

MEMORANDUM

To: Planning Commission

From: Kali Casper, AICP; Assistant Planning Director

Date: April 14, 2023

Subject: SUB 23-0001 – Northside Park Revised Section XII - Major Subdivision Preliminary Plat Review

for 55 lots on 36.00 acres at 2150 Progress Street NW (Tax Map Numbers 166-10A; 166-10B; 166-17A; 166-17B; 166-A 4C) by Jeanne Stosser of CC&B Development, LLC (property owner)

SUMMARY OF REQUEST

Property Details	
Property Location	2150 Progress Street NW
Tax Parcel Number	166-10A; 166-10B; 166-17A; 166-17B; 166-A 4C
Parcel Size	36.00 acres
Present Zoning District	R-4 Low Density Residential
Current Use	Undeveloped
Adjacent Zoning Districts	North: R-4
	East: R-4
	South: R-4
	West: RR-1 (across US 460-Bypass)
Adjacent Uses	North: Vacant
	East: Single-family residential
	South: Single-family residential
	West: Vacant; US 460-Bypass
Adopted Future Land Use	Low density residential
R-4 Low Density Residential District Site Development Standards	
Proposed Use	Single-family residential
Maximum Number of Lots	55
Minimum Open Space	39.8% provided; 30% required
Minimum Tree Canopy	20% required
Minimum Lot Size	10,000 square feet for R-4 lots; 7,000 sf for Open Space Overlay lots
Minimum Lot Frontage	40' on a public street
Minimum Setbacks	Varies
Maximum Building Height	30' or up to 40' with 1' additional setback for every 1' in height above 30'
Maximum Lot Coverage	45%
Maximum FAR	0.50

PRELIMINARY PLAT REVIEW PROCESS

The State views subdivision of land as a "by-right" use, provided that *all* the locality's standards can be met, or if variances to standards are requested and approved. The State requires that "major" subdivisions are reviewed by the locality's planning commission for final action, but do not require approval by the elected body such as the Town Council. The threshold for a "major" subdivision is any subdivision of 50 lots or more. Additionally, the Town requires Planning Commission public hearing review for subdivision *variance requests* for subdivisions of 6 or more lots.

The Town's subdivision ordinance sets the process for submittal, review, and approval of subdivision plats in Article IV of the Subdivision Ordinance, beginning with §4-100. The code sections detail the information required on the submittal, the timelines for review, and the process by which a plat is acted upon, and resubmitted if deficiencies are noted. This process is different in both its timelines and review requirements than a typical public hearing request such as a rezoning request or conditional use permit request. The ordinance is very clear in its language regarding rezoning or conditional use permit "requests" vs. a preliminary plat "review".

The purpose of the preliminary plat submission and review is to ensure that the applicant has done enough engineering due diligence to ensure that all of the Town's zoning and subdivision standards can be met for when the subdivision is constructed, or to determine what variances may be required in order to develop the property. The developer's engineer does not have to provide construction-level detail for the development, but must be able to assure Planning Commission and staff that there are no deviations from standards in the Town's ordinances. Upon approval of a preliminary plat, the applicant would then submit the final plat for recordation and legal creation of the lots, and the engineering site plans for construction, which contain all of the specific details for construction of the development.

Planning Commission Review

The Planning Commission is required to review preliminary subdivision plats for 50 lots or more. Planning Commission is the agent or the arbiter of the Subdivision Ordinance for major subdivisions. Subdivision Ordinance §4-207 lays out the process for Planning Commission review of preliminary subdivision plats. The goal of the preliminary plat process for the Town and the applicant is an approvable plat. The review culminates in the public hearing, where the Planning Commission will "determine the plat's compliance or not with the standards and requirements of [the Subdivision Ordinance], the Zoning Ordinance, and other applicable town ordinances." If a plat is found to be deficient in any of the applicable standards, then it must be denied at public hearing. The applicant can then revise and resubmit the plat for review by the Planning Commission. The Planning Commission is also tasked with making "recommendations to the agent regarding utility service, and transportation access to, and circulation within the proposed subdivision." In its review of subdivision plats, the Planning Commission is asked to thoroughly review and "make a good faith effort to identify all deficiencies, if any, with the initial submission." If a plat is denied, the Planning Commission shall include specific reasons for disapproval, referencing specific ordinances, regulations, or policies, and include methods to correct the plat in "the resolution or on the plat itself". To aid Planning Commission in the review of this preliminary plat, this staff report contains information and analysis on deficiencies identified with the plat, as well as the modifications required to address deficiencies. This staff report also contains analysis of the applicant's variance requests. This staff report, and accompanying memos shall serve as the "specific reasons for disapproval" as required in §4-207.

Application Requirements

The developer is required to submit a plat for review that contains specific elements to demonstrate compliance with the zoning ordinance and the subdivision ordinance. The information required to be submitted with or on the plat is found in Article IV, §4-200, and included as an attachment. Much of this information is routine and

does not involve a complex review to ensure compliance with standards, such as ensuring that the plat includes north arrows, an appropriate drawing scale, and lot statistics including lot size and frontage. Additionally, the applicant must provide more detailed information showing open space dedication, right-of-way dedication as well as street grades and profiles, provisions for stormwater management and public utilities. Some of these requirements entail a more complex review to ensure that applicable Town ordinances, standards, and specifications are, or can be met.

