Environmental Impact Assessment

For

Storage Platform, LLC

Proposed Self-Storage Facility with Community Amenities

Block 2303, Lots 1-4, 13 & 14
256, 311, 313, 315, 317 Valley Street & 1, 15 Lackawanna Place
Township of South Orange Village
Essex County, NJ

Prepared by:

1904 Main Street
Lake Como, NJ 07719
(732) 974-0198

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NJ Professional Engineer License #52179

June 2021
DEC # 2624-99-007

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APPENDIX

I. INTRODUCTION

This Environmental Impact Assessment was prepared in conjunction with a Preliminary and Final Major Site Plan Application for the proposed 4-story 32,956 SF (131,824 SF total) self-storage building at the property located at 256, 311, 313, 315, 317 Valley Street and 1, 15 Lackawanna Place in the Township of South Orange Village, Essex County, New Jersey. The intent of this report is to provide information regarding the potential environmental impacts associated with the project by addressing the applicable requirements outlined in Item Number 17 of the Township of South Orange Land Development Checklist.

II. PROJECT DESCRIPTION

The project area currently consists of a residential development, Delicatessen, Animal Grooming, Automobile Repair Facility, and Founders Park. The site is bordered to the north by Founders Park with commercial and industrial uses beyond, to the east by Valley Street with commercial and residential uses beyond, to the south by Lackawanna Place with residential and commercial uses beyond, and to the west by railroad with Waterlands Park beyond.

The project consists of constructing a self-storage facility with a 32,956 SF building footprint (131,824 total SF) with an associated 2 off-street parking stalls and 4 interior parking/loading stalls on the southwestern portion of the property. Associated site improvements include community amenities, driveways, landscaping, lighting and stormwater management facilities. The total amount of impervious coverage for the subject development is 35,578 SF. The proposed development will result in a net decrease of 1,136 SF of impervious coverage for the project.

III. EXISTING ON-SITE ENVIRONMENTAL CONDITIONS

A. HYDROLOGY

Per the Boundary and Topographic Survey, prepared by Dynamic Survey, LLC, dated 01/05/2021, there appears to be no surface water on or within the immediate vicinity of the site. Per the NJDEP Geoweb Mapping, there are no freshwater wetlands located on or within the immediate vicinity of the site.

B. GEOLOGY

Per NJDEP Geoweb Mapping, the site is located within the Passaic Formation.

C. SOILS

Per County Soil Survey, the on-site coils consist of Urban land, Dunellen – Urban land, and Udorthents, Dunellen substratum.

D. TOPOGRAPHY & SLOPE

The on-site slopes generally range between 0.5% and 20% and run east to west from Valley Street to the railroad. The existing conditions of the tract have been verified by the Boundary and Topographic Survey, prepared by Dynamic Survey, LLC, dated 01/05/2021.

E. DRAINAGE

The stormwater runoff from the existing development generally flows via overland flow to the existing storm sewer system within Lackawanna Place. The site is mostly paved with very limited landscaped areas and no formal conveyance system.

F. VEGETATION

As previously noted, the majority of the site is currently developed with buildings and paved areas. Vegetation on the site includes a very limited amount of street trees, shrubs, and a small landscape strip along Lackawanna Place. The existing site contains 36,714 SF of impervious coverage and approximately 2,060 SF of landscaped areas.

G. AIR QUALITY

The site currently consists of a residential development, Delicatessen, Animal Grooming, Automobile Repair Facility, and Founders Park. The existing automobile repair facility and the associated operations of the same have a negative impact on the air quality on-site.

H. WILDLIFE

Per NJDEP Geoweb Mapping the site is not located within a Natural Heritage Grid containing documented occurrences of threatened or endangered species within the project area.

I. NOISE

The site currently consists of a residential development, Delicatessen, Animal Grooming, Automobile Repair Facility, and Founders Park. The existing automobile repair facility and the associated operations of the same have a negative impact on the noise on-site.

IV. PROPOSED ON-SITE ENVIRONMENTAL CONDITIONS

A. HYDROLOGY

Per the Boundary and Topographic Survey, prepared by Dynamic Survey, LLC, dated 01/05/2021, there appears to be no surface water on or within the immediate vicinity of the site. Per the NJDEP Geoweb Mapping, there are no freshwater wetlands located on or within the immediate vicinity of the site, therefore no impacts are expected.

B. GEOLOGY

The proposed development will not have an impact on the geology of the site.

C. SOILS

Per County Soil Survey, the on-site coils consist of Urban land, Dunellen – Urban land, and Udorthents, Dunellen substratum.

D. TOPOGRAPHY & SLOPE

The on-site slopes generally range between 0.5% and 20% and run east to west from Valley Street to the railroad. The existing conditions of the tract have been verified by the Boundary and Topographic Survey, prepared by Dynamic Survey, LLC, dated 01/05/2021. The existing topography will be maintained to the greatest extent practicable.

E. DRAINAGE

The stormwater runoff from the proposed self-storage facility will generally be clean stormwater runoff from the building and will be routed through a roof leader conveyance system and will be tributary to the existing storm sewer system within Lackawanna Place.

F. VEGETATION

Additional landscaping, including foundation plantings and street trees will be provided in association with the proposed development.

G. AIR QUALITY

The proposed development will have no adverse impact on the air quality in the area. Existing air quality surrounding the site is typical of a Business Zone in New Jersey. There are existing air pollutants which come from cars, trucks, busses and other vehicles which will remain. There may be some temporary airborne dust particles associated with the construction process but these conditions will be localized and will dissipate with the stopping of each workday. The existing uses that impact air quality will be removed and replaced with the self-storage use, which will be a benefit for the air quality in the area.

