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East Delavan Sewer Improvements Project (SPP 333 CSO-053_11)

Final Scope of Work
June 25, 2025

BUFFALO SEWER AUTHORITY

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1. Project Overview

The Buffalo Sewer Authority (herein referred to as Buffalo Sewer) owns, operates, and maintains the combined sewage collection system within the City of Buffalo (City). Currently, this sewer system collects and conveys sanitary sewage and stormwater from several communities in the City of Buffalo and surrounding communities to the Bird Island Wastewater Treatment Facility (Bird Island WWTF), owned and operated by Buffalo Sewer.

The proposed project would build new underground facilities to store rainwater and sewage, also known as combined sewage, that is generated during rainstorms or as the result of snowmelt. Following the storm or snowmelt event, this stored combined sewage would be sent to the Bird Island WWTF for treatment and discharge via the WWTF's existing outfall to the Niagara River. This would reduce the number and volume of Combined Sewer Overflows, also known as CSOs, into Scajaquada Creek and other water bodies.

CSOs are necessary in older systems, like Buffalo's, to prevent combined sewage from backing up into buildings or flooding into streets during large rain events. During wet weather, untreated or partially treated combined sewage is diverted to receiving waterbodies in accordance with Buffalo Sewer's New York State Pollutant Discharge Elimination System (SPDES) permit, which is a permit that controls wastewater discharge. The SPDES program has been approved by the United States Environmental Protection Agency (USEPA) to help regulate wastewater and stormwater discharged in compliance with the Clean Water Act. The SPDES permit is regulated (issued, managed and modified by) the New York State Department of Environmental Conservation (NYSDEC).

In addition to the State level permitting on discharges, there are also national permitting requirements known as National Pollutant Discharge Elimination System (NPDES) permit program. Under NPDES, the USEPA has a national framework for controlling CSOs through the CSO Control Policy. This policy has led to broader collaboration between USEPA and communities across the United States to provide guidance on how these communities can achieve the goals of the Clean Water Act. The CSO Control Policy has two phases to help communities manage CSOs. During the first phase, a community must develop a Long-Term Control Plan (LTCP), which is a plan that describes how a community will comply with water quality standards as well as other CSO Policy and Clean Water Act requirements. During the second phase, communities with CSO's must continue to implement water quality controls, meet the goals of any LTCP, and conduct monitoring to verify and ensure that water quality standards are being met.

In 2014, Buffalo Sewer received approval of their multi-year LTCP from NYSDEC and the USEPA. In addition to several other projects throughout the system, the LTCP recommended constructing an offline CSO storage facility along East Delavan Avenue to temporarily store combined sanitary and stormwater that would typically overflow into Scajaquada Creek via a weir structure (a structure which manages the flow of water) at Sewer Patrol Point (SPP) 333 (CSO-053_11). This is referred to as the Buffalo Sewer's East Delavan Sewer Improvements Project (SPP 333 CSO-053_11). Another project identified in the LTCP in the vicinity of the East Delavan Sewer Improvements Project includes upsizing a pipe from the Buffalo Sewer's SPP 229A at Florida Street (CSO-053_10). This project is underway, and construction is anticipated to begin in fall 2024. Both the improvements at SPP 229A at Florida Street and the East

Delavan Sewer Improvements Project (SPP 333 CSO-053_11) are located within the Masten District of the City of Buffalo.

As projects that require funding and approval from New York State, they are subject to environmental review under the State Environmental Quality Review (SEQR) Act. The Buffalo Sewer Authority will serve as Lead Agency for the SEQR process and will work with NYSDEC to prepare the required environmental documentation consistent with Section 8-0113, Article 8 of the Environmental Conservation Law as set forth in 6 NYCCRR, Part 617 and the State Environmental Review Process (SERP) as required by the State Revolving Fund loan program. The project is currently listed as part of the 2024 Clean Water State Revolving Fund. An updated Intended Use Plan (IUP) was submitted to re-list the proposed project for the 2025 funding cycle.

The Buffalo Sewer Authority has determined that the East Delavan Sewer Improvements Project (SPP 333 CSO-053_11) (also referred to herein as the Proposed Action) requires the preparation of a Draft Environmental Impact Statement (DEIS) in accordance with SEQR. Public scoping is the first step in the environmental review process and is the period during which government agencies, elected officials, community organizations, groups, and individuals can review and provide comments on the Draft Scope of Work to Prepare a DEIS. This Draft Scope of Work (Draft Scope) describes the following: the purpose and need for the Proposed Action, a summary of the alternatives being considered for the Proposed Action, and the methodologies to be used in assessing the potential for impacts associated with the Proposed Action alternatives. Finally, the proposed impact assessment methodology for each DEIS environmental resource area is described to indicate how the potential for impacts will be assessed and disclosed in the DEIS.

Because the SPP 229A project is a separate and distinct project which constitutes upgrades to existing infrastructure within the existing utility right-of-way of Florida street, Buffalo Sewer has determined the project constitutes a Type II Action under SEQR, making it is exempt from environmental review. Therefore, the forthcoming EIS and this associated Draft Scope will focus on evaluation of the Proposed Action – construction of a CSO storage facility along East Delavan Avenue.

1.1 Background and Identification of the Proposed Action

Buffalo Sewer owns, operates, and maintains the combined sewage collection system within the City of Buffalo (City) and also uses this system to collect sanitary flow and stormwater from parts of the Towns of Alden, Cheektowaga, Elma, Lancaster, Tonawanda, and West Seneca; the Villages of Depew, Lancaster, and Sloan; and Erie County Sewer District Nos. 1 and 4. All flow collected within the system is conveyed to Buffalo Sewer's Bird Island WWTF.

The Buffalo Sewer combined sewer system covers 110 square miles. The City is located near several water bodies including Lake Erie, the Niagara River, Black Rock Canal, Cazenovia Creek, and the Scajaquada Creek. Historically, the City was developed as an end point to the Erie Canal, which brought industry and commerce to the area at its peak.

As development and settlement in the City grew, the Niagara River was first used as a convenient site of disposal for community sewage in the 1930's.[1] Prior to sewer systems being built, disposing of domestic wastewater was the responsibility of the individual and disposal of industrial waste was the responsibility of individual industrial firms. During this time there was an out of sight, out of mind attitude for wastewater disposal, particularly in urban areas across the United States.[2] In addition to discharge of sewage directly to the Niagara River, a sewer system was eventually established to carry combined sewage and storm water to the Buffalo River, Scajaquada Creek, and Black Rock Canal. However, this posed a significant environmental problem – the health of these water bodies became threatened as the discharge of untreated sewage from several points throughout the City increased as the City grew. In 1938, the Buffalo Sewer was established to help address water quality issues and the Bird Island WWTF was constructed. In addition to construction of the WWTF, intercepting sewers were also constructed, which are large pipes that carry wastewater from points throughout the City to the Bird Island WWTF for primary treatment. Primary sewage treatment involves the separation, purification, and discharge of liquid waste and the drying and disposal of solid waste, also known as sludge. With the help of federal and state grants, secondary treatment facilities were constructed and placed in service at the Bird Island WWTF in 1981. Secondary treatment uses bacteria to consume pollutants and can be more effective than primary treatment in improving the quality of wastewater discharges since primary treatment relies solely on mechanical methods to remove pollutants from wastewater.[3]

Today, the Buffalo Sewer's Bird Island WWTF is the second largest wastewater treatment plant in New York State. Currently, wastewater is treated at the Bird Island WWTF before it is discharged to the Niagara River via two permitted outfalls. As stated above, during wet weather, untreated or partially treated combined sewage is diverted to receiving waterbodies in accordance with Buffalo Sewer's SPDES permit.

1.2 Location

The Proposed Action is located within the Masten District neighborhood of the City of Buffalo, Erie County, New York as seen in **Figure 1**. The project area generally extends from a quarter to a half-mile around East Delavan Avenue between its intersection with Jefferson Avenue and contains a portion of Canisius University (Canisius) property to the north and south. The Forest Lawn Cemetery and Delaware Park are located to the north, and Humboldt Parkway borders the project area's eastern edge. The project area is west of the neighborhoods of Hamlin Park and east of Elmwood Village.

