

Environmental Assessment

64 Norma Avenue Block 234, Lots 3-7 Franklin Township Somerset County, NJ 08873

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Villas at Norma Park

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- Appendix A Appendix B Appendix C Map Figures
- Site Photographs Survey of Property
- Appendix D Statement of Qualifications



1.0 Introduction

TRC Environmental Corporation (TRC) has prepared the following Environmental Assessment (EA) on behalf of Blackstone 360 (Blackstone) for the proposed Villas at Norma Park (herein after referred to as "Project") located in Franklin Township, Somerset County, New Jersey. The proposed construction consists of the development of the property for twelve (12) townhouse buildings.

Franklin Township requires preparation and submission of an Environmental Assessment (EA) as part of the overall approval process for preliminary and final site plan approval. As such, this EA has generally been prepared in accordance with the Township's Land Development ordinances, specifically, Article XXV – Environmental and Historic Resource, Section 112-199 – Requirements for Environmental Assessment. Qualifications and experience of the preparers of this EA are presented in Appendix D.

1.1 **Project Location**

The subject property (the Site) is located in the southwesterly quadrant of the intersection of Norma Avenue and Franklin Boulevard in the Township of Franklin, Somerset County, New Jersey. The Site is designated as Block 234, Lots 3, 4, 5, 6 and 7 as shown on the current Tax Assessment Map. These properties are currently owned by the development firm Blackstone 360, located at 570 Broad Street, Suite 1206, Newark, New Jersey.

The Site is bounded to the west by a vacant 2-story office building, and to the south by a multiunit residential townhouse development currently under construction. Land use east of Norma Avenue consists of single-family residential homes. The Township's middle and elementary schools and a large athletic field are located on the north side of Franklin Boulevard.

The Site is currently unimproved and vacant. The existing surface is partially forested and meadow, with no existing impervious surfaces. See Appendix B – Site Photos.

The location and approximate boundaries of the subject property are shown on the location USGS Map (Figure 1), Tax Map (Figure 2), and Aerial Photo Map (Figure 3), presented in Appendix A. See Appendix C for Survey of Property, performed by Schmidt Survey in in 2020.

1.2 **Project Description & Site Plan**

This Project consists of the proposed development of twelve (12) townhouse buildings, which will include fourteen (14) interior parking spaces and thirteen (13) at-grade parking spaces, and associated site improvements (asphalt-paved circulation roadway, concrete pedestrian sidewalks, sanitary sewer, storm sewer, water, gas, electric, landscaping, perimeter fencing and site lighting).

The site is classified as a major development under NJDEP Stormwater Management Regulations at N.J.A.C. 7:8. A stormwater management bio-retention basin is proposed at the northeast corner of the property to achieve compliance with NJDEP stormwater management regulations.



Vehicular access is intended to be from Norma Avenue via a proposed site access driveway. Proposed off-site improvements include new concrete pedestrian sidewalks along Norma Avenue and Franklin Boulevard. The total Project area of disturbance is approximately 82,813 SF.

A consolidation of Lots 3, 4, 5, 6 and 7 is proposed. The total area of the consolidated lot will be 73,850 square feet (SF) or 1.696 acres. The current zoning district is O-P Office Professional. A townhouse development a not a permitted use in the O-P zone. Therefore, a D(1) variance due to nonconforming use will be required. See Appendix A, Figure 4 – Zoning Map.

The site work for the Project includes clearing, grubbing, site preparation, utility installation, installation of stormwater management system and best management practices (BMPs), site grading, access road and sidewalk installation, fencing, and final surfacing within the proposed limit of disturbance. Additional temporary construction work areas will be situated within the Project property. These areas will be utilized for construction equipment and material laydown, and for parking of construction vehicles.

Additional documentation regarding the proposed Project will be provided by the applicant's professionals during the public hearing(s).

2.0 Mapping

The location and approximate boundaries of the subject property are shown on the location USGS Map (Figure 1), Tax Map (Figure 2), and Aerial Map (Figure 3), presented in Appendix A. See Appendix B for Site Photos. See Appendix C for Survey of Property, performed by Schmidt Survey in in 2020.

3.0 Existing Environmental Features

The following section will describe the environment as it exists onsite and around the site. This description includes a comprehensive discussion of any existing features prior to the proposed Project development.

3.1 Natural Resources

3.1.1 Existing Geologic Character

The Site is located within the Piedmont Province. Surficial geology formation name is weathered shale, mudstone, and sandstone. The lithology of this formation is silty sand to silty clay with shale, mudstone, or sandstone fragments; reddish brown, yellow, light gray. This surficial layer can be as much as ten (10) feet thick when on shale and mudstone, and thirty (30) feet thick on sandstone.

Bedrock geology consists of the Passaic formation. The lithology of this formation is siltstone and shale.



The Township of Franklin, Somerset county is located within the Piedmont Province of New Jersey. The section of Piedmont Province where the site is located is underlain with Triassic sandstone, shale, siltstone, and conglomerate. They are between 230 to 190 million years old, and rest on a large, elongate crustal block that dropped downward in the initial stages of the opening of the Atlantic Ocean. These down-dropped blocks formed valleys know as rift basins. Sediment eroded from these adjacent uplands was deposited along rivers and in lakes within the basins. These sediments became compacted and cemented to form conglomerate, sandstone, siltstone, and shale. They commonly have a distinctive reddish-brown color.

The aquifer system located beneath Franklin Township is primarily associated with the Noncoastal Plain Aquifer System. The principal aquifers are associated with the glacial valley-fill deposits, the fractured shale and sandstone units of the Newark Group, the Valley and Ridge sedimentary units, and the weathered and fractured shale zones of the Highlands crystalline unit. In Franklin Township, Somerset County, underlying aquifers are associated with the Newark Group aquifers. These aquifers are locally important and are commonly interconnected with surface water resources in most New Jersey water-supply systems.

3.1.2 Existing Soil Characteristics

3.1.2.1 Map Unit: KkoC – Klinesville channery loam, 6 to 12 percent slopes

Major Component: Klinesville: (85%)

The Klinesville component makes up 85 percent of the map unit. Slopes are 6 to 12 percent. This component is on hills on piedmonts. The parent material consists of fine-loamy residuum weathered from shale. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Non-irrigated land capability classification is 4e. This soil does not meet hydric criteria. See Appendix A, Figure 5 – USDA Soil Survey Map.

- Hydrologic Soil Group: D
- Capacity of the most limiting layer to transmit water (Ksat): High (2.0 to 6.0 inches/hr)

Minor Component: Penn, eroded (5%)

Minor Component: Berks, eroded (5%)

Minor Component: Bucks, eroded (5%)

3.1.3 Topography

The topography on-site is pitched to the east, towards Franklin Boulevard. The southern half of the property is sloped at 1-5%, and the northern half slopes towards Franklin Boulevard at approximately 11%. There are no areas of steep slopes located on-site nor are there any unique landforms such as rock outcrops / rock ledges. See Appendix C for Survey of Property, performed by Schmidt Survey in in 2020.

3.1.4 Surface Hydrologic Features

As per information obtained via NJ-GeoWeb (the NJDEP GIS tool for viewing environmental NJ GIS data), the Site lies within the Raritan River Lower (Lawrence to Millstone) watershed, and the Mile Run sub-watershed. There are no surface water resources located on the subject property, nor are there known watercourses proximate to the Project site. The nearest bodies of water are as follows:

- Raritan River (FW2-NT), located approximately 1.5 miles east of the Site;
- Mile Run Tributary (FW2-NT), located approximately 0.25 miles northeast of the Site.

