



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-1
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_1 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek/Severn River **Quality of Mark:** Fair
Flood Elevation: **6.5 FT** **Location:** outside building window
Flooding Type: Surge
Mark Address: 69 Prince George Street
Description of Mark: 6.75" above window sill to right of door. Sign on door reads "use side door"

Type of Line: Mud/debris line

Description of Physical Structure: wood building

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Carroll **Company/Agency:** Dewberry

Flagging Date: 9/25/2003

Surveyors: SW FP **Company/Agency:** Greenhorne & O'Mara, Inc.

Survey Date: 10/2/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9770 **Easting:** 1,460,175

Longitude: -76.4846 **Northing:** 475,079

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 70 FT

Comments:

point located under tree so exact positioning may be difficult. Time = 4:45 pm. Weather = Sunny + Clear.



DSCN0005.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-2
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_2 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek/Severn River **Quality of Mark:** Good
Flood Elevation: **6.3 FT** **Location:** Inside Wall
Flooding Type: Surge
Mark Address: 122 Dock Street
Description of Mark: 21.5" above top of brick foundation

Type of Line: Debris line

Description of Physical Structure: wood building

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/25/2003

Surveyors: SW FP **Company/Agency:** Greenhorne & O'Mara, Inc.

Survey Date: 10/2/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9778 **Easting:** 1,460,175

Longitude: -76.4863 **Northing:** 475,079

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 140 FT

Comments:

Witness was present for flooding associated with both hurricane of 1933 and Hurricane Isabel. Mark transferred to outside wall.



DSCN0006.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project

COMM. NO. 240009

TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-3

CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_3 **Mark Type:** Coastal

Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003

Flooding Source: Spa Creek/Severn River **Quality of Mark:** Good

Flood Elevation: **6.4 FT** **Location:** Inside Wall

Flooding Type: Surge

Mark Address: 110 Compromise Street (Fawcett's Boat Supplies, Inc.)

Description of Mark: 35.25" from top of concrete slab against door

Type of Line: Mud/debris line

Description of Physical Structure: wood building

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/25/2003

Surveyors: SW FP **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/2/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9769 **Easting:** 1,460,175

Longitude: -76.4862 **Northing:** 475,079

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 10 FT

Comments:

Photo ID 0009 shows flooding inside the building. HWM transferred to outside door.



DSCN0007.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-4
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_4 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek/Severn River **Quality of Mark:** Poor
Flood Elevation: **5.5 FT** **Location:** metal utilities box
Flooding Type: Surge
Mark Address: 2 Compromise Street (Annapolis Yacht Club)
Description of Mark: 13.75 inches above dock; approx. 4 ft above water level @ 6:52 pm.

Type of Line: Debris line

Description of Physical Structure: wood building

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/25/2003

Surveyors: SW FP **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/31/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9742 **Easting:** 1,460,175

Longitude: -76.4853 **Northing:** 475,079

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 10 FT

Comments:

debris line was very pronounced, but HWM received poor rating because it seemed to be left when surge was receding and not at peak. Eyewitness accounts at the Yacht Club estimated the water level to be much higher (approx 2 feet).



DSCN0013.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-5
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_5 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek/Severn River **Quality of Mark:** Fair
Flood Elevation: **6.1 FT** **Location:** outside wall
Flooding Type: Surge
Mark Address: 80 Compromise Street (Annapolis Marriott Waterfront)
Description of Mark: 25.75" above access ramp surface

Type of Line: Mud line

Description of Physical Structure: concrete ramp

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/25/2003

Surveyors: SW FP **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/2/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9759 **Easting:** 1,460,175

Longitude: -76.4862 **Northing:** 475,079

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 210 FT

Comments:

Survey should be taken at bottom of paint line.



DSCN0014.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-6
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_6 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Chesapeake Bay **Quality of Mark:** Fair
Flood Elevation: **7.6 FT** **Location:** ground
Flooding Type: Surge
Mark Address: 2103 Bay Drive
Description of Mark: approx 2 feet above crest of seawall

Type of Line: Debris line

Description of Physical Structure: N/A

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/26/2003

Surveyors: SW FP **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/31/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0305 **Easting:** 1,482,776

Longitude: -76.4043 **Northing:** 497,070

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 140 FT

Comments:

Time: 9:45 a.m. Weather: Clear and sunny.
SURVEYOR: take elevation of ground @stake/paint line



DSCN0021.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-7
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_7 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Whitehall Creek **Quality of Mark:** Good
Flood Elevation: **6.5 FT** **Location:** inside wall*
Flooding Type: Surge
Mark Address: 824 Holly Drive East
Description of Mark: 35.125" above concrete slab inside dockhouse

Type of Line: Mud/debris line

Description of Physical Structure: wood dock

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/26/2003

Surveyors: SW FP **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/6/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0145 **Easting:** 1,474,300

Longitude: -76.4363 **Northing:** 489,731

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 10 FT

Comments:

Time: 12:00 p.m. **HWM transferred to outside of door. Water level was 49.5" from top of dock. Dock approx 10" above concrete slab in front of dockhouse.



Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
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TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-8
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_8 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Chesapeake Bay **Quality of Mark:** Fair
Flood Elevation: **7.2 FT** **Location:** ground
Flooding Type: Surge
Mark Address: 895 Oceanic Drive (Northrop Grumman Corporation)
Description of Mark: HORIZONTAL DISTANCE: 16' 1" from edge of sidewalk (ground elevation at this point)

Type of Line: Debris line

Description of Physical Structure: N/A

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/26/2003

Surveyors: SW FP **Company/Agency:** Greenhorne & O'Mara, Inc.

Survey Date: 10/31/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0065 **Easting:** 1,482,848

Longitude: -76.4066 **Northing:** 486,144

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 170 FT

Comments:

Survey elevation of ground at stake/paint line.



DSCN0034.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-9
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_9 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Meredith Creek **Quality of Mark:** Good
Flood Elevation: **6.2 FT** **Location:** outside wall
Flooding Type: Surge
Mark Address: 1729 River Rd
Description of Mark: 18.5" from top of garage slab inside door frame

Type of Line: Mud/debris line

Description of Physical Structure: concrete garage

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/26/2003

Surveyors: SW FP **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/15/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0129 **Easting:** 1,479,983

Longitude: -76.4182 **Northing:** 489,768

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 70 FT

Comments:



DSCN0037.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-10
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_10 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Burley Creek **Quality of Mark:** Fair
Flood Elevation: **6.5 FT** **Location:** outside wall
Flooding Type: Surge
Mark Address: 1829 Hidden Point Rd
Description of Mark: 7.625" above brace in door frame on wooden shed behind residence

Type of Line: Debris line

Description of Physical Structure: wood shed

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/26/2003

Surveyors: SW FP **Company/Agency:** Greenhorne & O'Mara, Inc.

Survey Date: 10/6/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0015 **Easting:** 1,468,639

Longitude: -76.4513 **Northing:** 486,055

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 160 FT

Comments:

Time: 3:40 p.m. WSEL was 29.5" below crest of bulkhead. HWM approx 2' above crest of bulkhead.



DSCN0039.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



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COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-11
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_11 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Severn River **Quality of Mark:** Fair
Flood Elevation: **6.8 FT** **Location:** outside building wall
Flooding Type: Surge
Mark Address: No address
Description of Mark: 80.25" below 2x4 (top wall frame) in middle of building

Type of Line: Mud/debris line

Description of Physical Structure: wood building

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/26/2003

Surveyors: SW FP **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/6/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9951 **Easting:** 1,460,134

Longitude: -76.4831 **Northing:** 482,363

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 160 FT

Comments:

Building is condemned. Parking lot is littered with debris.



Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-12
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_12 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Severn River **Quality of Mark:** Fair
Flood Elevation: **7 FT** **Location:** post on canoe rack
Flooding Type: Surge
Mark Address: Dream's Landing condo community
Description of Mark: approx 2" above pavement surface, measured at front of post.

Type of Line: Debris line/personal account

Description of Physical Structure: wood post

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/26/2003

Surveyors: SW FP **Company/Agency:** Greenhorne & O'Mara, Inc.

Survey Date: 10/6/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0065 **Easting:** 1,451,587

Longitude: -76.5122 **Northing:** 485,957

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 60 FT

Comments:



Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

DSCN0047.jpg



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project

COMM. NO. 240008

TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-13

CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_13 **Mark Type:** Coastal

Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003

Flooding Source: Severn River **Quality of Mark:** Good

Flood Elevation: **6.4 FT** **Location:** inside wall

Flooding Type: Surge

Mark Address: 4 Beach Drive (in Sherwood Forrest)

Description of Mark: approx 27.25" above top of brick driveway, measured inside garage door frame

Type of Line: Debris line

Description of Physical Structure: wood garage

Closest City: Sherwood Forrest **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/27/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhorne & O'Mara, Inc.