The applicant submitted a plat set containing 24 sheets; a memo containing the subdivision ordinance variance requests with justification; a stormwater concept plan and narrative; traffic impact analysis and associated letter; open space relocation letter, and a comment response letter (in response to the February 17, 2023 staff report).

Existing Preliminary Plat and Background

The subject property is part of a larger development with a long build out period being completed in phases. The property subject to this review currently has an approved preliminary plat from November 2011, which is still valid based on extensions granted at the state level. This means that the applicant could submit engineering drawings and final plats for the legal creation of lots without having to undergo further public review provided they were in compliance with the 2011 plat. In February 2018, Deputy Town Manager Chris Lawrence wrote a letter to the property owners at the time outlining a number of determinations regarding the development of the approved preliminary plat. This letter was included as an attachment in the applicant's submission.

Since that time, the property was purchased by the current owner, who desired a different subdivision layout than what was approved in 2011. In August 2022, the applicant submitted a preliminary plat showing a revised lot and road layout for review by Planning Commission. Staff performed a completeness review and identified a number of initial completeness deficiencies that would need to be corrected before the plat could be approvable. The applicant opted to revise the plat before beginning the public hearing process. The applicant resubmitted the plat for review on January 4, 2023 including a comment response letter addressing the initial completeness review. This began the formal public hearing process as the submittal was deemed complete upon its completion review.

Town staff completed a staff report dated February 17, 2023 that was provided to Planning Commission and the applicant. Upon review, the applicant requested to delay Planning Commission review of the plat in order to complete revisions to the submittal. The request was removed from the February 21st work session prior to Planning Commission discussion. The applicant submitted a revised plat for review on April 4, 2023. This staff report contains evaluation and analysis of the April 4th submission.

While the process anticipates Planning Commission take action on the plat on May 2, 2023, in previous conversations with the Town Attorney, there has been flexibility in the process timeline based on requests from the applicant. Staff will continue to work with the applicant to resolve identified issues to move towards an approvable preliminary plat.

PLAT REVIEW

The plat will be reviewed per §4-200(c) to "demonstrate compliance with...the [subdivision ordinance]" and is required to contain certain graphical and text elements on the plat document itself. The standards for subdivision development are found in Article V of the Subdivision Ordinance, "Requirements for Design Standards, Public Improvements, and Reservation of Land for Public Purposes". The applicant will have to show enough detail on the preliminary plat and supplemental information to be able to "demonstrate compliance" with the standards in the subdivision ordinance, which may be more information than is listed as "required"

elements" in §4-200(c). The review of the preliminary plat also requires ensuring that the development conforms to the district standards in the zoning ordinance, which in this case is R-4 Low Density Residential.

To assist in Planning Commission review, staff has prepared the following notes regarding whether or not the plat complies with applicable subdivision standards in Article IV Approval of Plats; Article V Requirements for Design Standards, Public Improvements, and Reservation of Land for Public Purposes; and the zoning district standards for R-4. Some of the standards are not listed, because they are not applicable to a preliminary plat submission, but are still relevant to the development as requirements of the developer, such as requirements for bonding improvements. Where specific standards are not called out in this staff report, they have been met or are not applicable at this time. In other instances, staff has provided notes confirming compliance with standards. In all cases where a standard is not met, analysis is provided. For brevity in the staff report, the standards are not quoted verbatim but rather summarized.

At this stage of the process, the requirements are more detailed than rezonings or conditional use permit requests and as such, the information contained in this staff report is technical in nature. It includes analysis that is a summary of the specific items in each of the attached engineering memos. Please refer to the attached memos for more detailed explanation of the requirements and comments.

Compliance and Variance Requests

For the submittal, many standards have been met and may not be discussed in the staff report, some information does not comply with a standard and no variance has been requested, and some information does not comply with a specific standard and a variance has been requested. More specifically, the applicant has made three variance requests. These variance requests are discussed in depth later in the staff report. A list of the specific variances is provided in the summary at the end of this report for discussion at work session. As there are deficiencies noted on the preliminary plat submittal and detailed in this staff report, the plat cannot be approved as submitted. When the plat is in an approvable state, Planning Commission can act on any requested variances.

ARTICLE IV APPROVAL OF PLATS DIVISION 2 PRELIMINARY PLATS

§ 4-200 Size and information required on a preliminary plat

- **(c)** The preliminary plat shall demonstrate compliance with the requirements of the Blacksburg Zoning Ordinance and this chapter [the Subdivision Ordinance]. It shall contain the following elements..."
- § 4-200(c) 18: Existing and proposed open space areas, with acreages and locations, are shown on the plat and detailed in the exhibits with the Open Space Relocation Letter. The Letter requests relocation and reconfiguration of two areas of existing dedicated open space and provides justification for the request. In addition to the justification provided, the proposed lot layout and relocation of Progress Street right-of-way necessitates relocation of some areas of open space. The proposed open space relocation allows for the perimeter buffer between the rear of the lots on Craig Drive and Northside Drive to be contained on a separate open space parcel. Staff notes that this will better allow for HOA control and maintenance of the buffer.
- § 4-200(c) 24: The plat provides a Progress Street typical street section detail on Sheet 12 showing sidewalks and bike lanes. The applicant should revise the bike lane width to 5'.
- § 4-200(c) 29: The plat does contain topographical information, but an enlarged Phase II grading plan is needed to confirm feasibility of construction for future Progress Street. This is further detailed in the transportation engineering memo.
- § 4-200(c) 20, 21, & 30: See Division 3 Streets later in the staff report.

