



COUNTY OF ALBEMARLE
Department of Community Development
401 McIntire Road, Room 227
Charlottesville, Virginia 22902-4596

Phone (434) 296-5832

Fax (434) 972-4126

Project: 5th Street Commercial
Applicant: 64 and Fifth, LLC, 943 Glenwood Station Lane, Suite 201
Charlottesville, VA 22901
Owner: Morris Creek Yacht Club LLC c/o the Olympia Companies
280 Fore St. Portland, ME 04101
Primary Contact: Katurah Roell, 2811 Hydraulic Road, Charlottesville, VA 22901
Plan received date: 26 Apr 2016
Date of comments: 19 May 2016
Reviewer: John Anderson
Plan Coordinator: Elaine Echols

ZMA201200007

Engineering review

1. The *existing* floodplain is accurately shown on the Application Plan.
2. The *proposed* floodplain is in nearly the same location shown with SP2007-63. It is dissimilar in that SP200700063 shows a retaining wall 20'± closer to Biscuit Run. The Application Plan shifts the retaining wall away from the stream with likely beneficial effect on base flood elevation. If floodplain is wider by 20' (as compared with SP2007-00063), and if all else is equal, the base flood elevation should be lower. Designs that reduce encroachment are favored. ZMA201200007 retaining wall design appears to do this.
3. The stream buffer disturbance is the *same* that was approved with SP2007-00063.
4. It appears that proposed retaining walls can be limited (with final site plan) to not more than 6' height. Engineering recommends ZMA approve 6' retaining walls, maximum. Engineering recommends Applicant consider FEMA 2000, 2008 LOMR (they are identical), and prepare 5th Street Development Application Plan design elevations, accordingly. (Also, Note 1, below.)
5. Application Plan shows phased development (Phase A, B, C). Proposed retaining wall *must be* built with Phase A. Temporary slopes or partial fill to support Phase A development *only* was not proposed and has not been reviewed from a floodplain impact perspective. The wall and grading required to construct the wall, and landscaping at top of the wall should be installed with Phase A. (Also, Note 2).

SITE CIRCULATION

6. Phase A is nearest 5th Street. Building A occupies a prominent location visible from 5th Street, a location preferred by Applicant for a possible high volume franchise. A drive-through is proposed which would require a spiraling, twice-around travel path that introduces additional distance, turning movement, points of vehicle-pedestrian-parking conflict. Alternatives exist. One is switching building A and B. With few modifications, no apparent loss of commercial space (SF), with improved circulation and safety, and enhancing prospects of code preference for 30' Maximum setback while limiting any deviation granted (Applicant has requested Variance (74') to 30' setback /Ref. 18-4.20 and Applicant letter, 18 Apr 2016), Engineering recommends this alternative. Planning provides useful alternative design (image below).
7. Proposed drive-through requires 330'± *additional* travel if compared with alternative building B location, even though building A is closer to 5th St. This distance may modify driver behavior. VDOT required site entrance design for express purpose of increased safety. Patrons, required to circle building A twice, may opt instead to make a U-turn at the end of the median entrance shown on the Application Plan. A U-turn at this location defeats VDOT and county safety objectives. If U-turn at this location is impermissible, the

twice around distance to be traveled by drive-through lane vehicles approaches ¼ mile. Engineering supports alternative design which promotes a direct, shorter travel path to the drive-through lane as limiting number and frequency of pedestrian /vehicle /parking conflicts. Many requirements in recent code revision (18-5.1.60, Drive-Through Windows) relate to safety. Planning's initiative to identify alternative design promotes safe and convenient access to drive-through lane *without* compromise or impact to business revenue. Advertisement (sign) within 5th Street RW will alert passerby to this franchise. This alternative franchise placement (switching buildings A and B) would have all entering site traffic immediately face this building, perhaps increasing revenue. Patrons frequenting the drive-through under the proposed design may believe the building is close, when in fact the drive-through window is at least 330' further away than under the alternative design. Once aware, patron frustration may translate to U-turn movements just past the median-divided entrance. U-turn prohibition is likely to be routinely violated. Alternatives exist. Engineering commends Planning for examining a simple effective design.