Survey Date: 10/6/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0298 **Easting:** 1,445,866

Longitude: -76.5378 **Northing:** 493,212

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 30 FT

Comments:

*HWM transferred to outside. Time: 8:00 a.m. Weather: some fog



DSCN0050.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-14
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_14 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Severn River **Quality of Mark:** Fair
Flood Elevation: **6.6 FT** **Location:** wooden post
Flooding Type: Surge
Mark Address: Beach 2, Arden on the Severn
Description of Mark: approx 7" below water side of top of post

Type of Line: Debris line

Description of Physical Structure: wood post

Closest City: Arden on the Severn **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/27/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/6/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0706 **Easting:** 1,431,577

Longitude: -76.5870 **Northing:** 511,353

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 50 FT

Comments:

HWM transferred from debris line in shrubs. Time: 9:40 a.m. Weather: mostly cloudy.



DSCN0054.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-15
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT4_15 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Severn River **Quality of Mark:** Fair
Flood Elevation: **See comments** **Location:** steps
Flooding Type: Surge
Mark Address: 1184 Nancy Lane
Description of Mark: approx 38" above top of metal dock frame. WSEL was 28" below metal dock frame @ 9:00 a.m.

Type of Line: Personal account/debris line

Description of Physical Structure: N/A

Closest City: Arden on the Severn **County:** Anne Arundel **State:** Maryland

Flaggers: Ryan Carroll **Company/Agency:** Dewberry

Flagging Date: 9/27/2003

Surveyors: **Company/Agency:**

Survey Date: **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 39.0727 **Easting:** 1,428,738

Longitude: -76.5902 **Northing:** 511,340

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 140 FT

Comments:

**No HWM tagged for surveying. Location not accessible to survey crew.



DSCN0053.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project

COMM. NO. 240009

TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-16

CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_1 **Mark Type:** Coastal

Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003

Flooding Source: Spa Creek - Acton Cove **Quality of Mark:** Good

Flood Elevation: **6.3 FT** **Location:** Transferred from inside

Flooding Type: Surge

Mark Address: 7 Shipwright Street, Brick wall in the back of house - Just down the steps to the back yard

Description of Mark: Mark transferred from inside basement, 19" down from top brick pool apron

Type of Line: Mud line

Description of Physical Structure: brick wall

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/25/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/3/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9737 **Easting:** 1,460,175

Longitude: -76.4888 **Northing:** 475,079

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 50 FT

Comments:

HWM transferred from inside. Mud line measured at approx. 40" above basement slab.



DSCN0005.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-17
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_2 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek - Acton Cove **Quality of Mark:** Fair
Flood Elevation: **12.8 FT** **Location:** Outside
Flooding Type: Wave height
Mark Address: West wall of House #6 on Market Street (Market Quay Building)
Description of Mark: 20.4" from bottom of wall

Type of Line: Personal account

Description of Physical Structure: brick house

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/25/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/31/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9745 **Easting:** 1,457,332

Longitude: -76.4915 **Northing:** 475,063

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 120 FT

Comments:

Owner of House #6 has indicated that the water level was about 4 feet above the normal WSEL (approx. at the door knob of his tool shed). Personal account may have exaggerated actual surge height.



DSCN0008.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-18
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_3 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek - Acton Cove **Quality of Mark:** Good
Flood Elevation: **7.3 FT** **Location:** Street sign pole
Flooding Type: Surge
Mark Address: Street sign in front of House #74 on Conduit Street.
Description of Mark: 46.3" from ground

Type of Line: Mud line

Description of Physical Structure: metal pole

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/25/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/3/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9747 **Easting:** 1,457,332

Longitude: -76.4927 **Northing:** 475,063

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 70 FT

Comments:

Street sign on left side (east) of Conduit Street, in front of House #74. Same side with telephone pole and fire hydrant.



DSCN0010.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



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COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-19
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_4 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek - Acton Cove **Quality of Mark:** Good
Flood Elevation: **6.6 FT** **Location:** Outside
Flooding Type: Surge
Mark Address: Driveway between House #1 and 3 on Southgate Ave.
Description of Mark: 0.5" above bottom of wall

Type of Line: Mud line

Description of Physical Structure: concrete building

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/25/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/3/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9734 **Easting:** 1,457,332

Longitude: -76.4945 **Northing:** 475,063

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 90 FT

Comments:

Driveway is located between House #1 and #3 on Southgate Ave.



