMER / FALL:** NA / NA
- **EASTING:** N/A
- **RIG TYPE:** Diedrich D-50Turbo, Truck Mount
- **SAMPLER TYPE:** N/A
- **PURPOSE:** Geotechnical Boring
- **SAMPLER DIAMETER:** N/A
- **DATUM:** N/A

#### Soil Boring Log

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N' Value</th>
<th>MATERIAL DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>21&quot;</td>
<td>6 / 19 / 23 / 13</td>
<td>42</td>
<td></td>
<td>SM: Silty sand with 10% gravel, well graded, fine to coarse, dry to moist, loose. Gray fill.</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>23&quot;</td>
<td>13 / 12 / 18 / 7</td>
<td>30</td>
<td></td>
<td>SM: Silty sand with 10% gravel, well graded, fine to coarse, moist, loose. Gray fill.</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>24&quot;</td>
<td>2 / 2 / 2 / 5</td>
<td>4</td>
<td></td>
<td>SM: Silty sand with 20% gravel and 10% clay, well graded, fine to coarse, moist, loose. Light brown with light gray mottling.</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>24&quot;</td>
<td>4 / 4 / 6 / 9</td>
<td>10</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft to firm. Brown red with light brown mottling and black nodules.</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
<td>24&quot;</td>
<td>6 / 8 / 9</td>
<td>10</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft to firm. Brown red with light brown mottling and black nodules.</td>
</tr>
<tr>
<td>8-10</td>
<td>8</td>
<td>24&quot;</td>
<td>3 / 3 / 5 / 7</td>
<td>8</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft to firm. Brown red with light brown mottling and black nodules. At 10': poorly graded, fine sand, wet, strong petroleum-like odor, stained black.</td>
</tr>
</tbody>
</table>

#### Notes
- Dry, collapsed depth = 2.5'
### Geotechnical Boring N/A N/A N/A

**Sample No.**

- **Sample Start Depth (ft.):**
  - 1
  - 1.75
  - 3
  - 3.5
  - 3.5
  - 4.75
  - 5.25
  - 5.25
  - 7
  - 8.5
  - 9
  - 10.5
- **Sample End Depth (ft.):**
  - 1.75
  - 2.25
  - 3
  - 3.5
  - 4.75
  - 5.25
  - 7
  - 8.5
  - 10.5
  - 11

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sampling Area (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14&quot;</td>
<td>3/4/11/14</td>
<td>15</td>
<td></td>
<td>SM: Silty sand, well graded, fine to medium, dry. Light brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>2.25</td>
<td>3</td>
<td>7/7/10/7</td>
<td>17</td>
<td></td>
<td>GW: Sandy gravel, well graded, fine to coarse, dry, moist. Brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>3</td>
<td>3.5</td>
<td>7/7/10/7</td>
<td>17</td>
<td></td>
<td>GM: Sandy gravel with 20% fines, well graded, fine to coarse, dry. Brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>3.5</td>
<td>4.75</td>
<td>7/7/10/7</td>
<td>17</td>
<td></td>
<td>GM: Sandy gravel with 20% fines, well graded, fine to coarse, dry. Brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>4.75</td>
<td>5</td>
<td>7/7/10/7</td>
<td>17</td>
<td></td>
<td>GM: Sandy gravel with 20% fines, well graded, fine to coarse, dry. Brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>5.25</td>
<td>7</td>
<td>4/2/1/3</td>
<td>3</td>
<td></td>
<td>SM: Silty sand, well graded, fine to medium, dry. Light brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>5.25</td>
<td>7</td>
<td>4/2/1/3</td>
<td>3</td>
<td></td>
<td>SM: Silty sand, well graded, fine to medium, dry. Light brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>7</td>
<td>8.5</td>
<td>5/1/2/5</td>
<td>3</td>
<td></td>
<td>CL: Silty clay with 5% fine sand, moist, low plasticity, soft. Brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>8.5</td>
<td>9</td>
<td>5/1/2/5</td>
<td>3</td>
<td></td>
<td>CL: Silty clay with 5% fine sand, moist, low plasticity, soft. Brown gray with strong petroleum-like odor.</td>
</tr>
<tr>
<td>9</td>
<td>10.5</td>
<td>4/4/5/7</td>
<td>9</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft. Brown with black nodules and strong petroleum-like odor.</td>
</tr>
<tr>
<td>10.5</td>
<td>11</td>
<td>4/4/5/7</td>
<td>9</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft. Brown with black nodules and strong petroleum-like odor.</td>
</tr>
</tbody>
</table>

