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April 4, 2023

Kinsey O'Shea  
Town Planner  
Planning and Building Department  
300 South Main Street  
Blacksburg, VA 24060

RE: SUB 23-0001 – Northside Park Revised Section XII - Major Subdivision Preliminary Plat Review for 51 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)  
Balzer Job #24220049.00

Dear Kinsey,

The following letter hereby addresses the comments provided to our office dated February 17, 2023 for the above project. Please find our responses to your comments below in **bold**.

#### **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) 2:** While the names of the property owners have been provided on the plat, owner signature blocks are also required to show that property owner(s) consent to the development and are aware of the requirements of the Town with regard to subdivision. There are three individual property owners, two of which are represented by a common entity, but the third owner is the Town. Signature blocks for all owners are required on the cover sheet.

**Response: A signature block is now on the cover sheet with signature lines for both CC&B Development LLC and the Town of Blacksburg.**

**§ 4-200(c) 10:** The scale on sheets 2-5 are not appropriate (1" = 250' and 1" = 350'), as they are not scalable with a standard engineering scale.

**Response: The referenced sheets were altered to show scales in multiples of 10s (1" =100', 1"=200'). See new sheets 2-6 and sheets 13-14.**

**§ 4-200(c) 16:** No lot frontage table has been provided.

**Response: A lot frontage table is now provided on the cover sheet.**

**§ 4-200(c) 18:** Existing and proposed open space areas, with acreages and locations, are not shown on sheets 6-9. Additionally, there is existing dedicated open space on proposed Lots 13, 14, and 15. Please rearrange lots accordingly to comply with existing platted open space.

**Response: Proposed open space is shown on layout sheets 15, 17, and 19. Open space referenced in existing parcels Tax ID # 166- 17 A and 166- 17 B are being relocated within the Northside Section XII property. Please see sheet 13 for relocation callouts and open space calculations. Additionally, a letter will be submitted in conjunction with the preliminary plat explaining open space relocation justification with exhibits of existing and proposed open space.**



§ 4-200(c) 23: The plat does not show interior or perimeter public utility easements required for all lots.

**Response: The preliminary plat has been altered to show all interior public utility easements for the proposed lots.**

§ 4-200(c) 24: The plat does not show how bike lanes are accommodated on Progress Street.

**Response: Bike lane paint markings are now shown as proposed. See sheets 4-5. Additionally, the bike lanes proposed for Progress Street are shown on the detail on sheet 12.**

§ 4-200(c) 28: The plat shows the location of watercourses, but does not provide name, or identify as “unnamed”.

**Response: The watercourses present on site are now identified as tributaries of Tom’s Creek.**

§ 4-200(c) 29: The plat does contain topographical information, but not enough information has been provided to show feasibility of construction for future Progress Street.

**Response: Grading is now shown separate from the layout and utility plan for clarity. Sheets 16, 18, and 20 show the grading proposed for this project and sheets 4 and 5 give direction for Phase II of Progress Street for its future construction. Notes have been added on sheet 5 and profile sheet 9 to match the Original Approved Northside Park Section XII Progress Street profile from station 32+10.6. From this point, no work/design is being proposed as a part of this plan. Profiles are given up to the point of design completed for the Original Approved Northside Park Section XII Preliminary Plat, which extends to Station 47+26.00 (see sheet 10).**

§ 4-200(c) 30: The plat does not contain road profiles for the Craig Drive cul-de-sac. The plat also does not contain adequate information to determine the length of Progress Street that will be constructed with this phase of the development. The plan view appears to indicate that the entire length of Progress Street to the eastern property line will be constructed with this development, but the length of the road on the profile sheets is different. Additionally, the variance request letter included with the applicant’s submission indicates that approximately 420 linear feet of Progress Street would be constructed, though the Deputy Town Manager letter dated February 2018 indicates that 625 linear feet of Progress Street is required to be constructed to support the development. This letter released the subdivider from the obligation to build all of progress street but required construction of segments needed to create and access proposed subdivision lots. Furthermore, the plan view sheet topography and the road profiles do not match in several locations (please see the attached Transportation memo for more analysis).