[1] Buffalo Sewer Authority. (2013). History. Retrieved August 1, 2024, from https://buffalosewer.org/history/

[2] Rossi, M. C. (1995). The history of sewage treatment in the City of Buffalo, New York. Middle States Geographer, 28, 9-19. Retrieved from https://msaag.aag.org/wp-content/uploads/2013/04/2_Rossi.pdf

[3] Rossi, M. C. (1995). The history of sewage treatment in the City of Buffalo, New York. Middle States Geographer, 28, 9-19. Retrieved from https://msaag.aag.org/wp-content/uploads/2013/04/2_Rossi.pdf

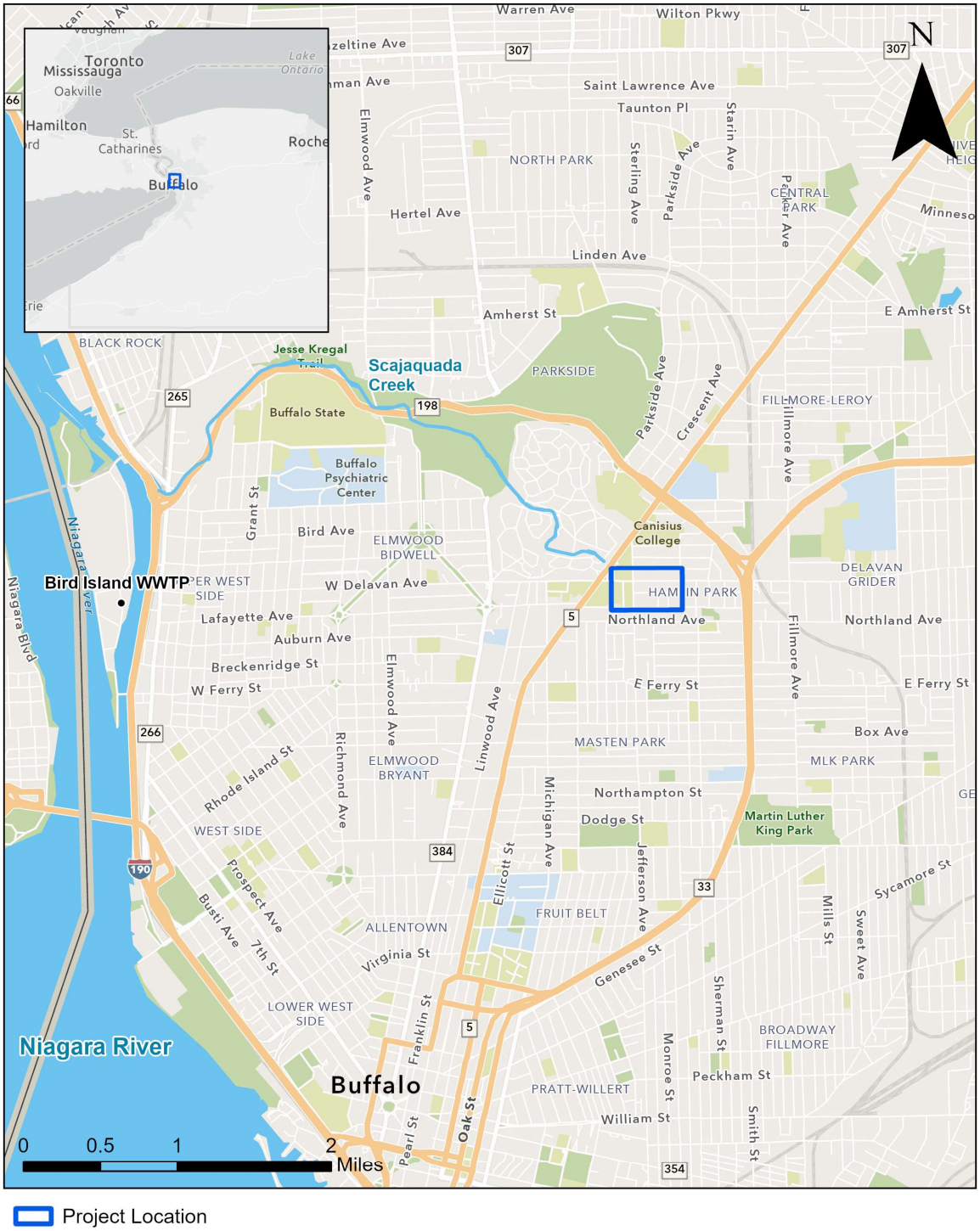

Figure 1: Project Location

1.3 The Proposed Action

This Proposed Action is intended to provide up to 1.5 million gallons (mg) of storage for combined sewage, with the goal of reducing the number of times the combined sewer collection system overflows, referred to as CSO activations. The number of CSO activations for a typical year varies by sewer patrol point within Buffalo Sewer's system and are listed in

Table 1-1

Table 1-1 for SPP 229A and SPP 333. For SPP 333, there are currently up to 24 CSO activations within a typical year, based on the USEPA Storm Water Management Model (SWMM) documented in Buffalo Sewer's 2023 draft LTCP Optimization Selected Alternative Technical Memorandum (herein referred to as LTCP). According to the LTCP, the Proposed Action would reduce the frequency of typical year CSO activations from SPP 333 to the Scajaquada Creek.

Table 1-1: CSO Activations by Sewer Patrol Point During Typical Year Model

Sewer Patrol Point (SPP)	Number of Overflow Activations [1]
229A	6
333	24

(1) Based on the Buffalo Sewer Authority 2023 draft LTCP Optimization Selected Alternative TM from EPA SWMM model (2018 calibration with projects implemented between 2018 and 2023 included).

2. Purpose, Need, and Benefits

For Buffalo Sewer to comply with the approved LTCP, improvements must be implemented to minimize the number of CSO activations to the Scajaquada Drain (and downstream Scajaquada Creek) resulting from heavy rainfall events.[4] If no engineering intervention is taken, flows will continue to increase, causing further increases in the amount of CSO activations due to increasing urbanization and the expansion of impervious surfaces – surfaces that do not absorb water such as sidewalks, driveways, parking areas – within the City. Implementation of projects within Buffalo Sewer's LTCP will ultimately support the overall health and environmental conditions of the receiving waterbodies by reducing the frequency and volume of combined sewage entering the Scajaquada Creek via the Scajaquada Drain.

In addition to providing water quality benefits downstream, the Proposed Action will also implement community betterment initiatives which may include replanting of trees and landscaping in the project vicinity, new water and sewer pipes, and workforce development opportunities.

[4] The Scajaquada Drain carries CSO flow from SPP-229A and SPP-333 to Scajaquada Creek.

2.1 Project Description

To comply with the LTCP and reduce CSO activations within the study area, flow will be diverted at SPP-333, which is located at the southwest corner of Canisius property, to a proposed 1.5 mg offline storage structure. Flow will be held and subsequently discharged to the existing Scajaquada Tunnel sewer located along Florida Street at Spillman Place before it is conveyed to and treated at the Bird Island WWTF.

To address the requirements of SEQR, the DEIS will evaluate reasonable alternatives for providing the required 1.5 mg of offline storage for combined sewer flow at SPP-333. Two design alternatives that achieve the goals and objectives of the Proposed Action are expected to be analyzed in the DEIS, which include: (1) construction of an underground storage tunnel; and (2) construction of an underground deep storage tank. These alternatives are further discussed in Section 4.2.

The DEIS will not present a selected preferred alternative and will equally examine both alternatives. Before selecting a preferred alternative, Buffalo Sewer will seek community feedback through both the environmental review process (which includes preparation of the DEIS and associated public hearings) and implementation of the project's Enhanced Public Participation Plan, a requirement of Buffalo Sewer's SPDES permit. It's anticipated that the preferred alternative will be selected and discussed within the project's Final EIS (FEIS) following review of, and response to, public comments received on the DEIS.