**NOTES:**

- PID Readings (ppm): 1-3' = 0.4, 3.5'-5.7' = 136.3, 7.9' = 68.5, 9-11' = 51.4
- Water on rod at 7', no GW collected

**PAGE:** 1 of 1
### SOIL BORING LOG

**BORING ID:** B-42A  
**INSPECTOR:** Vitaly Morozov  
**PROJECT:** Catalent Geotechnical Boring  
**CLIENT:** Catalent Pharma Solutions  
**SITE NAME:** Catalent Bloomington  
**SITE LOC.:** 1600 S Rogers St. Bloomington, IN  
**DATE STARTED:** 11/4/2021  
**DATE COMPLETED:** 11/4/2021  
**JOB #:** 1690023695  
**BORING LOC.:** See Map  

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**HAMMER / FALL:** NA / NA  
**NORTHING:** N/A  
**EASTING:** N/A  
**ELEVATION:** N/A  
**RIG TYPE:** Diedrich D-50Turbo, Truck Mount  
**FOREMAN:** Micah  
**SAMPLER TYPE:** Geotill  
**SAMPLER DIAMETER:** N/A  

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>N Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>13.5&quot;</td>
<td>3 / 3 / 6 / 5</td>
<td>9</td>
<td></td>
<td>GM: Silty sand with 20% gravel, well graded, fine to coarse, dry to moist, loose. Gray brown to dark brown/black. Wet at 3'.</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>10&quot;</td>
<td>13 / 13 / 13 / 10</td>
<td>26</td>
<td></td>
<td>GM: Silty sand with 15% gravel, well graded, fine to coarse, dry, loose. Dark brown to gray white at depth. Slight to moderate petroleum-like odor.</td>
<td>Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2.5</td>
<td>24&quot;</td>
<td>5 / 4 / 4 / 6</td>
<td>8</td>
<td></td>
<td>Cl: Clay with 15% gravel, dry to moist, low to medium plasticity, soft. Red brown with light brown motting and black nodules. Very slight petroleum-like odor.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.25</td>
<td>7</td>
<td>7</td>
<td>10&quot;</td>
<td>12</td>
<td></td>
<td>Ch: Clay, dry to moist, medium to high plasticity, firm to stiff. Red brown with light brown motting and black nodules. Very slight petroleum-like odor.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>9</td>
<td>10&quot;</td>
<td>12</td>
<td></td>
<td>Ch: Clay, dry to moist, medium to high plasticity, firm to stiff. At 7.5' there is a well graded, fine to coarse silty sand lens that is brown gray in odor and has moderate petroleum-like odor.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-11</td>
<td>9</td>
<td>18&quot;</td>
<td>3 / 4 / 3 / 4</td>
<td>7</td>
<td></td>
<td>Cl: Clay with 15% gravel and 10% fine to medium sand, dry to moist, high plasticity, firm. Brown with red brown and light brown motting and a strong petroleum-like odor.</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**  
- PID Readings (ppm): 1-3' = 1.3, 3-5' = 1.8, 5-7' = 2.9, 7-9' = 1.1, 9-11' = 19.5  
- Collapsed depth = 2.5', dry  

