



General Service Administration (GSA) National Deep
Energy Retrofit (NDER) 2 Phase 3 Energy Service
Performance Contract (ESPC) – Submission to GSA
Historic Preservation Branch (Veterans Affairs (VA)
Building)

Prepared for
GSA Energy Division
1800 F Street NW
Washington, DC 20405

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1: Project Narrative

1.1: Project Overview

This project is being implemented as part of the General Service Administration (GSA) National Deep Energy Retrofit (NDER) 2, Phase 3 Energy Savings Performance Contract (ESPC). The project's feasibility is currently being evaluated and is in the Investment Grade Audit (IGA) Phase. In this phase the scope is refined, designed, and evaluated for technical feasibility, cost, and compliance.

The intent of the project includes heating system upgrades at a federally owned historic building in Washington, DC: Veterans Administration (VA) Building (810 Vermont Avenue NW). The proposed work will eliminate reliance on the GSA district steam system by installing a new boiler plant in the building. The work is primarily mechanical in nature and is concentrated within existing interior mechanical spaces. Exterior work is limited and designed to minimize visual and physical impacts to the historic fabric. No changes to building massing, height, or overall architectural character are proposed. Greater details regarding building specific conditions, scope, and visibility considerations are provided in the sections below.

As part of this project, Washington Gas will provide new natural gas service to the building by connecting to existing Washington Gas distribution piping and routing service to a proposed gas meter. Washington Gas will be responsible for any demolition, restoration, or roadway work associated with installation of the gas piping to the proposed meter locations. All building gas piping on the Washington Gas side of the meter will be trenched and buried below grade, and existing sidewalks and roads will be restored to their original conditions.

1.2: VA Building – Project Description

1.2.1: Existing Conditions

The Veterans Administration Building is located at 810 Vermont Avenue, NW in Washington, DC. It was completed in 1919 and covers approximately 684,711 gross square feet of office space. District steam from GSA's Heating Operation and Transmission District (HOTD) is piped into the building at approximately 50 psig through a tunnel from the Lafayette Building across the street. The pressure is reduced with pressure reducing valves to approximately 15 psig for distribution through the basement to heat exchangers. The heat exchangers are designed to produce 180°F water, but the operators report that they rarely set it higher than 140°F. The hot water is then pumped to air handling units (AHUs), fan coil units (FCUs), and variable air volume (VAV) coils throughout the building. Steam condensate from the heat exchangers is then pumped back into the GSA district steam loop via the Lafayette Building. The building's domestic hot water is produced by two electric water heaters with steam coils as a supplemental heat source. The building includes an internal air shaft serving mechanical systems that is not visible from public rights-of-way.

1.2.2: Proposed Work – Summary

The mechanical system will consist of three 2,500 MBH condensing hot water boilers (Fulton EXE-2500, basis of design) located in Basement Level A within the mechanical room adjacent to the existing air

shaft. Hot water will be distributed throughout the building via new pumps, including two pumps in Pump Room A611 serving the North Building and two pumps located near the new boilers serving the South Building. Each pump will require a new variable frequency drive (VFD) with maintenance bypass.

Washington Gas will install new natural gas piping from the existing gas distribution located beneath the sidewalk of H Street NW to a newly installed gas meter located at the bottom of the air shaft. New natural gas piping will be brought into the building at the bottom of the air shaft to connect the newly installed gas meter to the boilers. Boiler intake and flue ducting will be routed through a new exterior wall penetration above an existing door opening to the air shaft (see Figure 3), then routed up the air shaft. This ducting will terminate at a lower elevation than the existing brick wall shown in Figure 2. Electrical work will include providing power, wiring, and connections for all new boilers, pumps, and associated auxiliary equipment. Please see the drawings for further details.

1.2.3: Proposed Work – Exterior Elements (VA Building)

Exterior work at the VA Building is limited to:

- Boiler exhaust and combustion air intake ducting routed through an existing air shaft.
- Natural gas service piping penetration
- Gas meter installation.
- Natural gas distribution piping.

Importantly, the VA Building boiler exhaust and combustion air intake terminate within an interior air shaft that is not visible from public streets or sidewalks. No exterior elements associated with the boiler ducting or natural gas service penetration are proposed on primary façades or street-facing elevations. Both penetrations utilize an existing two-story air shaft located within the interior courtyard. The new gas meter is being proposed to be located at the bottom of this air shaft.

