BASE MAP ADAPTED FROM U.S. GEOLOGICAL SURVEY NATIONAL MAP, 2013: TOPOGRAPHIC MAPS OF THE ALEXANDRIA, VA-DC-MD AND ANNANDALE, VA 7.5-MINUTE QUADRANGLES, NAD 1983

MAP LOCATION

SCALE 1:12,000

1 .5 0 KILOMETERS 1 2

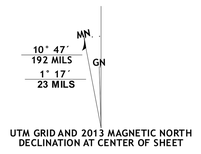
1000 0 METERS 1000 2000

1 .5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET



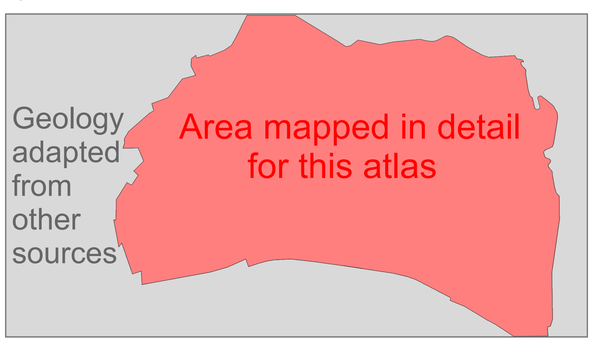
UTM GRID AND 2013 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

THIS MAP WAS COMPILED AND PUBLISHED BY THE CITY OF ALEXANDRIA, VIRGINIA USING DATA BELIEVED TO BE ACCURATE; HOWEVER, A MARGIN OF ERROR IS INHERENT IN ALL MAPS. THIS MAP IS PROVIDED "AS-IS" AND THE CITY DISCLAIMS ALL WARRANTIES, UCC, AND OTHERWISE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES AS TO THE ACCURACY OF THE MAP AND SUITABILITY FOR A PARTICULAR PURPOSE. THIS MAP IS INTENDED FOR USE ONLY AT THE PUBLISHED SCALE. A DETAILED ANALYSIS OF A SPECIFIC SITE MAY DIFFER FROM THIS MAP.

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

DESCRIPTION

Plate 1 shows the distribution and sources of various types of geologic data available in the City of Alexandria and nearby areas. These data were compiled and used to construct the Geologic Atlas of Alexandria. The data include numerous surface exposures visited during the compilation of the atlas, as well as a variety of borehole data, including historical collections of water well data from U.S. Geological Survey publications. The part of the map area inside the City of Alexandria was mapped in detail for the atlas (see diagram below), as were several key localities in nearby parts of Fairfax and Arlington Counties; however, the geology of most of the outlying areas was adapted from the published sources listed below, chiefly Drake and Froelich (1986), and from unpublished geological data collected by Fleming for the Arlington County Natural Heritage Resources Inventory. More information about the data, the process used to compile them, and brief geological descriptions of each site are presented in the expanded explanation of Plate 1 and the accompanying spreadsheets that detail the data and metadata.



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Johnston, P.M., 1961. Geology and ground-water resources of Washington, D.C. and vicinity: well records and data tables. U.S. Geological Survey Open-File Report 61-79.

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EXPLANATION

Surface Exposures (1 - 312)

21 X — Outcrop, located at center of symbol

131 — Areally extensive exposure, landform, and/or natural community of geologic interest, located within shaded area

69 — Excavation, size of symbol represents relative extent of excavated area

Subsurface Data

Water wells described by Johnston (1961, 1964) (#'s 1-80):

12 — Well with basic construction information only

13 — Well for which a driller's (formation) log is available

14 — Well described by Johnston (1961, 1964) and used by Froelich (1985) to interpret the configuration of the bedrock surface and/or geology of the Potomac Formation

12 — Well or borehole used by Froelich (1985) (#'s 1-12) to interpret the configuration of the bedrock surface and/or geology of the Potomac Formation; however, no well log or other first-order descriptive information is available, and the source and details of these boreholes are unknown

17 — Water well or test boring described by Darton (1950) (#'s 14-29)