**Response: The Craig Drive profile was added to sheet 22. Sheets 4 and 5 give direction for Phase II of Progress Street for its future construction. See sheet 1 for information regarding length of Progress Street phasing. Please see Transportation Memorandum responses.**

## **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 includes minor grading within the Floodplain Overlay (FHO) as illustrated on the plan. This FHO is based on a flood study for this watershed approved by the Town in November 2018. All proposed encroachments, including fill, new construction, or other development must demonstrate compliance with FHO provisions through a Flood Study report. *The preliminary plat is not compliant with §4-200(c)(35) because it does not meet all the standards in §5-101. Additional information can be found in the Stormwater Engineering Memo.*

**Response: Please see response in Stormwater Memorandum section.**

#### **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.*

Lots proposed range in size from 0.23 acres (10,000 square feet) to 1.24 acres (53,944 sf). 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...” Specifically, lots 17-19, and 26-28, around the Cannongate Drive and Craig Drive cul-de-sacs, are more than double the minimum lot size, and their orientation prohibits the extension of existing Craig Drive forming a connection with Cannongate Drive/Progress Street.

**Response: The layout has been revised to resolve the issue highlighted in the comment above. The referenced cul-de-sacs are no longer proposed in this layout and do not prevent future connectivity.**

**Considerations:** In consideration of the standards as a whole, the proposed size and layout of lots 17-19 and 26-28 preclude the further subdivision into additional buildable lots. The creation of significantly larger lot sizes is typically a greater concern in rural residential developments with larger acreage. Staff would note, however, that the proposed layout does preclude the extension of existing Craig Drive. The applicant has requested a variance for the proposed Craig Drive cul-de-sac. The evaluation of this request can be found in the Streets section. Additionally, the proposed lot configuration around the Craig Drive cul-de-sac results in less typical lot shapes. The lots could be reconfigured in such a way as to result in a layout more similar to the lots around Primrose Drive or Cannongate Drive, and more in keeping with the standard that the lot lines should be radial to curving street lines, or perpendicular to straight street sections. While setbacks are not required to be shown graphically or listed in text on a preliminary plat, this information is helpful for staff during review, as well as for developers and property owners who rely on the plat for land use information in the future. There are two different setback standards that apply in this development: the R-4 zoning district standards, and the Open Space Overlay district standards.

The setbacks are different based on whether or not a proposed lot is in the Open Space Overlay, and whether or not it is adjacent to standard R-4 zoning. Especially considering that there are two different standards that apply to this development, it is helpful information to show graphically on the plat itself. The applicant has chosen to depict setbacks in a chart on the cover sheet, and they are also represented graphically on the plat sheets, but they are not labeled. To aid in the building permit review and to benefit the builder, future homeowners, and the Town, due to the varying standards, setbacks should be labeled on the plat sheets especially where adjacent lots have different standards.

**Response: Noted.**



**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. Vacation of Town right-of-way, whether built or unbuilt, requires a supermajority approval by Town Council. In order to consider the vacation of the right-of-way, the applicant should provide sheets showing existing and proposed layout, as well as existing and proposed profiles to determine 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).

**Response: The vacation of the existing right-of-way, greenway easement, and realignment of proposed Progress Street and Progress Street trail is now shown on sheet 6.**

**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 does show that Progress Street will be extended, but there is no information on the plat showing the limits of construction of Progress Street for the length of the street. Craig Drive and Primrose Drive are proposed to end in cul-de-sacs. A new cul-de-sac, Cannongate Drive, is also proposed off Progress Street. Cul-de-sac lots are considered more desirable in the single-family housing market. Claire Drive is proposed to extend to the existing stub along Craig Drive. Logical connections to extend existing streets would be to connect the end of Craig Drive through to Progress Street, rather than creating a second cul-de-sac (Cannongate Drive) off of Progress Street. Additionally, Primrose Drive could be extended to connect with the stub along Craig Drive.