The plat submitted includes most of the information required in the list in §4-200, though there were certain elements that require further information or revision. The required plat elements list §4-200 is included as an attachment to this report. *The preliminary plat does not include all of the required elements, and is not compliant with §4-200.*

In evaluating whether the preliminary plat "demonstrate[s] compliance with the [Subdivision Ordinance]" per §4-200(c), staff has reviewed the submitted information against the applicable standards in Article V of the Subdivision Ordinance. Article V provides the standards for design, public improvements, and open space dedication for subdivisions. Some sections of this article are not applicable at this time because they refer to items not proposed or required, or because they refer to steps in the design and construction process beyond the preliminary plat. Staff has provided the analysis below to identify noncompliance, highlight compliance in certain areas, or provide commentary on the variances requested by the applicant.

ARTICLE V REQUIREMENTS FOR DESIGN STANDARDS, PUBLIC IMPROVEMENTS, AND RESERVATION OF LAND FOR PUBLIC PURPOSES

DIVISION 1 IN GENERAL

§ 5-101 Flooding: Land in the flood hazard overlay district shall not be used for residential occupancy, or for uses that endanger health, life, or property, or cause erosion or flood hazards.

The plat illustrates the Floodplain Overlay (FHO), based on a flood study for this watershed approved by the Town in November 2018. The preliminary plat is compliant with §4-200(c)(35), meeting the standards in §5-101. Additional information can be found in the Stormwater Engineering Memo.

DIVISION 2 LOT CHARACTERISTICS

§§ 5-200-204: Lots shall have appropriate building sites; shall comply with minimum lot size; shall be served by a public street; additional considerations for common area and residual land.

A lot table has been provided on Sheet 1 and indicates that proposed lots range in size from 0.23 acres (9,999 square feet) to 0.88 acres (38,396 square feet), with the exception of Lot 67, which is noted as 54,724 square feet. Lot 67 appears to have been inconsistently identified as either a buildable lot or an open space lot; the lot table and plan sheets should be revised accordingly. Per §5-201, when "lots are more than double the minimum required area for the zoning district, the PC or agent may require that those lots be arranged so as to allow further subdivision and the opening of future streets where they would be necessary to serve potential lots..." Seven lots (Lots 18-19, 21, 28, 30-32) are more than double the minimum lot size. However, these lots are along Craig Drive, which directly connects to Progress Street, and the lot layout is logical along the street. Lots utilizing the Open Space Overlay district standards are clearly identified.

DIVISION 3 STREETS

§§ 5-300-325 Requirements for public streets, including standards such as right-of-way widths, provisions for street signs, standards for driveways, and others.

The preliminary plat includes some of the information regarding streets including widths and some profiles per §4-200. In further evaluating the required standards in Division 3, the following text includes identified deficiencies and considerations.

§5-300: Subdivider shall dedicate streets and related improvements

The plat shows that all streets will be dedicated to the Town as required by this standard. However, it should be noted that right-of-way for Progress Street already exists, and has been dedicated to the Town, though it has not been constructed. The applicant is proposing to vacate the existing alignment of Progress Street right-of-way, and relocate it in a different configuration. This will require separate action by Town Council. In order to consider the vacation of the right-of-way, the applicant has provided sheets showing the existing and proposed layout, as well as the existing and proposed profiles to assist in determining if the proposed realignment is

acceptable or desirable for the Town. The applicant's lot layout is dependent on the proposed realignment. If existing ROW configuration is retained, the lot layout would have to be revised. See also §5-313(a) and the transportation memo for comments regarding the proposed realignment and grading for the construction of Progress Street.

VARIANCE TO § 5-305(a) – The arrangement of streets in new subdivisions shall make provision for the continuation of existing streets in adjoining areas where streets already exist. Major, collector, and local streets shall be respectively extended as such. The street arrangement must be such as to cause no unnecessary hardship to owners of adjoining property when the subdividers plat their land and seek to provide for convenient vehicle access to it.

There are currently five existing streets that are adjacent to the proposed development that could be extended: Progress Street, two stubs on Craig Drive; Primrose Drive; and Claire Drive. The proposed layout shows that Progress Street and Craig Drive will be extended to connect. Claire Drive is proposed to extend to the existing stub along Craig Drive. Primrose Drive is proposed to end in a cul-de-sac.

The applicant has requested a variance to the above section for the Primrose Drive cul-de-sac. The applicant's justification includes information regarding lot desirability, grading impacts, connectivity, and additional variances required to make the connection. Discussion of this request is included in the transportation engineering memo. Staff finds the variance request is reasonable based upon the applicant's justification and a review of the street layout as proposed with the application.

§5-312 (a)—Turn lanes shall be installed adjacent and within a subdivision where warranted...

Based on the turn lane analysis, turn lanes are warranted on North Main Street at Countryside Court and Givens Lane in both the "Build" and "No Build" conditions. Since the turn lanes are warranted under the "No Build" condition, improvements will be the responsibility of the Town. Additional detail is found in the attached transportation engineering memo.