3. Local, State, and Federal Permits and Approvals

Implementation of the Proposed Action would require modification of the existing SPDES Permit for SPP 333 and additional approvals from state and local agencies. Local permits and approvals may be required for new construction, such as site plan approvals and building permits in the affected areas. An updated list of anticipated permits and approvals will be identified in the EIS, as needed. These actions and approvals may include:

State

- New York State Department of Environmental Conservation
    - SPDES General Permit for Construction Discharges
    - Beneficial Use Determination
- New York Natural Heritage Program
    - Consultation
- New York State Office of Parks, Recreation and Historic Preservation
    - Consultation
- New York State Environmental Facilities Corporation
    - Clean Water State Revolving Fund
- New York State Department of Transportation
    - Special Hauling Permit

County

- Erie County Department of Health
    - Sewer/Wastewater/Construction Permits

Local

- City of Buffalo
    - Special Use Permit
    - Building Permit(s)
- City of Buffalo Bureau of Forestry
    - Tree Work Permit

4. Scope of the Environmental Impact Assessment

4.1 Environmental Review

This Draft Scope was created to outline the components of the DEIS and the methodology that will be used to conduct impact assessments within the DEIS. In accordance with SEQR, this Draft Scope has been published and publicly shared for review and comment. A Draft Scoping hearing on the project will be held to solicit comments from the public with respect to the content and methodologies that will be used to assess potential impacts of the Proposed Action within the DEIS. Both the NYSDEC and USEPA are considered involved agencies to the EIS process.

The detailed impacts to be evaluated and discussed in the DEIS will primarily occur during the construction phase for each of the two project alternatives, rather than during project operation. A description of each project alternative is provided below in Section 4.2.

4.2 Analytical Framework

This section outlines the analytical framework that will be used to evaluate both the potential benefits and impacts associated with the Proposed Action. The DEIS will also consider and assess cumulative associated impacts from the Proposed Action that may potentially occur within environmental resource areas evaluated. For each environmental resource area, there will be an evaluation of baseline conditions, conditions in the future without the Proposed Action, and conditions in the future with the Proposed Action.

Baseline Conditions. Baseline conditions, also sometimes referred to as existing conditions, will be evaluated to establish a baseline from which future conditions can be compared. These conditions will be developed based on data and studies collected and analyzed as part of the SEQR process.

Future Without the Proposed Action. The Future Without the Proposed Action will describe the conditions of the project site without enactment of the Proposed Action. In the Future Without the Proposed Action, there would be no reduction in CSO activations from SPP-333 into Scajaquada Creek.

Future With the Proposed Action. The Future With the Proposed Action will evaluate alternatives that support and comply with Buffalo Sewer's LTCP by reducing CSO activation events for SPP 333. Potential changes to the study areas which would result from the Proposed Action will be compared to the Future Without the Proposed Action to assess the potential for both benefits and significant adverse impacts.

A project study area ranging from a quarter-mile to a half-mile will be evaluated for the following environmental resource areas: Land Use, Zoning, Community Plans, and Public Policy; Community Facilities and Services; Open Space and Recreation; Archeological, Historic, and Cultural Resources; Visual Resources and Community Character; Natural Resources; Socioeconomic Conditions; and Environmental Justice.

A quarter mile study area is the standard for many of the resource areas identified above. However, for analysis focusing on service-based resources such as those detailed in the sections Community Facilities

and Services and Open Space and Recreation (which includes facilities such as parks, trails, and more), a half mile study area was chosen to ensure that potential impacts to local community-based facilities that individuals within the vicinity of the project location may utilize were captured.

The study area for the following environmental resource areas will be where direct impacts or changes may occur: Geology; Hazardous Materials; Water Resources and Sewer Infrastructure; Energy; Transportation; Air Quality, Greenhouse Gas Emissions, and Odor; Noise, Vibrations, and Light; and Public Health.

A summary of the Future Without the Proposed Action and alternatives for the Future With the Proposed Action that will be evaluated in the DEIS are as follows:

4.2.1 Future Without the Proposed Action – Alternative A

Alternative A is the future condition without the Proposed Action. Alternative A assumes that there would be no reduction or improvements in the frequency of combined sewer overflows (activations) in the project area. Although Buffalo Sewer's Amended Administrative Order with the USEPA stipulates a compliance schedule for implementation of the LTCP projects, and the mandate precludes Buffalo Sewer from evaluating a 'no-action' alternative, for the purposes of this Draft Scope and the DEIS, a no-action baseline alternative will be considered to provide a basis for comparison of impacts from other reasonable alternatives.

4.2.2 Future With the Proposed Action - Alternative B (Storage Tunnel)

Alternative B would consist of a 1.5 mg storage tunnel with a finished diameter of 14-ft beneath the East Delavan Avenue right-of-way which is between Meech Street (eastward) and Main Street (westward) as seen in

Figure 2**.** The storage tunnel would extend approximately 1,500 linear feet (LF) in the east-west direction beneath East Delavan Avenue approximately 30-feet below grade. Alternative B would require approximately 0.40 acres of permanent land transfer from Canisius University to the City of Buffalo at the northern intersection of Spillman Place and Delavan Avenue.

Construction of Alternative B would take approximately three years and would involve temporary disturbances to Canisius property.

Alternative B involves construction activities that would be noticeable at businesses and residences along East Delavan Avenue, as well as limited impacts in the vicinity of homes/residences at Spillman Place and Florida Street.

4.2.3 Future With the Proposed Action - Alternative C (Deep Storage Tank)

Alternative C would consist of a deep storage tank with a storage volume of 1.5 mg beneath Canisius property at the corner of East Delavan Avenue and north of Spillman Place, as seen in **Figure 3**. The top of the deep storage tank would be approximately 20 feet below grade. The deep storage tank would extend approximately 165 LF in the north-south direction and 65 LF in the east-west direction along the western edge of Canisius property. An equipment building that would house electrical and HVAC

equipment and instrumentation systems would be located above ground on Canisius property. Alternative C would require approximately 0.20 acres of permanent land transfer from Canisius University to the City of Buffalo at the northern intersection of Spillman Place and Delavan Avenue.

Construction would take approximately two years and would involve temporary land disturbance that would primarily impact Canisius property with limited impact in the vicinity of homes/residences at Spillman Place and Florida Street.