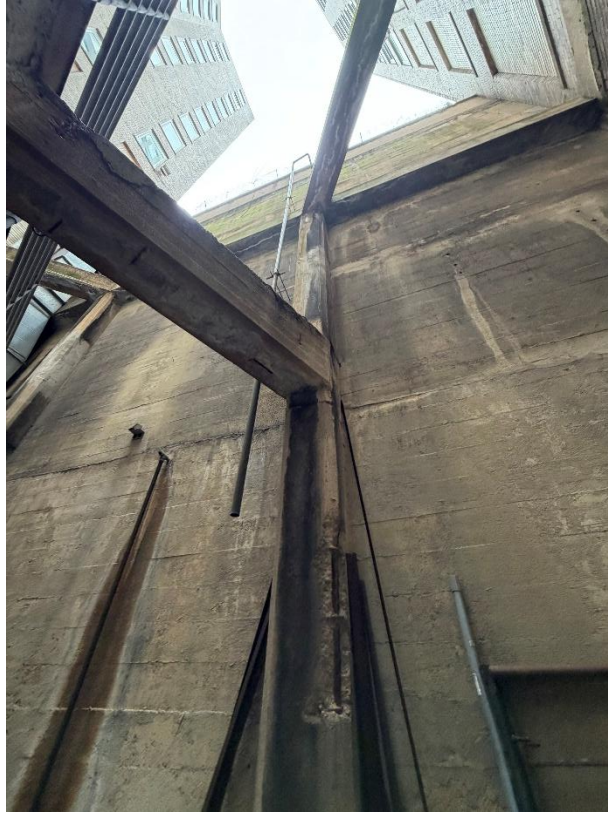


Figure 1 View inside Air Shaft



Figure 2 Existing Brick Wall in Alley



Figure 3 Boiler Intake and Flue Ducting Penetration Location at Bottom of the Air Shaft

1.2.4: Construction Staging and Site Logistics – VA Building

Construction staging at the VA Building will be primarily limited to interior mechanical areas, including the boiler room and associated support spaces. No permanent or long-term staging in public view is anticipated. However, coordination with Washington Gas will require significant exterior work associated with trenching and installation of underground natural gas piping to serve the building. This work will occur within the alleyway between the VA Building and the adjacent church and will require temporary access restrictions, excavation activities, and restoration of affected surfaces. All disturbed areas, including pavement and adjacent site features, will be restored to existing conditions following completion of the utility installation. Care will be taken to minimize disruption and maintain safe access for adjacent properties throughout construction.

2: Visibility Study

2.1: Purpose of Visibility Study

This visual review evaluates the potential visibility and visual impacts of proposed exterior elements associated with the heating improvements at the historic building. The intent is to confirm that the project does not adversely affect views from public rights of way or diminish historic character.

2.2: Visibility Study – Methodology

The visibility study was conducted through a focused screening process intended to identify only those exterior elements with the potential to be visible from public rights of way. Ameresco first reviewed the proposed exterior scope of work to determine where changes could reasonably be perceived from street-level viewpoints. Based on this initial screening, renderings were not developed, as they were not required to evaluate visibility of new mechanical elements from surrounding public streets or sidewalks.

2.3: Visibility Study Analysis – VA Building

The visibility analysis for the Veterans Administration (VA) Building was conducted by evaluating each proposed exterior element identified in Section 1.2.3 to determine whether it could be perceived from public streets or sidewalks. The analysis considered the location of each element relative to building geometry and whether the proposed work would affect primary façades or street-facing elevations. The following figure details the existing conditions where the exterior work is being proposed to occur.