See Appendix A, Figure 6 – NJ-GeoWeb Streams and Waterbodies Map.

3.1.4.1 Wetlands

As per New Jersey Wetlands Inventory (2012) information obtained via NJ-GeoWeb, there are no known, regulated wetlands within the Site. However, there are known wetland areas nearby; the closest wetland lies across Franklin Boulevard approximately 265 feet north of the northern property boundary. These surrounding wetland types are classified as deciduous wooded wetlands. See Appendix A, Figure 7 – NJ-GeoWeb Wetlands Map.

3.1.4.2 Floodplains

As shown on FEMA Flood Insurance Rate Map No. 34035C0276E, Somerset County, New Jersey (All Jurisdictions), Effective Date September 28, 2007, no portion of the subject property is located within the 100-year floodplain area. See Appendix A, Figure 8 – FEMA Map.

3.1.5 Subsurface Hydrologic Features

As per the NJDEP New Jersey Geological Survey map entitled "Aquifers of New Jersey", and the NJ-GeoWeb application, the Site is underlain by the Brunswick aquifer, a fractured-rock aquifer of the Newark Basin Part of the Piedmont. This aquifer can be described as sandstone, siltstone, and shale of the Passaic, Towaco, Feltville, and Boonton formations. Groundwater stored and transmitted in fractures. Water is normally fresh, slightly alkaline, non-corrosive and hard Calcium-bicarbonate type waters dominate. Subordinate calcium-sulfate waters are associated with high total dissolved solids. Includes conglomerate facies (bac) along the northwest margin of the basin.



Aquifers in New Jersey can be ranked on their ability to yield ground water to high-capacity wells. The ranking for this aquifer is "C", with a median yield of >100 to 250 gallons per minute (gpm).

3.1.6 Well Head Protection Areas

As per information obtained via NJ-GeoWeb , there are no well head protection areas (community and non-community) within the Site.

3.1.7 Vegetation

A site inspection was performed by TRC on September 10, 2021. See Appendix A, Figure 3, for Aerial mapping of the Site. See Appendix B for Site Photographs taken along Norma Avenue and Franklin Boulevard. The northern portion of the site is currently partially wooded with deciduous trees, and a variety of evergreen and deciduous shrubs and grasses. The southern portion of the site contains mostly evergreen and deciduous shrubs and grasses.

Land Use/Land Cover obtained from NJ-GeoWeb classifies approximately 26,910 SF (0.62 acres) of the 73,875 SF (1.696 acres) Site as deciduous forests (> 50% crown closure). The remaining portion of the Site is classified as "Other Urban or Built-Up Land".

3.1.8 Wildlife

The Site is located in the Piedmont Plains Landscape Region. According to the NJ-GeoWeb Landscape layers indicate that the Site contains no habitat specific requirements, species of special concern, state threatened species, state endangered species, or Federal listed threatened or endangered species. Additionally, the Site does not contain potential vernal habitat, vernal habitat, or vernal pools. See Appendix A, Figure 8 – NJ-GeoWeb Landscape Map.

3.2 Man-made Resources

3.2.1 Present Land Use

As described in prior sections, the Project site (Block 234, Lots 3,4,5,6,7) is classified as vacant, unoccupied land. The site is has no existing manmade structures.

3.2.2 Adjacent Land Use

The Site is bounded to the west by vacant 2-story office building which is currently listed for sale, and to the south by a multi-unit residential townhouse development currently under construction. Land use east of Norma Avenue consists of single-family residential homes. The Township's middle and elementary schools and a large athletic field are located on the north side of Franklin Boulevard.



3.2.3 Noise Levels

Construction activities will result in a temporary increase in noise during normal working hours, Monday through Friday. Following completion of the Project, there should be minimal discernible noise from the proposed residential townhouse development.

3.2.4 Access and Transportation Patterns

The Site has approximately 359 feet of frontage along Norma Avenue and approximately 192 feet of frontage along Franklin Boulevard. Franklin Boulevard (CR 617) is classified as an urban minor arterial with a general east-west orientation and is under the jurisdiction of Somerset County. Along the Site frontage, the roadway provides one (1) lane of travel in each direction and has a posted speed limit of 40 miles per hour (mph). Curb and sidewalk are provided along both sides of the roadway, shoulders are provided along both sides of the roadway, and on-street parking is not permitted. Franklin Boulevard provides east-west traffic flow within Somerset County, from Easton Avenue at its eastern end to Somerset Street at its western end. A mix of residential, institutional and commercial uses are present along its length.

Norma Avenue is a local roadway with a general north-south orientation and is under the jurisdiction of the Township of Franklin. Along the Site frontage, the roadway provides one (1) land of travel in each direction and does not have a posted speed limit. Curb and sidewalk are generally not provided, shoulders are not provided, and on-street parking is permitted along the westerly side of the road. Norma Avenue provides north-south mobility within Franklin, from Franklin Boulevard at its northern end to Hamilton Street at its southern end. A mix of residential and commercial uses are present along its length.

Refer to the Traffic Report, prepared by Stonefield Engineering and Design, LLC, 92 Park Avenue, Rutherford, NJ, 07070, submitted as part of the application for additional details regarding traffic associated with the Project.

3.2.5 Zoning

The property is currently classified as Office-Professional, or Zone O-P. The purpose of the O-P District is to permit small professional office buildings, small general office buildings and mixed use buildings which are compatible with the single-family detached dwellings and two-family dwellings permitted in the district, and the adjacent, densely developed residential areas. See Appendix A, Figure 4 – Zoning Map.

Permitted uses:

- One and two-family dwellings
- Professional office buildings
- General office buildings
- Mixed use buildings



Accessory Uses:

- Buildings customary and incidental to the operation of the principal use
- Signs
- Home occupations

Conditional Uses:

- Public utility installations
- Churches and other similar places of worship
- Wireless communications antennas in accordance with the specific zoning conditions, standards and limitations for their location, approval and operation

A D(4) variance for non-conforming use will be required for this application. Additional documentation regarding zoning and compliance with same as well as requested variances will be provided by the Applicant's professionals during the public hearing(s), as required. See Appendix A for zoning map with the Site location indicated.

3.2.6 Master Plan Delineation

As per the 2006 Franklin Township Master Plan, the Site is located within Planning Sector 3, The subject property existing land use identified as Residential. Planning Sector 3 is bound by the Raritan River and Mile Run to the north, Route 27 to the east, Bennett's Lane to the south, and Dahmer Road, Treptow Road and Cedar Grove Lane to the west. Sector Three is the most intensely developed Sector of the five Planning Sectors in the Township. This Sector contains the Somerset section of the Township, and most of the residential uses. The Hamilton Business District, the Renaissance 2000 Redevelopment Area, the municipal complex, and various commercial and industrial uses are within this Sector. Since the 1999 Land Use Plan, two isolated parcels of land have been developed for residential uses, along DeMott Lane, and Treptow Road/Cedar Grove Lane, new commercial development has been constructed along Veronica Avenue, and new residential development has been constructed along Churchill Avenue.

A review of the NJ-GeoWeb Database shows that the Site is within Delaware and Raritan Canal Commission Review Zone B and is classified as a "major project" due to the addition of more than ¼ acre of impervious surface, and the disturbance of one acre or more of land. In Zone B, each major project is reviewed for stormwater runoff and water quality impact, and for stream corridor impact. Any major project within one mile of any portion of the Park and having direct access to a road that enters Zone A is reviewed for traffic impact. The Site is approximately 1.3 miles from Zone A, and therefore review for traffic impact should not be required.