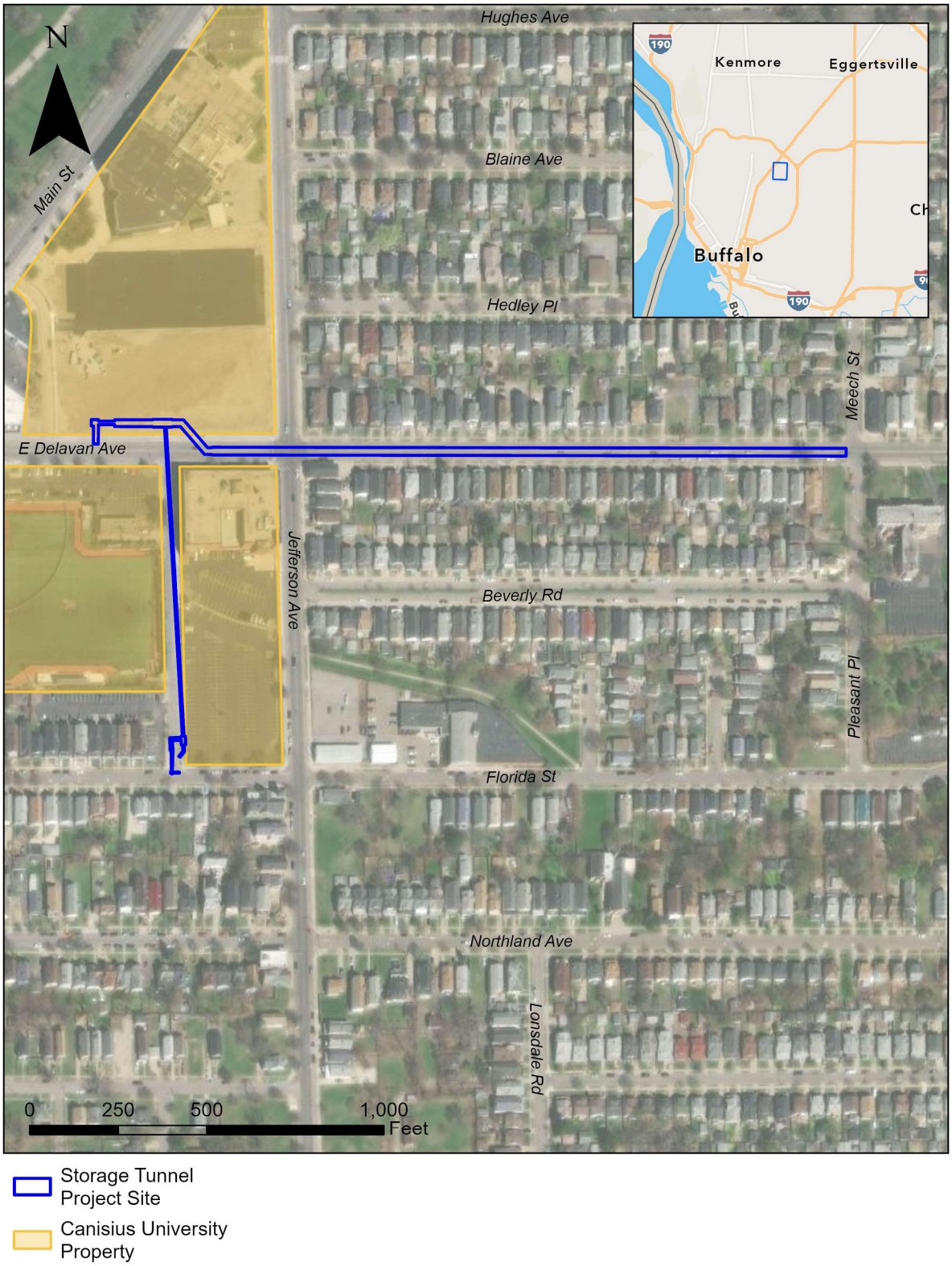

Figure 2: Project Site – Storage Tunnel

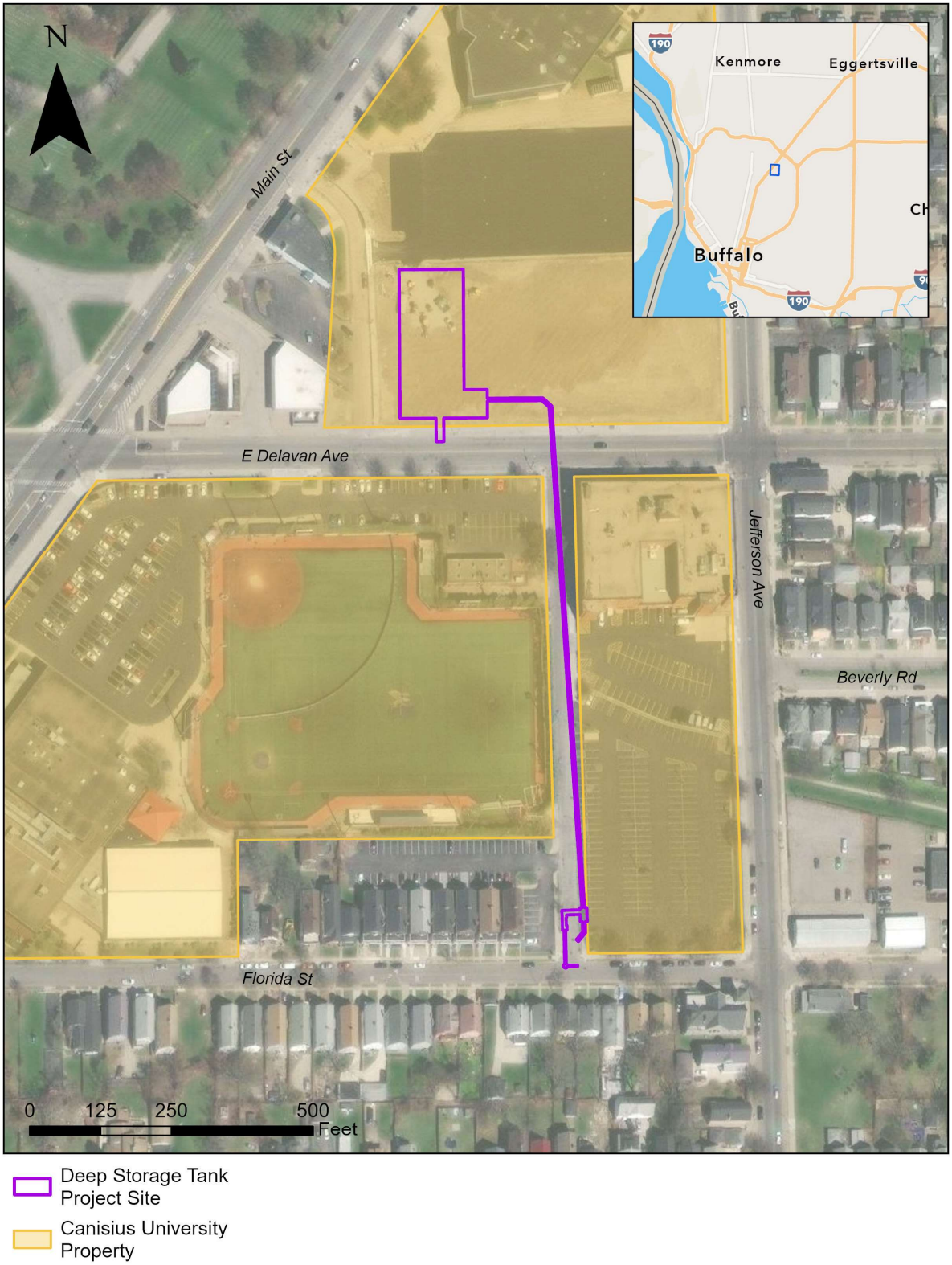

Figure 3: Project Site Map – Deep Storage Tank

4.3 Summary of Proposed Methodologies for Environmental Resource Area Analysis

This section summarizes the methodologies to be used to evaluate the potential for significant adverse impacts and potential benefits of the Proposed Action on various environmental resource areas in accordance with SEQR.

4.3.1 Land Use, Zoning, Community Plans, and Public Policy

The Land Use, Zoning, Community Plans, and Public Policy analysis will assess the Proposed Action's compatibility with the study area's land use and zoning characteristics, community plans, and public policy initiatives. This includes assessing whether the Proposed Action would be consistent with development trends within the study area. The analysis presented in this section of the DEIS will also support the evaluation of other sections such as open space, visual resources and community character, natural resources, and public health.

4.3.1.1 Baseline Conditions

The baseline conditions assessment will describe existing land use, zoning, community plan and public policy conditions. Appropriate existing land use and zoning (Figure 4 and Figure 5) will be mapped and a description of land uses within the project study area will be presented within the DEIS. Land use data will be compiled and mapped using published data, any gaps in published data will be supplemented with field surveys and desktop aerial photography. Relevant public policies, local plans, and assessment of the Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. §§1451-1464); the New York State Coastal Zone Management Program; Scenic Areas of Statewide Significance (SASS) and any Local Waterfront Revitalization Programs (LWRP) within or adjacent to the study area will also be described.

4.3.1.2 Future Without the Proposed Action (Alternative A)

This section will disclose and describe any pending land use and zoning actions in the project study area unrelated to the Proposed Action but occurring prior to or during the timeframe of the Proposed Action. It will also present any planned changes to local public policies that could impact the Proposed Action. This section will also identify any other specific development projects that could affect the study area prior to or during the timeframe of the Proposed Action.

4.3.1.3 Future With the Proposed Action (Alternative B and C)

This section will discuss potential impacts to land uses and zoning patterns within the project study area as well as describe any known potential easements or land acquisition associated with each Proposed Action alternative. An assessment will be made to determine whether the Proposed Action is compatible with existing land uses, existing zoning, land use patterns, and relevant trends in the study area. This assessment will also evaluate whether the Proposed Action alternatives are consistent with public policies and State and local plans applicable to the study area.