**PAGE:** 1 of 1
## SOIL BORING LOG

**BORING ID:** B-428  
**INSPECTOR:** Vitaly Morozov

**PROJECT:** Supplemental Investigation  
**SITE NAME:** Catalent Bloomington

**CLIENT:** Catalent Pharma Solutions  
**DATE STARTED:** 11/4/2021

**JOB #:** 1600023695  
**SITE LOC.:** 1600 S Rogers St., Bloomington, IN  
**DATE COMPLETED:** 11/4/2021

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**HAMMER / FALL:** NA / NA

**FOREMAN:** MicaH  
**NORTHING:** N/A

**RIG TYPE:** Diedrich D-50Turbo, Truck Mount  
**EASTING:** N/A

**PURPOSE:** Environmental Boring  
**ELEVATION:** N/A

**FINAL STATIC WL:** N/A

---

### NOTES:

- PID Readings (ppm): 1-3' = 1.8, 3.5' = 1.7, 5.7' = 0.6, 7.9' = 0.5, 9-11' = 2.1
- Collapsed depth = 5.5', dry

---

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>MD:</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td>SM: Silty sand</td>
<td>Crushed concrete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SP: Sand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td>CL: Sandy clay</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>12.5'</td>
<td></td>
<td></td>
<td>52</td>
<td>SM: Silty sand</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SM: Silty sand</td>
<td>Sand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.25</td>
<td>5.5</td>
<td>24&quot;</td>
<td>2 / 1 / 1 / 3</td>
<td>2</td>
<td></td>
<td>CL: Silty clay</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>5.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>SP: Sand</td>
<td>Sand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.75</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CH: Clay</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>24&quot; WOH / WOH / 4 / 6</td>
<td>N/A</td>
<td></td>
<td></td>
<td>CH: Clay</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-11</td>
<td>11</td>
<td>24&quot;</td>
<td>6 / 5 / 6 / 8</td>
<td>11</td>
<td></td>
<td>CH: Clay</td>
<td>Clay</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

## Environmental Boring N/A N/A

**SITE NAME:** Catalent Bloomington  
**DATE:** 11/4/2021

**SITE LOC.:** 1600 S Rogers St., Bloomington, IN

**SAMPLE NO.:** 1690023695  
**See Map N/A**

**RIG TYPE:** Diedrich D-50Turbo, Truck Mount  
**SAMPLER TYPE:** N/A  
**SAMPLER DIAMETER:** N/A

**DATUM:** N/A

---

\mwindfps1\Shared\Active Projects\C\Catalent Pharma Solutions\1600 Rogers St. Bloomington\Soil Boring Logs - Catalent - 1600 S. Rogers St.xlsx
### SOIL BORING LOG

#### General Information
- **PROJECT:** Supplemental Investigation
- **CLIENT:** Catalent Pharma Solutions
- **SITE NAME:** Catalent Bloomington
- **SITE LOC.:** 1600 S Rogers St., Bloomington, IN
- **DATE STARTED:** 11/4/2021
- **DATE COMPLETED:** 11/4/2021
- **JOB #:** 1690023695
- **BORING LOC.:** See Map
- **FINAL STATIC WL:** N/A

#### Drilling Details
- **DRILLING CONTENT:** Geotill
- **DRILLING METHOD:** Split Spoon
- **HAMMER / FALL:** N/A
- **RIG TYPE:** Diedrich D-50 Turbo, Truck Mount
- **SAMPLER TYPE:** Geotill Split Spoon
- **MATERIAL DESCRIPTION:** General Stratum Description
- **FIELD TESTING:** Time

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.5</td>
<td>2</td>
<td>21&quot;</td>
<td>3 / 13 / 6 / 4</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>2.25</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.25</td>
<td>5</td>
<td>16&quot;</td>
<td>2 / 2 / 2 / 4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>7</td>
<td>24&quot;</td>
<td>3 / 4 / 5 / 7</td>
<td>9</td>
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<tr>
<td>5</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>11</td>
<td>6.5&quot;</td>
<td>50/5&quot;</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Soil Profile Description

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Start Depth (ft.)</th>
<th>End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.5</td>
<td>2</td>
<td>21&quot;</td>
<td>3 / 13 / 6 / 4</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>2.25</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3.25</td>
<td>5</td>
<td>16&quot;</td>
<td>2 / 2 / 2 / 4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>7</td>
<td>24&quot;</td>
<td>3 / 4 / 5 / 7</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>11</td>
<td>6.5&quot;</td>
<td>50/5&quot;</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Soil Description