The Site is located in State Planning Area 1 – Metropolitan, which is an area designated for growth by the Office of Planning Advocacy.



3.2.7 Community Facilities

The Franklin Township Administrative Offices, Parks and Recreation Department, Senior Center and Public Library are all housed in the municipal complex at 505 DeMott Lane in Somerset, NJ. The Somerset County Department of Health, located at 27 Warren Street in Somerville, serves as Franklin Township's Health Department. The Somerset County Board of Social Services administers the Franklin Township Municipal Welfare/General Assistance. The Police Department is located in the Public Safety Building at 495 DeMott Lane, Somerset, NJ.

Fire protection is provided by 10 volunteer Fire Companies, comprising 4 fire districts based location within the community. The development is located within Fire District 3, which is primarily serviced by Community Fire Company, Station 25, at 710 Hamilton Street, Somerset, NJ, and East Franklin Volunteer Fire Company, Station 27, at 121 Pine Grove Avenue, Somerset, NJ.

Waste removal is provided by private carting services.

Road opening permits and street resurfacing projects are administered by the Franklin Township Public Works Department, Water Division, at 40 Churchill Avenue, Somerset, NJ.

3.2.7.1 Utilities

3.2.7.1.1 Sewer Service

Each townhouse will be connected via an individual sewer lateral to a proposed 8-inch PVC sanitary sewer that will be routed around the cul-de-sac and down the center of the access driveway to Norma Avenue. The 8-inch PVC sanitary sewer line will be connected to an existing 12-inch concrete sanitary sewer located in the center of Norma Avenue. Connection will be made with a proposed manhole. Sewer service is administered by the Franklin Township Public Works Department, Water Division, at 40 Churchill Avenue, Somerset, NJ. A NJDEP Treatment Works Approval (TWA) will also be required for this application.

3.2.7.1.2 Water Service

Each townhouse will have an individual water service connection to a proposed water main, which will be routed similarly and parallel to the proposed sanitary sewer. The proposed main will be connected via tap into an existing water main located under the southbound lane of Norma Avenue. Water service is provided and administered by the Franklin Township Public Works Department, Water Division, at 40 Churchill Avenue, Somerset, NJ.

3.2.7.1.3 Storm Sewer

There is no storm sewer/stormwater management system currently located on the Site. Curb inlets and storm sewers are located on each side of Norma Avenue and Franklin Boulevard.

The project disturbs more than one (1) acre of land, and also creates more than one-quarter acre of regulated impervious surface. Therefore, it meets the definition of "major



development" under the NJDEP Stormwater Management Rules at N.J.A.C. 7:8-1.2, and must comply with stormwater runoff quantity control, quality, and groundwater recharge requirements.

As part of the proposed project, stormwater runoff generated by proposed impervious surfaces (townhouse roofs, at-grade asphalt paved parking area and driveway, sidewalks) will be collected via storm sewer pipes and conveyed to a proposed bioretention basin. Pervious pavement is proposed, which will be used to provide quantity control, 80% Total Suspended Solids (TSS) removal for quality control and promote groundwater recharge. The bioretention basin may also provide quantity control, water quality treatment and groundwater recharge.

Refer to the Stormwater Management Report prepared by Frank H. Lehr Associates, Consulting Civil Engineers, in support of the proposed project for details regarding the proposed stormwater management system and compliance with the NJDEP Stormwater Management Rules at N.J.A.C. 7:8.

3.2.7.1.4 Natural Gas Service

Each townhouse will have an individual gas service connection to a proposed gas main routed similarly and parallel to the proposed sanitary sewer and water main. The proposed main will be connected via tap into an existing gas main located under the northbound lane of Norma Avenue. Gas service will be provided by PSE&G.

3.2.7.1.5 Electric Service

Each townhouse will have an individual electric service connection to existing electric service lines located along Norma Avenue. Electric service will be provided by PSE&G.

3.3 Human Resources

A review of the NJ Geo-Web Database indicates that the Site is not listed as a historic property or within a mapped archeological grid site. No existing cultural and social factors as they affect the proposed Site including unique aesthetic features and historical character of the site and surrounding area have been reported.

3.4 **Pollution Problems**

Under present conditions, no readily observable signs of issues with on-site polluted/contaminated areas were observed to be located on-site. According to the NJDEP's GIS databases, the subject property is not identified as a Registered Underground Storage Tank (UST) facility nor is it identified as being listed on the Known Contaminated Sites List (KNSL). There are no areas of historic fill, deed noticed areas, nor groundwater contaminated areas located on or proximate to the Project site.

As per information obtained via NJ-GeoWeb, no pollution problems have been reported during the time of the review.

4.0 Construction Phase

4.1 Development Schedule and Construction Phasing

See Table below for development schedule and construction phasing..

Table 4.1: Development Schedule and Construct	tion Phasing
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Task	Duration
Install SESC Measures	1 Week
Strip Site	2 Weeks
Rough Grade	1 Month
Construct Detention Pond	6 Weeks
Road Bed	4 Weeks
Building Pads	6 Weeks
Building Construction	1 Year
Sanitary Sewer	3 Weeks
Storm Sewer	4 Weeks
Water	2 Weeks
Electric	2 Weeks
Gas	2 Weeks
Curbing	1 Month
Flatwork	6 Weeks
Road Construction	4 Weeks
Landscaping	2 Weeks

5.0 Required Approval(s)

This section Include a list of all licenses, permits and other approvals required by municipal, county or state law and the status of each.

The approvals and permits are required before final consideration of the site plan are listed in the table below.

State	Permit	Jurisdiction	Status
NJDEP	Treatment Works Approval (TWA)	Sanitary Sewer	Pending
DRCC	Individual Development Permit	Review Zone B	Pending
County			



Table 5.1: Required Approvals

State	Permit	Jurisdiction	Status
Somerset County Planning Board	Site Plan Approval	Development within or adjacent to county roads or affecting county drainage facilities	Pending
Somerset-Union Soil Conservation District	Certification of Soil Erosion and Sediment Control Plan	Soil Erosion and Sediment Control Act (Chapter 251). Activities that disturb >5,000 square feet of land	Pending
Municipal			
Franklin Township	Site Plan Approval Subdivision Approval	Zoning Use Variance	Pending
Franklin Township	Building Permits	Construction Code	Pending

6.0 Impact(s) of the Proposed Project

6.1 Water Quality

Impacts to water quality as the result of construction of any proposed project can consist of temporary and permanent impacts. Temporary impacts are those that occur during construction and include soil erosion and sedimentation/siltation. Permanent impacts include runoff generated from impervious surfaces constructed as part of any proposed project.

The project will disturb more than 5,000 SF of land. Therefore, Soil Erosion and Sediment Control Plan Certification is required, and will be obtained from the Somerset-Union Soil Conservation District. Appropriate soil erosion controls will be installed during the construction phase to prevent off-site transport of soil by stormwater runoff during construction. These methods include, but are not limited to, installation of gravel construction entrance, and silt fencing and/or staked hay bales around the perimeter of the disturbed area.

Runoff generated on-site from the proposed project impervious areas will be managed for both quantity control, quality control and groundwater recharge in accordance with the NJDEP Stormwater Management Rules at N.J.A.C. 7:8.