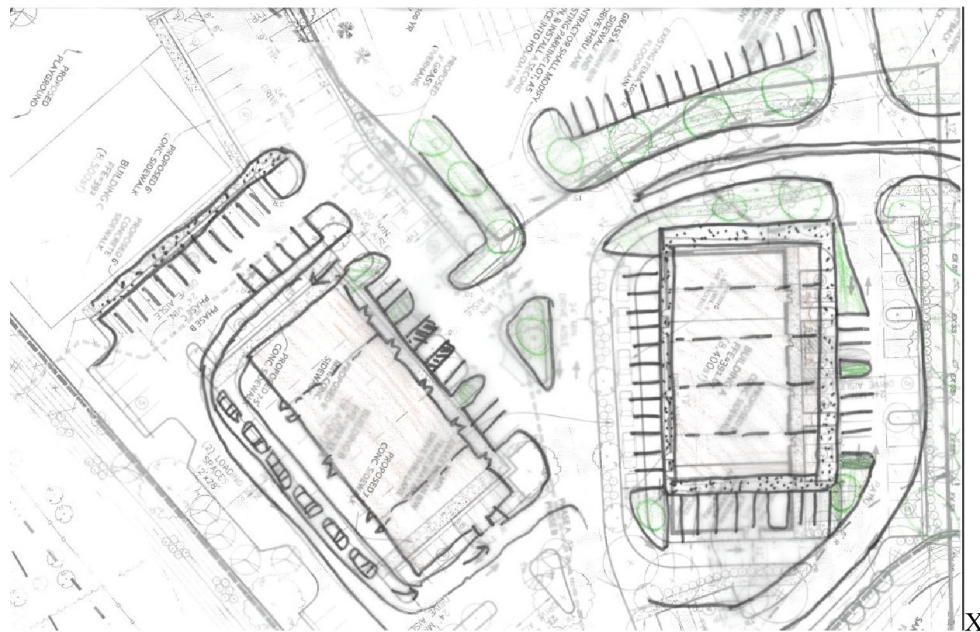
8. Design should include 1-way arrow on the parking lot in front of building A. To limit tendency of patrons to perform a (prohibited) U-turn to enter the drive-through lane quickly, and even under the alternative (switching buildings A and B), building A's access to divided site entrance should be 1-way out, not 2-way.

