



ARLINGTON
NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE



WASHINGTON GAS LINE REPLACEMENT
DHR PROJECT NO. 2024-4806

SECTION 106 PROCESS SUBMISSION

Army National Military Cemeteries
Arlington National Cemetery
Arlington, Virginia

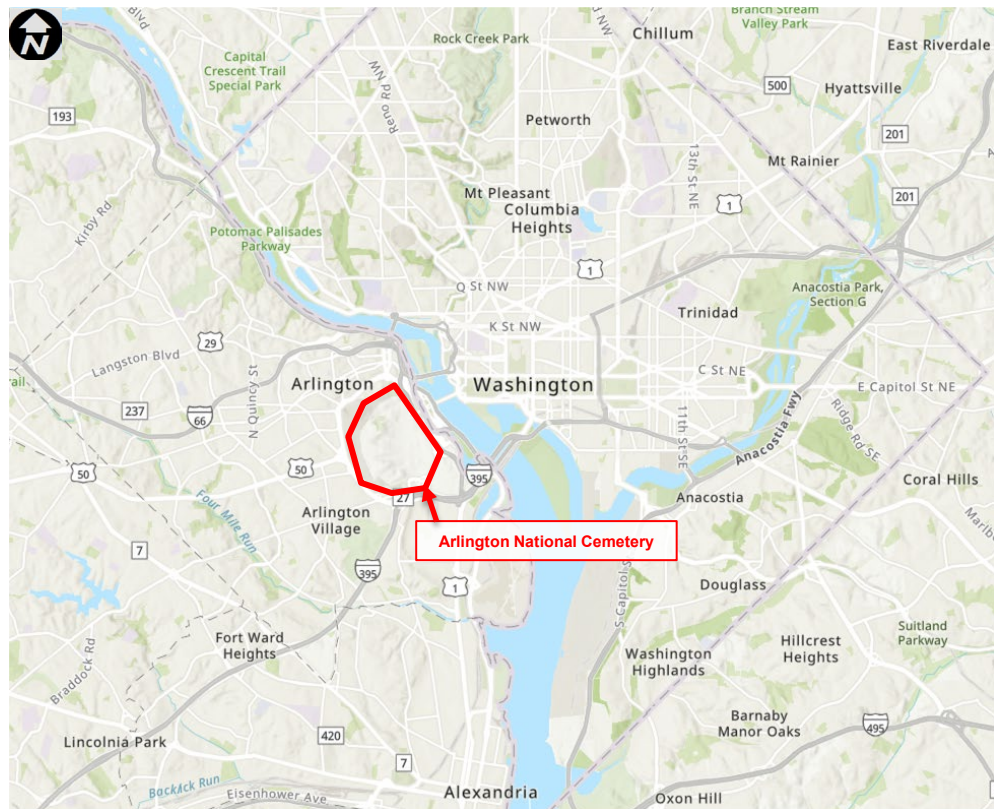
6 September 2024



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

PROJECT INFORMATION



WASHINGTON GAS LINE REPLACEMENT DHR PROJECT No. 2024-4806

Army National Military Cemeteries
Arlington National Cemetery
Arlington, Virginia

SECTION 106 PROCESS SUBMISSION:
PROJECT DESCRIPTION, IDENTIFICATION OF
CONSULTING PARTIES, IDENTIFICATION OF
HISTORIC PROPERTIES, AREA OF POTENTIAL
EFFECTS, & ASSESSMENT OF EFFECTS

ANMC Project Contacts:

Francis Han
Project Manager
Engineering, Design & Construction

Caitlin Smith
Cultural Resources Program Manager
Engineering, Planning & Resources

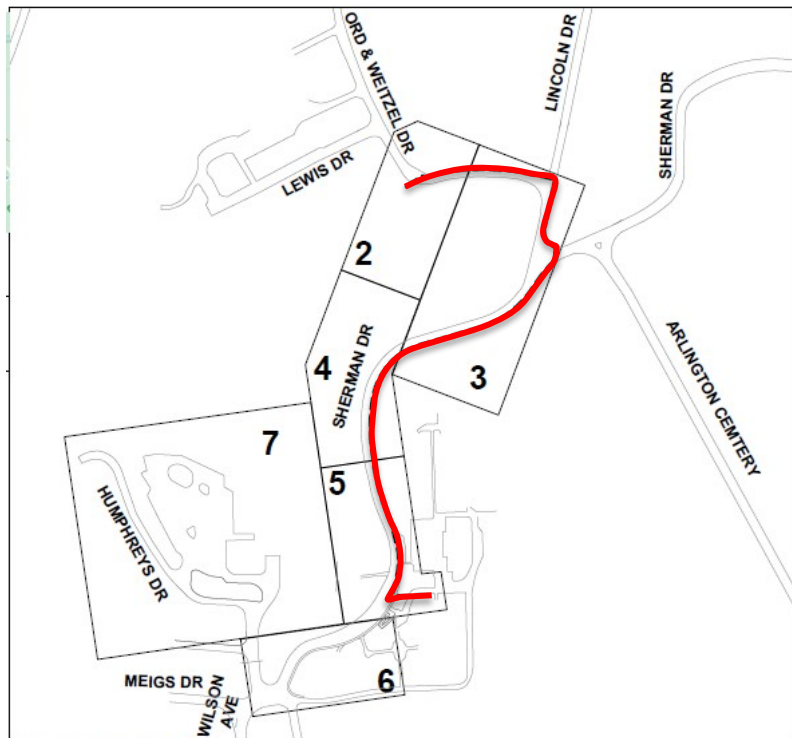
Submission: September 6, 2024



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

PROJECT DESCRIPTION



FIELD VERIFICATION TABLE

TYPE	DESCRIPTION
M	MATERIAL

VA SAVE 3
SITE LOCATION MAP
NOT TO SCALE

Washington Gas Light Company (WGL) proposes replacing, abandoning, and rerouting sections of an existing gas line that runs near Sherman, Lincoln, and Ord & Weitzel Drives to improve service to the Eternal Flame at the John F. Kennedy (JFK) Memorial Gravesite. This is a Virginia SAVE (Steps to Advance Virginia's Energy Plan) accelerated system replacement program project.

This proposed project will improve safety and reduce future maintenance by enhancing the integrity of the gas pipelines and providing a more reliable fuel source to the Eternal Flame. This includes replacing approximately 2,365-feet of existing 2-inch wrapped steel gas main (ca. 1965) with a 2-inch plastic gas main. Work involves excavations over the existing gas main and installation of a replacement line within the Sherman Drive roadway, between Lincoln Drive and Meigs Drive. In addition, two existing 3/4-inch services (ca. 1966) feeding the Eternal Flame at the JFK Memorial Gravesite would be replaced. This requires a two-foot trench be cut through the Arlington House site's permeable sidewalk. All affected and disturbed areas will be restored, including grading, seeding and any hardscape restoration, including asphalt paving.

The majority of the work is to occur at night, to minimize impacts to Arlington National Cemetery (ANC) and National Park Service (NPS) operations.

In consultation with the NPS, the agencies have come to a joint agreement that ANC will serve as the lead agency to assess any effects to historic and archaeological resources on the NPS and ANC properties.

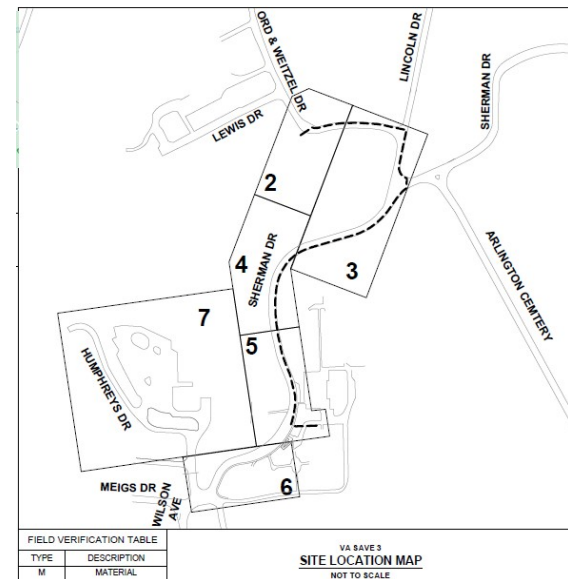


ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

GROUND DISTURBANCE

- Area of disturbance (in acres): 0.14 acres
- Depth of disturbance: +/- 42-inches
- Ground disturbance method: Open cut / direct bury – hand digging, backhoe excavation, and vacuum excavation.
- A new gas main line would be installed in the roadways, starting with a tie-in on NPS property just south of the intersection of Ord and Weitzel Drive and Lewis Drive.
 - Horizontal extent (length x width) of disturbance: 2,310-feet long x 2-feet wide
 - Tie-in excavation: approximately 6 cubic yards
 - Tie-in hole dimensions: 6-feet wide x 6-feet wide x 4-feet deep
- A new service line would be installed from Sherman Drive, past Arlington House, to the source for the Eternal Flame. This requires excavation to install under sidewalk crossings without cuts. This includes two service lines, so the trench will be wider than the one for the main line.
 - Horizontal extent (length x width) of disturbance: 475 -feet long x 3-feet wide
 - Trench dimensions: approximately 2-feet wide x 42-inches deep x 215-feet long
 - Trench excavation: approximately 60 cubic yards
- Excavated materials will be stored in a dump truck until they are transported off-site.
- Project equipment includes an excavator, a dump truck, and a pickup truck.

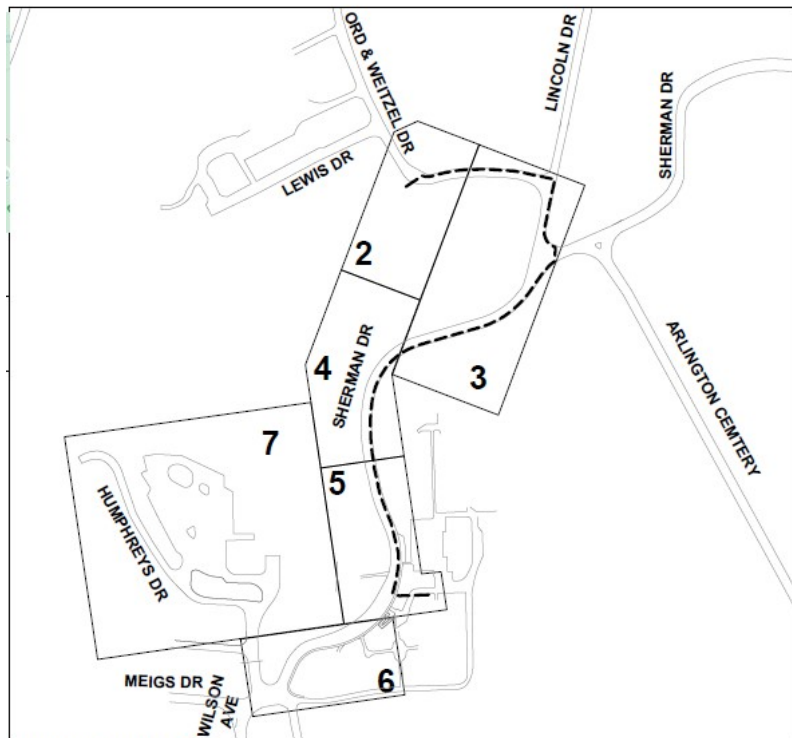




ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

PROJECT DESIGN DECISIONS



FIELD VERIFICATION TABLE

TYPE	DESCRIPTION
M	MATERIAL

VA SAVE 3
SITE LOCATION MAP
NOT TO SCALE

Through a deliberative design process, USACE, ANMC, and the NPS-GWMP, developed the project scope and constraints.

- Minimize impacts to NPS property, including the Arlington Woods and potential archaeological sites
- Minimize impacts to ANC property, including mature trees and burial spaces
- Minimize the amount of land transfer or right-of-way agreements
- Abandon lines in sensitive areas with potential impacts to known and unknown archaeological sites and historic properties
- Work is planned to be performed at night outside of visiting hours. Staging area is away from visitors and daily operations.
- Abandonment of old lines will include purging old gas lines out of service to 0% gas reading, cutting, and capping abandoned pipes.
- Staging for the project will occur in the parking area next to the NPS Old Administration Building. During construction, the staging area will be closed off.
- Traffic control will be utilized for equipment movement as necessary, however since the work will be done at night, minimal traffic disturbance is anticipated.