H. WILDLIFE

Per NJDEP Geoweb Mapping the site is not located within a Natural Heritage Grid containing documented occurrences of threatened or endangered species within the project area, therefore no impacts are expected.

I. NOISE

Existing noise levels on-site can be characterized as typical for a business zone in New Jersey. For the proposed self-storage facility, most noise will emanate from passenger vehicle and unloading on site and along Lackawanna Place. This should be considered normal for the proposed use and temporary in nature. Sound levels are subject to daytime and nighttime limits. The existing uses that impact air quality will be removed and replaced with the self-storage use, which will be a benefit for the noise in the area.

V. LICENSES, PERMITS, AND APPROVALS

Township of South Orange Village Planning Board	Site Plan Approval
Township of South Orange Public Works	Sewer Service Approval
Township of South Orange Water Department	Water Service Approval
Hudson Essex Passaic Soil Conservation District	Soil Erosion and Sediment Control Plan Certification
Essex County Planning Board	Site Plan & Lot Consolidation Approval
NJDEP	Treatment Works Approval (TWA)
NJDEP	5G3 Construction Activity Stormwater Authorization to Discharge (RFA)
PSE&G	Gas & Electric Service Approval

VI. ASSESSMENT OF IMPACTS

Minor impacts on air quality, water capacity, noise and natural resources are anticipated as a result of the construction and operation of the proposed project. The short term effects of the construction process are out-weighed by the long-term economic benefits and potential for improved air quality, water quality, noise, and natural features.

The proposed development meets the goals of the Township Master Plan by promoting development along the municipal roadway for fiscal & community needs while also preserving South Orange Village's character. The applicant has specifically chosen the subject parcel is compatible well with the surrounding uses.

VII. IMPACT MITIGATION STEPS

While the proposed site improvements will result in a substantial environmental benefit to the subject parcel and surrounding areas, the following steps will be taken to avoid and minimize the limited adverse environmental impacts during construction and operation:

- Effective implementation of soil erosion and sediment control measures, including tree preservation, hay bales, silt fencing, and inlet filters, as well as, utilization of stormwater best management practices should successfully minimize the site development's impact on existing natural resources.
- Strict adherence to the limits of disturbance parameters and stabilizing the construction entrances.
- Every reasonable effort will be made to protect the existing natural environment with the ultimate goal of providing for minimal disruption throughout the course of construction and after completion.

VIII. ALTERNATIVES TO DEVELOPMENT

A. "NO PROJECT" OR "NO ACTION" ALTERNATIVE

The "No Project" or "No Action" alternative would leave the parcel developed with the existing residential development, Delicatessen, Animal Grooming, and Automobile Repair Facility. This could eliminate potential economic growth/commerce for the Township of South Orange Village and leave a use on site that is not maintained and has little aesthetic value. The proposed community space and Founders Park improvements, which will provide benefits to the residents of the Township, would also not be constructed.

B. ALTERNATIVE USES PERMITTED IN THE B-3 ZONING DISTRICT

The site is located within the B-3 (General Business) Zoning District and alternatives to the proposed site development would presumably include any allowable use as permitted by the current Zoning Ordinance, such as retail uses. It is believed that the proposed use is a suitable use for the subject parcel. The proposed community space and Founders Park improvements, which will provide benefits to the residents of the Township, would also not be constructed.