Refer to the Stormwater Management Report prepared by Frank H. Lehr Associates, Consulting Civil Engineers, in support of the proposed project for details regarding the proposed stormwater management system and compliance with the NJDEP Stormwater Management Rules.

6.2 Air Quality

The only impacts associated with the Project will be any dust generated during the construction phase. This impact will be temporary and short term and will be mitigated by adherence to the approved Soil Erosion and Sediment Control plan.

The project does not involve manufacturing processes. Therefore, no stationary emissions associated with processes of this type will be discharged to the outside environment. Discharge of emissions would only be associated with onsite vehicular traffic from residents of and visitors to the proposed facility.

6.3 Noise

As discussed in a prior section, construction activities will result in a temporary increase in noise. Noise is a highly localized effect, which diminishes rapidly as the distance from the noise source increases. Therefore, noise impacts would occur primarily close to where construction equipment is operating. Following completion of the Project, there should be minimal discernible noise during operation of the proposed facility.

6.4 Undesirable Land Use Patterns

The Site is zoned O-P Office Professional. The majority of the surrounding areas are zoned for residential use. This Site is a relatively small residential project which will fit in with the adjacent areas surrounding the Project. Therefore, Undesirable Land Use Patterns are not likely to occur.

6.5 Damage or Destruction of Significant Plan of Wildlife Systems

6.5.1 Vegetation

Project construction requires some tree removal. Loss of on-site trees is proposed to be mitigated via the proposed landscape plan.

6.5.2 Wildlife

As previously indicated, adverse impacts to area wildlife resources will be minimized to the extent possible.

6.6 Aesthetic Values

Presently, the land is undeveloped and vacant. Trees may be removed during the development of the property. Trees are proposed to be installed as a part of the site development. See landscaping plans for proposed planting plan.

6.7 **Destruction of Natural Resources**

Trees may be removed during the development of the property. Trees are proposed to be installed as a part of the site development.



6.8 Displacement of People and Business

The project construction will not displace any people nor businesses.

6.9 **Displacement of Viable Farms**

Based on a review of historical aerial photographs, the Site has not been previously used for agricultural activities and therefore, no destruction of farms active within the past 5 years will be impacted by the Project.

6.10 Employment and Property Tax

As discussed, the Project will add additional residential lots to the Township. The facility will be taxable in accordance with the Township's schedule for taxation of such facilities as permitted by law. Construction, maintenance, and security opportunities within the Project may arise.

The proposed Project may introduce additional residents to the Township that may utilize available services and resources. However, in this respect, the Project would not adversely impact the Township's municipal expenditures.

6.11 Destruction of Man-made Resources

The Project construction will not result in the destruction of man-made resources.

6.12 Disruption of Desirable Community and Regional Growth

The Project construction will not result a disruption of desirable community and regional growth.

6.13 Traffic Impacts

A report was prepared to examine the potential traffic impact of the proposed residential development. The analysis findings, which were based on industry standard guidelines, indicate that the proposed development would not have a significant impact on the traffic operations of the adjacent roadway network. The site driveways and on-site layout have been designed to provide for effective access to and from the subject property. Based on industry data and local characteristics of the site and surrounding area, the parking supply would be sufficient to support this project.

Refer to the Traffic Report, prepared by Stonefield Engineering and Design, LLC, 92 Park Avenue, Rutherford, NJ, 07070, submitted as part of the application for details regarding traffic associated with the Project.

6.14 Health, Safety and Well-being of the Public

Health, safety, and the well-being of the public will not be adversely impacted as a result of construction and operation of the proposed Project. It is expected that all areas of construction will be fenced and gated so that those areas are kept separate from the public. Further, during



construction, safety measures will be implemented (i.e. orange plastic safety snow fence) to ensure safety of both employees and passers-by.

7.0 Adverse Impacts

As per the items discussed in Section 6.0, no significant adverse impacts from this project are anticipated.

8.0 Project Alternatives

The following alternative to the proposed project were analyzed.

8.1 No Project or No Action

A No Project or Action Alternative presents the potential outcome if Blackstone continued to maintain the existing conditions, as described above in section. 4.2. The land would remain vacant.

8.2 Description of Alternative Road Alignments (if applicable)

No alternative road alignment is applicable or foreseen at this time.

8.3 Analysis of the Costs and Social Impact

In contrast to a No Project or No Action Alternative, The Project would result in the development of vacant land for the development of twelve (12) townhouses, all associated utilities, ancillary systems, and general site development. The total Project area of disturbance is limited to approximately 1.696 acres of vacant land. The environmental impacts would result in increased tax dollars for Franklin Township. There are no documented negative effects on employment, property taxes or municipal services as a result of the Project.

9.0 Ameliorative Measures

Methods to minimize adverse impacts pertain to both temporary (construction) and permanent impacts. Methods employed to minimize adverse impacts include but are not limited to the following:

9.1 Vegetation

Project construction requires some tree removal. Loss of on-site trees is proposed to be mitigated via those replaced on-site as part of the proposed landscape plan.

TRC

9.2 Wildlife

Replacement trees and vegetation proposed as part of the Landscape Plan will provide cover and nesting habitat for birds and other small wildlife species.

9.3 Water Quality

Regarding temporary construction-related impacts, implementation of the Soil Erosion and Sediment Control (SESC) Plan and installation of SESC devise will eliminate/reduce/minimize impacts to adjacent properties and areas on-site proposed to remain in their pre-construction existing condition. This includes the installation of silt fencing and/or staked hay-bales around the limits of construction.

Elimination of potential contamination of groundwater could possibly occur as a result of leaking construction equipment and/or accidental spills. Proper maintenance procedures on the construction site would avoid most leaks and mishaps. Any spills (oil, gasoline, brake fluid, transmission fluid, etc.) would be contained immediately and disposed of properly, off-site, in accordance with State (NJDEP) and Federal (USEPA) protocol.

Long-term post-construction impacts to water quality, groundwater recharge, and quantity (runoff) control are addressed via the proposed pervious pavement and bioretention basin. Refer to the Stormwater Management Report for details.



10.0 References

Franklin Township Master Plan, 2006, and amendments 2007, 2008, 2009, 2021, 2013, and 2016 Reexamination. https://www.franklintwpnj.org/government/departments/planning-zoning/township-master-plan

New Jersey Geological Survey, 1998, "Aquifers of New Jersey", Open-File Map OFM-24

Schmidt Surveying.2020. "Survey of Property Tax Lots 3, 4, 5, 6 & 7 -Block 234 64 Norma Avenue Township of Franklin Somerset County, New Jersey.".

Stonefield Engineering and Design, LLC. "Traffic and Parking Assessment Report, Proposed Residential Development, 64 Norma Avenue, Block 234, Lots 3 – 7, Township of Franklin, Somerset County, New Jersey", September 22, 2021

TRC Site visit, September 10, 2021.

U.S. Geological Survey. 2019. New Brunswick Quadrangle. 7.5-minute series.



