

AGENDA

STATE BUILDING CODE TECHNICAL REVIEW BOARD

Friday, September 18, 2020 - 10:00am (Virtual Meeting)

<https://vadhcd.adobeconnect.com/lbbca/>

- I. Roll Call **(TAB 1)**
- II. Approval of July 17, 2020 Minutes **(TAB 2)**
- III. Approval of Final Order **(TAB 3)**
  - In Re: Kristie Sours Atwood  
Appeal No 19-05 and 19-06  
  
Buracker Construction  
Appeal No. 19-07
- I. Approval of Final Order **(TAB 4)**
  - In Re: Culpeper County  
Appeal No 19-09
- IV. Approval of Final Order **(TAB 5)**
  - In Re: ZAAKI Restaurant and Café LLC  
Appeal No 19-11
- II. Public Comment
- III. Appeal Hearing **(TAB 6)**
  - In Re: Timothy Dolan  
Appeal No 20-01
- IV. Interpretation **(TAB 7)**
  - In Re: Modification for elevator, escalators, or similar conveyances
- V. Secretary's Report
  - a. November 2020 meeting update

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STATE BUILDING CODE TECHNICAL REVIEW BOARD

**James R. Dawson, Chair**  
(Virginia Fire Chiefs Association)

**W. Shaun Pharr, Esq., Vice-Chair**  
(The Apartment and Office Building Association of Metropolitan Washington)

**Vince Butler**  
(Virginia Home Builders Association)

**J. Daniel Crigler**  
(Virginia Association of Plumbing-Heating-Cooling Contractors and the Virginia Chapters of the Air Conditioning Contractors of America)

**Alan D. Givens**  
(Virginia Association of Plumbing-Heating-Cooling Contractors and the Virginia Chapters of the Air Conditioning Contractors of America)

**Christina Jackson**  
(Commonwealth at large)

**Joseph A. Kessler, III**  
(Associated General Contractors)

**Eric Mays**  
(Virginia Building and Code Officials Association)

**Joanne D. Monday**  
(Virginia Building Owners and Managers Association)

**J. Kenneth Payne, Jr., AIA, LEED AP BD+C**  
(American Institute of Architects Virginia)

**Richard C. Witt**  
(Virginia Building and Code Officials Association)

**Aaron Zdinak, PE**  
(Virginia Society of Professional Engineers)

**Vacant**  
(Electrical Contractor)

**Vacant**  
(Commonwealth at Large)

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1                                   **STATE BUILDING CODE TECHNICAL REVIEW BOARD**  
2                                   **MEETING MINUTES**  
3                                   **July 17, 2020**  
4                                   **Virtual Meeting**

5                                   <https://vadhcd.adobeconnect.com/lbbca/>  
6

Members Present

Members Absent

Mr. James R. Dawson, Chairman  
Mr. Vince Butler  
Mr. Daniel Crigler  
Ms. Christina Jackson  
Mr. Alan D. Givens  
Mr. Joseph Kessler  
Mr. Eric Mays, PE  
Ms. Joanne Monday  
Mr. J. Kenneth Payne, Jr.  
Mr. Richard C. Witt  
Mr. Aaron Zdinak, PE

Mr. W. Shaun Pharr, Esq., Vice-Chairman

7 Call to Order

The meeting of the State Building Code Technical Review Board (“Review Board”) was called to order at approximately 10:00 a.m. by Acting Secretary Travis Luter.

11 Roll Call

The roll was called by Mr. Luter and a quorum was present. Mr. Justin I. Bell, legal counsel for the Board from the Attorney General’s Office, was also present.

15 Elections of Officers

Mr. Luter advised the board members that the terms of the officers of the Board had expired and election of officers was needed prior to moving forward with the meeting. Mr. Luter then called for nominations for Chair. Mr. Witt nominated Mr. Dawson. The nomination was seconded by Ms. Monday. Mr. Luter called for nominations for Chair twice more. After hearing no further nominations, Mr. Luter closed the nominations for Chair. A vote was taken and Mr. Dawson was unanimously elected as Chair.

Chair Dawson called for nominations for Vice-Chair. Mr. Witt nominated Mr. Pharr for Vice-Chair. The nomination was seconded by Ms. Monday. Chairman Dawson called for additional nominations for Vice-Chair twice more; hearing none, he closed the nominations. A vote was taken and Mr. Pharr was unanimously elected as Vice-Chair.

Note: Mr. Kessler was unable to verbally vote due to a technical issue; however, he did cast his vote, Aye, via the chat box in the Adobe Connect platform.

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34 Chair Dawson called for nominations for Secretary. Mr. Payne  
35 nominated Mr. Luter for Secretary. The nomination was seconded by  
36 Ms. Monday. Chairman Dawson called for additional nominations for  
37 Secretary twice more; hearing none, he closed the nominations. A vote  
38 was taken and Mr. Luter was unanimously elected as Secretary.

39  
40 Approval of Minutes The draft minutes of the January 24, 2020 meeting in the Review  
41 Board members' agenda package were considered. Mr. Witt moved  
42 to approve the minutes with the editorial changes. The motion was  
43 seconded by Ms. Monday and passed with Messrs. Butler, Crigler,  
44 Kessler, and Payne abstaining.

45  
46 Approval of Minutes The draft minutes of the July 7, 2020 meeting in the Review Board  
47 members' agenda package were considered. Mr. Butler moved to  
48 approve the minutes as presented. The motion was seconded by Ms.  
49 Monday and passed with Messrs. Crigler and Givens abstaining.

50  
51 Final Orders Appeal of Kristie Sours Atwood and Buracker Construction  
52 Appeal Nos. 19-05; 19-06; and 19-07:

53  
54 After review and consideration of the final order presented in the  
55 Review Board members' agenda package, Mr. Payne moved to table  
56 the final order until the September 18, 2020 meeting to allow Review  
57 Board staff the opportunity to make the needed edits as discussed. The  
58 motion was seconded by Mr. Mays and passed unanimously.

59  
60 Note: Mr. Crigler was unable to vote due to technical issues.

61  
62 Public Comment Chair Dawson opened the meeting for public comment. Mr. Luter  
63 advised that no one had contacted him to speak. With no one requesting  
64 to speak, requesting to be acknowledged to speak by use the raised hand  
65 feature of the Adobe Connect meeting platform, or requesting to speak  
66 in the chat box section of the Adobe Connect meeting platform, Chair  
67 Dawson closed the public comment period.

68  
69 New Business Preliminary Hearing (To discuss whether the appeal is properly before  
70 the Board)

71  
72 Culpeper County; Appeal No. 19-09:

73  
74 A preliminary hearing convened with Chair Dawson serving as the  
75 presiding officer. The preliminary hearing was related to the property  
76 owned by Patrick Sartori located at 9408 Breezewood Lane, in  
77 Culpeper County.

78  
79 Mr. Witt recused himself from the hearing because he served on the  
80 Board of Housing and Community Development for many years with

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81 the Appellee, Anthony Clatterbuck. Mr. Witt left the virtual meeting.  
82 Mr. Witt will be notified by the Secretary at the conclusion this case to  
83 rejoin the meeting.  
84

85 The following persons were sworn in and given an opportunity to  
86 present testimony:  
87

88 Patrick Sartori, Owner  
89 Robert Orr, Culpeper County Building Official  
90 Anthony Clatterbuck, Graystone Homes  
91

92 Also present was:  
93

94 Bobbi Jo Alexis, Esq., legal counsel for Culpeper County  
95

96 After testimony concluded, Chair Dawson closed the preliminary  
97 hearing and stated a decision from the Review Board members would  
98 be forthcoming and the deliberations would be conducted in open  
99 session. It was further noted that a final order reflecting the decision  
100 would be considered at a subsequent meeting and, when approved,  
101 would be distributed to the parties and would contain a statement of  
102 further right of appeal.  
103

104 Decision: Preliminary Hearing (To discuss whether the appeal is  
105 properly before the Board)  
106

107 Culpeper County; Appeal No. 19-09:  
108

109 After deliberations, Mr. Mays moved to merge the preliminary hearing  
110 issues into the hearing for the merits of the case. The motion was  
111 seconded by Ms. Monday and passed unanimously.  
112

113 After further deliberations, and agreement by Patrick Sartori, Mr. Mays  
114 moved to proceed with hearing of the three items before the Board with  
115 Mr. Sartori as a party to the appeal. Mr. Mays further moved that by  
116 doing so did not preclude Mr. Sartori's future appeal. The motion was  
117 seconded by Mr. Payne and passed unanimously.  
118

119  
120 Appeal of Culpeper County; Appeal No. 19-09 (Merits):  
121

122 A hearing convened with Chair Dawson serving as the presiding  
123 officer. The appeal involved citations under 2012 Virginia  
124 Construction Code related to the property owned by Patrick Sartori  
125 located at 9408 Breezewood Lane, in Culpeper County.  
126

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127 The following persons were sworn in and given an opportunity to  
128 present testimony:

129  
130 Patrick Sartori, Owner  
131 Robert Orr, Culpeper County Building Official  
132 Anthony Clatterbuck, Graystone Homes  
133

134 Also present was:

135  
136 Bobbi Jo Alexis, Esq., legal counsel for Culpeper County  
137

138 After testimony concluded, Chair Dawson closed the hearing and stated  
139 a decision from the Review Board members would be forthcoming and  
140 the deliberations would be conducted in open session. It was further  
141 noted that a final order reflecting the decision would be considered at a  
142 subsequent meeting and, when approved, would be distributed to the  
143 parties and would contain a statement of further right of appeal.  
144

145 Decision: Culpeper County; Appeal No. 19-09 (Merits):  
146

147 After deliberations, Mr. Mays moved to uphold the decision of the  
148 building official, and overturn the local appeals board, that a violation  
149 exists of VCC Section R403.1.8, pursuant to the Notice of Violation,  
150 found on page 43 of the agenda package. The motion was seconded by  
151 Ms. Monday and passed unanimously.  
152

153 After further deliberations, Mr. Kessler moved that the local appeals  
154 board does have the authority to determine an engineer report is  
155 deficient and to require another independent test. The motion was  
156 seconded by Ms. Monday. Mr. Kessler withdrew his motion and Ms.  
157 Monday withdrew her second.  
158

159 After further deliberations, Mr. Mays moved that specific to this case,  
160 the issue of whether the local appeals board could deem an engineer  
161 report deficient, and to require another independent test to be moot  
162 based on the previous decision of the Review Board to uphold the  
163 building official and overturn the local appeals board. The motion was  
164 seconded by Mr. Kessler and passed unanimously.  
165

166 Appeal of ZAAKI Restaurant and Cafe; Appeal No. 19-11:  
167

168 A hearing convened with Chair Dawson serving as the presiding  
169 officer. The appeal involved citations under 2012 Virginia  
170 Construction Code related to the property owned by Aaron and Mary  
171 Sampson, operating as ZAAKI Restaurant and Cafe LLC located at  
172 6020 Leesburg Pike, in Fairfax County.  
173

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174 The following persons were sworn in and given an opportunity to  
175 present testimony:

- 176  
177 Khalid El Tayeb, ZAAKI Restaurant and Café LLC  
178 Brian Foley, Fairfax County Building Official  
179 Michael C. Stevens, MCS Architects, PC  
180 Victoria Fitzgerald, Technical Assistant to the Building Official

181  
182 Also present was:

- 183  
184 Sarah Silverman, Esq., legal counsel for Fairfax County  
185 Aristotelis A. Chronis, Esq., legal counsel for ZAAKI  
186 Restaurant and Café LLC

187  
188 After testimony concluded, Chair Dawson closed the hearing and stated  
189 a decision from the Review Board members would be forthcoming and  
190 the deliberations would be conducted in open session. It was further  
191 noted that a final order reflecting the decision would be considered at a  
192 subsequent meeting and, when approved, would be distributed to the  
193 parties and would contain a statement of further right of appeal.

194  
195 Decision: Appeal of ZAAKI Restaurant and Cafe; Appeal No. 19-11:

196  
197 After deliberations, Mr. Payne moved to uphold the decision of the  
198 local appeals board and the building official that violations of VCC  
199 Section 108 (Application for permit) and VCC Section 113.3  
200 (Inspections) exist related to items listed as a through h of the staff  
201 document, found on page 123 of the agenda package and listed below.  
202 The motion was seconded by Mr. Butler and passed unanimously.

- 203  
204 a. Change of use in accordance with VCC Section 103.2  
205 b. Installation of an addition to the west side of the main  
206 structure and the subsequent enclosure of that addition from  
207 fabric to glass  
208 c. Installation of a gas fired heater and exhaust fans  
209 d. Installation of an addition to the rear of the main structure  
210 e. Installation of an addition clad in wood structural panels on  
211 the rear of the main structure  
212 f. Alterations to the interior of the main structure  
213 g. Installation of canopies on the front and right side of the  
214 main structure  
215 h. Installation of a wooden deck and bar with electrical and  
216 plumbing

217  
218 After further deliberations, Mr. Payne moved to uphold the decision of  
219 the local appeals board and the building official to revoke the certificate  
220 of occupancy in accordance with VCC Section 116.3 due to repeated

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221 violations dating back to 2012, which includes lack of application for  
222 appropriate permits and obtaining the certificate of occupancy or  
223 proper final inspections. The motion was seconded by Ms. Jackson and  
224 passed unanimously.  
225

226 Interpretation Request

Interpretation Request of David Dunavan (Powhatan County);  
Interpretation Request No. 01-20:

227  
228  
229 An interpretation request from David Dunavan of Powhatan County  
230 was considered concerning the 2015 Virginia Residential Code (VRC),  
231 on Section R312.1.1 and whether guards are required along the open  
232 side of an unfinished attic or room truss; whether the answer would  
233 remain the same when the ceiling below has drywall installed, but the  
234 room remains unfinished. Additionally, are guards required along the  
235 walking path in attics that lead to an HVAC unit?  
236

237 After deliberations, Mr. Witt moved to send the request back to the  
238 requestor with the direction to formulate a more specific question in an  
239 interpretative format. The motion was seconded by Ms. Jackson and  
240 passed unanimously.  
241

Interpretation Request of Paul Snyder (Louisa County); Interpretation  
Request No. 02-20:

242  
243  
244  
245 An interpretation request from Paul Snyder of Louisa County was  
246 considered concerning the 2015 Virginia Residential Code (VRC), on  
247 Tables R403.1(1), (2), and (3) and whether another table exists or text  
248 that provides direction to the minimum size for footings when there is  
249 no load-bearing center wall.  
250

251 After deliberations, Mr. Mays moved that no interpretation was needed  
252 and directed DHCD staff to educate the building official on the  
253 question. The motion was seconded by Mr. Witt and passed  
254 unanimously.  
255

Interpretation Request of David Dunavan (Powhatan County);  
Interpretation Request No. 04-20:

256  
257  
258  
259 An interpretation request from David Dunavan of Powhatan County  
260 was considered concerning the 2015 Virginia Residential Code (VRC),  
261 on Section P2503.5.1 and 2015 Virginia Plumbing Code (VPC) Section  
262 312.2 whether air could be used to test plastic piping.  
263

264 After deliberations, Mr. Witt moved that no interpretation was needed  
265 because the answer is found in VRC P2503.5.1, and is very explicit and  
266 is not interpretive. The motion was seconded by Ms. Jackson and  
267 passed unanimously.

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268  
269 Interpretation Request of Robert Orr (Culpeper County); Interpretation  
270 Request No. 05-20;  
271  
272 Review Board staff withdrew this interpretation request from the  
273 agenda in accordance with Review Board Policy #03  
274  
275 Secretary's Report Mr. Luter directed the Board members to the draft copy of a  
276 Proclamation for Ms. O'Bannon found in the Review Board members'  
277 agenda package. After review and consideration of the Proclamation,  
278 Ms. Jackson moved to approve the Proclamation as presented. The  
279 motion was seconded by Mr. Kessler and passed unanimously.  
280  
281 Mr. Luter informed the Board of the current caseload for the upcoming  
282 meeting scheduled for September 18, 2020. Chair Dawson suggested  
283 starting at 9:00 am if the meeting was held virtually.  
284  
285 Attorney Bell provided legal updates to the Board.  
286  
287 Mr. Payne provided an update to the Board related to his code change  
288 proposal.  
289  
290 Adjournment There being no further business, the meeting was adjourned by proper  
291 motion at approximately 5:45 p.m.  
292  
293  
294  
295  
296 Approved: September 18, 2020  
297  
298  
299  
300  
301  
302 \_\_\_\_\_  
303 Chairman, State Building Code Technical Review Board  
304  
305  
306  
307 \_\_\_\_\_  
308 Secretary, State Building Code Technical Review Board

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1 VIRGINIA:

2  
3 BEFORE THE  
4 STATE BUILDING CODE TECHNICAL REVIEW BOARD  
5

6 IN RE: Appeal of Kristie Sours Atwood  
7 Appeal No. 19-05  
8 Appeal of Kristie Sours Atwood  
9 Appeal No. 19-06  
10 Appeal of Buracker Construction  
11 Appeal No. 19-07  
12

13 DECISION OF THE REVIEW BOARD  
14 (For Preliminary Hearing as to Jurisdiction and Timeliness)  
15 (For Hearing on the Merits of the Cases)  
16

17 I. Procedural Background  
18

19 The State Building Code Technical Review Board (Review Board) is a Governor-  
20 appointed board established to rule on disputes arising from application of regulations of the  
21 Department of Housing and Community Development. See §§ 36-108 and 36-114 of the Code of  
22 Virginia. The Review Board’s proceedings are governed by the Virginia Administrative Process  
23 Act (§ 2.2-4000 et seq. of the Code of Virginia).  
24

25 II. Case History

26 The three referenced cases presented to the Review Board for consideration at the January  
27 24, 2020 meeting for Kristie L. Sours Atwood (Atwood) and Buracker Construction (Buracker)  
28 have not been merged and remain independent of each other; however, the three cases originate  
29 from the same nexus of facts. Accordingly, all three of the cases were brought before the Review  
30 Board at the same time for the sake of efficiency.

31 A. The Inspection of the Dwelling

32 In July of 2016, the County of Warren Department of Building Inspections (County  
building official), the agency responsible for the enforcement of Part 1 of the 2009 Virginia

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33 Uniform Statewide Building Code (Virginia Construction Code or VCC), issued a final inspection  
34 and a subsequent Certificate of Occupancy to Buracker, a licensed Class A contractor, for a single-  
35 family dwelling located at 1255 Pilgrims Way owned by Atwood.

36 Atwood believed there were multiple issues with her new home; therefore, in September  
37 of 2017, Atwood hired David Rushton of ABLE Building Inspection, Inc. (ABLE) to perform a  
38 home inspection. ABLE issued a new construction defect inspection report in December of 2017  
39 identifying 126 defective items of which sixty eight (68) were identified as potential code  
40 violations. In March of 2018, at the request of Atwood, the County building official performed  
41 a re-inspection of the property subsequently issuing a Notice of Violation (NOV) to Buracker  
42 citing five (5) violations.

#### 43 B. The First Local Appeals Hearings

44 In May of 2018, Atwood filed an appeal to the local appeals board asking the local board  
45 to review the remaining sixty three (63) potential code violations, listed in the ABLE report, not  
46 cited in the March 30, 2018 NOV. The local appeals board heard Atwood's appeal and identified  
47 12 additional violations from the ABLE report. Atwood further appealed to the Review Board the  
48 remaining fifty one (51) potential violations listed in the ABLE report that were not cited by the  
49 county building official.

50 Subsequent to the June 7, 2018 decision of the local appeals board, the County building  
51 official issued a second NOV that was dated June 13, 2018 citing the 12 violations identified in  
52 the local appeals board decision. On June 28, 2018, Buracker filed an appeal to the local appeals  
53 board of the 12 violations cited in the June 13, 2018 NOV.<sup>1</sup> The local appeals board has six (6)  
54 total members. Of those six (6) members, at least two (2) members worked as contractors on

<sup>1</sup> This was the second of the two hearings before the local appeals board.

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55 Atwood's dwelling that is the subject of this appeal. One of the members, Buracker, recused  
56 himself from the hearings. The other member, who also was a contractor on the Atwood dwelling,  
57 participated in the hearings and was the chair of the local appeals board during one of the hearings.

58 The local appeals board heard the appeal on July 26, 2018 whereby the local appeals board  
59 overturned six of the violations and upheld the other six violations. On August 10, 2018, Atwood  
60 further appealed the six cited violations overturned by the local appeals board to the Review Board.  
61 On August 17, 2018, Buracker further appealed to the Review Board the six cited violations upheld  
62 by the local appeals board.<sup>2</sup>

63 Review Board staff conducted an informal fact-finding conference (IFFC) in August of  
64 2018 attended by all parties. Subsequent to the August 2018 informal fact-finding conference,  
65 Review Board staff processed the Atwood Appeals (Appeal Nos. 18-08 and 18-12) and the  
66 Buracker Construction Appeal (Appeal No. 18-13).

67 C. The First Review Board Hearing

68 All three (3) appeals, Atwood Nos. 18-08 and 18-12, and Buracker Construction No. 18-  
69 13, were presented to the Review Board for consideration at the January 11, 2019 Review Board  
70 meeting. The Review Board remanded all three appeals back to the local appeals board and  
71 ordered that the potential conflict of interest issue be addressed. The Review Board ordered that  
72 all local appeals board members that participated in the hearings for these cases to seek written  
73 opinion from the Warren County Commonwealth's Attorney, or a formal opinion from the  
74 Virginia Conflict of Interest and Ethics Advisory Council (COIA Council), whether their  
75 participation in the proceedings to that point constituted a violation of State and Local Government  
76 Conflict of Interest Act (COIA). The Review Board further ordered that for any of the three cases

<sup>2</sup> At the August 17, 2018, local appeals board hearing Atwood asserted that a conflict of interest existed and objected to the members involved participating in the hearing.

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77 (Nos. 18-08, 18-12, and 18-13) where local appeals board members are advised by either the  
78 Commonwealth’s Attorney or the COIA Council that they have a conflict of interest or might have  
79 already committed a COIA violation, the local appeals board is to re-hear the case on its merits  
80 after members with conflicts recuse themselves in accordance with the Uniform Statewide  
81 Building Code (USBC) and COIA.

82 D. The Local Appeals Re-Hearings

83 On July 18, 2019, the local appeals board re-heard LBBCA Appeal No. 1-2018, filed by  
84 Atwood. Mr. George Cline did not sit on the panel hearing the appeal due to a conflict of interest.  
85 The attorney for Buracker Construction filed a “Memorandum in Opposition of Appeal Number  
86 1-2018”, where he pointed out three potential jurisdictional issues related to timeliness,  
87 jurisdiction, and authority of the local appeals board. The local appeals board identified six (6)  
88 code violations. The new local appeals board decision vacated the June 7, 2019 local appeals  
89 board decision, and subsequently, the June 13, 2018 NOV and LBBCA Appeal 2-2018 by  
90 Buracker Construction as it was an appeal of the June 13, 2018 NOV. In the new decision for  
91 Appeal No. 1-2018, the local appeals board erroneously referenced the vacated June 13, 2018  
92 NOV. Atwood further appealed to the Review Board the remaining sixty three (63) potential  
93 violations listed in the ABLE report that were not cited by the local appeals board.

94 Buracker filed a new appeal to the local appeals board. The local appeals board heard  
95 LBBCA Appeal No. 1-2019, on September 10, 2019, and upheld five (5) identified violations and  
96 overturned one (1) identified violation of its new decision of Appeal No. 1-2018. In the decision  
97 for Appeal No. 1-2019, the local appeals board erroneously referenced vacated Appeal 2-2018.  
98 On July 29, 2019, Atwood further appealed to the Review Board the one (1) identified violation

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99 overturned by the local appeals board. On October 7, 2019, Buracker further appealed to the  
100 Review Board the five (5) identified violations upheld by the local appeals board.

101 Review Board staff conducted an informal fact-finding conference (IFFC) on November  
102 7, 2019 attended by all parties. Subsequent to the November 7, 2019 informal fact-finding  
103 conference, Review Board staff processed the Atwood Appeals (Appeal No. 19-05 and 19-06) and  
104 the Buracker Construction Appeal (Appeal No. 19-07).

### 105 III. Findings of the Review Board

#### 106 A. Whether the appeal was timely for the Atwood Appeals (Appeal Nos. 19-05 and 19-06).

107 Buracker, through legal counsel, argued that Atwood did not file the appeal within the  
108 required thirty (30) day timeframe provided in the VCC. Buracker further argued that the County  
109 building official, after re-inspection, only cited the five (5) violations present and that no other  
110 violations existed.

111 The County building official argued that Atwood did not file the appeal within the required  
112 thirty (30) day timeframe provided in the VCC.

113 Atwood argued that the County building official's decision not to cite additional violations  
114 was an action of the County building official; thus was appealable. Atwood further argued that  
115 she received the decision of the County building official via United States Postal Service on April  
116 12, 2018 and filed her appeal on May 3, 2018, which was within the timeframe provided in the  
117 VCC.

118 The Review Board finds the appeal to be untimely because the lack of citing additional  
119 violations during the March 2018 inspection, identified as potential violations in the ABLE report,  
120 did not constitute a new decision, rather was an affirmation of the application of the code when  
121 the Certificate of Occupancy was issued in July 2016.

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122 B. Whether the appeal is properly before the Board for the Buracker Construction Appeal  
123 (Appeal No. 19-07).  
124

125 Buracker, through legal counsel, argued that with the decision of the Review Board to  
126 dismiss the Atwood appeals (Appeal Nos. 19-05 and 19-06), Buracker Construction appeal  
127 (Appeal No. 19-07) no longer had any issues to appeal. Buracker further argued that all of the  
128 violations in the Buracker Construction appeal (Appeal No. 19-07) had been dismissed with the  
129 dismissal of the Atwood appeals (Appeal Nos. 19-05 and 19-06); thus, Buracker Construction  
130 appeal (Appeal No. 19-07) was no longer properly before the Board.<sup>3</sup> The County building official  
131 made no argument. Atwood made no argument.

132 The Review Board finds the appeal to be properly before the Board because the County  
133 building official applied the code by issuing a NOV on June 13, 2018; therefore, the merits of the  
134 case are to be heard.

135 C. Merits of the Buracker Construction Appeal (Appeal No. 19-07).

136 1) Whether item #11 of the ABLE Building Inspection, Inc. report is a violation of VCC  
137 Section R502.2.2.2.  
138

139 Buracker, through legal counsel, argued that all construction on the porch post and beam  
140 was done in compliance with the 2009 VCC. Buracker clarified that the construction work  
141 performed was to move the porch post, at the owner's request, and was done after the issuance of  
142 the Certificate of Occupancy.

143 The County building official argued that the construction on the porch post and beam was  
144 a violation. The County building official confirmed that the construction work performed was  
145 done after the issuance of the Certificate of Occupancy. Atwood argued that the construction on  
146 the porch post and beam was a violation.

<sup>3</sup> Buracker, through legal counsel, chose not to withdraw the appeal, but rather to argue that the appeal was no longer ripe.

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147 The Review Board agrees with the County and the local appeals board and finds that  
148 violations of VCC Section R502.2.2.2 exist.

149 2) Whether item #12 of the ABLE Building Inspection, Inc. report is a violation of VCC  
150 Section R502.6.

151  
152 Buracker, through legal counsel, argued that all construction on the post and beam was  
153 done in compliance with the 2009 VCC. Buracker clarified that the construction work performed  
154 was to move the porch post, at the owner's request, and was done after the issuance of the  
155 Certificate of Occupancy.

156 The County building official argued that the construction on the porch post and beam was  
157 a violation. The County building official confirmed that the construction work performed was  
158 done after the issuance of the Certificate of Occupancy. Atwood argued that the construction on  
159 the porch post and beam was a violation.

160 The Review Board agrees with the County and the local appeals board and finds that  
161 violations of VCC Section R502.6 exist.

162 3) Whether item #23 of the ABLE Building Inspection, Inc. report is a violation of VCC  
163 Table R301.5.

164  
165 Buracker, through legal counsel, argued that the guard system was constructed in  
166 compliance with the 2009 VCC. Buracker also argued that the deck was less than 30" from grade;  
167 thus, the guards were not required. Buracker further argued that the guards were tested, by the  
168 County building official, and passed.

169 The County building official argued that a violation existed because the guard system did  
170 not meet the required 200lb live load and certified design professional testing was required.

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171 Atwood argued that the fasteners used to attach the porch posts to the deck floor were not  
172 code compliant. Atwood also argued that the top rails of the porch were secured with finish nails  
173 and loose. Atwood further argued that the post columns were loose and not properly secured.

174 The Review Board agrees with the County and the local appeals board and finds that  
175 violations of VCC Section Table R301.5 exist.

176 4) Whether item #92 of the ABLE Building Inspection, Inc. report is a violation of VCC  
177 Sections R1005.1, R1005.2, R1005.3, R1005.4, and/or R1005.5.

178 Buracker, through legal counsel, argued that the fireplace and chimney systems match per  
179 the manufacturers installation instructions. Buracker further clarified that the proper chimney was  
180 installed on the fireplace that was installed.

181 The County building official argued that he could not testify, with certainty, that the  
182 chimney pipe at the bottom, near the fireplace, met the Underwriters Laborites (UL)  
183 requirements due to his inability to see the chimney pipe within the wall at this time; therefore,  
184 evidence that the chimney piping met the requirements was required.

185 Atwood argued that Buracker did not install the fireplace unit that was ordered and that a  
186 different fireplace was installed.

187 The Review Board agrees with Buracker Construction and finds that violations of VCC  
188 Sections R1005.1, R1005.2, R1005.3, R1005.4, and/or R1005.5 do not exist.

189 5) Whether item #101 of the ABLE Building Inspection, Inc. report is a violation of VCC  
190 Section R302.12.

191 Buracker argued that neither VCC Section R302.12 nor any other code applied to the any  
192 condition within the cited area. Buracker further argued that fire separation and draftstopping was  
193 not required between the garage and attic above; thus, the installation of the attic access was not a  
194 code violation. Buracker also argued that the wall between the garage and house was properly  
195  
196

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197 separated with drywall and the proper access panel was installed. Buracker, through legal counsel,  
198 argued that the ABLE report was completed more than a year after the issuance of the Certificate  
199 of Occupancy and further that Buracker had no way of knowing what had changed inside the house  
200 since the issuance of the Certificate of Occupancy.

201 The County building official argued that the panel cover needed to be installed to be code  
202 compliant.

203 Atwood argued that Buracker installed the attic access in the garage after the issuance of  
204 the Certificate of Occupancy. Atwood also argued that access cover was plastic and was a code  
205 violation.

206 The Review Board agrees with Buracker Construction and finds that violations of VCC  
207 Section R302.12 do not exist.

208

209 IV. Final Order

210 A. Whether the appeal was timely for the Atwood Appeals (Appeal Nos. 19-05 and 19-06).

211 The appeals for Atwood (Appeal Nos. 19-05 and 19-06) having been given due regard,  
212 and for the reasons set out herein, the Review Board orders the appeal to be dismissed.

213 B. Whether the appeal is properly before the Board for the Buracker Construction Appeal  
214 (Appeal No. 19-07).

215

216 The appeal for Buracker Construction (Appeal No. 19-07) having been given due regard,  
217 and for the reasons set out herein, the Review Board order the appeal to be properly before the  
218 Board and that the merits of the appeal be heard.

219 C. Merits of the Buracker Construction Appeal (Appeal No. 19-07).

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220 The appeal having been given due regard, after considering the arguments of the parties  
221 and the evidence in the record, and for the reasons set out herein, the Review Board orders as  
222 follows:

223 1) Whether item #11 of the ABLE Building Inspection, Inc. report is a violation of VCC  
224 Section R502.2.2.2.

225 The decision of County building official and the local appeals board that a violation of  
226 VCC Section R502.2.2.2 exists is upheld.

228 2) Whether item #12 of the ABLE Building Inspection, Inc. report is a violation of VCC  
229 Section R502.6.

230 The decision of County building official and the local appeals board that a violation of  
231 VCC Section R502.6 exists is upheld.

233 3) Whether item #23 of the ABLE Building Inspection, Inc. report is a violation of VCC  
234 Table R301.5.

235 The decision of County building official and the local appeals board that a violation of  
236 VCC Table R301.5 exists is upheld.

238 4) Whether item #92 of the ABLE Building Inspection, Inc. report is a violation of VCC  
239 Sections R1005.1, R1005.2, R1005.3, R1005.4, and/or R1005.5.

240 The decision of County building official and the local appeals board that a violation of  
241 VCC Section R1005.1, R1005.2, R1005.3, R1005.4, and/or R1005.5 exists is overturned.

243 5) Whether item #101 of the ABLE Building Inspection, Inc. report is a violation of VCC  
244 Section R302.12.

245 The decision of County building official and the local appeals board that a violation of  
246 VCC Section R302.12 exists is overturned.

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Chairman, State Building Code Technical Review Board

Date entered \_\_\_\_\_September 18, 2020\_\_\_\_\_

**Certification**

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty (30) days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a Notice of Appeal with W. Travis Luter, Sr., Secretary of the Review Board. In the event that this decision is served on you by mail, three (3) days are added to that period.

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1 VIRGINIA:

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3 BEFORE THE  
4 STATE BUILDING CODE TECHNICAL REVIEW BOARD

5  
6 IN RE: Appeal of Culpeper County  
7 Appeal No. 19-09

8  
9 DECISION OF THE REVIEW BOARD

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11 I. Procedural Background

12  
13 The State Building Code Technical Review Board (Review Board) is a Governor-  
14 appointed board established to rule on disputes arising from application of regulations of the  
15 Department of Housing and Community Development. See §§ 36-108 and 36-114 of the Code of  
16 Virginia. The Review Board's proceedings are governed by the Virginia Administrative Process  
17 Act (§ 2.2-4000 et seq. of the Code of Virginia).

18 II. Case History

19 The Culpeper County Building Official appealed the decision of the Joint Board of  
20 Building Code Appeals of the Town and County of Culpeper (local appeals board), which  
21 overturned the enforcement action by the Culpeper County Building Department (County) under  
22 Part I of the 2012 Uniform Statewide Building Code (Virginia Construction Code or VCC) at the  
23 property owned by Patrick Sartori, located at 9408 Breezewood Lane, and located in Culpeper  
24 County. The dwelling was constructed by Graystone Homes (Graystone), a licensed Class A  
25 contractor.

26 On August 2, 2019, the County issued a Code Deficiency Notice (Notice) to Graystone for  
27 the dwelling located at 9408 Breezewood Lane. The Notice was issued due to the evidence of  
28 expansive soils, provided to the County in an engineering report by Sartori on June 6, 2019, and  
29 cited a violation of VCC Section R403.1.8 (Foundations and expansive soils).

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30 In September of 2019, Graystone filed an appeal to the local appeals board. The local  
31 appeals board granted the appeal, rejecting the soil report provided to the County, because the soils  
32 report did not contain the test locations on the property, the exact distance from the structure, or  
33 the depth from which the samples were collected. The local appeals board further ruled that  
34 another independent soils test should be conducted.

35 On October 11, 2019, Robert Orr (Orr), Culpeper County Building Official, further  
36 appealed to the Review Board. A virtual Review Board hearing was held July 17, 2020. Appearing  
37 at the Review Board hearing for Culpeper County were Robert Orr and Bobbi Jo Alexis, legal  
38 counsel. Anthony Clatterbuck of Graystone Homes and Patrick Sartori, property owner, also  
39 attended the hearing.

### 40 III. Findings of the Review Board

41 A. Whether the local appeals board had the authority to determine an engineering report,  
42 approved by the County building official, was deficient.

43 B. Whether the local appeals board had the authority to find the sole remedy for the appeal  
44 was to conduct another independent test to confirm or deny the results of the original test.

45 C. Whether to uphold the decision of the County building official and overturn the local  
46 appeals board that a violation of the VCC Section R403.1.8 (Foundations and expansive  
47 soils) exists.

48 The County argued that shortly after the completion of Sartori's home, he approached the  
49 County about a few matters of concern with his home, one of which was the possibility of  
50 expansive soils on the site. Sartori provided the County with an engineering report confirming  
51 expansive soils were present. The County argued that after review of the engineering report, the  
52 County felt there was enough evidence to warrant issuing a Notice and further investigation of the  
53 soils to see if any additional measures were needed. During its arguments, the County clarified

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54 that the County policy, based on the soils maps the County relies on which did not indicate the site  
55 was indicative of expansive soils, did not require soil testing prior to issuance of permits. The  
56 County further clarified that it was unsure of whether the local appeals board had acted within the  
57 scope of its authority when ruling on the validity of the engineering report provided to the County  
58 or its direction that another independent test should be performed.

59 Graystone argued that substantial issues existed in the engineering report, provided by  
60 Sartori and relied on by the County, such as, the method of collection of the soil samples as well  
61 as the location and depth at which the soil samples were taken. Graystone further argued that the  
62 engineering report referenced the incorrect code under which the home was constructed.  
63 Graystone also challenged the competence of the lab that conducted the tests in his arguments.  
64 Graystone argued that because the soils test contained several flaws a new test was merited.  
65 Graystone also argued that the local appeals board had the authority to determine the validity of  
66 the engineering report and made the appropriate decision to find the report deficient and require  
67 that another independent test should be performed.

68 Sartori argued that the engineering report he provided to the County was adequate,  
69 accurate, and clearly depicted the conditions present at his home. Sartori also argued that there is  
70 no difference in the 2012 and 2015 codes related to expansive soils.

71 All parties acknowledged that expansive soils exists on the property and that some of the  
72 expansive soil issues have already been addressed by Graystone.

73 The Review Board agrees with the County in its acceptance of the engineering report. The  
74 Review Board finds that expansive soils do exist at the property and that a violation of VCC  
75 Section R403.1.8 still exists. The Review Board also finds that the questions of whether the local  
76 appeals board had the authority to determine an engineering report, approved by the County  
77 building official, was deficient and whether the local appeals board had the authority to find the

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78 sole remedy for the appeal was to conduct another independent test to confirm or deny the results  
79 of the original test to be moot.

80 IV. Final Order

81 The appeal having been given due regard, and for the reasons set out herein, the Review  
82 Board orders as follows:

83 A. Whether the local appeals board had the authority to determine an engineering report,  
84 approved by the County building official, was deficient.

85 The decision of the local appeals board to determine the engineering report approved by  
86 the County building official was deficient is moot.

87 B. Whether the local appeals board had the authority to find the sole remedy for the appeal  
88 was to conduct another independent test to confirm or deny the results of the original test.

89 The decision of the local appeals board to require another independent test to confirm or  
90 deny the results of the original test is moot.

91 C. Whether to uphold the decision of the County building official and overturn the local  
92 appeals board that a violation of the VCC Section R403.1.8 (Foundations and expansive  
93 soils) exists.

94 The decision of the County that a violation of VCC Section R403.1.8 is upheld and the  
95 decision of the local appeals board is overturned.

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Chair, State Building Code Technical Review Board

Date entered \_\_\_\_\_September 18, 2020\_\_\_\_\_

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty (30) days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a Notice of Appeal with W. Travis Luter, Sr., Secretary of the Review Board. In the event that this decision is served on you by mail, three (3) days are added to that period.

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1 VIRGINIA:  
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3 BEFORE THE  
4 STATE BUILDING CODE TECHNICAL REVIEW BOARD  
5

6 IN RE: Appeal of ZAAKI Restaurant and Café LLC  
7 Appeal No. 19-11  
8

9 DECISION OF THE REVIEW BOARD  
10

11 I. Procedural Background  
12

13 The State Building Code Technical Review Board (Review Board) is a Governor-  
14 appointed board established to rule on disputes arising from application of regulations of the  
15 Department of Housing and Community Development. See §§ 36-108 and 36-114 of the Code of  
16 Virginia. The Review Board's proceedings are governed by the Virginia Administrative Process  
17 Act (§ 2.2-4000 et seq. of the Code of Virginia).  
18

19 II. Case History

20 On November 8, 2019, the Fairfax County Land Development Services Department  
21 (County), in enforcement of Part I of the 2015 Virginia Uniform Statewide Building Code  
22 (Virginia Construction Code or VCC), issued a Legal Notice; Revocation of Certificate of  
23 Occupancy (Notice) to ZAAKI Restaurant and Café LLC (ZAAKI) for the building owned by  
24 Aaron and Mary Sampson, located at 6020 Leesburg Pike in Fairfax County. The Notice revoked  
25 the certificate of occupancy (CO) due to repeated violations of the VCC dating back to 2012.

26 The County performed inspections and research of the property between October 24, 2019  
27 and November 1, 2019 and discovered several violations. The Notice cited the following  
28 violations of VCC Sections 108 and 113 related to permits that were required, work performed  
29 without the required permits, and the lack of minimum inspections being performed:

- 30 a. Change of use in accordance with VCC Section 103.2
- 31 b. Installation of an addition to the west side of the main structure and the  
subsequent enclosure of that addition from fabric to glass

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- 32 c. Installation of a gas fired heater and exhaust fans
- 33 d. Installation of an addition to the rear of the main structure
- 34 e. Installation of an addition clad in wood structural panels on the rear of the main
- 35 structure
- 36 f. Alterations to the interior of the main structure
- 37 g. Installation of canopies on the front and right side of the main structure
- 38 h. Installation of a wooden deck and bar with electrical and plumbing

39 On November 12, 2019, the County issued a Corrective Work Order (Work Order) further  
40 explaining all of the cited violations listed in the Notice.

41 In November of 2019, ZAAKI filed an appeal to the Fairfax County Board of Building  
42 Code Appeals (local appeals board). The local appeals board denied the appeal for lack of  
43 recognition of the VCC, lack of permits and inspections to document compliance, history of lack  
44 of compliance with the VCC, and no indication that the property would be brought into compliance  
45 if the appeal were upheld.

46 On December 20, 2019, ZAAKI further appealed to the Review Board. A virtual Review  
47 Board hearing was held July 17, 2020. Appearing at the Review Board hearing for Fairfax County  
48 were Brian Foley, Victoria Fitzgerald, and Sara Silverman, legal counsel. Appearing at the Review  
49 Board hearing for ZAAKI Restaurant and Café LLC were Khalid E. Tayeb. Michael Stevens, and  
50 Aristotelis Chronis, legal counsel.