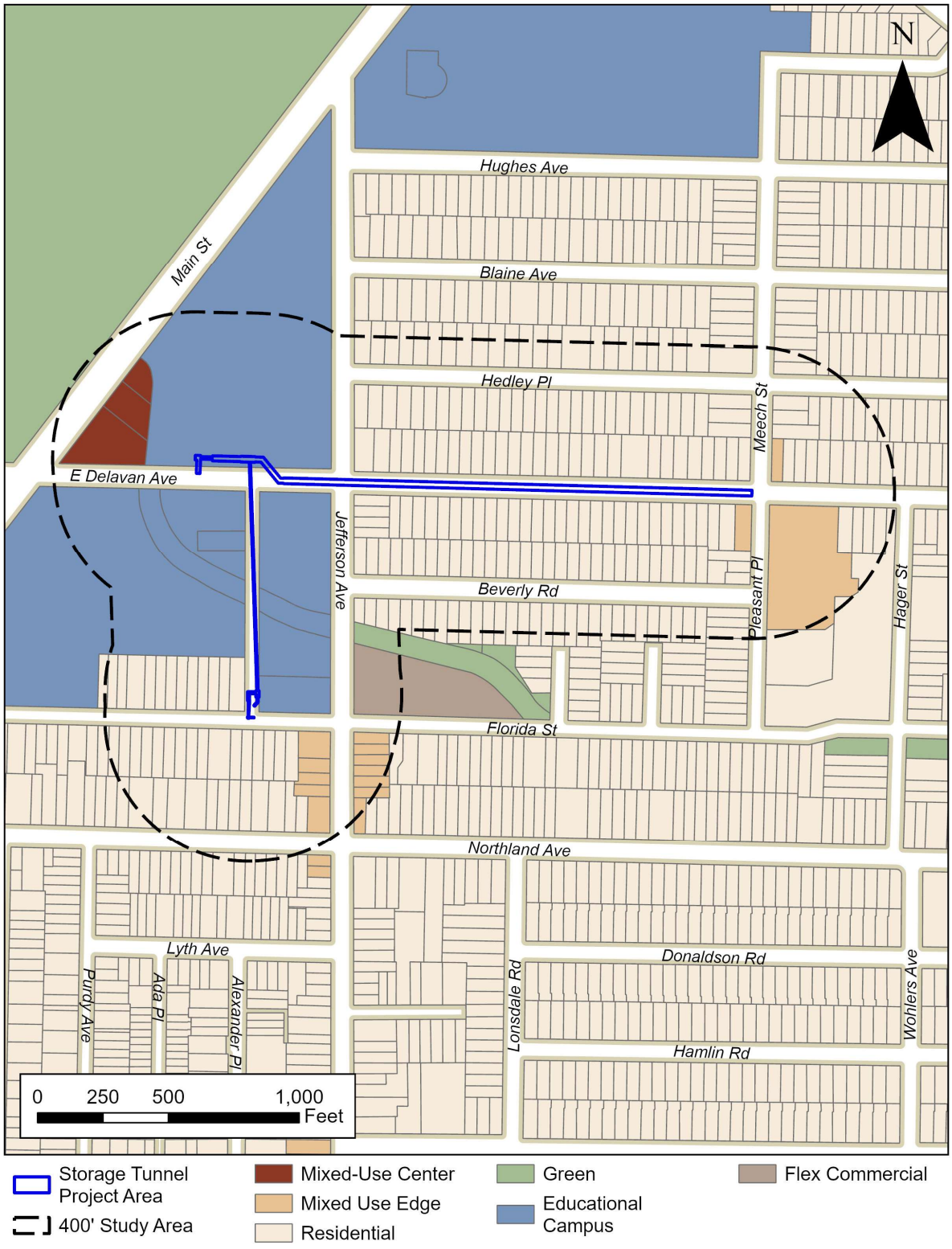

Figure 4: Zoning – Storage Tunnel

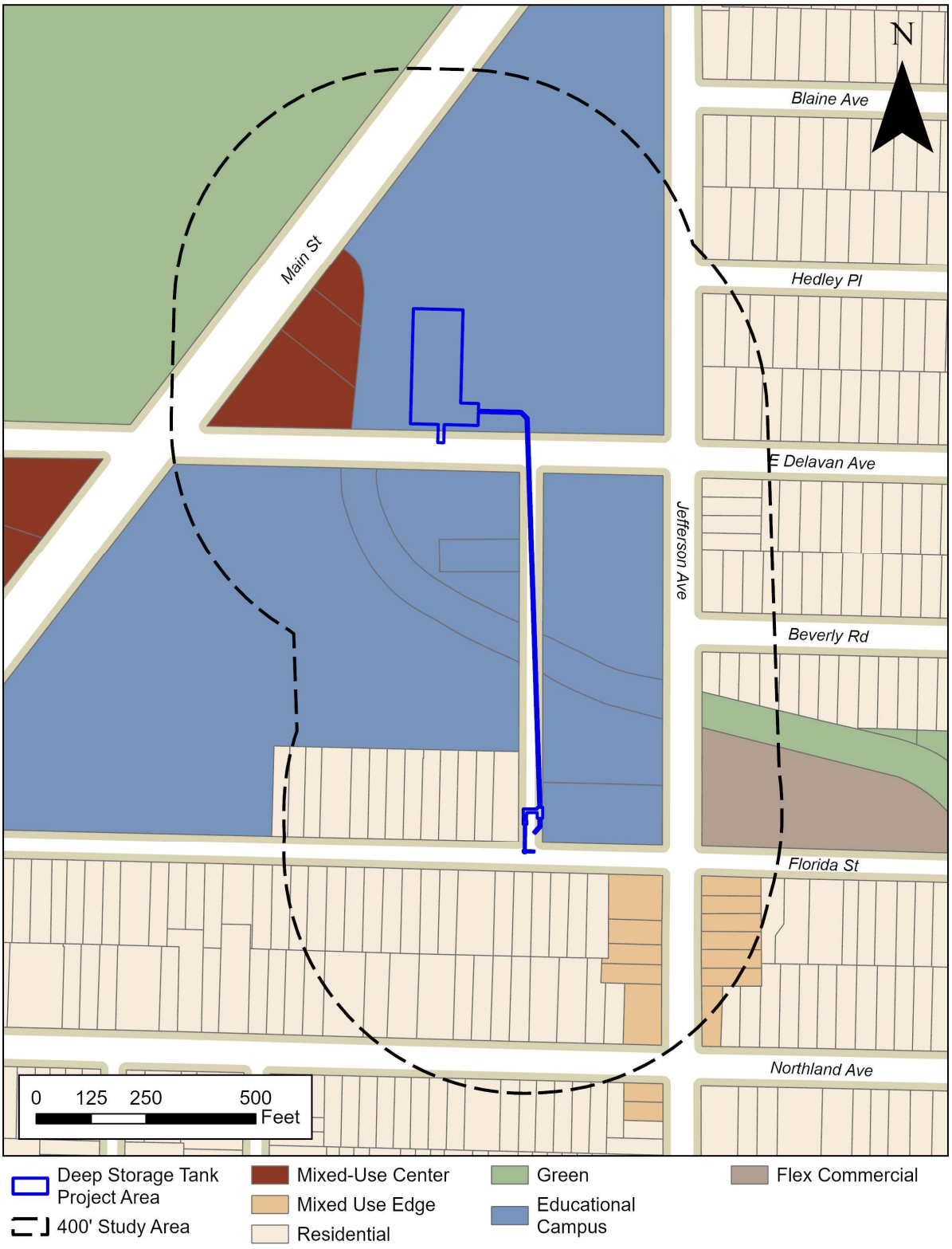

Figure 5: Zoning – Deep Storage Tank

4.3.2 Community Facilities and Services

This section will describe and identify all community facilities and services such as police, fire, emergency medical services, libraries, daycares, and schools within or serving the project study area. In addition to identifying existing community facilities and services, this section will also assess whether the Proposed Action would interfere with the use or enjoyment of public resources.