Attachment A: Map Figures



(Foot US) 1983 NAD System:

AYOUT: ANSI B(11"x17") 09:46:42 AM by LBOCHKIS 9/28/2021, 0 Plot Date: Path:





DRAWN BY:	L. BOCHKIS	PROJ NO.: 4	58931
CHECKED BY:	S. BURKE		
APPROVED BY:	B.SUTHERLAND	FIGURE 3	
DATE:	SEPTEMBER 2021		
		41 Spring Street, Suite 1 New Providence, NJ 079	02 174



(Foot US) Feet NAD 1983 0 Coordinate System: Map Rotation:

9/28/2021, 09:50:36 AM by LBOCHKIS -- LAYOUT: ANSI B(11"x17") M:\ArcGIS Files\4589312-APRX11-MXD\Figure 4 - Zoning Map.mxd Plot Date: Path:





(Foot US) NAD 1983 System: Coordinate Map Rotatio

B(11"x17") rset County ANSI 09:52:55 AM by | Files\458931\2-A 9/28/2021, M:\ArcGIS | Date: Bet







LEGEND

- PROPERTY BOUNDARY
- NJ Geoweb Streams
 - NJ Geoweb Water Bodies

SOURCE:

New Jersey Department of Environmental Protection (NJDEP) National Hydrography Dataset (NHD) Waterbody 2002 National Hydrography Dataset (NHD) Waterbody 2002 Publication_Date: 20101101

1,000

VILLA AT NORMA PARK 64 NORMA AVENUE TOWNSHIP OF FRANKLIN, SOMERSET COUNTY, NJ

2,000

NJ GEOWEB STREAMS & WATER BODIES MAP

DRAWN BY:	L. BOCHKIS	PROJ NO.: 45893
CHECKED BY:	S. BURKE	
APPROVED BY:	B.SUTHERLAND	FIGURE 6
DATE:	SEPTEMBER 2021	
♦ 1	IRC	41 Spring Street, Suite 102 New Providence, NJ 07974 Phone: 908.988.1700 www.trcsolutions.com

Figure 6 - NJ Geoweb Streams & Water Bodies Map.mxd







LEGEND

PROP	ERTY BO	DUNDAR	Y
4750			-

- 1750 MANAGED WETLAND IN MAINTAINED LAWN GREENSPACE
- 1850 MANAGED WETLAND IN BUILT-UP MAINTAINED REC AREA
- 5100 STREAMS AND CANALS
- 6210 DECIDUOUS WOODED WETLANDS
- 6231 DECIDUOUS SCRUB/SHRUB WETLANDS
- 6233 MIXED SCRUB/SHRUB WETLANDS (DECIDUOUS DOM.)
- 7430 DISTURBED WETLANDS (MODIFIED)

SOURCE: New Jersey Department of Environmental Protection (NJDEP), Land Use/Land Cover 2015 Update, Edition 20190128



NJ GEOWEB WETLANDS MAP

DRAWN BY:	L. BOCHKIS	PROJ NO.: 45893	
CHECKED BY:	S. BURKE		
APPROVED BY:	B.SUTHERLAND	FIGURE 7	
DATE:	SEPTEMBER 2021		
_		41 Spring Street, Suite 102	



41 Spring Street, Suite 102 New Providence, NJ 07974 Phone: 908.988.1700 www.trcsolutions.com

Figure 7 - NJ Geoweb Wetlands Map.mxd



Baltimore Annapods (ashington)
EGEND
PROPERTY BOUNDARY
SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1 % ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

riood alora					
ZONE A	No Base Flood Elevations determined.				
ZONE AE	Base Flood Elevations determined.				
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.				
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.				
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.				
ZONE A99	Area to be protected from 1 % annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.				
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.				
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.				
SOURC	E:				
NFIP P	anel 0276E				
FIRM - Flood Insurance Rate Map					
C	at Caunty Many Jamany				
Somers	Somersel County, new Jersey				

FIRM - Flood Insurance Rate Map Somerset County, New Jersey Panel 276 0f 301 Effective Date September 28, 2007 Map Number 34035c0276e Federal Emergency Management Agency

500

VILLA AT NORMA PARK 64 NORMA AVENUE TOWNSHIP OF FRANKLIN, SOMERSET COUNTY, NJ

1,000

Fee

TITLE:

FEMA FLOOD INSURANCE RATE MAP

DRAWN BY:	L. BOCHKIS	PROJ NO.: 458931
CHECKED BY:	S. BURKE	
APPROVED BY:	B.SUTHERLAND	FIGURE 8
DATE:	SEPTEMBER 2021	



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Figure 8 - FEMA Map.mxd







LEGEND

	PROPERTY BOUNDARY
RANK	
	Rank 1 - Habitat specific requirements
	Rank 2 - Special Concern
	Rank 3 - State Threatened
	Rank 4 - State Endangered
	Rank 5 - Federal Listed

SOURCES: New Jersey Department of Environmental Protection (NJDEP), 20170509 NJDEP Species Based Habitat, Piedmont Plains Region, Version 3.3

D	1,000	2,000
		Feet

VILLA AT NORMA PARK 64 NORMA AVENUE TOWNSHIP OF FRANKLIN, SOMERSET COUNTY, NJ

NJ GEOWEB LANDSCAPE MAP

DRAWN BY:	L. BOCHKIS	PROJ NO.:	458931
CHECKED BY:	S. BURKE		
APPROVED BY:	B.SUTHERLAND	FIGURE 9	
DATE:	SEPTEMBER 2021		
		•	



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Figure 9 - NJ Geoweb Landscape Map.mxd



Attachment B: Site Photographs



Photo 2



Photo 3 – Looking NW

Norma Avenue

Photo 4



Photo 5

Photo 6



Norma Avenue





Photo 8 – Site from Norma Ave.



Photo 9 – Site from Norma Ave.



Norma Avenue

Photo 10 – Corner of Norma Ave. and Franklin Blvd.



Photo 11 – Franklin Blvd. Looking SW



Photo 12 – Franklin Blvd. Looking SW



Franklin Boulevard





Photo 16 – Looking SW



Franklin Boulevard



Attachment C: Survey of Property





Attachment D: Statement of Qualifications



BARRY J. SUTHERLAND, PE, PP, CME

EDUCATION

B.S., Civil Engineering, Lehigh University, 1978

M.E, Environmental Engineering, Manhattan College, 1982

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Professional Engineer, New Jersey, (#24GE02913500), 1983 Professional Planner, New Jersey, (#33LI00506400), 1991 Certified Municipal Engineer, New Jersey, 2009

AREAS OF EXPERTISE

Mr. Barry J. Sutherland, PE, PP, CME is a Sr. Principal Engineer at TRC and has project management, design and construction management experience in the following areas:

- Site Remediation Design and Implementation
- Construction Management
- Stormwater Management and Flood Control
- Utilities-Drainage, Sanitary Systems and Water Supply
- Municipal Land Use and Regulatory Approvals

REPRESENTATIVE EXPERIENCE

Mr. Sutherland has over 40 years of diversified civil and environmental engineering experience. This has included; planning, design, project management, and construction management in the public and private sectors. He has designed and managed wastewater and storm water pumping station construction and upgrades, storm and sanitary sewer construction, replacement and rehabilitation combined sewer separation and overflow abatement, water main construction and replacement, roadway reconstruction, groundwater remediation extraction and treatment and landfill capping projects.

Public Service Electric & Gas Company (PSE&G), NJ Power Reliability Upgrades – NJ (Site Design Lead Engineer: January 2012 – Present)

Mr. Sutherland serves as Lead Site Design Engineer and Professional Engineer of Record for the upgrading of PSE&G's electrical substations throughout New Jersey. His services include site design, grading, stormwater management, soil erosion and sediment control and land use permitting for upgrades to existing electrical substations. TRC' s Electrical and Structural Engineers provide the required equipment layout for the upgrades and Mr. Sutherland and his staff design and permit the required site improvements. Permit applications are filed with the local municipal planning and zoning authorities, NJ Department of Community Affairs (DCA) and County Planning and Soil Conservation Districts, as applicable. Post construction services include inspections to determine compliance with regulatory permit requirements.