§5-313 (a)—Street grades may not exceed 10% nor be less than 0.5%.

An enlargement of the Phase II Grading Plan is needed to ensure constructability for future Progress Street, including whether or not retaining walls may be needed and what grading will be required along the rear of proposed lots. Further review of the grading for future Progress Street construction is required in order for Staff to better determine and/or minimize/mitigate the potential impacts to the right-of-way and private property.

VARIANCE TO § 5-317 – Minimum and maximum block lengths

The applicant has requested a variance to allow Claire Drive to be 1500' in length (1200' maximum in a single block). The applicant's justification is provided in the variance request memo, and states that topography prevents connections from being made that would result in shorter block lengths. Primrose Drive could be extended to Claire Drive to create a shorter block length. However, as previously noted and detailed in the transportation engineering memo, the applicant is requesting a variance to § 5-305(a) to allow a cul-de-sac for Primrose Drive. Staff finds the variance request is reasonable based upon the applicant's justification and a review of the street layout as proposed with the application.

§5-318 (d)—Driveways shall be no closer than fifty (50) feet to an intersection with a public street. The plat shows hatched areas on lots 13, 22, and 63, where driveways cannot be constructed due to the minimum distance requirement. Several of the hatched areas do not show the appropriate 50 foot restricted area. The plat will have to be revised to show the full 50 foot restricted area.

§5-319—Street trees required along all collector and arterial roads within or adjacent to the subdivision The plat cover sheet provides calculations for the required street trees for Phase I and Phase II of Progress Street.

VARIANCE TO § 5-320 – Medians are required on collector roads for landscaping and efficient traffic movement

The applicant has requested a variance to eliminate the required medians. As noted in the February 13, 2018 letter from Chris Lawrence, Deputy Town Manager, to Mr. Carroll Givens, one of the property owners at the time, there were a number of items that the property owners were seeking clarification on. The letter indicates that although a "boulevard" with medians is required for a collector street such as Progress Street, a variance may be requested through the preliminary plat. The letter goes on to state that staff would support eliminating the boulevard requirement for medians, but that other requirements for lane widths, sidewalks, etc. would be required to be met. It is through this discussion that it was determined that the applicant did not have to construct all of Progress Street but would be required to construct segments to support specific phases and provide ROW for the remainder. The plat includes construction of 493 linear feet of Progress Street in Phase I.

§5-322—Street Lights shall be provided on all collector streets within a subdivision; installation shall be cost-share between the applicant and the Town 50%/50%.

The plat cover sheet provides calculations for the required streetlights for Phase I and Phase II of Progress Street.

DIVISION 4 SIDEWALKS AND WALKWAYS

§§ 5-400-403 Sidewalks are required along at least one side of public streets within and adjacent to a subdivision.

The preliminary plat shows sidewalk adjacent to at least one side of all local public streets within the subdivision. The plat also shows required sidewalk curb cut ramps at intersections per §5-316. Pedestrian access is provided by trail or sidewalk to open space areas, with the exception of stormwater management areas not intended for pedestrian access.

DIVISION 5 BIKEWAYS

§§ 5-500-503 Multi-use trails required; location of multi-use trails; access to future multi-use trails rights-of-way; construction design standards

There is an existing constructed trail within a 20' wide public trail easement from Walnut Drive and Carroll Drive along and within the existing platted Progress Street right-of-way to where Progress Street intersects with Northside Drive. The plat proposes the demolition, realignment, and reconstruction of portions of this existing trail along the Progress Street ROW, as well as the vacation of the existing trail easement. The request to vacate the existing constructed trail and existing easement will require a Town Council action.

In evaluation of proposed trails, several factors are considered including trail width, trail grade, function of trail (commuting vs. recreational), and alignment. The plat includes existing and proposed trail layout and existing and proposed trail profiles. The plat also includes a sequencing of construction to ensure the existing trail can remain in use while the proposed trail is being constructed.

The existing trail includes a section of steep trail (≥ 10% grade) approximately 300 feet in length. While not illustrated on the plat, if the proposed trail were directly adjacent to the proposed Progress Street realignment, it would include a section of steep trail approximately 800 feet in length. The plat shows a proposed trail alignment that shifts further away from the proposed Progress Street realignment to lessen this distance of steep trail. The proposed trail shown on the plat includes a section of steep trail approximately 550 feet in length. While the grade of the proposed trail may be less desirable than that of the existing trail, the proposed

lot layout necessitates the relocation of the existing Progress Street right-of-way and existing trail and the further shifting of the trail alignment as designed reduces the distance of steep slope from approximately 800 feet to 550 feet.

DIVISION 6 WATER

§§ 5-600-602 Public water service is required if available; construction and design standards; location of water laterals

§5-601(a) Public water system design and construction shall be in accordance with Town Water Specifications...and Chapter 24 of the Blacksburg Town Code.

The applicant has shown the proposed layout of the public waterline infrastructure on the preliminary plat set. In review of the submitted information, the applicant has shown graphically on the preliminary plat the proposed connections to the public water system as required in §4-200(c). Based on the information provided, the preliminary plat is compliant with §4-200(c)(32) as it does meet all the standards in §5-601 based on the information provided. Additional information will be required at the final plat and site plan phase as detailed in the attached water services memo.

