FAIRFAX COUNTY WATER AUTHORITY

8570 EXECUTIVE PARK AVENUE – P.O. BOX 1500

MERRIFIELD, VIRGINIA 22116-0815

PLANNING AND ENGINEERING DIVISION
C. DAVID BINNING, P.E., DIRECTOR

TELEPHONE
(703) 289-6325

FACSIMILE
(703) 289-6382

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2002-01

To: All Architects, Builders, Developers, Engineers, and Surveyors Practicing in Fairfax County

Subject: Corrosion Control Standards for Water Mains

Effective June 17, 2002, all first submittals which include water mains to be constructed within the Fairfax County Water Authority service area shall meet the following standards:

1) All water mains shall be polyethylene encased in accordance with the following table, "FCWA Corrosion Standards for Water Mains", ANSI/AWWA C105/A21.5 - American National Standard for Polyethylene Encasement for Ductile Iron Pipe Systems and the FCWA Standard Trench Detail. Polyethylene shall be Class B material, seamless 4 mils thick high density cross-laminated. The flat tube form shall be used with minimum width based on nominal pipe diameter in accordance with ANSI/AWWA C105/A21.5.

FCWA CORROSION STANDARDS FOR WATER MAINS

INSTALLATION	REQUIREMENTS[1]
Water Mains Less Than 24-inch Diameter	Single 4 mil polyethylene encasement
Water Mains 24-inch Diameter and Larger in Non-Corrosive Soil[2]	Single 4 mil polyethylene encasement
Water Mains 24-inch Diameter and Larger in Corrosive Soil[2]	Double 4 mil polyethylene encasement
Casing Pipe – Trenchless Crossing[3]	Test Stations Anodes
Gas Crossing & Other Impressed Current Systems	Bonded Joints Test Stations Anodes

[1] Refer to FCWA Standard Details dated May 2002

[2] As determined by 10-Point soil evaluation per Appendix A of ANSI/AWWA C105/A21.5. If no soil evaluation is performed, water main shall be double encased.

[3] Carrier pipe (water main) does not require polyethylene encasement within casing pipe

2) Alternatively, the developer may submit a 10-Point soil evaluation per Appendix A of the ANSI/AWWA C105/A21.5 certifying that the use of polyethylene encasement is not warranted for the proposed installation of ductile iron pipe. The soil testing must be performed by a qualified laboratory and the results certified by an NACE International Corrosion Specialist. Soil samples shall be collected and tested every 500 feet of proposed water main with a minimum of three test sites for pipeline installations less than 1,500 feet. At each soil test site, samples shall be taken at depths of five (5) and ten (10) feet below proposed finished grade.

3) FCWA Standard Details dated May 2002. These details may be found on the FCWA website at: http://www.fcwa.org/engineering/developers.htm

Sincerely,

Jamie K. Bain, P.E.
Manager, Planning

cc: C. David Binning, P.E., Director, Planning and Engineering
Bob Etris, P.E., Manager, Engineering
Charlie Schwenker, P.E., Manager, Construction
Don Hume, Supervisor, Short Range Planning