

FIRE FLOW METER VAULT CHECKLIST

Section 1. PURPOSE

This policy is to explain the review process that the Bedford Regional Water Authority (“Authority”) utilizes for fire flow meter vault projects planned within the service areas of the Authority.

Section 2. FIRE FLOW METER VAULT CHECKLIST

The checklist that will be utilized by the Authority for the review of the project will be similar to that which is shown below.

PHASE 1 – REVIEW/DESIGN

1.	<p>PRELIMINARY REVIEW</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Initial plans are submitted for review along with the Base Project Review Fee. <input checked="" type="checkbox"/> Bedford Regional Water Authority (“Authority”) performs a preliminary review of the site plan showing the proposed fire flow meter vault (FFMV) location. Comments generated from this review will be forwarded at the Bedford County Planning Department’s monthly Technical Review Committee meeting.
2.	<p>DESIGN CALCULATIONS</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Domestic demand and fire flow calculations are submitted to the Authority.
3.	<p>DEVELOPER PACKAGE</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Developer package is sent to the developer <input checked="" type="checkbox"/> Preliminary sizes of the fire and domestic meters are included with the developer package. • The developer package includes the following documents: <ul style="list-style-type: none"> ○ Cover Letter ○ Review Schedule and Process Guidelines ○ Fire Flow Meter Vault Checklist ○ Developer Agreement ○ (Sample) Irrevocable Letter of Credit ○ (Sample) Letter of Warranty ○ (Sample) Bill of Sale / Quitclaim Deed ○ Surveyed As-Built Requirements ○ List of Approved Contractors for Fire Flow Meter Vault Construction
4.	<p>REVIEW FEES</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Developer pays applicable FFMV Review and Inspection Fees to the Authority and submits an executed Developer Agreement (further referenced as the Agreement).
5.	<p>CONTRACTOR SELECTION</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Developer selects Authority approved contractor for FFMV installation.

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6.	SURETY <input checked="" type="checkbox"/> Developer provides Authority with surety in the form of a letter of credit, performance bond, or cashier's check as outlined in the Agreement.
7.	PLAN REVISIONS <input checked="" type="checkbox"/> Authority releases additional comments, clarifications, etc. to Developer and/or design engineer (if applicable). <input checked="" type="checkbox"/> Re-review fee needs to be submitted with third submittal and beyond.
8.	PLAN APPROVAL <input checked="" type="checkbox"/> Site plan showing an approved location and easement for the FFMV is approved by the Authority for construction.
9.	ADDITIONAL REQUIREMENTS <input checked="" type="checkbox"/> Contractor submits shop drawings to the AUTHORITY for review and approval. <input checked="" type="checkbox"/> Other items may be required including but not limited to easements, permits, etc.
10.	CERTIFICATE TO CONSTRUCT <input checked="" type="checkbox"/> Authority Engineering Department submits the Certificate to Construct (C2C) to the Authority Inspection Team for final approval.

PHASE 2 – CONSTRUCTION

11.	PRE-CONSTRUCTION <input checked="" type="checkbox"/> Developer/Contractor schedules a pre-construction conference with the Authority field representative(s).
12.	EXECUTED CERTIFICATE TO CONSTRUCT <input checked="" type="checkbox"/> C2C is issued to the Developer by the Authority upon site approval determined by the pre-construction conference.
13.	PARCEL SIGNUP FEES <input checked="" type="checkbox"/> Design plans and meter sizing information is submitted to the Customer Service Department with the Certificate to Construct to allow for the acceptance of New Customer Signup Fees. All applicable New Customer Signup Fees must be paid prior to water being turned on to the meter.
14.	CONSTRUCTION STARTS <input checked="" type="checkbox"/> Developer/Contractor notifies Authority of anticipated start date at least three working days in advance and prior to construction.