DIVISION 7 SANITARY SEWER

§§ 5-700-701 Sanitary sewer required if available; construction and design standards

The applicant has shown the proposed layout of the public sewer infrastructure on the preliminary plat set. In review of the submitted information, the applicant has shown graphically on the preliminary plat the proposed connections to the existing sanitary sewers as required in §4-200(c), but there are deficiencies noted regarding grading, slope, and cover that may not comply with §5-701. The preliminary plat is not compliant with §4-200(c)(31) because it does not meet all the standards in Subdivision Ordinance Division 7 Sanitary Sewer. Specific reasons for disapproval are provided in the attached sanitary sewer services memo.

DIVISION 8 STORMWATER MANAGEMENT

§§ 5-800-806 Stormwater management required; capacity standards for SWM facilities; use of watercourses and low-lying lands; maintenance of SWM facilities; drainage easements

Section 4-200 states that "provisions for stormwater management" must be shown on the preliminary plat, but no further information regarding the level of detail required has been provided in the ordinance. In evaluating "provisions for stormwater management" it is necessary to understand the full impact of the design of the development on the surrounding drainage area and whether or not there are upstream or downstream impacts. The Town stormwater engineer has reviewed the plat and submitted documents and has provided a memo, which is attached, detailing the deficiencies in the stormwater provisions including locations for proposed stormwater management facilities, conflicts between stormwater conveyances and buffer yards, width of drainage easements, and locations of proposed ditches. The preliminary plat is not compliant with §4-200(c)(35) because it does not meet all the standards in Subdivision Ordinance Division 8 Stormwater Management. Specific reasons for disapproval are provided in the attached stormwater engineering memo.

DIVISION 9 OTHER UTILITIES

§5-901 Public Utility Easements shall be 15' wide, centered on interior lot lines, and interior to all perimeter lot lines.

Dedication of Public Utility Easements (PUE's), along lot lines help facilitate the expansion of franchised public service corporations furnishing cable television, fiber, telephone, gas and electrical service to proposed development lots as well as the surrounding area. PUEs, as required by Section 5-901, are intended to provide an efficient way for utility providers to provide and maintain critical community services and help provide more diverse opportunities to the consumer. *The preliminary plat is compliant with §4-200(c)(23) as it does meet all the standards in §5-901*.

SUMMARY OF VARIANCES REQUESTED

- §5-305: Request to end existing streets in cul-de-sac rather than providing for the continuation/extension of existing streets (see discussion in "Division 3 Streets" section and attached transportation engineering memo).
- **§5-317**: Request for 1500' maximum block length (standard is 1200') (see discussion in "Division 3 Streets" section).
- §5-320: Request to eliminate medians in collector roads (see discussion in "Division 3 Streets" section).

SUMMARY

The Planning Commission is asked to review the preliminary plat for compliance with the standards in the Zoning Ordinance and the Subdivision Ordinance. If deficiencies are noted, then the plat must be denied and then can be resubmitted. Planning Commission is also asked to evaluate the requested variances to subdivision ordinance standards. In order to move forward to an approvable plat, the Planning Commission should provide direction to the applicant and staff regarding necessary revisions and additional information needed.

ATTACHMENTS

- GIS Maps
- Engineering memo for Stormwater Management dated April 14, 2023
- Engineering memo for Transportation dated April 13, 2023
 - o Engineering memo from WRA for Transportation dated April 7, 2023
- Engineering memo for Water Services dated April 12, 2023
- Engineering memo for Sanitary Sewer Service dated April 14, 2023
- §4-200(c): Preliminary Plat information required

Application components provided in packet

- Variance Request Letter (except Geotechnical Report)
 - Letter from Chris Lawrence to Carroll Givens dated February 18, 2018
- Comment Response Letter
- Open Space Relocation Letter
- Traffic Impact Analysis Letter
- Plat Submittal All Sheets (1-24)
- Subdivision Application Form

Application components available online

- Stormwater Concept Narrative
- Stormwater Concept Plans
- Traffic Impact Analysis
- Geotechnical Report related to Variance Request Letter

Northside Park SUB23-0001 **Future Land Use** Subject Area Mixed Use Parcels Primrose Lane Park Very Low Density Residential Low Density Residential Medium Density Residential Limited High Density Residential Development High Density Residential Park Land / Open Space / Resource Protection Commercial Pine Dr. Research / Development US 460 Corridor 700' Fieldstone Town of Blacksburg, E&G Dept., 2-14-2023

Northside Park SUB23-0001



Bus Stops



Subject Area



Natural Water



Parcels









2021 Aerials provided by Pictometry Town of Blacksburg, E&G Dept. 2-14-2023

Northside Park SUB23-0001 **Current Zoning** Subject Area **Parcels** Complement of the same RR-1 Rural Residential 1 Primrose Lane Park RR-2 Rural Residential 2 R-4 Low Density Residential R-5 Transitional Residential RM-48 Medium Density Multiunit Residential GC General Commercial PR Planned Residential RD Research and Development Pine DB PMH Planned Manufactured Home 700' Fieldstone Town of Blacksburg, E&G Dept., 2-14-2023



MEMORANDUM

TO: Kinsey O'Shea

FROM: Kafi Howard, Town Engineer

DATE: April 14, 2023

SUBJECT: SUB23-0001-Northside Park Section XII – Stormwater Concept Plan and Floodplain