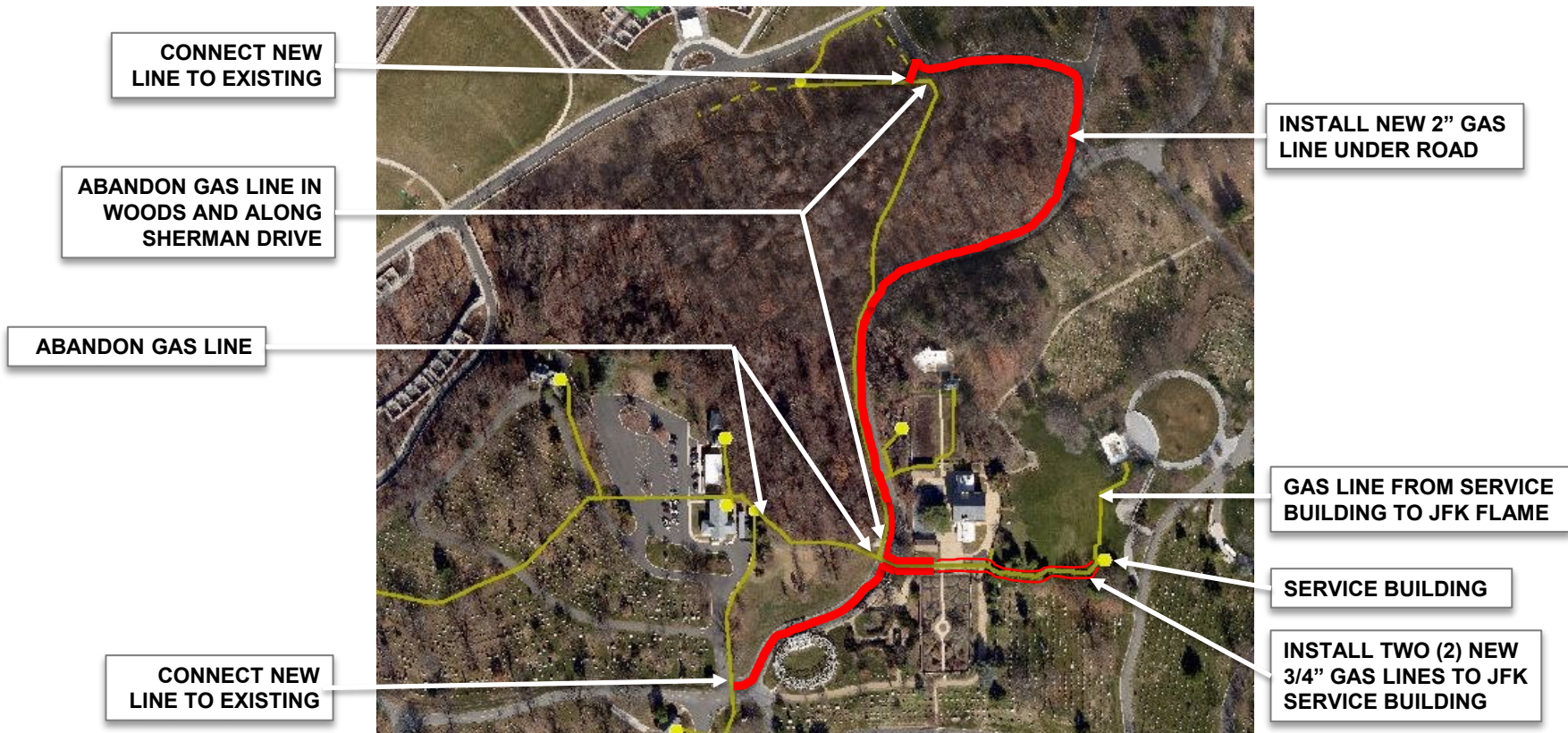
Site map showing
existing gas lines and
historic properties



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

PROPOSED GAS LINE MAP





Construction Sequence (Refer to Subsequent Construction Drawings):

1. Establish traffic control and a safe work environment.
2. Direct Bury 1,850' of 2" PLA-20# on Sherman Rd, Lincoln Dr, and Ord and Weitzel Dr. 3' below grade. (ANC Permit)
3. Direct Bury 90' of 2" PLA-20# between the Arlington House and Garden, from Sherman Dr. to north Eternal Flame service 3' below grade. (NPS Permit)
4. Direct Bury 90' of 2" PLA-20# between the Arlington House and Garden, from Sherman Dr. to south Eternal Flame service 3' below grade. (NPS Permit)
5. Install bypass per PSIA and construction drawings.
6. Use thermal hot tapping tee to tie-in new 2" PLA-20# with existing 2" PLA-20# (2014).
7. Purge new 2" PLA-20# main into service.
8. Change Over 321 Sherman Dr. to new PLA-20# main.
9. Replace the north service of the Eternal Flame to the new 2" PLA-20# main.
10. Squeeze off gas for Disconnect #1.
11. Purge 2" WRPD-20# main out of service.
12. Direct Bury 465' of 2" PLA-20# on Sherman Rd. from 319 Sherman Dr to Humphries Dr. 3' below grade. (ANC Permit)
13. Use thermal hot tapping tee to tie-in new 2" PLA-20# with existing 2" PLA-20# (1981).
14. Purge new 2" PLA-20# main into service.
15. Replace the south service of the Eternal Flame to the new 2" PLA-20# main.
16. Use Nipple and Plug for Disconnect #2.
17. Purge 2" WRPD-20# main out of service.
18. Backfill, compact, & restore all cuts.



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

SITE PHASING PLAN

WASHINGTON GAS LIGHT COMPANY VA SAVE PROGRAM 3 - VINTAGE WRAPPED STEEL MAIN REPLACEMENT SHERMAN DR ARLINGTON COUNTY, VA

RIGHT-OF-WAY AND PERMIT INFO

ARLINGTON NATIONAL CEMETERY PERMIT REQUIRED
NATION PARKS SERVICES PERMIT REQUIRED
OUTSIDE ROW

TOTAL

(TOTAL # SERVICES TO BE: REPLACED - 2, TRANSFERRED - 1, ABANDONED - 0)

*2 Service Replacements require permits from both ANC and NPS

OF SERVICES AFFECTED

FOOTAGE OF MAIN INSTALLED

FOOTAGE OF MAIN ABANDONMENT

3	2,290 FEET	361 FEET
2	20 FEET	1,050 FEET
0	0 FEET	0 FEET
3*	2,310 FEET	1,411 FEET

NOTES:

1. CONTRACTOR NEEDS TO CONTACT CORROSION CONTROL SUPERVISOR TO HAVE TECHNICIAN INSPECT AND TEST WIRES WHEN INSTALLED. REFERENCE DRAWING: TD-1740-1002.
DAVE BROWN: 202-424-4440 (PG CO. NE, SE, & SW DC)
TRAVON CRENSHAW: 703-795-7744 (VIRGINIA)

Phase 1: Pink - Install
~1750' of 2" main from
bottom of hill to Arlington
House & gas out.

Phase 2: Green - Install
~450' of 2" main from
Humphreys Dr to Arlington
House & gas out.

Phase 3: Orange - Install
2x ~475' services across
Arlington House sidewalk
and grass to Eternal Flame
facilities building &
change-over.

Phase 4: Complete
disconnects on sheets 2
and 7 and purge old mains
& services out of service.

8. WHEN WRAPPED STEEL PIPE IS ACCESSED FOR A PERMANENT REPAIR OR NEW INSTALL, A PIPE-TO-SOIL POTENTIAL READINGS MUST BE TAKEN AND RECORDED ON THE APPROPRIATE FIELD ORDER. PLEASE REFER TO O&M 408A-REPAIRING STEEL PIPE LINES.
9. ALL METERS AND REGULATORS SHALL BE LOCATED ON THE EXTERIOR OF THE BUILDING IN ACCORDANCE WITH O&M STANDARD SECTION 5111. IN ALL CASES, A BENDING WITH AN EXISTING REGULATOR METER OR REGULATOR SHALL HAVE, AT A MINIMUM, THE PRESSURE REGULATOR RELOCATED TO THE EXTERIOR OF THE BUILDING WALL, IN ACCORDANCE WITH O&M STANDARD SECTION 5111.

7. THE CONTRACTOR SHALL INSTALL A THERMAL SAFETY VALVE (TSV) ACCORDING TO O&M MANUAL, SECTION 508 WHEN THE FOLLOWING CONDITIONS EXIST:
- REPLACING SERVICE LINES
- THE FITTING CONNECTING TO THE RISER VALVE IS REMOVED DURING METER SET ASSEMBLY
TSVs MUST BE ABLE TO ACCOMMODATE CUSTOMER DEMAND OR FLOW. ENSURE THAT THE GAS DEMAND FROM THE CUSTOMER DOES NOT EXCEED THE CAPACITY OF THE TSVs. REFERENCE TABLE 508-1 FOR TSV CAPACITIES. TSVs CANNOT BE INSTALLED WHERE CUSTOMER DEMAND EXCEEDS THE CAPACITY OF THE TSV (SEE O&M MANUAL FOR ADDITIONAL INFORMATION).

INSTALL METHOD SERVICES TO BE REPLACED VIA INSERTION UNLESS OTHERWISE DETERMINED IN THE FIELD

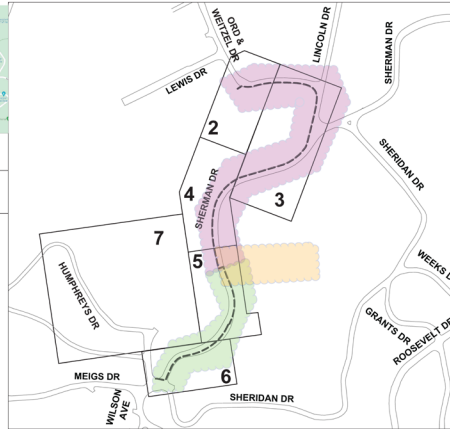
LEGEND

HSE # (GO)	= SERVICE CHANGE OVER	TSV	= PROPOSED THERMAL SAFETY VALVE
HSE # (REPL)	= SERVICE REPLACE (FULL LENGTH)	X	= EXISTING GAS VALVE WITH VALVE NUMBER
X	= PROPOSED EXCESS FLOW VALVE	X	= EXISTING CRITICAL GAS VALVE WITH VALVE NUMBER
SC	= EXISTING METER	X	= EXISTING STOPCOCK
■	= PROPOSED METER LOCATION (METER TO BE MOVED FROM INSIDE TO OUTDOOR)	X	= PROPOSED GAS VALVE
DH	= DISCONNECTION WITH IDENTIFICATION NUMBER	TW	= TIE-IN WITH IDENTIFICATION NUMBER

SITE LOCATION



FORT MYER, VA
VICINITY MAP
NOT TO SCALE



FIELD VERIFICATION TABLE

TYPE	DESCRIPTION
M	MATERIAL
S	SIZE
L	METER LOCATION
Q	SERVICE LOCATION
G	OTHER

VA SAVE 3 SITE LOCATION MAP NOT TO SCALE



WATCH FOR OVERHEAD POWER LINES.