51 III. Findings of the Review Board

52 A. Whether to uphold the decision of the County and the local appeals board that  
53 violations of VCC Section 108 (Application for permit) and 113.3 (Inspections) exist for the

54 following:

- 55 1) Change of use in accordance with VCC Section 103.2
- 56 2) Installation of an addition to the west side of the main structure and the
- 57 subsequent enclosure of that addition from fabric to glass
- 58 3) Installation of a gas fired heater and exhaust fans
- 59 4) Installation of an addition to the rear of the main structure
- 60 5) Installation of an addition clad in wood structural panels on the rear of the main
- 61 structure

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- 62 6) Alterations to the interior of the main structure
- 63 7) Installation of canopies on the front and right side of the main structure
- 64 8) Installation of a wooden deck and bar with electrical and plumbing

65 The County, through its legal counsel, Sara Silverman, argued that the cited violations exist  
66 and that the cited violations were discovered during its investigation conducted between October  
67 24, 2019 and November 1, 2019. The County also argued that the cited violations were not time  
68 barred as discovery had not taken place prior to October 24, 2019, since a technical assistant of  
69 the building official had not enter the property or performed any inspections prior to that date. The  
70 County further argued that previous inspections, referred to by ZAAKI, had been conducted by a  
71 zoning and property maintenance investigator, which is not a technical assistant of the building  
72 official. Lastly, the County argued that a review of County records for the subject property found  
73 multiple abandoned permit applications, permit applications for permits that were never issued,  
74 and permits for areas that had been constructed or altered where no inspections had been  
75 performed.

76 ZAAKI, through its legal counsel, Aristotelis Chronis, argued that the County was aware  
77 of the cited violations as far back as 2015; however, had not issue a Work Order or NOV. ZAAKI  
78 further argued that the cited violations were time barred based on discovery of the cited violations  
79 as far back as 2015 and the fact that the County did not address the cited violations until October  
80 of 2019. ZAAKI acknowledged that some, if not all, of the cited violations exist. ZAAKI further  
81 acknowledge that several permits had been applied for but not issued for the property.

82 The Review Board agrees with the County and the local appeals board and finds that  
83 violations of VCC Sections 108 and 113.3 exist for items 1-8 listed herein.

84 B. Whether to uphold the decision of the County and the local appeals board to  
85 revoke the certificate of occupancy (CO), in accordance with VCC Section 116.3,  
86 due to repeated violations of the VCC dating back to 2012.

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87 The County, through its legal counsel, Sara Silverman, argued that ZAAKI had repeated  
88 violations dating back to 2012 that had not been addressed; therefore, they applied VCC Section  
89 116.3 and revoked the CO. The County also argued that the building code does not address the  
90 order in which Work Orders and Notices must be issued.

91 ZAAKI, through its legal counsel, Aristotelis Chronis, argued that the County revoked the  
92 CO due to repeated violations, which was not the case. ZAAKI further argued that the Work Order  
93 issued on November 12, 2019 only referenced one other Notice of Violation (NOV) dated May 2,  
94 2013 for a single violation six years earlier. ZAAKI also argued that in November of 2019 the  
95 County did not issue a Work Order or NOV, rather went immediately to revocation of the CO.  
96 ZAAKI further argued that the Work Order was issued four days after the Notice and that the Work  
97 Order should have been issued prior to the Notice.

98 The Review Board agrees with the County and the local appeals board that the revocation  
99 of the CO was proper due to repeated violations dating back to 2012, which include the lack of  
100 application for appropriate permits and obtaining the necessary CO or final inspections.

101 IV. Final Order

102 The appeal having been given due regard, and for the reasons set out herein, the Review  
103 Board orders as follows:

104 A. Whether to uphold the decision of the County and the local appeals board that  
105 violations of VCC Sections 108 (Application for permit) and 113.3 (Inspections)

106 exist for the following:

- 107 1) Change of use in accordance with VCC Section 103.2  
108 2) Installation of an addition to the west side of the main structure and the  
109 subsequent enclosure of that addition from fabric to glass  
110 3) Installation of a gas fired heater and exhaust fans  
111 4) Installation of an addition to the rear of the main structure  
112 5) Installation of an addition clad in wood structural panels on the rear of the main  
113 structure

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- 114 6) Alterations to the interior of the main structure
- 115 7) Installation of canopies on the front and right side of the main structure
- 116 8) Installation of a wooden deck and bar with electrical and plumbing

117 The decision of the County and local appeals board that violations of VCC Sections 108  
118 and 113.3 exist is upheld.

119 B. Whether to uphold the decision of the County and the local appeals board to  
120 revoke the certificate of occupancy (CO), in accordance with VCC Section 116.3,  
121 due to repeated violations of the VCC dating back to 2012.

122 The decision of the County and local appeals board to revoke the CO due to repeated  
123 violations dating back to 2012 is upheld.

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Chair, State Building Code Technical Review Board

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134 Date entered \_\_\_\_September 18, 2020\_\_\_\_

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139 As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty (30) days  
140 from the date of service (the date you actually received this decision or the date it was mailed to  
141 you, whichever occurred first) within which to appeal this decision by filing a Notice of Appeal  
142 with W. Travis Luter, Sr., Secretary of the Review Board. In the event that this decision is served  
143 on you by mail, three (3) days are added to that period.

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VIRGINIA:

BEFORE THE  
STATE BUILDING CODE TECHNICAL REVIEW BOARD

IN RE: Appeal of Timothy Dolan  
Appeal No. 20-01

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Additional Documents Submitted by Essex County	185

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VIRGINIA:

BEFORE THE  
STATE BUILDING CODE TECHNICAL REVIEW BOARD

IN RE: Appeal of Timothy Dolan  
Appeal No. 20-01

REVIEW BOARD STAFF DOCUMENT

Suggested Statement of Case History and Pertinent Facts

1. On April 10, 2020, Timothy Dolan, of Riverstone Development LLC (Dolan), filed an appeal to the Essex County Local Board of Building Code Appeals (local appeals board), for lack of action by the County Building Official (County), related to his application for permit for his 15.3 acre property located on Hobbs Hole Drive, in the town of Tappahannock. Dolan proposed to construct approximately 153 units, in multiples of 16-unit two story buildings, using the exception in VCC Section 903.2.8.

2. On May 12, 2020, Timothy Dolan (Dolan) further appealed to the Review Board.

3. On May 19, 2020, after review of Dolan's application for appeal, Review Board staff contacted all parties seeking clarification on whether a local board of appeals hearing had occurred while also providing guidance on the ability of the County to convene electronically without a physical quorum present pursuant to the budget bill, further clarified in the Attorneys General's opinion. After several conversations and the May 19, 2020 email communication with the parties, a local appeals board hearing was scheduled for June 3, 2020. Due to insufficient notice the local appeals board hearing was rescheduled for June 17, 2020.

4. Dolan further appealed to the Review Board, after receiving the decision of the local appeals board, on July 13, 2020.

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5. Due to the nature of this appeal and the assertion of inaction by the County.

Review Board staff created a timeline of events based on the submitted documents by all parties.

- December 2019 – Essex Building Official and Robert Himmel agreed that VCC Section 903.2.8 applied to the proposed project (Page 12 of the Draft Record)
- January 3, 2020 – Town of Tappahannock acknowledges that the municipal system cannot meet the sprinkler pressure or volume requirements for the proposed project; therefore, would require a tank and booster pump (Page 14 of the Draft Record)
- January 9, 2020 – First request for the Building Official to apply the exception of VCC Section 903.2.8 eliminating the requirement to install an automatic sprinkler system (Page 15 of the Draft Record)
- January 13, 2020 – Second request for the Building Official to apply the exception of VCC Section 903.2.8 eliminating the requirement to install an automatic sprinkler system (Page 65 of the Draft Record)
- January 13, 2020 – Essex County Building Official opined that he thought the buildings would be better served by an automatic sprinkler system and recommended a study by an engineer who practices the design of these systems on a regular basis to determine if a sprinkler system would work for the proposed project (Page 16 of the Draft Record)
- February 9, 2020 – J. L. Howeth P.C., engineer for the Dolans, provided calculations and design that the proposed project met the exception requirement of VCC Section 903.2.8 (Page 27 of the Draft Record)
- February 13, 2020 – Town of Tappahannock confirmed that the municipal system could not guarantee water for the sprinkler system for the proposed project (Page 28 of the Draft Record)
- February 27, 2020 – Essex County provided evidence that the municipal system was adequate and that the necessary pressure and flow existed via Hydrant Flow Test performed by eTec Fire Protection (Pages 29-31 and 104-105 of the Draft Record)
- March 4, 2020 – Essex County Administrator instructs Dolan to submit plans that include a sprinkler system design consistent with NFPA 13R (Page 103 of the Draft Record)
- March 5, 2020 – Dolan challenges the findings of the Hydrant Flow Test performed by eTec Fire Protection (Page 67-69 of the Draft Record)
- March 8, 2020 – Dolan submitted a permit application (Page 139-142 of the Draft Record)
- April 10, 2020 – Dolan filed an application for appeal to the Essex County Local Board of Building Code Appeals
- May 12, 2020 – Dolan filed an appeal application to the State Building Code Technical Review Board (Page 5 of the Draft Record)
- June 12, 2020 – Permit application denied (Page 76 of the Draft Record)

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June 17, 2020 - Essex County Local Board of Building Code Appeals hearing date (Page 75 of the Draft Record)

June 30, 2020 - Written decision of the Essex County Local Board of Building Code Appeals was signed and dated (Page 4 of the Draft Record)

July 13, 2020 – Dolan filed a second application for appeal to the Essex County Local Board of Building Code Appeals; this time with the needed written decision of the Essex County Local Board of Building Code Appeals

6. This staff document along with a copy of all documents submitted will be sent to the parties and opportunity given for the submittal of additions, corrections or objections to the staff document, and the submittal of additional documents or written arguments to be included in the information distributed to the Review Board members for the appeal hearing before the Review Board.

Suggested Issue for Resolution by the Review Board

1. Whether to uphold the decision of the local appeals board, that there was no decision made to appeal, based on the lack of a decision by the County Building Official on the applicability of VCC Section 903.2.8 (Group R).

If the Review Board overturns, the local appeals board then:

2. Whether adequate water, pressure, and/or flow is available at the proposed site.
3. Whether the exception of VCC Section 903.2.8 (Group R) applies to the project proposed by Timothy Dolan.

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# Basic Documents

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# Plan Review and Building Permit Application

DEPARTMENT OF BUILDING & ZONING

202 S Church Lane

P O Box 1079

Tappahannock, VA 22560

(804) 443-4951

(804) 445-8023 fax

PERMIT NUMBER: \_\_\_\_\_

Location of Building

Address: Hobbs Hole Drive Zoning District R-4

or  
Between US Route 17/360 and White Oak streets

Subdivision \_\_\_\_\_ Lot \_\_\_\_\_ Block \_\_\_\_\_ Lot Size (sq. ft. and acre) 1.3

Owner of Lot:

Name: Riverstone Development LLC

Address: 11500 Bridgetender Dr City Henrico State VA Zip 23233

Phone Number: 804-517-6200 E-mail Address: dolanproperties@verizon.net

### 1. Type of Request - Check all/any that apply.

New Building

Commercial  Residential (see part 2)  Industrial  Other- Specify: multi-family

Addition to Existing Building or:

Alteration  Repair/Replacement  Demolition  Foundation only  Moving/Relocating

### 2. Residential

Single-family  Detached Single-family attached  Two or more family (number of units) 153 <sup>144</sup>

### 3. Accessory Building

Garage  Shed  Pole Barn  Carport Deck  Other-Specify: 9 typical Buildings  
144 units each.

### 4. Non-residential

Amusement/recreational  Church  Parking garage  Service Station  Hospital/Institutional

Office  Public Utility  School/Library  Mercantile Stores  Tanks/Towers/Co-Location

Other Specify \_\_\_\_\_

Describe in detail the proposed nonresidential use of buildings and land area (i.e. food processing plant, machine shop, laundry, elementary school, secondary school, college, parochial school, parking garage, department store, rental office building, office building, building at industrial plant, change of use) \_\_\_\_\_

apartment buildings

- Per 144 units

Phone conversation w/ Ms. Dolan

*total 9 Buildings with 144 units*

Effective 9-14-2018

3/18/2020 e

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2:50pm

5. Type of Ownership:

Private (individual, corporation, nonprofit)  Public (Federal, State, or local government)

6. Cost

Cost of Improvement \$ 950,000 (per building) 9 Buildings total  
To be installed but not included in the above cost

Electrical \$ 55,000 Plumbing \$ 70,000 Heating/AC \$ 85,000

Other (i.e. elevator, etc.) \$ \_\_\_\_\_

Selected Building Characteristics - For new buildings complete parts 1 through 9; for demolition complete part 6 only:

1. Framing

Masonry  Wood Frame  Structural Steel  Reinforced Steel  Other-specify: \_\_\_\_\_

2. Heating Fuel:

Gas  Oil  Electric  Coal  Wood  Heat Pump  Other-specify: \_\_\_\_\_

3. Sewage Disposal

Public  Private Septic

4. Water Supply

Public or private company  Private Well

5. Mechanical

Will there be central air conditioning?  Yes  No  
Will there be an elevator?  Yes  No

6. Dimensions:

Number of stories 2  
Total square feet of all floor areas based on exterior dimensions 20,010 - Per Building & includes breezways  
Total square feet of lot 1.6 total acre(s) of land 15.3 acres  
Per Connection w/ MS. Dolan 3/16/200 @ 2:50pm

7. Number of off-street parking spaces

Enclosed \_\_\_\_\_  
Outdoors 32 / 306 - total  
Per Building  
Residential Buildings only

8. Number of bedrooms: \_\_\_\_\_

9. Number of bathrooms: \_\_\_\_\_  
 Full \_\_\_\_\_  Half \_\_\_\_\_

Contact Information and Certifications - This section must be completed by the applicant/contractor and certified design professional (CDP) as applicable:

Applicant/Agent:

Name: Brenda S. Dolan, Member, Manager  
Address: 11500 Bridge tender Dr City Henrico State VA Zip 23233  
Phone Number: 804-517-6200 E-mail Address: dolanproperties@verizon.net  
Signature of Applicant: Brenda S. Dolan Date: 3/8/2020

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her agent and we agree to conform to all applicable laws of Essex County and the Commonwealth of Virginia. I further authorize agents of Essex County or any other government agency(s), if needed, to enter and inspect the project to ensure all work is in accordance with the regulations and laws of Essex County and the Commonwealth of Virginia.

Contractor/Agent:

Name: Dolan Rental Properties LLC  
Address: 11500 Bridge tender Dr City Henrico State VA Zip 23233  
Phone Number: 804-517-6200 E-mail Address: dolanproperties@verizon.net  
Professional License Number(s) 2705 11503 4A  
Signature of Contractor: Brenda S. Dolan Date: \_\_\_\_\_

I hereby certify that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her agent and we agree to conform to all applicable laws of Essex County and the Commonwealth of Virginia. I further authorize agents of Essex County or any other government agency(s), if needed, to enter and inspect the project to ensure all work is in accordance with the regulations and laws of Essex County and the Commonwealth of Virginia. I further certify that my professional license is up to date in accordance with the Commonwealth of Virginia.

Architect/Engineer/Certified Design Professional

Name: Robert Himmel  
Address: 3800 Stillman Pkwy, Suite 203 City Henrico State VA Zip 23233  
Phone Number: (804) 249-4717 E-mail Address: R.Himmel@HimmelHume.com  
Professional License Number(s) 011517  
Signature of CDP: [Signature] Date: 3/17/20

I hereby certify that the proposed work is authorized by the owner of record and/or their agent that I have been authorized by the owner to prepare the plans and specifications in accordance with the requirements of Essex County and the most recent edition of Uniform Statewide Building Code.

Do not write on following page(s)

Plan Review/Record							
Type	Check	Plan Review Fee	Date Plans Stamped	By	Date Plans Approved	By	Notes
Building							
Plumbing							
Mechanical							
Electrical							
Other							

Validation			
Building Permit Number	For Department Use Only		
Building Permit Issued		Use Group	
Building Permit Fee	\$	Fine Grading	
Certificate of Occupancy	\$	Live Loading	
Drain Tile	\$	Occupancy Load	
Plan Review Fee	\$		

Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

• Per VCC 110.6 IF work is suspended  
or abandon for a period of more than  
12 months the permit maybe revoked.  
Riverstone Development LLC  
Brenda S. Nolan, Member, Manager  
5/7/2020

# **TIMOTHY J. DOLAN**

**P.O. Box 3777  
Glen Allen, VA 23058-3777  
804-441-4322**

**April 10, 2020**

**TO ALL MEMBERS OF THE ESSEX COUNTY  
LOCAL BOARD OF BUILDING CODE APPEALS  
VIA EMAIL AND FIRST-CLASS MAIL**

## **NOTICE OF APPEAL**

**Please accept this letter as my Notice of Appeal pursuant to Virginia Construction Code section 119.5. The basis of the appeal is explained below.**

### **NAME AND ADDRESS OF OWNER:**

**Riverstone Development LLC  
11500 Bridgetender Drive  
Henrico, VA 23233**

### **LOCATION OF PROPERTY:**

**15.3 acres located on Hobbs Hole Drive  
Tappahannock, VA 22560**

### **NAME AND ADDRESS OF PERSON APPEALING:**

**Timothy J. Dolan  
11500 Bridgetender Drive  
Henrico, VA 23233**

### **LOCAL BUILDING OFFICIAL DECISION:**

**Since January 13, 2020, I have requested a decision from Alwyn W. Davis, Jr., Essex County Local Building Official, confirming that the proposed construction of approximately 153 units (maximum allowed by the zoning) in multiples of 16-unit two story buildings complies with the Exceptions contained in Virginia Construction Code 903.2.8. Most recently, Mr. Davis was advised that a decision was needed on or before April 8, 2020. No decision has been received. The Virginia State Technical Review Board has advised me that this "inaction is an action" and is appealable.**

As required by Virginia Construction Code section 119.6, please schedule a meeting within 30 days to address this appeal. Given the current status related to COVID-19, I understand this meeting may need to be conducted electronically. The Virginia State Technical Review Board has advised me that appeals under section 119.5 and 119.6 must proceed despite COVID-19 concerns.

Thank you for your consideration.

Very Truly Yours,



Timothy J. Dolan

5-11-20

ESSLEY County HAS convened other non-essential meetings with constituents and customers, but will not convene a meeting for this appeal.



Timothy J. Dolan

**Resolution**  
**of the Essex County Local Board of Building Code Appeals**

WHEREAS, the Essex County Local Board of Building Code Appeals ("LBBCA") is duly appointed to resolve disputes arising out of enforcement of the Virginia Uniform Statewide Building Code; and

WHEREAS, an appeal has been filed and brought to the attention of the LBBCA; and

WHEREAS, a hearing has been held to consider the aforementioned appeal; and

WHEREAS, the LBBCA has fully deliberated this matter; now, therefore, be it

RESOLVED, That in the matter of

Appeal No.: 2020-01

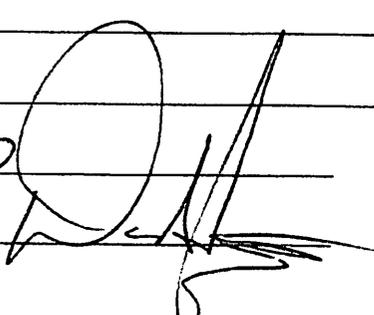
Applicant: Timothy J. Dolan

IN RE: Appeal of absence of decision by County Building Department on applicability of Virginia Construction Code 903.2.8

The matter brought up on appeal is hereby dismissed, for the reasons stated on the record and as further set out below:

There was no decision made to appeal.

Date: 6/30/20

Signature: 

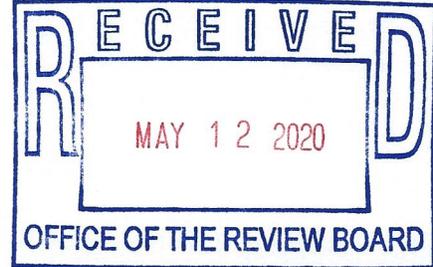
Note: Any person who was a party to the appeal may appeal the LBBCA's decision to the State Building Code Technical Review Board by submitting an application to such board within 21 calendar days upon receipt by certified mail of this resolution. Application forms are available from the Office of the State Review Board, 600 East Main Street, Richmond, VA 23219, (804) 371-7150, <http://www.dhcd.virginia.gov/index.php/va-building-codes/building-and-fire-codes/appeals.html>.

**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
State Building Codes Office and Office of the State Technical Review Board  
Main Street Centre, 600 E. Main Street, Suite 300, Richmond, Virginia 23219  
Tel: (804) 371-7150, Fax: (804) 371-7092, Email: sbco@dhcd.virginia.gov**

APPLICATION FOR ADMINISTRATIVE APPEAL

Regulation Serving as Basis of Appeal (check one):

- Uniform Statewide Building Code
  - Virginia Construction Code
  - Virginia Existing Building Code
  - Virginia Maintenance Code
- Statewide Fire Prevention Code
- Industrialized Building Safety Regulations
- Amusement Device Regulations



Appealing Party Information (name, address, telephone number and email address):

TIMOTHY J. DOLAN  
11500 BRIDGETENDER DRIVE  
RICHMOND, VA 23233  
804-441-4322  
dolansproperties@verizon.net

Opposing Party Information (name, address, telephone number and email address of all other parties):

ALWYN W. DAVIS JR, ESSEX COUNTY BUILDING OFFICER  
202 S. CHURCH LANE  
TAPPAHANNOCK VA 22560  
804-443-4951  
AWDAVIS@essex-virginia.org

Additional Information (to be submitted with this application)

- Copy of enforcement decision being appealed
- Copy of the decision of local government appeals board (if applicable)
- Statement of specific relief sought **SEE ATTACHED**

CERTIFICATE OF SERVICE

I hereby certify that on the 11 day of May, 2020 a completed copy of this application, including the additional information required above, was either mailed, hand delivered, emailed or sent by facsimile to the Office of the State Technical Review Board and to all opposing parties listed.

**Note:** This application must be received by the Office of the State Technical Review Board within five (5) working days of the date on the above certificate of service for that date to be considered as the filing date of the appeal. If not received within five (5) working days, the date this application is actually received by the Office of the Review Board will be considered to be the filing date.

Signature of Applicant: \_\_\_\_\_

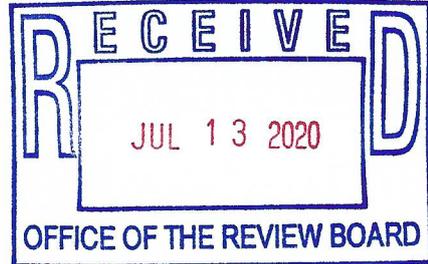
Name of Applicant: Timothy J. Dolan  
(please print or type)

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
State Building Codes Office and Office of the State Technical Review Board  
Main Street Centre, 600 E. Main Street, Suite 300, Richmond, Virginia 23219  
Tel: (804) 371-7150, Fax: (804) 371-7092, Email: sbco@dhcd.virginia.gov

APPLICATION FOR ADMINISTRATIVE APPEAL

Regulation Serving as Basis of Appeal (check one):

- Uniform Statewide Building Code
  - Virginia Construction Code
  - Virginia Existing Building Code
  - Virginia Maintenance Code
- Statewide Fire Prevention Code
- Industrialized Building Safety Regulations
- Amusement Device Regulations



Appealing Party Information (name, address, telephone number and email address):

TIMOTHY J. DOLAN  
11500 BRIDGETENDER DR  
RICHMOND, VA 23233

dolanproperties@verizon.net  
804-441-4322

Opposing Party Information (name, address, telephone number and email address of all other parties):

ALWYN W. DAVIS, JR. ESSEX COUNTY BUILDING OFFICIAL  
202 S. CHURCH LANE  
TAPPAHANNOCK, VA 22560  
awdavis@essex-virginia.org  
804-443-4951

Additional Information (to be submitted with this application)

- Copy of enforcement decision being appealed NA
- Copy of the decision of local government appeals board (if applicable)
- Statement of specific relief sought

CERTIFICATE OF SERVICE

I hereby certify that on the 13 day of JULY, 2020 a completed copy of this application, including the additional information required above, was either mailed, hand delivered, emailed or sent by facsimile to the Office of the State Technical Review Board and to all opposing parties listed.

**Note:** This application must be received by the Office of the State Technical Review Board within five (5) working days of the date on the above certificate of service for that date to be considered as the filing date of the appeal. If not received within five (5) working days, the date this application is actually received by the Office of the Review Board will be considered to be the filing date.

Signature of Applicant: \_\_\_\_\_

Name of Applicant: \_\_\_\_\_

Timothy J. Dolan  
(please print or type)

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

REVISED STATEMENT OF SPECIFIC RELIEF SOUGHT  
APPEAL NUMBER 20-01  
JULY 13, 2020

The Appellants seek the following specific relief:

1. That the State Technical Review Board find that the actions of the Essex County Building Official in not making a decision for over six months, after repeated requests, whether or not the exception contained in Virginia Construction Code section 903.2.8 applies in our case, is in fact a decision that is appealable.
2. That the State Technical Review Board find that the decision of the Essex County Building Official referred to in number 1 above is modifiable as provided for in Virginia Construction Code section 119.7.
3. That the State Technical Review Board modify the decision of the Essex County Review Board, or otherwise find, that the exception contained in section 903.2.8 applies and should be utilized in our case.
4. That the State Technical Review Board, in the event the Essex County Building Official purports to make any additional decisions related to the exception contained in 903.2.8, (i.e., that the exception does not apply and sprinklers are required), find that in the interest of economy and efficiency this appeal will continue and be decided since the issues remain exactly the same.

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# Documents Submitted By Timothy Dolan

(Page left blank intentionally)

**From:** Michael Lombardo <mlombardo@essex-virginia.org>

**To:** dolanproperties@verizon.net <dolanproperties@verizon.net>; April Rounds <arounds@essex-virginia.org>

**Cc:** Matt Farmer <mfarmer@essex-virginia.org>; McRoberts, Andrew R. <amcroberts@sandsanderson.com>

**Subject:** RE: Notice of Appeal-Time Sensitive

**Date:** Mon, Apr 20, 2020 11:11 am

**Attachments:** Riverstone Development\_Response to Appeal Request.pdf (44K)

---

Mr. Dolan,

Attached response to your Notice of Appeal.

--Michael

Michael A. Lombardo

Essex County Administrator

202 S. Church Lane

P.O. Box 1079

Tappahannock, VA 22560

(Office) 804-443-4311

**From:** dolanproperties@verizon.net <dolanproperties@verizon.net.evaniuylxkxzuzi.mesvr.com>

**Sent:** Friday, April 10, 2020 12:19 PM

**To:** Michael Lombardo <mlombardo@essex-virginia.org>; April Rounds <arounds@essex-virginia.org>

**Subject:** Notice of Appeal-Time Sensitive

Mr. Lombardo:

Attached find a Notice of Appeal to the Essex County Local Board of Building Code Appeals. The Code of Virginia requires the Notice of Appeal to be sent directly to the LBBCA, but your website does not provide contact information for the members. Please distribute this Notice to each member of the Board. If you prefer that I distribute it, please provide me with the contact information for each member of the Board.

Regards, Tim Dolan



## Essex County, Virginia

202 South Church Lane  
Post Office Box 1079  
Tappahannock, Virginia 22560

Established 1692

VIA EMAIL

April 20, 2020

Riverstone Development LLC

Dear Mr. and Ms. Dolan,

On April 10, 2020 you contacted me requesting an appeal of your application for a building permit for 153 apartments at Hobbs Hole Drive (the "Application") before the Local Board of Building Code Appeals ("LBBCA"). I will forward your request to the LBBCA. However, due to the ongoing state of emergency declared by the Commonwealth and the County of Essex ("County"), and the County's continuity of government ordinance, the LBBCA is not required to schedule an appeal hearing within thirty days of your request. Further, I believe that your request to the LBBCA is premature and your application is incomplete. As a result, the County will oppose it on that ground.

The LBBCA is not required to hold a hearing on your request within thirty days of April 10. As you are aware, the Commonwealth and County are operating under a state of emergency due to the COVID-19 pandemic. On April 6, 2020 the County adopted an ordinance which continued all meetings, including such meetings requiring affirmative action by law. Under the County's ordinance, the LBBCA is only required to hear matters which it deems "essential" or "appropriate for the continuity of the work of the public body." Further, the deadline imposed by the Virginia Uniform Statewide Building Code has been suspended by the County's ordinance. Therefore, despite your assertion to the contrary, the LBBCA is not required to meet within thirty days of your request. I will, however, forward your request to the LBBCA and assist in organizing a meeting to hear your request as the circumstances permit.

You argue that the building official's inaction constitutes action which makes your appeal timely. This is incorrect. You submitted the Application on March 18, 2020. On March 26, Alwyn Davis formally requested additional information from you regarding the Application. Despite stating that you required an answer by April 8, you did not provide the County with the additional information we requested until April 9, 2020. You subsequently filed your appeal on April 10. One day after receipt of requested information does not constitute "inaction," especially in light of the COVID-19 emergency and the continuity of government ordinance. Moreover, the term used in the code is "refusal," not "inaction." These facts certainly do not show "refusal."

The building official will be reviewing the additional information that you provided to the County and will issue a decision on the Application in a timely manner. Please do not hesitate to contact me if you have further questions.

Sincerely,

Michael Lombardo  
Essex County Administrator

### 903.2.8 Group R

An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area, except for Group R-2 occupancies listed in the exceptions to this section when the necessary water pressure or volume, or both, for the system is not available:

#### Exceptions:

1. Group R-2 occupancies that do not exceed two stories, including basements that are not considered as a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.
2. Group R-2 occupancies where all dwelling units are not more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a two-hour fire barrier is provided between each pair of dwelling units. Each bedroom of a dormitory or boarding house shall be considered a dwelling unit under this exception.

Sincerely,

Bob Himmel

---

**From:** Robert Himmel

**Sent:** Wednesday, December 11, 2019 12:07 PM

**To:** [awdavis@essex-virginia.org](mailto:awdavis@essex-virginia.org)

**Cc:** dolanproperties <[dolanproperties@verizon.net](mailto:dolanproperties@verizon.net)>; Jeff Hume <[jhume@himmelhume.com](mailto:jhume@himmelhume.com)>

**Subject:** Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

Good morning Wynn,

This is a follow up to our conversation yesterday regarding the water pressure and sprinklering of the 16 unit apartment building for Dolan Properties. Per our conversation we both agreed that Section 903.2.8 applies if we can prove the water pressure or volume or both are not available. As a follow up to this you were going to reach out to Jim Sydnor to get the water pressure/ volume readings for this area. Please let me know if you have any other thoughts etc. or if you find anything out.

Thanks!

Bob

Robert Himmel, AIA

HIMMELHUME  
ARCHITECTURE

O: 804.249.4717

C: 804.874.0924

[rhimmel@himmelhume.com](mailto:rhimmel@himmelhume.com)

**FW: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA**

dolanproperties &lt;dolanproperties@verizon.net&gt;

Thu 1/16/2020 9:31 PM

To: Jeffrey Howeth &lt;jlhoweth@msn.com&gt;

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Robert Himmel &lt;rhimmel@himmelhume.com&gt;

Date: 12/21/19 12:31 PM (GMT-05:00)

To: dolanproperties &lt;dolanproperties@verizon.net&gt;

Subject: FW: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

Brenda, I followed up with Wynn per our conversation and he said that the county does have the water pressure and volume to sprinkler the building. I know this is bad news for the budget. Is it a deal killer?

Thanks.

Bob

**From:** Robert Himmel**Sent:** Friday, December 20, 2019 3:20 PM**To:** awdavis@essex-virginia.org**Cc:** dolanproperties <dolanproperties@verizon.net>; Jeff Hume <jhume@himmelhume.com>**Subject:** RE: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

Good afternoon Wynn,

Attached please find a 30% Design Development set for your review. Please let me know if you have any questions, comments or there is anything that you would like us to pay particular attention too. Thanks and have a Merry Christmas!

## RE: Fire Flow Calculations

Jimmy Sydnor &lt;tappzone@tappahannock-va.gov&gt;

Fri 1/3/2020 4:15 PM

To: 'Jeffrey Howeth' &lt;jlhoweth@msn.com&gt;

That is correct !

---

**From:** Jeffrey Howeth [mailto:jlhoweth@msn.com]**Sent:** Friday, January 03, 2020 4:06 PM**To:** tappzone@tappahannock-va.gov**Cc:** dolanproperties**Subject:** Re: Fire Flow Calculations

OK, Thanks. Based upon the Hampton Inn fire flow test, the static pressure was 50 psi, so the Town system cannot meet the sprinkler pressure requirements by itself. Also, two hours of fire flow at 800 gpm would require a tank capacity of approximately 100,000 gallons, which would mean that the Town's water system will not meet the volume capacity for an automatic sprinkler system without supplementary storage as well.

Jeffrey L. Howeth, P.E., L.S., C.F.M. President, J. L. Howeth, P.C. 1019 Elm Street P. O. Box 1684  
Tappahannock, Virginia 22560 804-443-6367 (Office) 804-241-4160 (Cell)

---

**From:** Jimmy Sydnor <tappzone@tappahannock-va.gov>**Sent:** Friday, January 3, 2020 3:48 PM**To:** 'Jeffrey Howeth' <jlhoweth@msn.com>**Subject:** RE: Fire Flow Calculations

Jeff

This would require a booster pump and a tank rated for two hours of flow.

---

**From:** Jeffrey Howeth [mailto:jlhoweth@msn.com]**Sent:** Friday, January 03, 2020 3:17 PM**To:** dolanproperties; Jimmy Sydnor; Frank Sanders**Subject:** Fire Flow Calculations

Brenda, the attached file based upon the Insurance Services Organization (ISO) fire flow calculator indicates that the sprinkler allowance for a single building would be approximately 800 gpm. Also, sprinkler systems usually operate at approximately 70 to 80 psi due to their smaller pipe diameters.

By copy of this to the Tappahannock Town Manager, please verify that the Town's water supply would provide the following needed fire flows for your apartment project.

Thanks, Jeff

Jeffrey L. Howeth, P.E., L.S., C.F.M. President, J. L. Howeth, P.C. 1019 Elm Street P. O. Box 1684  
Tappahannock, Virginia 22560 804-443-6367 (Office) 804-241-4160 (Cell)

**J. L. Howeth P.C.**  
*Consulting Engineering and Land Surveying*  
ALL LOCATIONS BY APPOINTMENT ONLY

1019 Elm Street  
Tappahannock, Virginia 22560  
804-443-6367

9408 Kings Highway  
King George, Virginia 22485  
540-775-5585

2833 Copic Highway  
Montross, Virginia 22520  
804-493-9066 / 804-493-1333

January 9, 2020

Mr. Alwyn Davis, Building Official  
Essex County  
P. O. Box 1079  
Tappahannock, Virginia 22560

Dear Mr. Davis:

On behalf of Mrs. Brenda Dolan, we are requesting that you verify the necessity of an automated sprinkler system for the Riverstone Apartments to be located on Hobbs Hole Drive behind Walmart in the Town of Tappahannock, Virginia. Based upon Section 903.2.8 of the USBC, Group R-2 occupancies utilizing Type V construction may be exempt if the "necessary water pressure or volume, or both, for the system is not available." As evidenced by the attached chain of emails between Mr. Jimmy Sydnor, Town Manager of the Town of Tappahannock and me, the Town of Tappahannock can neither supply the necessary pressure or volume from the existing water distribution system. Therefore, since the above referenced section contains an exemption criteria, we are requesting written verification that if Mrs. Dolan constructs two story, above grade apartment buildings with a maximum of 16 dwelling units per fire area and a single door opening to an exterior exit access that leads directly to the exits required to serve the dwelling unit, she shall not be required to provide an automated sprinkler system for any of the proposed apartment buildings.

We thank you in advance for your prompt attention to this matter and remain available to provide further information as may be requested concerning this matter.

Very truly yours,



Jeffrey L. Howeth, P.E., L.S., C.F.M.  
President, J. L. Howeth, P.C.

cc: Mrs. Brenda Dolan, Contract Purchaser

## April Rounds

---

**From:** awdavis@essex-virginia.org  
**Sent:** Monday, January 13, 2020 11:37 AM  
**To:** tappzone@tappahannock-va.gov  
**Subject:** FW: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

---

**From:** Alwyn Davis  
**Sent:** Monday, January 13, 2020 11:31 AM  
**To:** 'Robert Himmel' <rhimmel@himmelhume.com>  
**Cc:** 'jlhoweth@msn.com' <jlhoweth@msn.com>; Wayne Verlander <wverlander@essex-virginia.org>  
**Subject:** RE: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

Good Morning Bob,

Please allow this email to serve as a follow up to our conversation last week regarding the Dolan properties apartment building in Tappahannock. Section 903.2.8 of the Virginia Construction Code clearly states that a sprinkler system is required in all R-2 occupancies except when the necessary water pressure or volume, or both, for the system is not available. I received information from J. L. Howeth P.C. from an (ISO) fire flow calculator that indicated that the flow required would exceed the volume/pressure that the Town of Tappahannock's water system would provide. I understand from Mr. Sydnor that the water pressure available is 52 PSI. The exceptions in the code would alleviate the developer from this requirement but I do feel that the apartments would be better served if they were served by a sprinkler system. I am recommending that a study be performed by an engineer who practices the design of these systems on a regular basis to determine if a sprinkler system would work at the proposed location. I believe that the volume and or pressure may be available or made available if properly designed. Please understand that I'm not discounting the information that Mr. Howeth has submitted, but I will need more information prior to making a decision. If the pressure/volume is not available, I will entertain using exception 1 in the aforementioned section of the VCC. Please feel free to contact me if you have questions or if I can be of further assistance.

Yours Truly,

Alwyn W. "Wyn" Davis Jr.  
Certified Building Official, Essex County, Virginia

---

**From:** Robert Himmel <rhimmel@himmelhume.com>  
**Sent:** Friday, December 20, 2019 3:20 PM  
**To:** Alwyn Davis <awdavis@essex-virginia.org>  
**Cc:** dolanproperties <dolanproperties@verizon.net>; Jeff Hume <jhume@himmelhume.com>  
**Subject:** RE: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

Good afternoon Wynn,

Attached please find a 30% Design Development set for your review. Please let me know if you have any questions, comments or there is anything that you would like us to pay particular attention too. Thanks and have a Merry Christmas!

Sincerely,

Bob Himmel

EXHIBIT 10

FW: Re: 50 percent plans

dolanproperties <dolanproperties@verizon.net>

Wed 1/29/2020 4:05 PM

To: Jeffrey Howeth <jlhoweth@msn.com>

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Sam Beach <sbeachrsc@comcast.net>

Date: 1/29/20 11:34 AM (GMT-05:00)

To: dolanproperties <dolanproperties@verizon.net>

Subject: Re: 50 percent plans

Brenda,

Please see the rough system demand and duration calculations below .  
These are based on NFPA 13R .  
Design Criteria -4 Head flow of the most demanding sprinkler heads .

Maximum sprinkler coverage area = 400 sqft  
Providing a density of .05 gpm. = 20 gpm per head x 4 heads = 80 gpm

Actual interior system demand = 80 gpm + 30% overage = 104. gpm total system demand .

( NFPA 13R )104 gpm x 30 min. duration = 3,120.00 gpm

104 gpm x 120 min. duration = 12,480.00 gpm

I hope this helps .

Thanks,

**Samuel G. Beach**

President

Richmond Sprinkler Corp.

ph.804-275-6800

Fax 804-275-0077

On January 21, 2020 at 10:47 AM dolanproperties <dolanproperties@verizon.net> wrote:

Attached are the plans we discussed. Thank you so much for your assistance. Brenda  
Dolan

**J. L. Howeth P.C.**  
*Consulting Engineering and Land Surveying*  
*ALL LOCATIONS BY APPOINTMENT ONLY*

1019 Elm Street  
Tappahannock, Virginia 22560  
804-443-6367

9408 Kings Highway  
King George, Virginia 22485  
540-775-5585

2833 Cople Highway  
Montross, Virginia 22520  
804-493-9066 / 804-493-1333

February 6, 2020

Mrs. Brenda Dolan  
Riverstone Apartments  
Tappahannock, Virginia 22560  
VIA EMAIL.

Dear Brenda:

Based upon the attached fire hydrant flow information for the existing fire hydrant located across from the Clubhouse on Hobbs Hole Drive which was independently tested on February 3, 2020 by J. L. Howeth, P.C. and the Town of Tappahannock (test results attached and video of test available upon request from Mr. Jimmy Sydnor, Town Manager), we have computed the required hydraulic analysis utilizing the Virginia Department of Health's Waterworks Regulations for the design criteria of the potable water mains for your Riverstone Apartment project. Based upon the existing hydrant flow of 875 gpm at a residual pressure of 20 psi and correcting for pressure by moving to the point of physical connection and flow by subtracting 125 gpm for the estimated flow of the undeveloped Hobbs Hole Subdivision lots, we can compute the calculated water main pressure of 22.4 psi at the intersection of White Oak Drive and Hobbs Hole Drive connection point. Extending the water mains northward along Hobbs Hole Drive to the proposed project entrance, we calculate the water main pressure to be 21.4 psi using an oversized 10" pipe to reduce friction. Further extending the water mains to the rear of the project, the calculated water main pressure would be 21 psi at the last fire hydrant in the project, also utilizing the oversized 10" pipe. Furthermore, based upon my conversations with the State Building Official's Office and the State Fire Marshal's Office, NFPA 13R requires an RPZ backflow preventer on the sprinkler line which creates a minimum pressure drop of between 5 and 10 psi at a previously calculated sprinkler flow rate of approximately 100 gpm. Since this value pushed the residual pressure to the building to less than 20 psi minimum pressure required by Virginia Department of Health Waterworks Regulations, it is evident that the existing Town of Tappahannock potable water system cannot supply either the pressure or volume as defined in VCC Section 903.2.8.

Furthermore, since Mr. Jimmy Sydnor, Town Manager for the Town of Tappahannock, who clearly is the "public health authority having jurisdiction" and whose "requirements ... shall be determined and followed" (NFPA 13R Section 9.4.1), has already stated in writing that he cannot provide either the pressure or volume as stated in the above referenced VCC code section,

Mrs. Brenda Dolan  
Riverstone Apartments  
February 6, 2020  
Page 2

I am again requesting confirmation from the Essex County Building Official that this project qualifies for the exemption stated in VCC Section 903.2.8. Clearly, no authority is given to the Building Official to digress from the requirements of the Virginia Department of Health Waterworks Regulations nor violate the Waterworks Certificate to Operate issued to the Town of Tappahannock by the Virginia Department of Health.