Public Service Electric & Gas Company, NJ Energy Strong System Upgrades-Construction Dewatering – NJ (Engineer of Record: 2014 – Present)

Mr. Sutherland serves as Engineer of Record for the construction dewatering permitting for the construction dewatering required for the PSE&G Inside and Outside Plant electric system upgrades. Mr.



Sutherland's staff provides construction dewatering calculations for foundations, manholes and conduits required for the system upgrades. Mr. Sutherland designs the required treatment systems to meet the NJDEP Surface Water Discharge requirements and obtains an Industrial Treatment Works Approval from the NJDEP.

Former Harvard Printing Facility – Orange and West Orange, NJ (Project Manager: 2004 – 2020)

Mr. Sutherland served as Project Manager for the redevelopment of a three-acre Brownfield site in Orange, New Jersey. The site is being developed for multistory residential units. Services include coordination with TRC's environmental division, determination of flood plain volume allowed to be developed, removing of a culvert and restoring the stream channel and preparation of site plan approval drawings for local municipal approval and preparation of applications with the New Jersey Department of Environmental Protection (NJDEP). He oversaw the construction of the site improvements on the property and coordinating approvals with regulatory agencies.

City of Clifton, Athenia Park Recreational Facility, Phase 2B – Clifton, NJ (Engineer of Record: November 2017 – Present)

Mr. Sutherland serves as the Engineer of Record for the construction of stormwater management improvements for a 6 Acre recreation facility being constructed on formal municipal landfill in the City of Clifton. Services included preparation of the application for a NJPDES Stormwater permit for discharges during the construction phase. Upon receipt of the permit from the NJDEP, a Stormwater Pollution Prevention Plan (SPPP) was prepared and Mr. Sutherland's staff proved site inspection and reporting services after significant rainfall events.

Confidential Client, Petro Chemical Industry, Bayonne Terminal Old Yard 4 – City of Bayonne, NJ (2019)

Mr. Sutherland served as Project Manager and Engineer of Record for the design build construction project for the construction of eight railroad sidings on an unused section of the terminal. Services included coordination with the rail designer to obtain the track elevations required, preparing a grading and storm drainage plan. The drainage system included a stormwater collection system for the track area, detention basin and a pumping station to discharge to an existing storm sewer system at the terminal. The project was fast tracked, and the system was designed, permitted and constructed in less than four months.

Confidential Client, Petro Chemical Industry, Sludge Lagoon Operable Unit (SLOU) Closure – NJ (Design Project Engineer, Construction Project Manager and Owner's Engineer: June 2009 – 2016)

Mr. Sutherland served as Project Design Engineer, Construction Manager and Owner's Engineer for various construction projects required for the closure of a 40-acre sludge lagoon at an active New Jersey refinery. Project included groundwater removal to lower the groundwater in a stabilized petroleum sludge lagoon to reduce the contact of the groundwater with the sludge and a surface cap consisting of artificial and natural grass coverage. He served as Construction Project Manager and Owner's Representative for the entire 15M remediation project. Post construction services included groundwater monitoring and cap inspections to determine compliance with NJDEP permit conditions.



Shieldalloy Metallurgical Corporation, Operable Unit 2 – Vineland, NJ (Lead Design Engineer: June 2016 – December 2019)

Mr. Sutherland was the Lead Engineer for this portion of the Super Fund Site located in Vineland, NJ. This Operable Unit is for the remediation of approximately 3,000 linear feet of the Hudson Branch which was impacted by metals and radiation byproducts from the metallurgical operation at the facility. Scope of work included delineation of impacted areas, HEC/RAS analysis to determine stream flows and elevations, preliminary and final design reports and final plans and specifications for construction bids. All documents were prepared for approval of the USEPA – Region 2 and NJDEP Permit Equivalents. Site restoration included removal of impacted materials, backfilling and restoration of riparian and wetlands area.

Confidential Client, Stream Remediation and Restoration – Nutley, NJ (Design & Construction Manager: 2014 – 2015)

Mr. Sutherland served as Design and Construction Manager for a stream bank stabilization and restoration project for a 600-foot section of a severely eroded stream passing through a portion of the client's property. Further erosion would have caused the site's historic fill to impact the stream. Stream velocities and characteristics were analyzed using HEC-RAS software, and appropriate geotextile materials selected to withstand erosive forces. Banks were graded to stable slope angles, blanketed with erosion control geotextiles, and re-vegetated to restore to natural conditions. Gabion retaining walls were used in areas where adequate area was not available for standard grading. A Flood Hazard Area Individual Permit was obtained from the NJDEP and certification from the local soil conservation district. Mr. Sutherland oversaw daily construction inspection by his staff.

New York City Economic Development Corporation & New York City Department of Parks & Recreation, Bush Terminal Railyard/Landfill/Piers/Park Remedial Actions – Brooklyn, NY (Design Engineer: 2006 – 2013)

Mr. Sutherland was the Lead Design Engineer for the preparation of detailed engineering plans and specifications for the of the 17-acre Bush Terminal Landfill Piers 1 to 4 project site (currently Bush Terminal Park) in Brooklyn. The landfill remediation, including the soil cap, passive landfill gas venting system, tidal pond filling and sediment capping, wetlands reestablishment, and stone seawall shoreline and pier stabilization. Approvals included a U.S. Army Corp of Engineers (USACE) permit application and Stormwater Pollution Prevention Plan (SWPPP) for NYSDEC approval for the landfill closure construction project which included significant waterfront filling and stone seawall construction activities. Mr. Sutherland assisted in the construction oversight services including contractor submittal reviews and responses to contractor requests for information.

PROFESSIONAL AFFILIATIONS

• NJ Society of Municipal Engineers



SHARON L. BURKE, PE

EDUCATION

- M.S., Civil Engineering, New Jersey Institute of Technology, 2020
- B.S., Civil Engineering, University of Maine, 1984

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

- Professional Engineer, New York (#066651-1), 1990
- Professional Engineer, New Jersey (#24GE04178300), 1999
- Professional Engineer, Maryland (#55856), 2020
- Professional Engineer, Pennsylvania (#PE092110), 2021
- Professional Engineer, New Hampshire (#16869), 2021
- NJDEP Flood Hazard Area Certification Program, 2018

AREAS OF EXPERTISE

Ms. Sharon L. Burke, PE is a licensed professional engineer and Senior Technical Manager at TRC, and has 25 years of technical design experience in the following areas:

- Land Development/Site Engineering
- Stormwater Management, Flood Studies, and Flood Control
- Hydrologic and Hydraulic Modelling
- Land Development Commercial, Industrial
- Site Remediation Design and Implementation
- Stream Corridor Restoration
- Septic System Design
- Erosion and Sediment Control Design
- Zoning Analysis
- NJDEP Land Use Regulation Program Flood Hazard Area Permitting
- NJDEP Treatment Works Approvals
- NJDEP Water Main Extension Permitting

REPRESENTATIVE EXPERIENCE

Ms. Burke is a senior engineer and technical manager at TRC, with 25 years of experience in civil engineering/land development, stormwater management and site remediation engineering. Her qualifications include extensive experience in stormwater management system design and modeling, site planning and design, stream corridor restoration, utility design, utility scale solar development projects, NJDEP LURP permitting, NJDEP TWA and Water Main Extension permitting, cost estimating, and project management. Ms. Burke's background prior to her work at TRC includes site, stormwater management system, and utility design for retail and commercial development projects for both public and private-sector clientele, including national supermarket chains, retail pharmacies, religious institutions, pharmaceutical research and manufacturing facilities, multi-tenant commercial centers, newspaper production facilities, New Jersey Motor Vehicle Commission (MVC) facilities, and New York State Department of Transportation (DOT).