WASHINGTON GAS
A SUBSIDIARY OF
AMERICAN GAS COMPANY

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

TIME: 09:00 AM

PROJECT: VA SAVE 3

LOCATION: SHERMAN DR

DATE: 01/01/2024

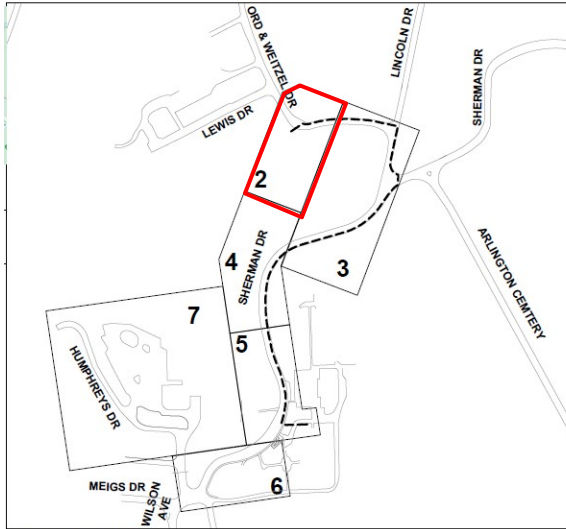
TIME: 09:00



ARLINGTON NATIONAL CEMETERY

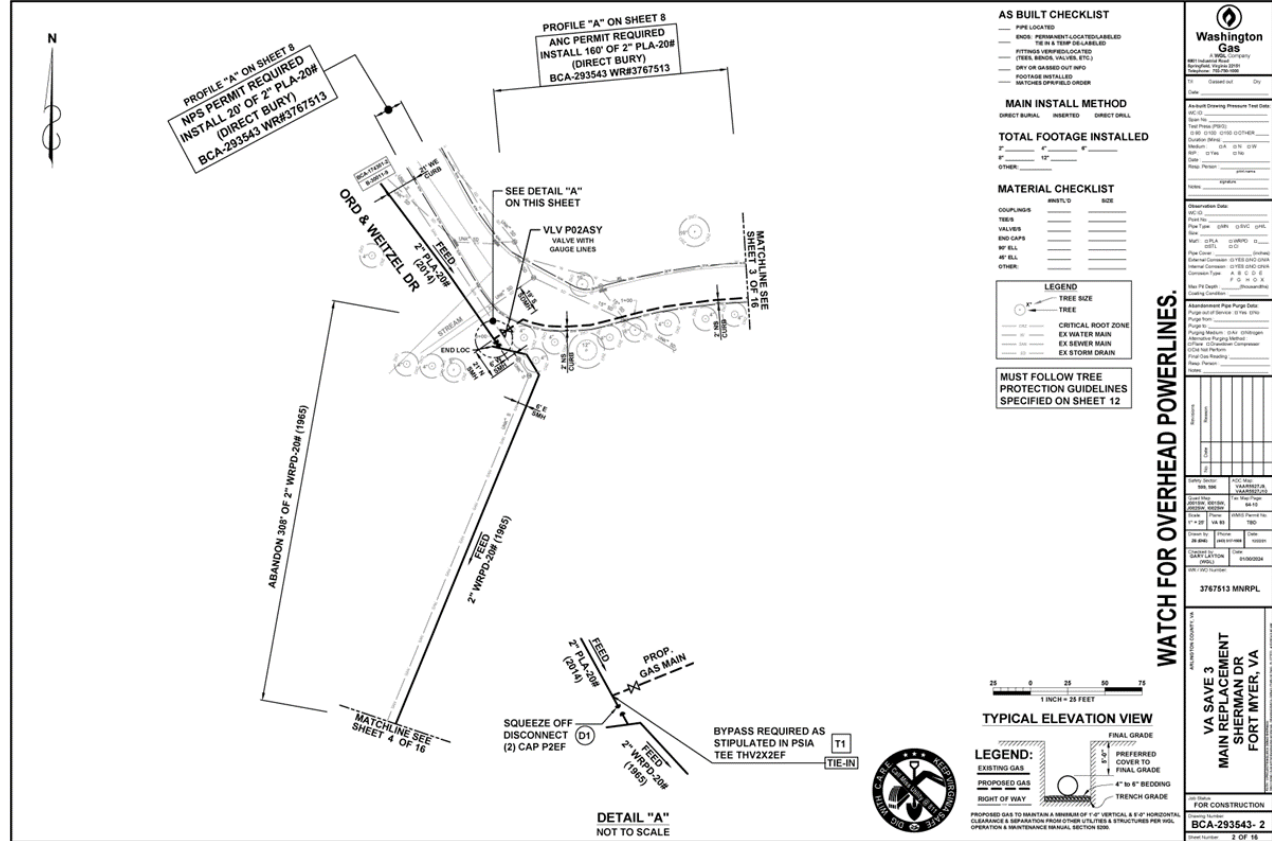
HONOR • REMEMBER • EXPLORE

SITE PLAN



FIELD VERIFICATION TABLE	
TYPE	DESCRIPTION
M	MATERIAL

VA SAVE 3
SITE LOCATION MAP
NOT TO SCALE

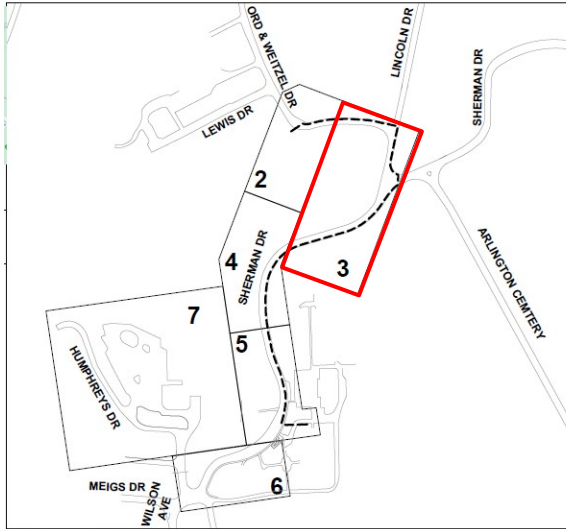




ARLINGTON NATIONAL CEMETERY

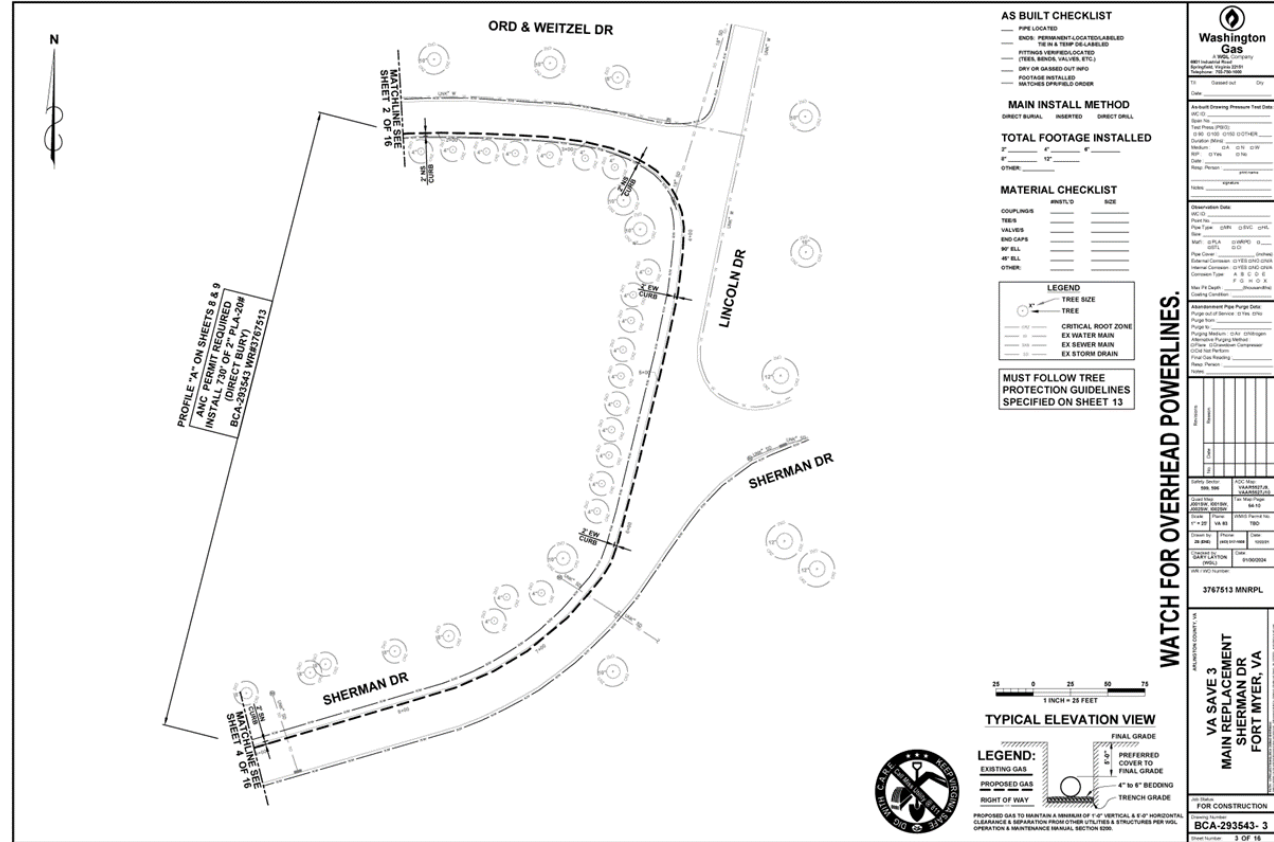
HONOR • REMEMBER • EXPLORE

SITE PLAN



FIELD VERIFICATION TABLE	
TYPE	DESCRIPTION
M	MATERIAL

VA SAVE 3
SITE LOCATION MAP
NOT TO SCALE



AS BUILT CHECKLIST

- PIPE LOCATED
- SHOWN PERMANENTLY LOCATED/LABELLED
- TYPE IN TEMP JOE LABELLED
- ATTACHED CORRESPONDING
- (TRENCH, SERVICE, VALVE, ETC.)
- DRY OR DAMAGED OUT WELD
- FOOTAGE INSTALLED
- MATCHES SPECIFIED UNDER

MAIN INSTALL METHOD

DIRECT BURIAL, SLOTTED, DIRECT DRILL

TOTAL FOOTAGE INSTALLED

FEET: _____ FEET: _____

OTHER: _____

MATERIAL CHECKLIST

COUPLINGS	AMOUNT	SIZE
TRENCH		
VALVES		
END CAPS		
PIPE BELL		
OTHER:		

LEGEND

- TREE SIZE
- CRITICAL ROOT ZONE
- EX WATER MAIN
- EX SEWER MAIN
- EX STORM DRAIN

MUST FOLLOW TREE
PROTECTION GUIDELINES
SPECIFIED ON SHEET 13

DATE	BY	REVISION
2016-01-15	J. J. J.	1
2016-01-15	J. J. J.	2
2016-01-15	J. J. J.	3
2016-01-15	J. J. J.	4
2016-01-15	J. J. J.	5
2016-01-15	J. J. J.	6
2016-01-15	J. J. J.	7
2016-01-15	J. J. J.	8
2016-01-15	J. J. J.	9
2016-01-15	J. J. J.	10
2016-01-15	J. J. J.	11
2016-01-15	J. J. J.	12
2016-01-15	J. J. J.	13
2016-01-15	J. J. J.	14
2016-01-15	J. J. J.	15
2016-01-15	J. J. J.	16
2016-01-15	J. J. J.	17
2016-01-15	J. J. J.	18
2016-01-15	J. J. J.	19
2016-01-15	J. J. J.	20
2016-01-15	J. J. J.	21
2016-01-15	J. J. J.	22
2016-01-15	J. J. J.	23
2016-01-15	J. J. J.	24
2016-01-15	J. J. J.	25
2016-01-15	J. J. J.	26
2016-01-15	J. J. J.	27
2016-01-15	J. J. J.	28
2016-01-15	J. J. J.	29
2016-01-15	J. J. J.	30
2016-01-15	J. J. J.	31
2016-01-15	J. J. J.	32
2016-01-15	J. J. J.	33
2016-01-15	J. J. J.	34
2016-01-15	J. J. J.	35
2016-01-15	J. J. J.	36
2016-01-15	J. J. J.	37
2016-01-15	J. J. J.	38
2016-01-15	J. J. J.	39
2016-01-15	J. J. J.	40
2016-01-15	J. J. J.	41
2016-01-15	J. J. J.	42
2016-01-15	J. J. J.	43
2016-01-15	J. J. J.	44
2016-01-15	J. J. J.	45
2016-01-15	J. J. J.	46
2016-01-15	J. J. J.	47
2016-01-15	J. J. J.	48
2016-01-15	J. J. J.	49
2016-01-15	J. J. J.	50
2016-01-15	J. J. J.	51
2016-01-15	J. J. J.	52
2016-01-15	J. J. J.	53
2016-01-15	J. J. J.	54
2016-01-15	J. J. J.	55
2016-01-15	J. J. J.	56
2016-01-15	J. J. J.	57
2016-01-15	J. J. J.	58
2016-01-15	J. J. J.	59
2016-01-15	J. J. J.	60
2016-01-15	J. J. J.	61
2016-01-15	J. J. J.	62
2016-01-15	J. J. J.	63
2016-01-15	J. J. J.	64
2016-01-15	J. J. J.	65
2016-01-15	J. J. J.	66
2016-01-15	J. J. J.	67
2016-01-15	J. J. J.	68
2016-01-15	J. J. J.	69
2016-01-15	J. J. J.	70
2016-01-15	J. J. J.	71
2016-01-15	J. J. J.	72
2016-01-15	J. J. J.	73
2016-01-15	J. J. J.	74
2016-01-15	J. J. J.	75
2016-01-15	J. J. J.	76
2016-01-15	J. J. J.	77
2016-01-15	J. J. J.	78
2016-01-15	J. J. J.	79
2016-01-15	J. J. J.	80
2016-01-15	J. J. J.	81
2016-01-15	J. J. J.	82
2016-01-15	J. J. J.	83
2016-01-15	J. J. J.	84
2016-01-15	J. J. J.	85
2016-01-15	J. J. J.	86
2016-01-15	J. J. J.	87
2016-01-15	J. J. J.	88
2016-01-15	J. J. J.	89
2016-01-15	J. J. J.	90
2016-01-15	J. J. J.	91
2016-01-15	J. J. J.	92
2016-01-15	J. J. J.	93
2016-01-15	J. J. J.	94
2016-01-15	J. J. J.	95
2016-01-15	J. J. J.	96
2016-01-15	J. J. J.	97
2016-01-15	J. J. J.	98
2016-01-15	J. J. J.	99
2016-01-15	J. J. J.	100