- **Type:** Sandy clay with 10% gravel, moist, low to medium plasticity, soft. Dark gray brown with moderate to strong petroleum-like odor.
- **Check:** Clayey sand with trace gravel, well graded, fine to medium, dry to moist, loose. Dark gray brown with strong petroleum-like odor.
- **Mix:** Silty sand with 20% gravel, well graded, fine to coarse, dry, loose. Tan to gray fill.
- **Color:** Clayey sand, well graded, fine to medium, saturated, dark brown to black, very strong petroleum-like odor.
- **Comment:** Weathered limestone

#### Notes
- **PID Readings (ppm):** 1-3' = 39.6, 3-5' = 58.9, 5-7' = 44.6, 7-9' = 82.9, 9-11' = 12.7
- **Collapsed depth = 5.5' bgs, dry**
## SOIL BORING LOG

**BORING ID:** B-43  
**INSPECTOR:** Vitaly Morozov

<table>
<thead>
<tr>
<th>PROJECT:</th>
<th>Supplemental Investigation</th>
<th>SITE NAME:</th>
<th>Catalent Bloomington</th>
<th>DATE STARTED:</th>
<th>11/1/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIENT:</td>
<td>Catalent Pharma Solutions</td>
<td>SITE LOC.:</td>
<td>1600 S Rogers St., Bloomington, IN</td>
<td>DATE COMPLETED:</td>
<td>11/1/2021</td>
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<tr>
<td>JOB #:</td>
<td>1690023695</td>
<td>BORING LOC.:</td>
<td>See Map</td>
<td>FINAL STATIC WL:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**DRILLING CONT.:** Geotill  
**DRILLING METHOD:** Split Spoon  
**NORTHING:** N/A  
**FOREMAN:** Micah  
**HAMMER / FALL:** NA / NA  
**EASTING:** N/A  
**RIG TYPE:** Diedrich D-50 Turbo, Truck Mount  
**SAMPLER TYPE:** Geotill Split Spoon  
**PURPOSE:** Geotechnical Boring  
**SAMPLER DIAMETER:** N/A  
**DATUM:** N/A

### SOIL BORING LOG

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Sample Start Depth (ft.)</th>
<th>Sample End Depth (ft.)</th>
<th>Penetration / Recovery</th>
<th>Blows/6&quot;</th>
<th>&quot;N&quot; Value</th>
<th>MATERIAL DESCRIPTION</th>
<th>General Stratum Description</th>
<th>Field Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0&quot;</td>
<td>5 / 6 / 3 / 2</td>
<td>9</td>
<td></td>
<td>No recovery, fill material/crushed concrete fell out of sampler.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>9.5&quot;</td>
<td>2 / 1 / 4 / 4</td>
<td>5</td>
<td></td>
<td>SM: Silty sand with 5% gravel, well graded, fine to coarse, dry, loose. Light gray to tan in color. Brick fragments present.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CL: Sandy clay with 10% gravel, dry to moist, low plasticity, soft. Light brown in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5.25</td>
<td>24&quot;</td>
<td>3 / 4 / 6 / 9</td>
<td>10</td>
<td></td>
<td>CL: Sandy clay with 10% gravel, dry to moist, low plasticity, soft. Light brown in color.</td>
<td>Fill</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>5.25</td>
<td>24&quot;</td>
<td>WOH / 3 / 5 / 6</td>
<td>8</td>
<td></td>
<td>CH: Clay with 15% gravel, dry to moist, medium to high plasticity, firm. Red brown with light brown mottling and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>24&quot;</td>
<td>3 / 3 / 5 / 8</td>
<td>8</td>
<td></td>
<td>CH: Clay, dry to moist, medium to high plasticity, soft to firm. Red brown with light gray mottling and black nodules.</td>
<td>Clay</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**NOTES:** PID Readings = 0.0-0.2 ppm, collapsed depth = 5' bgs, dry, no samples taken
EXHIBIT A
LABORATORY TESTING RESULTS
Moisture Content ASTM D 2216