**Response: Please see Transportation Memorandum response. The layout has been revised to continue Craig Drive to Progress Street. A variance request with an additional exhibit regarding Primrose Drive connectivity will be provided with the resubmittal.**

The applicant has requested a variance to the above section for the Craig Drive and Primrose Drive cul-de-sacs. The applicant's justification includes information regarding lot desirability, grading



impacts, and connectivity. As noted in the Transportation Engineering Memo, additional information is needed to analyze this variance request. *Staff does not support the requested variance at this time. Additional detail is found in the attached transportation engineering memo.*

**Response: Noted.**

**§5-310 (a)**—*The paved area of the bulb turnaround...shall be a minimum of ninety (90) feet in diameter.* Pavement is considered the asphalt travel surface of a street, and does not include any concrete gutter pan. The plat shows that the pavement area on Primrose Drive is approximately 85' in diameter, and the pavement area on Craig Drive is 77-79' in diameter, excluding the gutter pan in both cases. *The plat will have to be revised to show the appropriate minimum pavement area for all cul-de-sac turnarounds.*

**Response: The Primrose Drive cul-de-sac has been increased in size to have a diameter of 90' not including the gutter pan. The Craig Drive cul-de-sac is no longer proposed.**

Additionally, the Town does not have a standard for the proposed bulb on Cannongate Drive that appears to contain a landscaped median island. The Town will not maintain any landscaping inside the median island in the right-of-way. Additionally, maintenance by a private entity such as a homeowners' association is not desirable for improvements in the Town right-of-way as the expectation for landscaping in a public street is that the Town performs mowing and other maintenance. No justification has been provided for why the island has been included and proposal for private maintenance has been made. *Staff recommends removal of the landscape island.*

**Response: This cul-de-sac is no longer proposed; therefore, the island is also no longer proposed in this plan.**

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

As indicated in the applicant's turn lane analysis, turn lanes are warranted on North Main Street at Countryside Court and Givens Lane. Additional information regarding the necessary turn lanes is found in the attached transportation engineering memo. *The plat will have to be revised to show the appropriate construction for required turn lanes.*

**Response: A letter has been provided with this submittal to address the request for turn lanes based on discussion with Town staff. See Northside Park Traffic Letter.**

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

The proposed grading on the stormwater plans for the lots with rear yards along proposed Progress Street show that lot grading will extend into the proposed ROW for future Progress Street. More information is required to show constructability for future Progress Street, including whether or not walls are required, and ability to match existing, proposed, and future grades, considering the proposed lot and stormwater grading. Without additional information, staff cannot determine that the required grade can be met for Progress Street. *The plat will have to be revised to show the grading for future Progress Street to ensure feasibility for future construction. This is also noted above in §4-200(c)(29) and relates to §5-300.*

**Response: Please see response to §4-200(c)(29).**

**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. As outlined in the Transportation Engineering Memo, additional information is needed to analyze this variance request as it relates to the variance regarding continuation of existing streets.

**Response: Noted. An exhibit will be provided with the variance request with this submittal.**

**§5-318 (d)**—*Driveways shall be no closer than fifty (50) feet to an intersection with a public street.* The plat shows areas on lots 13 and 24 (adjacent to Cannongate Drive), and lot 59 (adjacent to Carroll Drive), where driveways cannot be constructed due to the minimum distance. Additional hatch areas will have to be shown for lots 13 and 24 along Progress Street, and additional hatch areas will have to be shown for lot 59 along the frontage of Claire Drive to ensure future lot owner are aware of how this may impact home selection, orientation, and driveway location. *The plat will have to be revised to show an additional no-driveway zone for lot 59.*

**Response: Additional "no driveway zones" have been denoted on sheets to clarify the limitations of the lot to future lot owners. See sheets 15, 17, and 19.**

**§5-319**—*Street trees required along all collector and arterial roads within or adjacent to the subdivision.* The plat does not show locations or quantities for required street trees. At a minimum, a schedule showing the required number of street trees per the proposed Progress Street length will need to be provided on the cover sheet. *The plat will need to be revised to show minimum number of street trees required.*

**Response: Minimum number of street trees required are noted on sheet 1.**

**§5-321**—*Bicycle lanes are required on all proposed collector streets within a subdivision.* Sheet 10 includes a typical street section for Progress Street showing how the ROW is delineated with various improvements and lane widths, but no delineation for bicycle lanes has been shown. Bicycle lanes are required along all of the proposed portion of Progress Street. Additionally, the section shows sidewalk alongside the road, but no sidewalk is proposed. The section will have to be revised to show the actual configuration of the street improvements within the right-of-way. *The plat will need to be revised to show that bicycle lanes can be accommodated on Progress Street.*

**Response: Bike lane paint markings are now shown as proposed. See sheets 4-5. Additionally, the bike lanes proposed for Progress Street are shown on the detail on sheet 12. Sidewalk is shown for Progress Street Phases I and II. See sheets 15, 17, and 19.**

**§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 does not show provisions for street lights for the portion of Progress Street to be constructed. At a minimum, the cover sheet should include the number of streetlights required per typical spacing along the proposed Progress Street. ***The plat will need to be revised to show the minimum number of streetlights required on Progress Street.***

**Response: Streetlights information was added to sheet 1. The approximate required number of streetlights per linear foot of Progress Street was provided by Lori Lester via email correspondence and based on similar streets.**





**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 includes some of the information regarding sidewalks including general location per §5-401. In further evaluating the required standards in Division 4, the following deficiencies and considerations are noted.