TYPICAL ELEVATION VIEW

FINAL GRADE	EXISTING GRADE	PROPOSED GRADE	RIGHT OF WAY	TRENCH GRADE

LEGEND:

- EXISTING GAS
- PROPOSED GAS
- RIGHT OF WAY
- TRENCH GRADE

PROPOSED GAS TO BE INSTALLED AT A MINIMUM OF 1' OF HORIZONTAL CLEARANCE & SEPARATION FROM OTHER UTILITIES & STRUCTURES PER VUL OPERATION & MAINTENANCE MANUAL, SECTION 5.03.



Washington
Gas

1111 11th Street NW
Washington, DC 20004-4400
Phone: 202-462-1000
Fax: 202-462-1001

Date: _____

As Built Drawing Previous: Trench Data

Project Name: _____

Project No: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

Sheet: _____

Revision: _____

Notes: _____

Comments: _____

Drawn By: _____

Checked By: _____

Approved By: _____

Scale: _____

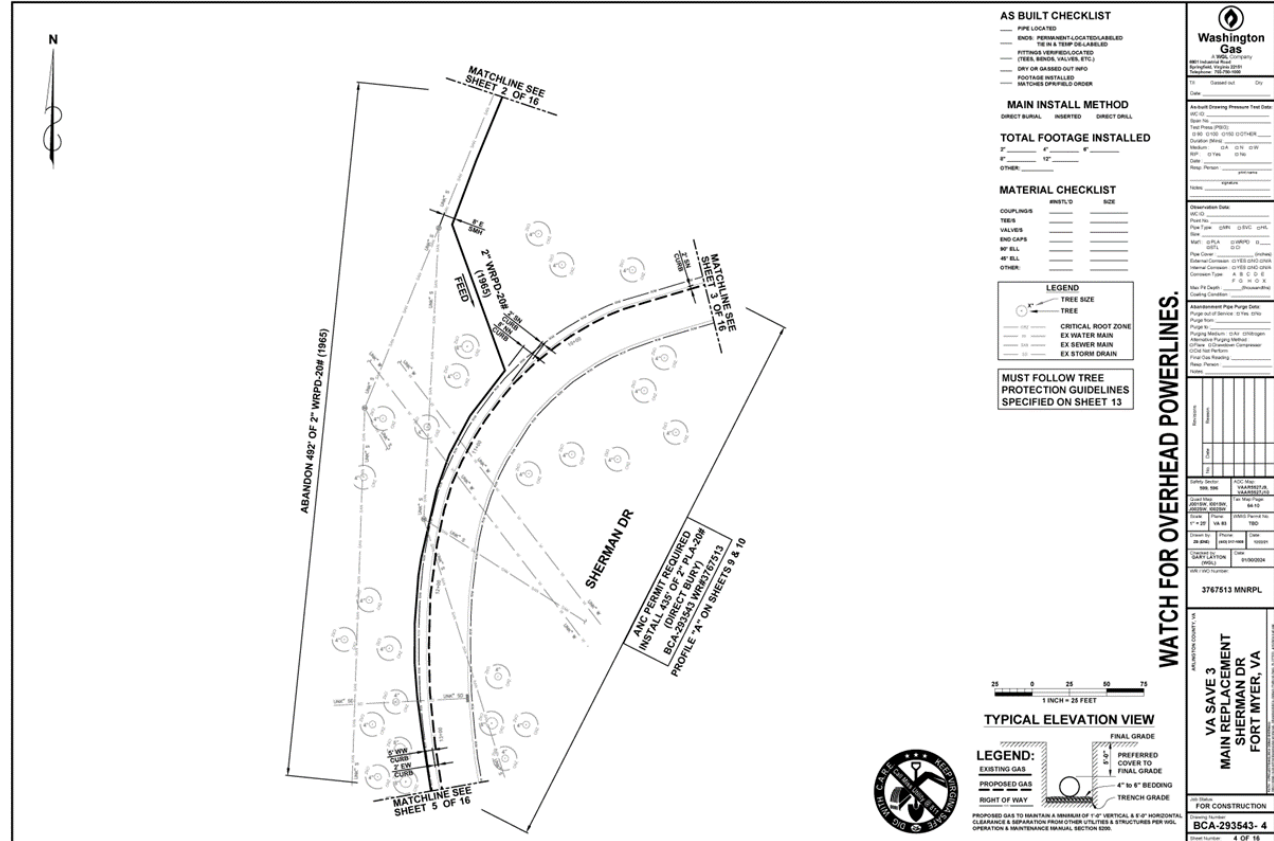
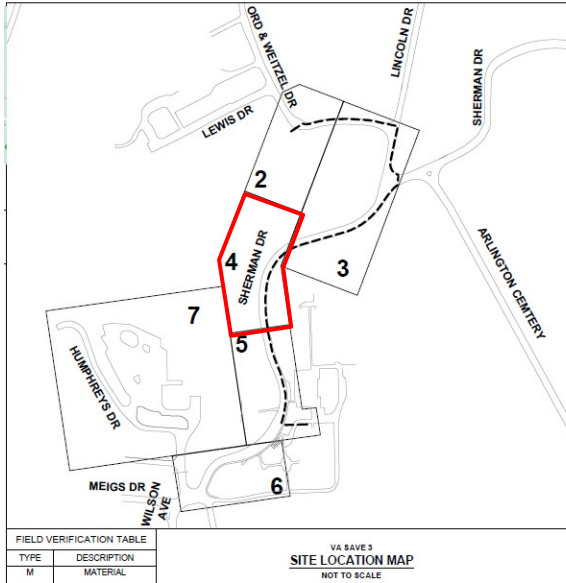
Sheet: _____