APPENDIX

AERIAL PHOTO MAP

DYNAMIC
ENGINEERING EARTH SURVEY TRAFFIC

Aerial Photo Map

1904 Main Street, Lake Como, NJ 07719 T. 732-974-0198

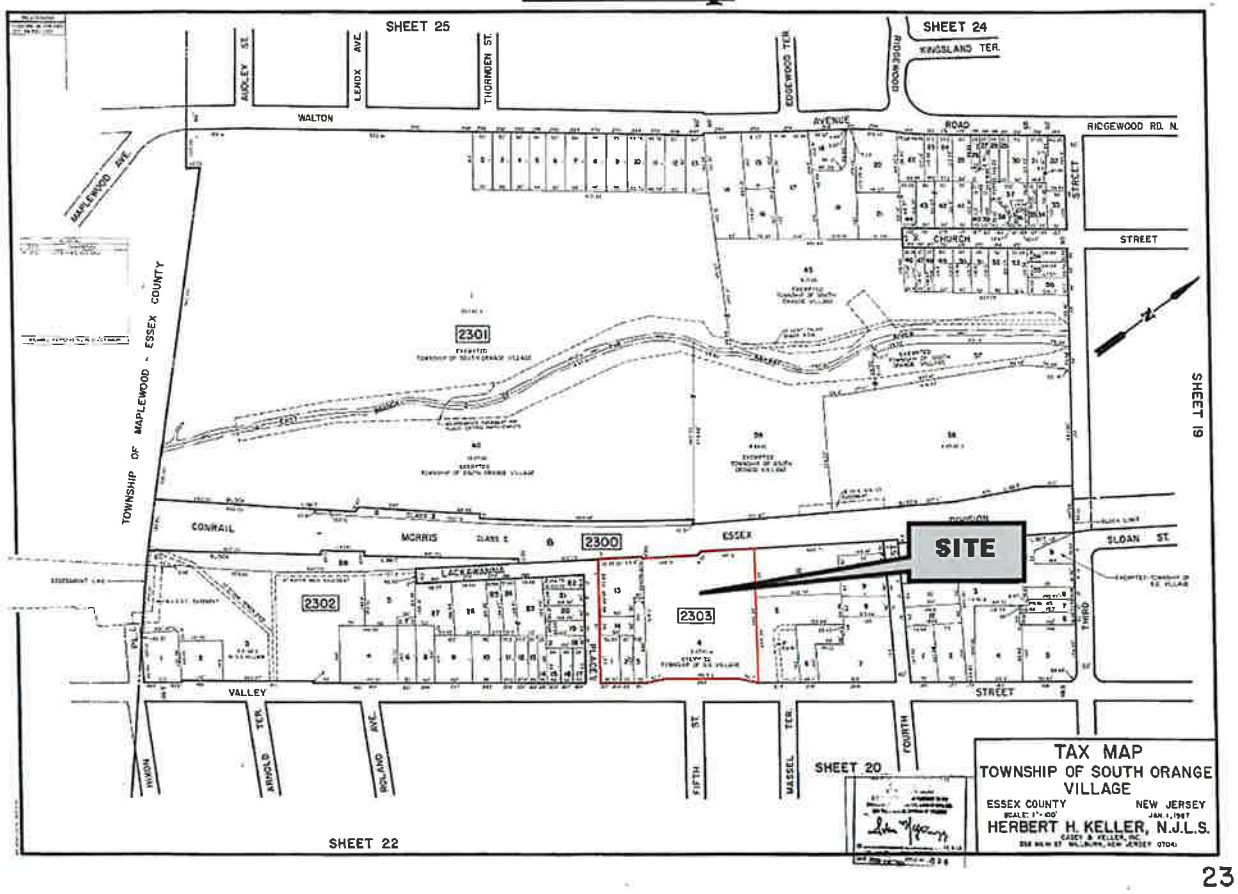
245 Main Street, Suite 110, Chester, NJ 07930 T. 908-879-9229
8 Robbins Street, Suite 102, Toms River, NJ 08753 T. 732-974-0198
826 Newtown Yardley Rd., Suite 201, Newtown, PA 18940 T. 267-685-0276

100 NE 5th Avenue, Suite B2, Delray Beach, FL 33483 T. 561-291-8570
14521 Old Katy Road, Suite 270, Houston, TX 77079 T. 281-789-6400
714 S. Greenville Avenue, Suite 100, Allen, TX 75002 T. 972-534-2100

TAX MAP

DYNAMIC
ENGINEERING EARTH SURVEY TRAFFIC

Tax Map



23

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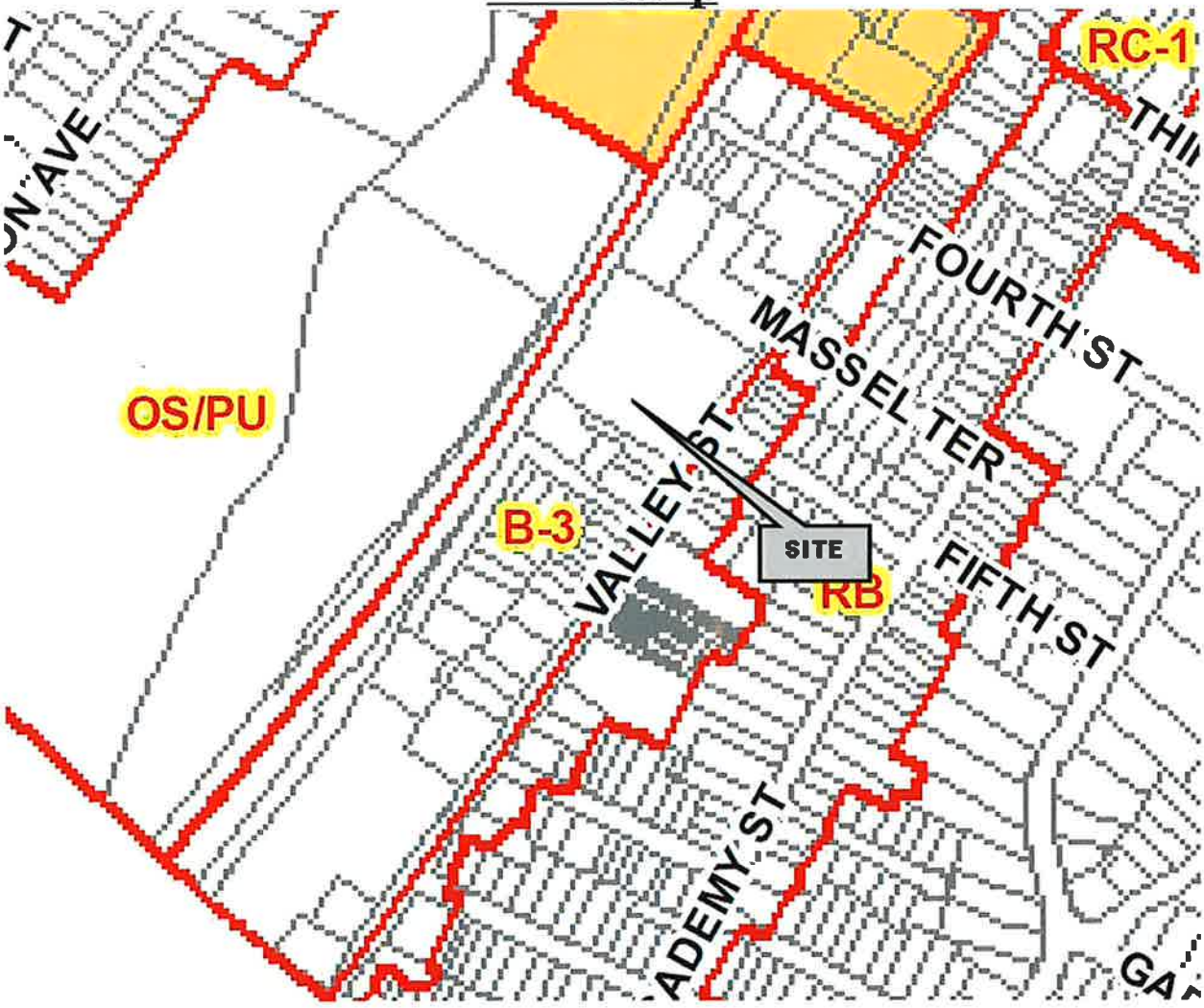
ZONING MAP