The preliminary plat shows sidewalk adjacent to at least one side of all local public streets within the subdivision. On the engineering plans, the applicant will need to show the required curb cut ramps at intersections per §5-316. Additionally, staff recommends that the proposed sidewalk be completed around the remaining length of the cul-de-sac bulb, but especially on Primrose Drive, where only a small portion of the proposed cul-de-sac is shown without sidewalk.

**Response: The recommendation was noted. Curb cuts are specified for sidewalks on sheets 15,17, and 19 and will be further specified on construction plans.**

**§5-402**—*Pedestrian access to open space shall be provided; construction standards*

There are a number of private open spaces shown in the development, but access is not provided in all locations. Sheet 4 indicates the open space areas to be dedicated, and those already dedicated. The plat shows that the multi-use trail will provide access to some of the existing and proposed open spaces. However, there are no paths provided between lots, or at the ends of the cul-de-sac bulbs to provide access to the open spaces interior to the development. *The plat will need to be revised to show how access is provided to the proposed open space areas.*

**Response: The new layout of Craig Drive accommodates for greater pedestrian access via sidewalk. Select open space areas are proposed to be utilized for stormwater and will not warrant pedestrian access.**

**DIVISION 5 BIKEWAYS**

**§§ 5-500-503** *Multi-use trails required; location of multi-use trails; access to future multi-use trails right-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 order for staff to evaluate desirability of the public trail relocation, similar to the condition with the Progress Street right-of-way, the applicant should provide sufficient detail to evaluate whether the proposed layout and grade are acceptable or desirable for the Town, as compared to what is already constructed. The applicant should provide sheets showing existing layout and existing trail profiles to compare to the proposed revised trail. Additionally, no details have been provided that explain how the trail will be kept open during construction to allow for existing users to continue to use the trail.

**Response: The vacation of the existing right-of-way, greenway easement, and realignment of proposed Progress Street and Progress Street trail is now shown on sheet 6. A construction sequence was also added to clarify how to allow pedestrians to continue trail use while proposed portion of the trail is constructed.**



**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 showed 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). However, in consideration of §5-601, it is noted that there are several locations where water mains are not located in the ROW, or along property lines, and rather cross through the body of a lot. This can create conflict with future structures and landscaping. *The plat will need to be revised to show the water infrastructure aligned with property lines and/or ROW to the greatest extent practicable. The preliminary plat is not compliant with §4-200(c)(32) because it does not meet all the standards in §5-601. Specific reasons for disapproval are provided in the attached water services memo.*

**Response: The waterline has been revised to run along lot lines and in the right-of-way where possible.**

**DIVISION 7 SANITARY SEWER**

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

The applicant has showed 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 regarding constructability and maintenance noted that do not comply with §5-701. Additionally, details regarding how the existing pump station would be accessed for maintenance are not provided. ***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 lack of stormwater management provisions for Progress Street, method for meeting stormwater quantity provisions, unaccounted for drainage areas, and access to stormwater management facilities for maintenance and inspections. While sufficient information is not available to determine compliance with §5-805 for storm drainage design, this information can be provided at the engineering plan stage. ***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. If the requirements of Section 5-901 cannot be met, a variance request, with supporting justification, must be submitted for review by the Planning Commission. Note: PUE locations and alignment should be prioritized along the proposed lot lines, as specified by Section 5-901, to provide a consistent and contiguous alignment that can be easily identified and reasonably utilized for utility franchise installations that will serve the proposed and adjacent development communities. ***The preliminary plat is not compliant with §4-200(c)(23) because it does not meet all the standards in §5-901. No PUEs are shown on any interior or perimeter lot lines as required.***