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

SITE PLAN

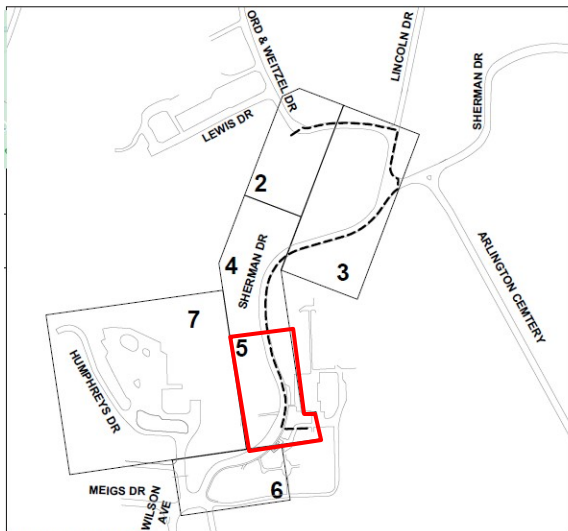




ARLINGTON NATIONAL CEMETERY

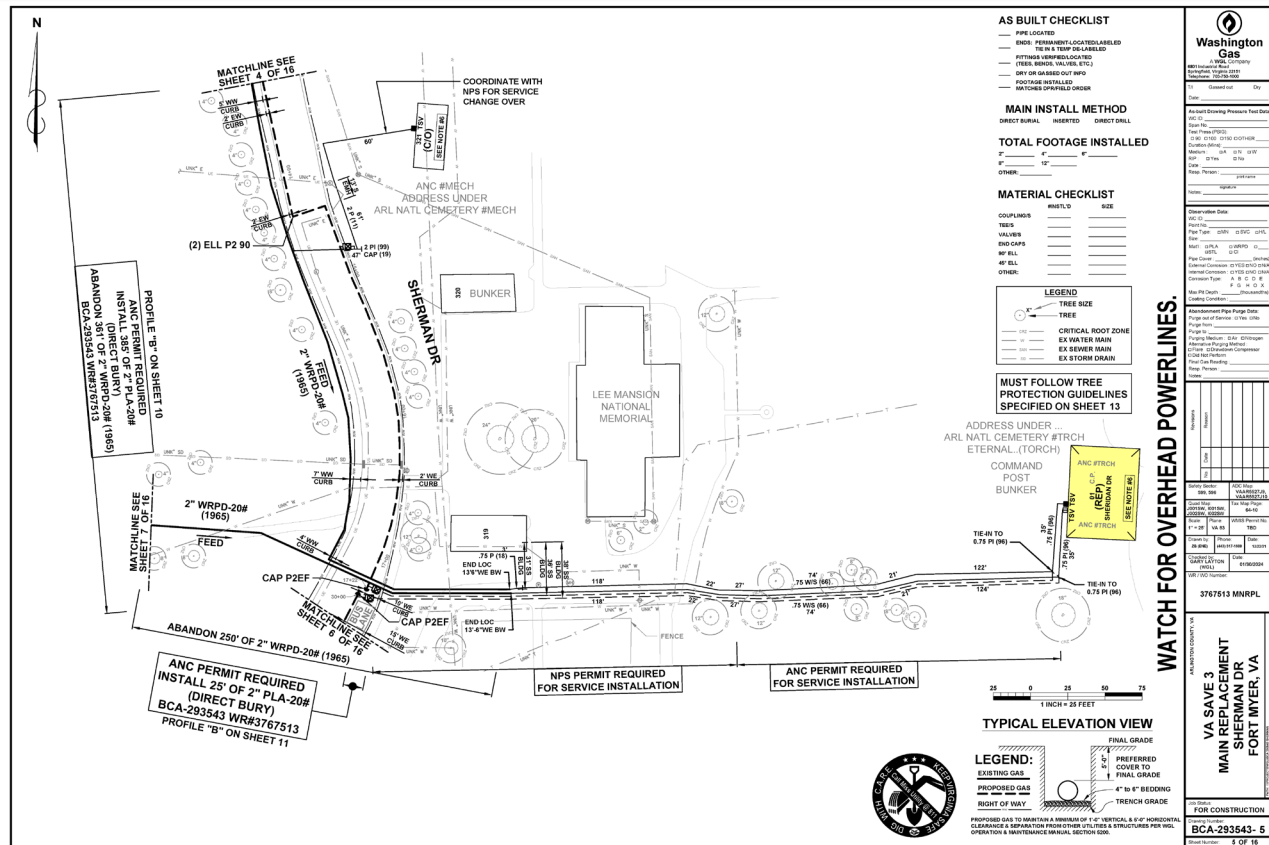
HONOR • REMEMBER • EXPLORE

SITE PLAN



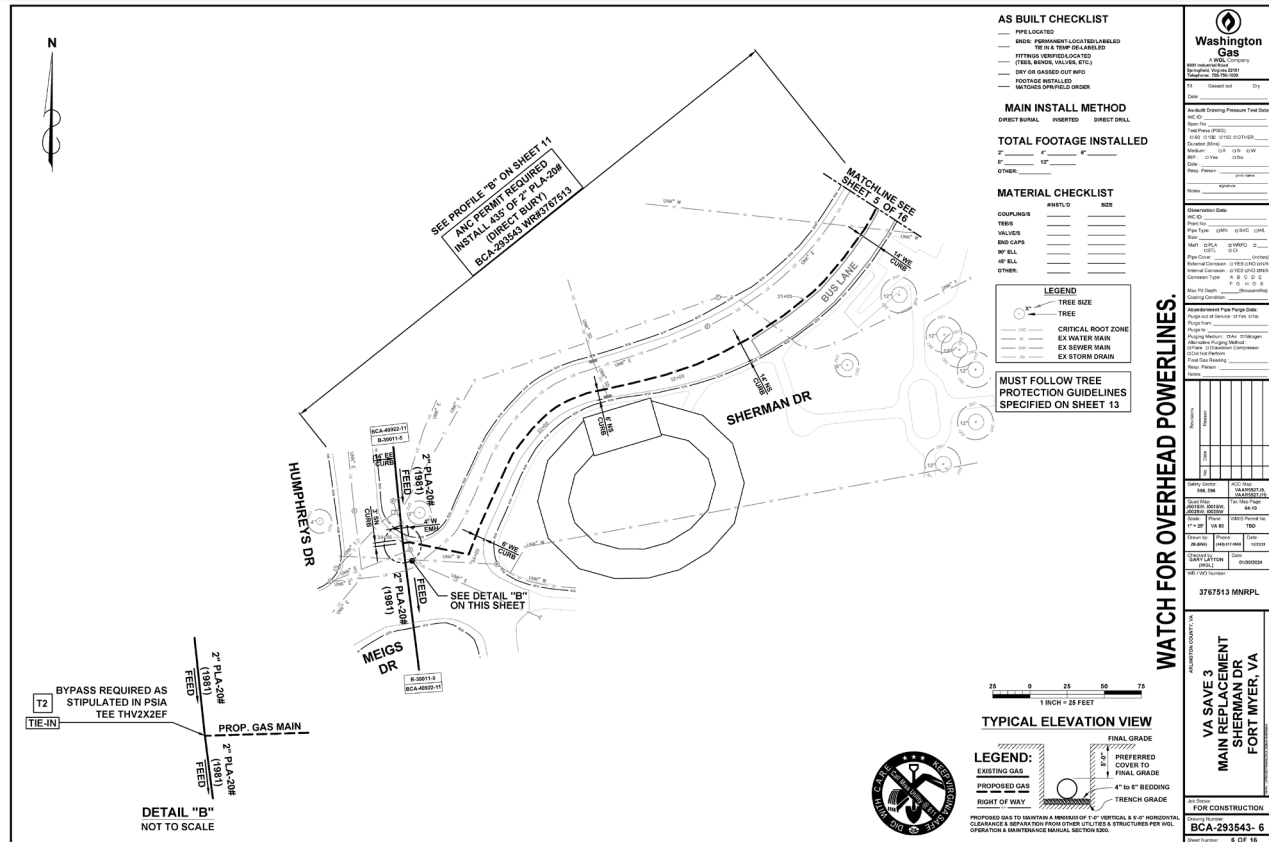
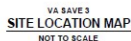
FIELD VERIFICATION TABLE		
TYPE	DESCRIPTION	
M	MATERIAL	