GEOTILL Engineering Inc.  
7732 Loma Court, Fishers IN 46038

Client Name : Ramboll  
Attn: Mr. Frank D. West  
Project Name: Drilling Bloomington, Indiana  
Geotill Project No.: 142133402

<table>
<thead>
<tr>
<th>Boring No.</th>
<th>Sample Depth</th>
<th>Mass of Wet Soil + Tare</th>
<th>Mass of Dry Soil + Tare</th>
<th>Mass of Tare</th>
<th>Moisture Cont. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-10</td>
<td>3.0-5.0</td>
<td>35.03</td>
<td>28.35</td>
<td>1.74</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>5.0-7.0</td>
<td>43.19</td>
<td>34.65</td>
<td>1.78</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>7.0-9.0</td>
<td>32.27</td>
<td>25.92</td>
<td>1.74</td>
<td>26</td>
</tr>
<tr>
<td>B-20</td>
<td>3.0-5.0</td>
<td>30.75</td>
<td>23.63</td>
<td>1.83</td>
<td>33</td>
</tr>
<tr>
<td>B-28</td>
<td>1.0-3.0</td>
<td>32.26</td>
<td>30.1</td>
<td>1.95</td>
<td>8</td>
</tr>
<tr>
<td>BOREHOLE</td>
<td>DEPTH</td>
<td>Classification</td>
<td>LL</td>
<td>PL</td>
<td>PI</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
<td>------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td><strong>B-20</strong></td>
<td>3.0</td>
<td>LEAN CLAY (CL)</td>
<td>42</td>
<td>20</td>
<td>22</td>
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</table>

<table>
<thead>
<tr>
<th>BOREHOLE</th>
<th>DEPTH</th>
<th>D100</th>
<th>D60</th>
<th>D30</th>
<th>D10</th>
<th>%Gravel</th>
<th>%Sand</th>
<th>%Silt</th>
<th>%Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B-20</strong></td>
<td>3.0</td>
<td>9.5</td>
<td>0.009</td>
<td>1.1</td>
<td>12.4</td>
<td>36.6</td>
<td>48.6</td>
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</table>
### Grain Size Distribution

**Project Name:** South Parking Lot  
**Project Number:** 142133402  
**Project Location:** 1600 Rogers Street

<table>
<thead>
<tr>
<th>Classification</th>
<th>LL</th>
<th>PL</th>
<th>PI</th>
<th>Cc</th>
<th>Cu</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-28 Silty Sand with Gravel (SM)</td>
<td>NP</td>
<td>NP</td>
<td>NP</td>
<td>8.92</td>
<td>532.40</td>
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### Grain Size Distribution Table

<table>
<thead>
<tr>
<th>Borehole</th>
<th>Depth</th>
<th>Classification</th>
<th>D100</th>
<th>D60</th>
<th>D30</th>
<th>D10</th>
<th>%Gravel</th>
<th>%Sand</th>
<th>%Silt</th>
<th>%Clay</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-28</td>
<td>1.0</td>
<td></td>
<td>0.141</td>
<td>0.002</td>
<td></td>
<td></td>
<td>18.8</td>
<td>56.6</td>
<td>12.1</td>
<td>12.4</td>
</tr>
</tbody>
</table>
### Atterberg Limits' Results

**CLIENT:** Ramboll  
**PROJECT NAME:** South Parking Lot  
**PROJECT NUMBER:** 142133402  
**PROJECT LOCATION:** 1600 Rogers Street  

<table>
<thead>
<tr>
<th>BOREHOLE</th>
<th>DEPTH</th>
<th>LL</th>
<th>PL</th>
<th>PI</th>
<th>Fines</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-10</td>
<td>3.0</td>
<td>40</td>
<td>20</td>
<td>20</td>
<td>85</td>
<td>LEAN CLAY (CL)</td>
</tr>
<tr>
<td>B-20</td>
<td>3.0</td>
<td>42</td>
<td>20</td>
<td>22</td>
<td>85</td>
<td>LEAN CLAY (CL)</td>
</tr>
<tr>
<td>B-28</td>
<td>1.0</td>
<td>NP</td>
<td>NP</td>
<td>NP</td>
<td>25</td>
<td>SILTY SAND with GRAVEL (SM)</td>
</tr>
</tbody>
</table>
PETITIONER: Catalent Indiana, LLC
1300 S. Patterson Drive, Bloomington