DYNAMIC
ENGINEERING EARTH SURVEY TRAFFIC

Zone Map



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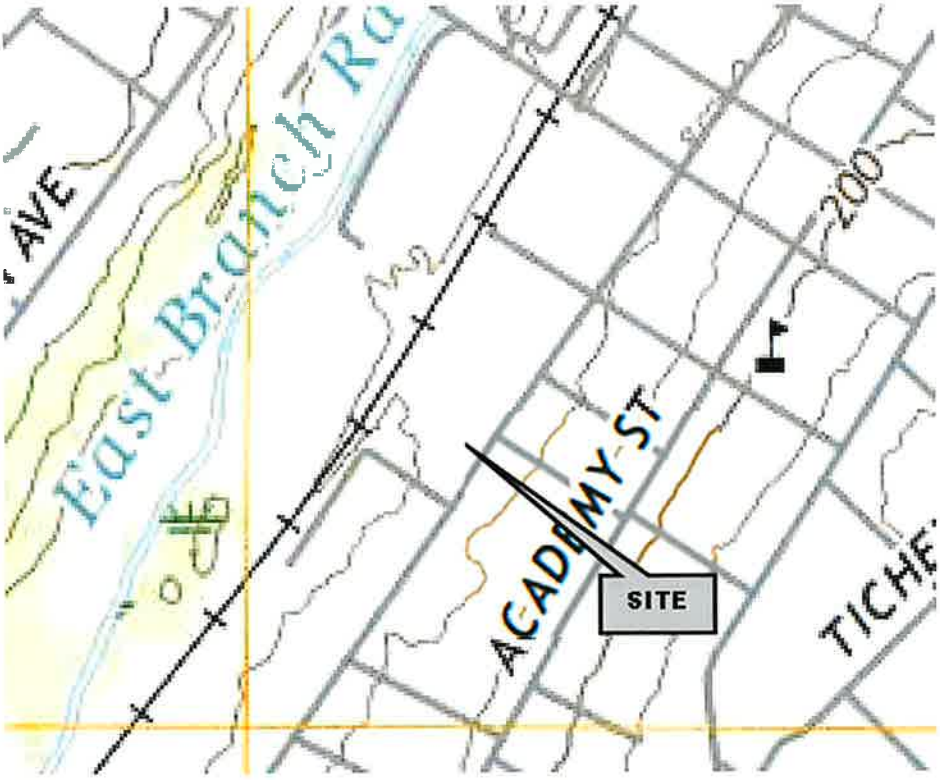
USGS MAP