VA SAVE 3
SITE LOCATION MAP
NOT TO SCALE



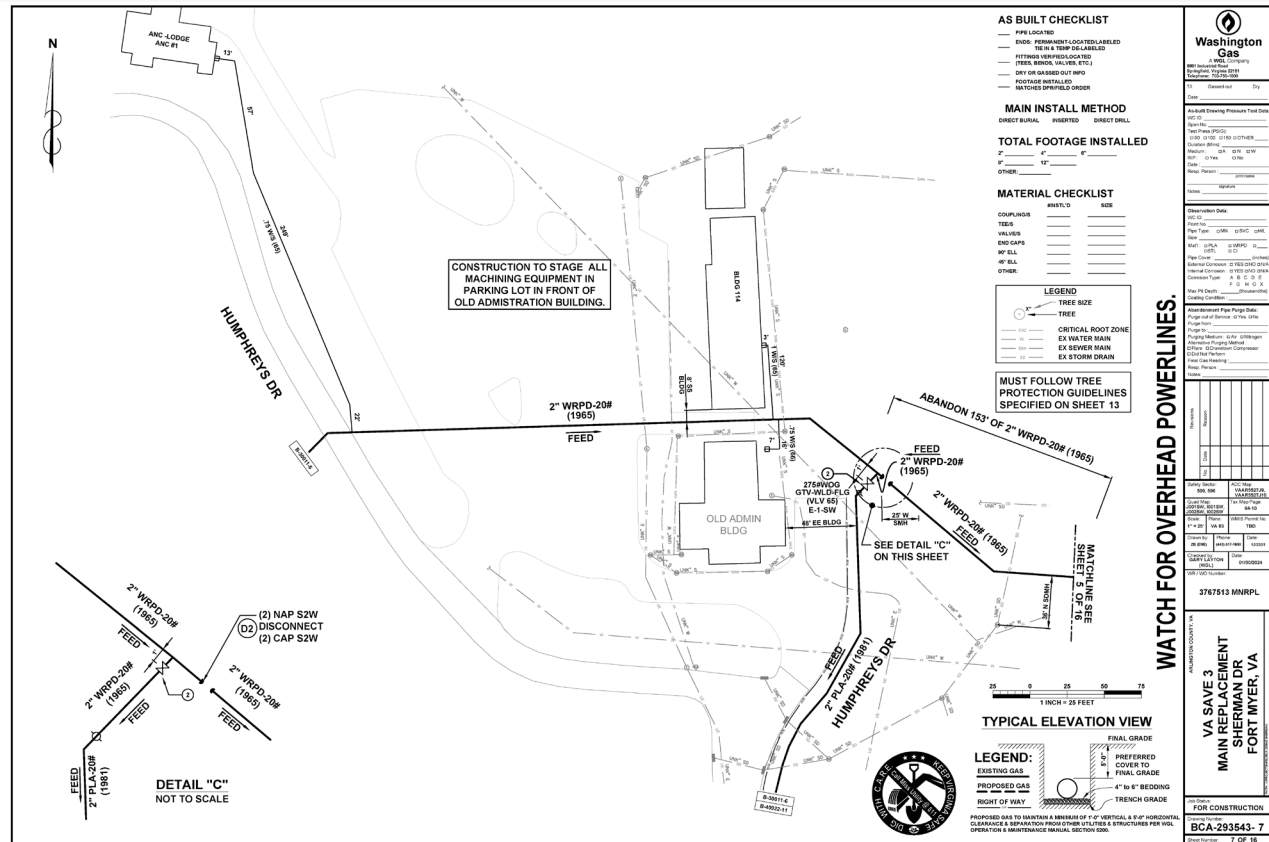


SITE PLAN





SITE PLAN

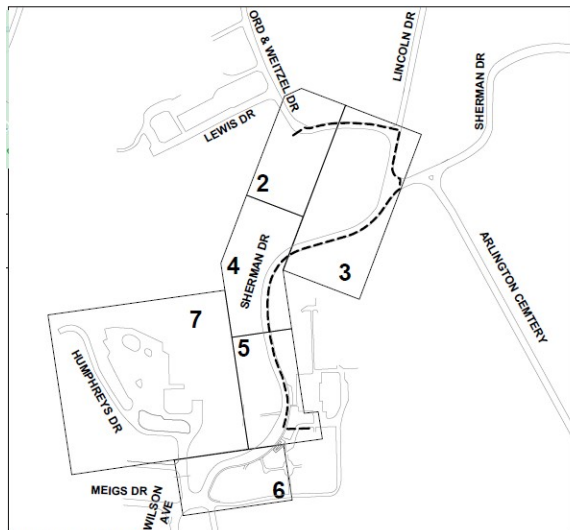




ARLINGTON NATIONAL CEMETERY

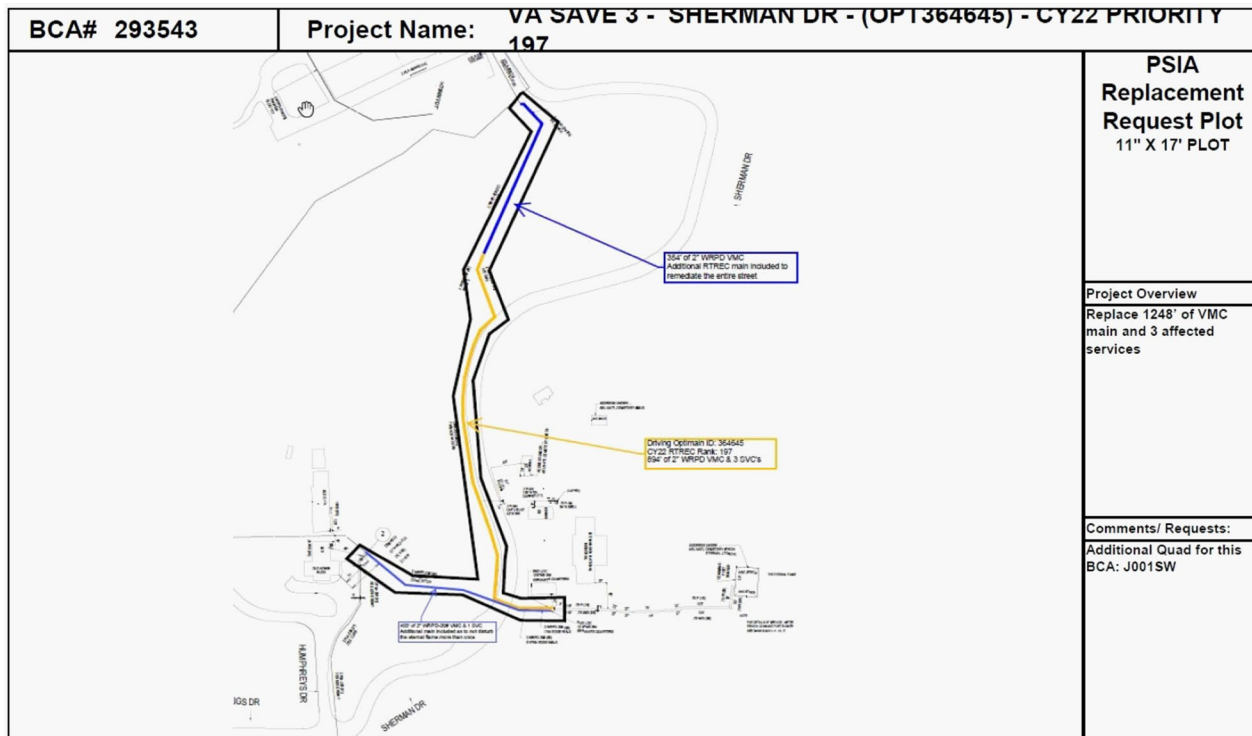
HONOR • REMEMBER • EXPLORE

SITE PLAN



FIELD VERIFICATION TABLE	
TYPE	DESCRIPTION
M	MATERIAL

VA SAVE 3
SITE LOCATION MAP
NOT TO SCALE

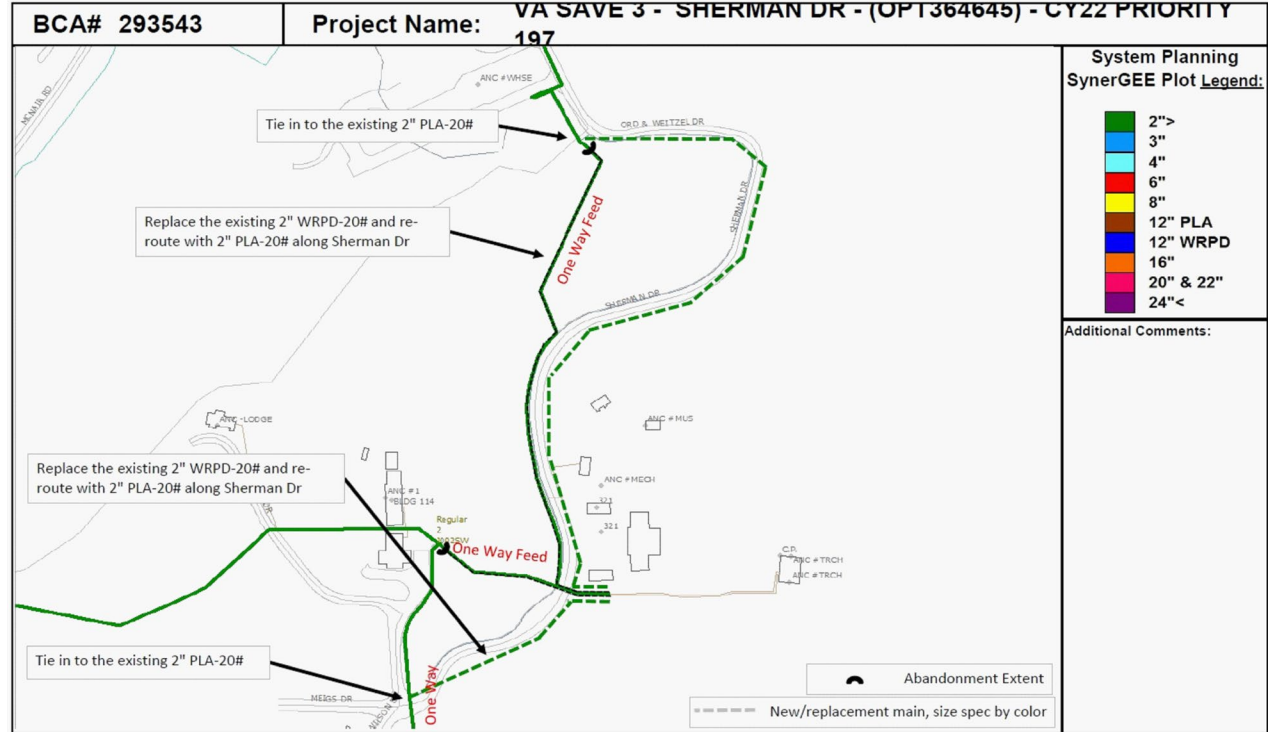
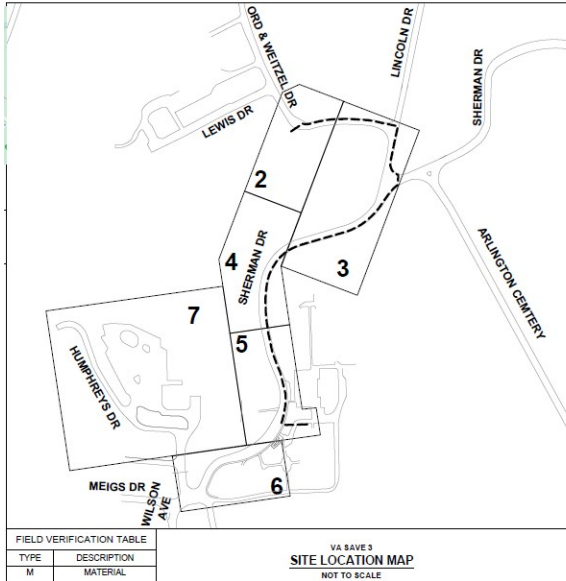




ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

SITE PLAN



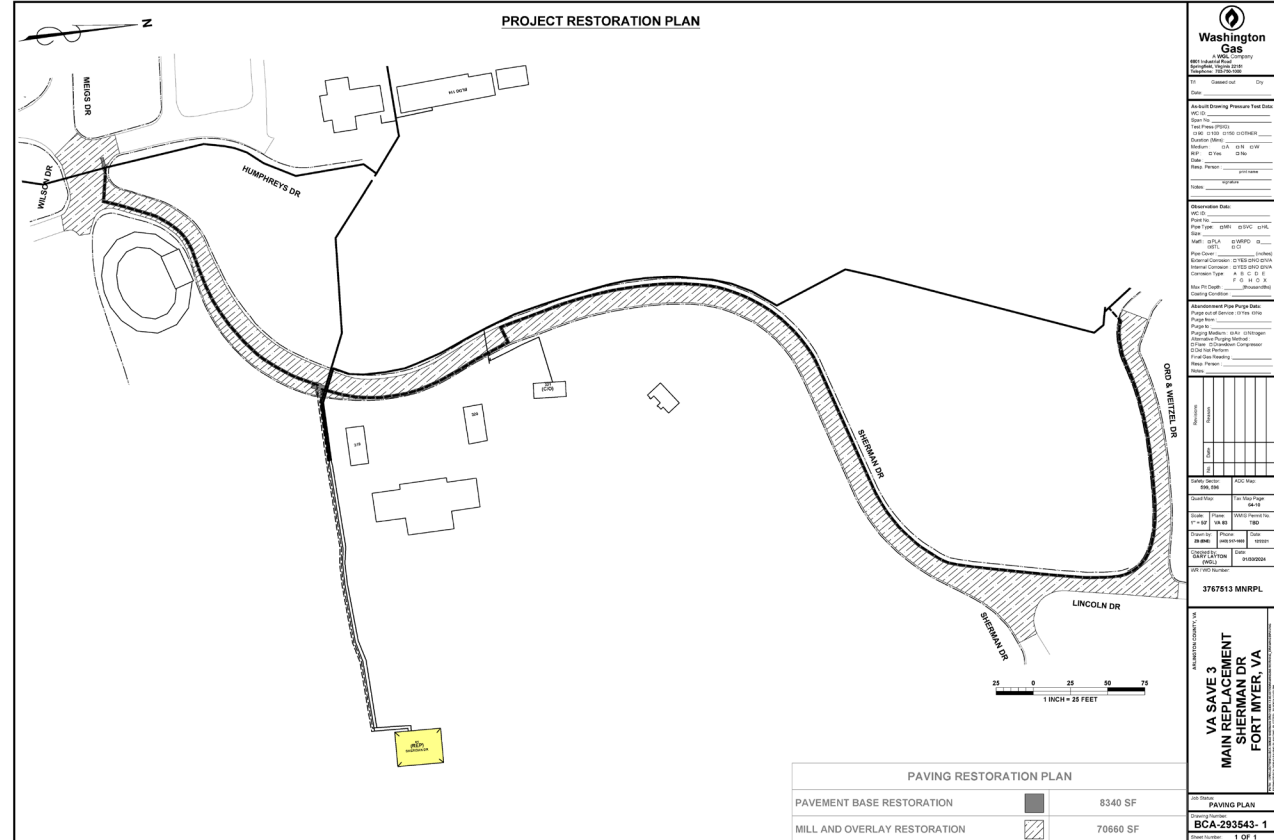
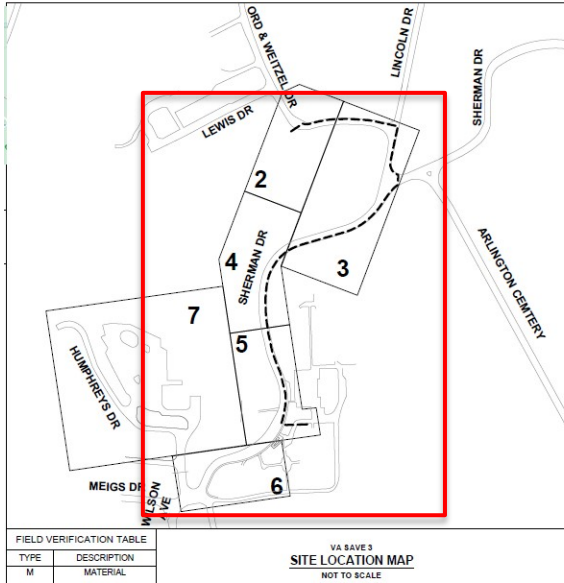


ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

REPAVING PLAN

POST-CONSTRUCTION REPAVING PLAN





ARLINGTON
NATIONAL CEMETERY
HONOR • REMEMBER • EXPLORE

ANMC & NPS-GWMP INTERAGENCY COORDINATION

In consultation, ANMC and the NPS George Washington Memorial Parkway (GWMP) have come to a joint agreement regarding compliance responsibilities for the proposed project. In a letter dated May 9, 2023, the NPS-GWMP designated ANC as the lead federal agency authorized to act on behalf of NPS-GWMP and to fulfill the agencies' collective responsibilities under Section 106 according to 36 CFR 800.2(a)(2). Under this agreement, NPS-GWMP requires ANC to take responsibility for monitoring potential effects to historic and archaeological resources on NPS and ANC properties.

In the May 9 letter, Christine Smith (speaking for Charles Cuvelier, Superintendent of GWMP) stated the collective Section 106 responsibilities for both agencies:

Responsibilities of Arlington National Cemetery

As lead federal agency, ANC is expected to fulfill certain requirements to comply with the NHPA and ensure effective collaboration with NPS:

- Address Section 106 compliance requirements, including: determining the Area of Potential Effects, identifying historic properties, determining the effect of the undertaking on historic properties, and seeking to avoid or minimize adverse effects to historic properties. If there is a finding of adverse effects, ANC will work with NPS to resolve those effects as documented in a Memorandum of Agreement or project Programmatic Agreement.
- Promote communication, coordination, and consultation, by identifying and inviting consulting parties (including SHPOs and THPOs) to participate in the Section 106 process, provide draft plans to NPS and other consulting parties for comment throughout the duration of each project, and seek input on eligibility, effect, and treatment activities.
- Notify NPS in writing when the Section 106 consultation has been concluded, provide final documentation of the review process, and, where applicable, provide a copy of the executed agreement document.

Responsibilities of the National Park Service

NPS will provide support to ANC throughout the Section 106 process in a variety of ways:

- Review draft project plans and documents, as well as Section 106 documents, and provide comments.
- Provide relevant data, reports, and research to ANC as needed.
- Issue a Special Use Permit so that ANC can access NPS land to identify historic properties and complete the Assessment of Effect.
- Notify ANC if the decision is made to withdraw from the joint Section 106 process and complete an individual review.



ANC, in agreeing to the aforementioned responsibilities, executed a contract, with support from NPS GWMP, to perform the following surveys:

- Phase I Archeological Survey and Tree Survey of areas within the APE for this project and a project to reconstruct and realign Sherman Drive.
- The survey covers a 50-foot-wide area (Survey Area A) within Arlington Woods along Sherman Drive, and a small corridor south of Arlington House (Survey Area B) adjacent the rose garden.

The tree survey field work took place in October 2023. The inventory and maps were approved by ANMC and NPS-GWMP in February 2024. ANC will be required to have the construction contractor utilize the tree survey data to identify trees in the APE that need to be protected. The Phase I archeological survey field work occurred in December 2023. The pre-final report and maps were approved by ANMC and NPS-GWMP in May 2024.

ANC also incorporated the following requirements into the project contract:

“An independently contracted Archaeological Monitor to be contracted by USACE will observe all ground-disturbing site work periodically and as an on-call service, as needed. This includes construction of temporary facilities, at all archeologically sensitive areas, from a safe location mutually agreed on by Contractor and Monitor” (2.1.A Monitoring- Execution).

“Archaeological Monitor or USACE Contracting Officer Representative (COR) will request that the contractor immediately halt work in the immediate area if potential archaeological resources or previously unidentified cultural resources are discovered...” (2.2 Discovery of Resources).

Furthermore, all projects contracted by ANC must conform with the “Programmatic Agreement Among Arlington National Cemetery, the Virginia State Historic Preservation Officer, and the Advisory Council on Historic Preservation for the Operation, Maintenance, and Repair Activities at Arlington National Cemetery,” which requires the provisions of Stipulation VII are included in all ANC operations and contracts involving ground disturbance. Stipulation VII provides standard procedures for post review discovery of cultural resources or unanticipated effects, and unidentified human remains dating prior to the establishment of Arlington National Cemetery.



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

SURVEY AREA MAP





**View of Survey Area A
from Sherman Drive
looking northwest
from the Arlington
House tram stop**



**View of Survey Area A
from Ord & Weitzel Drive
looking southeast**



View of Survey Area B looking east, between Arlington House and the rose garden.