Please request from the Essex County Building Official a written response to our request for exemption specified in VCC Section 903.2.8. As always, we are available to provide information as may be required concerning this matter.

Sincerely,



Jeffrey L. Howeth, President, J. L. Howeth, P.C.  
Virginia Licensed Professional Engineer  
Virginia Licensed Land Surveyor  
Nationally Certified Floodplain Manager  
President, J. L. Howeth, P.C.



# J. L. Howeth, P.C.

Consulting Engineering and Land Surveying  
P. O. Box 1684 · 1019 Elm Street  
Tappahannock, Virginia 22560

Jeffrey L. Howeth, P.E., L.S., C.F.M.

Telephone (804) 443-6367  
Facsimile (804) 443-0227

FIRE HYDRANT FLOW TEST  
HOBB'S HOLE DRIVE AT CLUBHOUSE  
TOWN OF TAPPAHANNOCK, ESSEX COUNTY, VIRGINIA  
FEBRUARY 3, 2020

HYDRANT B FLOW -- GPM	HYDRANT A RESIDUAL PRESSURE -- PSI	HYDRANT B RESIDUAL PRESSURE -- PSI
0	48	48
692	38	32
834	30	22
854	29	21
875	28	20

Flow CALCULATED at 20 PSI

Date of hydrant test: February 3, 2020

Flow Hydrant Location: Hydrant B at Hobb's Hole Drive at Clubhouse

Static pressure reading at Hydrant A at Hobb's Hole Drive and Megan Street Intersection: 48 PSI

Residual pressure readings taken at Hydrant A at Hobb's Hole Drive and Megan Street Intersection

Flow Reading (using pitot gauge) taken at Hydrant B

Water Main Diameter (in inches): 8

Fire Hydrant Outlet Size-2.5" Hydrant Connection

Outlet Type - Smooth, Rounded

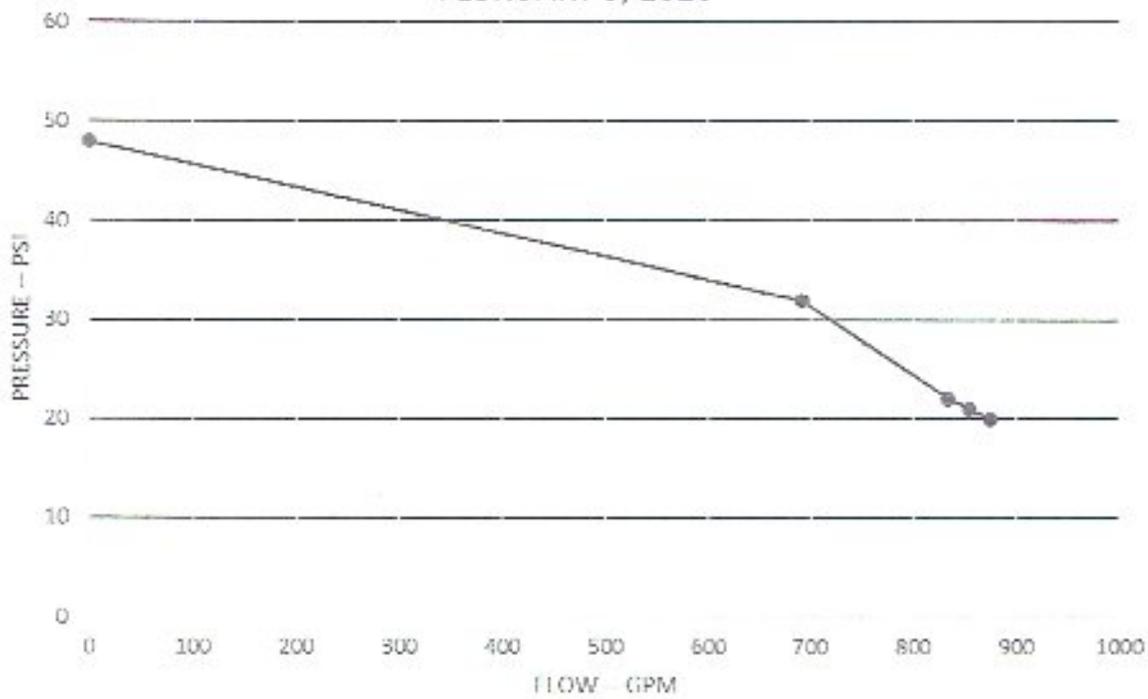
Coefficient of Discharge - 0.9

Hydrant A Residual pressures corrected to Hydrant B for friction only -  
(No elevation change based upon relatively flat topography)



FIRE HYDRANT FLOW TEST  
HOBB'S HOLE DRIVE AT CLUBHOUSE  
FEBRUARY 3, 2020  
PAGE TWO OF TWO

FIRE HYDRANT FLOW TEST  
HOBB'S HOLE DRIVE AT CLUBHOUSE  
TOWN OF TAPPAHANNOCK, ESSEX COUNTY, VIRGINIA  
FEBRUARY 3, 2020





HYDRAULIC ANALYSIS - VDH FORMAT (C=125)  
 RIVERSTONE APARTMENTS  
 TOWN OF TRAPPANNOCK

SUBTRACTING 125 GPM FOR UNDEVELOPED LOTS AND  
 BASED UPON EXISTING HYDRANT  
 PRESSURE AND FLOW FROM HYDRANT FLOW TEST  
 CONDUCTED FEBRUARY 3, 2009 LIKE HYDRANT AT  
 HOERS HOUE CLOTHOUSE FLOWS 750 GPM @  
 RESIDUAL PRESSURE OF 28 PSI

A) EXISTING HYDRANT TO INTX WHITE OAK  
 DRIVE AND HOERS HOUE DRIVE (1750 GPM)

$$28 \text{ PSI} - \frac{(1025 \text{ LF } 8" \text{ PK}) \left( \frac{1.07 \text{ FT}}{100 \text{ FT}} \right)}{2.31} = 22.4 \text{ PSI}$$

B) INTX WHITE OAK & HOERS HOUE TO PROJECT ENTRANCE  
 (562 GPM)

$$22.4 \text{ PSI} - \frac{(910 \text{ LF } 10" \text{ DI}) \left( \frac{0.24 \text{ FT}}{100 \text{ FT}} \right)}{2.31} = 21.4 \text{ PSI}$$

C) PROJECT ENTRANCE TO LAST HYDRANT  
 (456 GPM)

$$21.4 \text{ PSI} - \frac{(500 \text{ LF } 10" \text{ PK}) \left( \frac{0.16 \text{ FT}}{100 \text{ FT}} \right)}{2.31} = 21 \text{ PSI}$$

D) HYDRANT TO BUILDING THROUGH PIPE PER  
 CONVERSATION WITH STATE FIRE MARSHALL'S OFFICE  
 WOULD BE 5 PSI MIN LOSS WHICH REDUCES MAIN  
 PRESSURE BELOW 20 PSI WHICH WOULD BE REJECTED.

WHERE FLOW TO POINT A) IS

$$750 \text{ GPM} \rightarrow \left( \frac{52 \text{ GPM}}{\text{BUILDING}} \right) (9 \text{ APARTMENT BUILDINGS}) = 468 \text{ GPM}$$

- 250 GPM HYDRANT ALLOWANCE = 37 GPM SPRINKLER  
 (FOR VENT PIPES FOR HYDRANTS) < 105 GPM CALL  
 FOR 4 HEADS

AND

FLOW TO POINT B) IS

$$\left( \frac{52 \text{ GPM}}{\text{BUILDING}} \right) (6 \text{ APARTMENT BUILDINGS}) = 312 \text{ GPM}$$

+ NO SPRINKLER ALLOWANCE  
 AS VOLUME ABOVE COULD + 250 GPM HYDRANT = 562 GPM  
 NOT BE MET

AND FLOW TO POINT C) IS

$$\left( \frac{52 \text{ GPM}}{\text{BUILDING}} \right) (4 \text{ APARTMENT BUILDINGS}) = 208 \text{ GPM}$$

+ NO SPRINKLER ALLOWANCE + 250 GPM HYDRANT 458 GPM  
 AS VOLUME ABOVE  
 COULD NOT BE MET

**J. L. Howeth P.C.**  
*Consulting Engineering and Land Surveying*  
ALL LOCATIONS BY APPOINTMENT ONLY

1019 Elm Street  
Tappahannock, Virginia 22560  
804-443-6367

9408 Kings Highway  
King George, Virginia 22485  
540-775-5585

2833 Cople Highway  
Montross, Virginia 22520  
804-493-9066 / 804-493-1333

February 7, 2020

Mrs. Brenda Dolan  
Riverstone Apartments  
Tappahannock, Virginia 22560  
VIA EMAIL

Dear Mrs. Dolan:

At your request, I have performed a review of Section 903.2.8 of the Virginia Construction Code with emphasis on whether or not your project could meet the exception criteria contained in this section. It should be noted that this language is specific to the Virginia Construction Code and not the USBC, presumably to assist with the construction of affordable housing by allowing the equivalent life safety options of either an automated residential sprinkler system or the inclusion of additional firewalls in a limited occupancy low rise structure with proper egress paths. While it is possible through engineering and construction that an automated sprinkler system could be constructed using tanks, pumps and even wells to provide an independent water supply separate from the existing potable water system owned by the Town of Tappahannock, it appears that the intent of the regulation is not to have the owner expend substantial funds on an independently constructed sprinkler water system solely dedicated to fire protection if the project could be constructed meeting the exception criteria. Furthermore, Mr. Jimmy Sydnor, Town Manager of the Town of Tappahannock has publicly commented in writing that the Town cannot guarantee the water pressure or volume based upon hydraulic calculations previously submitted by our firm and that any requirement of an automatic sprinkler system shall be designed as an independent water sprinkler system with pumps and tanks as necessary, thereby obviously making "necessary water pressure and flow" unavailable.

Therefore, based upon the above facts and understanding, we can review the VCC code section line by line to verify the exception. In Paragraph 1, the code states that an automated sprinkler system installed in accordance with Section 903.3 is required throughout all buildings with a Group R fire area. The code section further states a provision for R-2 occupancies listed in the exceptions to this section when the necessary water pressure or volume, or both for the system is not available. Hydraulic calculations which have been prepared by a Professional Engineer licensed in the Commonwealth of Virginia have indicated that the pressure is not available to properly install an automated sprinkler system and these calculations have been verified by the Town of Tappahannock. It should also be noted that the Town of Tappahannock is the public health authority having jurisdiction and whose requirements shall be determined and followed in

Mrs. Brenda Dolan  
Riverstone Apartments  
February 7, 2020  
Page 2

accordance with Section 9.4.1 of NFPA 13R, which is the design guide referenced in writing by the Building Official. Therefore, based upon the two exceptions listed in this VCC code section, in order to comply with the exceptions, the Group R-2 occupancy buildings shall be designed and constructed utilizing the following criteria:

1. The building shall not exceed two stories, including basements that are not considered as a story above grade. Dwelling units shall not be more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit.
2. The building shall have a maximum of 16 dwelling units per fire area.
3. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.
4. A two hour fire barrier shall be provided between each pair of dwelling units.

Since your apartments are not classified as being a dormitory or boarding house, the final sentence of the code does not apply to this project.

In conclusion, based upon the calculations of the hydraulics engineer reviewing the potable water system and acknowledgement that the Town of Tappahannock has indicated in writing that the water pressure and volume are insufficient to construct an automatic sprinkler system connected directly to the Town of Tappahannock's potable water system, with the Town of Tappahannock being the "public health authority having jurisdiction" as required by the latest written guidance provided by the Essex County Building Official, I conclude that your Riverstone Apartment project complies with the exceptions of Section 903.2.8 Group R, providing that you design and construct the buildings with the above four criteria contained in this section of the code.

I remain available to provide further information as may be required concerning this matter.

Sincerely,



Jeffrey L. Howeth  
Virginia Licensed Professional Engineer  
Virginia Licensed Land Surveyor  
Nationally Certified Floodplain Manager  
President, J. L. Howeth, P.C.



**J. L. Howeth P.C.**  
*Consulting Engineering and Land Surveying*

1019 Elm Street  
Tappahannock, Virginia 22560  
804-443-6367

2833 Cople Highway  
Montross, Virginia 22520  
804-493-9066 / 804-493-1333

February 9, 2020

Mr. Michael Lombardo, County Administrator  
Essex County  
202 South Church Lane  
Tappahannock, Virginia 22560

Dear Mr. Lombardo:

Attached please find my Registered Design Professional's opinion of whether Dolan Properties' Riverstone Apartment buildings could meet the exception criteria contained in Section 903.2.8 of the Virginia Construction Code. Based upon our research and the facts contained in the attached documents, it appears that if the buildings are constructed in accordance with the design criteria set forth in the Code and repeated in the code opinion letter, they will meet the exception criteria and can be constructed as such. Acceptance of this conclusion therefore could be handled as an Issuance of Modification in accordance with Section 106.3 of the Virginia Construction Code and the attached supporting documentation could be accepted as the Substantiation of Modification as defined in Section 106.3.1. This would expedite the completion of design and construction documents which have been substantially delayed and improve the communications between the County, Town and Contract Purchaser.

We trust that the attached documentation is sufficient to validate that the exception for the Riverstone Apartment buildings. As always, we remain available to provide information as may be requested concerning this matter.

Very truly yours,



Jeffrey L. Howeth  
Virginia Licensed Professional Engineer  
Virginia Licensed Land Surveyor  
Nationally Certified Floodplain Manager  
President, J. L. Howeth, P.C.

# Town of Tappahannock

P.O. Box 266  
Tappahannock, VA 22560  
Phone (804) 443-3336  
Fax (804) 443-1051

*Town Manager*  
JAMES W. SYDNOR  
*Town Attorney*  
DIANE M. LANK  
*Town Treasurer*  
FAYE D. JOINSON  
*Town Clerk*  
PATSY K. SCATES  
*Chief of Police*  
JAMES G. ASHWORTH, JR.

*Mayor*  
ROY M. GLADDING  
*Town Council*  
TROY L. BALDERSON  
KENNETH A. GILLIS  
ANDREW T. HAMMOND  
MARCIA W. JENKINS  
ANITA J. LATANE  
R. TYLER LOWERY

February 13, 2020

Jeff Howeth  
PO Box 1684  
Tappahannock, VA 22560

REF: Riverstone Apartments

Dear Jeff Howeth:

According to Section 14.2 of the Tappahannock Town Code ALL building permits shall be obtained from the Essex County Building Official.

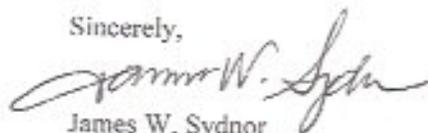
Although we are in favor of growth, we will not be caught up in any conflict between the parties and this letter is to advise ALL parties involved that the Town and its employees will remain neutral in the project known as Riverstone Apartments.

At this point of the project with the information that the Town of Tappahannock has been provided and for the safety of the citizens that would have a residence in the proposed units we would not be able to guarantee water for the sprinkler system. This is based on the overall build out of all the units on the entire site plan plus the remaining build out of Hobbs Hole subdivision, and keeping with a required twenty (20) PSI in our system under any conditions.

Once all the matters have been resolved involving the sprinkler system the Town will forward all water requirements (fire and domestic or any other) to our engineer for final review and approval.

Thank you.

Sincerely,



James W. Sydnor  
Town Manager

**FW: Hobbs Hole Dr. Flow Test Report**

dolanproperties &lt;dolanproperties@verizon.net&gt;

Tue 3/3/2020 3:34 PM

To: Jeffrey Howeth &lt;jlhoweth@msn.com&gt;

 1 attachments (475 KB)

Hobbs Hole Dr. Flow Test Report.pdf

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Michael Lombardo &lt;mlombardo@essex-virginia.org&gt;

Date: 3/3/20 3:18 PM (GMT-05:00)

To: dolanproperties &lt;dolanproperties@verizon.net&gt;

Cc: Matt Farmer &lt;mfarmer@essex-virginia.org&gt;, Robert Akers &lt;rakers@essex-virginia.org&gt;, John Magruder &lt;jmagruder@essex-virginia.org&gt;, jsydnor@tappahannock-va.gov, Alwyn Davis &lt;awdavis@essex-virginia.org&gt;

Subject: FW: Hobbs Hole Dr. Flow Test Report

Attached is a copy of the results of the hydrant flow test and determination from the independent engineer that sufficient water pressure and flow exists for a sprinkler system.

- Michael

Michael A. Lombardo

Essex County Administrator

202 S. Church Lane

P.O. Box 1079

Tappahannock, VA 22560

(Office) 804-443 4311

**From:** Joe Beck [<mailto:beck3jc@msn.com>]  
**Sent:** Monday, March 2, 2020 7:21 AM  
**To:** Cody Brock <[cbrock@etecfireprotection.com](mailto:cbrock@etecfireprotection.com)>; Matt Farmer <[mfarmer@essex.virginia.org](mailto:mfarmer@essex.virginia.org)>  
**Cc:** Pat Sigmon <[psigmon@etecfireprotection.com](mailto:psigmon@etecfireprotection.com)>; Sam Carter <[scarter@etecfireprotection.com](mailto:scarter@etecfireprotection.com)>  
**Subject:** Re: Hobbs Hole Dr. Flow Test Report

There is enough water pressure and flow to protect the proposed two-story apartment building with an NFPA 13R system. Unless Essex requires reduced pressure backflow preventers or a very large amount of safety factor design should not be an issue. There are so many variations of sprinkler type and layout that the exact figures cannot be provided until a full design is completed. Typically a four sprinkler residential design will only require 50-80 gpm and 25-30 psi with an additional 100 gpm needed for outside hose allowance.

*Joe Beck* P.E. - NC, SC, TN, VA

# eTEC Fire Protection

## Private Fire Service Mains Hydrant Flow Test Report

Name of Property: Hobbs Hole Dr.

Address: Hobbs Hole Dr. Tappahannock, VA

Tested by: Doug Self / Cody Brock

Date: 02/27/2020

Contract No.: N/A

Time: 12:30 pm

Weather conditions: 50 Degrees, Windy

Location of test: Hobbs Hole Dr. (Across from golf course club house)

Residual hydrant location: Hobbs Hole Dr. & Megan St.

Flow hydrant(s) location: Hobbs Hole Dr. (Across from golf course club house)

Static pressure (residual hydrant) 47 psi (bar)

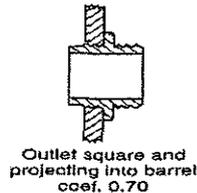
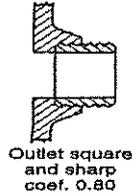
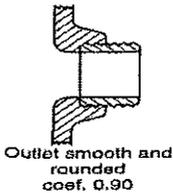
Residual pressure (residual hydrant) 30 psi (bar)

Nozzle size (flow hydrant) 2 1/2" in (mm)

Nozzle coefficient (flow hydrant) .90

Pitot pressure(s) 20 psi (bar)

Projected results: 750 gpm (lpm)



**Remarks:**

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## Re: Hobbs Hole Dr. Flow Test Report

Jeffrey Howeth <jlhoweth@msn.com>

Tue 3/3/2020 6:58 PM

To: dolanproperties <dolanproperties@verizon.net>; barkema@dagglaw.com <barkema@dagglaw.com>

Brenda, the following questions need to be asked of the Engineer:

1. Was the pressure/flow corrected to the point of connection ?
2. What distance did you use for the piping to the northeast building, which will be the first building to be constructed ?
3. Our VDH calculations clearly stated that a RPZ backflow preventer would be required for these sprinklers in accordance with the Town's Cross Connection Program monitored by VDH. Why was this omitted from the Engineer's analysis ?
4. The Town requires a large safety factor. Why was this omitted from the Engineer's analysis ?
5. It was clearly stated that the northeast building only had 32 gpm of available flow at 21 psi based upon the VDH calculations. How does the Engineer determine that there is enough pressure and flow for a sprinkler system ? Where are the Engineer's calculations regarding the potable water system hydraulics ? These calculations should be provided and sealed for review by all parties involved.
6. What values did the Engineer use for the domestic demand ? Were they computed from actual fixture counts or estimated ? Also, did the Engineer use the AWWA high or low flow rate curve for demand ?
7. What minimum flow rate did the Engineer use for the outside hydrant flow allowance. The NFPA 13R standard requires 100 gpm hose allowance while the VDH Waterworks Regulations requires 250 gpm for a hydrant to be installed at all.
8. Why wasn't the Professional Engineer present at the hydrant flow test ?
9. Why was a sprinkler company allowed to perform the hydrant flow test instead of a full service engineering firm with a Professional Engineer present during the test ? Also, is the Professional Engineer employed by the sprinkler company ? If not, did the Professional Engineer disclose his relationship in writing regarding the sprinkler company prior to Essex County contracting him to do the work ?
10. Was this analysis for one building or all nine buildings supported by the zoning of the property ?
11. Why was the Hydrant Flow Test Report performed for private fire service mains instead of public water mains ?

Does the Joe Beck email confirm that the Riverstone Apartments qualifies for the fire wall exception since my engineering calculations proved that the flow and pressure to the northeast building is less than the minimum stated by the County's Engineer ?

Jeffrey L. Howeth, P.E., L.S., C.F.M. President, J. L. Howeth, P.C. 1019 Elm Street P. O. Box 1684  
Tappahannock, Virginia 22560 804-443-6367 (Office) 804-241-4160 (Cell)

---

**From:** dolanproperties <dolanproperties@verizon.net>

**Sent:** Tuesday, March 3, 2020 3:33 PM

**To:** Jeffrey Howeth <jlhoweth@msn.com>

**Subject:** FW: Hobbs Hole Dr. Flow Test Report

## Wayne Verlander

---

**From:** Matt Farmer  
**Sent:** Friday, May 8, 2020 9:02 AM  
**To:** Wayne Verlander  
**Subject:** RE: Meeting with Engineer Firm  
**Attachments:** Questions for Flow Test.docx

Attached. It was questions sent in by Mr. Dolan.

---

**From:** Wayne Verlander  
**Sent:** Thursday, May 7, 2020 6:39 PM  
**To:** Matt Farmer <mfarmer@essex-virginia.org>  
**Subject:** Fwd: Meeting with Engineer Firm

Hello Matt - could you please send your original message that the engineer is responding to?  
Thanks,  
Wayne

Get [Outlook for iOS](#)

---

**From:** Alwyn Davis <awdavis@essex-virginia.org>  
**Sent:** Thursday, May 7, 2020 4:54 PM  
**To:** Wayne Verlander  
**Subject:** Fwd: Meeting with Engineer Firm

FYI.

Sent from my iPhone

Begin forwarded message:

**From:** Matt Farmer <mfarmer@essex-virginia.org>  
**Date:** May 7, 2020 at 4:23:19 PM EDT  
**To:** Heather Hostinsky <hhostinsky@essex-virginia.org>  
**Cc:** Alwyn Davis <awdavis@essex-virginia.org>, Wayne Verlander <wverlander@essex-virginia.org>  
**Subject:** RE: Meeting with Engineer Firm

I would suggest trying to call him. Below is the last email he sent, which has his name and contact information.

Mr. Farmer,

My current schedule will not allow me to continue any further with this project. Here are some basic answers to the questions you sent. I hope this helps with your project going forward.

1. The fire sprinkler design is not to a level where hydraulic calculations were run.

2. See answer to #1.
3. See answer to #1. Cross connection requirements are found at the county level. This building is considered a "low hazard" system in terms of the fire sprinkler system. Many jurisdictions including the City of Richmond and Chesterfield county would only require a standard double gate, double check type backflow preventer. State agencies defer to each county's cross connection dept.
4. There is no code mandated safety factor in sprinkler calculations. 5 psi is a typical figure.
5. See answer to #1.
6. Domestic demand is not included in fire sprinkler calculations unless the connection to the water supply is made on the building side of the water meter. This is rare except in cases of limited sprinkler systems and/or 13D type systems, neither of which you have.
7. See answer to #1.
8. Hydrant flow test do not require the presence of a PE.
9. Fire sprinkler companies are more than qualified to perform hydrant flow tests. As stated above, PE firms are not required to conduct a hydrant flow test. Such a company would probably be my last choice to conduct such a test.
10. No comment.
11. Hydrant flow tests should be conducted at a point closest to the connection point for a new fire sprinkler system. Whether those underground mains are public or private are not a factor.
12. The reference is incorrect. Maybe 13R, 9.3.1. A county water supply is typically categorized as reliable.

Good luck with your project.

**Joe Beck, P.E.** - NC, SC, TN, VA

804 590 0962 Office

804 691 3640 Cell

---

From: Heather Hostinsky

Sent: Thursday, May 7, 2020 3:50 PM

To: Matt Farmer <[mfarmer@essex-virginia.org](mailto:mfarmer@essex-virginia.org)>

Cc: Alwyn Davis <[awdavis@essex-virginia.org](mailto:awdavis@essex-virginia.org)>; Wayne Verlander <[wverlander@essex-virginia.org](mailto:wverlander@essex-virginia.org)>

Subject: Meeting with Engineer Firm

Matt,

Wyn and Wayne would like to know if there is any way that you could get a meeting set up for Thursday, May 14, 2020 at 10am with the engineer firm that did the flow testing? They would need the actual engineers on the call not the techs that actually did the field work due to having technical questions.

Thank you.

**Heather Hostinsky**

Building and Zoning Office Manager

Essex County

202 South Church Lane

P.O. Box 549

Tappahannock, VA 22560

804-443-3256



Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4323  
www.essex-virginia.org



Established 1692

March 26, 2020

Dear Ms. Dolan -

I have reviewed your application for a building permit for 153 apartment units and I need some clarification. Our permit fee schedule is based on square footage of construction being built and the application documents are not clear. The application indicates 153 housing units with 20,000 square feet per building. The architectural drawings submitted highlight 1 project apartment building. The engineered site plan indicates 5 apartment buildings. We need a clear understanding of the scope of work that you are planning to construct at this time. We need engineered drawings that cover the scope of work for the building permit application. If you have any questions, please let us know. Once we get clarification on the scope of the project, Heather will let you know the cost of the permit and we will begin reviewing the plans.

Thank you,

Alwyn Davis

**J. L. Howeth, P.C.**  
*Consulting Engineering and Land Surveying*  
P. O. Box 1684 · 1019 Elm Street  
Tappahannock, Virginia 22560

Jeffrey L. Howeth, P.E., L.S., C.F.M.

Telephone (804) 443-6367  
Facsimile (804) 443-0227

March 29, 2020

Mr. Alwyn Davis, Building Official  
Essex County  
202 South Church Lane  
P. O. Box 549  
Tappahannock, Virginia 22560

Dear Mr. Davis:

On behalf of Riverstone Development, LLC, we wish to clarify the scope of the Riverstone Project as you requested in your letter of March 26, 2020 to Mrs. Brenda Dolan. Based upon your observations of the submitted architectural plans, this one building will be constructed a maximum of nine times using the same floorplan over the duration of the project. This should have been obvious as the Final Site Plan for the current phase of the project depicted five buildings as you previously noted and the General Development Plan attached to and made a part of the Final Site Plan depicted the remaining four building and a number of villas which brought the total parcel density to 153 multi-family residential units. The requirement to clearly demonstrate the ultimate build-out of the project is contained in the Code of Virginia as well as almost all local ordinances, including the Town of Tappahannock's Ordinance, which is the ordinance governing the development of this project. Further examples of this overall development criteria are contained in the following regulations:

Virginia Waterworks Regulations – Section 12 VAC 5-590-200  
Virginia Sewage Collection and Treatment Regulations – Section 12 VAC 5-581-210  
Virginia Stormwater Management Regulations – Section 9 VAC 25-870-10  
Virginia Department of Transportation – Section 24 VAC 30-73

It should further be noted that the Town of Tappahannock's Zoning Ordinance Section 22-42 specifically addresses development in phases. Other sections of the Town Ordinance also address the requirements of final engineered plans versus design calculations specifically discussing capacities of public utilities such that once the first phase of a project is approved with a General Development Plan attached, all subsequent phases of the development are accounted for with respect to water and sanitary sewer capacity, stormwater management and VDOT commercial entrances, just as required in the above referenced state codes.

Mr. Afwyn Davis, Building Official  
Riverstone Development, LLC  
March 29, 2020  
Page 2

To even consider severing this project into its individual pieces to attempt to bolster your sprinkler position defies the intent of all of the above referenced regulations and the Town of Tappahannock's Zoning Ordinance. This observation alone, coupled with the exception contained in the Virginia Construction Code eliminating the sprinkler system entirely, clearly indicates that domestic flow is addressed first, hydrant flow is addressed second and any remaining flow can be assigned to a future sprinkler system (hence the NFPA 13R hose allowance, which can't possibly exist if there are no fire hydrants sufficient to provide the flow and which cannot even be installed based upon the Virginia Department of Health's Waterworks Regulations). Since I am the only Professional Engineer who has been willing to sign and seal my engineering conclusions to date regarding these matters, any conclusions recommended by the Engineer that the County chose to hire and pay for are currently unusable without validation and additional calculations and certainly appear to be a waste of taxpayer money.

I will be providing a set of Final Site Plans with the attached General Development Plan referenced above for your pickup and review. Please review the Erosion and Sediment Control portions of the plan set as the Virginia Department of Environmental Quality will require a written statement from you as to whether the plans are technically adequate and approved as you are also the Erosion and Sediment Control agent for the Town of Tappahannock.

I look forward to your written response for approval by April 8, 2020 of the submitted architectural plan with firewalls and no sprinkler system as allowed by the exception contained in Section 903.2.8 of the Virginia Construction Code based upon the criteria of the public health authority having jurisdiction and plan and calculation data presented to date.

Sincerely,



Jeffrey L. Howeth, P.E., L.S., C.F.M.  
President, J. L. Howeth, P.C.

## Building & Zoning

Matt Farmer, CZA  
Planning Director  
Zoning Administrator  
202 South Church Lane  
P.O. Box 1079  
Tappahannock, Virginia 22580  
(804) 443-4329  
www.essex-virginia.org



Established 1692

April 22, 2020

Timothy J. Dolan  
11500 Bridgetender Drive  
Henrico, VA. 23233

RE: Riverstone Apartment Plans

Dear Mr. Dolan,

This letter is to request additional information in order to complete the review and process your request for a building permit. The additional information needed includes the following:

- A permit application that clearly identifies the scope of work. The application must identify the number of buildings you plan to construct at this time
- A site plan that identifies the location of all proposed construction and associated utilities.
- An engineered set of plans for all buildings that are identified on the application. The current application is for 153 units and the architectural plans highlight one apartment building
- Your application, site plan and architectural (engineered) drawings must be consistent
- An approved zoning permit
- An approved stormwater pollution prevention plan (SWPPP)
- An approved land use entrance permit from the Virginia Department of Transportation
- A geotechnical evaluation on the soil for each buildings footing

Please contact this office if you have any questions.

Sincerely,

*Matt Farmer*

Matt Farmer  
Planning Director/  
Zoning Administrator

**J. L. Howeth, P.C.**  
*Consulting Engineering and Land Surveying*  
P. O. Box 1684 · 1019 Elm Street  
Tappahannock, Virginia 22560

Jeffrey L. Howeth, P.E., L.S., C.F.M.

Telephone (804) 443-6367  
Facsimile (804) 443-0227

April 22, 2020

Mr. Matt Farmer, Planning Director, Zoning Administrator  
Essex County  
202 South Church Lane  
P. O. Box 549  
Tappahannock, Virginia 22560

Dear Mr. Farmer:

On behalf of Riverstone Development, LLC, we wish to respond to your request for additional information contained in your letter to Timothy J. Dolan this date:

1. The building permit application clearly defines the scope of work applied for. However, it is my understanding that the Dolans intend to build all of the units under the same building permit. Specifically, this includes the nine (9) 16-unit apartment buildings. The nine (9) villa units are not being applied for at this time as no building plans were submitted for review.
2. Multiple copies of the Final Site Plan have been submitted to your office and the Building Official on several occasions. The most recent submission was acknowledged by the County Administrator to have been received on April 9, 2020. Although this submission was to obtain Erosion and Sediment Control approval as noted in its transmittal letter and previous correspondence, you are most certainly welcome to use it for building layout review. Please note that utilities are shown on the plan as well, but they are already under review by the Town of Tappahannock and the Virginia Department of Health.
3. The architectural plans submitted for the 16-unit apartment building were delivered to your office on March 18, 2020. Since the Final Site Plan indicated nine (9) identical buildings, we assumed that your office could determine that the one set of architectural plans would be used for each of the nine buildings as it is not customary for nine identical sets of plans to be submitted for one project. This response was previously stated to the Building Official in my March 29, 2020 response letter to him that requested the same information. I have attached a copy of that letter for your convenience and reference.

Mr. Matt Farmer, Planning Director, Zoning Administrator  
Riverstone Development, LLC  
April 22, 2020  
Page 2

4. Please explain how the application documents are not consistent, usual and customary for this type of submission.
5. We cannot obtain an approved zoning permit from the Town of Tappahannock as your Building Official and County Administrator continue to refuse to provide a decision on the firewall exception question posed on January 13, 2020, which continues to delay the approval of the building plans required by the Town of Tappahannock.
6. The SWPPP has been prepared for this project. However, we cannot obtain a stormwater permit from DEQ until such time as the County has approved the Erosion and Sediment Control Plan for this project.
7. Plans have been reviewed and commented on by the Virginia Department of Transportation. However, VDOT may not release their final approval until the Virginia Department of Environmental Quality has issued their approval since that approval is based upon a documented flooding condition of the public highway. And as described above, Riverstone Properties, LLC cannot receive DEQ approval until they have evidence of Erosion and Sediment Control approval from Essex County.
8. The geotechnical report for the entire project is attached to this response. It was prepared on September 27, 2019 in anticipation that this project would be under construction by March 5, 2020 which was immediately following the Dolan's closing on the property.

I trust that the enclosed information satisfactorily addresses your concerns of your letter dated April 22, 2020. As always, we remain available to provide further information as may be requested concerning this matter and continue to look forward to an amiable resolution of this almost five month long delay which is most certainly costing my clients time and money.

Sincerely,



Jeffrey L. Howeth, P.E., L.S., C.F.M.  
President, J. L. Howeth, P.C.

# Town of Tappahannock

**James Sydnor,**

*Town Manager*

**Diane Lank**

*Town Attorney*

**Faye D. Johnson**

*Town Treasurer*

**Patsy K. Scates**

*Town Clerk*

**James G. Ashworth Jr.**

*Chief of Police*

P.O. Box 266  
Tappahannock, VA 22560  
Phone (804) 443-3336  
Fax (804) 443-3337  
Email: [lsanders@taptown.com](mailto:lsanders@taptown.com)

*Mayor*

**Roy M. Gladding**

*Councilmen*

**Andrew T. Hammond**

**Marcia W. Jenkins**

**Anita J. Latane**

**R. Tyler Lowery**

**Kenneth Gillis**

**Troy L. Balderson**

April 30, 2020

Subject: RiverStone Project Site Plan Comments

Dear Jeff Howeth,

This office has reviewed the referenced plan in accordance with minimum standards set by the Tappahannock Zoning Ordinance and we have noted the following comments in the permitting process approval.

Zoning Permit approval with the following Agencies and Government Entities endorsements:

\*VDOT

\*DEQ

\*Essex County: Land Disturbance Permit, E & S and Architectural Plans approval.

\*Town of Tappahannock: Performance Bond, Storm Water Agreement, copy of recorded plats as to subdivide into parcels, provide open space calculation, Covenant as to easements of access and further detail of parking spaces.

Please contact me with any questions or comments.

Sincerely,

C. F. Sanders

Town of Tappahannock

Zoning & Code Compliance

## Building & Zoning

Alwyn W. Davis Jr.  
Building Official  
Environmental Compliance Officer  
202 South Church Lane  
P.O. Box 1079  
Tappahannock, Virginia 22560  
(804) 443-3244  
www.essex-virginia.org



Established 1692

May 22, 2020

### BY EMAIL AND U.S. MAIL

Mr. and Mrs. Dolan  
Riverstone Development LLC  
11500 Bridgetender Drive  
Henrico, VA 23233

Subject: Update on Application / Sprinkler Requirement

Dear Mr. and Mrs. Dolan,

We have been diligently conducting plan review for the Riverstone Apartments project based on your revised Building Permit application, dated 5/7/20 and received by our office on 5/12/20. There are additional documents required to complete the plan review as we discussed in our phone conference of 5/7/20 (see meeting minutes we distributed to you and your engineer) and again requested of you in our follow-up correspondence of 5/14/20 ("complete site plan drawings for 9 buildings, the hydrology report and the letter from VDOT to the Building Office").

We can issue no building permit until the site plan is approved, and the site plan is waiting for information we have requested, and you have promised to provide.

In addition, based on our understanding of the project based on what you have provided so far, we are reviewing your request to eliminate the fire protection automatic sprinkler system requirement under exception 903.2.8 of the Virginia Construction Code (VCC). After reviewing your engineer's correspondence of 2/6/20, and your May submissions mentioned above, we have some questions that need to be clarified:

1 - The hydrant flow test report indicates a residual pressure of 28 psi at Hydrant A and a residual pressure of 20 psi at Hydrant B with a flow of 875 gpm. Since Hydrant B is upstream from Hydrant A, it appears the pressure at Hydrant B would be the higher reading. Maybe the designation for the hydrants was transposed; please confirm.

2 - The calculations indicate a pressure drop from the existing Hydrant B to the intersection of White Oak Drive and Hobbs Hole Drive of 5.6 psi (28 psi - 22.4 psi). Since the intersection is upstream from Hydrant B, it appears that the pressure would actually be higher. Should the 5.6 psi have been added to the Hydrant B value?

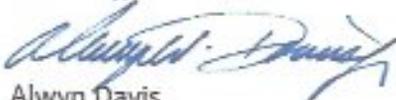
3 - The hydraulic calculations from the intersection to the project entrance and to the last hydrant are based on 10" pipe, but the site plan indicates a 8" line. Please clarify the size of the water line.

4 - How did the engineer determine the appropriate connection to the Tappahannock water supply? Has a determination been made by the Town on connection point?

Additionally, we received a request from Paul Richardson (our local fire chief) to verify the fire flow calculations for the project site and to ensure there is adequate fire flow available to extinguish a structure fire. This topic is addressed in Section 507 of the Virginia Statewide Fire Prevention Code. Please provide the fire flow calculation and the plan to provide the required fire flow to the site.

We are prepared to diligently review and make final decision on your site plan and building permit application, and on your request for an exception to the sprinkler requirement, but first we will need the completed site plans with utility details for the additional 4 buildings along with the information we have requested previously and herein to complete this review. Please forward as soon as possible so we can finalize our decisions.

Sincerely,



Alwyn Davis

Essex County Building Official

## Building & Zoning

Alwyn W. Davis Jr.  
Building Official  
Environmental Compliance Officer  
202 South Church Lane  
P.O. Box 1079  
Tappahannock, Virginia 22560  
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www.essex-virginia.org



Established 1692

June 5, 2020

Riverstone Development LLC  
11500 Bridgetender Drive  
Henrico, VA 23233

Subject: Follow up to Requested Information for the Riverstone Apartments Project

Dear Mr. and Mrs. Dolan,

The following information was requested at a meeting on May 7, 2020 and has not been recieved:

- Hydrology Report
- Site Plan Detail for Phase 2
- VDOT Letter
- DEQ Letter

In addition, I also requested the following information in a letter dated May 21, 2020 and in a follow up letter dated May 29, 2020 and this information has also not been received:

- 1 - The hydrant flow test report indicates a residual pressure of 28 psi at Hydrant A and a residual pressure of 20 psi at Hydrant B with a flow of 875 gpm. Since Hydrant B is upstream from Hydrant A, it appears the pressure at Hydrant B would be the higher reading. Maybe the designation for the hydrants was transposed; please confirm.
- 2 - The calculations indicate a pressure drop from the existing Hydrant B to the intersection of White Oak Drive and Hobbs Hole Drive of 5.6 psi (28 psi - 22.4 psi). Since the intersection is upstream from Hydrant B, it appears that the pressure would actually be higher. Should the 5.6 psi have been added to the Hydrant B value?
- 3 - The hydraulic calculations from the intersection to the project entrance and to the last hydrant are based on 10" pipe, but the site plan indicates a 8" line. Please clarify the size of the water line.
- 4 - How did the engineer determine the appropriate connection to the Tappahannock water supply? It appears that a connection to the system near Tappahannock Boulevard would be equidistant to the site and provide more water capacity.
- Additionally, I received a request from Paul Richardson (local fire chief) to verify the fire flow calculations for the project site and to ensure there is adequate fire flow available to

extinguish a structure fire. This topic is addressed in Section 507 of the Virginia Statewide Fire Prevention Code. Please provide the fire flow calculation and the plan to provide the required fire flow to the site.

- I will need the completed site plans with utility details for the additional 4 buildings along with the information requested herein to complete this review. Please forward as soon as possible so we can finalize a decision.

If I do not receive the aforementioned information by Friday, June 12, 2020, I will have no choice but to deny the Building Permit request.

Sincerely,

A handwritten signature in cursive script, appearing to read "Alwyn W. Davis".

Alwyn Davis  
Essex County Building Official

**J. L. Howeth, P.C.**  
*Consulting Engineering and Land Surveying*  
**ALL LOCATIONS BY APPOINTMENT ONLY**  
P. O. Box 1684 · 1019 Elm Street  
Tappahannock, Virginia 22560

Jeffrey L. Howeth, P.E., I.S., C.F.M.

Telephone (804) 443-6367  
Facsimile (804) 443-0227

June 13, 2020

Mr. Alwyn Davis, Building Official  
Essex County  
202 South Church Lane  
P. O. Box 549  
Tappahannock, Virginia 22560

Dear Mr. Davis:

On behalf of Riverstone Development, LLC, we wish to respond to your nearly identical requests for information of May 22, May 29 and June 5 regarding the Riverstone Development. As you stated at the conclusion of your letter of June 5, "If I do not receive the aforementioned information by Friday, June 12, 2020, I will have no choice but to deny the Building Permit request". Therefore, we have intentionally failed to provide you the requested information by your deadline, effectively ending a six month saga of attempting to get you to make the simple decision of sprinklers versus firewall exception and eliminating Mr. Lombardo's position of "nondecision". Furthermore, what reinforces the arbitrary and capricious nature of the position that you and Mr. Lombardo have taken in this matter is that it took you until May 7, over four months, to provide the first written material of any deficiencies contained in the plans. I have compiled a history of your approval of any of my plans presented to Essex County for years to be approved within a matter of days, if not immediately upon presentation. However, since the date that I have lodged my formal complaint against you pertaining to your external soils business, the retaliation and monetary damage you have done to my business and reputation is substantial. This situation alone, coupled with the fact that some Essex County citizens appear reluctant not to use you for fear of the retaliation that I have been receiving, presumably at the approval of the Board of Supervisors, is a clear and obvious conflict of interest. However, since it is now confirmed in writing that you have denied the Building Permit, we request that you provide us with written comments as to all of the exact deficiencies found in the entire set of plans as required by the Virginia Construction Code.