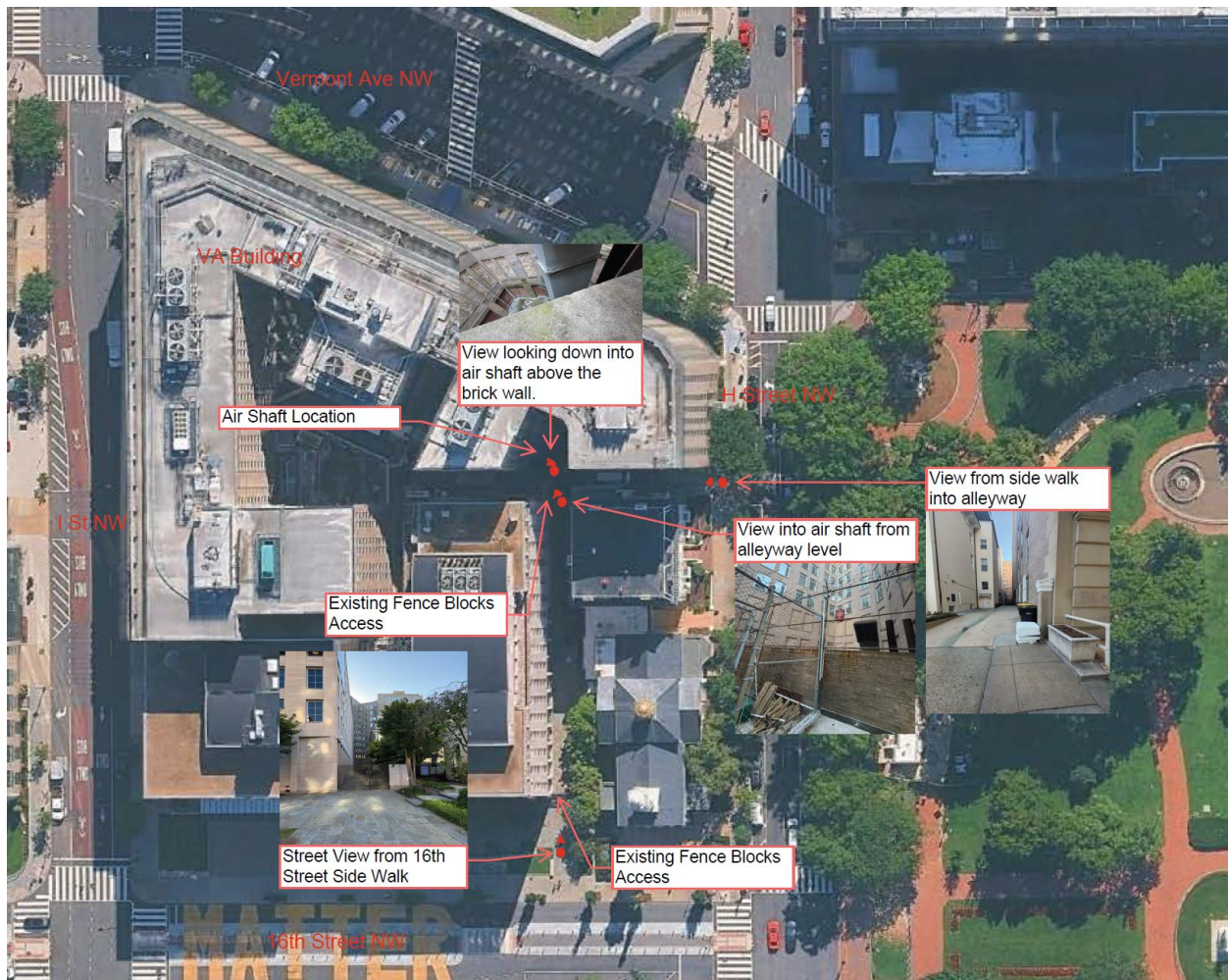


Figure 4 VA Building Air shaft Existing Conditions

2.3.1: Boiler Flue Exhaust Stacks – VA Building

The VA Building includes three boiler flue exhaust stacks that penetrate the building above the existing door to the air shaft see Figure 3. From this location, the exhaust stacks are routed through the existing two-story air shaft and terminate within the air shaft located between the VA Building and the adjacent church. This air shaft is fully enclosed by surrounding building massing and a brick wall. It is not accessible or visible to the general public from surrounding streets or alleyways. The exhaust stacks are proposed to terminate fully within the interior air shaft and do not appear on any primary façade or street-facing elevation. The exhaust stacks would only be visible from the church's private driveway if an individual looked over the existing brick wall. As a result, potential visibility from public rights-of-way was screened out during the initial review. No renderings were required to evaluate visibility of the boiler exhaust stacks.