DYNAMIC
ENGINEERING EARTH SURVEY TRAFFIC

USGS Map

Adelphia Quad



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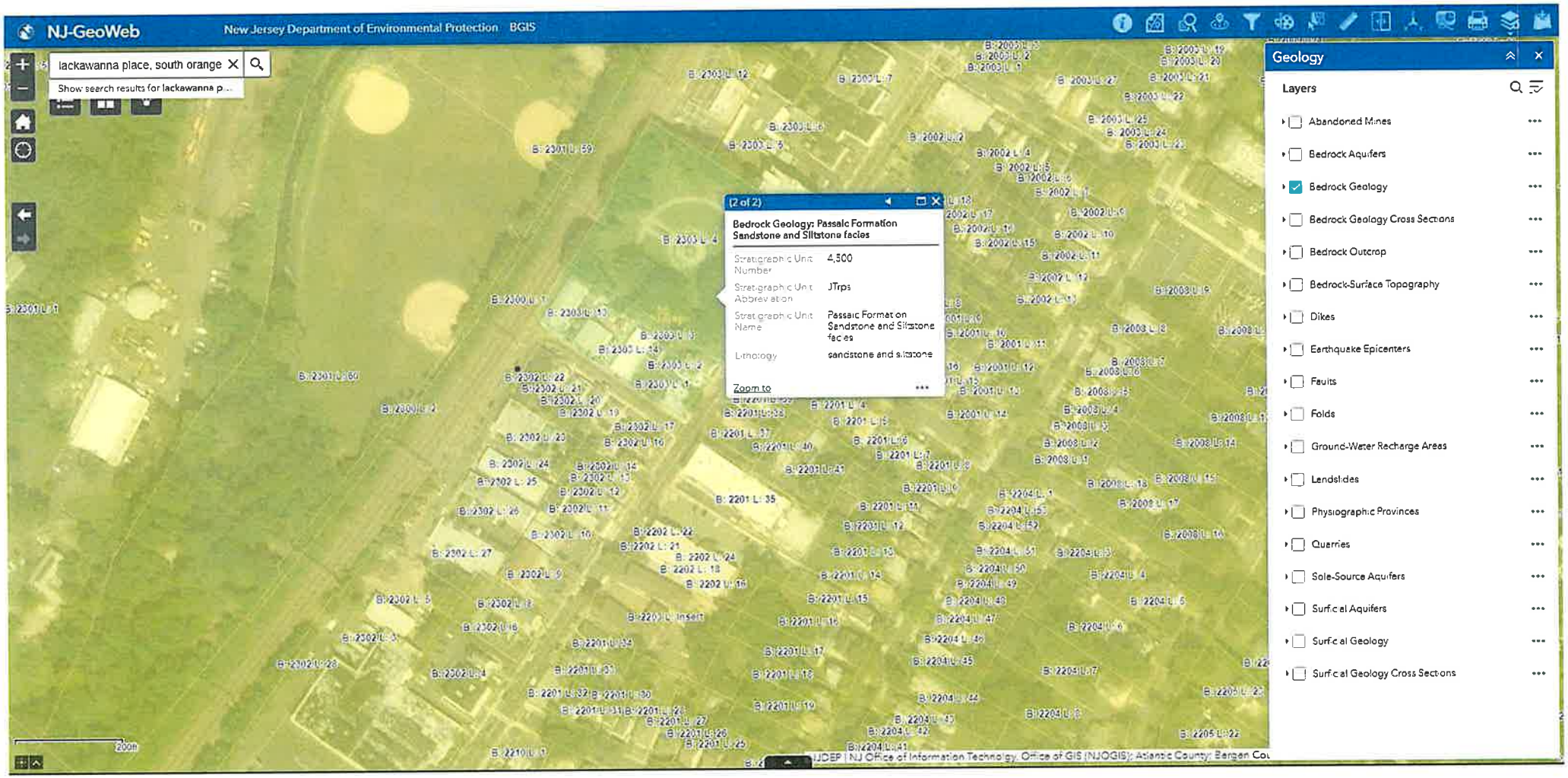
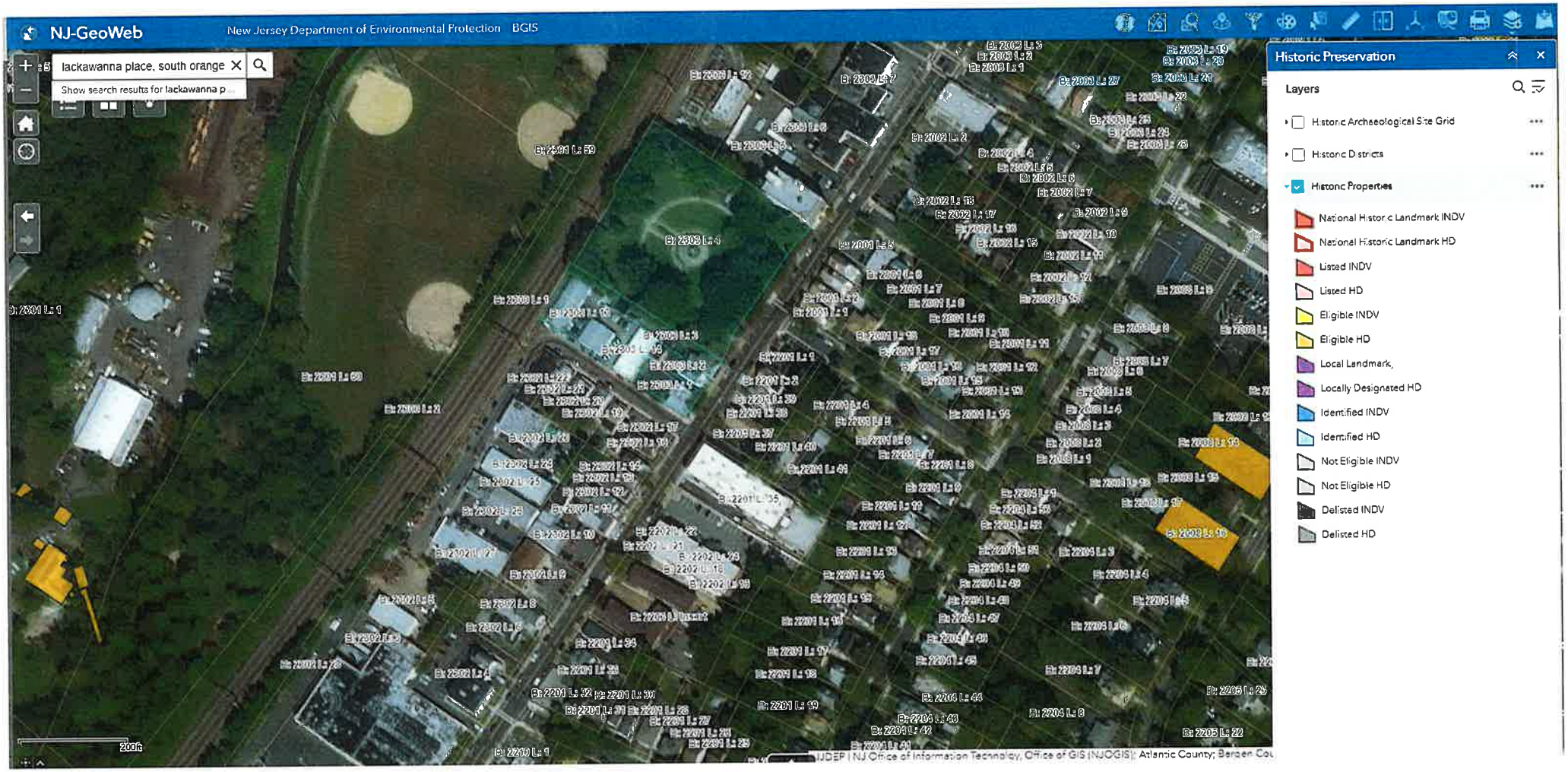
714 S. Greenville Avenue, Suite 100, Allen, TX 75002 T. 972-534-2100