#### **CLARITY AND DRAFTING**

1. Overall linework is confusing. Proposed property lines should be darker, setbacks and easements should be different linetypes, and any other differentiation (including adding sheets to separate layer displays) to improve legibility should be considered.  
**Response: Sheets have been separated to improve legibility of plans.**
2. Sheet 8—is this a trail coming off Primrose Drive? Please label.  
**Response: The referenced section of trail has been reformatted and called out on sheet 19.**
3. Features and labels under the proposed trail (?) off Primrose Drive are obscured by the trail. It is unclear where property lines, etc. are located.  
**Response: The display order of the referenced trail was edited to avoid obscuring the lot lines and other pertinent information.**
4. Subdivision section lines and Project Boundary lines are confusing especially at the southern end of Progress Street on sheets 3 and 4.  
**Response: Subdivision lines were reevaluated on sheet 3 for clarity. Additional information regarding existing open space parcels (Tax ID # 166- 17 A and 166- 17 B) can be found on sheet 13.**
5. The linework of easements on the common area near the stormwater management area on sheet 6 and 8 is confusing. Please revise.  
**Response: Easement lines have been revised for clarity. See sheets 17 and 19.**
6. Label the linework along Progress Street behind the sanitary easement. Is this also an easement?  
**Response: Easement lines have been revised for clarity. See sheets 15, 17, and 19.**
7. Label setback dimensions, especially where they are different (i.e. 57 & 58, 62 & 63)  
**Response: Labels have been added to setbacks on proposed lots that are adjacent to a lot that has a differing open space overlay status. These setbacks are called out on the cover**

- sheet and the lots are denoted with an asterisk (\*) if the open space design overlay district is utilized.
8. Matchline numbers are incorrect. Please revise.  
**Response: The matchline labels have been revised to match current sheet order.**
  9. Show how/where the proposed Claire Drive improvements tie into the stub on Craig Drive. This geographical area is not included on any sheet.  
**Response: The matchline frames have been edited to include the intersection of Craig Drive and Claire Drive. Linework was included to specify how the proposed curb and gutter shall connect to existing.**
  10. Show how/where the proposed Progress Street improvements tie in at Northside Drive.  
**Response: Linework was included to specify how the proposed curb and gutter shall connect to existing.**
  11. Show how/where the proposed Craig Drive cul-de-sac improvements tie into the existing end of Craig Drive.  
**Response: Linework was included to specify how the proposed curb and gutter shall connect to existing.**
  12. In order to confirm setbacks as they apply for Open Space Overlay (OSO) District, please indicate on sheet 4 and/or 5 the zoning for adjacent areas, including whether or not OSO is utilized. There are several areas within existing Northside Park that are OSO lots.  
**Response: Information was added to sheet C3 to note which adjacent lots are open space overlay lots.**
  13. Identify which proposed lots are OSO lots.  
**Response: The lot table on sheet 1 specifies which lots are open space lots, in addition to sheets 15-20 that denote OSO lots with an asterisk (\*).**
  14. Note 28 on sheet 1 refers to a private cross access easement. What/where is this and why is it needed?  
**Response: This note was removed from sheet 1.**
  15. On sheet 2 and other sheets that reference the adjacent lots, why are the lots lettered and numbered? It seems that some of the numbers represent lot numbers, but others do not. Please be consistent.  
**Response: The labeling of the adjacent lots has been revised for clarity. See sheet 3.**
  16. Add lot frontage to the lot table on sheet 1. Also include a column indicating whether or not the lot is located in the open space overlay district.  
**Response: A lot table specifying open space design overlay district status has been added to sheet 1.**

#### **STORMWATER MEMORANDUM**

**Stormwater Management Required \$5-800** – The stormwater management proposed for this subdivision is designed to be met with the use of a traditional detention pond. Water quality is met for 75% of the on-site with the installation of 5 bio-retention facilities, the remaining 25% of the water quality will be met through the purchase of off-site nutrient credits.

- This stormwater concept plan does not make provisions for stormwater management for Progress Street. The submitted variance to Section 5-320 requests to construct only 420 linear feet of Progress Street and only this small portion shown as paved on the Stormwater Concept Plat appears to have provisions. There does not appear to be any calculations or planning to



confirm that there is sufficient land set aside for stormwater management treatment for the remainder of the proposed road.