2.3.2: Boiler Combustion Air Intake Ductwork – VA Building

The VA Building includes combustion air intake ducting that penetrates the building above the existing door to the air shaft. From this location, the intake ducting is routed through the existing two-story air shaft and terminates within the air shaft located between the VA Building and the adjacent church. This air

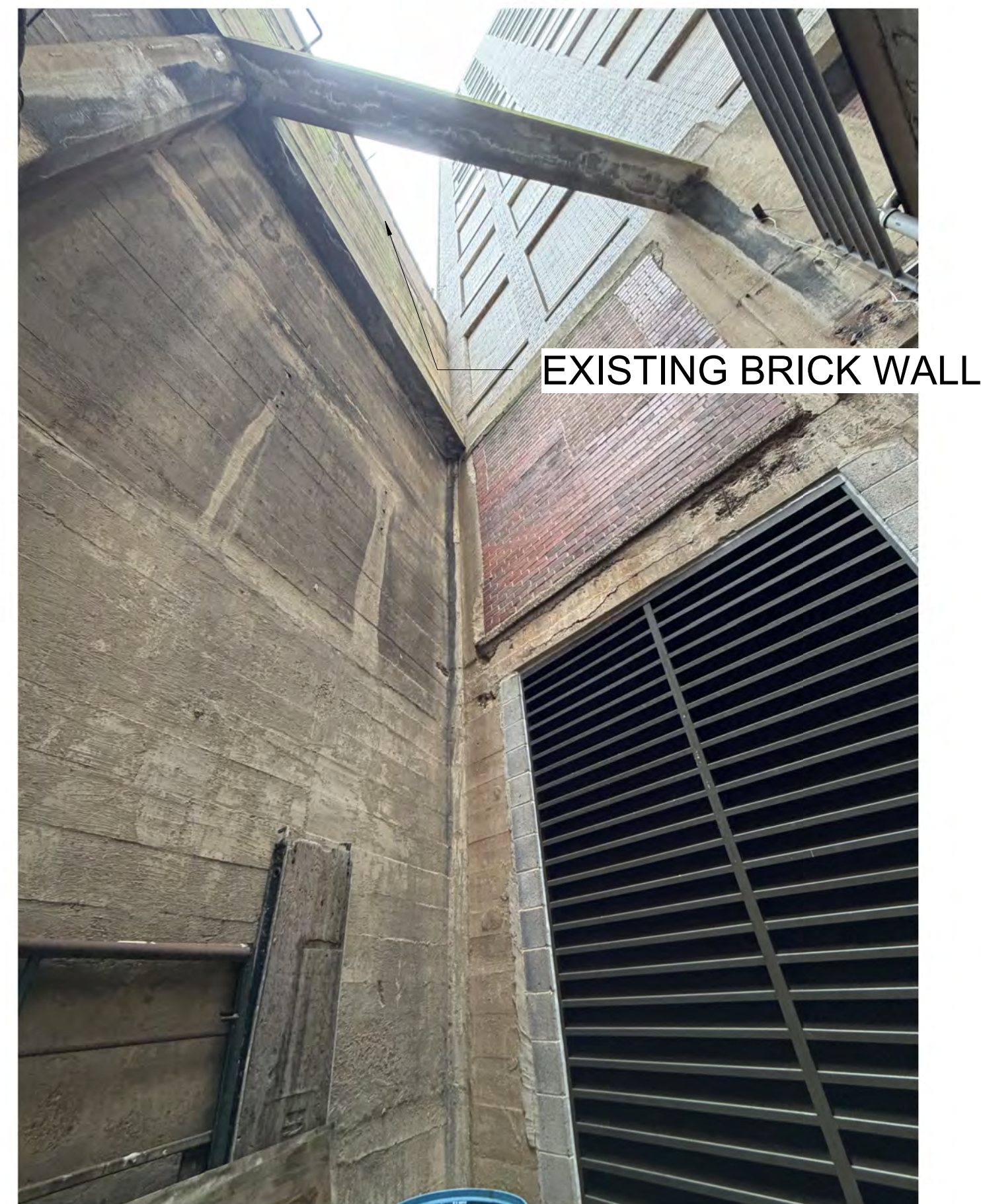
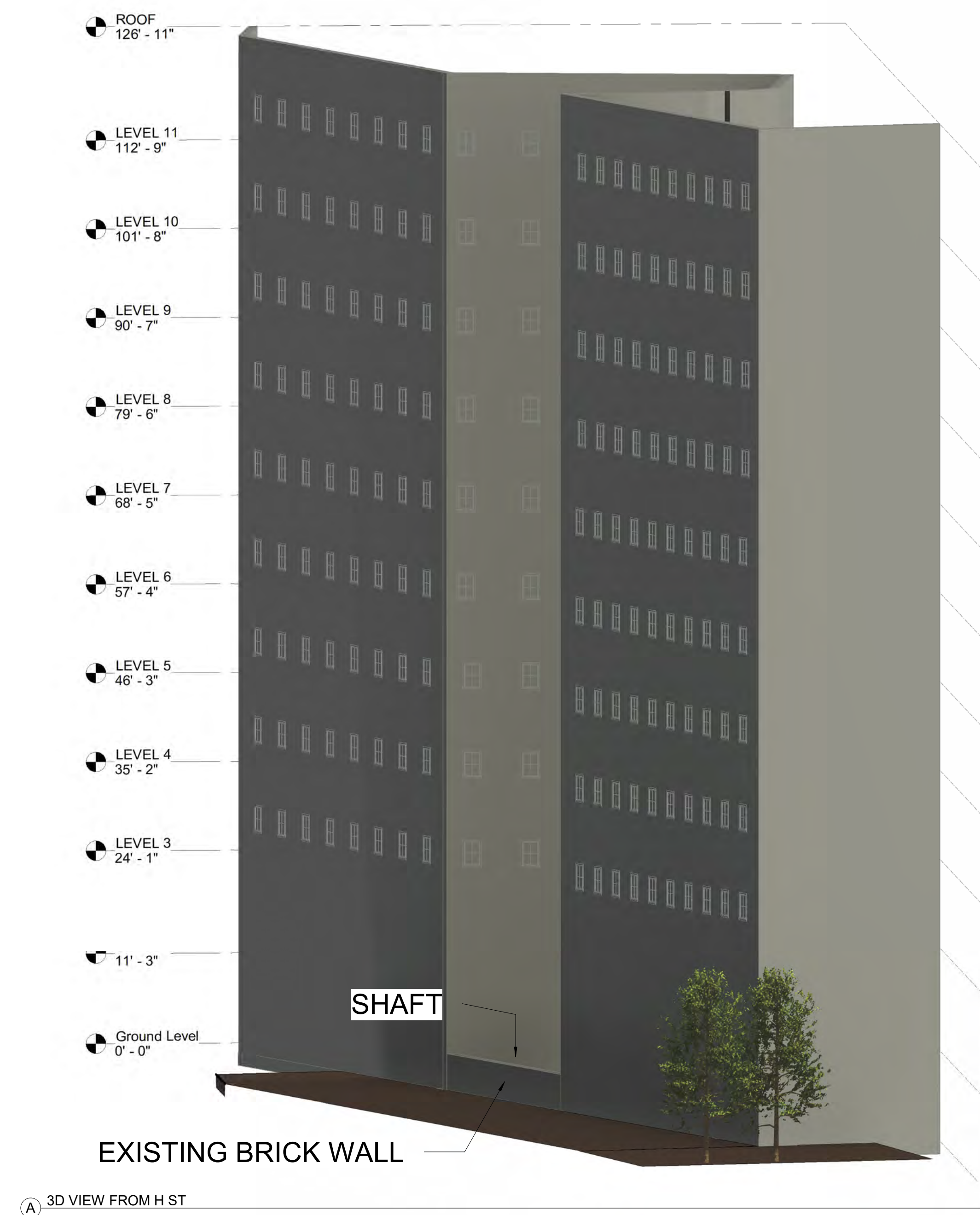
shaft is fully enclosed by surrounding building massing and a brick wall. It is not accessible or visible to the general public from surrounding streets or alleyways. The intake ducting is proposed to terminate fully within the interior air shaft and does not appear on any primary façade or street-facing elevation. The intake ducting would only be visible from the church's private driveway if an individual looked over the existing brick wall. As a result, potential visibility from public rights-of-way was screened out during the initial review. No renderings were required to evaluate visibility of the combustion air intake ducting.