DSCN0012.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-20
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_5 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Spa Creek - Acton Cove **Quality of Mark:** Good
Flood Elevation: **4.9 FT** **Location:** Outside wall
Flooding Type: Surge
Mark Address: Waterfront Building - Burnside Street
Description of Mark: 1' above ground

Type of Line: Mud line

Description of Physical Structure: brick house

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/26/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/31/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9717 **Easting:** 1,460,175

Longitude: -76.4868 **Northing:** 475,079

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 110 FT

Comments:

Building numbers are not visible, except for unit number 301 of building east of Burnside Street. A red flag was tied at corner of wood fence for easy spotting. Mud line may have been affected by weather or cleanup action, resulting in lower than average elevation.



DSCN0014.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240009
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-21
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_6 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Black Creek **Quality of Mark:** Good
Flood Elevation: **6.6 FT** **Location:** On grass
Flooding Type: Surge
Mark Address: Common area of Westgate Village, between buildings #680 and #700
Description of Mark: 15 feet from the edge of concrete walkway

Type of Line: Debris line

Description of Physical Structure: N/A

Closest City: Annapolis **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/26/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/2/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9641 **Easting:** 1,460,196

Longitude: -76.4823 **Northing:** 471,437

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 30 FT

Comments:

Mark is also at the bottom of the 2nd concrete step down from the back of building #680



DSCN0016.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-22
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_7 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Chesapeake Bay **Quality of Mark:** Good
Flood Elevation: **7.2 FT** **Location:** On grass
Flooding Type: Surge
Mark Address: 114 Bay Drive (Stone House near the point - looks abandoned)
Description of Mark: 12 feet from the edge of the street asphalt pavement.

Type of Line: Debris line

Description of Physical Structure: N/A

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/26/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/2/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9481 **Easting:** 1,468,770

Longitude: -76.4577 **Northing:** 464,203

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 40 FT

Comments:

House looks abandoned.



Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.

DSCN0018.jpg



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-23
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_8 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Chesapeake Bay **Quality of Mark:** Good
Flood Elevation: **6.5 FT** **Location:** On back wall
Flooding Type: Surge
Mark Address: 27 Sands Ave.
Description of Mark: 17" from the top of the door frame (measured from inside of frame)

Type of Line: Mud line

Description of Physical Structure: concrete block house

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/26/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/6/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9477 **Easting:** 1,465,926

Longitude: -76.4610 **Northing:** 464,186

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 160 FT

Comments:

Mudline is visible on the back wall and door to basement / crawl space



DSCN0021.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-24
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_9 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Fishing Creek and Chesapeake **Quality of Mark:** Good
Flood Elevation: **8.2 FT** **Location:** Outside
Flooding Type: Wave runoff
Mark Address: 1301 Magnolia Ave.
Description of Mark: 13" above ground

Type of Line: Mud line

Description of Physical Structure: wood house

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/26/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/31/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9151 **Easting:** 1,465,991

Longitude: -76.4642 **Northing:** 453,260

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 140 FT

Comments:

House is located on the circle at the end of Magnolia Ave. Marked tape on corner bead, because it would not stick to vinyl siding)



DSCN0025.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.



PROJECT FEMA-1492-DR-MD High Water Mark Survey Project
COMM. NO. 240008
TYPE High Water Mark Survey **PREL.** 10/05/2003 **FINAL** 11/20/2003 **SHEET** A-25
CONTENTS Individual Historical High Water Mark Survey Report

Historical Mark: UNIT6_10 **Mark Type:** Coastal
Flood Event: Hurricane Isabel **Date of Flood:** 09/19/2003
Flooding Source: Chesapeake Bay **Quality of Mark:** Good
Flood Elevation: **7.8 FT** **Location:** Outside (transferred)
Flooding Type: Surge
Mark Address: 3545 Narragansette Ave.
Description of Mark: 31" above ground

Type of Line: Mud line

Description of Physical Structure: brick garage

Closest City: **County:** Anne Arundel **State:** Maryland

Flaggers: Mai **Company/Agency:** URS

Flagging Date: 9/26/2003

Surveyors: Cumberledge, Booth **Company/Agency:** Greenhome & O'Mara, Inc.

Survey Date: 10/31/2003 **Survey Type:** N/A

Projection: Maryland **Vertical Datum:** NAVD 88 **Horizontal Datum:** NAD 83

Latitude: 38.9171 **Easting:** 1,465,991

Longitude: -76.4601 **Northing:** 453,260

Approx. First Floor Elevation (Based on Measurement from Mark): N/A

Approx. Distance to Shoreline: 150 FT

Comments:

House is located on the Southeast corner of Hollywood and Narragansett Ave.



DSCN0026.jpg

Survey Certification: Coastal High Water Mark location survey is certified to 0.25 feet vertically and 10 feet horizontally with a 95% accuracy level.