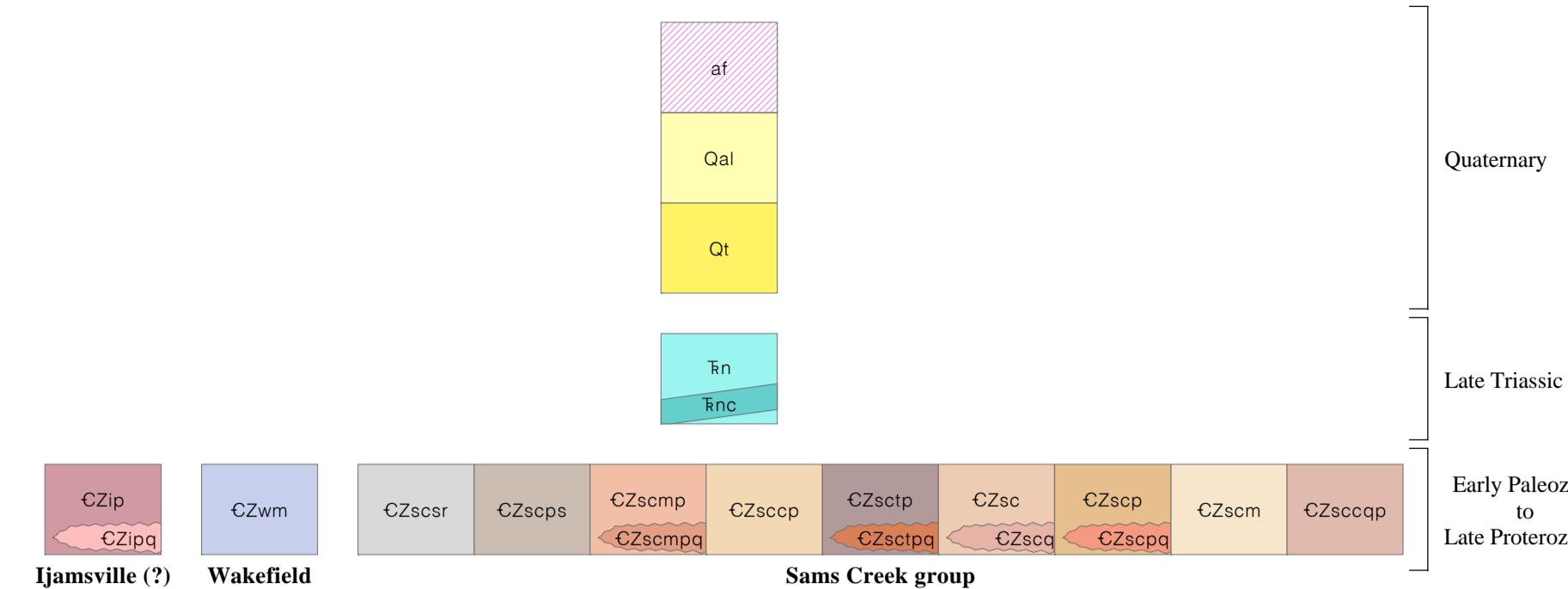
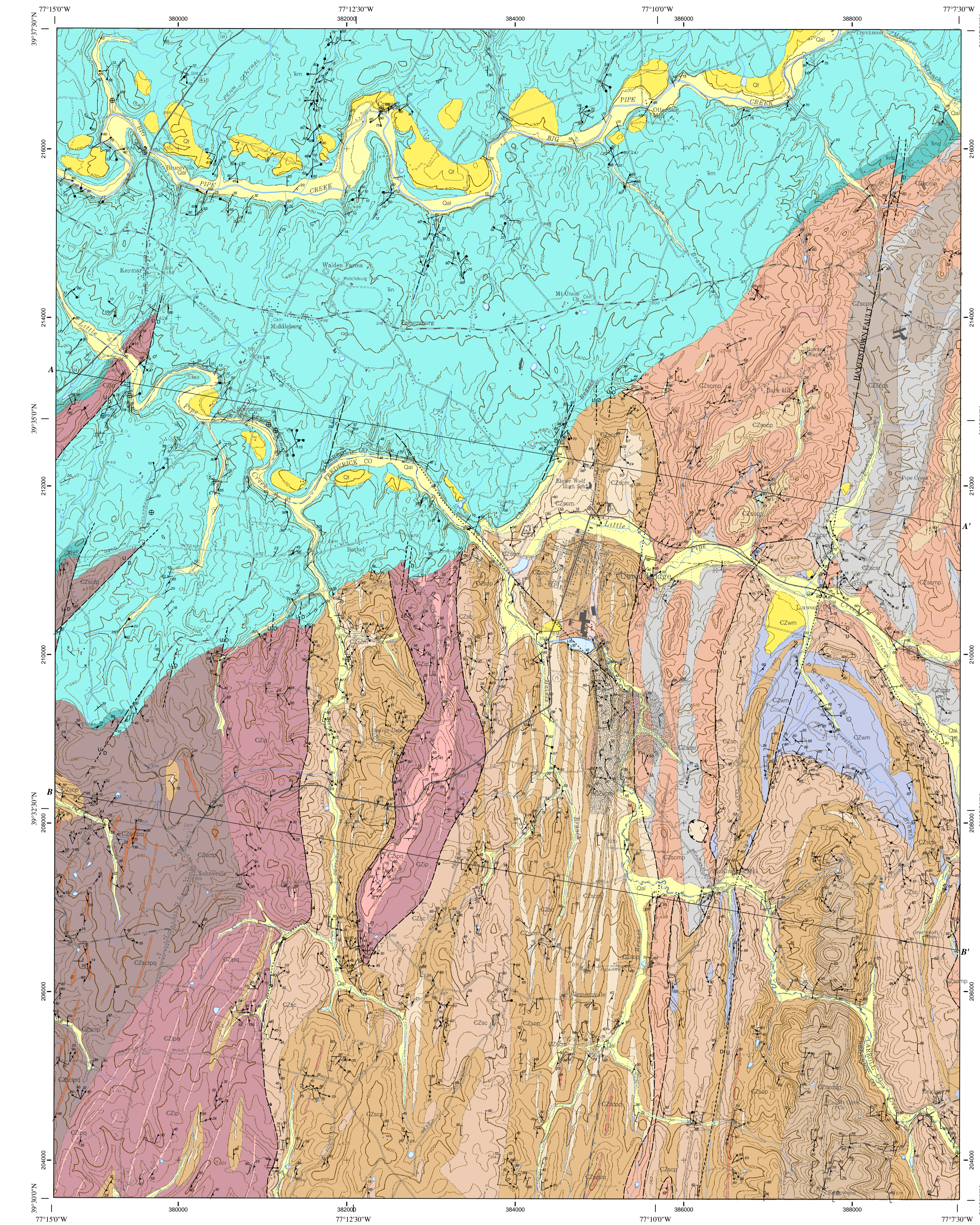


CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

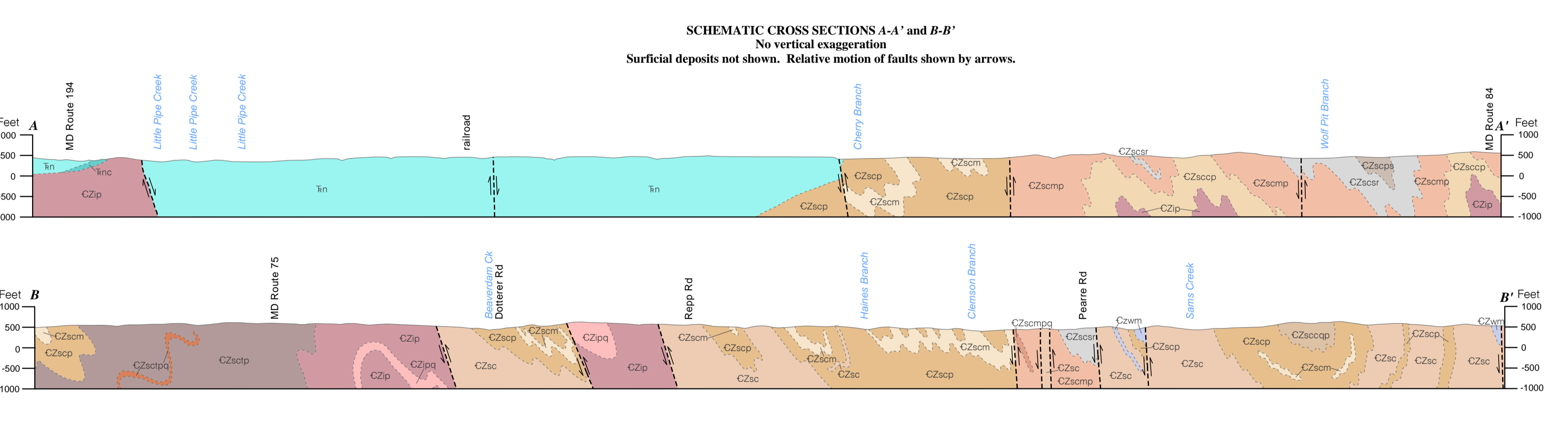
- Quaternary: Artificial fill, Alluvium, Terrace deposits. Sams Creek group: Silver Run Limestone, Muscovite phyllite and slate, Muscovite phyllite, Chlorite phyllite, Tuffaceous phyllite, Metasiltstone, Metasandstone, Phyllite, Marble, Muscovite-chlorite phyllite. Late Triassic: New Oxford Formation. Late Proterozoic to Early Paleozoic: Jamsville (7) Phyllite, Wakefield Marble.