2.3.3: Natural Gas Service Distribution Piping, Piping Penetration and Meter – VA Building

The proposed natural gas service penetration into the building and the associated gas meter are located at the bottom of the same two-story air shaft. Both are fully internal to the air shaft and do not appear on any primary façade or street-facing elevation. Due to this location, along with the existing screening provided by the air shaft geometry, the gas service penetration and meter are not visible from public streets or sidewalks and were therefore not included in rendered views. To transport gas from the Washington Gas main to the meter, natural gas distribution piping will be installed underground beneath the road, sidewalk, and private driveway between the VA Building and the adjacent church. This piping will extend underground and directly penetrate into the air shaft. The final installation will not be visible, as the piping will be buried and the road and driveway will be restored to match existing conditions. As a result, no renderings for this distribution piping have been developed. It is important to note that construction activities associated with the installation of this distribution piping, including trenching, will temporarily impact the private driveway between the VA Building and the church. These construction activities will be visible from the street and sidewalk.

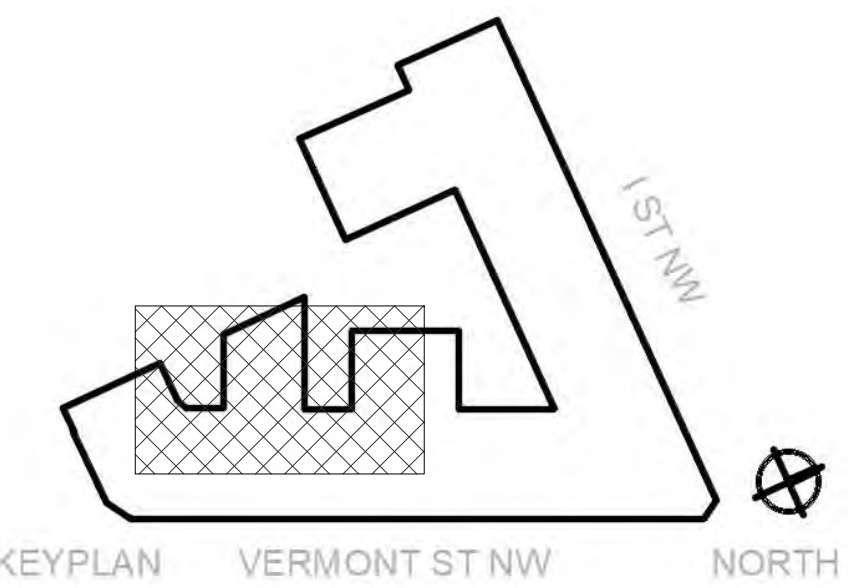
2.3.4: Conclusions – VA Building

Because all exterior mechanical and gas service elements at the VA Building are confined to an interior air shaft or buried underground, the proposed project will result in no permanent visible changes from the public realm. No changes to street-level views, the historic setting, or the visual character will occur as a result of the undertaking, aside from temporary construction activities and the resurfacing of road, sidewalk, and driveway areas associated with the natural gas distribution.