NJDEP GEOWEB BEDROCK GEOLOGY MAP


NJ-GeoWeb
New Jersey Department of Environmental Protection BGIS
lackawanna place, south orange
Show search results for lackawanna p...
(2 of 2)
Bedrock Geology: Passaic Formation Sandstone and Siltstone facies
Stratigraphic Unit Number
4,500
Stratigraphic Unit Abbreviation
JTrps
Stratigraphic Unit Name
Passaic Formation Sandstone and Siltstone facies
Lithology
sandstone and siltstone
Zoom to
Geology
Layers
Abandoned Mines
Bedrock Aquifers
Bedrock Geology
Bedrock Geology Cross Sections
Bedrock Outcrop
Bedrock-Surface Topography
Dikes
Earthquake Epicenters
Faults
Folds
Ground-Water Recharge Areas
Landslides
Physiographic Provinces
Quarries
Sole-Source Aquifers
Surficial Aquifers
Surficial Geology
Surficial Geology Cross Sections
200m
NJDEP | NJ Office of Information Technology, Office of GIS (NJOGIS); Atlantic County; Bergen Co

NJDEP GEOWEB HISTORIC PROPERTIES MAP


NJ-GeoWeb
New Jersey Department of Environmental Protection BGIS
lackawanna place, south orange
Show search results for lackawanna p
Historic Preservation
Layers
Historic Archaeological Site Grid
Historic Districts
Historic Properties
National Historic Landmark INDV
National Historic Landmark HD
Listed INDV
Listed HD
Eligible INDV
Eligible HD
Local Landmark,
Locally Designated HD
Identified INDV
Identified HD
Not Eligible INDV
Not Eligible HD
Delisted INDV
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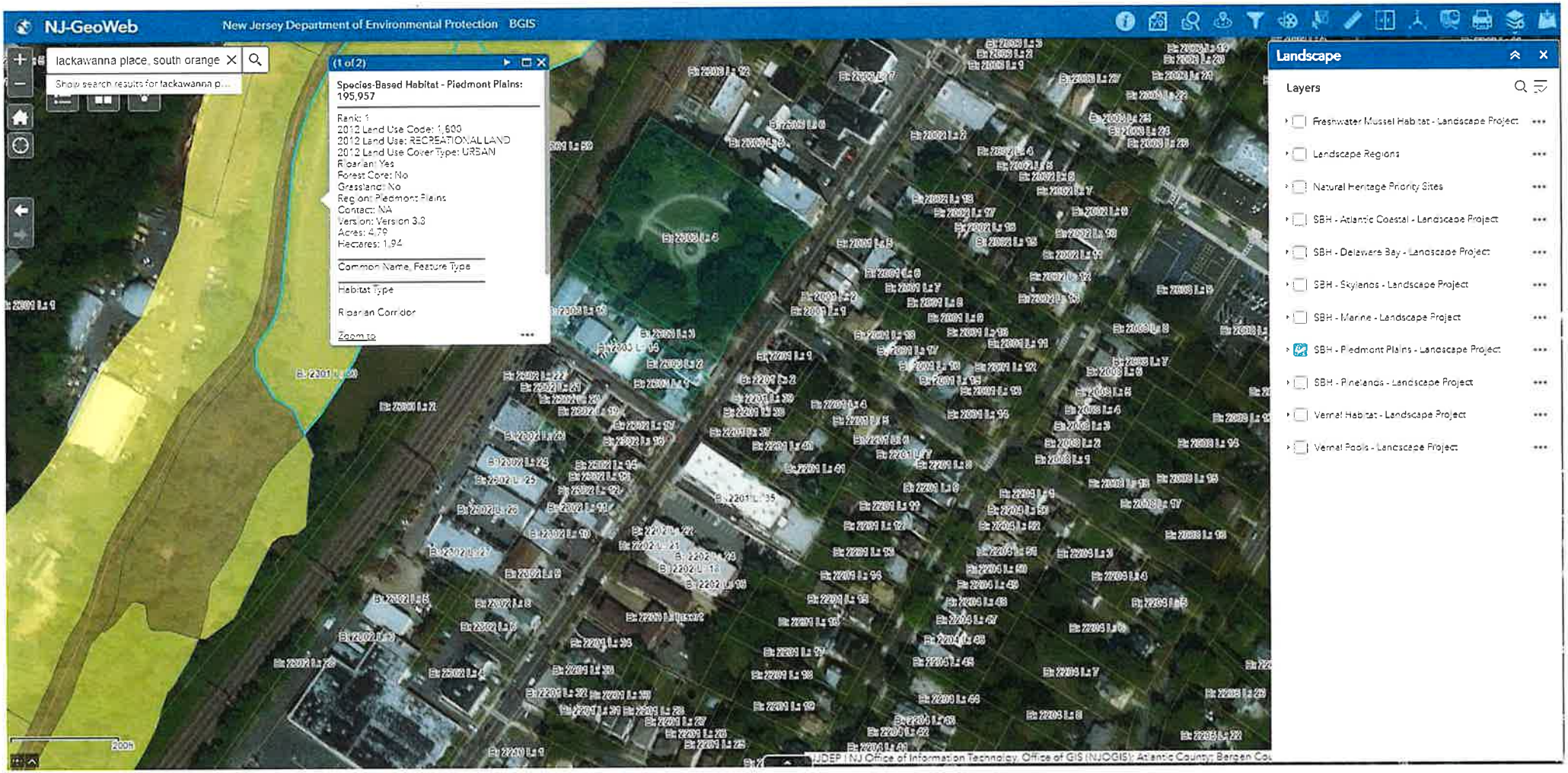
200ft
NJDEP | NJ Office of Information Technology, Office of GIS (NJOGIS); Atlantic County; Bergen Cou