Geotechnical boring site from City of Alexandria files (#'s 1-65, 78-95, 112-191). Multiple borings are typically present at each site. See original site report for information on the specific number, locations, and depths of individual borings

64 — Relatively small sites. Most have 1-4 borings, while a few sites have more

86 — Relatively large sites. The number of individual borings ranges from 6 to more than 100. Borehole symbols show the layout of the site in a schematic way only, and do not necessarily represent exact boring locations within the site. Refer to the original site report for the specific site layout

69C — Lines of bridge borings at interchanges along Shirley Highway (#'s 66-77). From VDOT microfiche archive. Each line typically contains a minimum of 15 borings, and some of the larger interchanges have several dozen

107 — Location of fence diagram generated from VDOT's Woodrow Wilson Bridge Project website (#'s 96-111). Hundreds of individual borings are available within the project area shown in the violet-colored swath. The fence diagrams encompass the deepest and most descriptive borings along the project route; diagrams 96-109 are aligned end-to-end in one long cross section along the beltway. Two diagrams (110, 111) illustrate subsurface conditions across the Cameron Valley, parallel to Route 1 and Telegraph Road, respectively

Other Map Information

gp — Site of former gravel pit

Cross Section Lines

Lines of cross sections shown in plates 2A-O, connecting individual data points. Cross section lines are distinguished by color, letter, and title. The entries below list the plate number and title of each cross section (e.g., 2A – Old Town), followed by the names of landmarks along the section line.

A — A' 2A – Old Town: Jones Point Park - Old Town waterfront - Daingerfield Island

B — B' 2B – Potomac Yards: Huntington - Wilkes St - Payne St - Potomac Yards - Four Mile Run

C — C' 2C – Beverley Hills: Old Town - Del Ray - Mount Ida - Jefferson Park - Monticello Park - Beverley Hills

D — D' 2D – Mount Ida: Cameron Run - Clover - Ivy Hill Cemetery - Mount Ida - Braddock - Warwick Village - Arlandria

E — E' 2E – Four Mile Run: Barcroft Park - Shirlington - Arlandria - Hume Spring - Lynhaven - Potomac Yards

F — F' 2F – Eisenhower Valley: S Van Dorn St - Clermont Woods - Oak Park - Courthouse - West End- Old Town

G — G' 2G – Quaker Lane: Oak Park - Fort Williams - Chinquapin Village - Oakcrest - Braddock Heights - Parkfairfax

H — H' 2H – Hospital: Eisenhower Ave - Brenman Park - Shirley Duke - Seminary Valley - Hospital - Episcopal Seminary - Braddock Rd

I — I' 2I – Van Dorn Street: Oakwood – Cameron - Landmark – Lincolnia - Dora Kelley Park - Dowden Terrace - Baileys Crossroads

J — J' 2J – Northwest: Pinecrest - Lincolnia – Rynex – Chambliss Park - Dowden Terrace - Washington Forest – Barcroft Park

K — K' 2K – Winkler Botanical Preserve: Dowden Terrace - Shirley Hwy - Polk Ave

L — L' 2L – Shirley Highway corridor: Edsall Rd - Lincolnia Park- Landmark - Brookville - Varsity Park - Ft Ward Heights - N Fairlington - Shirlington

M — M' 2M – King Street: Washington Forest - Park Center - Brad Lee - Oak crest - Chinquapin Hollow - Ivy Hill - Shooters Hill - King St METRO

N — N' 2N – Seminary Road: Baileys Crossroads – Dowden Terrace - Mark Center - Hospital - Episcopal Seminary - College Park - Ivy Hill

O — O' 2O – Duke Street Corridor: Green Spring Garden Park - Lincolnia – Brenman Park - Shirley Duke – Dalecrest – West End – Old Town

MAP SHOWING THE DISTRIBUTION AND SOURCES OF GEOLOGIC DATA AVAILABLE IN THE CITY OF ALEXANDRIA, VIRGINIA AND VICINITY

By Anthony H. Fleming, 2015