CONSULTANT: Bledsoe, Riggert, Cooper, and James
1351 W. Tapp Road, Bloomington

REQUEST: The petitioner is requesting a variance from fence and wall standards and a variance from architectural standards to allow an addition.

REPORT: The property is located at 1100 S. Strong Drive and is located on Tract A within the Thomson PUD. The site has public road frontage along three property lines with Allen Street to the north and Strong Drive that wraps around the east and south property lines. The property has been developed with one 50,000 square foot building that was previously occupied by Best Beers. There is a loading dock and parking area on the south side of the building. There are no known environmental features on the site.

The petitioner has recently acquired this property and building and will be utilizing it for expanded production and storage needs related to the manufacturing of the COVID-19 vaccine. To that end they are proposing a 12,000 square foot addition to the north side of the building to install 58 freestanding freezer units for storage needs. The addition will feature a masonry block wall surrounding the units, but will not have a roof. There will also be an approximately 7,200 square foot addition to the south side of the building for additional storage needs that will include typical walls and roof. The addition would trigger limited compliance with the UDO since it is more than 10% of the existing floor area and those aspects will be reviewed with the minor site plan approval with the grading permit. Those compliance items would include the installation of a sidewalk along Strong Drive and landscaping throughout the property.

As part of a recent government contract to start manufacturing a vaccine for the COVID-19 virus, the petitioner has been directed to secure the perimeter of their facility with a 6’ tall fence. This is necessary for heightened security due to the sensitive nature of the work being conducted. It should be noted that due to a declared public health emergency, communities have been encouraged to allow more flexibility in local regulations in response to the global pandemic to promote public safety. To that end, during the pandemic and declared public health emergency, both local government agencies and state government agencies have been more relaxed in enforcing their regulations when it comes to matters that are directly related to the health emergency.

In order to comply with the recommended security precautions, the petitioner is proposing a 6’ tall fence, with 7’ tall columns that will be spaced a minimum of 12’ apart around the perimeter of the property (including around the area of parking between the building and the streets). The UDO prohibits fences that are taller than 4’ forward of the front building wall of the primary structure. Since the property was developed prior to current UDO regulations with the building as far back
from the adjacent street frontages as was possible, it is not possible for them to comply with the 4’
tall fence allowance to install the recommended 6’ tall fencing and they are requesting a variance
from the maximum 4’ height limit that is allowed.

The petitioner is also requesting a variance from architectural standards for the proposed additions to
not require them to meet the architectural standards. This would require modulation, change in
building façade height, regular pattern of windows, and/or the incorporation of awnings along the
ground floor that is not possible with the existing building design and use. The petitioner is also
requesting a variance to allow for a section of barbed wire fence along the west property line to be
removed and replaced with new barbed wire.

CRITERIA AND FINDINGS FOR DEVELOPMENT STANDARDS VARIANCE

20.09.130 e) Standards for Granting Variances from Development Standards:

A variance from the development standards of the Unified Development Ordinance may be approved
only upon determination in writing that each of the following criteria is met:

1) The approval will not be injurious to the public health, safety, morals, and general welfare of
   the community.

   PROPOSED FINDING:

   Fence Height: The granting of the variance to allow the fence to be the required 6’ tall will
greatly increase the security of the property to help with the production of a vaccine to
address the global public health emergency. This directly promotes the public health, safety,
and general welfare of the community.

   Architectural Standards: The granting of the variance to not require the additions to meet
architectural standards is not expected to be injurious to the public health, safety, morals, or
general welfare of the community. The proposed building wall surrounding the units is a
durable masonry material and features elements of visual interest.