My response to your comments is as follows:

1. Residual water pressures were taken by me and Jimmy Sydnor as well as the unwitnessed hydrant test authorized by Mr. Lombardo. The only comfort to this unwitnessed test is that the pressures and flows came up nearly identical, with the difference probably being they occurred on different days of the week. With no additional motive force to increase water pressure in the system, no substantial increase in pressure would be found in the potable water system at the proximal distances you suggest. Furthermore, I am not aware that you have any engineering expertise in potable water system construction and operation. If you do, I would like to have your opinion on whether the Hazen-Williams coefficient is accurate for this section? Also, which algorithm would be appropriate for the analysis for this section of this waterworks? Should we use a Hardy-Cross, University of Kentucky, linear or EPANET analysis? Since I was certified on EPA methodologies when I worked at the Office of Water Programs for the Virginia Department of Health regulating public water and sewer for the Richmond Metropolitan area and I possess a completion certificate from the University of Kentucky for proficiency using Dr. Woods KYPIPE software, who at the time was the instructor of the class, I would be interested in your thoughts on these matters.

2. While I appreciate your "grabbing at straws" concerning the accuracy of engineering of which I believe you possess no background in, let's assume that you are correct. If you add 5 psi for your assumed number transposition and 5 psi for your assumed mathematical error, you would increase the pressure by 10 psi. Assuming that you agree with me that any required backflow preventer would utilize 5 psi to operate properly at each building, you would be left with 5 psi to operate the residential sprinkler system. And now that I have completed the NFPA's water based sprinkler system design course (of which I will provide you a copy of my completion certificate since you previously accused me of not knowing how to design one of these types of sprinkler systems), I can unequivocally state that no sprinkler system of reasonable operational performance can be designed without the inclusion of pumps and other ancillary devices. Therefore, as stated multiple times before, since pressure and flow are NOT AVAILABLE for a sprinkler system, then the exception APPLIES for low-rise, low density R-2 uses with proper egress.

3. Since the flow cannot be increased in this line, an 8 inch pipe provided more scouring velocity for flushing than a 10 inch pipe. Again, if you disagree with my selection of Hazen Williams coefficients, please let me know as soon as possible.

4. Since the Town of Tappahannock requires that potable water mains be run completely across the property frontage, the Town of Tappahannock allows the professional engineer to determine the proper connection point which serves the project's legal and regulatory requirements. However, this is specifically not construed to be additional requirements dreamed up by you to discriminate against this project and its owner. Therefore, I state that your observation of "equidistant" is wrong as you clearly do not understand the ordinances and policies of the Town of Tappahannock. However, we will be more than happy to revisit this situation again if you can convince the Town of Tappahannock to spend funds on extending the Town's water lines to the Dolan's property and have the Town wait to be reimbursed by the undeveloped property owners.

Mr. Alwyn Davis, Building Official  
Riverstone Development, LLC  
June 13, 2020  
Page 3

5. We are in receipt of the letter signed by Mr. Paul Richardson and Mr. Jimmy Brann, both of whom are employees of Essex County. Since the letter is on neither Essex County or Tappahannock / Essex Volunteer Fire Department (TEVFD) letterhead, I can only assume that these are the personal feeling of these men. And since the Statewide Fire Prevention Code has never been adopted by Essex County or the Town of Tappahannock according to the State Fire Marshal's Office, I fail to understand why you would quote Code Section 507 which does not apply to this situation. My understanding is that only the State Fire Marshal's Office can enforce any of the code you erroneously quote and that there is no "local fire official" as defined by that code (FOIA'ed by Mr. Dolan with negative response). If it is your desire for their letter to carry the importance that you appear to suggest it does, please have it retyped on letterhead of both organizations so that we understand that these are official agency positions and not just beliefs of individuals. This letter also appears discriminatory in nature as the President of the TEVFD has stated he is unaware of any other written review or comment on any other project in Essex County. He did mention that Chief Richardson may have verbally commented on the new mobile home park to be constructed on Mussell Swamp Road, but I seriously doubt that he suggested to them that they had to install substantial improvements to provide any fire flow beyond regulatory requirements. Having engineered several mobile home parks in my career, parks typically provide a fire department connection for withdrawal on the potable water supply tank for fire department use. Considering a mobile home park of approximately 150 units, the available water in a completely filled regulatory sized potable tank would be approximately 15,000 gallons which could deliver approximately 250 gallons per minute (gpm) for a 60-minute duration. Further reading of the comments made, it is also unclear why they believe that sprinklers are a better alternative. Since all of Essex County, with the exception of the Town of Tappahannock, is serviced by the TEVFD as a predominantly rural county with few water supplies available for fire protection, we all understand that the existing fire equipment is clearly skewed to the transportation of their own water supply to a "structure fire". This concept is so well understood in rural firefighting that most departments are in possession of a water tanker truck, which is generally used solely for the purpose of ferrying water to the fire scene and drop tanks, which allow rapid dumping of the tanker truck so it can leave to get more water. Ultimately, a majority of the "structure fires" in rural settings occur outside the hose distance range of a fire hydrant and are successfully extinguished with a minimum of property damage by a highly trained and motivated group of individuals such as the TEVFD. Lastly, since the NFPA's current initiative ([www.NFPA.org](http://www.NFPA.org)) is to install NFPA 13D residential sprinkler systems in all one and two family dwellings, I am unclear if this is the Building Official's and Essex County's way of adding another expensive regulation upon the citizens of this County where they have already helped to pay for the emergency services equipment they need to adequately protect themselves. However, if the desire is to provide automatic sprinklers in all residential units, I can most certainly put my new NFPA design certificate to good use.

Mr. Alwyn Davis, Building Official  
Riverstone Development, LLC  
June 13, 2020  
Page 4

Mr. Davis, in closing, this all started because I complained about you and your soils business conducted here in the County where you also act as the Building Official. While this could have been easily resolved months ago by the County simply directing you not to do soils work in this County, through your actions against my company and the Dolan's project, you have clearly positioned Essex County into a precarious legal position. It appears you have convinced Essex County officials to spend untold thousands of dollars on "independent" engineers who have backed out on you, attorney's fees on as many as four attorneys assigned to this one simple appeal and potentially affected the reputations of several Essex County Supervisors and well-respected County individuals by joining them into your personal battle with me. Ultimately, now that a decision has been made, we can move on and hopefully approve this project as it should have been done months ago for the Dolan's.

I trust that in the near future that you will be capable of separating your vendetta against me for filing a complaint against you and your sideline soils business from my client. While I can only anticipate your intent is to destroy my reputation and business with over six months of delay in answering the simple question of sprinklers versus fire walls, please remember that innocent people such as the Dolans, the Town of Tappahannock and all Essex County citizens are directly affected by your actions and inactions. Furthermore, your actions towards me, just as manifested immediately prior to the February Wetlands Board meeting for the entire public and Board to witness, are clear examples of the retaliation that I have previously spoken of that is expressly prohibited in the State and Local Government Conflicts of Interest Act and the Essex County Code of Conduct, not to mention Section 105.3 of the Virginia Construction Codes.

Sincerely,



Jeffrey L. Howeth, P.E., L.S., C.F.M.  
President, J. L. Howeth, P.C.

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22580  
(804) 443-4329  
www.essex-virginia.org



Established 1692

June 18, 2020

Jeffery Howeth  
P.O. Box 1684  
1019 Elm Street  
Tappahannock, VA 22560

Re: Sprinkler System- Riverstone Development

Dear Mr. Howeth,

I have received your correspondence on behalf of Riverstone Development, dated June 13, 2020. The Building Department of Essex County is continuing it's effort to provide a decision on the sprinkler exception request and would like to get resolution on this matter promptly for Mr. and Mrs. Dolan, therefore, I am keeping this correspondence focused on data required for that decision.

In my letter of May 22, I requested answers to four (4) points of clarification. I am again requesting specific answers to questions 1 and 2 as your correspondence of June 13 was vague with superfluous information that did not address the questions.

1 - On your hydrant flow test results of 2/3/20, is the data for Hydrant A and Hydrant B transposed? If so, please update the test results report and resubmit.

2 - There is some confusion about why you would calculate a pressure drop from the test hydrant location to the intersection of White Oak Drive and Hobbs Hole Drive. When performing the hydrant flow test, it appears that 875 gpm would be flowing from the White Oak Drive and Hobbs Hole Drive intersection to the hydrant location, creating a pressure drop due to friction. It is logical that the residual pressure at the intersection would be higher than at the hydrant location. Please calculate the residual pressure at the intersection based on results of your flow test. We do not need an explanation; just the data (875 gpm @ \_\_\_ psi residual pressure available at the intersection).

Please provide prompt and specific answers to this request so that we can make progress toward a decision. If you have questions, please do not hesitate to contact Wayne Verlander at our office.

Mr. and Mrs. Dolan from Riverstone Development have been copied in the email correspondence as well.

Thank you,

Alwyn W. Davis, Jr.  
Building Official, Essex County

RIVERSTONE DEVELOPMENT  
APPEAL TO  
ESSEX COUNTY LBBCA  
JUNE 17, 2020

VIRGINIA CONSTRUCTION CODE SECTION 106.1

**"THE BUILDING OFFICIAL SHALL ENFORCE THIS CODE AS SET OUT HEREIN AND AS INTERPRETED BY THE STATE REVIEW BOARD."**

## WHAT THIS APPEAL IS ACTUALLY ABOUT

Virginia Construction Code section 903.2.8 Group R: An automatic sprinkler system installed in accordance with section 903.3 shall be provided throughout all buildings with a Group R fire area, EXCEPT FOR GROUP R-2 OCCUPANCIES LISTED IN THE EXCEPTIONS TO THIS SECTION WHEN THE NECESSARY WATER PRESSURE OR VOLUME, OR BOTH, FOR THE SYSTEM IS NOT AVAILABLE: (emphasis added)

Exceptions:

1. Group R-2 occupancies that do not exceed two stories, including basements that are not considered a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits that serve that dwelling unit.
2. Group R-2 occupancies where all dwelling units are not more than two stories above the lowest level of exit discharge, and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a TWO HOUR FIRE BARRIER IS PROVIDED BETWEEN EACH PAIR OF DWELLING UNITS. (emphasis added)

**THE ONLY QUESTION FOR THIS APPEAL – IS THE WATER PRESSURE AND/OR FLOW AVAILABLE OR NOT?**

WHAT THIS APPEAL IS  
NOT ABOUT

\*THIS APPEAL IS NOT ABOUT REVIEWING OR APPROVING BUILDING PLANS

\*THIS APPEAL DOES NOT REQUIRE ANY FURTHER INVESTIGATION OR INFORMATION TO ANSWER

\*THIS QUESTION COULD HAVE BEEN, AND SHOULD HAVE BEEN ANSWERED IN JANUARY 2020

\*THIS QUESTION CAN BE ANSWERED WITHOUT A SPRINKLER DESIGN BEING DONE

**THE WATER PRESSURE  
AND FLOW  
ARE NOT AVAILABLE**

**THERE ARE TWO DEFINITIVE REASONS:**

- 1. TOWN OF TAPPAHANNOCK LETTER**
- 2. JEFFREY HOWETH PROFESSIONAL ENGINEER  
OPINION/CALCULATIONS**

FIRST REASON

Per NFPA 13R section 9.4.1,  
“The requirements of the  
public health authority having  
jurisdiction shall be  
determined and followed.”

THE DISCUSSION SHOULD END AT THIS POINT,  
BUT...

**Town of Tappahannock**

P.O. Box 266  
Tappahannock, VA 22560  
Phone (804) 443-3336  
Fax (804) 443-1051

*Town Manager*  
JAMES W. SYDOR  
*Town Attorney*  
DIANE M. LANK  
*Town Treasurer*  
FAVE D. JOHNSON  
*Town Clerk*  
PATSY K. SCATES  
*Chief of Police*  
JAMES G. ASHWORTH, JR.

*Mayor*  
ROY M. GLADDING  
*Town Council*  
TROY L. BALDERSON  
KENNETH A. GILLIS  
ANDREW T. HAMMOND  
MARCIA W. JENKINS  
ANTIA J. LATANE  
R. TYLER LOWERY

February 13, 2020

Jeff Howeth  
PO Box 1684  
Tappahannock, VA 22560

REF: Riverstone Apartments

Dear Jeff Howeth:

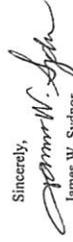
According to Section 14.2 of the Tappahannock Town Code ALL building permits shall be obtained from the Essex County Building Official.

Although we are in favor of growth, we will not be caught up in any conflict between the parties and this letter is to advise ALL parties involved that the Town and its employees will remain neutral in the project known as Riverstone Apartments.

At this point of the project with the information that the Town of Tappahannock has been provided and for the safety of the citizens that would have a residence in the proposed units, we would not be able to guarantee water for the sprinkler system. This is based on the overall build out of all the units on the entire site plan plus the remaining build out of Hobbs Hole subdivision, and keeping with a required twenty (20) PSI in our system under any conditions.

Once all the matters have been resolved involving the sprinkler system the Town will forward all water requirements (fire and domestic or any other) to our engineer for final review and approval.

Thank you.

Sincerely,  
  
James W. Sydor  
Town Manager

# JEFFREY HOWETH PE, LS, CFM ANALYSIS

**J. L. Howeth P.C.**  
*Consulting, Engineering and Land Surveying*  
*ALL LOCATIONS BY APPOINTMENT ONLY*

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Tappahannock, Virginia 22560  
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9408 Kings Highway  
King George, Virginia 22485  
804-774-5885

2833 Cople Highway  
Monroes, Virginia 22520  
804-493-9666 / 804-493-1333

February 6, 2020

Mrs. Brenda Dolan  
Rivertone Apartments  
Tappahannock, Virginia 22560  
VIA EMAIL

Dear Brenda:

Based upon the attached fire hydrant flow information for the existing fire hydrant located across from the Clubhouse on Hobbs Hole Drive which was independently tested on February 3, 2020 by J. L. Howeth, P.C. and the Town of Tappahannock (test results attached and video of test available upon request from Mr. Jimmy Sydnor, Town Manager), we have computed the required hydraulic analysis utilizing the Virginia Department of Health's Waterworks Regulations for the design criteria of the potable water mains for your Rivertone Apartment project. Based upon the existing hydrant flow of 875 gpm at a residual pressure of 20 psi and correcting for pressure by moving to the point of physical connection and flow by subtracting 125 gpm for the estimated flow of the undeveloped Hobbs Hole Subdivision lots, we can compute the calculated water main pressure of 22.4 psi at the intersection of White Oak Drive and Hobbs Hole Drive connection point. Extending the water mains northward along Hobbs Hole Drive to the proposed project entrance, we calculate the water main pressure to be 21.4 psi using an oversized 10" pipe to reduce friction. Further extending the water mains to the rear of the project, the calculated water main pressure would be 21 psi at the last fire hydrant in the project, also utilizing the oversized 10" pipe. Furthermore, based upon my conversations with the State Building Official's Office and the State Fire Marshal's Office, NFPA 13R requires an RPZ backflow preventer on the sprinkler line which creates a minimum pressure drop of between 5 and 10 psi at a previously calculated sprinkler flow rate of approximately 100 gpm. Since this value pushed the residual pressure to the building to less than 20 psi minimum pressure required by Virginia Department of Health Waterworks Regulations, it is evident that the existing Town of Tappahannock potable water system cannot supply either the pressure or volume as defined in VCC Section 903.2.8.

Furthermore, since Mr. Jimmy Sydnor, Town Manager for the Town of Tappahannock, who clearly is the "public health authority having jurisdiction" and whose "requirements ... shall be determined and followed" (NFPA 13R, Section 9.4.1), has already stated in writing that he cannot provide either the pressure or volume as stated in the above referenced VCC code section,

Mrs. Brenda Dolan  
Rivertone Apartments  
February 6, 2020  
Page 2

I am again requesting confirmation from the Essex County Building Official that this project qualifies for the exemption stated in VCC Section 903.2.8. Clearly, no authority is given to the Building Official to digress from the requirements of the Virginia Department of Health Waterworks Regulations nor violate the Waterworks Certificate to Operate issued to the Town of Tappahannock by the Virginia Department of Health.

Please request from the Essex County Building Official a written response to our request for exemption specified in VCC Section 903.2.8. As always, we are available to provide information as may be required concerning this matter.

Sincerely,



Jeffrey L. Howeth, President, J. L. Howeth, P.C.  
Virginia Licensed Professional Engineer  
Virginia Licensed Land Surveyor  
Nationally Certified Floodplain Manager  
President, J. L. Howeth, P.C.



# JEFFREY HOWETH CODE ANALYSIS

**J. L. Howeth, P.C.**  
*Consulting Engineering and Land Surveying*  
 P. O. Box 1684 · 1019 Elm Street  
 Tappahannock, Virginia 22560

Jeffrey L. Howeth, P.E., L.S., C.T.M.

Telephone (804) 443-6567  
 Facsimile (804) 443-0227

FIRE HYDRANT FLOW TEST  
 HOBBS' HOLE DRIVE AT CLUBHOUSE  
 TOWN OF TAPPAHANNOCK, ESSEX COUNTY, VIRGINIA  
 FEBRUARY 3, 2020

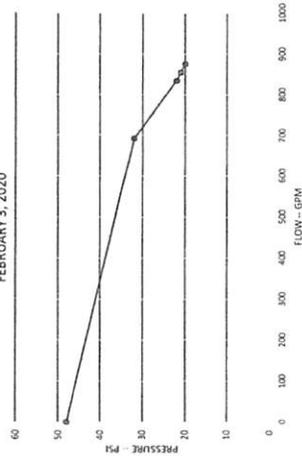
HYDRANT B FLOW -- GPM	HYDRANT A RESIDUAL PRESSURE -- PSI	HYDRANT B RESIDUAL PRESSURE -- PSI
0	48	48
692	38	32
834	30	22
854	29	21
875	28	20

Flow CALCULATED at 20 PSI  
 Date of hydrant test: February 3, 2020  
 Flow Hydrant Location: Hydrant B at Hobbs' Hole Drive at Clubhouse  
 Static pressure reading at Hydrant A at Hobbs' Hole Drive and Megan Street Intersection: 48 PSI  
 Residual pressure readings taken at Hydrant A at Hobbs' Hole Drive and Megan Street Intersection  
 Flow Reading (using pitot gauge) taken at Hydrant B  
 Water Main Diameter (in inches): 8  
 Fire Hydrant Outlet Size: 2.5" Hydrant Connection  
 Outlet Type: Smooth, Rounded  
 Coefficient of Discharge: 0.9  
 Hydrant A Residual pressures corrected to Hydrant B for friction only.  
 (No elevation change based upon relatively flat topography)



FIRE HYDRANT FLOW TEST  
 HOBBS' HOLE DRIVE AT CLUBHOUSE  
 TOWN OF TAPPAHANNOCK, ESSEX COUNTY, VIRGINIA  
 FEBRUARY 3, 2020  
 PAGE TWO OF TWO

FIRE HYDRANT FLOW TEST  
 HOBBS' HOLE DRIVE AT CLUBHOUSE  
 TOWN OF TAPPAHANNOCK, ESSEX COUNTY, VIRGINIA  
 FEBRUARY 3, 2020



MAP SHOWING AREA AND HYDRANTS



# HOWETH ANALYSIS CALCULATIONS

J. L. Howeth, P.C.  
1125 Elm Street, P.O. Box 1684  
Tappahannock, Virginia 22560

BY \_\_\_\_\_ DATE \_\_\_\_\_ SHEET NO. 1 OF 2  
 CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_ JOB NO. \_\_\_\_\_  
 SUBJECT PIPERSTONE APARTMENTS  
OVERSICURE ANALYSIS

HYDRAULIC ANALYSIS - 1<sup>st</sup> FLOOR (C-100)  
OVERSICURE ANALYSIS  
TEAM OF TAPPANNOCK

SUBTRACTING 125 GPM FOR UNIMPROVED LOTS AND  
BASED UPON EXISTING EXHAUST  
PRESSURE AND FLOOD FROM 1<sup>st</sup> FLOOR  
CONDUCTED ANALYSIS, 200 FIVE MINUTE  
HEAD-TO-HEAD OVERSICURE FLOODS TO 1<sup>st</sup> FLOOR  
RESIDUAL PRESSURE OF 20 PSI

A) EXISTING HEAD TO NET INLET ONE  
INLET AND THREE ONE INLET (100 GPM)  
 $28 \text{ PSI} - (100 \text{ GPM} \times \frac{1.07 \text{ PSI}}{100 \text{ GPM}}) = 22.4 \text{ PSI}$

B) NET INLET ONE AND THREE ONE INLET EXHAUST  
(500 GPM)  
 $22.4 \text{ PSI} - (100 \text{ GPM} \times \frac{1.07 \text{ PSI}}{100 \text{ GPM}}) = 21.4 \text{ PSI}$

C) PROJECT EXHAUST TO JUST EXHAUST  
 $21.4 \text{ PSI} - (500 \text{ GPM} \times \frac{0.16 \text{ PSI}}{100 \text{ GPM}}) = 21 \text{ PSI}$

D) HEAD TO BUILDING FLOODS ARE THE  
ANALYSIS TO BE MADE WITH THIS ONE  
DRAIN THE 5 PSI MIN LOSS WHICH RESULTS WITH  
PRESSURE ABOVE 20 PSI WHICH SHOULD BE DELETED.

J. L. Howeth, P.C.  
1125 Elm Street, P.O. Box 1684  
Tappahannock, Virginia 22560

BY \_\_\_\_\_ DATE \_\_\_\_\_ SHEET NO. 2 OF 2  
 CHKD. BY \_\_\_\_\_ DATE \_\_\_\_\_ JOB NO. \_\_\_\_\_  
 SUBJECT PIPERSTONE APARTMENTS  
FOOD ANALYSIS

WHERE FLOOD TO POINT A) IS  
 $750 \text{ GPM} - (50 \text{ GPM} \times 9 \text{ APARTMENT BUILDINGS}) = 450 \text{ GPM}$

AND  
 $250 \text{ GPM} \text{ (HEAD TO POINT A)} = 32 \text{ GPM SPRINKLER}$   
 $\times 10 \text{ (FOR NEW RESIDENTS)} = 320 \text{ GPM}$   
 $320 \text{ GPM} + 450 \text{ GPM} = 770 \text{ GPM}$

AND FLOOD TO POINT B) IS  
 $750 \text{ GPM} - (50 \text{ GPM} \times 4 \text{ APARTMENT BUILDINGS}) = 550 \text{ GPM}$

AND SPRINKLER HEAD TO POINT B) IS  
 $250 \text{ GPM} \text{ (HEAD TO POINT B)} = 32 \text{ GPM SPRINKLER}$   
 $\times 10 \text{ (FOR NEW RESIDENTS)} = 320 \text{ GPM}$   
 $320 \text{ GPM} + 550 \text{ GPM} = 870 \text{ GPM}$

AND FLOOD TO POINT C) IS  
 $750 \text{ GPM} - (50 \text{ GPM} \times 4 \text{ APARTMENT BUILDINGS}) = 550 \text{ GPM}$

AND SPRINKLER HEAD TO POINT C) IS  
 $250 \text{ GPM} \text{ (HEAD TO POINT C)} = 32 \text{ GPM SPRINKLER}$   
 $\times 10 \text{ (FOR NEW RESIDENTS)} = 320 \text{ GPM}$   
 $320 \text{ GPM} + 550 \text{ GPM} = 870 \text{ GPM}$

AS ABOVE ABOVE + 250 GPM HEAD TO POINT D) IS  
 SHOULD NOT BE NET

## THE COUNTY "INDEPENDENT" THIRD-PARTY TEST

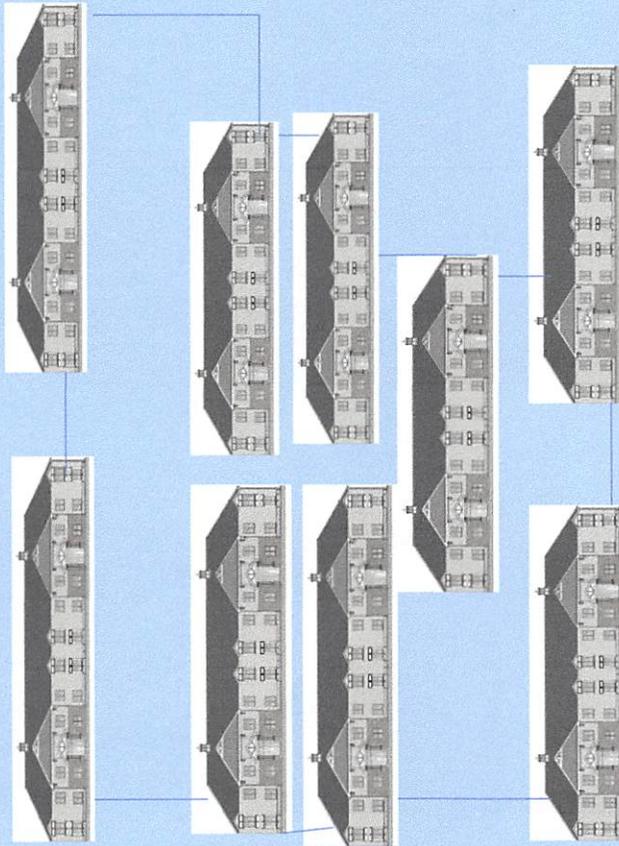
From: Joe Beck  
Sent: March 2, 2020  
To: Matt Farmer (and others)  
Subject: Hobbs Hole Flow Test Report

There is enough water pressure and flow to protect the proposed two-story apartment building with an NFPA 13R system. Unless Essex requires reduced pressure backflow preventers or very large amount of safety factor design should not be an issue. There are so many variations of sprinkler type and layout that the exact figures cannot be provided until a full design is completed. Typically a four sprinkler residential design will require only 50-80 gpm and 25-30 psi with an additional 100 gpm needed for outside hose allowance. This information is provided at no cost. Further detailed analysis and/or a complete design for the fire sprinkler system will involve a fee.

### FACTS

- \*APPLICANT "BANNED" FROM TEST ON PUBLIC STREET
- \*TEST DONE BY SPRINKLER TECH
- \*LOWER PRESSURE REPORTED THAN OUR TEST
- \*TWO SENTENCE REPORT-THE REST IS NOT RELATED
- \*NO MATH CALCULATIONS
- \*INCORRECT ASSUMPTIONS
- \*JOE BECK, PC WITHDREW FROM FURTHER WORK ON PROJECT

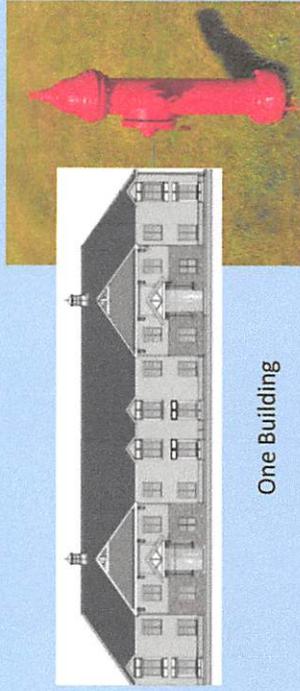
OUR TEST



9 Buildings

Approximately 3500 feet of run  
from hydrant to building

COUNTY TEST



One Building

No run accounted for



Not to scale. Illustrative only

## CONCLUSION

WE COMPLY WITH THE EXCEPTION CONTAINED IN VCC CODE 903.2.8. WE ASK THE LBBCA TO CONFIRM IT TODAY. THIS WILL NOT AFFECT ANY OTHER MATTERS RELATED TO THE ISSUANCE OF THE BUILDING PERMIT.

**RIVERSTONE**  
**DEVELOPMENT LLC**



Timothy J. Dolan, J.D.  
Attorney at Law  
Member/Manager

January 13, 2020

Alwyn W. Davis, Jr.  
Certified Building Official  
Essex County, Virginia

**VIA EMAIL**

Re: Dolan Properties- Hobbs Hole

Dear Mr. Davis:

Your correspondence of January 13, 2020 to Bob Himmel with a copy to Jeff Howeth has been referred to me for review and response.

Perhaps Brenda and I should have gotten more involved in this discussion earlier, but it is now clear that the sprinkler issue needs to be resolved so that the project can go forward.

Here are the facts as they now stand:

1. "Section 903.2.8 of the Virginia Construction Code clearly states that a sprinkler system is required in all R-2 occupancies EXCEPT (emphasis added) when the necessary water pressure or volume, or both, for the system is not available." (From your email)
2. Mr. Sydnor, Town Manager, has reported, and you understand, that the available water pressure is 52 psi. (From your email)
3. J. L. Howeth, P.C. has calculated the necessary pressure and flow in accordance with the ISO fire flow calculator, and has given his opinion as a licensed professional engineer that the water pressure and flow provided by the county IS NOT sufficient to allow for the buildings in the Hobbs Hole project to be sprinkled.

4. The documented insufficient pressure and flow available from the Town of Tappahannock clearly place this project squarely under exception 1 of Virginia Construction Code Section 903.2.8.
5. You have recommended that additional studies be done to determine if a system can be designed to possibly allow for sprinkling despite the documented facts above. (From your email)

We believe there is more than enough information for you to make the decision on the sprinkler, and any such additional study and redesign would be cost prohibitive. Our estimates range in excess of \$200,000. In addition, the Code does not require us to design a system to counteract the Town's inability to provide the necessary pressure and flow. Exception 1 does not contain qualifications; it clearly says if there is not enough pressure/flow, then the exception applies.

Consequently, we do not believe it is necessary to engage any further studies related to the sprinkling of these buildings.

Please provide us with a written decision either allowing us to proceed with no sprinkler system, as provided by the Code, or disallowing our request.

We and our engineers are happy to meet with you to discuss this further if you would like.

Best Regards,

*TIMOTHY J. DOLAN*

Timothy J. Dolan, J.D.  
Member/Manager

**RIVERSTONE**  
**DEVELOPMENT LLC**



March 5, 2020

Michael A. Lombardo  
Essex County Administrator  
County of Essex, VA

**VIA EMAIL**

Mr. Lombardo:

Again, let me thank you for providing the information from the Hydrant Flow Test performed by eTec Fire Protection on February 27.

Our initial opinion after review of the information you provided is that it fully supports our belief that there is not enough pressure and/or flow for sprinkler systems for the Riverstone project.

It is obvious that eTec was not given much of the pertinent information needed to make the determination of this issue, or either he chose to ignore it. His four-sentence summary opinion appears to be based on misinformation and/or a lack of knowledge of the pertinent facts. Not surprisingly, because of that, it is inaccurate.

**Sentence 1:** "There is enough water pressure and flow to protect the proposed two-story apartment building with an NFPA 13R system." **FACT:** The project contains a total of 150 units and the pressure and flow must be calculated to provide for the entire project, not just one two-story building.

**Sentence 2:** "Unless Essex [he should have referenced the Town of Tappahannock here] requires reduced pressure backflow preventers or a very large amount of safety factor design should not be an issue." **FACT:** The Town DOES require reduced pressure backflow preventers and other safety factors. Does this mean he agrees the exception applies?

**Sentence 3:** "There are so many variations of sprinkler type and layout that the exact figures cannot be provided until a full design is completed." **FACT:** This is the same statement that Mr. Davis made months ago, and it is still as irrelevant now as it was then. The problem we are facing is that there is not enough pressure and flow to get the water TO THE BUILDING. This

has been calculated and the water is NOT available, as the Tappahannock Town Manager has repeatedly declared in writing.

**Sentence 4:** "Typically a four-sprinkler residential design will only require 50-80 gpm and 25-30 psi with an additional 100 gpm needed for outside hose allowance." **FACT:** See response to Sentence 3.

Because this opinion was based on a lack of pertinent information, and that we were not allowed to attend the test, we have the following questions for Mr. Beck:

1. Was the pressure/flow corrected to the point of connection?
2. What distance was used for the piping to the northeast building, which will be the first building to be constructed?
3. Our VDH calculations clearly stated that an RPZ backflow preventer would be required for these sprinklers in accordance with the Town's Cross Connection Program monitored by VDH. Why was this omitted from the Engineer's analysis?
4. The Town requires a large safety factor. Why was this omitted from the Engineer's analysis?
5. It was clearly stated that the northeast building only had 32 gpm of available flow at 21 psi based upon the VDH calculations. How does the Engineer determine that there is enough pressure and flow for a sprinkler system? Where are the Engineer's calculations regarding the potable water system hydraulics? These calculations should be provided and issued under the seal of the Engineer for review by all parties involved.
6. What values did the Engineer use for the domestic demand? Were they computed from actual fixture counts or estimated? Also, did the Engineer use the AWWA high or low flow rate curve for demand?
7. What minimum flow rate did the Engineer use for the outside hydrant flow allowance. The NFPA 13R standard requires 100 gpm hose allowance while the VDH Waterworks Regulations requires 250 gpm for a hydrant to be installed at all.
8. Why wasn't the Professional Engineer present at the hydrant flow test?
9. Why was a sprinkler company engaged to perform the hydrant flow test instead of a full-service engineering firm with a Professional Engineer present during the test? Also, is the Professional Engineer employed by the sprinkler company? If not, did the Professional Engineer disclose his relationship in writing regarding the sprinkler company prior to Essex County contracting him to do the work?
10. Was this analysis for one building or all nine buildings supported by the zoning of the property?
11. Why was the Hydrant Flow Test Report performed for private fire service mains instead of public water mains?
12. Why was NFPA 13R, section 9.4.1 ignored? Mr. Beck references 13R but fails to comply with this section.

We propose that Mr. Beck attend a meeting during which all sides would have a chance to ask questions about the test. His four-sentence opinion without any underlying information is woefully inadequate to base the conclusion on (unless of course, you agree with us that it supports our side).

Please let us know when we can schedule a meeting with all sides.

Regards,



Timothy J. Dolan, J.D.  
Member/Manager  
Riverstone Development LLC

15 June 2020

**Tim and Brenda Dolan**  
Dolan Properties  
P.O. Box 377  
Glen Allen, VA 23058

Re: **Riverstone Apartment Building, Tappahannock, VA, code compliance**

Tim, Brenda:

It appears from the Town Manager's letter of 2/13/20 that the town is not able to supply adequate water to support a compliant fire suppression for your apartment project. Therefore paragraph 903.2.8.1, which allows your project to be designed without a fire suppression system, applies. To the best of our knowledge the construction documents we prepared comply with the 2015 Virginia Construction Code.

We are glad to respond to review comments from the town regarding their review of the construction documents for a building permit. If we can be of any further help, please let me know.

Sincerely yours:



Robert Himmel, AIA  
Principal

# Documents Submitted By Essex County

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RICHMOND | CHRISTIANSBURG | FREDERICKSBURG  
MCLEAN | DURHAM | WILLIAMSBURG  
SANDS ANDERSON PC

1111 East Main Street  
Post Office Box 1998  
Richmond, VA 23218-1998  
Main: (804) 648-1636  
Fax: (804) 783-7291

**Christopher M. Mackenzie**  
Attorney

Direct: (804) 783-7280  
CMackenzie@SandsAnderson.com

WWW.SANDSANDERSON.COM

May 27, 2020

**VIA electronic mail**

W. Travis Luter Sr., C.B.C.O.  
Department of Housing & Community Development  
Division of Building & Fire Regulation  
State Building Codes Office  
600 East Main Street, Suite 300  
Richmond, Virginia 23219  
Email: travis.luter@dhcd.virginia.gov

Re: Application for Appeal to the Review Board for Timothy Dolan  
Appeal No. 20-01

Dear Mr. Luter:

In response to your email dated May 19, 2020, please find enclosed a letter from the Secretary of the Essex County Local Board of Building Code Appeals (LBBCA) confirming that a hearing will be conducted virtually on June 3, 2020 at 10:00 am. The Secretary previously confirmed the availability of all parties for this date and time.

The LBBCA will hear two appeals on this date: (1) the appeal filed by Mr. Dolan on April 10, 2020, upon which the application to the State Review Board filed by Mr. Dolan on May 11, 2020 was based; and (2) a second appeal filed by Mr. Dolan on May 1, 2020, pertaining to alleged violations of the Building Code. That latter appeal and the County Administrator's response thereto are attached hereto for your records.

Sincerely,

Christopher M. Mackenzie

Enclosures

cc: Andrew R. McRoberts, Esquire, *King William County Attorney*  
Michael Lombardo, *King William County Administrator*  
Timothy Dolan

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

May 27, 2020

Mr. and Mrs. Dolan  
11500 Bridgetender Drive  
Henrico, VA 23233

Re: Essex County Local Board of Building Code Appeals Meeting

Dear Mr. and Mrs. Dolan,

We will be holding a Local Board of Building Code Appeals meeting on, Wednesday, June 3, 2020 at 10am regarding the attached appeals that you submitted dated April 10, 2020 and May 1, 2020. This meeting will be held via a Zoom Meeting, the log in information for the meeting is:

Dial:

+1 646 876 9923 (US Toll)

+1 301 715 8592 (US Toll)

+1 312 626 6799 (US Toll)

+1 669 900 6833 (US Toll)

+1 253 215 8782 (US Toll)

+1 346 248 7799 (US Toll)

Meeting ID: 990 2162 0626

Password: 181101

Please let me know if you have any questions.

Thank you,

Heather Hostinsky



## Essex County, Virginia

202 South Church Lane  
Post Office Box 1079  
Tappahannock, Virginia 22560

Established 1692

SENT VIA EMAIL

May 14, 2020

Dear Mr. Dolan:

I am in receipt of a copy of your letter dated May 1, 2020, entitled "Notice of Appeal," which you have asked to be accepted as another appeal to the County's Local Board of Building Code Appeals ("LBBCA") under Section 119.5 of the "Virginia Construction Code" (Part I of the Uniform Statewide Building Code, or "USBC").

As I said in my letter to you dated April 10, 2020, the Board of Supervisors adopted a continuity of government ordinance due to the COVID-19 emergency. This ordinance suspends deadlines for local public bodies in Essex County during the pendency of the ordinance, including the otherwise applicable 30-day deadline for the LBBCA to consider appeals. We will be forwarding your appeals to the LBBCA, which I am sure will meet in the near future.

Unfortunately, the subjects of your intended appeal are not matters which may be appealed to the LBBCA. The LBBCA decides appeals which feature the application by the building official of the building code, not alleged violations of the sort asserted in your May 1, 2020 letter. Section 119.5 states as follows:

Any person aggrieved by the local building department's application of the USBC or the refusal to grant a modification to the provisions of the USBC may appeal to the LBBCA.

The applicant shall submit a written request for appeal to the LBBCA within 30 calendar days of the receipt of the decision being appealed.

As you can see, appeals are not made from "violations." Appeals are made from either an "application of the USBC or the refusal to grant a modification to the provisions of the USBC," neither of which you describe in your "Notice of Appeal." Bottom line, there needs to be a "decision," which there has not yet been. We anticipate the application being decided soon, as my staff discussed with you in the very helpful conference call with you on May 7, 2020. For these and other reasons, the County will oppose your appeal and ask that it be dismissed. If you would like to withdraw your appeal, please let me know. If not, it will be forwarded to the LBBCA for its consideration along with our request of dismissal.

Respectfully,

Michael A. Lombardo  
County Administrator

cc: M. Farmer, Essex Planning Director  
A. Davis, Essex Building Official

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

May 29, 2020

Essex County  
202 S. Church Lane  
Tappahannock, VA 225660

VIA Email and Hand Delivery

Re: Essex County Local Board of Building Code Appeals Meeting

Dear Essex County,

After consulting with the Chairman of the Local Board of Building Code Appeals it is decided to hear appeals dated April 10, 2020 and May 1, 2020 at the same meeting. Since the party requesting the appeal has requested the 14 day notice prior to the meeting for the appeal dated May 1, 2020 we will be pushing the meeting from June 3, 2020 out to June 17, 2020 at 6pm. The meeting will be held at the Essex County School Board Office located at 109 Cross Street, Tappahannock, VA 22560. If anything changes and we are not able to meet in person a Zoom Meeting will be scheduled for the same date and time.

Thank you,

  
Heather Hostinsky

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

Jeffrey L. Howeth  
P.O. Box 1684  
Tappahannock, VA 22560

Via Email and Certified Mail

Dear Mr. Howeth,

This will confirm receipt of your letter dated June 13, 2020. You have failed to deliver the site plan that was promised and to respond to the questions presented in my earlier correspondence dated May 14, 22, 29, & June 5th. Due to the lack of information and incompleteness, your clients' application is hereby denied. If you choose to reapply, I would recommend a complete application with answers to my previous questions including a final site plan when the application is submitted.

Yours Truly,

A handwritten signature in black ink, appearing to read "Alwyn W. Davis Jr.", is written over a horizontal line.

Alwyn W. Davis Jr., CBO Essex County

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

Mr. and Mrs. Dolan  
11500 Bridgetender Drive  
Henrico, VA 23233

Via Email and Certified Mail

Dear Mr. Dolan,

This will confirm the receipt of your letter dated June 14, 2020. You have failed to deliver the site plan that was promised and to respond to the questions presented in my earlier correspondence dated May 14, 22, 29, & June 5<sup>th</sup>. Due to the lack of information and incompleteness, your application is hereby denied. If you choose to reapply, I would recommend a complete application with answers to my previous questions including a final site plan from Mr. Howeth.

Yours Truly,

A handwritten signature in black ink, appearing to read "Alwyn W. Davis Jr.", with a long horizontal flourish extending to the right.