Same view showing existing and proposed new gas lines.



**View of Survey Area B
looking west, between
Arlington House and
the rose garden.**



ARLINGTON
NATIONAL CEMETERY
HONOR • REMEMBER • EXPLORE

NATIONAL HISTORIC PRESERVATION ACT (NHPA)

SECTION 106 DOCUMENTATION



View looking west toward Arlington House, with Sherman Drive and the Arlington Woods behind

Army National Military Cemeteries (ANMC) initiates the section 106 process for the proposed roadway reconstruction and sidewalk improvement project within Arlington National Cemetery (ANC). The proposed project is considered a federal undertaking, as defined in 36 CFR § 800.16(y), and is the type of activity that has the potential to cause effects on historic properties pursuant to 36 CFR § 800.3(a).

Per 36 CFR § 800.3(c), ANMC identifies the Virginia Department of Historic Resources (DHR) as the appropriate State Historic Preservation Office (SHPO) to be involved in the section 106 process.

Per 36 CFR § 800.3(c), ANMC plans to involve the public in the section 106 process. After initiating consultation with the DHR, ANMC will notify potential consulting parties and the public of the undertaking via email, social media, and the ANC website, inviting them to participate in the consultation process. ANMC will work in consultation with the DHR to develop the plan for involving the public in the section 106 process.



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

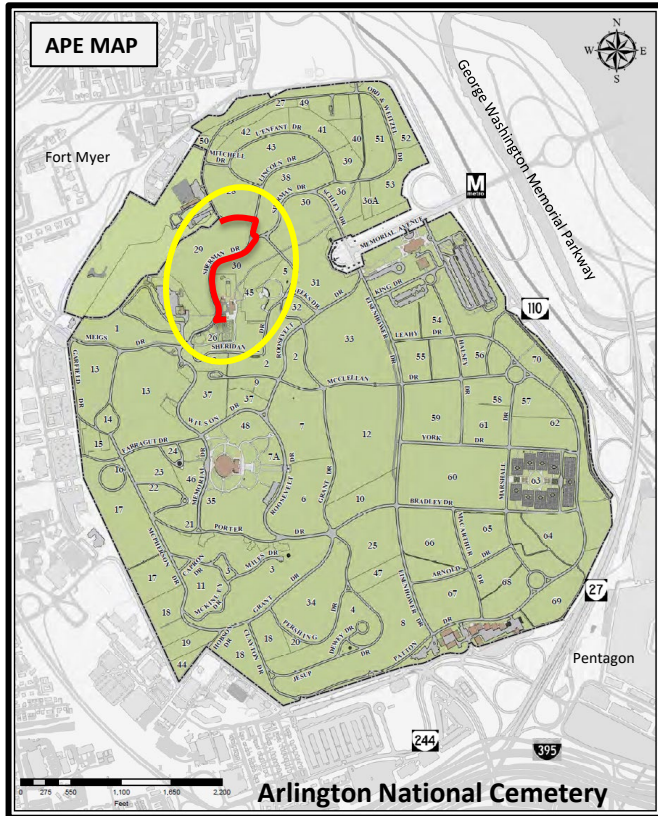
CONSULTING PARTIES

In accordance with 36 CFR § 800.3(f) and § 800.2(c), ANMC developed an initial list of other parties entitled to be consulting parties. This list will be further developed in consultation with the DHR.

ANMC identified the following other consulting parties:

- Catawba Indian Nation
- Chickahominy Indian Tribe-Eastern Division
- Delaware Nation, Oklahoma
- Nansemond Indian Nation
- National Park Service, George Washington Memorial Parkway (GWMP)
- Pamunkey Indian Tribe
- Rappahannock Tribe, Inc.
- Upper Mattaponi Tribe





Per 36 CFR § 800.4 & § 800.16, ANMC identified the Area of Potential Effects (APE) for the proposed project, the full extent of which will be determined in consultation with the DHR.

The APE is the geographic area(s) within which an undertaking may directly or indirectly cause changes in the character or use of historic properties. The APE is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking. This includes locations where the project may be visible and/or audible.

VDHR guidelines recommend that the APE includes:

- all locations where the project will cause ground disturbance;
- all locations from which the project may be visible or audible; and
- all locations where the project may result in changes to land use, public access, traffic patterns, viewsheds, etc.

For this undertaking, the project area is located within the Arlington National Cemetery Historic District (Virginia Department of Historic Resources [VDHR] #000-0042) and the Arlington House Historic District (VDHR #000-0001). The project APE is outlined in yellow on the map to the left.

The APE includes locations where equipment will be placed during the gas line abandonment and installation project. Most of this work would occur along Sherman, Ord and Weitzel, and Meigs Drives, and involves abandonment of gas lines in the Arlington Woods. The project will install a new gas service line between Arlington House and the Rose Garden.

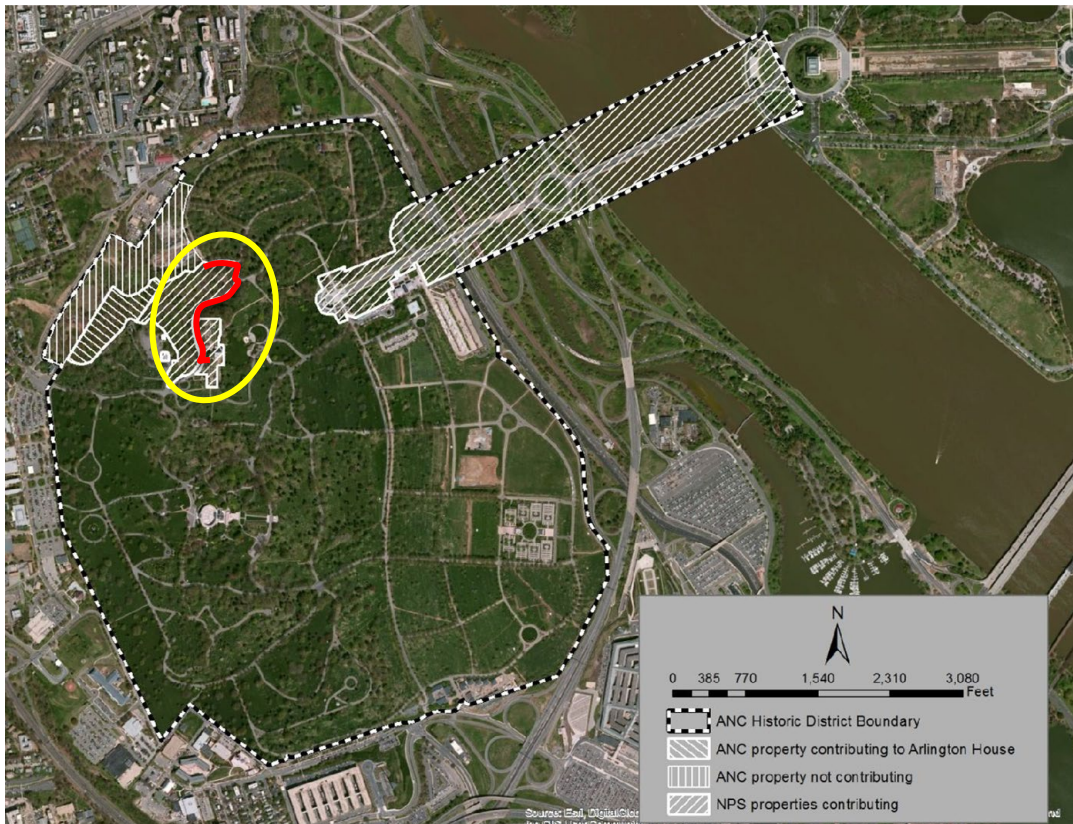
Map of Project Area
APE outlined in **YELLOW**.
Proposed project locations in **RED**.



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

AREA OF POTENTIAL EFFECTS



During construction, temporary sound and visual effects are expected within 100 feet of the project area. Work will occur after the sites close to the public. Construction equipment will access the site via the cemetery's main entrance on Memorial Avenue, the Service Complex Gate at the cemetery's southern entrance, and the Ord and Weitzel Gate at the cemetery's northern entrance.

When the project is completed, there will be no changes to the viewsheds and landscape within the Arlington House and Arlington National Cemetery Historic Districts. All work is below grade and will not be visible. There will be temporary visual impacts during construction, concentrated near Sections 1, 26, 28, 29, 30, 45, Arlington House, and the Arlington Woods, where the construction activities will be visible.

During construction, there will be temporary, localized impacts to traffic patterns within the cemetery. Washington Gas will need to reduce portions of Sherman Drive down to one lane during construction. The project will not create long-term changes to land use or traffic patterns.

The project does involve ground disturbance in the historic ANC and Arlington House landscapes.

National Register Historic Districts

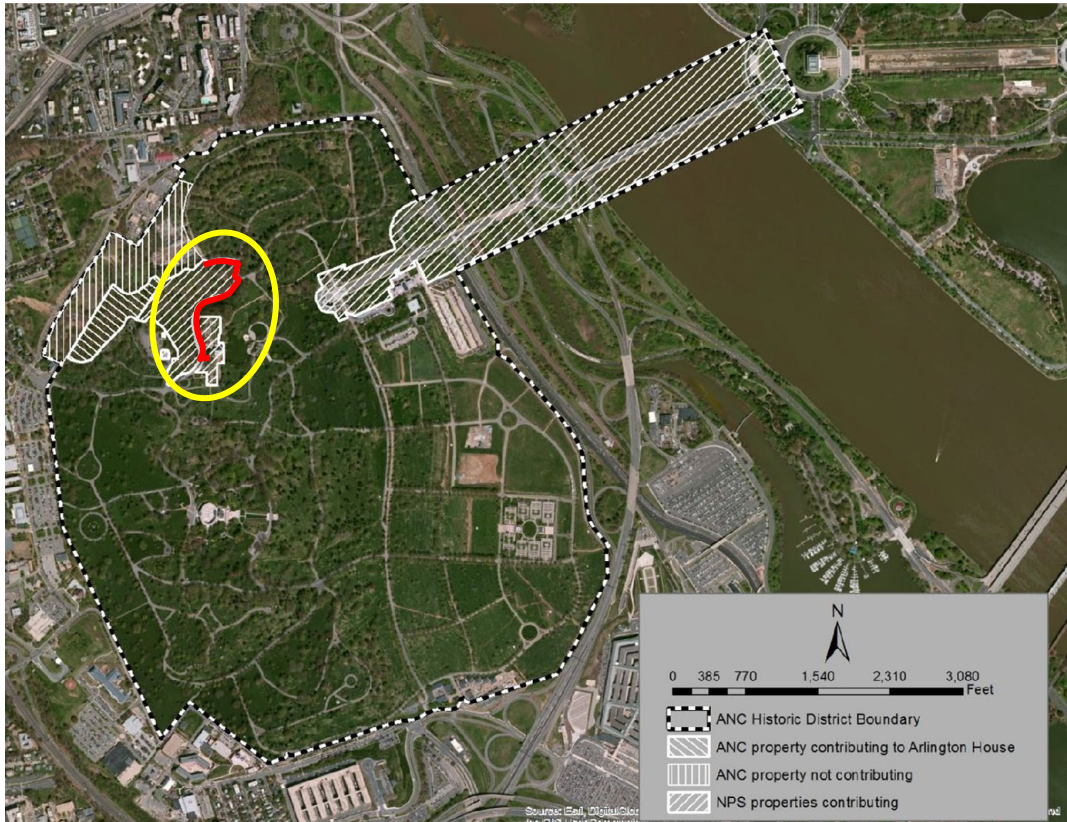
From ANC's National Register Nomination Form (2014)

Map of Project Area

APE outlined in **YELLOW**

Proposed project locations in **RED**

IDENTIFICATION OF HISTORIC PROPERTIES



Historic Properties within the APE

Per 36 CFR § 800.4, the following is a list of historic structures and features contributing to the ANC and Arlington House historic districts, which are located within / adjacent to the APE. These properties are identified in the 2014 programmatic agreement among ANC, the Virginia SHPO, and the Advisory Council on Historic Preservation (ACHP), ANC's 2014 National Register nomination, and ANC's 2012 DHR Reconnaissance Level Survey.