Memo

This memo addresses the applicant's proposal for Preliminary Plat approval for the creation of 55 lots on 36 acres of land. The Engineering Department has completed the review of the Northside Park Section 12 Stormwater Concept Plan submitted on April 4, 2023. The SWM Concept Plan is **not approved** at this time. Per Chapter 18-605 of the Town code, a concept plan should be prepared at the time of the preliminary plan of subdivision, rezoning application, or special use permit application or other early step in the development process to identify the type of stormwater management measures necessary for the proposed project. The Town's review of this concept plan is to confirm that the stormwater management measures are capable of providing for Stormwater Management consistent with the Virginia DEQ Regulations and BMP Clearinghouse website to comply with **Sec. 4-200(c)(35)** of the Town Code.

Stormwater Management Required §5-800 – The stormwater management proposed for this subdivision is designed to be met with the use of three traditional detention ponds, 4 bioretention facilities and a Manufactured Treatment Device. Water quality requirements for this subdivision is 25.84 lb/year of phosphorus treatment. The plan is proposing to meet this requirement by treating 75% of the requirement on-site with the installation of 5 bio-retention facilities and a manufactured treatment device (MTD). The remaining 25% of the water quality will be met through the purchase of 6.42 lbs of off-site nutrient credits. The Town **recommends** that this development provide more on-site stormwater quality treatment instead of using off-site methods for 25% of the treatment. Additional on-site treatment will provide lasting beneficial water quality value to the Toms Creek watershed, whereas the current layout may degrade our local water quality.

Items noted on this concept plan that will need to be resolved at <u>preliminary plat phase</u> are the following:

- Bioretention #2 is placed in such a way that it will be obliterated when Progress Street is developed, as shown on Plat sheet 21. Please adjust location so that this water quality feature will remain through complete build-out.
- No stormwater management facility is to be placed in the public ROW.
- Show and label all proposed SWM facilities on the appropriate sheets of the preliminary plat. Facilities are shown and labeled on the stormwater concept plan that are not shown on the preliminary plat.

Storm Drainage Design and Construction §5-805:

Sufficient information is not available at this time to determine adequacy of a complete drainage design. Some of this design will occur during the site plan development process while other items are expected to be available now at the preliminary plat phase.

Items noted on this concept plan that will need to be resolved at <u>preliminary plat phase</u> are the following:

- Drainage easements are either not shown along public pipes, or shown as 10-ft. A minimum
 of 15-ft public drainage easement shall be shown on all public storm drain structures and
 conveyances if they enter into private or HOA property. The stormwater facilities are the
 only exception as these facilities are privately maintained by the HOA.
- Drainage easements for proposed public ditches should also be considered. None are illustrated on the grading plan and while it is understood that some grading will change, the overall path of these drainage easements are unclear since none are shown at this point.
- All potential ditches must stay out of the future Progress Street ROW.
- Public drainage systems shall not cross private drainage easements (aka stormwater management easements).
- Stormwater conveyances shall not be placed in the required buffer yards. Specifically adjacent to lot 33, the drainage easement would take up the entire architectural buffer. This would prohibit the Town from maintaining this section of storm drainage.

Items noted on this concept plan that will need to be resolved at <u>final plat & site plan phase</u> are the following:

- Notes or an agreement will need to be codified at time of final plat to clarify the shared temporary use of the Future Progress Street ROW. Beginning with the development of these parcel up until the future Progress Street Road is constructed, this ROW is planned for the public and private uses defined here: Town access to the public pump station and Private access to the stormwater management facilities between Claire Dr. and Craig Dr.
- Highly erodible soils exist on large areas of this development. All channels and stormwater conveyances within these areas must be designed accordingly.
- Access to all stormwater facilities must be addressed at site/engineering plan stage.

Floodplain Management §5-101:

 A flood study was performed by Parker Design Group and was approved for this watershed in November of 2018. The limits of this approved flood hazard overlay is illustrated on the preliminary plat. This preliminary plat appears to be in compliance with the Floodplain Hazard Overlay provisions.



MEMORANDUM

TO: Kinsey O'Shea, Town Planner/Current Development

FROM: Randy Formica, Director, Engineering and GIS Department

DATE: April 13, 2023

SUBJECT: Northside Park Subdivision Section XII Preliminary Plat – Transportation

Comments

This memorandum will address Town Staff transportation comments from the review of the preliminary plat for Northside Park Subdivision, Section XII, dated April 3, 2023. It will also provide the Town's consultant's comments from their review of the Traffic Impact Analysis (TIA). The consultant's comments are attached to this memo.

Review of the Traffic Impact Analysis

Based upon the Town's consultant review of the revised Traffic Impact Analysis, dated March 28, 2023, the report states that left turn lanes on North Main Street are warranted at the intersections of North Main Street and Countryside Court and North Main Street and Givens Lane. The warrants are not met under "Existing" conditions but are met under the "No Build" and "Build" conditions.

Due to the fact that both turn lanes are warranted under future "No Build" scenario and that the Town's Adopted Capital Improvement Program, Fiscal Years 2023/2024-2027/2028 includes a project titled "North Main Street at Givens Lane Intersection Modifications" that will fund a study and design for this intersection that includes possible traffic design features that will address the required safety and access management improvements to this intersection.