Alwyn W. Davis Jr., CBO Essex County

ESSEX COUNTY BOARD OF BUILDING APPEALS  
MEETING OF JUNE 17, 2020 6:00 P.M.  
ELECTRONIC MEETING  
TAPPAHANNOCK, VIRGINIA 22560  
MINUTES

**Present:**

David Jones - Chairman  
Marvin Edgar Martz  
Steven Laffoon  
George Jennings  
David M. Rector

**Absent:**

Travis Medlin

**Also Present:**

Alwyn Davis – Essex County Building Official  
Wayne Verlander – Building Inspector  
Heather Hostinsky – Building and Zoning Office Manager  
Chris MacKenzie – Essex County Legal Counsel

**Call to Order**

Chairman Jones called the Essex County Board of Building Appeals meeting of June 17, 2020 to order at 6:00 p.m. and asked for a roll call of the Board members and a quorum was met.

**Meeting Agenda**

Tim Dolan wanted to clarify the timing of the presentation, how much time would he have to make his presentation, and then the rebuttal by Mr. Davis. Chairman Jones asked that everyone keep their comments brief. Mr. Dolan asked that people identify themselves. Mr. MacKenzie of Sands Anderson stated that he represents the County of Essex and therefore cannot advise the Board of Building Appeals.

Chairman Jones asked the Board for a motion to approve the last meeting minutes. David Rector so motioned. George Jennings seconded the motion. AYES: 5 NAYES: 0 ABSENT: 1

Chairman Jones put forth rules of the meeting 1) state you name 2) allow persons to finish 3) say "I'm finished" when done and 4) keep comments brief.

**Appeal # 4-10-20 Timothy J. Dolan**

**Name and address of owner:**

Riverstone Development LLC  
11500 Bridgetender Drive  
Henrico, VA 23233

**Name and Address of person appealing:**

Timothy J. Dolan  
11500 Bridgetender Drive  
Henrico, VA 23233

**Location of Property:**

15.3 acres located on Hobbs Hole Drive  
Tappahannock, VA 22560

**Discussion**

Chairman Jones turned the floor over to Timothy J. Dolan. Mr. Dolan thanked Ms. Hostinsky for all her help in this matter. He would like to bring to everyone's attention the fact that the County continues to avoid making a decision. He said it is not about the building permit application but that Mr. Davis refuses to give an answer whether the exception is valid. The building permit discussion can only take place after the decision is made for either firewalls or sprinklers. The question is whether the apartment complex project qualifies for the exemption for installation of fire sprinklers. Mathematically the engineer has determined that the water flow is not sufficient for the sprinkler system. Jimmy Sydnor, the Tappahannock town manager, states that he cannot guarantee the required water pressure needed. An independent third party water test was done on behalf of the County and performed by a sprinkler company. They were given incorrect information to make an informed decision.

Chairman Jones turned the floor over to Jeff Howeth, who is contracted by Timothy Dolan. Mr. Howeth stated that water must get to the buildings and that Jimmy Sydnor could not guarantee water flow and water pressure. 52 psi is the static pressure. Residential pressure is always lower. There must be a 250 gallon per minute flow for a water hydrant. Virginia code states that the water must be available.

David Rector asked Mr. Howeth if a diverter valve could be used for the domestic use. Mr. Howeth answered in the negative citing that the domestic use cannot be interrupted. Mr. Rector said the flow would only be disrupted during a fire and a diverter could be used at each of the nine buildings. Mr. Howeth said he doesn't think it can be done and he has never seen it. Mr. Rector stated that he has seen it done and thinks it should be. Mr. Dolan said its sounds expensive and according to the code, they are not required to. Mr. Howeth reiterated that a domestic flow is required by code and the minimum flow per hydrant is 250 gallons per minute.

Chairman Jones said that the overall project has to be considered. Can just the first two buildings have sprinklers and the rest don't? Is that possible? Mr. Howeth said the proposal on the table now is for a one hour fire wall. The firewalls will give 60 minutes each, so up to four hours for each building. Sprinklers would only give 30 minutes of water – period.

Chairman Jones turned the floor over to Alwyn Davis, Essex County Building Official. Mr. Davis stated that he has asked for information from the Dolans and has not received it to date. Mr. MacKenzie, counsel for Essex County, stepped in and said the other appeal for tonight's meeting has been withdrawn. He said the Building application is very important. This Board can affirm, refuse, or amend a decision by the Building official however inaction is not an action. The County has been very attentive and needs information. The County's job is the health, welfare and safety of its citizens. Mr. Davis has sent four follow up requests. As of June 5, 2020, the entire application was denied due to lack of

information from the applicant. There is no decision for the Board to affirm, refuse, or amend; therefore the Board should dismiss the application for appeal.

Mr. Rector totally agreed with Mr. MacKenzie.

Mr. Dolan said everything Mr. MacKenzie said is hogwash. He asked Chairman Jones if in the training they received was it discussed that an inaction is an action, as he has been advised from the State Technical Review Board that an inaction by a Building Official is an action. Mr. Dolan also stated that Mr. MacKenzie is completely wrong. How can we draw plans if we don't know what to provide.

Mr. Howeth said there was a decision of denial due to VDOT and the DEQ. Why are there firewalls in the code at all?

Mr. Rector made the motion to dismiss the application of appeal due to the fact that there was not a decision to appeal. Mr. Jennings seconded the motion. A roll call vote on the motion was made:

David Rector – Yes  
Steven Laffoon – Yes  
George Jennings – Yes  
Marvin Edgar Martz – Yes  
David Jones – Yes

Travis Medlin – Absent

The motion carried.

**Old Business**

None

**New Business**

None

**Adjourn**

Mr. Dolan asked for the Board's decision in writing. Mr. MacKenzie stated that he has a form that he can provide the Board.

Chairman Jones asked for a motion to adjourn the meeting of the Board of Building Appeals. Mr. Rector made the motion to adjourn the meeting and Mr. Jennings seconded the motion. AYES: 5 NAYES: 0 ABSENT: 0

The meeting was adjourned.

## Wayne Verlander

---

**From:** Alwyn Davis  
**Sent:** Wednesday, January 15, 2020 9:05 AM  
**To:** Wayne Verlander  
**Subject:** FW: Fire Flow Calculations  
**Attachments:** Fire Flow Calculator.xlsx

---

**From:** Jimmy Sydnor <tappzone@tappahannock-va.gov>

**Sent:** Monday, January 6, 2020 2:27 PM

**To:** Alwyn Davis <awdavis@essex-virginia.org>

**Subject:** FW: Fire Flow Calculations

---

**From:** Jeffrey Howeth [<mailto:jlhoweth@msn.com>]

**Sent:** Friday, January 03, 2020 3:17 PM

**To:** dolanproperties; Jimmy Sydnor; Frank Sanders

**Subject:** Fire Flow Calculations

Brenda, the attached file based upon the Insurance Services Organization (ISO) fire flow calculator indicates that the sprinkler allowance for a single building would be approximately 800 gpm. Also, sprinkler systems usually operate at approximately 70 to 80 psi due to their smaller pipe diameters.

By copy of this to the Tappahannock Town Manager, please verify that the Town's water supply would provide the following needed fire flows for your apartment project.

Thanks, Jeff

Jeffrey L. Howeth, P.E., L.S., C.F.M. President, J. L. Howeth, P.C. 1019 Elm Street P. O. Box 1684  
Tappahannock, Virginia 22560 804-443-6367 (Office) 804-241-4160 (Cell)

**FIRE & RESCUE**

**ISO Fire Flow Worksheet**

*Needed Fire Flow Work Sheet (ISO formulas)*

$$NFF = (Ci)(Oj)(Xi+Pi)$$

$$C=18F(Ai)^{0.5}$$

Address:	<b>Hobbs Hole Drive</b>		
Project Name:	<b>Riverstone Apartments</b>	Occupancy Type:	<b>Apartments</b>
Construction Type:	<b>5B</b>	Number of Stories:	<b>2</b>

**STEP 1**

Take the area, which is 100% sq. ft. of the first floor plus the following percentage of the total area of the other floors.

**First Floor Area in Sq. Ft**                       Sq. Ft. @ 100%

**Additional Floors**

Enter total area in sq. ft for all other floors   

**Total Area Entire Building**                     

**STEP 2**

F = Coefficient related to the class of construction as determined by using the construction type found in SBCCI

Construction Type	Class	F Value
Frame	1	1.5
Joist Masonry	2	1
Non-combustible	3	0.8
Heavy Timber	4	0.8
Modified fire resistance	5	0.6
Fire resistive	6	0.6

**Construction Class**                                     

**Square Root of the Area x F x 18**                       = C Value

ISO Fire Flow Worksheet

Needed Fire Flow Work Sheet (ISO formulas)

STEP 3

Multiply result of rounded off GPM by the Occupancy Factor (Oi)

Occupancy Factor

**Noncombustible (C-1)** = No active fuel loads such as storage of asbestos, clay, glass, marble, stone, or metal products.

0.75

**Limited - Combustible (C-2)** = Limited fuel loads such as airports, apartments, art studios, auto repair, auto showroom, aviaries, banks, barber shops, beauty shops, churches, clubs, cold storage warehouses, day care center, educational occupancies, gas stations, green houses, health clubs, hospitals, jails, libraries, medical labs, motels, museums, nursing homes, offices, radio stations, recreation centers, and rooming houses.

0.85

**Combustible (C-3)** = Moderate fuel loads such as auto part stores, auto repair training center, bakery, bookstores, bowling centers, casinos, commercial laundries, contractor equipment storage, dry cleaners with no flammable fluids, leather processing, municipal storage buildings, nursery sales stores, pavilions, pet shops, photographic supplies, printers, restaurants, shoe repair, supermarkets, theaters, vacant buildings, and most wholesale & retail sales occupancies.

1.0

**Free-Burning (C-4)** = Active fuel loads such as aircraft hangers, cabinet making, combustible metals, dry cleaners using flammable fluids, feed stores, furniture stores, kennels, lumber, packaging and crating, paper products manufacturing, petroleum bulk distribution centers, tire manufacturers, tire recapping or retreading, wax products, and wood working shops.

1.15

**Rapid-Burning (C-5)** = Contents that burn with great intensity, spontaneously ignite, have flammable or explosive vapors, or large quantities of dust such as ammunition, feed mills, fireworks, flammable compressed gases, flammable liquids, flour mills, highly flammable solids, matches, mattress factories, nitrocellulose-based products, rag storage, upholstery shops, & waste paper storage.

1.25

Occupancy Class Selected (1 thru 5)

2

GPM x Oi

2762.5

# ISO Fire Flow Worksheet

## Needed Fire Flow Work Sheet (ISO formulas)

### STEP 4

Now consider the exposure factor (Xi) - (Separation between buildings)

Distance (feet to the exposed building)	Xi	>3 stories
0-10	0.22	0.47
11-30	0.18	0.43
31-60	0.13	0.38
61-100	0.09	0.34

Distance, in feet, to the exposed building

Xi (from table)

Multiply GPM from step 4 by (1+Xi)

Total From Step 4

### STEP 5

Approved Fire Sprinkler System? (Y or N)

Take fire flow from step 5 and multiply by sprinkler credit of 0.25

Sprinkler credit

Now subtract sprinkler credit from fire flow in step 4

**NEEDED FIRE FLOW**

Rec. 1-30-20  
10:00am  
AW

**J. L. Howeth P.C.**  
*Consulting Engineering and Land Surveying*  
ALL LOCATIONS BY APPOINTMENT ONLY

1019 Elm Street  
Tappahannock, Virginia 22560  
804-443-6367

9408 Kings Highway  
King George, Virginia 22485  
540-775-5585

2833 Cople Highway  
Montross, Virginia 22520  
804-493-9066 / 804-493-1333

January 28, 2020

Mrs Brenda Dolan  
Riverstone Apartments  
Tappahannock, Virginia 22560  
VIA EMAIL

Dear Brenda:

Based upon the attached fire hydrant flow information for the existing fire hydrant located behind Walmart on White Oak Drive provided by Mr. Jimmy Sydnor, we have computed the required hydraulic analysis utilizing the Virginia Department of Health's Waterworks Regulations for the design criteria of the potable water mains for your Riverstone Apartment project. Based upon the existing hydrant flow behind Walmart of 1074 gpm at a residual pressure of 33.5 psi, we can compute the calculated water main pressure of 31.5 psi at the intersection of White Oak Drive and Hobbs Hole Drive. Extending the water mains northward along Hobbs Hole Drive to the proposed project entrance, we calculate the water main pressure to be 24.5 psi. Further extending the water mains to the rear of the project, the calculated water main pressure would be 20.5 psi at the last fire hydrant in the project. This value is just barely over the 20 psi minimum residual pressure required to be maintained in the potable water system by the Virginia Department of Health's Waterworks Regulations.

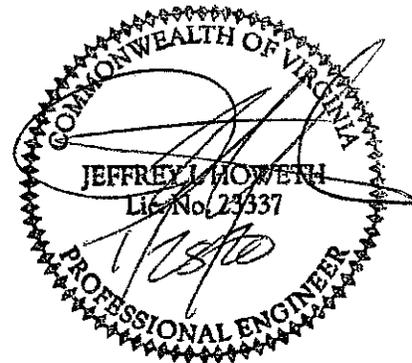
Based upon maintaining these minimum pressures in the potable water system, the maximum allowance for the automated sprinkler system would be approximately 500 gpm after subtracting the required domestic flow for each building as calculated using the typical fixture count method described in Section 9.3 of NFPA 13R. However, using Section 7.1.1.1 of the NFPA 13R standard which requires a minimum of 1000 gpm (10005 sf buildings x 2 floors x 0.05 gpm/sf discharge density) sprinkler demand, it becomes obvious that the Town of Tappahannock's Water System is not capable of providing the necessary volume (or pressure above the legal minimum) to accommodate an automated sprinkler system, thereby qualifying for the exemption contained in Section 903.2.8 of the Virginia Construction Code.

Please let me know if you have any further questions regarding this matter.

Sincerely,



Jeffrey L. Howeth, President, J. L. Howeth, P.C.  
Virginia Licensed Professional Engineer  
Virginia Licensed Land Surveyor  
Nationally Certified Floodplain Manager



(No subject)

Jimmy Sydnor <tappzone@tappahannock-va.gov>

Tue 1/28/2020 12:04 PM

To: 'Jeffrey Howeth' <jlhoweth@msn.com>

1074 gallons per min. Hydrant at the rear of Wal- Mart

Jimmy Sydnor

*PART OF PRIVATE INFRASTRUCTURE -  
CANNOT CONNECT TO SYSTEM HERE.*

HYDRAULIC ANALYSIS - ~~VOL~~  
RIVERSTONE APARTMENTS  
TOWN OF TAPPANNOCK

BASED UPON EXISTING HYDRANT PRESSURE  
AND FLOW PROVIDED BY JIMMY SAXON,  
TOWN MANAGER, FIRE HYDRANT BEHIND  
WALMART FLOWS 1074 GPM @ 33.5 PSI  
RESIDUAL PRESSURE

- A) EXISTING HYDRANT TO INTERSECTION OF  
WHITE OAK DRIVE AND HORRS HOLE DRIVE (750 GPM)

$$33.5 \text{ PSI} - \frac{(275 \text{ LB}^8 \text{ PVC})(1.77 \text{ FT} / 100 \text{ FT})}{2.31} = 31.5 \text{ PSI}$$

- B) INTX WHITE OAK AND HORRS HOLE (750 GPM)

$$31.5 \text{ PSI} - \frac{(910 \text{ LB}^8 \text{ PVC})(1.77 \text{ FT} / 100 \text{ FT})}{2.31} = 24.5 \text{ PSI}$$

- C) PROJECT ENTRANCE TO LAST HYDRANT (750 GPM)

$$24.5 \text{ PSI} - \frac{(500 \text{ LB}^8 \text{ PVC})(1.77 \text{ FT} / 100 \text{ FT})}{2.31} = \underline{20.5 \text{ PSI}}$$

MINIMUM

THEREFORE, IN ORDER TO MAINTAIN 20 PSI  
MINIMUM IN FEASIBLE WATER MAINS WHILE  
MAINTAINING DOMESTIC FLOW TO EACH BUILDING,  
SINGLE BUILDING SPARKLER ALLOWANCE WOULD  
BE 500 GPM MAXIMUM, SUBSTANTIALLY LESS THAN  
1000 GPM REQUIRED BY NFPA 13R 7.6.1.1

*DOLAN PROPERTIES  
 DEK 16 UNIT BUILDING*

CITY OF TROOPSPRING, VIRGINIA  
 Water Customer Data Sheet

Customer TIM DOLAN Address FALLS APTS  
 Building Address HORSE TALK ROAD Zip Code 22550  
 Subdivision C DEVELOPMENT Lot No. \_\_\_\_\_ Blk. No. \_\_\_\_\_  
 Type of Occupancy RESIDENTIAL APARTMENTS

Fixture	Fixture Value 60 psi	No. of Fixtures	Fixture Value
Bathtub	8	x <u>32</u>	= <u>256</u>
Bedpan Washers	10	x _____	= _____
Bidet	2	x _____	= _____
Dental Unit	2	x _____	= _____
Drinking Fountain - Public	2	x _____	= _____
Kitchen Sink	2.2	x <u>16</u>	= <u>35.2</u>
Lavatory	1.5	x <u>32</u>	= <u>48</u>
Showerhead (Shower Only)	2.5	x _____	= _____
Service Sink	4	x _____	= _____
Toilet - Flush Valve	35	x _____	= _____
- Tank Type	4	x <u>32</u>	= <u>128</u>
Urinal - Pedestal Flush Valve	35	x _____	= _____
- Wall Flush Valve	16	x _____	= _____
Wash Sink (Each Set of Faucets)	4	x <u>1</u>	= <u>4</u>
Dishwasher	2	x <u>16</u>	= <u>32</u>
Washing Machine	6	x <u>16</u>	= <u>96</u>
Hose (50 ft Wash Down) - 1/2 in.	5	x <u>2</u>	= <u>10</u>
- 5/8 in.	9	x _____	= _____
- 3/4 in.	12	x _____	= _____
Combined Fixture Value Total			<u>629</u>
Customer Peak Demand From Fig. 4 - 2 or 4 - 3 x Press. Factor			= <u>52</u> gpm
Add Irrigation - _____ Sections* x 1.16 or 0.40†		<u>SEPARATE METER</u>	= _____ gpm
- _____ Hose Bibs x Fixture Value x _____ Press. Factor			= _____ gpm
Added Fixed Load			= _____ gpm
TOTAL FIXED DEMAND			= <u>52</u> gpm

*USE 1 1/2" WATER  
 METER FOR BUILDING*

\* 100 ft<sup>2</sup> area = 1 section  
 † Spray systems - Use 1.16; Rotary systems - Use 0.40

Figure 4-5 Water customer data sheet

11/26/2019

Mail - Jeffrey Howeth - Outlook

Fwd: RE: follow up

dolanproperties <dolanproperties@verizon.net>

Wed 11/6/2019 7:35 PM

To: Jeffrey Howeth <jlhoweth@msn.com>

Jeff, this is a close to a fixture count as I can get. Thanks, Brenda

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

From: Robert Himmel <rhimmel@himmelhume.com>

Date: 11/6/19 5:53 PM (GMT-04:00)

To: dolanproperties <dolanproperties@verizon.net>

Subject: RE: follow up

Brenda, yes on the Typo for the proposal.

Fixture count:

Toilets: 32

Tub/shower: 32

Sinks: 48

Dishwasher: 16

Hose bib: 2

Wash Machine: 16

Utility sink: 1

Do you know which way you are leaning as far as the size of the unit?

Thanks!

## Wayne Verlander

---

**From:** Alwyn Davis  
**Sent:** Tuesday, February 4, 2020 8:46 AM  
**To:** dolanproperties@verizon.net  
**Cc:** Matt Farmer; Michael Lombardo; Wayne Verlander  
**Subject:** Riverstone Apartments

Thank you Mrs. Dolan for your time spent meeting last Thursday and for the information submitted at that time. However, we still do not have sufficient data to determine if the proposed project meets the automatic sprinkler system exception requirement of the VCC 903.2.8.

I specifically need the following information:

- water supply design requirement (water flow in gpm and pressure in psi) for the automatic sprinkler system per NFPA 13R.
- water supply available from the town at the closest connection point to the property including available flow, system static pressure and residual pressure. This data should be from an independently certified water flow test performed within the last 12 months.

The automatic sprinkler system design requirements for Group R occupancies up to 4 stories high are in NFPA 13R. The NFPA 13R standard is significantly different from NFPA 13 since it's principal purpose is life safety and not property protection, therefore, the requirements are less stringent. The water supply requirement is based on a maximum of up to the 4 most hydraulically demanding sprinkler heads. The standard may require you to add one hose connection (100 gpm) and the domestic demand for the building. This calculation can be performed by your Professional Engineer or a Fire Protection Design engineer.

If the existing water supply line must be extended to the proposed building connection, you may choose to have the available water supply at the building site calculated based on the extended piping. Begin with data from the water flow test indicated above and then calculate the effect of the extended piping. Pressure drop in the extended water line is affected by the pipe size and may be minimized by using larger pipe. Please calculate the water flow, static pressure and residual pressure available at the building site utilizing various pipe sizes (8", 10" or 12").

If you have any questions about what I am requesting, please do not hesitate to contact me for clarification.

Yours Truly,  
Alwyn W. Davis Jr.  
Essex County Building Official

## Wayne Verlander

---

**From:** Alwyn Davis  
**Sent:** Tuesday, February 11, 2020 1:13 PM  
**To:** dolanproperties@verizon.net  
**Cc:** Michael Lombardo; Wayne Verlander; Matt Farmer  
**Subject:** Riverstone Appartments

Dear Mrs. Dolan,

I have reviewed the information submitted and met with Michael Lombardo, County Administrator, regarding your project. It is the intention of the County to engage an independent third party Engineer that specializes in fire sprinkler design to review this project. Prior to contracting this review, I still need the information requested in my February 04, 2020 email, specifically the automatic sprinkler design data including demand pressure psi. In reviewing the information submitted by Mr. Howeth, it has raised additional questions about the scope of the project. I feel that it is important that I have a site plan indicating the number of units for which you are seeking a building permit. This plan should also include the point of connection to the public water supply. Once this information is received, we will proceed with third party review.

Yours Truly,

Alwyn W. Davis Jr.  
Essex County Building Official

## Wayne Verlander

---

**From:** Alwyn Davis  
**Sent:** Thursday, March 5, 2020 2:38 PM  
**To:** Wayne Verlander  
**Subject:** FW: Hobbs Hole Dr. Flow Test Report

---

**From:** Michael Lombardo <mlombardo@essex-virginia.org>  
**Sent:** Wednesday, March 4, 2020 10:38 AM  
**To:** Timothy Dolan <dolanproperties@verizon.net>  
**Cc:** Matt Farmer <mfarmer@essex-virginia.org>; Robert Akers <rakers@essex-virginia.org>; John Magruder <jmagruder@essex-virginia.org>; jsydnor@tappahannock-va.gov; Alwyn Davis <awdavis@essex-virginia.org>  
**Subject:** RE: Hobbs Hole Dr. Flow Test Report

Mr. Dolan,

At the present time Essex County has not received an application or plans that can be either approved or disapproved.

The information obtained from the independent third party engineer suggests that there is sufficient water flow and pressure to support a sprinkler system. If you wish to proceed, please submit formal plans that include a sprinkler system design consistent with NFPA 13R requirements and all the supporting data and calculations that the Building Official requires in order to review the plans.

--Michael

Michael A. Lombardo  
Essex County Administrator  
202 S. Church Lane  
P.O. Box 1079  
Tappahannock, VA 22560  
(Office) 804-443-4311

---

**From:** Timothy Dolan <dolanproperties@verizon.net>  
**Sent:** Tuesday, March 3, 2020 5:01 PM  
**To:** Michael Lombardo <mlombardo@essex-virginia.org>  
**Cc:** Matt Farmer <mfarmer@essex-virginia.org>; Robert Akers <rakers@essex-virginia.org>; John Magruder <jmagruder@essex-virginia.org>; jsydnor@tappahannock-va.gov; Alwyn Davis <awdavis@essex-virginia.org>  
**Subject:** Re: Hobbs Hole Dr. Flow Test Report

Mr. Lombardo

Thank you for this information.

Shall we take this as the county's formal decision that you will not approve our project unless we sprinkle the buildings?

Regards, Tim Dolan

Sent from my iPhone

## Wayne Verlander

---

**From:** Alwyn Davis  
**Sent:** Monday, April 27, 2020 6:30 AM  
**To:** Wayne Verlander  
**Subject:** Fwd: Notice of Appeal-Time Sensitive

Sent from my iPhone

Begin forwarded message:

**From:** Michael Lombardo <mlombardo@essex-virginia.org>  
**Date:** April 21, 2020 at 10:51:27 AM EDT  
**To:** Timothy Dolan <dolanproperties@verizon.net>  
**Cc:** William Luter <travis.luter@dhcd.virginia.gov>, "McRoberts, Andrew R." <amcroberts@sandsanderson.com>, Matt Farmer <mfarmer@essex-virginia.org>  
**Subject:** RE: Notice of Appeal-Time Sensitive

Mr. Dolan,

There has been no "nondecision" dating back to December 2019. Discussions prior to March 18, 2020 – the date we received your application – were informal as part of the pre-application process and meant to provide you guidance on the data and information that would be required in order for the County to a complete review of your application. I am just off the phone with the Planning Director, Matt Farmer, and confirmed that your application is incomplete and that you have not provided the information requested of you. Is it your intention to comply with our requests or are stating that no additional information will be provided? I've copied Mr. Farmer on this email and request that he provide you an additional letter summarizing what has been requested and remains outstanding.

--Michael

Michael A. Lombardo  
Essex County Administrator  
202 S. Church Lane  
P.O. Box 1079  
Tappahannock, VA 22560  
(Office) 804-443-4311

---

**From:** Timothy Dolan <dolanproperties@verizon.net>  
**Sent:** Monday, April 20, 2020 11:47 AM  
**To:** Michael Lombardo <mlombardo@essex-virginia.org>  
**Cc:** William Luter <travis.luter@dhcd.virginia.gov>  
**Subject:** Re: Notice of Appeal-Time Sensitive

Mr. Lombardo

You have completely misread my Notice of Appeal. I am not appealing the Application. I am appealing the nondecision on the exception which goes back to December, 2019. I have

discussed this matter with the State Technical Review Board and they have agreed with me that this lack of a decision is appealable. Your emergency ordinance provides for meetings by electronic communication.

You do not have the discretion as County Administrator to allow or disallow the appeal. This discretion lies with the LBBCA. Please send the Notice of Appeal to them as required by law. Also, the County is in violation of the Code for not having a Secretary of the LBBCA. Please correct this violation immediately so that I may correspond with him/her as required by law.

Regards, Tim Dolan

Sent from my iPhone

On Apr 20, 2020, at 11:11 AM, Michael Lombardo <[mlombardo@essex-virginia.org](mailto:mlombardo@essex-virginia.org)> wrote:

Mr. Dolan,

Attached response to your Notice of Appeal.

--Michael

Michael A. Lombardo  
Essex County Administrator  
202 S. Church Lane  
P.O. Box 1079  
Tappahannock, VA 22560  
(Office) 804-443-4311

**From:** [dolanproperties@verizon.net](mailto:dolanproperties@verizon.net)  
<[dolanproperties@verizon.net.evaniuylfkhzuzi.mesvr.com](mailto:dolanproperties@verizon.net.evaniuylfkhzuzi.mesvr.com)>  
**Sent:** Friday, April 10, 2020 12:19 PM  
**To:** Michael Lombardo <[mlombardo@essex-virginia.org](mailto:mlombardo@essex-virginia.org)>; April Rounds  
<[arounds@essex-virginia.org](mailto:arounds@essex-virginia.org)>  
**Subject:** Notice of Appeal-Time Sensitive

Mr. Lombardo:  
*Attached find a Notice of Appeal to the Essex County Local Board of Building Code Appeals. The Code of Virginia requires the Notice of Appeal to be sent directly to the LBBCA, but your website does not provide contact information for the members. Please distribute this Notice to each member of the Board. If you prefer that I distribute it, please provide me with the contact information for each member of the Board.*  
Regards, Tim Dolan

<Riverstone Development\_Response to Appeal Request.pdf>

May 7, 2020

Meeting Minutes

Attendees: Matt Farmer, Alwyn Davis Jr., Wayne Verlander, Heather Hostinsky, Jeff Howeth, Brenda Dolan, Tim Dolan

Bullet Point 1 - Wayne Verlander asked for clarification of scope of Building Permit application; what is being constructed. Jeff Howeth confirmed that the permit application is for construction of 9, two story apartment buildings with a cost of \$950,000 each and approximately 20,010 sq. ft. each; a more refined number for the square footage is on the architectural designs. Street parking - 32/306 on page one of application was clarified by Jeff Howeth as numbers directly off the site plan from the Town of Tappahannock, 32 spaces per building and 306 total spaces which includes additional smaller units (Villas). Wayne Verlander asked if construction of the 9 buildings would be phased and if there is a schedule for the implementation of construction of the buildings? Jeff Howeth responded and said not under the COVID 19 canvas, the intent was to build 9. Wayne stated the importance of having a construction schedule when you get into phased construction to maintain progress throughout the scheduled duration. After issuance of a permit, if there is a period of more than 6 months with no progress on a project, the permit may be revoked by the Building official. Future construction after revocation would require another permit application with associated fees. Jeff Howeth stated that he understands that and with every other state agency out there they have to submit the project as a whole, for DEQ, VDOT, DEQ with Wastewater it is a 153 unit project, once it is approved, the site plan lives for 5 years according to the state law. Heather will scan clarification notes for scope of the permit and send to Mr. and Mrs. Dolan; they will sign them and return to Heather.

Bullet Point 2 - Site plans - Wayne stated that we have received complete site plans for the first 5 buildings (pages 1-15 of the site plans) and page 16 is a development sheet with the other 4 buildings (phase 2) with no detail. Wayne indicated that we need complete site plan drawings for 9 buildings since the building permit application is for 9 buildings. Jeff Howeth responded that he has them completed and will deliver them to the Building Inspection office.

Bullet Point 3 - Architectural plans – Wayne pointed out there needs to be a cross reference between separate sets of drawings (architectural, site plans, etc). If you are going to show a building block on the site plans and say “typical inset”, it would be a good idea to cross reference it to the specific architectural drawing for that building. Wayne stated he just wants everything cross referenced so if someone picks up a set of drawings at a later date, they understand what they are looking at.

Bullet Point 4 - Wayne said that we do not need to spend a lot more time on the subject of consistency between documents; just need to make sure all information is consistent, so we are all clear on what we are saying. A quick example was the permit application indicated 20,010 sq. ft per building, the

architectural drawing indicates 18,894 sq. ft. and the site plans narrative indicates 5 buildings with 12,725 sq. ft. each.

Bullet Point 5- Approved Zoning Permit- Wyn- The Zoning Permit was issued on April 24 by Frank Sanders with some conditions, which we have received. We were waiting on the zoning permit, as we usually don't review plans without having the approved Zoning Permit from the Town of Tappahannock and that had been mentioned in the past. Wyn is well into the review of the E&S plan. Basis of this bullet point was that you didn't have the approved Zoning Permit, because we were refusing to provide a decision on the fire wall exception posed in January. Since we have a Zoning Permit now we will proceed with the review. Jeff Howeth asked are you saying we can get a decision since you have this since you have received this information. Wyn said yes sir, we are going to move forward with the review and provide an answer to you soon.

Bullet Point 6- Wyn- had a question on Storm Water Plan. Ms. Xing Lyn at DEQ had mentioned several storm water ponds and BMPs that would be a part of the E&S plan as far as inlet and outlet protection, anything else that would be on a storm water plan and we don't have that, or have the location of any of the BMP's, she mentioned 7 of them, Wyn asked if Jeff had something that he could send us. Jeff Howeth said yes, and asked if Wyn had the Hydrology report that went along with it. Wyn said, no sir. Jeff said that all the notes in that, everything that Xing Lyn asked for was in that, and Jeff is taking that up with Derek now, except for the profile through ponds, he profiled the culverts. Wyn- no, we do not have that book and what he really wanted to see was on final site plan where the basins and BMPs would be located. Jeff said in the book there is a diagram and everything is coded. Wyn asked for a copy of the book, and Jeff is going to get him a copy of it.

Wyn-Bullet Points 6 & 7 are pretty much tied together. Wyn's goal was after the meeting today get finished up with the E&S plan and get moving to the next thing as soon as possible.

Jeff asked if Wyn has seen the VDOT & DEQ letters. Wyn has not seen the VDOT letter, but would like to have it in the file. Jeff is going to send the VDOT letter and the hydrology report to Wyn. Wyn has already received the geotechnical report. Jeff is also going to send the site plan detail for phase 2. Jeff wants to know how soon do you think we can get an answer. Wyn and Wayne said a couple weeks out, 2-3 weeks once everything is received. Wyn said if they have any questions they will give Jeff or the architect a call, it is just important to work closely and together on it, we haven't done that since December 24, he is happy to hear that we are at least communicating on it because that's what it takes to get a project done. Jeff agreed, and confirmed that he is going to get his stuff together and that Heather is going to get minutes and application notes from meeting over to them.

## Wayne Verlander

---

**From:** Heather Hostinsky  
**Sent:** Thursday, May 14, 2020 12:29 PM  
**To:** jlhoweth@msn.com; Timothy Dolan  
**Cc:** Alwyn Davis; Wayne Verlander; Matt Farmer  
**Subject:** Documents requested in May 7 meeting

Good afternoon,

Per the meeting minutes that were sent out yesterday from our meeting on May 7, 2020 Jeff said that he is going to be delivering the complete site plan drawings for 9 buildings, the hydrology report and the letter from VDOT to the Building Office. We were wondering when we can be expecting to receive those documents.

Thank you

### **Heather Hostinsky**

*Building and Zoning Office Manager*

Essex County

202 South Church Lane

P.O. Box 549

Tappahannock, VA 22560

804-443-3256

## Wayne Verlander

---

**From:** Matt Farmer  
**Sent:** Friday, May 8, 2020 9:02 AM  
**To:** Wayne Verlander  
**Subject:** RE: Meeting with Engineer Firm  
**Attachments:** Questions for Flow Test.docx

Attached. It was questions sent in by Mr. Dolan.

---

**From:** Wayne Verlander  
**Sent:** Thursday, May 7, 2020 6:39 PM  
**To:** Matt Farmer <mfarmer@essex-virginia.org>  
**Subject:** Fwd: Meeting with Engineer Firm

Hello Matt - could you please send your original message that the engineer is responding to?  
Thanks,  
Wayne

Get [Outlook for iOS](#)

---

**From:** Alwyn Davis <awdavis@essex-virginia.org>  
**Sent:** Thursday, May 7, 2020 4:54 PM  
**To:** Wayne Verlander  
**Subject:** Fwd: Meeting with Engineer Firm

FYI.

Sent from my iPhone

Begin forwarded message:

**From:** Matt Farmer <mfarmer@essex-virginia.org>  
**Date:** May 7, 2020 at 4:23:19 PM EDT  
**To:** Heather Hostinsky <hhostinsky@essex-virginia.org>  
**Cc:** Alwyn Davis <awdavis@essex-virginia.org>, Wayne Verlander <wverlander@essex-virginia.org>  
**Subject:** RE: Meeting with Engineer Firm

*I would suggest trying to call him. Below is the last email he sent, which has his name and contact information.*

Mr. Farmer,

My current schedule will not allow me to continue any further with this project. Here are some basic answers to the questions you sent. I hope this helps with your project going forward.

1. The fire sprinkler design is not to a level where hydraulic calculations were run.

2. See answer to #1.
3. See answer to #1. Cross connection requirements are found at the county level. This building is considered a "lo hazard" system in terms of the fire sprinkler system. Many jurisdictions including the City of Richmond and Chesterfield county would only require a standard double gate, double check type backflow preventer. State agencies defer to each county's cross connection dept.
4. There is no code mandated safety factor in sprinkler calculations. 5 psi is a typical figure.
5. See answer to #1.
6. Domestic demand is not included in fire sprinkler calculations unless the connection to the water supply is made on the building side of the water meter. This is rare except in cases of limited sprinkler systems and/or 13D type systems, neither of which you have.
7. See answer to #1.
8. Hydrant flow test do not require the presence of a PE.
9. Fire sprinkler companies are more than qualified to perform hydrant flow tests. As stated above, PE firms are not required to conduct a hydrant flow test. Such a company would probably be my last choice to conduct such a test.
10. No comment.
11. Hydrant flow tests should be conducted at a point closest to the connection point for a new fire sprinkler system. Whether those underground mains are public or private are not a factor.
12. The reference is incorrect. Maybe 13R, 9.3.1. A county water supply is typically categorized as reliable.

Good luck with your project.

**Joe Beck**, P.E. - NC, SC, TN, VA

804 590 0962 Office

804 691 3640 Cell

---

**From:** Heather Hostinsky

**Sent:** Thursday, May 7, 2020 3:50 PM

**To:** Matt Farmer <[mfarmer@essex-virginia.org](mailto:mfarmer@essex-virginia.org)>

**Cc:** Alwyn Davis <[awdavis@essex-virginia.org](mailto:awdavis@essex-virginia.org)>; Wayne Verlander <[wverlander@essex-virginia.org](mailto:wverlander@essex-virginia.org)>

**Subject:** Meeting with Engineer Firm

Matt,

Wyn and Wayne would like to know if there is any way that you could get a meeting set up for Thursday, May 14, 2020 at 10am with the engineer firm that did the flow testing? They would need the actual engineers on the call not the techs that actually did the field work due to having technical questions.

Thank you.

**Heather Hostinsky**

Building and Zoning Office Manager

Essex County

202 South Church Lane

P.O. Box 549

Tappahannock, VA 22560

804-443-3256

Because this opinion was based on a lack of pertinent information, and that we were not allowed to attend the test, we have the following questions for Mr. Beck:

1. Was the pressure/flow corrected to the point of connection?
2. What distance was used for the piping to the northeast building, which will be the first building to be constructed?
3. Our VDH calculations clearly stated that an RPZ backflow preventer would be required for these sprinklers in accordance with the Town's Cross Connection Program monitored by VDH. Why was this omitted from the Engineer's analysis?
4. The Town requires a large safety factor. Why was this omitted from the Engineer's analysis?
5. It was clearly stated that the northeast building only had 32 gpm of available flow at 21 psi based upon the VDH calculations. How does the Engineer determine that there is enough pressure and flow for a sprinkler system? Where are the Engineer's calculations regarding the potable water system hydraulics? These calculations should be provided and issued under the seal of the Engineer for review by all parties involved.
6. What values did the Engineer use for the domestic demand? Were they computed from actual fixture counts or estimated? Also, did the Engineer use the AWWA high or low flow rate curve for demand?
7. What minimum flow rate did the Engineer use for the outside hydrant flow allowance. The NFPA 13R standard requires 100 gpm hose allowance while the VDH Waterworks Regulations requires 250 gpm for a hydrant to be installed at all.
8. Why wasn't the Professional Engineer present at the hydrant flow test?
9. Why was a sprinkler company engaged to perform the hydrant flow test instead of a full-service engineering firm with a Professional Engineer present during the test? Also, is the Professional Engineer employed by the sprinkler company? If not, did the Professional Engineer disclose his relationship in writing regarding the sprinkler company prior to Essex County contracting him to do the work?
10. Was this analysis for one building or all nine buildings supported by the zoning of the property?
11. Why was the Hydrant Flow Test Report performed for private fire service mains instead of public water mains?
12. Why was NFPA 13R, section 9.4.1 ignored? Mr. Beck references 13R but fails to comply with this section.

## Wayne Verlander

---

**From:** Alwyn Davis  
**Sent:** Tuesday, May 19, 2020 8:05 PM  
**To:** Wayne Verlander  
**Subject:** Fwd: Response Letter - Notice of Appeal 05/01/2020

FYI

Sent from my iPhone

Begin forwarded message:

**From:** "dolanproperties@verizon.net" <dolanproperties@verizon.net>  
**Date:** May 19, 2020 at 12:12:34 PM EDT  
**To:** April Rounds <arounds@essex-virginia.org>  
**Cc:** Michael Lombardo <mlombardo@essex-virginia.org>, Matt Farmer <mfarmer@essex-virginia.org>, Alwyn Davis <awdavis@essex-virginia.org>  
**Subject: Re: Response Letter - Notice of Appeal 05/01/2020**  
**Reply-To:** "dolanproperties@verizon.net" <dolanproperties@verizon.net>

Mr. Lombardo

I am in receipt of your letter dated May 14, 2020.

As I said in my correspondence of April 22, 2020, you have no authority to decide what is appealable, and what is not. That decision is solely within the purview of the LBBCA.

Further, your assertion that there must be a decision before an appeal can be taken is clearly wrong in light of Mr. Luter's correspondence of this morning. He states "The Review Board has historically held that the lack of decision by a building official constitutes a decision **THAT IS APPEALABLE.**" (emphasis added).

Further, COVID 19 is not a basis for delaying the LBBCA meeting in light of the Attorney General's opinion that electronic meetings can be held. In fact, Essex County has convened several Board of Supervisors meetings, that School Board conducted a live meeting last night, the Building and Zoning Office has conducted a Zoom meeting with our engineer and us, and many other meeting are on the Essex County public schedule. The meeting of the LBBCA in this matter is being delayed in retaliation against us and is *discriminatory to our project.*

Tim Dolan

-----Original Message-----

**From:** April Rounds <arounds@essex-virginia.org>  
**To:** dolanproperties@verizon.net <dolanproperties@verizon.net>  
**Cc:** Michael Lombardo <mlombardo@essex-virginia.org>; Matt Farmer <mfarmer@essex-virginia.org>; Alwyn Davis <awdavis@essex-virginia.org>  
**Sent:** Mon, May 18, 2020 3:07 pm  
**Subject:** Response Letter - Notice of Appeal 05/01/2020

Mr. Dolan,

Please find attached a communication from the County Administrator.

If you have any questions, you can contact the County Administrator's Office at 804-443-4331.

Respectfully,  
April L. Rounds

Deputy Clerk to the Board of Supervisors  
Essex County Administration  
202 S. Church Lane  
P.O. Box 1079  
Tappahannock, VA 22560  
(direct) 804-443-4332



**Essex County**  
VIRGINIA



**Essex County**  
VIRGINIA

May 20,2020

Wyn Davis

Building Official

202 South Church Lane

Tappahannock, VA. 22560

Dear Mr. Davis

After reviewing the site drawings for Riverstone Apartments, the Emergency Services Chief and I both agree that the apartments should be equipped with a sprinkler system. We would also like to have provided to us and added to the site drawings the fire flow calculation for the buildings to be constructed and certify that the required water flow will be available at the site to fight any future fires using the fire hydrants on site.