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GSA NDER2
PHASE 3

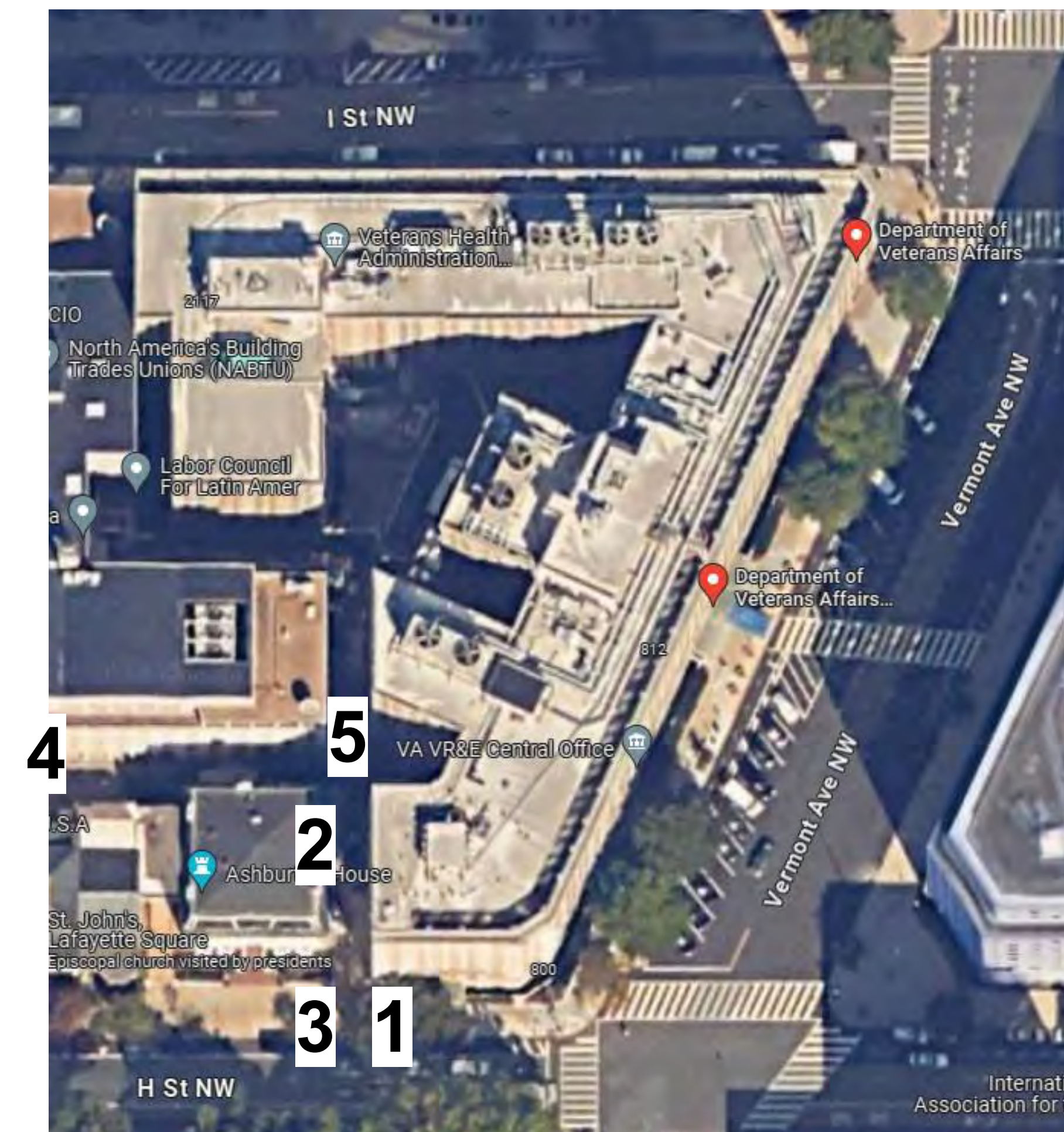
VA BUILDING

MECHANICAL ROOM PART PLAN
LEVEL A

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Date	05/29/2026
Drawn By	MR
Checked By	MR

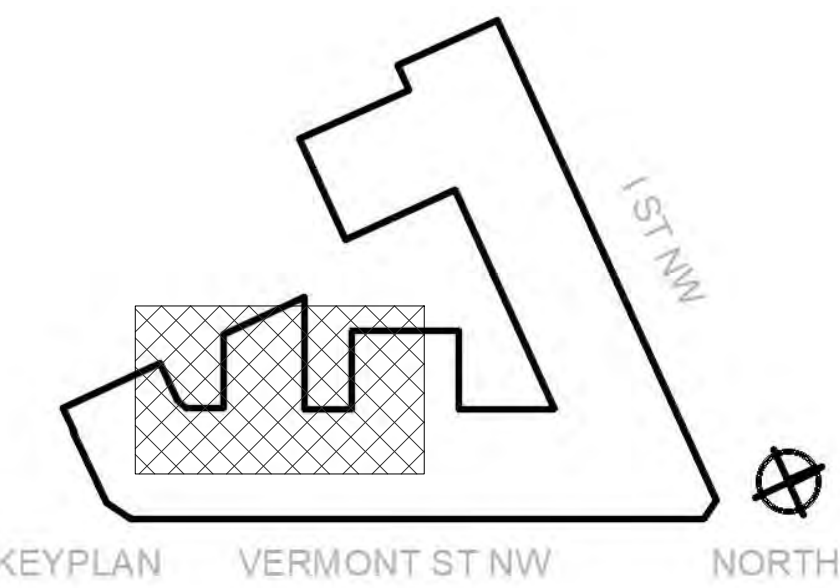
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GSA NDER2
PHASE 3

VA BUILDING

MECHANICAL ROOM PART PLAN
LEVEL A

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