4.3.2.1 Baseline Conditions

The baseline conditions for this section will identify and map local community facilities and services within and serving the study area.

4.3.2.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any changes nor impact to community facilities and services such as police, fire, emergency medical services, libraries, daycares, and schools within or serving the project study area in the Future Without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to ensure that new demands for community facilities and services that may occur in the vicinity of the study area in the timeframe that the Proposed Action would be implemented are considered in the DEIS.

4.3.2.3 Future With the Proposed Action (Alternative B and C)

It is not anticipated that the Future With the Proposed Action would impact community facilities and services. However, if, during the analysis, it is determined that there could be an impact, the DEIS would assess any expected uses of or disruptions to the surrounding community facilities and services. This would include an analysis of any temporary changes to the use of or access to community facilities and services associated with construction of the Proposed Action.

4.3.3 Open Space and Recreation

This section of the DEIS will describe elements of the Proposed Action that would have the potential to affect open space and recreation within the project study area. An assessment will be prepared to determine whether either the construction or operation of the Proposed Action would have a potential to impact any open space or recreational resources within the DEIS.

4.3.3.1 Baseline Conditions

Baseline conditions for this section would include calculating total population within the study area and mapping existing open spaces and recreational areas within the project vicinity (e.g. Scajaquada Trail, Horrace "Billy" Johnson Park, Forest Lawn Cemetery, Delaware Park, etc.).

4.3.3.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on Open Space and Recreation in the Future Without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether new constraints on or development of open space and recreational resources may occur in the vicinity of the project study area in the timeframe that the Proposed Action would be implemented.

4.3.3.3 Future With the Proposed Action (Alternative B and C)

This assessment will describe the compatibility of the Proposed Action with existing open space in the study area, relevant open space trends, and the 2021 City of Buffalo Parks Master Plan. Any direct impacts to open space or recreational resources or the pedestrian experience during construction will be described and evaluated within this section.

4.3.4 Geology

This section of the DEIS will include an assessment of the geological features within the project area through field surveys and desktop analysis. The quantity and type of excavated material that would be removed from the site to support construction of the Proposed Action will also be described. This will include an assessment of excavated material removal methodology.

4.3.4.1 Baseline Conditions

Prior investigations and observations of the geologic conditions of the study area will be used to identify existing topographic and geologic conditions. A geotechnical engineering report and a custom resource soil report has been prepared and will be used to describe the baseline geological conditions of the project area within this section.

4.3.4.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on Geology in the Future Without the Proposed Action.

4.3.4.3 Future With the Proposed Action (Alternative B and C)

The Future With the Proposed Action would include excavating, drilling, blasting, and tunneling in bedrock during construction. All potential impacts to geological features from construction will be documented and discussed in this section. In addition, this section will discuss the handling and disposal of excavated materials will be presented in this section.

4.3.5 Archaeological, Historic, and Cultural Resources

This section will describe and analyze existing historic and archaeological resources in the vicinity of the project study area, in accordance with the requirements of Section 106 of the National Historic

Preservation Act of 1966 since federal funding is being sought for the project through the Clean Water State Revolving Fund. Section 106 mandates that projects consider the effect of their actions on any properties listed on or meeting the criteria for listing on the National Register. Compliance under Section 106 fulfills the requirements of Section 14.09 of the New York State Historic Preservation Act. This section will include an assessment of the potential for impacts to historical and cultural resources that could occur from construction activities associated with the Proposed Action.

4.3.5.1 Baseline Conditions

A desktop review of archaeological, historic, and cultural resources will be conducted by utilizing existing databases and correspondence from the State Historic Preservation Office (SHPO) of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), the City of Buffalo Historic Preservation Board, and local plans, as well as information from the Land Use, Zoning, and Public Policy analysis. The Baseline Conditions section will describe the historic districts and structures within the study area including the Hamlin Park Historic District, 60 Hedley Place, and St. Vincent de Paul R.C. Church and Rectory.

4.3.5.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact to Archaeological, Historic, and Cultural Resources in the Future Without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section and information from OPRHP and City's Historic Preservation Board will be reviewed to ensure that any new information or historic listings that may be planned in the vicinity of the study area in the timeframe that the Proposed Action would be implemented are considered in the DEIS.

4.3.5.3 Future With the Proposed Action (Alternative B and C)

An assessment on potential impacts to archeological, historic, and cultural resources will be analyzed within this section using both desktop review and results of consultations with State and local agencies. This section will also identify any potential impacts that may occur to these resources as the result of construction of the Proposed Action. If excavation occurs in a potentially sensitive cultural resource area, additional desktop and field surveys will be conducted in consultation with federal, State, and local requirements and summarized within the DEIS. Historic districts and structures in the study area will also be analyzed within this section to assess any potential physical, contextual, or visual impacts that could result from the Proposed Action.

4.3.6 Visual Resources and Community Character

This section will describe and evaluate the existing visual resources and community character of the project study area using both mapping and photographs. This section of the DEIS will also disclose the potential for observable impacts to visual resources or community character that may occur during construction and operation of the Proposed Action. It will evaluate whether the Proposed Action is consistent with the architectural scale and character of the study area.

4.3.6.1 Baseline Conditions

Baseline conditions will identify visual resources such as water bodies, landmarks, historic resources, parks, and critical environmental areas in or with views of the project study area. This section will also describe the general neighborhood character within the project study area. Description of community characteristics will include noting the predominant architectural scale and character, existing natural landscape, and identification of recognized public resources of the project study area. Photo documentation will be provided for the Canisius University land and areas along East Delavan Avenue and Florida Street.

4.3.6.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact to Visual Resources and Community Character in the Future without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to ensure that changes to visual resources or views are not anticipated to occur in the project study area in the timeframe that the Proposed Action would be implemented.

4.3.6.3 Future With the Proposed Action (Alternative B and C)

This section will describe any activities associated with the Proposed Action that may be visible to the public including temporary impacts on visual resources that may occur during construction. This section will also evaluate any visual changes to the area associated with the equipment building that would be housed atop Canisius property for electrical and HVAC equipment once construction is complete in the Future With the Proposed Action. Other portions of the project would primarily be located underground.

4.3.7 Natural Resources

Natural resources include vegetation, plants, wetlands, habitats used by species of special concern and National Natural Landmarks. This section will identify natural resources in the project study area and determine if there would be a potential for these resources to be impacted as a result of construction and operations of the Proposed Action.

4.3.7.1 Baseline Conditions

This section will utilize information gathered from consultations with government agencies – including the New York Natural Heritage Program and US Fish and Wildlife Service, desktop analysis, and field surveys, as needed, to identify and describe natural resources within the study areas, including street trees, that could potentially be impacted by the Proposed Action.

4.3.7.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on study area Natural Resources in the Future without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community

Plans, and Public Policy section will be reviewed to determine whether changes to natural resources may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.7.3 Future With the Proposed Action (Alternative B and C)

This section will discuss both direct and indirect impacts that the Future With the Proposed Action may have on natural resources. This will include a description of any required tree removal and associated natural resources restoration that would occur as part of the Proposed Action in accordance with the requirements of the City of Buffalo Bureau of Forestry.

4.3.8 Socioeconomic Conditions

This section will discuss the demographic and economic conditions within the study area that would be affected by the Proposed Action. This section will also include a summary and assessment of any impacts on the rates for Buffalo Sewer's customers as a result of implementation of the Proposed Action.

4.3.8.1 Baseline Conditions

This section will include an analysis of socioeconomic data which will include residential population, housing, and income metrics using the latest available U.S. Census data and similar sources. The Baseline Conditions section will also describe current sewer rates for Buffalo Sewer's customers.

4.3.8.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on socioeconomic conditions in the Future without the Proposed Action. However, an assessment of projects or study area changes identified within the Land Use, Zoning, Community Plans, and Public Policy section will be conducted to see if they would have the potential to change socioeconomic conditions or future sewer rates in the study area.