While there is no funded or proposed project currently for the North Main Street and Countryside Court intersection, since the turn lane warrant is required for the "No Build" scenario, the Town's approach is that any improvements at this intersection will be the responsibility of the Town as well, either under a revision to the currently funded CIP project or by proposing a new project for inclusion in a future CIP.

Review of Preliminary Plat

Future Progress Street Construction

Staff does have concerns about the proposed Phase I and Phase II site grading plans and the impact on the construction of future Progress Street where the plans show grading extending into the Progress Street right of way.

The Progress Street profile that was proposed in the approved 2011 preliminary plat is provided with the resubmittal as well as a new proposed profile. While it appears there is some revision

to the centerline profile elevations, it appears that the revision does not significantly impact the Town's ability to transition future Progress Street into the existing intersections at Carroll Drive/Progress Street and Walnut Drive/Progress Street. There may be some slight adjustments required to the final elevation of these intersections from the original preliminary design but the Town should be able to accommodate those adjustments with the final design of Progress Street.

However, the proposed grading into the Progress Street right of way that is shown is of concern to Staff.

It appears the Phase I grading plans will accomplish the grading for the proposed lots. The applicant should confirm that a proposed location for the houses was considered in developing the Phase I grading plan.

The Phase I grading is shown extending into the Progress Street right of way and will create the slope from the lots down to future Progress Street. The Phase II grading plan shows a possible grading plan to construct Progress Street. The construction of future Progress Street will most likely occur after the subdivision lots are sold. It appears that this plan creates a situation where the Town will have to perform earthwork along the bottom of the slopes on several lots and construct a new slope, or construct retaining walls, in order to construct Progress Street. In order for the Town to accomplish the necessary grading for future Progress Street construction, the applicant is proposing to dedicate a 20 foot wide grading easement across Lots 42 through 45 for the Phase II grading. While this grading easement may be necessary and it is best dedicate this as a permanent easement now, it is the Town's preference to not have to construct retaining walls in the right of way nor perform additional grading into the private lots (Lots 26 and 27, Lots 42 through 45) in order to construct future Progress Street.

Therefore, in order for Staff to fully evaluate the impacts of the grading, Staff requests that the applicant provide an enlargement of the Phase II grading plan between Progress Street Station 18+00 to Station 30+00 for further review. The proposed and existing contouring is difficult to separate at the scale of the drawings as submitted. Further review of the grading for future Progress Street construction is required in order for Staff to better determine and/or minimize/mitigate the potential impacts to the right of way and private property.

Street Landings

Section 5-313 (2) of the Subdivision Ordinance states "Street intersections shall provide landings of not more than 5% grade for a distance of not less than 100 feet". The landing at the intersection of Claire Drive and Carroll Drive is shown as an 85 foot long landing at a 5% grade. The grade of the landing at 100 feet is approximately 6.5% grade. Staff requests the applicant revise the grading to meet the landing requirements.

Connectivity

Staff initially discussed providing street connectivity from Primrose Drive to Claire Drive. The applicant submitted a letter dated April 4, 2023 requesting a variance and discussing their reasoning not to provide this connection. Their discussion includes the significant amount of grading that would need to occur to accomplish this connection and potential geological impacts that may result from this earthwork. The geological impacts are discussed in a geotechnical report the applicant prepared and are associated with potential karst issues. This connection

would also require variance requests to street grade and street landings sections of the Subdivision Ordinance.

Staff finds the variance request is reasonable based upon the applicant's justification and a review of the street layout as proposed with the application.



Whitman, Requardt & Associates, LLP

Engineers · Architects · Environmental Planners

Est. 1915

MEMORANDUM

Date: April 7, 2023

To: Randy Formica, PE **From:** John Holst, PE

Subject: Revised Northside Subdivision TIA Review

CC:

Work Order Number: 45892-014

Contract Number: FPO

Project: Traffic Impact Analysis Review

As requested by the Town of Blacksburg, WRA has performed a review of the revised Traffic Impact Analysis report for the Northside Subdivision residential development project. This memorandum contains the findings of this review.

SUMMARY OF FINDINGS

Revised Northside Subdivision Traffic Impact Analysis - March 28, 2003

Comments based on the revised TIA report review are as follows:

 The report has been revised to address the comments related to the original TIA submittal pertaining to the left-turn lane warrant analyses for northbound North Main Street at both Countryside Court and Givens Lane.
 The revised report correctly notes that left-turn lanes at both intersections are warranted under both future no-build and future build conditions.

If there are any questions regarding the findings compiled in this memorandum, please do not hesitate to contact us.

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DATE: April 12, 2023

TO: Kinsey O'Shea

FROM: Lori Lester, Water Resources Manager

TITLE: Water Comments for SUB23-0001, Northside XII Preliminary Plat, Review 2

Water Comments:

- The Town can provide the minimum required pressure (20psi) at the water meters based on the information provided. **Note:** The water model indicates water pressure of proposed development exceeds 100psi in certain areas. The Building Code may have additional requirements for houses with high-pressure.
- Additional water infrastructure or changes to proposed water infrastructure may be required to meet Town of Blacksburg Water Standards and Specifications, fire hydrant spacing, Building and Fire Code, etc.
- Previous comment on waterline alignment within property line PUE's has been addressed.