   Barbed Wire: The Department finds that the granting of the variance to allow barbed wire
would be injurious as this element is something that is not appropriate within the City and the
proposed 6’ tall fence does provide adequate protection.

2) The use and value of the area adjacent to the property included in the Development
   Standards Variance will not be affected in a substantially adverse manner.

   PROPOSED FINDING:

   Fence Height: No adverse impacts to the use and value of surrounding properties as a result
of the requested variance are found. The fence has been appropriately designed with an open
lattice design to decrease any visual impacts and increase pedestrian experience. The fence
will be setback from the adjacent sidewalks approximately 10’ to 30’ with landscaping between the fence and the sidewalk.

**Architectural Standards:** No adverse impacts to the use or value of the area adjacent to the property are expected as a result of the granting of the variance from the required architectural standards. The additions have been designed to complement the existing building style while adding elements of visual interest.

**Barbed Wire:** The Department finds that the granting of the variance to allow barbed wire would have an adverse impact on the use and value of the adjacent property, as it allows a nonconforming site feature that is not customary to this type of use or to the adjacent residential uses.

3) *The strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property; that the practical difficulties are peculiar to the property in question; that the Development Standards Variance will relieve the practical difficulties.*

**PROPOSED FINDING:**

**Fence Height:** The Department finds that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties of the use of the property because it would not allow the fencing needed to provide appropriate security for this property. The practical difficulties are peculiar to this property in that the site has street frontages along three property lines, it has a unique lot shape, and the location of the existing building and parking areas create difficulties with meeting the code in the use of the property. The granting of the development standards variance will allow the petitioner to meet the stated safety standards for this facility to address the public health emergency.

**Architectural Standards:** The Department finds that the strict application of the terms of the Unified Development Ordinance will result in practical difficulties in the use of the property as it would require building additions that would not work with the existing building design or shape. It is very difficult to construct compatible additions to existing buildings that currently do not meet design standards. The proposed addition to the south is not highly visible from the street and to require the addition to meet current architectural standards would result in a design that is not complimentary or appropriate.

**Barbed Wire:** The Department finds no practical difficulty in the use of the site that necessitates a variance for barbed wire. The proposed fencing will provide adequate protection for the site and the denial of the variance request for barbed wire will not result in practical difficulties in the use of the property.

**RECOMMENDATION:** The Department recommends that the Board of Zoning Appeals adopt the proposed findings and approve the variances from fence height and architectural standards and deny the variance from the barbed wire standard with the following conditions:
1. The areas of the fence facing a public street must be landscaped with a minimum of 5 shrubs at each column.
2. Minor site plan approval is required prior to issuance of a building permit.
3. The request for a variance to allow the use of barbed wire is denied and the use of barbed wire is not allowed.
January 20, 2022

City of Bloomington Board of Zoning Appeals
401 N. Morton Street
Bloomington, IN 47403

RE: Request for Variances for Catalent Biologics’ Facility at 1100 S. Strong Drive

Dear BZA Members:

On behalf of Catalent Biologics, we respectfully request your consideration of the following variances from the Unified Development Ordinance (UDO) for necessary building and site improvements at their facility at 1100 S. Strong Drive:

1. Development Standards & Incentives Section 20.04.070(d), Building Design to allow the exterior perimeter wall of the north freezer containers and the south freezer box to incorporate the following:
   - A 2'-8" change in building façade height to be more in keeping with the façade proportions
   - Wall recesses/projections of ten percent of the maximum wall plane in lieu of 3 percent of the total building length (10% of 40 wall plane = 4' recess)
   - No windows, canopies, or awnings.
   - No roof connection between perimeter wall and freezer containers.

2. Development Standards & Incentives Section 20.04.080(n), Fences and Walls to allow for the installation of a six foot tall perimeter security fence with seven foot high columns along the Allen Street and Strong Drive frontages.

3. Development Standards & Incentives Section 20.04.080(n), Fences and Walls to allow for the replacement of the existing twelve foot tall chain link fence with three strands of barbed wire with a new fence to match the existing along the west side of the property from the northwest corner of the building southwest corner of the property.