4.3.8.3 Future With the Proposed Action (Alternative B and C)

The DEIS will also analyze data from the U.S. Census Bureau or other, similar sources on demographics, income, and housing to determine whether anticipated future changes to socioeconomic conditions in the study area, or sewer rates, may be further affected by implementation of either Proposed Action alternative. The Proposed Action alternatives would not directly displace any residential or business resources within the study area.

4.3.9 Hazardous Materials

Hazardous materials are materials that could be harmful to people, plants, animals and the environment. This section will describe existing hazardous materials within the study area, if present, and methods for any storage or disposal of hazardous materials or contaminants during construction and operation of the Proposed Action.

4.3.9.1 Baseline Conditions

This section will describe the existing hazardous materials conditions in the project study area through completion of a Phase I Environmental Site Assessment (ESA) prepared in accordance with the most recent ASTM 1527-13 Standard. This type of assessment involves desktop review of databases that track sites and activities where hazardous materials are present. The DEIS will also disclose any spills or remedial actions that have occurred or been conducted at or adjacent to the project study area through desktop review of the Spills Incidents database and Environmental Site Remediation database. Finally, this section will summarize any potential soil or groundwater contamination that may be present in the study area based on any testing completed as part of project planning.

4.3.9.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on study area hazardous materials in the Future without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether changes to hazardous material disturbance or storage may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.9.3 Future With the Proposed Action (Alternative B and C)

As mentioned above, a Phase I ESA will be conducted within the project site. All anticipated soil and groundwater disturbance associated with the Proposed Action will be described to identify the potential for hazardous materials to be encountered during construction. In the event contaminants or hazardous materials may be encountered during construction of either Proposed Action alternative, hazardous materials handling and/or testing and disposal methods would be conducted in accordance with all regulatory requirements and will be outlined within this section. In addition, a description of any hazardous materials that may be used during construction or operation of the Proposed Action will be presented in this section along with controls that would be in place to prevent their potential release into the environment.

4.3.10 Water and Sewer Infrastructure

This section of the DEIS will assess water resources (i.e. surface water, groundwater, and floodplains) and drinking water and sewer infrastructure within the study area.

4.3.10.1 Baseline Conditions

Baseline conditions will be described by preparing an inventory and description of existing nearby water bodies and drinking water and sewer infrastructure as well as any floodplains that overlap the study area. A description of existing combined sewer outfall conveyance infrastructure and drinking water infrastructure will be presented for the study area, including individual residential service lines. A description of the SPDES Permit and its requirements will also be presented in this section.

4.3.10.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on Water Resources and Sewer Infrastructure in the Future without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether changes to water resources or sewer infrastructure may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.10.3 Future With the Proposed Action (Alternative B and C)

This section will describe how the Future With the Proposed Action will impact or benefit existing water resources and drinking water and sewer infrastructure within the study area for each alternative. This section will also evaluate how the Future With the Proposed Action would help Buffalo Sewer comply with their LTCP and SPDES Permit and associated requirements. Any additional potential benefit to drinking water or sewer infrastructure associated with the Proposed Action will also be presented in this section.

4.3.11 Energy

This section will describe the energy usage associated with the Proposed Action. This includes energy that would be required to power construction equipment.

4.3.11.1 Baseline Conditions

A qualitative assessment of energy use and demands within the project study area will be presented within this section of the DEIS.

4.3.11.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on energy in the Future without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether changes to energy use and availability may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.11.3 Future With the Proposed Action (Alternative B and C)

This section will assess whether the Future With the Proposed Action would impact any existing utility infrastructure that is operated by National Grid. This will include a qualitative discussion of energy demands that would be required during construction to power equipment.

4.3.12 Transportation

This section of the DEIS will assess any impacts the Proposed Action would have on traffic and transportation in the project study area. Traffic studies and analyses will be completed as part of this

section. A total of two detours (one for trucks and one for vehicles) are anticipated to be required to support construction of either Proposed Action alternative.

4.3.12.1 Baseline Conditions

This section will summarize traffic studies being conducted that are designed to describe baseline conditions for transportation in the study area. To establish baseline traffic conditions along the proposed traffic detour routes, Buffalo Sewer will conduct traffic counts at a total of 16 locations seen in **Figure 6**Error! Reference source not found.. Buffalo Sewer will collect traffic counts and direction of movement data at key project intersections that may be affected by the changed traffic patterns. This section of the DEIS will summarize the count data to identify traffic composition and flow within the project study area. In addition, existing traffic and pedestrian safety information will be evaluated within the project area using the New York State Department of Transportation (NYSDOT) CLEAR database and presented within the DEIS.[5]

4.3.12.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on Transportation in the Future without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether changes to transportation may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.12.3 Future With the Proposed Action (Alternative B and C)

This section will discuss any temporary closures of lanes or sidewalks, and traffic detours that would be required to support construction of the Proposed Action and may result in potential impacts on parking, pedestrians, or traffic in the project study area. This section will also describe the potential for the Future With the Proposed Action to increase passenger car and truck traffic in the vicinity of the project due to construction activities. Finally, it will disclose changes to traffic patterns that may be needed to construct the Proposed Action, such as the two detours. Potential impacts to traffic in the study area because of the detours will be determined using Synchro traffic modeling.[6] This section of the DEIS will also include a Traffic Safety Issue Assessment and Emergency Services Impact Assessment.

[5] The CLEAR Crash Data Viewer is an application provided by NYSDOT that is available to authorized users for the visualization, query and analysis of NYS crash data.
[6] A Synchro traffic model is used to determine the capacity of roadway networks and simulate how changes to traffic patterns can affect travel time.

Figure 6: Traffic Detour Map

4.3.13 Air Quality, Greenhouse Gas Emissions, and Odor

This section will present both mobile and stationary source emissions that may be associated with the Proposed Action and compare anticipated conditions to background conditions in the area to identify any changes that may occur as a result of construction or operation of the Proposed Action. The section will also discuss the potential for odors to occur in the study area as a result of operation of the Proposed Action.

4.3.13.1 Baseline Conditions

The section will summarize the desktop studies of air quality conditions within vicinity of the project using data from nearby NYSDEC air quality monitoring stations. This section will also summarize the results of baseline air quality monitoring that will be conducted at six locations throughout the study area as shown in **Figure 7**. There will be a total of six stationary monitors and one handheld mobile monitoring device which will be used to monitor and record hydrogen sulfide concentrations as well as detect other gasses such as such as carbon monoxide, sulfur dioxide, oxygen, and volatile organics present throughout the area within a single day testing event.

4.3.13.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on air quality, greenhouse gas emissions, and odor in the Future Without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether changes to air quality, greenhouse gas emissions, and odor may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.13.3 Future With the Proposed Action (Alternative B and C)

An assessment will be prepared for the Future With the Proposed Action to estimate emissions that would be emitted from construction equipment and any construction-related mobile sources such as construction delivery vehicles. These emissions will be compared to ambient (baseline) conditions in the study area, identifying potential changes in conditions at any sensitive receptors such as residences and schools. Measures that would be used to reduce emissions during construction, such as the inclusion of truck washing stations to reduce particulate matter emissions, will be described in this section. In addition, an evaluation of hydrogen sulfide concentrations that would occur from operation of the Proposed Action will be presented to describe how odors may be perceived at receptors in the study area. As needed, a hydrogen sulfide monitoring plan will be developed and disclosed in this section.