MEMORANDUM

TO: Kafi Howard

FROM: Shawn Veltman, Town Engineer

DATE: April 14, 2023

SUBJECT: SUB23-0001-Northside Park Section XXII; Review 2

This memo addresses the applicant's first resubmittal of a proposal for Preliminary Plat approval for the creation of 55 lots (previously 51) on 36 acres of land and my review of the proposed plans for providing sanitary sewer service to the newly formed lots.

SUB23-0001 Review Comments

A detailed review of the applicant's plans for sanitary sewer service is not possible because the preliminary plat does not include, nor is it required to include, the utility profiles necessary to determine compliance with all Town sewer standards, including but not limited to a minimum and maximum depths of coverage, conflicts with other utilities, or the ability to service the lowest floor elevation of the buildings on each lot. As a result the comments that follow are based solely upon a review of the available information supplied by the applicant.

In general, it is desirable for public sewers to be located in public rights-of-way rather than in easements through residential properties to improve their accessibility for future repair or maintenance and to limit the disruption to private property owners. The most desirable location for such easements is along property lines rather than through the properties. The applicant's redesign of the sewers appears to accomplish this objective.

Sanitary sewer laterals and cleanouts are not shown for Lots 38 to 47, and Lot 63.

There is a substantial cut planned atop the existing sanitary sewer that is located to the rear of lots 49 and 50. The elevation of this sewer should be determined to verify that the proposed cut will not cause the cover over the sewer to be reduced to less than 3 feet (the minimum cover allowed by the Town of Blacksburg Sanitary Sewer Standards & Specifications).

The proposed slope at the rear of Lot 62 appears to be excessive and directs a substantial amount of surface flow to proposed lots 58 to 61.

The label for Lot 67 on Sheet 20 is incorrectly placed on the open space lands and the lot area shown is incorrect for actual Lot 67.

The Grading Plan for Claire Drive on Sheet 20 shows substantial grading over the existing sanitary sewer and forcemain between Lots 33 and 34. Verify that this grading will not cause the minimum or maximum cover over these utilities to be in violation of the Town of Blacksburg Sanitary Sewer Standards & Specifications.

The Phase II Grading Plan on Sheet 21 appears to increase the cover over the existing sanitary sewer that crosses Progress Street at approximate Station 21+50 by 5 to 10 feet. Verify that the proposed

grading will not cause the cover over the sewer to be exceed 12 feet (the maximum cover allowed by the Town of Blacksburg Sanitary Sewer Standards & Specifications).

The Phase II Grading Plan on Sheet 21 shows a substantial cut over the proposed sanitary sewers and manhole to the rear of Lots 26 and Lot 27. Verify that the amount of cut shown would not cause the cover over the sewer planned at this location to be reduced to less than 3 feet (the minimum cover allowed by the Town of Blacksburg Sanitary Sewer Standards & Specifications).

Sec. 4-200. Size and information required on a preliminary plat.

- (a) All preliminary plats shall be either seventeen (17) by twenty-two (22) inches or twenty-four (24) by thirty-six (36) inches in size.
- (b) Prior to final approval by the Planning Commission, the preliminary plat shall be signed by the owner of the land proposed for subdivision. The signature shall certify that the owner is aware of the requirements imposed by the plat and applicable Town codes, and shall further certify that the owner agrees to comply with these requirements, unless modified in accordance with the Town Code.
- (c) The preliminary plat shall demonstrate compliance with the requirements of the Blacksburg Zoning Ordinance and this chapter. It shall contain the following elements:
 - (1) Name of the subdivision, with the notation, "Preliminary Plat."
 - (2) Name(s) of owner(s) of subdivision
 - (3) Name of surveyor or engineer
 - (4) Location of proposed subdivision by vicinity map showing adjoining roads, names of roads, and jurisdiction in which the subdivision lies
 - (5) Adjoining subdivisions
 - (6) Parcel tax numbers
 - (7) Deed references
 - (8) True, record or grid north
 - (9) Identification of graves, objects, or structures marking a place of human burial
 - (10) Scale of drawing
 - (11) Boundary survey
 - (12) Total acreage in overall parcel or parcels involved.
 - (13) Total acreage of subdivided area
 - (14) Number of lots
 - (15) Area of each lot
 - (16) Frontage of each lot
 - (17) Purpose of dedication of land to public use
 - (18) Area in common open space, park or public lands
 - (19) Percentage of land to be subdivided as common open space, park or public lands
 - (20) Names of all existing, platted and proposed streets
 - (21) Width of existing, platted and proposed streets
 - (22) Location of existing buildings within the boundaries of the tract
 - (23) Existing and proposed utility and other easements
 - (24) Sidewalks and bikeways
 - (25) Parking spaces

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- (26) Existing and proposed storm sewer facilities
- (27) Water courses
- (28) Names, if any, of water courses
- (29) Topography at contour intervals satisfactory to the agent for full engineering review
- (30) Road profiles showing existing and proposed street grades
- (31) Proposed connections with existing sanitary sewers
- (32) Existing water supply and proposed connections thereof
- (33) Any non-public means of disposal of sewage
- (34) Any non-public means of water service
- (35) Provisions for stormwater management
- (36) Contiguous land owned or controlled by the subdivider

(Ord. No. 1217, § 2, 12-14-99)

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