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15.	<p>TESTING</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The contractor shall give notice to the Authority's field representative at least three working days in advance (after the FFMV is complete) prior to pressure testing. <input checked="" type="checkbox"/> Pressure tests are performed by the Contractor and approved by the Authority's field representative upon satisfactory test results as per Authority Master Specifications. <input checked="" type="checkbox"/> Bacterial tests are performed by the Authority. <input checked="" type="checkbox"/> Other tests may be required to ensure that installation, materials, etc. is in accordance with the Authority Master Specifications as prescribed in the Agreement
16.	<p>PROJECT COMPLETION</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Authority Utility Locator schedules walk through to verify proper trace wire installation, and Engineering Department notifies Developer and Engineer of scheduled date. <input checked="" type="checkbox"/> Authority Utility Locator marks lines during verification of trace wire. <input checked="" type="checkbox"/> Authority's field representative conducts a substantial completion walk-thru and issues a project punch-list to the Contractor. <input checked="" type="checkbox"/> Punch-list items are completed by the Contractor and verified by the Authority in a final completion inspection. <input checked="" type="checkbox"/> Field drawings and field notes are reviewed with the Authority's field representative for correctness and accuracy. <input checked="" type="checkbox"/> Field drawings and field notes are submitted by the Contractor to the Developer and/or the design engineer for inclusion in the as-built drawings.

PHASE 3 – PROJECT CLOSEOUT

17.	<p>BILL OF SALE / QUIT CLAIM DEED</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The developer submits an executed Bill of Sale / Quit Claim Deed, included in the Developer Package, to the Authority. This needs to be dated after the contractor has been paid in full.
18.	<p>LETTER OF WARRANTY</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The Contractor submits a Letter of Warranty for materials and workmanship, and a draft of as-built drawings to the Authority.
19.	<p>AS-BUILT DRAWINGS</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The Developer/design engineer submits as-built drawings (in revised AutoCAD form) to the Authority.
20.	<p>CERTIFICATE OF COMPLETION <i>(See General Note J)</i></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The FFMV will be accepted into the public system for maintenance and operations upon completion of all requirements as prescribed in the Agreement. <input checked="" type="checkbox"/> A Certificate of Completion shall be issued to the Developer/Contractor upon approval given by the Authority Inspection Team, and water will be made available to the site

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	through the FFMV.
21.	<p>PROJECT SURETY</p> <p><input checked="" type="checkbox"/> The Authority will retain the complete surety of 105% construction costs. Twelve months after the Authority has accepted the project for service, the surety shall be released to the Developer upon written request.</p>

Section 3. GENERAL NOTES:

- A. Should the requirements of the Agreement and associated documents not be met by the Developer within a reasonable time frame, the Authority reserves the right not to release the Developer's surety until all requirements have met the satisfaction of the Authority. Water service to the FFMV may also be denied.
- B. The Authority has the authority to halt construction and order pipe and appurtenances to be removed if construction begins prior to the issuance of the Certificate to Construct.
- C. The Contractor is required to arrange for an Authority field representative to be on-site at the beginning of any FFMV construction project.
- D. The Contractor is required to have the latest Authority Master Specifications on-site at all times. Construction may be halted until this documentation is on-site and verified by the Authority's field representative.
- E. Construction may be halted at any time if the Developer/Contractor fails to comply with any of the requirements set forth by the Agreement and associated documents.
- F. The latest edition of the Authority Master Specifications shall serve as the standard for water/sewer construction practices in Bedford County. Any changes required by the Authority or noted deficiencies during construction shall be corrected by the Contractor.
- G. The Authority shall retain the complete surety for a warranty period of one year. This warranty period shall not go into effect until the Authority is in receipt of both the letter of warranty from the Contractor and the Bill of Sale / Quit Claim Deed from the Developer.
- H. Should the requirements of the Agreement and associated documents not be met by the Developer within a reasonable time frame, the Authority reserves the right not to release the Developer's surety until all requirements have met the satisfaction of the Authority.
- I. When the warranty period has expired the surety shall be released to the Developer upon written request provided the following conditions have been met:
 - The Developer/Contractor has fulfilled all requirements set forth by the Agreement and associated documents.
 - Punch list items from Final Warranty inspection have been corrected.

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- J. Final plats and any necessary easements must be recorded prior to the acceptance of the system(s). Recordation information and/or instrument numbers must be provided to the Authority prior to the issuance of a Certificate of Completion.

Section 4. REVISIONS

- A. This policy was approved and adopted by the Authority's Executive Director on April 23, 2013, effective July 1, 2013.
- B. This policy was modified as follows:
 - 1. Approved July 15, 2014, effective July 16, 2014:
 - a. Section 3.J was added clarifying recorded final plats and easements.
 - 2. Approved April 3, 2015, effective April 22, 2015:
 - a. References to Inspector were modified to Authority's field representative.