Sincerely,



Paul Richardson

Fire Chief

Tappahannock/Essex Volunteer Fire Dept.



James W. Brann

Chief of Emergency Services

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

May 29, 2020

Essex County  
202 S. Church Lane  
Tappahannock, VA 225660

VIA Email and Hand Delivery

Re: Essex County Local Board of Building Code Appeals Meeting

Dear Essex County,

After consulting with the Chairman of the Local Board of Building Code Appeals it is decided to hear appeals dated April 10, 2020 and May 1, 2020 at the same meeting. Since the party requesting the appeal has requested the 14 day notice prior to the meeting for the appeal dated May 1, 2020 we will be pushing the meeting from June 3, 2020 out to June 17, 2020 at 6pm. The meeting will be held at the Essex County School Board Office located at 109 Cross Street, Tappahannock, VA 22560. If anything changes and we are not able to meet in person a Zoom Meeting will be scheduled for the same date and time.

Thank you,

  
Heather Hostinsky

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

May 29, 2020

Mr. and Mrs. Dolan  
11500 Bridgetender Drive  
Henrico, VA 23233

VIA Email and Certified Mail

Re: Essex County Local Board of Building Code Appeals Meeting

Dear Mr. and Mrs. Dolan,

After consulting with the Chairman of the Local Board of Building Code Appeals it is decided to hear your appeals dated April 10, 2020 and May 1, 2020 at the same meeting. Since you have requested the 14 day notice for your appeal dated May 1, 2020 we will be pushing the meeting from June 3, 2020 out to June 17, 2020 at 6pm. The meeting will be held at the Essex County School Board Office located at 109 Cross Street, Tappahannock, VA 22560. If anything changes and we are not able to meet in person a Zoom Meeting will be scheduled for the same date and time.

Thank you,

A handwritten signature in black ink that reads "Heather Hostinsky". The signature is written in a cursive, flowing style.

Heather Hostinsky

Building & Zoning  
Alwyn W. Davis Jr.  
Building Official  
Environmental Compliance Officer  
202 South Church Lane  
P.O. Box 1079  
Tappahannock, Virginia 22560  
(804) 443-3244  
www.essex-virginia.org



Established 1692

May 29, 2020

Riverstone Development LLC  
11500 Bridgetender Drive  
Henrico, VA 23233

Subject: Follow up to Sprinkler Requirement Decision

Dear Mr. and Mrs. Dolan,

I am writing this follow up letter regarding my request in a letter dated May 21, 2020. Your review is currently on hold until I receive the information requested. Additionally, I still have not received the information that Mr. Howeth stated that he would deliver to me following our May 7, 2020 meeting. Furthermore, it is imperative that I have this information prior to making a decision on your application.

Sincerely,

Alwyn Davis  
Essex County Building Official

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Additional Documents  
Submitted By  
Essex County

(Page left blank intentionally)

VIRGINIA:

BEFORE THE  
STATE BUILDING CODE TECHNICAL REVIEW BOARD (REVIEW BOARD)

**IN RE**            **Timothy Dolan**  
                      **Appeal No. 20-01**

**WRITTEN ARGUMENT OF THE COUNTY OF ESSEX, VIRGINIA**

The County of Essex, Virginia, (the "County"), by counsel, submits the following to the State Building Code Technical Review Board (the "Review Board") as its written argument in response to the appeal filed by the appellant, Timothy Dolan ("Mr. Dolan").

**1. Factual Background.** The County asks that the following additions and corrections be made to the factual background provided by the Review Board Staff in their Suggested Summary of Case History and Pertinent Facts. Paragraphs 1 through 4 concern the procedural posture of this matter and require additional clarifications. Mr. Dolan has filed three appeals to the County's Local Board of Building Code Appeals ("LBBCA") that are relevant to this matter, dated April 10, 2020, May 1, 2020, and June 15, 2020, respectively. Each is addressed in turn below:

**a. April 10, 2020 LBBCA Appeal.** Paragraph 1 correctly states that Mr. Dolan's first LBBCA appeal dated April 10, 2020, which is the appeal presently before the Review Board, alleges inaction on the part of the County's Building Department on the building permit application filed by Mr. Dolan a month prior on March 17, 2020. (Draft Record p. 139-142.) By letter dated April 20, 2020, the Essex County Administrator responded to this application for appeal, stating that it would be forwarded to the LBBCA but advising that "due to the ongoing state of emergency[from the COVID-19 pandemic] declared by the Commonwealth and the County of Essex ("County"), and the County's continuity of

government ordinance, the LBBCA is not required to schedule a hearing within thirty days of your request." (Draft Record p. 10.) The County further advised Mr. Dolan of its position that an application to the LBBCA was premature because no decision had yet been made on the March 17, 2020 building permit application, which was also deemed incomplete by the County. (Draft Record p. 10.)

As stated in Paragraph 2 of the Staff Document, Mr. Dolan then sought to appeal the alleged inaction that was raised in his April 10, 2020 LBBCA application to the Review Board by application received May 12, 2020. Paragraph 3 of the Staff Document correctly summarizes the exchanges between the parties regarding the scheduling of an LBBCA hearing on the April 10, 2020 application, which was ultimately heard on June 17, 2020. At that hearing, the LBBCA dismissed Mr. Dolan's application, finding that there was no decision to appeal. (Draft Record p. 80.) The LBBCA issued its Resolution on June 30, 2020 (Draft Record p. 4) which was appealed to the Review Board on July 13, 2020, as stated in Paragraph 4 of the Staff Document.

**b. May 1, 2020.** In the interim between the filing of the April 10, 2020 LBBCA Appeal and Mr. Dolan's application to the Review Board dated May 11, 2020 based upon that appeal, Mr. Dolan filed a second appeal with the LBBCA dated May 1, 2020. This application did not appeal a particular decision of the Building Official, but rather alleged violations of the Construction Code. A copy of this Notice of Appeal was included with the County's May 27, 2020 letter to the Review Board (Draft Record p. 72), but was not included in the Draft Record because the appeal was subsequently dropped by Mr. Dolan at the June 17, 2020 LBBCA hearing (Draft. Record p. 79).

c. **June 15, 2020 LBBCA Appeal.** The third LBBCA appeal relevant to the matter before the Review Board is the application for appeal filed with the LBBCA by Mr. Dolan on June 15, 2020, a copy of which is attached hereto as **Exhibit A** for inclusion in the Record. As is detailed in the County's suggested edits (discussed below) to Staff's timeline of events in Paragraph 5 of the Staff Document, on May 7, 2020, the parties to this appeal met to discuss Mr. Dolan's March 17, 2020 building permit application and identify additional information required by the Building Department for its review and examination under Section 109.4 of the Virginia Construction Code ("VCC"). Subsequent to this May 7<sup>th</sup> meeting, the County's Building Department sent follow-up correspondence to Mr. Dolan dated May 14, 2020 (Draft Record p. 120), May 22, 2020 (Draft Record p. 43), May 29, 2020 (Draft Record p. 136), and June 5, 2020 (Draft Record p. 45-46) identifying and requesting the required information. In his last letter dated June 5, 2020, the Building Official advised Mr. Dolan that if the information was not received by June 12, 2020, he would have no choice but to deny the March 17, 2020 building permit application. (Draft Record p. 46.) The information was not received by this date, and in fact Mr. Dolan's engineer sent a letter dated June 13, 2020 stating that his client had "intentionally failed to provide the requested information by the deadline." (Draft Record p. 47.) Accordingly, on June 15, 2020, the Building Official sent a letter denying Mr. Dolan's March 17, 2020 building permit application for lack of information and incompleteness. (See **Exhibit A**.) Mr. Dolan promptly appealed the denial of his building permit application to the LBBCA, and a hearing on the denial was held on July 13, 2020. At this hearing, the LBBCA voted to affirm the denial of Mr. Dolan's building permit application, and issued its Resolution of this ruling on July 15, 2020, a copy of which is attached hereto as **Exhibit B** for inclusion in the Record. Importantly, the deadline to appeal this decision pursuant to Section

119.8 of the VCC was August 18, 2020, and Mr. Dolan failed to appeal as permitted by law. The County received no notice that Mr. Dolan filed an appeal or attempted to file an appeal. Accordingly, pursuant to Section 119.8, the failure to appeal the LBBCA's July 15, 2020 decision constitutes an acceptance of the Building Officials denial of the March 17, 2020 building permit application.

**d. Timeline.** Finally, with respect to the timeline provided in Paragraph 5 of the Staff Document, the County has the following proposed revisions, which are shown in ~~strikethrough~~, and suggested additions, which are shown in **bold**:

- December **11**, 2019 - Essex Building Official and Robert Himmel agreed that VCC Section 903.2.8 applied to the proposed project **“if we can prove the water pressure or volume or both are not available”** (Page 12 of Draft Record)
- December 20, 2019 - First submission by architect to Essex Building Official of 30% design drawings for 1 apartment building (Page 13-14 of Draft Record)**
- December 21, 2019 - Essex Building Official indicates that water pressure and volume is available to sprinkler the building (Page 13-14 of Draft Record)**
- January 3, 2020 - Jeffrey Howeth, engineer for Mr. Dolan, communicates to the Town of Tappahannock a sprinkler demand of 800 gpm flow with 70-80 psi pressure (based on an ISO Fire Flow calculator) and a 2 hour fire flow requirement (Page 13-14 of Draft Record)**
- January 3, 2020 - Town of Tappahannock acknowledges that the municipal system cannot meet the sprinkler pressure or volume requirements for the proposed project; therefore, would require a tank and booster pump (Page 14 of the Draft Record)
- January 9, 2020 - First **informal** request for the Building Official to apply the exception of VCC Section 903.2.8 eliminating the requirement to install an automatic sprinkler system (Page 15 of the Draft Record). **No application for building permit was yet submitted.**
- January 13, 2020 - Essex County Building Official ~~opined that he thought the buildings would be better served by an automatic sprinkler system~~ **indicates his belief that the volume and pressure may be available or made available if properly designed** and recommended a study by an ~~and~~ engineer who practices the design of these systems on a regular basis to determine if a sprinkler system would work for the proposed project (Page 16 of the Draft Record)

- January 13, 2020 - **The applicant, Timothy Dolan, does not believe further studies are required and issues a second informal request for the Building Official to apply the exception of VCC Section 903.2.8 eliminating the requirement to install an automatic sprinkler system (Page 65 of the Draft Record). Again, no application for building permit was yet submitted.**
- January 21, 2020 - Essex Building Official communicates to Timothy Dolan and requests that a design engineer provide water flow and pressure requirements for a sprinkler system compliant with NFPA 13R (New Page of the Draft Record, attached hereto as Exhibit D)**
- January 28, 2020 Jeffrey Howeth, engineer for Mr. Dolan, indicates a sprinkler demand of 1000 gpm based on his application of NFPA 13R and a maximum allowance of 500 gpm at the site after subtracting the required domestic flow for each building (Page 89 of the Draft Record).**
- February 4, 2020 - Essex Building Official again requests flow and pressure requirements for a NFPA 13R compliant system and water supply flow and pressure available at property connection point (Page 95 of the Draft Record)**
- February 6, 9, 2020 - J. L. Howeth P.C., engineer for the Dolans, provided calculations and design that the proposed project met the exception requirement of VCC Section 903.2.8 (Page 18 27, of the Draft Record)
- February 11, 2020 - Essex Building Official again requests automatic sprinkler system design data including demand pressure psi. He also requests a site plan with the total number of units proposed to be built. (Page 102 of the Draft Record)**
- February 13, 2020 - Town of Tappahannock confirmed that the municipal system could not guarantee water for the sprinkler system for the proposed project “**with the information that the Town of Tappahannock has been provided**” (Page 28 of the Draft Record)
- February 27, 2020 - Essex County provided evidence that the municipal system was adequate and that the necessary pressure and flow existed via Hydrant Flow Test performed by eTec Fire Protection (Pages 29-31 and 104-105 of the Draft Record)
- March 4, 2020 - Essex County Administrator instructs Dolan to submit plans that include a sprinkler system design consistent with NFPA 13R (Page 103 of the Draft Record)
- March 5, 2020 - Dolan challenges the findings of the Hydrant Flow Test performed by eTec Fire Protection (Page 67-69 of the Draft Record)
- March 8 17, 2020 - Dolan submitted a **building** permit application (Page 139-142 of the Draft Record)

- March 26, 2020 - Essex Building Official requests clarification on the scope of the building permit application and also requests engineered drawings for the entire scope (Page 36 of the Draft Record)**
- March 29, 2020 - Jeffrey Howeth attempts to clarify that the scope of the permit includes 9 apartment buildings and promises to provide a set of Final Site Plans for review (Page 37 of the Draft Record)**
- April 10, 2020 - Dolan filed an application for appeal to the Essex County Local Board of Building Code Appeals **challenging the Building Official's failure to act on the March 17, 2020 building permit application****
- April 20, 2020 - Essex County Administrator responds to April 10, 2020 application for appeal to the LBBCA explaining he will forward the application for appeal to the LBBCA but some delay due to COVID-19 would be involved (Page 10 of the Draft Record)**
- April 21, 2020 - Essex County Administrator indicates to Timothy Dolan that the building permit application is incomplete and requires additional information (Page 115 of the Draft Record).**
- April 22, 2020 - Essex Planning Director again requests information required for the County to review the building application (Page 39 of the Draft Record)**
- May 7, 2020 - Essex County personnel hold a meeting with the Dolans and Jeffrey Howeth via conference call to clarify all information required for the building permit. Mr. Dolan's Engineer, Jeffrey Howeth, promised to deliver complete site plans for the proposed 9 buildings, the hydrology report and VDOT letter in a few days. (Meeting Minutes Pages 118-119 of the Draft Record)**
- May 12, 2020 - Dolan filed an appeal application to the State Building Code Technical Review Board, **even though the LBBCA had not yet considered his underlying April 10, 2020 appeal** (Page 5 of the Draft Record)**
- May 14, 2020 - Follow up request to Mr. Dolan by Building Official for information promised during May 7, 2020 meeting (Page 120 of the Draft Record)**
- May 22, 2020 - Follow up request by Building Official to Dolan for information promised during May 7, 2020 meeting (Page 43-44 of the Draft Record).**
- May 29, 2020 - Follow up request by Building Official to Dolan for information promised during May 7, 2020 meeting (Page 136 of the Draft Record)**
- June 5, 2020 - Follow up request by Building Official to Dolan for information promised during May 7, 2020 meeting (Page 45-46 of the Draft Record)**
- June 12, 2020 - Permit application denied **for lack of information required** (Page 76 of the Draft Record)**

- June 13, 2020 - Mr. Dolan's engineer, Jeffrey Howeth, responds to the Essex Building Official admitting that he and his clients have “intentionally failed to provide the requested information by the deadline” (Page 47 of the Draft Record)**
- June 15, 2020 - Dolan filed a second application for appeal to the Essex County Local Board of Building Code Appeals; this time with the needed written decision of the Essex County Building Official ~~Local Board of Building Code Appeals~~. (New Page of the Draft Record, attached hereto as Exhibit A)**
- June 17, 2020 - Essex County Local Board of Building Code Appeals hearing **on April 10, 2020 application for appeal based on alleged inaction of the Building Official** (Page 75 of the Draft Record)
- June 18, 2020 - Essex Building Official again requests clarification of hydraulic calculations. (New Page of the Draft Record, attached hereto as Exhibit D)**
- June 30, 2020 - Written decision of the Essex County Local Board of Building Code Appeals **on the April 10, 2020 application for appeal based on alleged inaction** was signed and dated (Page 4 of the Draft Record)
- July 13, 2020 - Essex County Local Board of Building Code Appeals hearing **on June 15, 2020 application for appeal based on denial of building permit application**
- July 15, 2020 - Written decision of the Essex County Local Board of Building Code Appeals on June 15, 2020 application for appeal based on denial was signed and dated (New Page of the Draft Record, attached hereto as Exhibit B)**
- August 18, 2020 - Dolan fails to appeal the July 15, 2020 decision of the LBBCA based on the denial of his permit application in a timely manner as permitted by law**

**2. The LBBCA decision should be affirmed.** With respect to the first Suggested Issue for Resolution by the Review Board, the County submits that the decision of the LBBCA should be affirmed. Mr. Dolan's April 10, 2020 LBBCA application was properly dismissed because (a) there was no decision of the Building Official to appeal and (b) there was no inaction on the part of the County's Building Department.

a. **No Decision.** The ability to file an application for appeal with the LBBCA is established pursuant to Section 119.5 of the VCC, which states in relevant part that "[a]ny person aggrieved by the local building department's application of the USBC or the refusal to grant a modification to the provisions of the USBC may appeal to the LBBCA." Thus, in order to be aggrieved, the applicant must be harmed by an affirmative action or decision of the local building department – either through its application of the USBC or its refusal to grant a modification of the USBC. The Review Board has previously addressed the issue of what is required to be aggrieved under the VCC and held that there must be "a denial of some personal or property right, legal or equitable, or imposition of a burden or obligation upon a party different from that suffered by the public generally." Decision of Review Board, Appeal No. 17-6, at pg. 3. Furthermore, the jurisdiction of the LBBCA itself is limited by the VCC, which states in Section 119.7 that the LBBCA only has the authority to "uphold, reverse, or modify **the decision of the official** by a concurring vote of a majority of those present." (emphasis added).

In this case, there was no such denial or particularized harm by which Mr. Dolan could be aggrieved. Therefore, there was no decision that the LBBCA could "uphold, reverse, or modify" in conducting its prescribed duties under Section 119.7 of the VCC. In fact, when the subject appeal was filed with the LBBCA, the March 17, 2020 building permit application had only been under review for less than a month (although the County had been in informal pre-application discussions with Mr. Dolan regarding the proposed application since the beginning of the year). The County's Building Department was in the process of examining the submitted application and requesting additional information required to conduct that examination, as required by Section 109.4 of the VCC, when the subject appeal was filed a mere 24 days after submission of the permit application on April 10, 2020. Accordingly, as of the date the LBBCA appeal was

filed, the Building Official had not yet made a decision on the building permit application or the attendant question of whether the sprinkler exception of Section 903.2.8 of the VCC applies, and therefore there was no decision or denial to appeal. Accordingly, Mr. Dolan is not a person aggrieved under Section 119.5 of the VCC and has no standing to bring this appeal.

**b. No Inaction.** Moreover, even if the Review Board includes the pre-application meetings and discussions between the parties regarding the applicability of Section 903.2.8 of the VCC leading up to Mr. Dolan's April 10, 2020 appeal in its analysis, the record of this case recited above clearly demonstrates that there was no inaction on the part of the County's Building Department. Quite to the contrary, the robust record shows consistent, timely, and extensive action by the Building Department to respond to Mr. Dolan's questions and examine his March 17, 2020 building permit application. Importantly, the Building Department made numerous requests for information necessary to examine the building permit application and determine whether the sprinkle exception applies to the project, but those requests were either ignored or not fully and accurately responded to by Mr. Dolan. The County's Building Department has prepared a presentation addressing the allegations of inaction which details its extensive work and record of responsiveness in this case. This presentation is attached hereto as **Exhibit C**, and will be discussed in detail by Building Department Staff during the County's presentation of its case before the Review Board. The County has also attached three additional documents referenced in that presentation as **Exhibit D**, which it requests also be added to the Record of this case. As the supplemented timeline included above shows, and as the Building Department's presentation will further detail, there has been no "inaction" by the Building Department in this matter. Far from it. Because that alleged inaction is the factual predicate for the April 10, 2020 appeal, it was properly dismissed by the LBBCA.

**3. This scope of this appeal is limited to whether or not there was inaction creating a decision by implication.** The Staff Document states in its Suggested Issue for Resolution by the Review Board that if the Review Board overturns the LBBCA's dismissal of the April 10, 2020 application for appeal based on alleged inaction, there are two other issues for resolution:

# 2. Whether adequate water, pressure, and/or flow is available at the proposed site; and

# 3. Whether the exception of VCC Section 903.2.8 (Group R) applies to the project proposed by Timothy Dolan.

The County strongly disagrees that these issues are properly before this Board. Neither of these issues was before the LBBCA in its consideration of the "inaction" appeal below, which is now before this Board. Moreover, neither issue is before the Review Board because a decision on the March 17, 2020 building permit application, to which both issues directly relate, was made in a separate case before the LBBCA which was not appealed to this Review Board.

As is recounted above, the Building Official issued a decision on June 12, 2020 denying the building permit application because it did not contain the required information pursuant to Sections 109.4 and 110.1 of the VCC. Importantly, the assessment of whether the exception in Section 903.2.8 of the VCC is applicable to this project does not occur in the abstract, but rather occurs as part of the Building Official's analysis of the construction documents submitted with the building permit application for the project under Section 109.4 of the VCC. In this case, the Building Official concluded that he lacked the necessary information to determine whether the exception of Section 903.2.8 of the VCC was applicable in this case, and therefore on June 12, 2020 denied the building permit application seeking this exception. That decision was appealed by Mr. Dolan to the LBBCA which conducted a hearing on the matter on July 13, 2020. The LBBCA then issued its Resolution affirming the denial on July 15, 2020.

Pursuant to Section 119.8 of the VCC, in order to further contest the denial of his building permit application, Mr. Dolan was required to appeal the LBBCA's July 15, 2020 decision to the Review Board within 21 days of his receipt of the Resolution. Pursuant to the County's records, the Resolution was received by Mr. Dolan on July 27, 2020. Therefore, the deadline to appeal this decision passed on August 18, 2020. Pursuant to Section 119.8, absent an appeal Mr. Dolan is deemed to have accepted the Building Official's denial of his building permit application pursuant to of the VCC for lack of adequate information – specifically on the issues of the amount of water pressure and flow at the proposed site and whether the sprinkler exception of Section 903.2.8 applies to the project. Therefore, these issues have already been decided and are not before the Review Board in this matter. VCC §119.8; *see also Occoquan Land Development Corp. v. Cooper*, 239 Va. 363 (1990) (no jurisdiction if an appeal is not timely filed); *Miller v. State Bldg. Code Tech. Review Bd.*, 2003 Va. App. LEXIS 412 (Va. Ct. of Appeals 2003) (dismissal proper where applicant had not appealed the decision of the building official at issue) [copies of both opinions are attached hereto as **Exhibit E** for reference and proposed entry into the Record.

**4. The inapplicability of the exception of VCC Section 903.2.8.** If the Review Board nonetheless elects to take up the second and third Suggested Issue for Resolution by the Review Board, the presentation of the County's representatives also contains an analysis of those issues, based on what information the Building Department has received to date. In the presentation, the Building Department details its opinions and conclusions that there is adequate water, pressure, and flow to the site and therefore the exception of Section 903.2.8 of the VCC does not apply to the project detailed in the (now denied) building permit application filed by Mr. Dolan on March 17, 2020. The presentation also highlights that at all stages of this matter, the County's focus has

been on code compliance and safety. The Building Official's responsibility is to protect the health, safety, and welfare of the citizens of Essex County, and nowhere is that obligation more readily apparent than when considering whether to approve an exception to a required fire prevention system. The Building Official cannot approve a building permit application that does not provide for the installation of an automatic sprinkler system as required by Section 903.2.8 unless it is clearly established that the project qualifies for an exception due to an inadequate supply of water pressure or volume, or both. To this end, the County repeatedly requested the information necessary to make this determination, including by its letters dated May 14, 2020 (Draft Record p. 120), May 22, 2020 (Draft Record p. 43), May 29, 2020 (Draft Record p. 136), and June 5, 2020 (Draft Record p. 45-46). However, this information was never received, and the Building Official therefore had no recourse but to deny the March 17, 2020 building application filed by Mr. Dolan. That denial was never appealed, is not before this Board, has been accepted by the applicant per VCC § 119.8, and is now final.

**WHEREFORE**, the County of Essex, Virginia, by counsel, respectfully requests that the Review Board (1) affirm the decision of the LBBCA dismissing Mr. Dolan's April 10, 2020 application for appeal based on alleged inaction of the Building Official; and (2) hold that the issue whether the exception stated in Section 903.2.8 of the VCC applies to this matter is not properly before the Review Board. If the Review Board does take up the applicability of Section 903.2.8, the County respectfully objects but requests that the Board find that the exception is inapplicable in this case.

Respectfully submitted,

**COUNTY OF ESSEX, VIRGINIA**

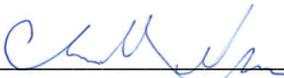
  
\_\_\_\_\_  
Andrew R. McRoberts, Esq. (VSB No. 31882)  
Christopher M. Mackenzie, Esq. (VSB No. 84141)  
SANDS ANDERSON, PC  
1111 East Main Street, Suite 2400  
Post Office Box 1998  
Richmond, Virginia 23218-1998  
Telephone: (804) 783-7211  
Facsimile: (804) 783-7291  
Email: amcroberts@sandsanderson.com  
Email: cmackenzie@sandsanderson.com  
*Counsel for the County of Essex, Virginia*

**CERTIFICATE OF SERVICE**

I hereby certify that on August 28, 2020, a copy of the foregoing was sent by electronic mail to:

W. Travis Luter Sr., C.B.C.O.  
Department of Housing & Community Development  
Division of Building & Fire Regulation, State Building Codes Office  
600 East Main Street, Suite 300  
Richmond, Virginia 23219  
Telephone: (804) 371-7163  
Facsimile: (804) 371-7092  
Email: travis.luter@dhcd.virginia.gov  
*Secretary to the State Building Code Technical Review Board  
Code and Regulation Specialist*

William D. Bayliss, Esquire  
WILLIAMS MULLEN  
200 South 10<sup>th</sup> Street, Suite 1600  
Richmond, Virginia 23219  
Telephone: (804) 420-6459  
Facsimile: (804) 420-6507  
Email: bbayliss@williamsmullen.com  
*Counsel for Appellant, Timothy Dolan*

  
\_\_\_\_\_  
*Counsel for the County of Essex, Virginia*

## **Exhibit A**

June 15, 2020 Application for appeal filed with the LBBCA by Mr. Dolan



June 15, 2020

**TO ALL MEMBERS OF THE ESSEX COUNTY  
LOCAL BOARD OF BUILDING CODE APPEALS  
VIA EMAIL AND FIRST-CLASS MAIL  
C/O Ms. Heather Hostinsky, Secretary**

**NOTICE OF APPEAL**

Please accept this letter as a Notice of Appeal pursuant to Virginia Construction Code section 119.5 and distribute it to all Members of the LBBCA. Please let us know when the hearing is scheduled. The basis of the appeal is explained below.

**NAME AND ADDRESS OF OWNER/APPLICANT:**

Riverstone Development LLC  
11500 Bridgetender Drive  
Henrico, VA 23233

**LOCATION OF PROPERTY:**

15.3 acres located on Hobbs Hole Drive  
Tappahannock, VA 22560

**NAME AND ADDRESS OF PERSON APPEALING/AGGRIEVED PERSONS:**

Timothy J. and Brenda S. Dolan, Owners and Developers  
11500 Bridgetender Drive  
Henrico, VA 23233

**BASIS OF APPEAL:**

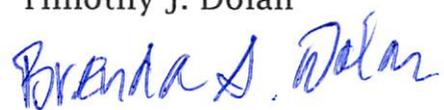
The denial of our application dated June 15, 2020, including the failure of the Building Official to comply with Virginia Construction Code section 109.4 (copy attached)

Thank you for your consideration.

Very Truly Yours,



Timothy J. Dolan



Brenda S. Dolan

Cc: Board of Supervisors

**Building & Zoning**  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

Mr. and Mrs. Dolan  
11500 Bridgetender Drive  
Henrico, VA 23233

Via Email and Certified Mail

Dear Mr. Dolan,

This will confirm the receipt of your letter dated June 14, 2020. You have failed to deliver the site plan that was promised and to respond to the questions presented in my earlier correspondence dated May 14, 22, 29, & June 5<sup>th</sup>. Due to the lack of information and incompleteness, your application is hereby denied. If you choose to reapply, I would recommend a complete application with answers to my previous questions including a final site plan from Mr. Howeth.

Yours Truly,

A handwritten signature in black ink, appearing to read "Alwyn W. Davis Jr.", is written over a horizontal line.

Alwyn W. Davis Jr., CBO Essex County

## **Exhibit B**

July 15, 2020 Resolution of LBBCA affirming denial of March 17, 2020 building permit application

**Resolution**  
**of the Essex County Local Board of Building Code Appeals**

WHEREAS, the Essex County Local Board of Building Code Appeals ("LBBCA") is duly appointed to resolve disputes arising out of enforcement of the Virginia Uniform Statewide Building Code; and

WHEREAS, an appeal has been filed and brought to the attention of the LBBCA; and

WHEREAS, a hearing has been held to consider the aforementioned appeal; and

WHEREAS, the LBBCA has fully deliberated this matter; now, therefore, be it

RESOLVED, That in the matter of

Appeal No.: 2020-02

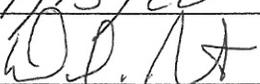
Applicant: Timothy J. Dolan

IN RE: Appeal for the denial of Riverstone Development LLC's application dated June 15, 2020, including the failure of the Building Official to comply with Virginia Construction Code 109.4.

The matter brought up on appeal is hereby dismissed, for the reasons stated on the record and as further set out below:

The LBBCA made the motion to accept the counties denial of the building permit, due to lack of requested information.

Date: 7/15/20

Signature: 

Note: Any person who was a party to the appeal may appeal the LBBCA's decision to the State Building Code Technical Review Board by submitting an application to such board within 21 calendar days upon receipt by certified mail of this resolution. Application forms are available from the Office of the State Review Board, 600 East Main Street, Richmond, VA 23219, (804) 371-7150, <http://www.dhcd.virginia.gov/index.php/va-building-codes/building-and-fire-codes/appeals.html>.

## **Exhibit C**

County Building Department Presentation



**Essex County**  
**VIRGINIA**

Riverstone Development request  
for Automatic Sprinkler Exception  
under Section 903.2.8 of the  
Virginia Construction Code



## **Topics to Address**

1. Riverstone Development assertion of Inaction and No Decision by the County of Essex Building Official
  - Information Requested by Essex County
  - Responses from Riverstone Development
2. Interim Decision on the Automatic Sprinkler Exception
  - Site hydraulic calculations
  - 3<sup>rd</sup> Party Professional Engineers findings
  - Conclusion

## Facts to Consider for Sprinkler Requirement in Apartments

- Riverstone Development Apartments are classified as R2 occupancy per VCC 2015 Section 310.4
- Section 903.2.8 of the 2015 VCC addresses Automatic Sprinkler System requirements for Group R

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area, except for Group R-2 occupancies listed in the exceptions to this section when the necessary water pressure or volume, or both, for the system is not available:

Exceptions:

1. Group R-2 occupancies that do not exceed two stories, including basements that are not considered as a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.
2. Group R-2 occupancies where all dwelling units are not more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a two-hour fire barrier is provided between each pair of dwelling units. Each bedroom of a dormitory or boarding house shall be considered a dwelling unit under this exception.

## A Decision on a Sprinkler Exception under Section 903.2.8 requires:

- The **water flow (gpm)** and **pressure (psi)** required to operate a sprinkler system that has been designed per NFPA13R.
- The **water flow (gpm)** and **pressure (psi)** available at the project site.



*This should be a simple **fact-based decision**, not an opinion*

# Background of Riverstone Development Sprinkler Exception Request

**From:** Robert Himmel <rhimmel@himmelhume.com>

**Sent:** Friday, December 20, 2019 3:20 PM

**To:** Alwyn Davis <awdavis@essex-virginia.org>

**Cc:** dolanproperties <dolanproperties@verizon.net>; Jeff Hume <jhume@himmelhume.com>

**Subject:** RE: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

Good afternoon Wynn,

Attached please find a 30% Design Development set for your review. Please let me know if you have any questions, comments or there is anything that you would like us to pay particular attention too. Thanks and have a Merry Christmas!

Sincerely,

Bob Himmel

December 2019							January 2020						
Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25
29	30	31					26	27	28	29	30	31	

# Town of Tappahannock

P.O. Box 266  
Tappahannock, VA 22560  
Phone (804) 443-3336  
Fax (804) 443-1031

Town Manager  
JAMES W. SYDNOR  
Town Attorney  
DANIE M. LANE  
Town Treasurer  
PATRICK JOHNSON  
Town Clerk  
PATSY L. SCATES  
Chief of Public  
JAMES G. ASHWORTH, JR.

Mayer  
BOYD M. GLACKING  
Steve Oswald  
TROY L. BALDERSON  
KENNETHA GELLIS  
ANDREW T. BALMORON  
MARCIA W. JENKINS  
ANTHALL LATANE  
R. TYLER LOWERY

February 13, 2020

Page 57 of the Record

Jeff Howeth  
PO Box 1684  
Tappahannock, VA 22560

REF: Riverstone Apartments

Dear Jeff Howeth:

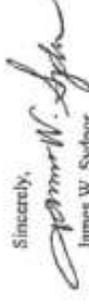
According to Section 14.2 of the Tappahannock Town Code ALL building permits shall be obtained from the Essex County Building Official.

Although we are in favor of growth, we will not be caught up in any conflict between the parties and this letter is to advise ALL parties involved that the Town and its employees will remain neutral in the project known as Riverstone Apartments.

At this point of the project with the information that the Town of Tappahannock has been provided and for the safety of the citizens that would have a residence in the proposed units we would not be able to guarantee water for the sprinkler system. This is based on the overall build out of all the units on the entire site plan plus the remaining build out of Hobbs Hole subdivision, and keeping with a required twenty (20) PSI in our system under any conditions.

Once all the matters have been resolved involving the sprinkler system the Town will forward all water requirements (fire and domestic or any other) to our engineer for final review and approval.

Thank you.

Sincerely,  
  
James W. Sydnor  
Town Manager

**From:** Jeffrey Howeth [mailto:jhoweth@msn.com]  
**Sent:** Friday, January 03, 2020 3:17 PM  
**To:** dolanproperties; Jimmy Sydnor; Frank Sanders  
**Subject:** Fire Flow Calculations

Brenda, the attached file based upon the Insurance Services Organization (ISO) fire flow calculator indicates that the sprinkler allowance for a single building would be approximately 800 gpm. Also, sprinkler systems usually operate at approximately 70 to 80 psi due to their smaller pipe diameters.

By copy of this to the Tappahannock Town Manager, please verify that the Town's water supply would provide the following needed fire flows for your apartment project.

Thanks, Jeff

Jeffrey L. Howeth, P.E., L.S., C.F.M. President, J. L. Howeth, P.C. 1019 Elm Street P. O. Box 1684  
Tappahannock, Virginia 22560 804-443-6367 (Office) 804-241-4160 (Cell)

When presented with a demand of 800 GPM @ 70-80 psi, the Town of Tappahannock responded that they could not guarantee water for the sprinkler system.

The Building Department concluded that this flow & pressure information was not accurate.

- The Insurance Services Organization (ISO) Fire Flow Calculator submitted by the Engineer of Record is **not a tool for determining Automatic Sprinkler System demand.**
- NFPA13R is the Standard for Sprinkler Systems in Low Rise Residential Occupancies.
- The ISO fire flow calculator indicates how much less water would be needed to extinguish a fire if a sprinkler system was installed to provide an early response.
- This sprinkler credit is irrelevant to the amount of water required to operate a sprinkler.

Page 3/3

**FIRE & RESCUE**  
ISO Fire Flow Worksheet  
Needed Fire Flow Work Sheet (ISO formulas)

**STEP 4** Now consider the exposure factor (Xi) - (Separation between buildings)

Distance (feet to the exposed building)	Xi	>3 stories
0-10	0.22	0.47
11-30	0.18	0.43
31-60	0.13	0.38
61-100	0.09	0.34

Distance, in feet, to the exposed building **21.67** Page 88 of the Record

Xi (from table) **0.18**

Multiply GPM from step 4 by (1+Xi)

Total From Step 4 **3280**

---

**STEP 5** Approved Fire Sprinkler System? (Y or N) **Y**

Take fire flow from step 5 and multiply by sprinkler credit of 0.25  
**Sprinkler credit 815**

Now subtract sprinkler credit from fire flow in step 4

**NEEDED FIRE FLOW 2500 GPM**

**From:** Alwyn Davis  
**Sent:** Monday, January 13, 2020 11:31 AM  
**To:** Robert Himmel  
**Cc:** jlhoweth@msn.com; Wayne Verlander  
**Subject:** RE: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

Page 16 of the Record

Good Morning Bob,

Please allow this email to serve as a follow up to our conversation last week regarding the Dolan properties apartment building in Tappahannock. Section 903.2.8 of the Virginia Construction Code clearly states that a sprinkler system is required in all R-2 occupancies except when the necessary water pressure or volume, or both, for the system is not available. I received information from J. L. Howeth P.C. from an (ISO) fire flow calculator that indicated that the flow required would exceed the volume/pressure that the Town of Tappahannock's water system would provide. I understand from Mr. Sydnor that the water pressure available is 52 PSI. The exceptions in the code would alleviate the developer from this requirement but I do feel that the apartments would be better served if they were served by a sprinkler system. I am recommending that a study be performed by an engineer who practices the design of these systems on a regular basis to determine if a sprinkler system would work at the proposed location. I believe that the volume and or pressure may be available or made available if properly designed. Please understand that I'm not discounting the information that Mr. Howeth has submitted, but I will need more information prior to making a decision. If the pressure/volume is not available, I will entertain using exception 1 in the aforementioned section of the VCC. Please feel free to contact me if you have questions or if I can be of further assistance.

Yours Truly,

Alwyn W. "Wyn" Davis Jr.  
Certified Building Official, Essex County, Virginia



January 13, 2020

Alwyn W. Davis, Jr.  
Certified Building Official  
Essex County, Virginia

VIA EMAIL

Re: Dolan Properties- Hobbs Hole

Dear Mr. Davis:

Page 65 of the Record

Your correspondence of January 13, 2020 to Bob Himmel with a copy to Jeff Howeth has been referred to me for review and response.

Perhaps Brenda and I should have gotten more involved in this discussion earlier, but it is now clear that the sprinkler issue needs to be resolved so that the project can go forward.

Here are the facts as they now stand:

1. "Section 903.2.8 of the Virginia Construction Code clearly states that a sprinkler system is required in all R-2 occupancies EXCEPT (emphasis added) when the necessary water pressure or volume, or both, for the system is not available." (From your email)
2. Mr. Synhor, Town Manager, has reported, and you understand, that the available water pressure is 52 psi. (From your email)
3. J. L. Howeth, P.C. has calculated the necessary pressure and flow in accordance with the ISO fire flow calculator, and has given his opinion as a licensed professional engineer that the water pressure and flow provided by the county IS NOT sufficient to allow for the buildings in the Hobbs Hole project to be sprinkled.
4. The documented insufficient pressure and flow available from the Town of Tappahannock clearly place this project squarely under exception 1 of Virginia Construction Code Section 903.2.8.
5. You have recommended that additional studies be done to determine if a system can be designed to possibly allow for sprinkling despite the documented facts above. (From your email)

We believe there is more than enough information for you to make the decision on the sprinkler, and any such additional study and redesign would be cost prohibitive. Our estimates range in excess of \$300,000. In addition, the Code does not require us to design a system to counteract the Town's inability to provide the necessary pressure and flow. Exception 1 does not

Riverstone Development response:

- Mr. Howeth has calculated necessary pressure and flow with ISO fire flow calculator.
- Town of Tappahannock has indicated they have insufficient pressure and flow to meet demand.
- Believe that a decision can be made without further study.

**From:** Alwyn Davis  
**Sent:** Tuesday, January 21, 2020 8:03 AM  
**To:** [dolanproperties@verizon.net](mailto:dolanproperties@verizon.net)  
**Subject:** RE: Dolan Properties-Hobbs Hole

January 21, 2020 Letter from Mr. Davis submitted by County as supplement to the Record

Dear Mr. Dolan,

I received your email dated January 13, 2020 and offer the following comments.

I was contacted by your architect, Bob Himmel in late December. Mr. Himmel was preparing a preliminary plan for a the proposed apartment complex. I simply explained to Mr. Himmel the requirements set forth in section 903.2.8 of the Virginia Construction Code. This section requires that all R-2 occupancies require sprinkler systems unless the pressure and or volume or both are not available. On January 06, 2020, I received an email from Mr. James Sydnor (Tappahannock Town Manager) including data provided by Mr. J.L. Howeth P.C. suggesting that the Town of Tappahannock's water system could not produce the required pressure and or volume to meet what he had calculated using an (ISO) fire flow calculator.

The Insurance Services Organization (ISO) fire flow calculator is one of the methodologies for calculating required water flow rates for sprinklered and non-sprinklered buildings. It is not a tool for determining the required design pressure and flow requirements for a fire sprinkler system. In order to determine the flow required for a fire sprinkler system in a R-2 occupancy, a fire protection design engineer needs to complete the hydraulic calculations for a system that complies with NFPA13R (specifically Chapter 7). Once the required flow and pressure are calculated, we can review the municipal water supply to determine if that water pressure and flow are available.

Please have your design engineer provide the water flow and pressure requirements along with the supporting hydraulic calculations for a system that is compliant with NFPA13R for our review.

Yours Truly,

Alwyn W. Davis Jr.

Building Official  
requests water flow  
and pressure  
requirements for a  
system that is NFPA 13R  
compliant.

Rec. 1-30-20  
10:00am  
AW

**J. L. Howeth P.C.**  
*Consulting Engineering and Land Surveying*  
ALL LOCATIONS BY APPOINTMENT ONLY

1019 Elm Street  
Tappahannock, Virginia 22560  
864-443-6367

9408 Kings Highway  
King George, Virginia 22485  
540-775-0388

2833 Cople Highway  
Montross, Virginia 22520  
864-493-9066 / 804-655-1333

January 28, 2020

Mrs Brenda Dolan  
Rivers006 Apartments  
Tappahannock, Virginia 22560  
VIA EMAIL

Dear Brenda:

Based upon the attached fire hydrant flow information for the existing fire hydrant located behind Walman on White Oak Drive provided by Mr. Jimmy Sydner, we have computed the required hydraulic analysis utilizing the Virginia Department of Health's Waterworks Regulations for the design criteria of the potable water mains for your Riverstone Apartment project. Based upon the existing hydrant flow behind Waterhart of 1074 gpm at a residual pressure of 33.5 psi, we can compute the calculated water main pressure of 31.5 psi at the intersection of White Oak Drive and Hobbes Hole Drive. Extending the water mains northward along Hobbes Hole Drive to the proposed project entrance, we calculate the water main pressure to be 24.5 psi. Further extending the water mains to the rear of the project, the calculated water main pressure would be 20.5 psi at the last fire hydrant in the project. This value is just barely over the 20 psi minimum residual pressure required to be maintained in the potable water system by the Virginia Department of Health's Waterworks Regulations.