NextEra Energy Resources, LLC, Chariot 50-MW Solar Project – Hinsdale, NH (Senior Engineer/Technical Manager: 2020-2021)

Ms. Burke served as the Senior Project Engineer for the site and stormwater management system design for a 400-acre 50-MW solar facility in Hinsdale, NH. Project included design of access roads, stormwater conveyance and management features, array space planning, and land use permitting and local and state levels.

SunEast Development LLC, Flat Hill 20-MW Solar Project – Manheim, NY (Senior Engineer/Technical Manager: 2020)

Ms. Burke served as the Senior Project Engineer for the site design, stormwater management system design and SWPPP preparation for a 200-acre 20-MW solar facility in Manheim, NY. Project included design of access roads, stormwater conveyance and management features, array space planning, and land use permitting and local and state levels.

CSX, Curtis Bay Piers, Drainage Improvements – Baltimore, MD (Senior Engineer/Technical Manager: 2019)

Ms. Burke currently serves as Senior Project Engineer for upgrade of the existing drainage system for CSX Curtis Bay Piers Facility, located within the Chesapeake Bay Port area. The pier in question currently functions as a coal loading facility for barges via a ship loader than traverses the pier on rails. The facility currently utilizes a pier under drain system where a series of deck drains collect runoff and transfers stormwater to one of four localized sumps. The deck drains are showing signs of age and corrosion due to the conditions of the brackish water environment. The four existing sumps are each equipped with sump pumps connected to a common force main header which delivers stormwater to an existing lift station. The lift station then transfers stormwater to the stormwater perimeter ditch line surrounding the coal storage pad centrally located in the facility, where ultimately the stormwater is transferred to the stormwater reuse treatment system headworks. Tasks for this project include the design of an upgraded gravity collection network which will connect the existing deck drains on the pier surface to the four existing sumps. Additionally, each of the four lift stations and force main will be redesigned to improve capacity of the system to collect and transport back to the existing lift station and treatment plant located within the facility property.

National Grid, Hydrologic/Hydraulic Analysis – New York Mills, NY (Senior Engineer/Technical Manager: 2019)

Ms. Burke served as Senior Project Engineer for preparation of a hydrologic and hydraulic analysis to determine the extent to which gas pipeline relocation within a river floodway would increase flooding impacts to the surrounding properties/village of New York Mills, NY. The project involved field inspection, communication with township officials, and research of previously performed flood studies. Current field survey data and FEMA were used to perform a standard step backwater analysis performed using U.S. Army Corps HEC-RAS software. She prepared a detailed report and recommendations for the client's use in negotiations with township officials.

New York State Parks Department (Senior Engineer/Technical Manager: 2019)

Ms. Burke served as Senior Project Engineer for the development of plans and specifications for a vehicle/equipment wash pad/recycling system at Rockland Lake State Park. The client's criteria for the



system was to provide a method to wash golf course maintenance vehicles, treat the waste wash water and recycle it as a closed loop system. Ms. Burke reviewed available options including a cast in place concrete wash pad with sump and a premanufactured closed loop wash rack system. She also provided recommendations, conceptual site plans and cost estimates for each type of system.

Colonial Pipeline Company, Pipeline Revetment Project – West Deptford, NJ (Senior Engineer/ Technical Manager: 2019)

Ms. Burke served as Senior Project Engineer for the repair and stabilization of an eroded section of stream that threatens to expose a 30-inch diameter section of a Colonial petroleum pipeline. The stream is an unstudied tributary which required both hydrologic and hydraulic analysis to delineate the flood hazard area and floodway of the stream, and determination of flow rates and velocities to select an appropriate method to remediate the stream banks to ensure adequate cover over the pipeline. The hydraulic analysis included a standard step backwater analysis performed using U.S. Army Corps HEC-RAS software. The project requires preparation and submittal of Freshwater Wetlands and Flood Hazard Area permits to the NJDEP. Remedial design included use of concrete revetment matting to realign and stabilize the stream channel.

International Business Machines Corporation (IBM), Groundwater Treatment System Discharge Design – Dayton, NJ (Senior Engineer/Technical Manager: 2018 – 2019)

Ms. Burke served as Project Engineer for the design of a subsurface treated groundwater effluent discharge system. The system was designed to replace an existing irrigation spray field which is nearing the end of its useful life. The design consisted of a prefabricated plastic vault system with perforated sidewalls and open bottom, surrounded by crushed stone wrapped in geotextile. Ms. Burke supervised the final design and preparation of construction plans and specifications for the project.

Enbridge (Texas Eastern Transmission, LP), Lambertville East Expansion Project – NJ (Senior Project Engineer/Manager: 2016 – Present)

Ms. Burke served as Senior Project Engineer for the New Jersey Department of Environmental Protection (NJDEP) Division of Land Use Regulation (DLUR) flood hazard area permitting, and County soil erosion and sediment control permitting for the Enbridge, Lambertville East Expansion Project. The Project seeks to expand the compression facilities at Texas Eastern Transmission, LP's Lambertville Compressor Station. The project required stormwater management system design that included use of a both bioretention basins and manufactured treatment devices to achieve compliance with the NJDEP stormwater management regulations.

Precoat Metals – Elkridge, MD (Project Manager: 2018)

Ms. Burke served as Senior Project Engineer and Project Manager for the retrofit of an existing facility stormwater management basin with a pretreatment forebay and surface sand filter for water quality treatment. This retrofit is necessary for the facility to achieve compliance with the Chesapeake Bay Restoration Requirement for existing facilities to treat of 20 percent of their existing impervious surfaces. She prepared plans and specifications for a private bid and is assisting in oversight of the construction of the site improvements on the property and coordinating approvals with regulatory agencies.



Former Harvard Printing Facility – Orange and West Orange, NJ (Senior Project Engineer/Manager: 2014 – Present)

Ms. Burke served as Senior Project Engineer for the redevelopment of a three-acre Brownfield site in Orange, New Jersey. Site is being developed for multistory residential units. Services include preparation of site plan approval drawings preparation of applications with the New Jersey Department of Environmental Protection. She prepared plans and specifications for a private bid and is assisting in oversight of the construction of the site improvements on the property and coordinating approvals with regulatory agencies.

Shieldalloy Metallurgical Corporation, Operable Unit 2 – Vineland, NJ (Senior Project Engineer: 2016 – Present)

Ms. Burke served as Senior Project Engineer for this portion of the Super Fund Site located in Vineland, NJ. This Operable Unit is for the remediation of approximately 3,000 linear feet of the Hudson Branch which was impacted by metals and radiation byproducts from the metallurgical operation at the facility. Scope of work included delineation of impacted areas, HEC/RAS analysis to determine stream flows and elevations, preliminary and final design reports and final plans and specifications for construction bids. All documents were prepared for approval of the USEPA – Region 2 and NJDEP Permit Equivalents. Site restoration included removal of impacted materials, backfilling and restoration of riparian and wetlands area.