4. Development Permits and Procedures Section 20.06.050(C)i, Minor Site Plan Review to allow for building additions exceeding 10,000 square feet.

Catalent Biologics is the leading global provider of advanced delivery technologies, development, and manufacturing solutions for drugs, biologics, cell and gene therapies, and consumer health products. Catalent Biologics is part of Operation Warp Speed (OWS) a public-private partnership, initiated by the federal government to facilitate and accelerate the development, manufacturing, and distribution of COVID-19 vaccines.

Due to the nature of Catalent Biologics’ operation and the consumer health products they process, it is essential that they are able to expand and secure their facility at 1100 S. Strong Drive. The UDO establishes architectural standards for building design. It does not, however, address manufactured freezer units that we will work screen in an appropriate manor.

The UDO also limits the height and types of fences. Fences that are forward of the front building wall of the primary structure are limited to a height of four feet. This limitation impacts the northern portion of the campus, including the frontages along Allen Street and Strong Drive. Fence heights along other portions of the site are limited to 8 feet and barbed wire is not allowed. Per the U.S. Department of Health and Human Services, the Office of Security, Intelligence, and Information Management, and Operation Warp Speed, perimeter security fencing standards set the minimum fence height at six feet for facilities like Catalent Biologics. Catalent wants to keep the existing twelve foot fence with barbed wire on their west side for an added level of protection. However, due to its age and condition they would like to replace it.
We believe that for each of the variances we are requesting the approval will not be injurious to the public health, safety, morals, and general welfare of the community; the use of value of the area adjacent to the Catalent property will not be affected in a substantially adverse manner; and the strict application of the terms of the UDO results in practical difficulties for the use of the property. These difficulties, including the need to screen the freezer units, secure the site, and expand the building footprint are peculiar to Catalent Biologics’ manufacturing and distribution of COVID-19 vaccines. The variances we are seeking from the development standards will relieve those practical difficulties.

Your positive consideration of this request is greatly appreciated.

Sincerely,

William S. Riggert, PE
GENERAL NOTES:

1. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED, HOWEVER, DO NOT REMOVE.

2. FLAT TOP IS VISIBLE AT THE TOP OF THE ROOT BALL.

3. DO NOT COVER THE TOP OF THE ROOT BALL WITH TREE GATOR OR EQUIVALENT PORTABLE DRIP IRRIGATION SYSTEM EXISTS AT TIME OF PLANTING.

4. SO IT REMAINS WEED FREE.

5. PRUNE ONLY BROKEN OR CROWN AT 1-2" ABOVE FINISHED GRADE.

6. 3" MULCH DISH, AWAY FROM TREE BASE.

7. WHEN 2/3 FULL; DO NOT TAMPER ABOVE GRADE.

8. SOIL MIX PER SPECS.

9. NEW WORK:

   a. CALL 2 WORKING DAYS BEFORE YOU DIG

   b. CALL TOLL FREE 1-800-242-6162

   c. MUSSETT NICHOLAS

   d. COV

   e. TCA

   f. GTS

   g. GFE = 791.72'

   h. ABOVE GRADE

   i. DS

   j. MH

   k. UGE

   l. SH

   m. Rgl

   n. 7

   o. 4

   p. 3

   q. 6

   r. 2

   s. 1

   t. 3

   u. 1

   v. 2

   w. B

   x. 137

   y. ST

   z. SAN

   aa. GAS

   bb. H2O
ADDITION TO SOUTH SIDE
EXISTING BUILDING
GENERATOR SCREEN
Mussett Nicholas + Associates
January 18, 2022
View from Corner of Allen & Strong
Site Context Comparison
Catalent Pharma Solutions Bldg. D Screening
Mussett Nicholas + Associates
January 18, 2022

View from Corner of Allen & Strong
Site Context Comparison
Catalent Pharma Solutions Bldg. D Screening
Mussett Nicholas + Associates
January 20, 2022

View from Corner of Allen & Strong
Site Context Comparison
Catalent Pharma Solutions Bldg. D Screening