Based upon maintaining these minimum pressures in the potable water system, the maximum allowance for the automated sprinkler system would be approximately 500 gpm after subtracting the required domestic flow for each building as calculated using the typical fixture count method described in Section 9.3 of NFPA 13B. However, using Section 7.1.1.1 of the NFPA 13R standard which requires a minimum of 1000 gpm (10005 sf buildings x 2 floors x 0.05 gpm/sf discharge density) sprinkler demand, it becomes obvious that the Town of Tappahannock's Water System is not capable of providing the necessary volume (or pressure above the legal minimum) to accommodate an automated sprinkler system, thereby qualifying for the exemption contained in Section 903.2.8 of the Virginia Construction Code.

Please let me know if you have any further questions regarding this matter.

Sincerely,  
*Jeffrey L. Howeth*

Jeffrey L. Howeth, President, J. L. Howeth, P.C.  
Virginia Licensed Professional Engineer  
Virginia Licensed Land Surveyor  
Nationally Certified Floodplain Manager



However, using Section 7.1.1.1 of the NFPA 13R standard which requires a minimum of 1000 gpm (10005 sf buildings x 2 floors x 0.05 gpm/sf discharge density) sprinkler demand,

Significant misapplication of NFPA13R – resulting in a calculated sprinkler demand in excess of 15 times the actual required sprinkler demand.

**From:** Alwyn Davis  
**Sent:** Tuesday, February 4, 2020 8:46 AM  
**To:** dolanproperties@verizon.net  
**Cc:** Matt Farmer; Michael Lombardo; Wayne Verlander  
**Subject:** Riverstone Apartments

Page 95 of the Record

Thank you Mrs. Dolan for your time spent meeting last Thursday and for the information submitted at that time. However, we still do not have sufficient data to determine if the proposed project meets the automatic sprinkler system exception requirement of the VCC 903.2.8.

I specifically need the following information:

- water supply design requirement (water flow in gpm and pressure in psi) for the automatic sprinkler system per NFPA 13R.
- water supply available from the town at the closest connection point to the property including available flow, system static pressure and residual pressure. This data should be from an independently certified water flow test performed within the last 12 months.

The automatic sprinkler system design requirements for Group R occupancies up to 4 stories high are in NFPA 13R. The NFPA 13R standard is significantly different from NFPA 13 since it's principal purpose is life safety and not property protection, therefore, the requirements are less stringent. The water supply requirement is based on a maximum of up to the 4 most hydraulically demanding sprinkler heads. The standard may require you to add one hose connection (100 gpm) and the domestic demand for the building. This calculation can be performed by your Professional Engineer or a Fire Protection Design engineer.

Another request from the Building Official for the same information.

**J. L. Howeth P.C.**  
*Consulting Engineering and Land Surveying*  
ALL LOCATIONS BY APPOINTMENT ONLY

1019 Elm Street  
Tappahannock, Virginia 22560  
804-443-6367

9408 Kings Highway  
King George, Virginia 22485  
540-775-5585

2833 Cople Highway  
Montross, Virginia 22520  
804-493-9066 / 804-493-1333

February 6, 2020

Mrs. Brenda Dolan  
Riverstone Apartments  
Tappahannock, Virginia 22560  
VIA EMAIL

Page 18 of the Record

Dear Brenda:

Based upon the attached fire hydrant flow information for the existing fire hydrant located across from the Clubhouse on Hobbs Hole Drive which was independently tested on February 3, 2020 by J. L. Howeth, P.C. and the Town of Tappahannock (test results attached and video of test available upon request from Mr. Jimmy Sydnor, Town Manager), we have computed the required hydraulic analysis utilizing the Virginia Department of Health's Waterworks Regulations for the design criteria of the potable water mains for your Riverstone Apartment project. Based upon the existing hydrant flow of 875 gpm at a residual pressure of 20 psi and correcting for pressure by moving to the point of physical connection and flow by subtracting 125 gpm for the estimated flow of the undeveloped Hobbs Hole Subdivision lots, we can compute the calculated water main pressure of 22.4 psi at the intersection of White Oak Drive and Hobbs Hole Drive connection point. Extending the water mains northward along Hobbs Hole Drive to the proposed project entrance, we calculate the water main pressure to be 21.4 psi using an oversized 10" pipe to reduce friction. Further extending the water mains to the rear of the project, the calculated water main pressure would be 21 psi at the last fire hydrant in the project, also utilizing the oversized 10" pipe. Furthermore, based upon my conversations with the State Building Official's Office and the State Fire Marshal's Office, NFPA 13R requires an RPZ backflow preventer on the sprinkler line which creates a minimum pressure drop of between 5 and 10 psi at a previously calculated sprinkler flow rate of approximately 100 gpm. Since this value pushed the residual pressure to the building to less than 20 psi minimum pressure required by Virginia Department of Health Waterworks Regulations, it is evident that the existing Town of Tappahannock potable water system cannot supply either the pressure or volume as defined in VCC Section 903.2.8.

Furthermore, since Mr. Jimmy Sydnor, Town Manager for the Town of Tappahannock, who clearly is the "public health authority having jurisdiction" and whose "requirements ... shall be determined and followed" (NFPA 13R Section 9.4.1), has already stated in writing that he cannot provide either the pressure or volume as stated in the above referenced VCC code section,

Mrs. Brenda Dolan  
Riverstone Apartments  
February 6, 2020  
Page 2

I am again requesting confirmation from the Essex County Building Official that this project qualifies for the exemption stated in VCC Section 903.2.8. Clearly, no authority is given to the Building Official to digress from the requirements of the Virginia Department of Health Waterworks Regulations nor violate the Waterworks Certificate to Operate issued to the Town of Tappahannock by the Virginia Department of Health.

Please request from the Essex County Building Official a written response to our request for exemption specified in VCC Section 903.2.8. As always, we are available to provide information as may be required concerning this matter.

Sincerely,



Jeffrey L. Howeth, President, J. L. Howeth, P.C.  
Virginia Licensed Professional Engineer  
Virginia Licensed Land Surveyor  
Nationally Certified Floodplain Manager  
President, J. L. Howeth, P.C.



Another set of hydraulic calculations submitted

**From:** Alwyn Davis  
**Sent:** Tuesday, February 11, 2020 1:13 PM  
**To:** dolanproperties@verizon.net  
**Cc:** Michael Lombardo; Wayne Verlander; Matt Farmer  
**Subject:** Riverstone Apartments

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Dear Mrs. Dolan,

I have reviewed the information submitted and met with Michael Lombardo, County Administrator, regarding your project. It is the intention of the County to engage an independent third party Engineer that specializes in fire sprinkler design to review this project. Prior to contracting this review, I still need the information requested in my February 04, 2020 email, specifically the automatic sprinkler design data including demand pressure psi. In reviewing the information submitted by Mr. Howeth, it has raised additional questions about the scope of the project. I feel that it is important that I have a site plan indicating the number of units for which you are seeking a building permit. This plan should also include the point of connection to the public water supply. Once this information is received, we will proceed with third party review.

Yours Truly,

Alwyn W. Davis Jr.  
Essex County Building Official

Another request from the Building  
Official for the same information and  
clarification on scope of the project

Essex County has made numerous requests for flow and pressure information, clarification to hydraulic calculations and for site details.

The applicant has not provided documents as promised and has not provided direct answers to specific engineering questions.

**From:** Heather Hostinsky  
**Sent:** Thursday, May 14, 2020 12:29 PM  
**To:** jhoweth@msn.com; Timothy Dolan  
**Cc:** Alwyn Davis; Wayne Verlander; Matt Farmer  
**Subject:** Documents requested in May 7 meeting

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Good afternoon,

Per the meeting minutes that were delivered the complete site plan to the Office. We were wondering when



**Building & Zoning**  
Alwyn W. Davis, Jr.  
Building & Zoning  
Environmental Compliance Officer  
202 South Church Lane  
P.O. Box 1079  
Tappahannock, Virginia 22560  
(804) 443-3244  
www.essex-virginia.org

Established 1692

May 22, 2020

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/ Sprinkler Requirement



**Building & Zoning**  
Alwyn W. Davis, Jr.  
Building & Zoning  
Environmental Compliance Officer  
202 South Church Lane  
P.O. Box 1079  
Tappahannock, Virginia 22560  
(804) 443-3244  
www.essex-virginia.org

Established 1692

May 29, 2020

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Riverstone Development LLC  
11500 Bridgetender Drive

**Building & Zoning**  
Alwyn W. Davis, Jr.



**Building & Zoning**  
202 South Church Lane  
P.O. Box 949  
Tappahannock, Virginia 22560  
(804) 443-3244  
www.essex-virginia.org

Established 1692

June 18, 2020

Suppl. of the Record

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Information for the Riverstone Apartments Project

Information requested at a meeting on May 7, 2020 and has not been received:

1 - 2

**Jeffery Howeth**  
P.O. Box 1664  
1019 Elm Street  
Tappahannock, VA 22560

**Re: Sprinkler System - Riverstone Development**

Dear Mr. Howeth,

I have received your correspondence on behalf of Riverstone Development, dated June 13, 2020. The Building Department of Essex County is continuing its effort to provide a decision on the sprinkler exception request and would like to get resolution on this matter promptly for Mr. and Mrs. Dolan, therefore, I am keeping this correspondence focused on data required for that decision.

In my letter of May 22, I requested answers to four (4) points of clarification. I am again requesting specific answers to questions 1 and 2 as your correspondence of June 13 was vague with superfluous information that did not address the questions.

1 - On your hydrant flow test results of 2/3/20, is the data for Hydrant A and Hydrant B transposed? If so, please update the test results report and resubmit.

Information requested at a meeting on May 7, 2020 and has not been received:

1 - 2

Information requested at a meeting on May 7, 2020 and has not been received:

1 - 2

Information requested at a meeting on May 7, 2020 and has not been received:

1 - 2

May 22, 2020

Mr. and Mrs. Dolan  
Riverstone Development LLC  
11500 Bridgetender Drive  
Henrico, VA 23233

BY EMAIL AND U.S. MAIL

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Subject: Update on Application / Sprinkler Requirement

In addition, based on our understanding of the project based on what you have provided so far, we are reviewing your request to eliminate the fire protection automatic sprinkler system requirement under exception 903.2.8 of the Virginia Construction Code (VCC). After reviewing your engineer's correspondence of 2/6/20, and your May submissions mentioned above, we have some questions that need to be clarified:

- 1 - The hydrant flow test report indicates a residual pressure of 28 psi at Hydrant A and a residual pressure of 20 psi at Hydrant B with a flow of 875 gpm. Since Hydrant B is upstream from Hydrant A, it appears the pressure at Hydrant B would be the higher reading. Maybe the designation for the hydrants was transposed; please confirm.**
- 2 - The calculations indicate a pressure drop from the existing Hydrant B to the intersection of White Oak Drive and Hobbs Hole Drive of 5.6 psi (28 psi - 22.4 psi). Since the intersection is upstream from Hydrant B, it appears that the pressure would actually be higher. Should the 5.6 psi have been added to the Hydrant B value?**

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Mr. Alwyn Davis, Building Official  
Riverstone Development, LLC  
June 13, 2020  
Page 2

1. Residual water pressures were taken by me and Jimmy Sydnor as well as the unwitnessed hydrant test authorized by Mr. Lombardo. The only comfort to this unwitnessed test is that the pressures and flows came up nearly identical, with the difference probably being they occurred on different days of the week. With no additional motive force to increase water pressure in the system, no substantial increase in pressure would be found in the potable water system at the proximal distances you suggest. Furthermore, I am not aware that you have any engineering expertise in potable water system construction and operation. If you do, I would like to have your opinion on whether the Hazen-Williams coefficient is accurate for this section? Also, which algorithm would be appropriate for the analysis for this section of this waterworks? Should we use a Hardy-Cross, University of Kentucky, linear or EPANET analysis? Since I was certified on EPA methodologies when I worked at the Office of Water Programs for the Virginia Department of Health regulating public water and sewer for the Richmond Metropolitan area and I possess a completion certificate from the University of Kentucky for proficiency using Dr. Woods KYPIPE software, who at the time was the instructor of the class, I would be interested in your thoughts on these matters.

2. While I appreciate your "grabbing at straws" concerning the accuracy of engineering of which I believe you possess no background in, let's assume that you are correct. If you add 5 psi for your assumed number transposition and 5 psi for your assumed mathematical error, you would increase the pressure by 10 psi. Assuming that you agree with me that any required backflow preventer would utilize 5 psi to operate properly at each building, you would be left with 5 psi to operate the residential sprinkler system. And now that I have completed the NFPA's water based sprinkler system design course (of which I will provide you a copy of my completion certificate since you previously accused me of not knowing how to design one of these types of sprinkler systems), I can unequivocally state that no sprinkler system of reasonable operational performance can be designed without the inclusion of pumps and other ancillary devices. Therefore, as stated multiple times before, since pressure and flow are NOT AVAILABLE for a sprinkler system, then the exception APPLIES for low-rise, low density R-2 uses with proper egress.

*An example of the responses received when requesting information*

## Summary of Engineering Responses

	Available Water Flow (GPM)	Available Water Pressure (PSI)	Sprinkler Flow (GPM) Requirement	Sprinkler Pressure (PSI) Requirement	Sprinkler Flow Duration
Howeth submittal 1/3/20			800 GPM	70-80 PSI	120 Minutes
Howeth submittal 1/28/20	500 GPM	20.5 PSI	1000 GPM		
Howeth submittal 2/6/20	32 GPM	21 PSI	100 GPM		

At present, the Building Department still has not received accurate responses to the information requested in January:

- How much water flow and pressure are required by a properly designed sprinkler system?
- How much water flow and pressure are available at the project site?

----- Original message -----  
From: Robert Himmel <rhimmel@himmelhume.com>  
Date: 12/21/19 12:31 PM (GMT-05:00)  
To: dolanproperties <dolanproperties@verizon.net>  
Subject: FW: Dolan Properties 1352 Hobbs Hole, Tappahannock, VA

“Brenda, I followed up with Wynn per our conversation and he said that the county does have the water pressure and volume to sprinkler the building. **I know this is bad news for the budget. Is it a deal killer?**”

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*The Building Department’s focus is on  
code compliance and safety*



January 13, 2020

Alwyn W. Davis, Jr.  
Certified Building Official  
Essex County, Virginia

Re: Dolan Properties- Hobbs Hole

Dear Mr. Davis:

VIA EMAIL

*The focus for Riverstone Development has  
been construction cost avoidance*

“We believe there is more than enough information for you to make the decision on the sprinkler, and any such additional study and redesign would be cost prohibitive. Our estimates range in excess of \$200,000. “

## Summary

### **Essex County Building Official has been Requesting this information since January, 2020**

- Sprinkler demand flow (gpm) and pressure (psi) for NFPA13R compliant system
- Available water supply flow (gpm) and pressure (psi) at the project site

***After numerous requests, ....***

***1/21/20, 2/4/20, 2/11/20, 5/14/20, 5/22/20, 5/29/20, 6/5/20, 6/18/20***

***....we still have not received a reliable response to the requests***

***There has been No Lack of Activity by the Building Official on this matter***

**Should the Technical Review Board choose to proceed with a decision on the sprinkler exception request today .....**

**Essex County would like to present the following information for consideration.**

## Applicability of Exception to VCC 903.2.8

### **Riverstone Development has built their case on “Two Definitive Reasons”**

- 1 – Town of Tappahannock Letter
- 2 – Jeffrey Howeth Professional Engineer Opinion / Calculations

**THE WATER PRESSURE  
AND FLOW  
ARE NOT AVAILABLE**

THERE ARE TWO DEFINITIVE REASONS:

1. TOWN OF TAPPAHANNOCK LETTER
2. JEFFREY HOWETH PROFESSIONAL ENGINEER  
OPINION/CALCULATIONS

The letter from the Town of Tappahannock was based on incorrect engineering information

“ ....with the information that the Town of Tappahannock has been provided ...”

# Town of Tappahannock

P.O. Box 266  
Tappahannock, VA 22560  
Phone (804) 443-3336  
Fax (804) 443-1051

*Town Manager*  
JAMES W. SYDOR  
*Town Attorney*  
DAVE M. LAYK  
*Town Treasurer*  
FAYE D. JOHNSON  
*Town Clerk*  
PATSY K. SCATES  
*Chief of Police*  
JAMES G. ASHWORTH, JR.

*Mayor*  
ROY M. GLADDING  
*Deputy Mayor*  
TRUDY L. BALDERSON  
KENNETH A. GELLIS  
ANDREW T. HAMMOND  
MARCIA W. JENKINS  
ANITA J. LATANE  
E. TYLER LOWERY

February 13, 2020

Jeff Howeth  
PO Box 1684  
Tappahannock, VA 22560  
REF: Riverstone Apartments

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Dear Jeff Howeth:

According to Section 14.2 of the Tappahannock Town Code ALL building permits shall be obtained from the Essex County Building Official.

Although we are in favor of growth, we will not be caught up in any conflict between the parties and this letter is to advise ALL parties involved that the Town and its employees will remain neutral in the project known as Riverstone Apartments.

At this point of the project with the information that the Town of Tappahannock has been provided and for the safety of the citizens that would have a residence in the proposed units we would not be able to guarantee water for the sprinkler system. This is based on the overall build out of all the units on the entire site plan plus the remaining build out of Hobbs Hole subdivision, and keeping with a required twenty (20) FSI in our system under any conditions.

Once all the matters have been resolved involving the sprinkler system the Town will forward all water requirements (fire and domestic or any other) to our engineer for final review and approval.

Thank you.

Sincerely,  
  
James W. Sydor  
Town Manager

# Hydraulic calculations as submitted by Jeffrey Howeth

HYDRAULIC ANALYSIS - VDH FORMAT (C=100)  
 BIVESTONE APARTMENTS  
 TOWN OF THAMESHAMLOCK

SUBTRACTING 125 GPM FOR UNDEVELOPED LOTS AND BASED UPON EXISTING HEADRANT PRESSURE AND FLOW FROM HEADRANT CONDUCTED FIREMEN'S, 200 LIKE HEADRANT AT NEARBY CURBHOUSE FLOWS 750 GPM @ PRESSURE OF 20 PSI

A) EXISTING HEADRANT TO NITE DRIVE THE DRIVE ADD 1000 FEET (1750 GPM)

$$28 \text{ PSI} - \left( \frac{1025 \text{ LF} \times 8.7 \text{ PC}}{100 \text{ FT}} \right) \left( \frac{1427 \text{ GPM}}{100 \text{ GPM}} \right) = 22.4 \text{ PSI}$$

**5.6 psi drop**

B) NITE DRIVE ONLY - HEADS UP TO TRUCK ENTRANCE (562 GPM)

$$22.4 \text{ PSI} - \left( \frac{910 \text{ LF} \times 10.4 \text{ PC}}{100 \text{ FT}} \right) \left( \frac{624 \text{ GPM}}{100 \text{ GPM}} \right) = 21.4 \text{ PSI}$$

**1 psi drop**

C) TRUCK ENTRANCE TO LAST HEADRANT (458 GPM)

$$21.4 \text{ PSI} - \left( \frac{50 \text{ FT} \times 10.4 \text{ PC}}{100 \text{ FT}} \right) \left( \frac{416 \text{ GPM}}{100 \text{ GPM}} \right) = 21 \text{ PSI}$$

**.4 psi drop**

D) HEADRANT TO BUILDING THROUGH PIPE FOR DEMONSTRATION DRY SPACE FIRE MARSHALLS OFFICE SHOULD BE 5 PSI MIN LOSS WHICH REDUCES MINIMUM PRESSURE BEHIND 20 PSI WHICH WOULD BE REJECTED.

WHERE FLOW TO POINT A) IS

$\left( \frac{52 \text{ GPM}}{\text{BUILDING}} \right) (9 \text{ APARTMENT BUILDINGS}) = 468 \text{ GPM}$

- 250 GPM HEADRANT ALLOWANCE (PER VDH REQUIREMENTS) = 32 GPM REMAINING FOR 4 HEADS

AND FLOW TO POINT B) IS

$\left( \frac{52 \text{ GPM}}{\text{BUILDING}} \right) (6 \text{ APARTMENT BUILDINGS}) = 312 \text{ GPM}$

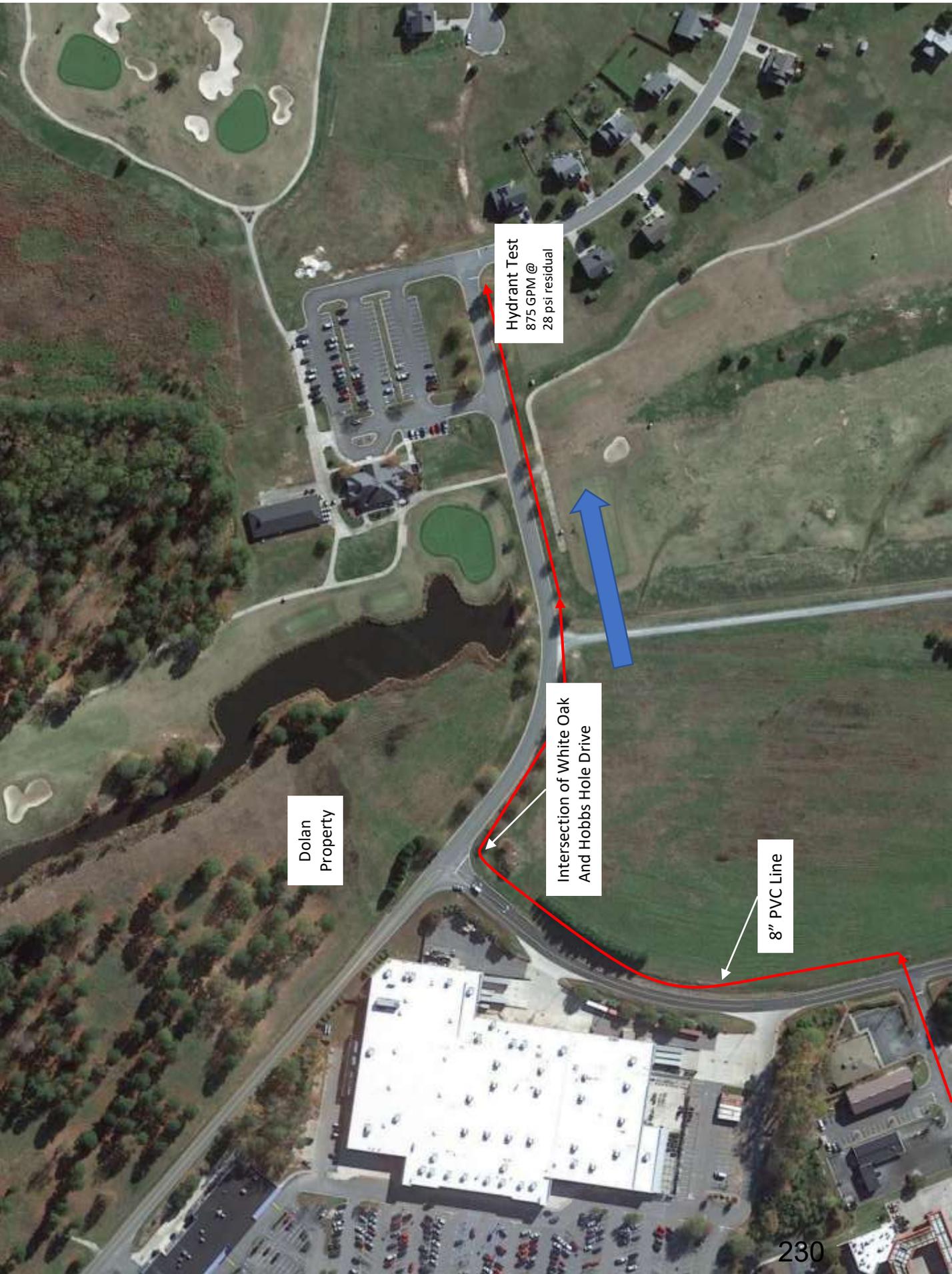
+ NO SPRINKLER ALLOWANCE AS VOLUME ABOVE GOOD + 250 GPM HEADRANT = 562 GPM NOT BE MET

AND FLOW TO POINT C) IS

$\left( \frac{52 \text{ GPM}}{\text{BUILDING}} \right) (4 \text{ APARTMENT BUILDINGS}) = 208 \text{ GPM}$

+ NO SPRINKLER ALLOWANCE AS VOLUME ABOVE GOOD NOT BE MET + 250 GPM HEADRANT = 458 GPM

Aerial view of town water supply with flow direction



Dolan Property

Hydrant Test  
875 GPM @  
28 psi residual

Intersection of White Oak  
And Hobbs Hole Drive

8" PVC Line

# Hydraulic Calculation from Hydrant Test location to intersection of White Oak Drive & Hobbs Hole Drive

Pressure loss calculation utilizing the Hazen-Williams formula

$$P = 4.52Q^{1.85}/(C^{1.85} \times d^{4.87})$$

With the following assumptions:

$$P = \text{frictional loss (psi/ft of pipe)} = .00678$$

$$Q = \text{Flow (875 gpm)}$$

$$C = \text{friction loss coefficient (140 for aged PVC)}$$

$$d = \text{actual internal diameter of pipe (7.625")}$$

Pressure loss from intersection of White Oak Drive and Hobbs Hole Drive

$$\text{Total pressure loss} = P (\text{psi/ft}) \times \text{Length (1025')} = 6.95 \text{ psi}$$

Residual Pressure of 28 psi at the hydrant test location would indicate a

Residual Pressure of 35 psi at the intersection of White Oak and Hobbs Hole

Confirmed by  
third party  
Professional  
Engineer



From: Craig Thompson <c.thompson@rhinofpe.com>  
Date: June 30, 2020 at 10:56:05 AM EDT  
To: Alwyn Davis <adavis@esssex.virginia.gov>  
Subject: RE: Pressure Loss Calculation Confirmation

Wyn,

The calc looks accurate to me. 7 psi loss seems about right for 8" pipe.  
Regards,



**Craig P. Thompson, P.E.**

Principal

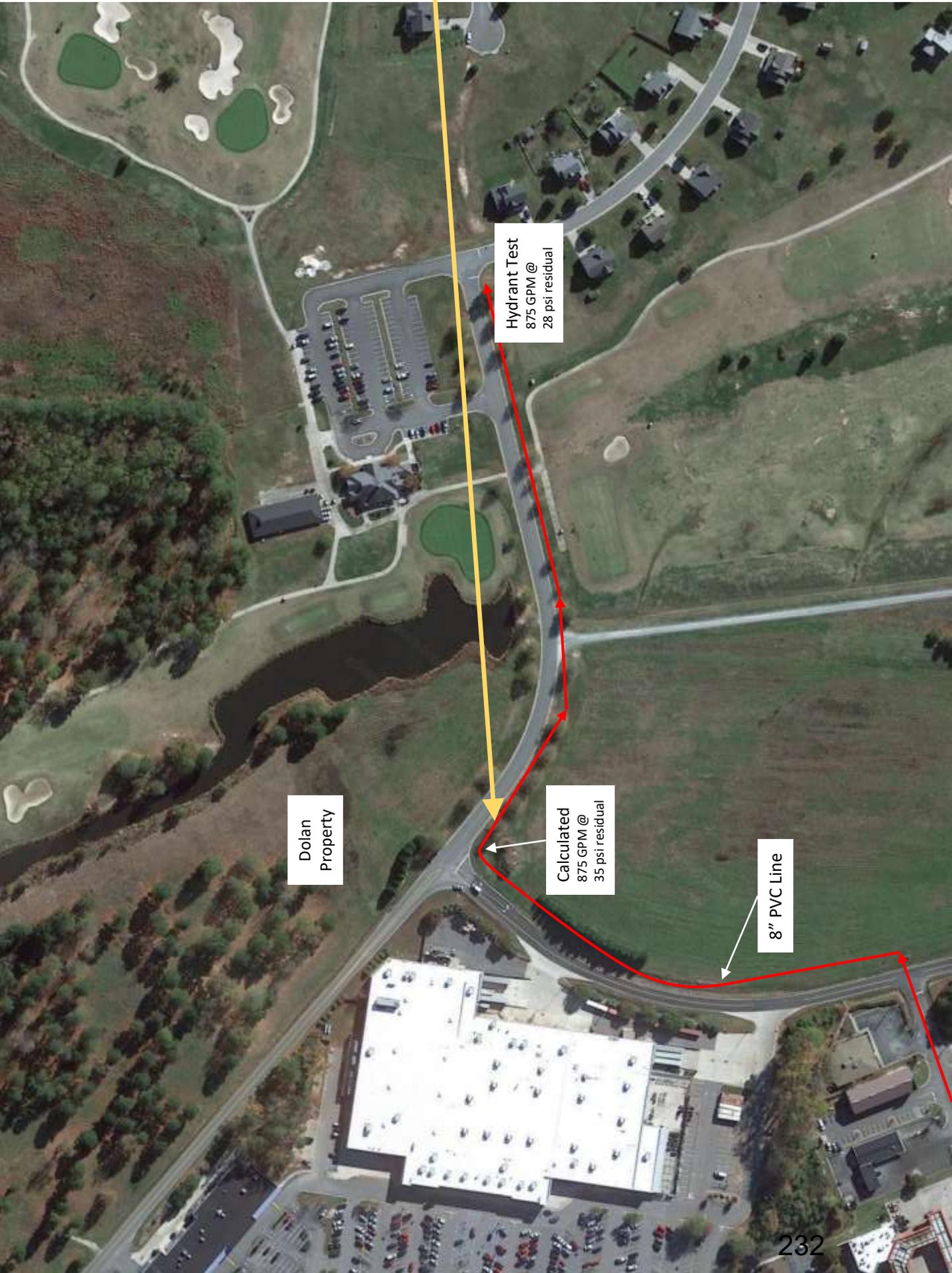
E-mail: [c.thompson@rhinofpe.com](mailto:c.thompson@rhinofpe.com)

Works: 703.476.5034 x1004 | Direct: 571.370.3390 | Cell: 703.301.1352

12359 Sunrise Valley Dr. Suite 350, Reston, VA 20191

Rhino Fire Protection Engineering, PLLC | [rhinofpe.com](http://rhinofpe.com)

Water supply pressure corrected to intersection of White Oak and Hobbs Hole



SUBTRACTING 125 GPM FOR UNDEVELOPED LOTS AND BASED UPON EXISTING HYDRANT PRESSURE AND FLOW FROM HYDRANT FLOW TEST CONDUCTED FEBRUARY 3, 2019 FIRE HYDRANT AT HOBS-HOLE CREEKHOUSE FLOODS 750 GPM @ RESIDUAL PRESSURE OF 20 PSI

A) EXISTING HYDRANT TO MET DRIVE ON DRIVE ADD HOBS HOLE DRIVE (750 GPM)

$$28 \text{ PSI} \times \frac{(1025 \text{ LF } 8 \frac{1}{2} \text{ IN}) (1.27 \text{ F/F } / 100 \text{ FT})}{2.31} = 24 \text{ PSI}$$

35 psi

B) MET DRIVE ON HOBS HOLE TO PROJECT ENTRANCE (562 GPM)

$$22 \text{ PSI} - \frac{(910 \text{ LF } 10 \text{ IN DI.}) (0.24 \text{ F/F } / 100 \text{ FT})}{2.31} = 24 \text{ PSI}$$

35 psi

1 psi drop

C) PROJECT ENTRANCE TO LAST HYDRANT (458 GPM)

$$24 \text{ PSI} - \frac{(500 \text{ FT } 10 \frac{1}{2} \text{ IN DI.}) (0.16 \text{ F/F } / 100 \text{ FT})}{2.31} = 24 \text{ PSI}$$

34 psi

.4 psi drop

## Corrected hydraulic calculations for available water supply

Accounting for a fully developed site (9 apartment buildings; 16 units each), fully developed Hobbs Hole Subdivision, domestic water demand and 250 gpm hydrant allowance .....

### Water flow and pressure available at the last hydrant

would be approximately:

- 84 gpm domestic & sprinkler
- @ 33.6 psi residual

To determine Automatic Sprinkler demand, Essex County hired 2 independent Fire Protection Engineers ...

**Mr. Joe Beck, P.E.**

Self Employed

- Fire Protection Engineer
- 19 years experience
- P.E. in NC, SC, TN, VA

Automatic Sprinkler Demand:

- 50-80 gpm flow
- 25-30 psi residual pressure

**Mr. Craig Thompson, P.E.**

Principal, Rhino Fire Protection

- Fire Protection Engineer
- 28 years experience
- P.E. in VA, MD, DC, CO, MI, TX, IL

Automatic Sprinkler Demand:

- 53.4 gpm flow
- 31.7 psi residual pressure

“There is enough water pressure and flow to protect the proposed two-story apartment building with an NFPA 13R system.” **Joe Beck** Page 30 of the Record

“At this rate, the existing water supply is ... more than sufficient to supply a NFPA 13R system.”

**Craig Thompson**

June 17, 2020 Letter from Rhino Fire Protection submitted by County as supplement to the Record

# Conclusion

Based on the **most demanding future circumstance** with Riverstone Development and Hobbs Hole Subdivision both fully developed:

Water Supply **available** to the most remote building      **84 gpm \***      **@ 33.6 psi**

Automatic Sprinkler Demand **required** for building      **54 gpm**      **@ 31.7 psi**

Accordingly, based on the information presently available, this project **DOES NOT QUALIFY** for the sprinkler exception under Section 903.2.8 of the Virginia Construction Code

\* With provision to prevent domestic waterflow on sprinkler system activation per NFPA13R paragraph 9.3.1

## **Exhibit D**

January 21, 2020 letter from Mr. Davis to Mr. Dolan; June 17, 2020 letter from Rhino Fire Protection; and June 28, 2020 letter from Mr. Davis to Mr. Howeth

**From:** Alwyn Davis  
**Sent:** Tuesday, January 21, 2020 8:03 AM  
**To:** [dolanproperties@verizon.net](mailto:dolanproperties@verizon.net)  
**Subject:** RE: Dolan Properties-Hobbs Hole

Dear Mr. Dolan,

I received your email dated January 13, 2020 and offer the following comments.

I was contacted by your architect, Bob Himmel in late December. Mr. Himmel was preparing a preliminary plan for a the proposed apartment complex. I simply explained to Mr. Himmel the requirements set forth in section 903.2.8 of the Virginia Construction Code. This section requires that all R-2 occupancies require sprinkler systems unless the pressure and or volume or both are not available. On January 06, 2020, I received an email from Mr. James Sydnor (Tappahannock Town Manager) including data provided by Mr. J.L. Howeth P.C. suggesting that the Town of Tappahannock's water system could not produce the required pressure and or volume to meet what he had calculated using an (ISO) fire flow calculator.

The Insurance Services Organization (ISO) fire flow calculator is one of the methodologies for calculating required water flow rates for sprinklered and non-sprinklered buildings. It is not a tool for determining the required design pressure and flow requirements for a fire sprinkler system. In order to determine the flow required for a fire sprinkler system in a R-2 occupancy, a fire protection design engineer needs to complete the hydraulic calculations for a system that complies with NFPA13R (specifically Chapter 7). Once the required flow and pressure are calculated, we can review the municipal water supply to determine if that water pressure and flow are available.

Please have your design engineer provide the water flow and pressure requirements along with the supporting hydraulic calculations for a system that is compliant with NFPA13R for our review.

Yours Truly,

Alwyn W. Davis Jr.  
Essex County Building Official

Building & Zoning  
202 South Church Lane  
P.O. Box 549  
Tappahannock, Virginia 22560  
(804) 443-4329  
www.essex-virginia.org



Established 1692

June 18, 2020

Jeffery Howeth  
P.O. Box 1684  
1019 Elm Street  
Tappahannock, VA 22560

Re: Sprinkler System- Riverstone Development

Dear Mr. Howeth,

I have received your correspondence on behalf of Riverstone Development, dated June 13, 2020. The Building Department of Essex County is continuing it's effort to provide a decision on the sprinkler exception request and would like to get resolution on this matter promptly for Mr. and Mrs. Dolan, therefore, I am keeping this correspondence focused on data required for that decision.

In my letter of May 22, I requested answers to four (4) points of clarification. I am again requesting specific answers to questions 1 and 2 as your correspondence of June 13 was vague with superfluous information that did not address the questions.

1 - On your hydrant flow test results of 2/3/20, is the data for Hydrant A and Hydrant B transposed? If so, please update the test results report and resubmit.

2 - There is some confusion about why you would calculate a pressure drop from the test hydrant location to the intersection of White Oak Drive and Hobbs Hole Drive. When performing the hydrant flow test, it appears that 875 gpm would be flowing from the White Oak Drive and Hobbs Hole Drive intersection to the hydrant location, creating a pressure drop due to friction. It is logical that the residual pressure at the intersection would be higher than at the hydrant location. Please calculate the residual pressure at the intersection based on results of your flow test. We do not need an explanation; just the data (875 gpm @ \_\_ psi residual pressure available at the intersection).

Please provide prompt and specific answers to this request so that we can make progress toward a decision. If you have questions, please do not hesitate to contact Wayne Verlander at our office.

Mr. and Mrs. Dolan from Riverstone Development have been copied in the email correspondence as well.

Thank you,

Alwyn W. Davis, Jr.  
Building Official, Essex County



**RHINO**  
FIRE PROTECTION  
ENGINEERING, PLLC

12359 Sunrise Valley Drive  
Suite 350  
Reston, VA 20191  
T: 703-476-5034  
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www.rhinofpe.com

**To:** Alwyn W. Davis, Jr.  
Building Official  
Essex County  
202 South Church Lane  
Tappahannock, VA 22560

**From:** Craig P. Thompson, P.E.

**Subject:** Riverstone Apartment Complex

**Re:** NFPA 13R Hydraulic Calculations

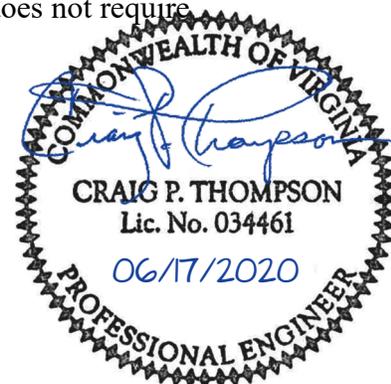
**Cc:** Rhino File 200651

**Date:** June 17, 2020

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We have reviewed the above referenced project with respect to NFPA 13R. We have prepared a basic layout for a NFPA 13R system with the use of residential sprinklers. Per NFPA 13R 2013 edition, Section 7.1.1.3.1 – the number of design sprinklers shall be all of the sprinklers in the remote compartment (most remote room in the building) – up to a maximum of 4 sprinklers. Based on the attached calculations, the building sprinkler requirement would be 31.7 psi at 53.4 gpm. We also mimicked the domestic demand at 55 gpm (as a hose stream allowance). Even with the additional demand, the total system requirement is 108.4 gpm at 31.7 psi. At this rate, the existing water supply has 47.58 psi at 108.4 gpm – more than sufficient to supply a NFPA 13R system. The calculations are rudimentary, as not all elbows, tees, or other fittings are shown, but they are a good estimate to show that the system will work. This system does not require the entire building to be provided with 0.05 gpm/square foot – just the most remote compartment and even then only up to 4 sprinklers. Furthermore, NFPA 13R does not require the designer to consider the domestic flow in other buildings.

R:\2020\200651 - Essex County - Riverstone Apartments Evaluation - CPT8 - Design Calcs\FP - Hydraulic Calc\Project Memo1.doc



## **Exhibit E**

*Occoquan Land Development Corp. v. Cooper*, 239 Va. 363 (1990);  
*Miller v. State Bldg. Code Tech. Review Bd.*, 2003 Va. App. LEXIS 412 (Va. Ct. of App. 2003)

## Miller v. State Bldg. Code Tech. Review Bd.

Court of Appeals of Virginia

July 22, 2003, Decided

Record No. 0365-03-2

### Reporter

2003 Va. App. LEXIS 412 \*; 2003 WL 21693047

revocation, notice

DOUGLAS L. MILLER AND DEBORA A.  
MILLER v. STATE BUILDING CODE  
TECHNICAL REVIEW BOARD AND KING  
GEORGE COUNTY

### Case Summary

**Notice:** [\*1] PURSUANT TO THE APPLICABLE VIRGINIA CODE SECTION THIS OPINION IS NOT DESIGNATED FOR PUBLICATION.

#### Procedural Posture

Appellant owners appealed from a decision by the Virginia Board of Building Code of Appeals, which found that it did not have jurisdiction of the voiding of the owners' zoning permit. The owners appealed to appellee Virginia State Building Code Technical Review Board, which found the matter moot. The owners appealed to the Circuit Court of Prince George County (Virginia), which dismissed the appeal as moot. The owners appealed.

**Subsequent History:** Related proceeding at [Miller v. Bd. of Supervisors, 2004 Va. App. LEXIS 71 \(Va. Ct. App., Feb. 10, 2004\)](#)

**Prior History:** FROM THE CIRCUIT COURT OF KING GEORGE COUNTY. Horace A. Revercomb, III, Judge.

#### Overview

The owners neither appealed the Zoning Administrator's decision determining that the owners were in violation of the zoning ordinance, nor sought a special exemption from the zoning requirements. The decision by the Zoning Administrator was therefore final. As a result of the zoning violation, which was not subject to judicial review, the owners' building permit was revoked. A building permit was a necessary basis for the issuance of an occupancy permit. By focusing solely on appealing the denial of the certificate of occupancy, the owners failed to appeal the revocation of their building permit, to appeal

**Disposition:** Affirmed.

### Core Terms

zoning, certificate, ordinance, dwelling, moot,

the Zoning Administrator's ruling, or to seek a special exemption from the zoning requirements. Absent a valid building permit, however, the owners could not complete the dwelling and, consequently, could not obtain a certificate of occupancy. The trial court did not err in finding the issue moot.

### Outcome

The decision was summarily affirmed.

## LexisNexis® Headnotes

Administrative Law > Judicial Review > Reviewability > Standing

Business & Corporate Compliance > ... > Real Property Law > Zoning > Administrative Procedure

Real Property Law > Zoning > Judicial Review

### [HN1](#) [↓] **Reviewability, Standing**

See [Va. Code Ann. § 15.2-2311](#).