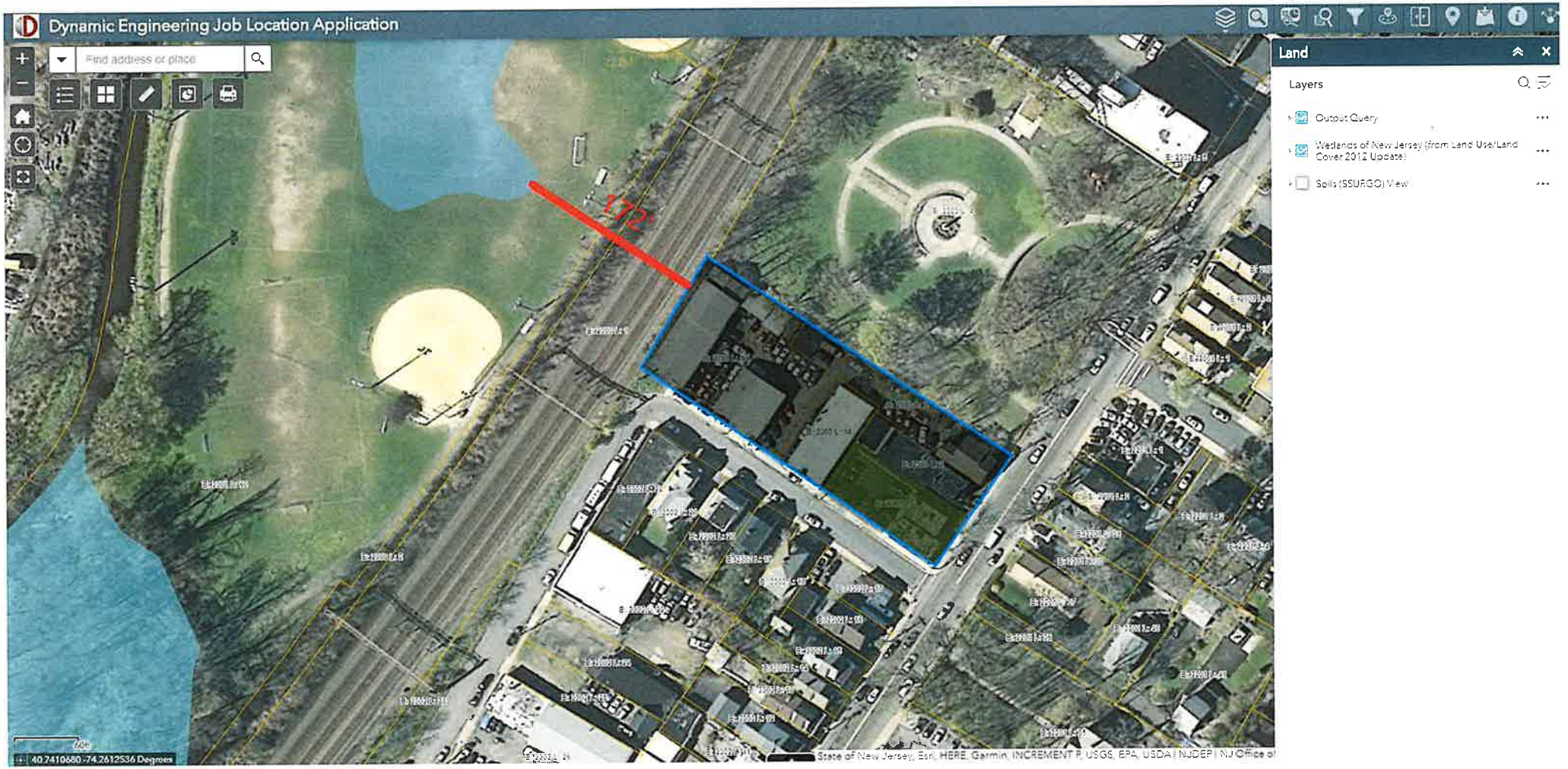
NJDEP GEOWEB LANDSCAPE REGION MAP


NJ-GeoWeb
New Jersey Department of Environmental Protection BGIS
lackawanna place, south orange
Show search results for lackawanna p...
(1 of 2)
Species-Based Habitat - Piedmont Plains: 195,957
Rank: 1
2012 Land Use Code: 1,600
2012 Land Use: RECREATIONAL LAND
2012 Land Use Cover Type: URBAN
Riparian: Yes
Forest Core: No
Grassland: No
Region: Piedmont Plains
Contact: NA
Version: Version 3.3
Acres: 4.79
Hectares: 1.94
Common Name, Feature Type
Habitat Type
Riparian Corridor
Zoom to
Landscape
Layers
Freshwater Mussel Habitat - Landscape Project
Landscape Regions
Natural Heritage Priority Sites
SBH - Atlantic Coastal - Landscape Project
SBH - Delaware Bay - Landscape Project
SBH - Skylands - Landscape Project
SBH - Marine - Landscape Project
SBH - Piedmont Plains - Landscape Project
SBH - Pinelands - Landscape Project
Vernal Habitat - Landscape Project
Vernal Pools - Landscape Project
200ft
NJDEP | NJ Office of Information Technology, Office of GIS (NJOGIS); Atlantic County; Bergen Co