Former Gulton Industries Facility – Metuchen, NJ (Senior Project Manager: 2015 – 2016)

Ms. Burke served as Senior Project Engineer for the remediation of nickel and cadmium media from a portion of the Dismal Brook in Metuchen, NJ. The former Gulton plant manufactured nickel-cadmium batteries at the site and impacted approximately 1,000 linear feet of the brook. Scope of work included delineation of impacted areas, HEC/RAS analysis to determine stream flows and elevations, preparation and submittal of Freshwater Wetlands and Flood Hazard Area permits to the NJDEP. Remedial design included dredging of the brook to remove impacted sediments, channel design and restoration of riparian and wetland areas.

Hoffman-La Roche, Stream Remediation and Restoration – Nutley, NJ (Senior Project Manager: 2014 – 2015)

Ms. Burke served as Senior Project Engineer for a stream bank stabilization and restoration project for a 600-foot section of a severely eroded stream passing through a portion of the client's property. Stream velocities and characteristics were analyzed using HEC-RAS software, and appropriate geotextile materials selected to withstand erosive forces. Banks were graded to stable slope angles, blanketed with erosion control geotextiles, and re-vegetated to restore to natural conditions.

Gabion retaining walls were used in areas where adequate area was not available for standard grading. She performed net-fill analysis in accordance with NJDEP requirements for permitting of work located within Flood Hazard and Riparian regulated areas. Ms. Burke detailed engineering report and calculations were prepared in support of a Flood Hazard Area Individual Permit. Permits were obtained from the NJDEP and local soil conservation district. Construction was completed in November 2015.



Philadelphia Water Department Bio-Retention Basin Design – Philadelphia, PA (Senior Project Manager: 2014 – 2015)

Ms. Burke served as Senior Project Engineer for the planning and design of a stormwater management retrofit project to reduce runoff from existing Directly Connected Impervious Areas to the City of Philadelphia's combined sewer system. The project, which was funded by a grant from the Philadelphia Water Department (PWD), includes the retention and infiltration of approximately 4,300 CY of runoff, which will be redirected to two planted bio retention basins. The basins will provide runoff volume reduction, removal of total suspended solids (TSS), recharge of groundwater, and enhancement of Site aesthetics with the addition landscaping within the basin footprints.

Nu Products Seasoning Company, Septic System Expansion and New System Design – Oakland Borough, NJ (Senior Project Manager: 2015)

Ms. Burke served as Senior Project Engineer for the expansion of an existing septic system and design of an additional new septic system to serve office and product production areas of a newly purchased building to be retrofitted for the Client's operations. The project involved soil test pit layout plans, additional septic tanks, pump upgrade, dosing tank and pump, septic field design, preparation of calculations in accordance with NJDEP requirements for regulatory approval, and preparation of construction plans and details. Construction was completed in October 2015.

Stop & Shop Supermarket Co., Supermarkets – Multiple Locations, NJ (Senior Project Engineer: 2001 – 2005)

Ms. Burke served as Senior Project Engineer for numerous 90,000 sf +/-supermarket and shopping center retrofit projects throughout the State of New Jersey. Her responsibilities included site layout, grading, stormwater management and utility design, coordination with outside consultants for architecture, landscaping, site lighting, and signage, preparation of site plan application packages for submission to regulatory authorities, stormwater management system design and reports, coordinating regulatory submission requirements, NJDEP Land Use Regulation Program permitting, NJDEP Treatment Works Approval Permitting, NJDEP Water Main Extension Permitting, Soil Conservation District permitting, and expert civil engineering testimony at all required public planning and zoning board hearings.

CVS Pharmacies, Retail Pharmacies – Multiple Locations, NJ (Senior Project Engineer: 2011 – 2013)

Ms. Burke served as Senior Project Engineer for numerous 16,000 sf +/- full-service drive-thru pharmacies throughout the State of New Jersey. Her responsibilities included site layout, grading, stormwater management and utility design, coordination with outside consultants for architecture, landscaping, site lighting, and signage, preparation of site plan application packages for submission to regulatory authorities, stormwater management system design and reports, coordinating regulatory submission requirements, NJDEP Land Use Regulation Program permitting, NJDEP Treatment Works Approval Permitting, NJDEP Water Main Extension Permitting, Soil Conservation District permitting, and expert civil engineering testimony at all required public planning and zoning board hearings.



Jeeyar Educational Trust (JET USA), Spiritual and Humanitarian Center – Cranbury, NJ (Senior Project Engineer: 2013)

Ms. Burke served as Senior Project Engineer for the design of a 35,000-sf spiritual and humanitarian center in Cranbury, NJ. Her responsibilities included site layout, grading, stormwater management and utility design, septic system design, preparation of site plan application packages for submission to regulatory authorities, stormwater management system design and reports, coordinating regulatory submission requirements, NJDEP Flood Hazard Area and Wetlands permitting, Soil Conservation District permitting, and expert civil engineering testimony at all required public zoning board hearings.

New Jersey Division of Motor Vehicles, Upgrade/Expansion of Motor Vehicle Inspection Stations – Multiple Locations, NJ (Senior Project Engineer: 1999 – 2000)

Ms. Burke served as Senior Project Engineer for the upgrade/expansion of 31 existing and two new motor vehicle inspection stations in various locations throughout the State of New Jersey. Her responsibilities included layout of new vehicle inspection lanes, grading, stormwater management and utility design, stormwater management system design and associated reports.

Merck & Co., Campus-Wide Storm Sewer System Evaluation – Rahway, NJ (Senior Project Engineer: 2000)

Ms. Burke served as Senior Project Engineer for a campus-wide analysis of the client's existing stormwater management system. She identified existing drainage problems based upon client concerns and field inspections, supervised video-testing of existing sewers, performed hydrologic and hydraulic analysis, coordinated with existing underground utility locations, and prepared construction plans for upgrades.

Hudson County Correctional Center, Prison Expansion – Kearny, NJ (Senior Project Engineer: 2000)

Ms. Burke served as Senior Project Engineer for expansion of an existing correctional facility. Her responsibilities included access road and security fence layout, visual barrier layout to shield from an adjacent facility, grading, stormwater management and infrastructure design, and preparation of site plan application packages.

New Jersey DOT, Streetscape Project, State Route 124 – Maplewood, NJ (Senior Project Engineer: 2000)

Ms. Burke served as Senior Project Engineer for a streetscape upgrade to a portion of Springfield Avenue (State Route 124) in Maplewood, NJ. This project involved aesthetic and functional upgrades, including roadway widening, utility relocation, addition of center islands, curbing and paver modifications to enhance pedestrian walkway areas, and landscaping. Her responsibilities included coordination with streetscape architect, field investigation of/coordination of design with existing utilities located within project zone, and preparation of construction plans and documents.

SPECIALIZED TRAINING

- Master's level coursework in advanced Hydrology and Hydraulics
- Autodesk[®] Storm and Sanitary Analysis
- HydroCAD[®] Stormwater Modeling



- HEC-RAS 5.0.7 River Analysis System (U.S. Army Corps of Engineers)
- AutoCAD® Civil 3D®
- USDA/NRCS TR-55 and TR-20
- Bentley Storm CAD[®]
- Bentley PondPak[®]

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers
- National Society of Professional Engineers

EXPERT TESTIMONY

Ms. Burke has provided expert civil engineering testimony before numerous New Jersey municipal planning and zoning boards on behalf of site plan applications for various commercial, institutional and private development clients.