- Arlington National Cemetery Historic District (DHR #000-0042)
- Arlington House Historic District (DHR # 000-0001)
- Arlington House Cultural Landscape (CLI #600049)
- Headstones and Grave Markers (DHR #000-0042-0021)
- Headstones and Grave Markers (DHR #000-0042-0021)
- Burial Sections 1, 26, 28, 29, 30, and 45
- Pan Am Flight 103 Memorial Cairn (DHR ID#: 000-0042-0037)
- Kennedy Gravesites (DHR ID#: 000-0042-0033)

National Register Historic Districts

From ANC's National Register Nomination Form (2014)

Map of Project Area

APE outlined in **YELLOW**

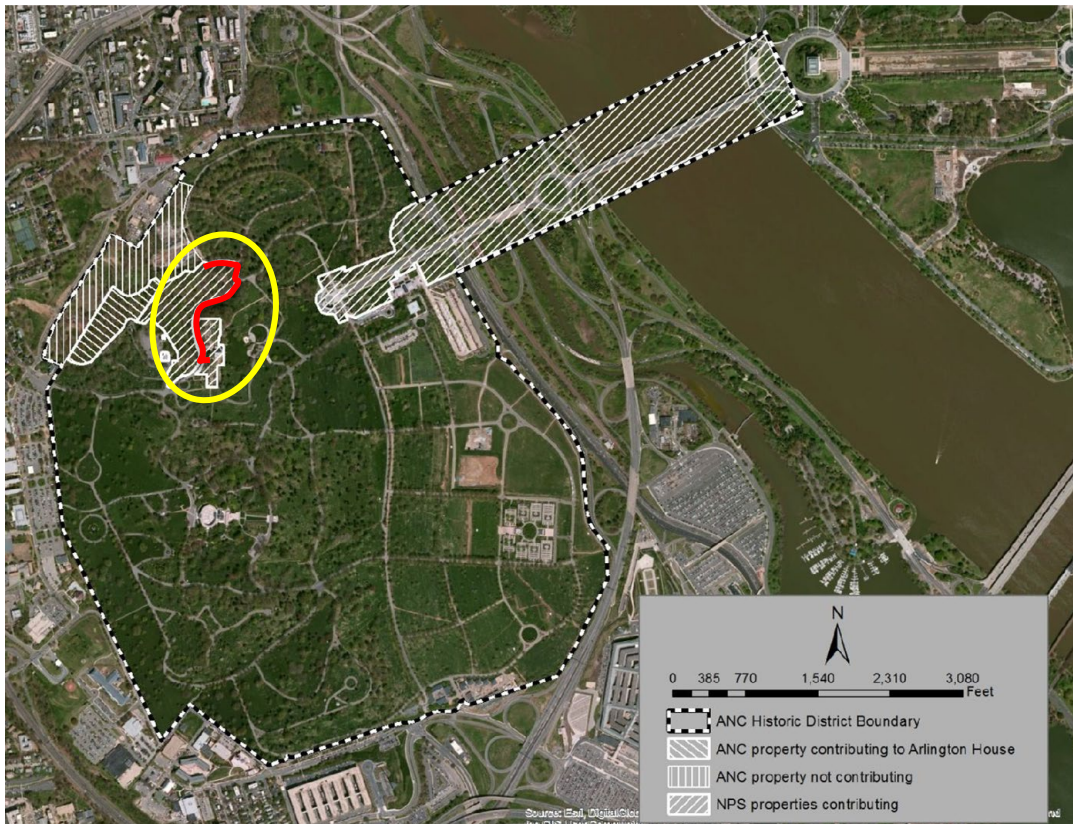
Proposed project locations in **RED**



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

IDENTIFICATION OF HISTORIC PROPERTIES



National Register Historic Properties within the APE

The following is a list of historic properties on the National Register (IAW 36 CFR part 63) within the APE:

- Arlington National Cemetery Historic District (DHR #000-0042)
<https://www.dhr.virginia.gov/historic-registers/000-0042/>
- Arlington House Historic District (DHR # 000-0001)
<https://www.dhr.virginia.gov/historic-registers/000-0001/>

National Register Historic Districts

From ANC's National Register Nomination Form (2014)

Map of Project Area

APE outlined in **YELLOW**.

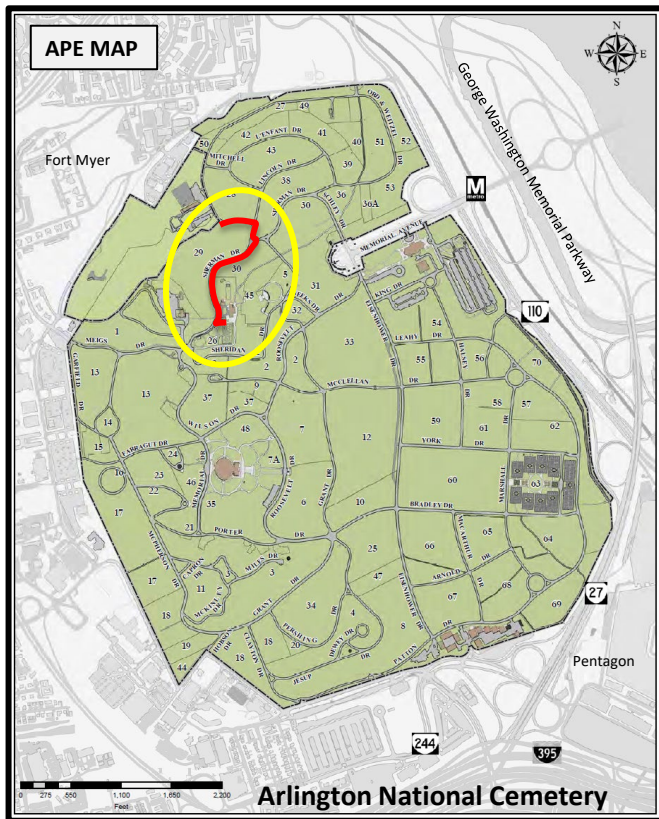
Proposed project locations in **RED**.



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

IDENTIFICATION OF HISTORIC PROPERTIES



Results of Identification & Evaluation:

Historic Properties Affected

Per 36 CFR § 800.4(d)(2), ANMC found that there are historic properties which may be affected by the undertaking. As a result, ANMC will notify the DHR, potential consulting parties, including Indian tribes or organizations, and the public, inviting their views on:

1. The agency's finding that there is an undertaking that affects historic properties;
2. The agency's identification agency's identification of historic properties;
3. The agency's identification of the area of potential effects (APE);
4. The agency's assessment of no adverse effects to historic properties.

Map of Project Area

*APE outlined in **YELLOW**.*

*Proposed project locations in **RED**.*

Assessment of Adverse Effects

By applying the criteria of adverse effects (36 C.F.R. § 800.5[a][1]), ANMC finds that the proposed undertaking – the Washington Gas Line Replacement project – will result in **no adverse effects to historic properties** listed on the National Register within and adjacent to the undertaking's APE:

- Arlington National Cemetery Historic District (000-0042)
- Arlington House (DHR # 000-0001)

By selecting methods such as abandonment of gas lines in the historic and archaeologically significant Arlington Woods, the project design avoids and/or minimizes the direct, indirect, and cumulative effects to above- and below- ground historic properties and contributing elements in the undertaking's APE. There will be no adverse effects to the integrity of the historic properties that would diminish their historical and architectural significance. There are no adverse impacts to the characteristics that qualify the historic properties for inclusion in or eligibility for the National Register of Historic Places (NRHP).

The historic properties retain their historic views and vistas after construction of the proposed project. Hard surfaces such as asphalt, concrete, curbs, pavers, etc. damaged during construction will be repaired or replaced. Landscaped areas will also be replanted and restored. The historic location and elements within the districts are maintained. Both sites continue to convey their historic significance for both their landscape architecture and architecture. There are no changes to the integrity of location, workmanship, feeling or associations for either of the Arlington National Cemetery or Arlington House National Register historic districts.

The project should not cause changes to the landscape in the area immediately surrounding the gas line replacements. The landscape (of which Arlington Woods is a part) is a contributing feature of the Arlington House Historic District, but the impacts to the landscape would not rise to the level of having an adverse effect on the historic district. ANC will work with WGL to protect trees and known archaeological sites. No tree removal is currently anticipated however, if necessary, NPS will determine which are to be replaced and where the replacement will occur. Of the trees surveyed within the project area, approximately 70% are small, with a DBH of 9 inches or less, so the trees to be removed are more likely to be small and less mature.

Assessment of Adverse Effects

Most of the proposed undertaking occurs within an already-disturbed footprint – the soils were disturbed by the construction of ANC roadways and the sidewalks surrounding Arlington House. As such, the proposed undertaking would have **no adverse effect to archaeological resources**. As approved by the NPS-GWMP, ANMC conducted a Phase I archeological survey and a tree survey of Area's A and B near Arlington House and in the Arlington Woods to mitigate potential adverse effects to these resources. The Phase I archaeological survey did not identify any new National Register-eligible sites or cultural features in the APE. The APE contains two sites that are listed on the National Register (44AR0032 and 44AR017), but the survey determined the portions of the sites within the APE generally have limited integrity and research potential. No Phase II or other archaeological investigations were recommended. To avoid disturbing known archaeological sites in the APE, existing gas lines will be abandoned in Arlington Woods. Installation of the new gas line on Arlington House grounds will occur in a previously disturbed area. In the event of an unanticipated discovery, all work would cease, and the ANMC Cultural Resources Manager (CRM) would be contacted. The CRM would notify the NPS-GWMP, the Virginia Department of Historic Resources, and other appropriate agencies, and standard procedures would be followed to protect the artifacts and determine their significance.

In accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470f, and its implementing regulations, 36 C.F.R. Part 800, ANMC invites comments from the Virginia Department of Historic Resources, consulting parties, and the public.

Caitlin Smith, AIC PA
Cultural Resources Program Manager
Army National Military Cemeteries

Reviewed by
Megan Bailey, PhD
Cultural Resources Program Manager
George Washington Memorial Parkway



ARLINGTON
NATIONAL CEMETERY
HONOR • REMEMBER • EXPLORE

AGENCY REQUEST FOR RESPONSE TO FINDINGS



ARLINGTON NATIONAL CEMETERY

HONOR • REMEMBER • EXPLORE

ANMC REQUEST TO DHR



View looking west toward Arlington House, with Sherman Drive and the Arlington Woods behind

ANMC requests that the DHR:

1. Respond to ANMC's request for review of finding of effect on historic properties.
2. Provide concurrence or comments on the determined APE.
3. Provide concurrence or comments on the identified potential consulting parties.
4. Review and provide comments on the pre-final Phase I archaeological survey report for Arlington Woods
5. Respond to ANMC's findings of:
 - a) No adverse effects to the Arlington National Cemetery Historic District (000-0042)
 - b) No adverse effects to the Arlington House (DHR # 000-0001)
 - c) No adverse effects to archaeological sites



View looking west toward Arlington House, with Sherman Drive and the Arlington Woods behind

In support of this request, ANMC submits the following documents to the DHR:

- Electronic Project Information Exchange (ePIX) system submission
- Section 106 Initiation Letter
- Section 106 Initiation Document: Project Description, Identification of Consulting Parties, Identification of Historic Properties, Area of Potential Effects, and Assessment of Effects
- Phase I Archaeological Survey Report, Arlington Woods, Arlington National Cemetery, Arlington, VA, Pre-final Draft, May 2024 (digital and hardcopy, includes V-CRIS forms)



Public tour of the Arlington National Cemetery Memorial Arboretum, Arlington, Virginia, June 21, 2019

Concurrent with this submission, ANMC sends notifications to consulting parties and the public of the initiation of a 30-day comment period. The notices and Section 106 documentation are posted on the ANC website:

<https://www.arlingtoncemetery.mil/About/Policies-and-Public-Notices/Public-Notices>

This submission to potential consulting parties and the public includes:

- Section 106 Initiation Letter
- Section 106 Process Submission: Project Description, Identification of Consulting Parties, Identification of Historic Properties, Area of Potential Effects, and Assessment of Effects
- Consulting Party Notification Letter
- Public Notification Letter