FLOODPLAIN

9. Applicant should be aware that a CLOMR-F is required prior to site plan approval.
10. Review of files indicates misconception that LOMR issued by FEMA, first in 2000 and again in 2008, redrew floodplain limits as needed to meet 5th Street Development needs. This is not the case. While it is likely FEMA does *not* publish *conditional* letters of map revision, published LOMRs revise floodplain limits to reflect constructed development; that is, FEMA issues a LOMR *after* construction is complete. FEMA may also issue a LOMR to reflect more detailed topographic information. Applicant email stating "(the clearer it has become) that we do not need a CLOMR-F at this point, because we essentially already have it," is not borne by evidence. Files indicate 2000 /2008 LOMR revising floodplain was issued based on "more detailed topographic information." Applicant should pursue CLOMR-F process with FEMA.
11. 2000 and 2008 LOMR are identical, except for the date. Each reflects current effective map at this location showing that the majority of the proposed development lies within Zone AE, floodway fringe, where Biscuit Run and Moores Creek converge. *Even if* FEMA has or is in receipt of development data dating to 2000, supposition that FEMA has in any manner approved fill proposed with 5th Street Development runs counter to FEMA practice to issue a LOMR only after a project is complete and field survey confirms constructed features match floodplain revision (match CLOMR). Also, the idea FEMA 2000 /2008 LOMR approves fill for this project runs counter to FEMA expectation that project work occur within six months. Quoting FEMA correspondence: "Your ordinance should actually cite that project work must occur within 6 months of a permit being issued (see what counts as project work) to ensure that changes to the map (and risk) can be incorporated in a timely fashion." Applicant should furnish evidence that FEMA has approved proposed fill, and has in fact issued a Conditional Letter of Map Revision for 5th Street Development.
12. Engineering recommends ZMA review and approval reinforce and reiterate SP condition that FEMA approve a (conditional) letter of map revision (CLOMR-F) prior to Site Plan Approval (Ref. SP200700063, Condition 3).
13. A CLOMR-F, a Conditional Letter of Map Revision-Fill, would assure Albemarle County and Applicant alike that the (entire) developed property is above base flood elevation. Effect of FEMA 2000 and 2008 LOMR predicts rise in base flood elevation ranging 0.4 - 1.0' feet (Moores Creek, Biscuit Run), and this is *without* considering downstream development (5th Street Station, for example) or floodplain impacts that have occurred since 2000. This is the purpose of FEMA expectation that projects conditionally approved be constructed within a reasonable period of time. There is no way to predict FEMA response to additional development that has occurred downstream of 5th Street Development, TMP# 76-55A and 76M1-1, in the intervening years.
14. Summary: There is no evidence at this point that FEMA (in 2000 or 2008) considered fill volume required to place fill within floodplain, consistent with Approved Plans dated 10 Mar 2008. Rather, correspondence dated 5 Jul 2000 (FEMA to Albemarle) explains that floodplain boundaries were revised based on 'more detailed topographic information.' It is possible that Albemarle County files do not reflect the full record of correspondence between Applicant and FEMA. Albemarle County welcomes relevant correspondence that may show that FEMA evaluations of materials submitted by Dewberry & Davis (or other engineering

representative) included approval of fill volume. If Applicant presents such evidence, there may be a more straightforward, less time-consuming path to Final Site Plan approval.

15. Note 1 –FEMA, with August 8, 2008 LOMR, revised Moores Creek base flood elevation to 386' (cross section R). Finished floor elevation (FFE) of Building A is 391.67'. Although files reveal circumstances dating to 2000 that require Applicant to coordinate proposed fill with FEMA (CLOMR-F) prior to site plan approval, proposed 5.67' vertical difference between *lowest* structure FFE and base flood elevation (BFE) appears to support 6' wall height, rather than 8'. Note: proposed BFE (including modeled effect of proposed fill) coincides with the base of the wall, meaning the entire height of the wall is above BFE. If Applicant elects to defer CLOMR-F approval until site plan review, Engineering recommends 6' retaining walls. Applicant may avoid base flood elevation uncertainty by pursuing CLOMR-F approval *prior* to ZMA Approval. 6' (Max.) retaining wall height is *not* a requirement, but something we recommend given that the proposed elevation of the base of the retaining wall is likely equal to the BFE. The base of the wall may experience periodic dynamic flooding, including scour and debris strike; such exposure is point in favor of less structure, not more.
16. Note 2 –Landscaping above (at top of) the wall should be installed at time wall is constructed since, if small block construction using geogrid fabric that extends horizontally (with sheets of geogrid positioned every 2nd or 3rd course as anchoring) is used, landscaping at a later date may damage geogrid and compromise performance of what is in certain respects a flood wall. Engineering recommends Application Plan note that landscaping near the wall should be installed with (or soon after) the wall is built.
17. Circulation Note /Alternative design sketch /tracing courtesy of Planning: Sketched design below meets requirements for *Drive-Through Windows*, 18-5.1.60(a.-j.) with addition of planting strips at least five (5) feet in width separating pedestrian travel ways (walks) and vehicular travel areas (Ref. 18-5.1.60.e.).



Please call 434.296-5832–x3096 if any questions.

Thank you