Environmental Law > Land Use & Zoning > Judicial Review

Governments > Local Governments > Licenses

Real Property Law > Zoning > Judicial Review

Real Property Law > Zoning > General Overview

### [HN2](#) [↓] **Land Use & Zoning, Judicial Review**

A building permit is a necessary basis for the issuance of an occupancy permit.

Real Property Law > Zoning > General Overview

### [HN3](#) [↓] **Real Property Law, Zoning**

See 13 Va. Admin. Code § 5-61-95.

Civil Procedure > ... > Justiciability > Mootness > Real Controversy Requirement

Constitutional Law > The Judiciary > Case or Controversy > Advisory Opinions

Civil Procedure > ... > Justiciability > Mootness > General Overview

Constitutional Law > ... > Case or Controversy > Mootness > General Overview

Governments > Courts > Authority to Adjudicate

### [HN4](#) [↓] **Mootness, Real Controversy Requirement**

The duty of the appellate court as of every other judicial tribunal, is to decide actual controversies by a judgment which can be carried into effect, and not to give opinions upon moot questions or abstract propositions. Dismissal is the proper remedy if an event occurs which renders it impossible for a court, if it should decide the case in favor of the

plaintiff, to grant him any effectual relief whatever. Courts are not constituted to render advisory opinions, to decide moot questions or to answer inquiries which are merely speculative.

**Counsel:** (Douglas L. Miller; Debora A. Miller, Pro se, on briefs).

(Jerry W. Kilgore, Attorney General; Richard B. Zorn, Senior Assistant Attorney General; Deborah Love Feild, Assistant Attorney General; Matthew J. Britton, Commonwealth's Attorney, on brief), for appellees.

**Judges:** Present: Judges Benton, Humphreys and Senior Judge Overton.

## Opinion

### MEMORANDUM OPINION <sup>1</sup> PER CURIAM

Douglas and Debora Miller contend the trial judge erred in finding their appeal moot and upholding the decision of the State Building Code Technical Review Board. Upon reviewing the record and briefs of the parties, we conclude that this appeal is without merit. Accordingly, we summarily affirm the decision of the trial court. See [Rule 5A:27](#) [\*2] .

I.

In April 2000, the Millers obtained building and zoning permits to construct a two-family

dwelling on the property designated on Tax Map 22, Parcel 103, and located at 5022/5024 Igo Road in King George County. Those applications contained a sketch detailing the placement of a new well, which was required to support the dwelling. To build the well, the Millers had obtained from the Department of Health the necessary permit, which indicated the well's location and mandated a "Health Dept Operation Permit & Well Inspection Report . . . prior to occupancy."

In early 2001, the Millers requested final inspections necessary to obtain a certificate of occupancy. On February 28, 2001, the Millers received a letter from the county's Zoning Administrator notifying them that they had violated the county's zoning ordinance. The notice advised the Millers that by "connecting the dwelling currently under construction . . . to the [pre-existing] well that currently serves [other] dwellings" they had "brought the total number of potable water connections served by this well up to three," in violation of the zoning ordinance. The notice further advised that, "in order that the dwelling [\*3] . . . may continue to be constructed and may be occupied in the future," the Millers were required to comply with the local zoning ordinance or obtain a special exception. The notice informed the Millers "this decision shall be final and unappealable if not appealed within the thirty days" to the Board of Zoning Appeals.

By letter dated March 12, 2001, the Millers sent a letter to the county's Board of Building Code of Appeals objecting to the denial of temporary and final occupancy certificates. After perfecting the appeal, the Millers wrote to the Zoning Administrator to express their disagreement with his opinion that their remedy was to appeal to the Zoning Board of Appeals.

On April 3, 2001, the county's Building Official

<sup>1</sup> Pursuant to [Code § 17.1-413](#), this opinion is not designated for publication.

notified the Millers that the Zoning Administrator had voided the Millers' zoning permit for the dwelling. The letter also explained that "the original approval of [the Millers' building] permit was based on the issuance of a zoning permit and installation of a well as stated on their signed application." The letter notified the Millers that their building permit had been revoked pursuant to the Uniform Statewide Building Code "until such time as [the Millers] [\*4] can obtain a zoning permit."

The Board of Building Code of Appeals held a public hearing to consider the Millers' appeal. By resolution dated April 19, 2001, the Board of Building Code of Appeals "found that the appeal was based on a zoning administrator's decision" and that the Board "does not have jurisdiction or authority over a zoning administrator's decision and no adverse decision made by the Building Official had been properly appealed." It, therefore, dismissed the Millers' appeal.

The Millers then appealed to the State Building Code Technical Review Board, which conducted a hearing on the Millers' appeal. The Millers advised the Technical Review Board that the "appeal was based on the Certificate of Inspection not the letter from [the Zoning Administrator]." The Technical Review Board found that "the revocation of [the Millers' building] permit . . . rendered the appeal of the refusal to issue the [certificate of occupancy] moot because no dispute of whether to issue a [certificate of occupancy] can be considered if there is no valid [building permit]." The Technical Review Board also found that the Millers "failed to raise the revocation of the [building] permit [\*5] as an issue for the . . . Board [of Building Code of Appeals] to consider" and had failed to timely file an appeal from the revocation decision. Thus, the Technical Review Board ruled that "the appeal of the revocation of the [building] permit is not

properly before the Review Board" and ordered the Millers' "appeal of the code official's refusal to issue a [certificate of occupancy] to be . . . dismissed as moot."

The Millers appealed to the circuit court. After considering "the arguments by the parties, the pleadings and the record of the . . . Technical Review Board," the trial judge dismissed the appeal.

II.

[Code § 15.2-2311](#) provides, in pertinent part, that [HN1](#)<sup>(↑)</sup> "an appeal to the board [of zoning appeals] may be taken by any person aggrieved . . . by any decision of the zoning administrator or from any order, requirement, decision or determination made by any other administrative officer in the administration or enforcement of this article." In addition, the statute further provides as follows:

Any written notice of a zoning violation or a written order of the zoning administrator dated on or after July 1, 1993, shall include a statement informing the recipient [\*6] that he may have a right to appeal the notice of a zoning violation or a written order within thirty days in accordance with this section, and that the decision shall be final and unappealable if not appealed within thirty days.

[Code § 15.2-2311](#).

The record establishes that the Millers neither appealed the Zoning Administrator's decision, which determined that the Millers were in violation of the zoning ordinance, nor sought a special exemption from the zoning requirements. As the Supreme Court held in [Gwinn v. Alward, 235 Va. 616, 621, 369 S.E.2d 410, 412, 4 Va. Law Rep. 3139 \(1988\)](#), "the decision by the zoning administrator that [the land owner] was operating . . . on the property in violation of the zoning ordinance was a thing decided and was not subject to

attack by [the land owner] . . . because [the land owner] never appealed the various decisions in which he was declared in violation of the zoning ordinance." See also [Gwinn v. Collier](#), 247 Va. 479, 484, 443 S.E.2d 161, 163-64, 10 Va. Law Rep. 1241 (1994).

As a result of the zoning violation, which is not now subject to judicial review, see *id.*, the building permit was [\*7] revoked. As manifested by the following provision, [HN2](#) [↑] a building permit is a necessary basis for the issuance of an occupancy permit. [HN3](#) [↑] "A certificate of occupancy, *indicating completion of the work for which a permit was issued in accordance with this code and any pertinent laws and ordinances shall be obtained prior to any occupancy of a structure . . .*" 13 VAC 5-61-95 (emphasis added).

By focusing solely on appealing the denial of the certificate of occupancy, the Millers failed to appeal the revocation of their building permit, or to appeal the Zoning Administrator's ruling, or to seek a special exemption from the zoning requirements. Absent a valid building permit, however, the Millers could not complete the dwelling and, consequently, could not obtain a certificate of occupancy.

[HN4](#) [↑] "The duty of this court as of every other judicial tribunal, is to decide actual controversies by a judgment which can be carried into effect, and not to give opinions upon moot questions or abstract propositions . . . ." Dismissal is the proper remedy if "an event occurs which renders it impossible for [a] court, if it should decide the case in favor of the plaintiff, to grant him any [\*8] effectual relief whatever . . . ."

[Jackson v. Marshall](#), 19 Va. App. 628, 635, 454 S.E.2d 23, 27 (1995) (citations omitted). "Courts are not constituted . . . to render advisory opinions, to decide moot questions or to answer inquiries which are merely speculative." [Commonwealth v. Harley](#), 256

[Va. 216, 219-20, 504 S.E.2d 852, 854 \(1998\)](#) (quoting [City of Fairfax v. Shanklin](#), 205 Va. 227, 229-30, 135 S.E.2d 773, 775-76 (1964)).

The trial judge did not err in finding the issue moot. Accordingly, we summarily affirm the decision. See [Rule 5A:27](#).

*Affirmed.*

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End of Document

## Occoquan Land Dev. Corp. v. Cooper

Supreme Court of Virginia

March 2, 1990

Record No. 890419

### Reporter

239 Va. 363 \*; 389 S.E.2d 464 \*\*; 1990 Va. LEXIS 56 \*\*\*; 6 Va. Law Rep. 1574

Occoquan Land Development Corporation v.  
Claude G. Cooper, etc., et al.

**Prior History:** [\*\*\*1] Appeal from a judgment  
of the Court of Appeals of Virginia.

**Disposition:** *Reversed and final judgment.*

### Core Terms

notice, mailed

### Case Summary

#### Procedural Posture

Appellees, county and related individuals, brought an action to review the decision of the state building code board that authorized restoration of certain permits to appellant developer. The developer filed a motion to dismiss, which the trial court granted. The Court of Appeals of Virginia reversed and the developer appealed.

#### Overview

The developer's permits to build three residences had been revoked after flooding occurred in the area. The county revoked the permits on the ground that the applications did not contain complete soil drainage information. The local building code board ordered restoration of the permits, and the state board agreed. The trial court dismissed the county's appeal on the ground that it had not been timely filed. The appellate court reversed and entered judgment for the county. On appeal, the court reversed and entered final judgment for the developer. The court found the county did not timely file its appeal. The court found the statute the county relied on, which required final decisions of state agencies to be served upon the parties by mail, did not deal with appeals, but with the duties of state agencies. The court found that Va. Sup. Ct. R. 2A:2, which specified that an appeal had to be filed within 30 days after entry of the final order, was controlling. The court found the date the state board entered its decision was the date the chairman signed the order, not the date on which the order was mailed. The county failed to timely file its appeal.

#### Outcome

The court reversed the judgment in favor of the county and entered final judgment in favor of

the developer.

Civil Procedure > Appeals > Reviewability of Lower Court Decisions > Timing of Appeals

Constitutional Law > ... > Fundamental Rights > Procedural Due Process > Scope of Protection

## LexisNexis® Headnotes

Civil Procedure > Appeals > Reviewability of Lower Court Decisions > Timing of Appeals

### [HN3](#) [↓] **Reviewability of Lower Court Decisions, Timing of Appeals**

The flexible standard of due process does not require any particular form of procedure and its requirements are non-technical.

### [HN1](#) [↓] **Reviewability of Lower Court Decisions, Timing of Appeals**

Va. Sup. Ct. R. 2A:2 provides in part that any party appealing from a case decision shall file, within 30 days after entry of the final order in the case decision, with the agency secretary a notice of appeal signed by him or his counsel.

Civil Procedure > ... > Pleadings > Time Limitations > General Overview

Governments > Courts > Rule Application & Interpretation

### [HN4](#) [↓] **Pleadings, Time Limitations**

Va. Sup. Ct. R. 1:7 provides in part: Whenever a party is required or permitted under these Rules to do an act within a prescribed time after service of a paper upon him and the paper is served by mail, three days shall be added to the prescribed period.

Administrative Law > Judicial Review > Reviewability > Reviewable Agency Action

Environmental Law > Administrative Proceedings & Litigation > Judicial Review

Administrative Law > Judicial Review > General Overview

### [HN2](#) [↓] **Reviewability, Reviewable Agency Action**

Va. Code Ann. § 9-6.14:16(A) specifically provides for judicial review by an appropriate and timely court action against the agency as such or its officers or agents in the manner provided by the rules of the Supreme Court of Virginia. Therefore, the 30-day period specified in Va. Sup. Ct. R. Rule 2A:2 begins to run upon entry of the final order.

## Headnotes/Summary

### Headnotes

**Cities, Counties and Towns -- Jurisdiction - - Administrative Process Act -- Rules of Court (Rule 2A:2) -- Practice and Procedure -- Appeals -- Administrative Agencies -- Building Codes -- Building Permits -- Service Requirements**

A county issued plaintiff land development

company building permits for three single-family residences after the company's professional engineer certified that the information on its building permit applications was complete. During a storm the area was flooded and the county building official revoked the permits on the ground that the applications did not contain complete and accurate information. The company appealed the revocation to the local board of building code appeals, which ordered restoration of the permits conditioned upon full compliance with the building code and documentation establishing flood plains. The company appealed the action to the state Building Code Technical Review Board, which amended the local board's decision to provide that restoration of the permits should be conditioned only upon compliance with the provisions of the Virginia [\*\*\*2] Uniform Statewide Building Code in effect at the time the permits were issued. Upon the county's motion the state board reconsidered the matter and adhered to its original decision. A copy of the final order was mailed to all parties on July 23, 1985. On August 21, 1985, in purported compliance with Rule 2A:2, dealing with notice of appeal under the Administrative Process Act, the county mailed a notice of appeal to the state board's secretary. On September 17, 1985, pursuant to the provisions of Rule 2A:4, the county filed its petition for appeal. The trial court sustained the defendant company's motion to dismiss the county's action on the ground that the notice of appeal had not been filed within the 30 days after entry of the final order in the case decision. The trial court found that even if the notice of appeal had been properly filed, there was no error in the state board's decision. The county appealed the trial court's decision to the Court of Appeals, which reversed the judgment of the trial court and entered final judgment for the county. The development company appeals.

1. If the county failed to file a timely notice of

appeal, as the trial court ruled, that [\*\*\*3] court had no further jurisdiction over the matter and there is no need to consider the county's substantive claims.

2. Even assuming that the pleadings contain a judicial admission by the state board, that admission does not bind the development company, which was not in privity with the state board.

3. A court cannot acquire jurisdiction by a party's consent to the existence of what is found to be an erroneous fact.

4. Code § 9-6.14:14 requires final decisions or orders of state agencies to be served upon the private parties by mail, but it does not deal with appeals, only with the duties of the various agencies.

5. Code § 9-6.14:16(A), on the other hand, specifically provides for judicial review by an appropriate and timely court action against the agency as provided by the rules of the Supreme Court of Virginia, which provide a 30-day period running from the entry of the final order.

6. Rule 2A:2 clearly provides that the appeal period begins upon the entry of the board's final order. Entry occurs when the judge signs the order reflecting the judgment previously pronounced and, in this case, that happened on July 20, 1985, the date the state board's chairman signed the [\*\*\*4] final order.

7. In this case, the county had a reasonable time within which to file its notice of appeal, and its due process rights were not violated.

8. Rule 1:7 does not apply here since the time within which the appeal was to be filed was 30 days from the entry of the order, not 30 days from service of the order upon it.

9. Since the county failed to perfect its appeal

of a final order in a timely manner, the trial court was without jurisdiction to hear the case and the judgment of the court of appeals is reversed.

## Syllabus

*In a dispute involving county building permits, the county failed to perfect its appeal of a state board decision in a timely manner, and the trial court was without jurisdiction to hear the case. Therefore, the judgment of the Court of Appeals in the matter is reversed, and final judgment is entered on behalf of the plaintiff to whom the permits were issued.*

**Counsel:** *Thomas F. Farrell, II (Amy T. Holt; McGuire, Woods, Battle & Boothe, on brief), for appellant.*

*David T. Stitt, County Attorney (George A. Symanski, Jr., Senior Assistant County Attorney; J. Patrick Taves, Assistant County Attorney, on brief), for appellees.*

**Judges:** Carrico, C.J., Compton, Stephenson, [\*\*\*5] Russell, Whiting, and Lacy, JJ., and Poff, Senior Justice. Justice Whiting delivered the opinion of the Court.

**Opinion by:** WHITING

## Opinion

[\*365] [\*\*465] In this case, we resolve an alleged conflict between Rule 2A:2 of this Court and Code § 9-6.14:14, which involves the mandatory service requirements with respect to appeals of administrative agency decisions.

On May 23, 1983, Fairfax County issued building permits for three single-family residences to Occoquan Land Development Corporation (Occoquan) after Occoquan's professional engineer certified that the information on its building permit applications was complete. A few weeks after the building permits were issued, the area was flooded during a storm. On June 23, 1983, Claude G. Cooper, a Fairfax County building official, revoked the permits on the ground that the applications "did not contain complete and accurate information regarding soil and drainage conditions."

On October 1, 1984, Occoquan appealed Cooper's revocation to the Fairfax County Board of Building Code Appeals (the local board). The local board ordered restoration of the building permits, conditioned upon "full compliance with the Building Code and accompanied by Engineering Documentation [\*\*\*6] on establishing flood plains and a Soils Report on each lot."

On November 19, 1984, Occoquan appealed the local board's action to the State Building Code Technical Review Board (the state board). After hearing evidence on January 11, 1985, the state board took the matter under advisement. On February 22, 1985, the state board amended the local board's decision to provide that restoration of the permit should be conditioned only upon compliance with "the provisions of the Virginia Uniform Statewide Building Code in effect at the time the permits

were issued." The state board's order recites that the decision was entered on February 22, 1985; however, its chairman signed the order reflecting the decision on April 2, 1985, and the secretary of the state board attested it on April 8, 1985.

Pursuant to Fairfax County's motion, on June 28, 1985, the state board reconsidered the matter, heard additional evidence and argument, and indicated to the parties that it adhered to its original conclusion. Later, the chairman of the state board signed the final order which confirmed its previous ruling. The final order concluded as follows:

**[\*366]** This Decision has been entered this **[\*\*\*7]** 28th day of June, 1984 [sic] <sup>1</sup> A.D.

/s/ Bernard E. Cooper  
Bernard E. Cooper, Chairman

July 20, 1985  
Date

COPY TESTEE: [sic]

/s/ C. Sutton Mullen/Bel  
C. Sutton Mullen, Secretary  
State Building Code Technical Review Board

July 23, 1985  
Date

A copy of the final order was mailed to all parties on July 23, 1985. On August 21, 1985, in purported compliance with Rule 2A:2, dealing with notices of appeal under the Administrative Process Act, Cooper, Jane W. Gwinn, Zoning Administrator for Fairfax County, and the Board of Supervisors of Fairfax County (collectively the county) mailed

a notice of appeal to the **[\*\*466]** state board's secretary. It was apparently received on August 22, 1985. On September 17, 1985, pursuant to the provisions of Rule 2A:4, the county filed its petition for appeal in the Circuit Court of Fairfax County, naming Occoquan **[\*\*\*8]** and the state board as appellees.

The trial court sustained Occoquan's motion to dismiss the county's appeal on the ground that it had not been filed within the time required by Rule 2A:2. [HN1](#)<sup>[↑]</sup> Rule 2A:2 provides in pertinent part that "[a]ny party appealing from a . . . case decision shall file, within 30 days after . . . entry of the final order in the case decision, with the agency secretary a notice of appeal signed by him or his counsel." Additionally, the trial court found that even if the notice of appeal had been properly filed, there was no error in the state board's decision.

The county appealed the trial court's decision to the Court of Appeals. On March 7, 1989, that court reversed the judgment of **[\*367]** the trial court and entered final judgment for the county. [Cooper v. Occoquan Land Development Corp., 8 Va. App. 1, 377 S.E.2d 631 \(1989\)](#). We granted Occoquan this appeal, deeming the issues raised to have significant precedential value. Code § 17-116.07(B).

[1] First, we must decide whether the county failed to file a timely notice of appeal, as the trial court ruled. If so, the trial court had no further jurisdiction in the matter, **[\*\*\*9]** and we need not consider the county's substantive claims. See [Upshur v. Haynes Furniture Co., 228 Va. 595, 597, 324 S.E.2d 653, 654 \(1985\)](#).

The county advances four reasons why it did not lose its right to appeal. We find no merit in any of those reasons.

[2-3] First, the county argues that the state board's responsive pleading contains a judicial

<sup>1</sup> The parties agreed that the date of June 28, 1984, appearing in the final order, was a typographical error and that it should have been June 28, 1985.

admission which is dispositive of the issue. The county's petition for appeal to the circuit court alleged, and the state board's answer admitted, that "on *July 23, 1985*, the [state] Board reaffirmed the April 8, 1985, decision." (Emphasis added.) Assuming, but not deciding, that this was a judicial admission, it does not bind Occoquan, which was not in privity with the state board. See *Wytheville Ice Co. v. Frick*, 96 Va. 141, 144, 30 S.E. 491, 491-92 (1898); *Fisher v. White*, 94 Va. 236, 242, 26 S.E. 573, 575 (1897). Moreover, a court cannot acquire jurisdiction by a party's consent to the existence of what we find in this opinion to be an erroneous fact.

[4-5] Second, the county notes that, but for an exception inapplicable [\*\*\*10] here, Code § 9-6.14:14 requires final decisions or orders of state agencies to "be served upon the private parties by mail." The county contends that the 30-day period set forth in Rule 2A:2 could not begin to run until the state board complied with this mandatory service requirement. Code § 9-6.14:14, however, does not deal with appeals but only with the duties of the various agencies. *HN2* Code § 9-6.14:16(A), on the other hand, specifically provides for judicial review by "an appropriate and timely court action against the agency as such or its officers or agents in the manner provided by the rules of the Supreme Court of Virginia." Therefore, the 30-day period specified in Rule 2A:2 begins to run upon "entry of the final order."

[6] Third, the county maintains that the date upon which the state board's decision was "entered" is unclear. According to the county, the date of entry might be June 28, 1985, in which event its due process rights might have been violated because notice of [\*368] the order's entry was not mailed until July 23, 1985, and was not delivered until more than 30 days after the decision, too late to file a notice of appeal. Rule 2A:2, however, clearly

provides [\*\*\*11] that the appeal period begins upon the "entry of the [board's] final order." In an analogous context, dealing with appeals from final judgments of trial courts, we have held that a judgment is not ordinarily "entered" upon its oral pronouncement; its "entry" occurs when the judge *signs* an order prepared by counsel or the court, reflecting the judgment previously pronounced. *Peyton v. Ellyson*, 207 Va. 423, 430-31, 150 S.E.2d 104, 110 (1966); *McDowell v. Dye*, 193 Va. 390, 393-94, 69 S.E.2d 459, 462-63 (1952). Accordingly, the 30-day period within which the county was required to file its notice of appeal began on July 20, 1985, the date the state board's chairman signed the final order.

[7] *HN3* [\*\*467] The flexible standard of due process does not require any particular form of procedure and its requirements are non-technical, *Klimko v. Virginia Empl. Comm'n*, 216 Va. 750, 760, 222 S.E.2d 559, 568, cert. denied, 429 U.S. 849 (1976). Thus, we conclude that in this case the county had a reasonable time in which to file its notice of appeal, and its due process rights [\*\*\*12] were not violated.

[8] Finally, the county relies upon *HN4* Rule 1:7, which provides in part:

Whenever a party is required or permitted under these Rules to do an act within a prescribed time after service of a paper upon him and the paper is served by mail, three days shall be added to the prescribed period.

The county, however, was not required to file its appeal "within a prescribed time after *service* of" the order upon it; instead, it was required to file within 30 days of the *entry* of the final order. Therefore, Rule 1:7 does not apply here.

[9] We conclude that the county failed to perfect its appeal in a timely manner and, therefore, the trial court was without

jurisdiction to hear the case. Accordingly, we will reverse the judgment of the Court of Appeals, and, pursuant to the provisions of [Code § 8.01-681](#), we will enter final judgment for Occoquan.

*Reversed and final judgment.*

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End of Document

**REQUEST FOR INTERPRETATION**

TO: OFFICE OF THE STATE BUILDING CODE TECHNICAL REVIEW BOARD  
VIRGINIA DEPT. OF HOUSING AND COMMUNITY DEVELOPMENT  
Main Street Centre  
600 E. Main Street, Suite 300  
Richmond, Virginia 23219-1321  
Tel: (804) 371-7150 Fax: (804) 371-7092  
Email: sbco@dhcd.virginia.gov

From: Paula K Johnson Property Maintenance Official City of Fredericksburg

Phone Number : 540-207-0388

Email Address: [ubeturbutt@yahoo.com](mailto:ubeturbutt@yahoo.com) ( temporary during Covid )

Applicable Code: Virginia Maintenance Code

Code Section(s): VMC 104.5.2 & 606.1

Submitted by (signature):



Date: 6-17-2020

QUESTION(S):

VMC 104.5.2 Allows for the the code official to issue code modifications upon an application of the owner or owners agent, Section 104.5.3.3 Code of Virginia Section 36-105.1 allows the locality to provide for elevator inspections by third party provided the inspector has met certification requirements of the Board of Housing and Community Development. Section 606.1 for inspections of elevators escalators and dumbwaiters; All periodic inspections shall be performed in accordance with 8.11 of ASME A17.1.

QUESTION:

Does approval of a modification to allow elevators, escalators or similar conveyances to be, placed in service and maintained in service/ tested without the witnessing inspection by a DHCD-certified elevator inspector meet the spirit and intent of the USBC?

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## CHAPTER 1 ADMINISTRATION

### **104.5.2 Issuance of modifications.**

Upon written application by an owner or an owner's agent, the code official may approve a modification of any provision of this code provided the spirit and intent of the code are observed and public health, welfare and safety are assured. The decision of the code official concerning a modification shall be made in writing and the application for a modification and the decision of the code official concerning such modification shall be retained in the permanent records of the local enforcing agency.

#### **104.5.2.1 Substantiation of modification.**

The code official may require or may consider a statement from a professional engineer, architect or other person competent in the subject area of the application as to the equivalency of the proposed modification.

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## CHAPTER 6 MECHANICAL AND ELECTRICAL REQUIREMENTS

**606.1 General.**

Elevators, dumbwaiters, and escalators shall be *maintained* in compliance with [ASME A17.1](#). The most current certificate of inspection shall be on display at all times within the elevator or attached to the escalator or dumbwaiter; or be available for public inspection in the office of the building operator; or be posted in a publicly conspicuous location approved by the code official. Where not displayed in the elevator or attached on the escalator or dumbwaiter, there shall be a notice where the certificate of inspection is available for inspection. An annual periodic inspection and test is required of elevators and escalators. A locality shall be permitted to require a 6-month periodic inspection and test. All periodic inspections shall be performed in accordance with Section 8.11 of [ASME A17.1](#). The code official may also provide for such inspection by an approved agency or through agreement with other local certified elevator inspectors. An approved agency includes any individual, partnership, or corporation who has met the certification requirements established by the VCS.

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# Addendum to the September 18, 2020 Agenda Package

Calculations for the letter found on  
page 239 of the agenda package

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RHINO FIRE PROTECTION ENGINEERING, PLLC  
12359 SUNRISE VALLEY DRIVE SUITE 350  
RESTON, VA 20191

HYDRAULIC CALCULATIONS FOR  
RIVERSTONE APARTMENT TAPPAHANNOCK, VA

DRAWING NUMBER: XXX DATE: JUN 17, 2020

-DESIGN DATA-

HYDRAULIC AREA: 2ND FLOOR UNIT  
OCCUPANCY CLASSIFICATION: RESIDENTIAL 13R  
DENSITY: 0.05 gpm/sq. ft.  
AREA OF APPLICATION: 4 SPRINKLERS IN UNIT

COVERAGE PER SPRINKLER: 256 sq. ft.  
TYPE OF SPRINKLERS CALCULATED: PENDENT, K 4.9  
NUMBER OF SPRINKLERS CALCULATED: 4

WATER SUPPLY

Source: HYDRANT XXX Test Date: XXX

Source Elevation Relative to Finished Floor Level: -5 ft.  
Source: HYD

Static: 48 psi Residual: 28 psi Flow: 875.0 gpm

NAME OF DESIGNER: HUY THAI / CRAIG P. THOMPSON, P.E.

NOTES:

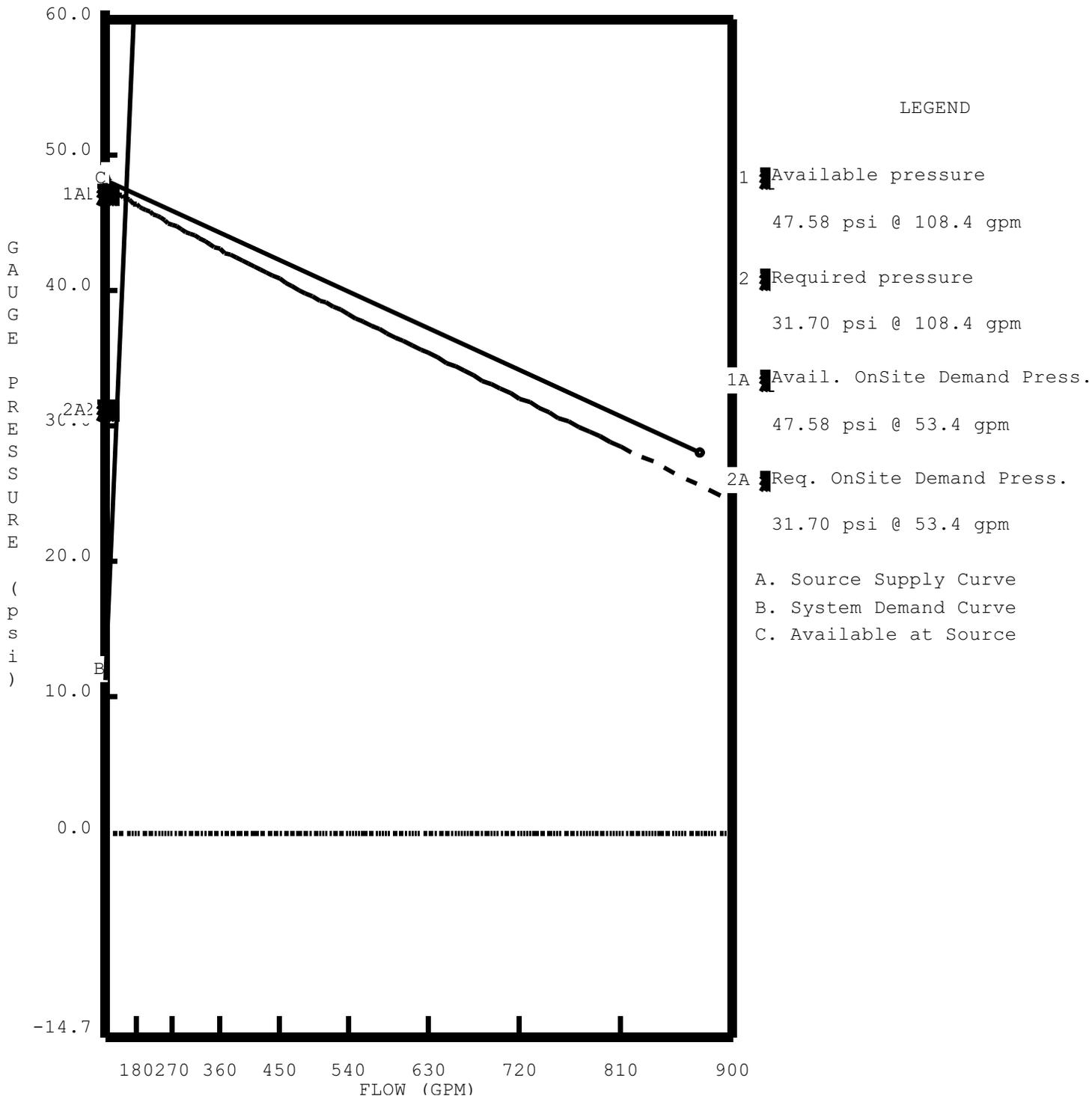
Calculation were performed using Viking Residential Pendent Sprinkler head (VK468) and designed per NFPA 13R and NFPA 13. The 55 GPM added in mechanical room.

Calculations performed by HASS under license # 16121837 , granted by HRS SYSTEMS, INC.

(Notes continue after pipe calculations results.)

WATER SUPPLY ANALYSIS

Static: 48.00 psi Resid: 28.00 psi Flow: 875.0 gpm



Note: (1) Dashed Lines indicate extrapolated values from Test Results

(2) On Site pressures are based on hose stream deduction at the source

DATE: 6/17/2020IGN CALCS\FP - HYDRAULIC CALC\2ND FLOOR UNIT (UPDATED).SDF  
 JOB TITLE: 2rd Floor

NFPA WATER SUPPLY DATA

SOURCE NODE TAG	STATIC PRESS. (PSI)	RESID. PRESS. (PSI)	FLOW @ (GPM)	AVAIL. PRESS. (PSI)	TOTAL @ DEMAND (GPM)	REQ'D PRESS. (PSI)
HYD	48.0	28.0	875.0	47.6	108.4	31.7

AGGREGATE FLOW ANALYSIS:

TOTAL FLOW AT SOURCE	108.4 GPM
TOTAL HOSE STREAM ALLOWANCE AT SOURCE	55.0 GPM
OTHER HOSE STREAM ALLOWANCES	0.0 GPM
TOTAL DISCHARGE FROM ACTIVE SPRINKLERS	53.4 GPM

NODE ANALYSIS DATA

NODE TAG	ELEVATION (FT)	NODE TYPE	PRESSURE (PSI)	DISCHARGE (GPM)	NOTES
S1	21.0	K= 4.90	7.7	13.6	
S2	21.0	K= 4.90	7.8	13.7	
S3	21.0	K= 4.90	7.0	13.0	
S4	21.0	K= 4.90	7.1	13.1	
101	22.0	- - - -	8.0	- - -	
102	22.0	- - - -	9.2	- - -	
103	22.0	- - - -	7.2	- - -	
104	22.0	- - - -	9.2	- - -	
105	22.0	- - - -	11.0	- - -	
106	22.0	- - - -	12.7	- - -	
107	10.0	- - - -	18.3	- - -	
TR	10.0	- - - -	18.6	- - -	
BR	2.0	- - - -	22.4	- - -	
BFD	2.0	- - - -	22.4	- - -	
BFS	2.0	- - - -	28.4	- - -	
POT	2.0	- - - -	28.4	- - -	
UG1	-5.0	- - - -	31.5	- - -	
UG2	-5.0	- - - -	31.5	- - -	
HYD	-5.0	SOURCE	31.7	53.4	

DATE: 6/17/2020IGN CALCS\FP - HYDRAULIC CALC\2ND FLOOR UNIT (UPDATED).SDF  
 JOB TITLE: 2rd Floor

NFPA3 PIPE DATA

Pipe Tag	K-fac	Add Fl	Fl To	Vel	Fit:	L	C	(Pt)	Notes
To Node	El (ft)	(q)	Node/	Nom ID	Eq.Ln.	F		(Pe)	
Frm Node	El (ft)	Tot. (Q)	Disch	Act ID	(ft.)	T	Pf/ft.	(Pf)	
Pipe: 1	4.90	13.6	Disch	5.1		9.00	150	7.7	
S1	21.0	7.7	0.0	1.000	2E: 6.0	6.04		-0.4	
101	22.0	8.0	13.6	1.049		15.04	0.042	0.6	
Pipe: 2	4.90	13.7	Disch	5.1		2.00	150	7.8	
S2	21.0	7.8	0.0	1.000	E: 3.0	10.58		-0.4	
101	22.0	8.0	13.7	1.049	T: 7.6	12.58	0.043	0.5	
Pipe: 3	4.90	13.0	Disch	4.8		10.00	150	7.0	
S3	21.0	7.0	0.0	1.000	2E: 6.0	6.04		-0.4	
103	22.0	7.2	13.0	1.049		16.04	0.039	0.6	
Pipe: 4	4.90	13.1	Disch	4.9		2.00	150	7.1	
S4	21.0	7.1	0.0	1.000	E: 3.0	10.58		-0.4	
103	22.0	7.2	13.1	1.049	T: 7.6	12.58	0.039	0.5	
Pipe: 5	0.0	0.0		10.2		8.00	150	8.0	
101	22.0	8.0	27.4	1.000	----	0.00		0.0	
102	22.0	9.2	27.4	1.049		8.00	0.154	1.2	
Pipe: 6	0.0	0.0		2.6		8.00	150	9.2	
102	22.0	9.2	27.4	2.000	----	0.00		0.0	
104	22.0	9.2	27.4	2.067		8.00	0.006	0.0	
Pipe: 7	0.0	0.0		9.7		7.00	150	7.2	
103	22.0	7.2	26.0	1.000	T: 7.6	7.56		0.0	
104	22.0	9.2	26.0	1.049		14.56	0.140	2.0	
Pipe: 8	0.0	26.0	103	5.1		60.00	150	9.2	
104	22.0	9.2	27.4	2.000	4E:30.2	30.22		0.0	
105	22.0	11.0	53.4	2.067		90.22	0.019	1.8	
Pipe: 9	0.0	0.0		5.1		60.00	150	11.0	
105	22.0	11.0	53.4	2.000	4E:30.2	30.22		0.0	
106	22.0	12.7	53.4	2.067		90.22	0.019	1.8	
Pipe: 10	0.0	0.0		5.1		12.00	150	12.7	
106	22.0	12.7	53.4	2.000	E: 7.6	7.56		5.2	
107	10.0	18.3	53.4	2.067		19.56	0.019	0.4	
Pipe: 11	0.0	0.0		3.6		15.00	150	18.3	
107	10.0	18.3	53.4	2.500	2E:18.1	18.13		0.0	
TR	10.0	18.6	53.4	2.469		33.13	0.008	0.3	
Pipe: 12	0.0	0.0		3.1	E:12.1	8.00	150	18.6	
TR	10.0	18.6	53.4	B2.500	C:28.7	55.91		3.5	
BR	2.0	22.4	53.4	2.635	B:15.1	63.91	0.006	0.4	

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JOB TITLE: 2rd Floor

Pipe Tag	K-fac	Add Fl	Fl To	Vel	Fit:	L	C	(Pt)	Notes
To Node	El (ft)	PT	(q)	Node/	Eq.Ln.	F		(Pe)	
Frm Node	El (ft)	PT	Tot.(Q)	Disch	Act ID	(ft.)	T	Pf/ft.	(Pf)
Pipe: 13		0.0	0.0		1.2		3.00	120	22.4
BR	2.0	22.4	53.4	TR	B4.000	----	0.00		0.0
BFD	2.0	22.4	53.4		4.260		3.00	0.001	0.0
Pipe: 14			0.0		Fixed Pressure Loss Device				
BFD	2.0	22.4	53.4	BR	6.0 psi, 53.4 gpm				
BFS	2.0	28.4	53.4						
Pipe: 15		0.0	0.0		0.1		4.00	120	28.4
BFS	2.0	28.4	11.5	BFD	B6.000	E:18.0	18.00		0.0
POT	2.0	28.4	11.5		6.357		22.00	0.000	0.0
Pipe: 16		0.0	0.0		0.4		2.00	120	28.4
BFS	2.0	28.4	41.9	BFD	B6.000	----	0.00		0.0
POT	2.0	28.4	41.9		6.357		2.00	0.000	0.0
Pipe: 17		0.0	41.9	BFS	0.5		7.00	120	28.4
POT	2.0	28.4	11.5	BFS	B6.000	----	0.00		3.0
UG1	-5.0	31.5	53.4		6.357		7.00	0.000	0.0
Pipe: 18		0.0	0.0		0.6		90.00	140	31.5
UG1	-5.0	31.5	53.4	POT	D6.000	2E:44.0	44.00		0.0
UG2	-5.0	31.5	53.4		6.280		134.00	0.000	0.0
Pipe: 19		0.0	0.0		0.6		2000.00	140	31.5
UG2	-5.0	31.5	53.4	UG1	D6.000	4E:88.0	135.00		0.0
HYD	-5.0	31.7	53.4		6.280	T:47.0	2135.00	0.000	0.2

NOTES (HASS):

- (1) Calculations were performed by the HASS 8.8 D computer program in accordance with NFPA13 (2019) under license no. 16121837 granted by  
 HRS Systems, Inc.  
 208 Southside Square  
 Petersburg, TN 37144  
 (931) 659-9760
- (2) The system has been calculated to provide an average imbalance at each node of 0.004 gpm and a maximum imbalance at any node of 0.070 gpm.
- (3) Total pressure at each node is used in balancing the system. Maximum water velocity is 10.2 ft/sec at pipe 5.
- (4) Items listed in bold print on the cover sheet  
 are automatically transferred from the calculation report.
- (5) Available pressure at source node HYD under full flow conditions is

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 JOB TITLE: 2rd Floor

47.39 psi with a flow of 133.20 gpm.

(6) PIPE FITTINGS TABLE

HASS Pipe Table Name: standard.pip

PAGE: A MATERIAL: S40 HWC: 120

Diameter (in)	Equivalent Fitting Lengths in Feet								
	E Ell	T Tee	L LngEll	C ChkVlv	B BfyVlv	G GatVlv	A AlmChk	D DPVlv	N NTee
	-----								
	F F45Ell								
1.049	2.00	5.00	2.00	5.00	6.00	1.00	10.00	2.00	5.00
	1.00								
2.067	5.00	10.00	3.00	11.00	6.00	1.00	10.00	10.00	10.00
	2.50								
2.469	6.00	12.00	4.00	14.00	7.00	1.00	10.00	10.00	12.00
	3.00								

PAGE: B MATERIAL: THNWL HWC: 120

Diameter (in)	Equivalent Fitting Lengths in Feet								
	E Ell	T Tee	L LngEll	C ChkVlv	B BfyVlv	G GatVlv	A AlmChk	D DPVlv	N NPTee
	-----								
	F F45Ell								
2.635	8.00	17.00	6.00	19.00	10.00	1.00	14.00	14.00	17.00
	4.00								
4.260	13.00	26.00	8.00	29.00	16.00	3.00	26.00	26.00	26.00
	6.50								
6.357	18.00	38.00	11.00	40.00	13.00	4.00	35.00	35.00	38.00
	9.00								

PAGE: D MATERIAL: DIRON HWC: 140

Diameter (in)	Equivalent Fitting Lengths in Feet							
	E Ell	T Tee	L LngEll	C ChkVlv	B BfyVlv	G GatVlv	N NPTee	F F45Ell
6.280	22.00	47.00	14.00	51.00	16.00	5.00	47.00	11.00