**Response: The Stormwater Concept Plan has been revised to analyze a potential stormwater facility to detain runoff from Progress Street to determine if there is a viable location and configuration that supports the preliminary plat and new Progress Street layout. See Stormwater Concept Plan and Stormwater Narrative for additional information.**

- The intended method of meeting stormwater quantity provisions has not been included in the narrative. Currently page 10 of the Stormwater Management Channel Protection summary references a man-made channel on Roanoke Street, which appears to be information regarding a different site. This would be where the designer explains how the plan will meet the Energy Balance Requirements.

**Response: The referenced portion of the narrative has been revised per the comment above.**

- On the pre/post development drainage maps, please update the drainage area going to parcel 120138. There is significant drainage inputs to this point and this must be accounted for in the stormwater management calculations, drainage easement dedications and positioning of the public multi-use trail located in the area.

**Response: The drainage area DA#4 is piped through an offsite area (the Northside Drive cul-de-sac) and then discharged through a channel along US 460 bypass in DA #2. This has been labeled more clearly on SWM3-SWM4.**

- Access to the property for purposes of maintenance and regulatory inspection has not been provided. A location for a maintenance path is provided in Town ROW prior to the construction of Progress Street, and once Progress Street is constructed there will be no access. This access must be accounted for now and be contained on land owned or controlled by the Developer, not Town ROW.

**Response: A temporary maintenance path has been provided for Phase I of construction. See sheets 15-20. The maintenance path will serve both the pump station and stormwater facilities central to the subdivision. When Progress Street is completed (Phase II), entrances off of Progress Street are proposed to the pump station and to the stormwater management area to the gravel maintenance paths. See sheet 21.**

#### **Storm Drainage Design and Construction §5-805:**

Sufficient information is not available at this time to determine adequacy of drainage design.

#### **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. Minor grading appears to be proposed in the edge of the FHO zone, therefore all proposed encroachments, including fill, new construction or other development must illustrate compliance with Sec. 3247 of the Floodplain Hazard Overlay provisions through a Flood Study report.

**Response: The referenced grading reflected the originally proposed grading for the trail that is already complete. The updated grading for Progress Street does not propose grading in this area.**

**TRANSPORTATION MEMORANDUM**

**Review of the Traffic Impact Analysis**

Based upon the Town’s consultant review of the Traffic Impact Analysis, 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. The TIA shall be revised to include the turn lane analyses per the VDOT Access Management Regulations, Appendix F.

There appears to be to adequate existing right of way to accommodate the construction of a left turn lane at each of these intersections. Future subdivision engineering plans shall include plans for the construction of these left turn lanes.

**Review of Preliminary Plat**

- The preliminary plat shows an island in the bulb of the cul-de-sac on Canongate Drive. Is this island intended to be concrete or grassed? If grassed, Public Works will not install nor maintain any landscaping located in the island. In addition, Public Works will not mow the grass on a regular schedule. Staff would recommend removal of this island.  
**Response: This cul-de-sac is no longer proposed; therefore, the island is also no longer proposed in this plan.**
  
- Section 5-310 (a) of the subdivision ordinance requires that the paved area of the bulb turnaround at the end of the cul de-sac be 90 feet in diameter. Staff interprets “the paved area” to mean the area of the bulb that is asphalt and can be travel upon, i.e. does not include the 2- foot wide gutter pan. Therefore, the paved area of the bulb of the cul-de-sac on Primrose Drive is approximately 85 feet in diameter and the paved area of the bulb of the cul-de-sac on Craig Drive is approximately 77 feet to 79 feet in diameter. These bulb diameters shall be increased to the 90 feet required in the Subdivision Ordinance.  
**Response: The Primrose Drive cul-de-sac has been increased in size to have a diameter of 90’ not including the gutter pan. The Craig Drive cul-de-sac is no longer proposed.**
  
- There are no station numbers on the section of Claire Drive shown as being constructed on Sheet 8. Stationing shall be provided.  
**Response: Stations are now shown for Claire Drive. See sheets 19-20.**
  
- Primrose Drive is constructed and paved up to the cul-de-sac to be constructed with Section XII. Why does the profile on Sheet 12 appear to not reflect the finished street grade? The profile shall reflect the existing, finished street grade of Primrose Drive.  
**Response: Sheet 20 (grading plan) was updated to show proposed grading only beginning at portion of Primrose Drive to be constructed in this plan.**
  
- The plans shall indicate the extent of the construction of Progress Street being planned for this phase. Since the Town is most likely the entity that will have to construct the remainder of Progress Street, in order for Staff to evaluate the constructability of the entire section of future Progress Street, the plans need to provide the profile for Walnut Drive and Carroll Drive at their connections to future Progress Street. The plans have to show that future Progress Street can actually be constructed from the terminus in this

phase to its ultimate terminus along North Main Street. The Town cannot be left with a street extension that we cannot build.