NJDEP GEOWEB STREAMS AND WATERBODIES MAP


Dynamic Engineering Job Location Application
Find address or place
Water
Layers
Output Query
National Hydrography Dataset (NHD) Streams 2002 for New Jersey
Hydrography - Category 1 Waters
National Hydrography Dataset (NHD) Waterbody 2002 for New Jersey
Surface Water Quality Classification of New Jersey
HUC 14s for New Jersey
NJ Well Head Protection Areas (Community)
NJ Well Head Protection Areas (Non-Community)
(2 of 4)
Network 2002 (NHD): East Branch Rivver
167,761,910
167761910
11/4/2009, 9:32 AM
High
00876042
East Branch Rahway River
3.69
02030104007003
WithDigitized
167,758,857
167758857
Zoom to
481'
200ft
40.7400356 -74.2620717 Degrees
State of New Jersey, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA | NJ Office of

NJDEP GEOWEB WETLANDS MAP


Dynamic Engineering Job Location Application
Find address or place
172'
Land
Layers
Output Query
Wetlands of New Jersey (from Land Use/Land Cover 2012 Update)
Soils (SSURGO) View
40.7410680 -74.2612536 Degrees
State of New Jersey, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA | NJDEP | NJ Office of

NRCS WEB SOIL SURVEY MAP

Map Scale: 1:1,160 If printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Essex County, New Jersey
Survey Area Data: Version 16, Jun 1, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 25, 2014—Sep 27, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
DuuB	Dunellen - Urban land, Dunellen substratum complex, 0 to 8 percent slopes	A	0.0	1.0%
UddunB	Udorthents, Dunellen substratum, 0 to 8 percent slopes	D	1.5	50.6%
URDUNB	Urban land, Dunellen substratum, 0 to 8 percent slopes		1.4	48.4%
Totals for Area of Interest			**2.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

QUALIFICATIONS OF REPORT PREPARER

DYNAMIC ENGINEERING

Thomas J. Muller, PE

Principal

Thomas Muller is a Licensed Professional Engineer and Principal at Dynamic Engineering at their Lake Como, NJ office. Mr. Muller joined the firm in 2011 as a Design Engineer. He provides practical experience with commercial, residential, and industrial land development projects. His primary experience extends throughout the State of New Jersey and New York. Included within his areas of expertise are site grading and earthwork, stormwater management, water quality design, project management, and NJDEP permitting inclusive of Coastal Areas, Treatment Works Approvals, Freshwater Wetlands, and Flood Hazard Areas.

Mr. Muller is dedicated to insuring that clients are satisfied with the management of their projects by maintaining open communication and ensuring timeliness of project milestones. He approaches each project to tailor to his client's needs and goals. Mr. Muller believes that it is important that clients are informed about the land development process so that they make knowledgeable decisions. He also makes certain that his clients are aware of the regulatory process and risks associated with each step of the development project.

Mr. Muller serves on Dynamic Engineering's Stormwater Design and Environmental Permitting Leadership Committees. He has been recognized by the NJDEP for his unique stormwater management and environmental engineering designs. He has also served as the lead engineer on several complex and environmentally sensitive projects including a 900,000+ square foot industrial building in Edison, NJ and 900+ unit residential subdivision in Lakewood, NJ.

During his career, Mr. Muller has provided consulting services for numerous corporate and developer-driven projects including Amazon, Shell Oil, Exxon Mobil, 7-Eleven, Wawa, Dunkin Donuts, Dollar General, White Castle, Seagis Property Group, Ignite Restaurant Group, Chefs International, Lightbridge Academy, Public Schools, Marty's Place Senior Dog Sanctuary, Golf Courses, and many more.

Licenses:

- New Jersey Professional Engineer License

Education:

- Rutgers University, Masters of Science in Civil Engineering, 2014
- Rutgers University, Bachelor of Science in Civil Engineering, 2011

Agency Experience:

- NJDEP, Flood Hazard Areas
- NJDEP, Freshwater Wetlands
- NJDEP, Treatment Works Approval
- NJDEP, Waterfront Development
- NJDEP, Coastal Area Facilities Review (CAFRA)
- New Jersey Meadowlands Commission
- New Jersey Pinelands Commission
- New Jersey Soil Conservation Districts
- New Jersey County Planning Boards
- Delaware & Raritan Canal Commission
- County and Local Health Departments
- County and Local Environmental Commissions

Expert Testimony:

Mr. Muller has been accepted and testified as a Professional Engineer before various Planning and Zoning Boards throughout New Jersey.

Employment History:

- 2016-2017 Dynamic Engineering Consultants, PC
  Principal
- 2015-2016 Dynamic Engineering Consultants, PC
  Project Manager
- 2011-2015 Dynamic Engineering Consultants, PC
  Design Engineer
- 2010-2011 J. Fletcher Creamer and Son
  Project Engineer

Professional Affiliations:

- International Council of Shopping Centers (ICSC)
- Chi Epsilon, Engineering Honor Society
- Shore Builders Association
- American Society of Civil Engineers (ASCE)
- National Society of Professional Engineers (NSPE)