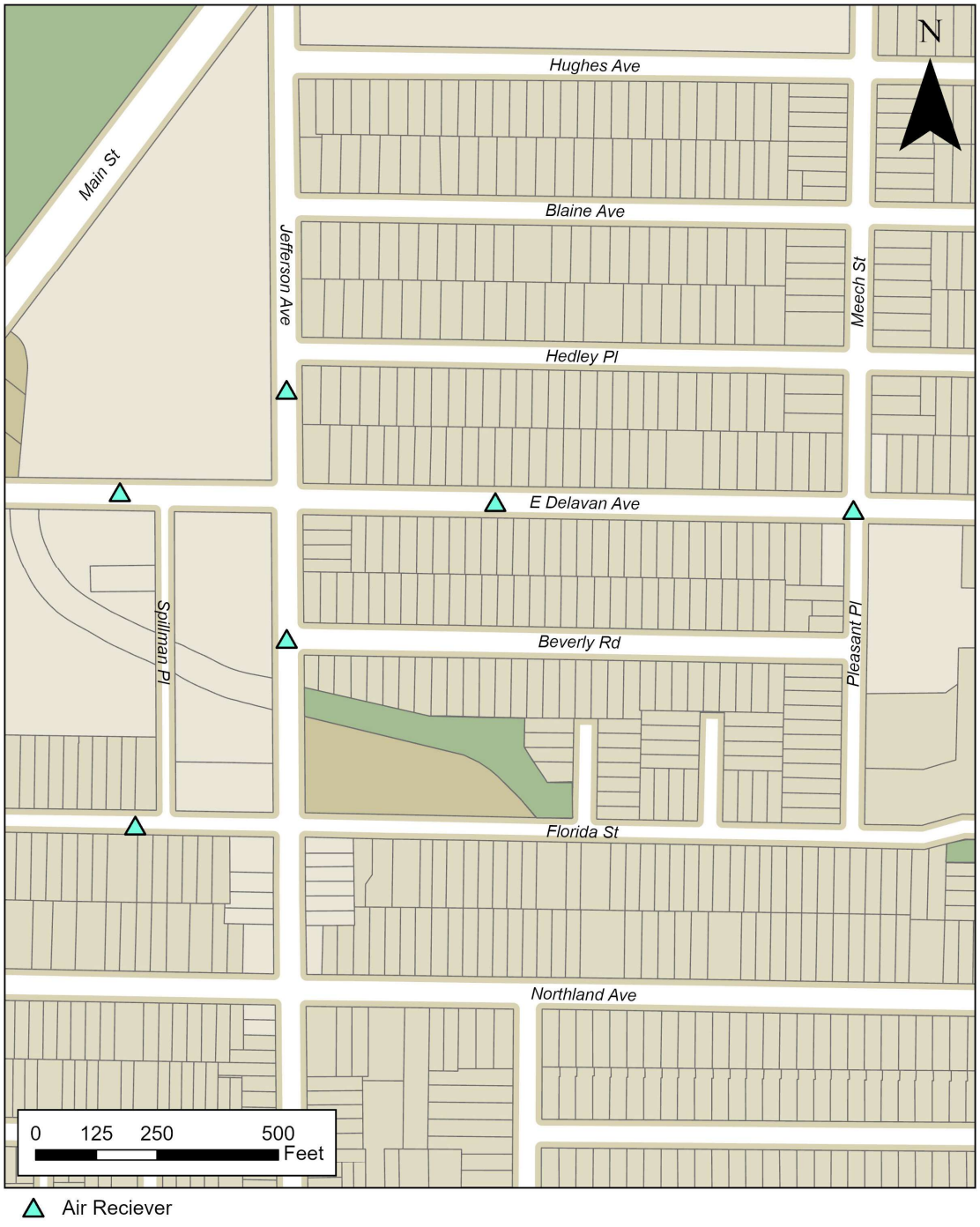

Figure 7: Air Monitoring Locations

4.3.14 Noise~~,~~ and Vibrations~~, and Light~~

This section will include a description of the existing ambient noise conditions within the project area and identify any noise sensitive receptors such as schools and residences. A vibrations study will also be conducted to assess vibration that may occur in the study area as a result of construction of the Proposed Action. ~~This section will also include an assessment of the use of light associated with the Proposed Action.~~

4.3.14.1 Baseline Conditions

This section will include summaries of the assessments on both long-term (24-hour) and short-term (15-to-25-minute) measurements of background noise within the project area. These summaries will be based on the results of noise monitoring which will utilize two long-term field noise measurements at two different locations, as well as two short-term field noise measurements collected at each of the four different locations (as shown in **Figure 8**), for a total of eight short-term field noise measurements. In addition, noise associated with background traffic in the study area will be measured and discussed in this section. Sensitive receptors to noise, vibrations, and light will be identified.

4.3.14.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on Noise, Vibrations and Light in the Future Without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether changes to noise, vibrations, or light may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.14.3 Future With the Proposed Action (Alternative B and C)

The Future With the Proposed Action will require drilling and blasting of bedrock for construction of the proposed infrastructure improvements. This section will estimate and describe the anticipated noise and vibrations that would be generated from construction as the Proposed Action based on the equipment to be utilized and mobile sources that may be present in the study area. A Traffic Noise Model (TNM) will also be conducted to model noise emissions associated with any increased traffic that may occur in the study area during construction of the Proposed Action. A vibration study will also be conducted to describe the level and duration of vibrations that may be reasonably anticipated to occur during blasting of the deep storage tank and tunnel. Lighting that would be needed to support construction and operation of the Proposed Action will be disclosed and discussed. As needed, any controls that would be put in place to minimize noise emissions, light, or vibrations in the study area will be presented in this section.

Figure 8: Noise Locations

4.3.15 Public Health

This section will rely on other sections to identify the potential of the Proposed Action to cause any unmitigated significant adverse impact to public health (i.e., adverse changes in air quality, greenhouse gas emissions, climate change; water and sewer infrastructure; hazardous materials; or noise and vibrations).

4.3.15.1 Baseline Conditions

This section will describe the baseline public health conditions in the project area using information from the following technical resource areas: air quality, greenhouse gas emissions, and climate change; water and sewer infrastructure; hazardous materials; and noise, vibrations, and light.

4.3.15.2 Future Without the Proposed Action (Alternative A)

It is not anticipated that there would be any impact on Public Health in the Future Without the Proposed Action. However, planned development identified in the Land Use, Zoning, Community Plans, and Public Policy section will be reviewed to determine whether projects resulting in changes public health may occur in the vicinity of the project site in the timeframe that the Proposed Action would be implemented.

4.3.15.3 Future With the Proposed Action (Alternative B and C)

This section will collectively consider the assessments of the Future With the Proposed Action from the air quality, greenhouse gas emissions, odor, hazardous materials, and noise, vibrations and light sections within the DEIS. If any impacts are identified, they will be explored further in the DEIS to determine whether they could result in any overall impacts to Public Health.

4.3.16 Environmental Justice

The environmental justice section will be conducted to determine if there are any project impacts that may affect vulnerable populations (minority or low-income).

4.3.16.1 Baseline Conditions

This section will include a quantitative analysis of demographic data (race, ethnicity, poverty status, and average household income) of the project study utilizing U.S. Census Bureau data and other available data sources from local and State agencies. This section will use that information to identify vulnerable populations within the study area. A description of the Enhanced Public Participation Plan will also be included to discuss the community engagement strategies that will be employed by Buffalo Sewer as part of Commissioner Policy-29, Environmental Justice and Permitting (CP-29). CP-29 is a framework that aims to incorporate and address environmental justice concerns into the NYSDEC environmental permit review process and NYSDEC's administration of SEQR.

4.3.16.2 Future Without the Proposed Action (Alternative A)

An assessment on future projected demographics of the study area and vulnerable populations with the study area will be presented in this section.

4.3.16.3 Future With the Proposed Action (Alternative B and C)

This section will evaluate the overall potential that the Future With the Proposed Action could adversely affect vulnerable populations within the study area. This includes whether the Future With the Proposed Action could impact minority and low-income communities by causing adverse environmental or health impacts. The DEIS will also summarize and discuss the public participation efforts with both alternatives B and C as well as discuss what has resulted from the Enhanced Public Participation Plan.

4.4 Mitigation Measures

Where significant adverse impacts of the Proposed Action are identified, measures will be identified and assessed to mitigate those impacts. These mitigation measures will be discussed within this section of the DEIS.

4.5 Cumulative Effects

The cumulative effects of each of the alternatives, considered in conjunction with other projects being constructed and/or operated within the same vicinity in the time frame the Proposed Action would be implemented will be addressed in this section of the DEIS. Information on other projects that may be planned or occurring in the study area and could overlap with the Proposed Action will be identified as part of the Land Use, Zoning, Community Plans, and Public Policy section.