**Response: Sheets 4 and 5 have been added to the preliminary plat to call out the phasing of Progress Street construction. Notes have been added on sheet 5 and profile sheet 9 to match the Original Approved Northside Park Section XII Progress Street profile from station 32+10.6. From this point, no work/design is being proposed as a part of this plan, thus profiles of Walnut Drive and Carroll Drive are not provided.**

- The stormwater management plans provided with the application show more grading detail than the preliminary plat plans. The proposed grading for the construction of future Progress Street should be shown on the plans. The stormwater management plans show the proposed lot grading along Lots 39 through 41. These lots are not included as a part of this preliminary plat and are part of a future preliminary plat. The proposed grading extends into the right of way for future Progress Street. If grading occurs in this manner, at the time the Town proceeds with construction of future Progress Street, a retaining wall will be required or the Town will have to acquire grading easements off the lots to build Progress Street. In order for Staff to evaluate the constructability of future Progress Street, the proposed grading for this future extension shall be shown on the Section XII plans.

**Response: Grading is now shown separate from the layout and utility plan for clarity. Sheets 16, 18, and 20 show the grading proposed for the project and sheets 4 and 5 give direction for Phase II of Progress Street for its future construction.**

- Is the proposed grading along Lots 39 through 41 the only manner to perform the required grading? Since the lots do not exist yet, can't the grading be performed outside the right of way? The application cannot propose a grading plan that will prevent or restrict the Town's ability to construct future Progress Street. The construction of a retaining wall should be avoided. If grading easements are required in the future, the applicant shall provide these easements now while those lots are under one ownership rather than the Town attempting to acquire them when the lots are sold.

**Response: The grading has been revised in this area. See sheet C20.**

- Concerning the construction of future Progress Street, the profile sheets show construction from Station 7+23 up to Station 47+26. The plan sheets show future Progress Street from Station 7+23 up to approximately Station 35+00. It appears that the profile extends beyond the boundary of the Northside Park Section XII, Phase II as presented on Sheet 3 but not quite to North Main Street. Please confirm this.

**Response: Notes have been added on sheet 5 and profile sheet 9 to match the Original Approved Northside Park Section XII Progress Street profile from station 32+10.6. From this point, no work/design is being proposed as a part of this plan. Profiles are given up to the point of design that was done for the Original Approved Northside Park Section XII Preliminary Plat, which extends to Station 47+26.00 (see sheet 10).**

- Based on the stormwater management plans, it appears the plan is to construct Progress Street to about 20 feet beyond the intersection with Cannongate Drive. Staff recommends treating this termination point as if it was a T turnaround described in Section 5-310 (b) of the Subdivision Ordinance and extend the turnaround to a length of 40 feet. In addition, Sheet 6 should show this as the termination point.

**Response: The termination point has been extended to a length of 40 feet past the intersection of Progress Street and Craig Drive. The termination point has been called out at this location on sheet 5.**

- It appears that the topo for the proposed grading along Primrose Drive in plan view does not match the profile. This needs to be reconciled.

**Response: The profile for the Primrose Drive end of pavement cul-de-sac was added to sheet 21.**

- No profile was provided for the remaining cul-de-sac that needs to be constructed for Craig Drive.

**Response: The Craig Drive profile was added to sheet 22.**

#### Connectivity

- Staff has reviewed the question of connectivity of the proposed subdivision streets per Section 5-305 of the Subdivision Ordinance, evaluating a connection between Primrose Drive and Claire Drive, and Craig Drive and Cannongate Drive. The variance request letter cites the conclusions of a Hurt & Proffitt geotechnical report dated April 19, 2022 as reasoning not to perform extensive earthwork on the site. However, this report has not been provided to the Town. Staff requests that this report be included as part of the application submittal.