Base map from U.S. Geological Survey 7.5-minute Series (Topographic). State Plane North Carolina Datum 1983. Horizontal Datum: North American Datum 1983. State Plane 2008 meter grid and coordinates shown in black. Geographic coordinates (latitude-longitude) shown near corners and 2.5' intervals also shown in black with larger font.

Geologic Map of the Union Bridge Quadrangle, Frederick and Carroll Counties, Maryland

By James P. Reger and Jonathan Edwards, Jr. 2006 A reinterpretation of Edwards (1986) Scale 1:24,000 Contour Interval 20 Feet National Geodetic Vertical Datum of 1929 (To convert elevations to the North American Vertical Datum of 1988, subtract 1 foot) (To convert from feet to meters, multiply by 0.3048)



NOTES ON THE GEOLOGIC STRUCTURE AND STRATIGRAPHY OF THE PIEDMONT ROCKS IN THE UNION BRIDGE QUADRANGLE

MAPPING RATIONALE: This map represents a revised interpretation of the geology of the Union Bridge quadrangle... STRATIGRAPHY AND CORRELATION: The stratigraphic relationships of the various lithologies in the map area remain problematic... STRUCTURE: Bedrock units of the Westminster terrane have a complex and dynamic structural and metamorphic history... GEOLOGIC SETTING: The Union Bridge quadrangle falls within two geologic terranes... REFERENCES CITED: Bezius, D.K., and Edwards, Jonathan, Jr., 2004. Geologic map of the Woodbury quadrangle, Frederick and Carroll Counties, Maryland...

Bezius, D.K., and Edwards, Jonathan, Jr., 2004. Geologic map of the Woodbury quadrangle, Frederick and Carroll Counties, Maryland. Maryland Geological Survey Quadrangle Geologic Map Series, version WOODBURY04, scale 1:24,000. Edwards, Jonathan, Jr., 1986. Geologic map of the Union Bridge quadrangle, Carroll and Frederick Counties, Maryland. Maryland Geological Survey Quadrangle Geologic Map Series, scale 1:24,000.

Explanation of Map Symbols

- Contacts: Geologic contact (generally approximate or inferred), dashed where concealed. Cross section line. Faults: Fault, relative motion shown as known. Three fault surfaces on upthrown block. For point symbols: Single observation at one location; the observation point is at the midpoint of the symbol except for multidirectional arrow symbols where the observation point is always at the tail end (opposite arrow head). Planar Features: Bedding: Horizontal bedding, Inclined bedding, strike and degree of dip shown. Joints: Inclined joint, strike and degree of dip shown, Vertical joint, strike shown. Minor folds: Minor inclined fold with S-shaped asymmetry, Minor inclined fold with Z-shaped asymmetry. Linear Features: Inclined, aligned, elongate (elongate) mineral lineation, Horizontal, aligned, elongate (elongate) mineral lineation. Other Features: Mine or quarry, Abandoned mine or quarry. Base Map Symbols: Topographic index contour (100-ft interval), Topographic intermediate contour (25-ft interval). Hydrography: Stream, Water body (ice lakes, ponds, rivers).

STATE OF MARYLAND Robert L. Ehrlich, Jr. Governor Michael S. Steele Lieutenant Governor MARYLAND DEPARTMENT OF NATURAL RESOURCES C. Ronald Franks Secretary MARYLAND GEOLOGICAL SURVEY Emery T. Cleaves Director Copies of this map are available in hard copy (paper) and digital form from: MARYLAND GEOLOGICAL SURVEY 2300 Sams Past Street Baltimore, MD 21218 Ph: 410-554-5500 Fax: 410-554-5002 http://www.mgs.md.gov/