The applicant's variance request letter acknowledges the feasibility of constructing connections between Primrose Drive and Claire Drive, and Craig Drive and Cannongate Drive.

**Response: A connection is proposed from Craig Drive to Progress Street, eliminating the previously proposed Cannongate Drive cul-de-sac. The referenced geotechnical report will be provided with the resubmittal.**

#### Primrose Drive and Claire Drive

- Based upon the current street design and depending upon where a connection would be made from Primrose Drive to Claire Drive, it appears a considerable amount of earthwork could be involved. It also appears that a variance to Section 5-313 (1), street grades may be required. A proposed connection would be required to meet minimum vertical curve design parameters. In order for Staff to provide a more definitive evaluation, additional street design information would be required.

**Response: The request to maintain the design for a cul-de-sac for Primrose Drive will be resubmitted to the Town. An exhibit showing the challenges associated with the Primrose Drive connection to Claire Drive will be provided with the resubmittal.**

#### Cannongate Drive and Craig Drive

- While a connection between Cannongate Drive and Craig Drive would require the applicant to perform more earthwork than the current plan proposes, it does not appear that the earthwork is extensive. A proposed connection would be required to meet minimum vertical curve design parameters. In order for Staff to provide a more definitive evaluation, additional street design information would be required.

Both of these connections are feasible. Staff recognizes that the connections would require reconfiguration of the lots as currently proposed and possibly re-design of the streets (Claire Drive) as currently proposed.



**Response: A variance regarding the Cannongate Drive/Craig Drive connectivity is no longer requested.**

**WATER MEMORANDUM**

- 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.

**Response: Noted.**

- Please realign public water mains/lines not located in the ROW to align with PUEs on property lines (Lots 17, 28, and 39). This helps ensure future structures, landscaping, etc. will not impede maintenance and repair of waterlines.

**Response: The waterline has been revised to run along lot lines and in the right-of-way.**

- 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.

**Response: Noted.**

**SANITARY MEMORANDUM**

- 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 Town Sanitary Sewer System Standards & Specifications (adopted August 5, 2009) specifically prohibit the placement of trees, shrubs, structures, fences other obstacles within an easement if they would make it inaccessible by equipment. Thus, to avoid the potential for future conflicts with property owners when maintenance or repair of the sewers is required, every effort should be made to place sewers within the rights-of-way.

**Response: The sanitary layout has been revised to place the sanitary sewer along lot lines and in the right-of-way.**

- When utilities must be located in easements on private property the most desirable location for such easements is along property lines rather than through the properties. The sewers shown to be servicing lots 34 to 43 are located on the rear of the lots on top of a steep bank along Future Progress Street and Town access to these sewers will likely require the Town to access them through the developed properties from Claire Drive, which is less than ideal. The proposed design also requires the placement of five sanitary sewer manholes in the rear yards. An alternate alignment should be considered in this area.

**Response: The sanitary layout has been revised for the referenced lots.**

- Likewise, the sewers shown serving Lots 20 to 24 are located in an easement through the rear yards of the lots with three manholes placed in the easements on private property. The grades do not appear to require this and thus to facilitate future Town access to the sewer the line should be moved out of the lots and into the Future Progress Street right-of-way.

**Response: The sanitary layout has been revised for the referenced lots.**



- The sanitary sewer line located between lots 33 and 34 cuts the corner of Lot 34 rather than following the lot line to the public street and this increases the likelihood that the public sewer will end up under private improvements (e.g. driveways and landscaping) which would make it more difficult for the Town to access it in the future. Instead we recommend continuing the sewer along the lot line and across Claire Drive to a new manhole on the sewer serving the line coming in from the south. This will also eliminate the approximately 135 degree turn that the sewer entering the manhole from Claire Drive to the south is required to make.

**Response: The sanitary layout has been revised for the referenced lots.**

- Based upon the grading shown on the plans gravity sewer service to Lot 60 appears to be unlikely. An alternate alignment should be considered in this area.

**Response: Response: The sanitary layout has been revised for Lot 60.**

If you have any additional questions or comments, please feel free to contact me.

Sincerely,

**BALZER AND ASSOCIATES**

A handwritten signature in black ink, appearing to read 'James R. Taylor', is written over the printed name.

James R. Taylor, P.E., M.ASCE  
Associate