



			THE TREE INTERPRETATION OF THE CREET	
Pr	oject N	Name	Faison Tract KB Home Raleigh-Durham Inc. Zoning Zebulon R-2	
C	Appl Contact	licant t Info	Roman Acosta - RAcosta@KBHome.com 919-768-7976 Watershed New or Expansion (N/E)? New or Expansion (N/E)?	
	roject reage	1	D2.16 Existing 31,363 SF Proposed 926,521 SF Disturbed Impervious SF 0.72 AC Impervious 21.27 AC Acreage 53 AC	
Preliminary Special Variance Con			All in the literature of the compliance of the c	
Sub	Regular Cluster Minor Nonresidential CONSERVATION SUBDIVISION			
	Submittal Package Requirements Applicant shall select all applicable items below and provide with the submittal.			
	1.	Cove	er letter stating the purpose of the submission	
\checkmark	2.	Drai	(1) electronic copy of the Hybrid Stormwater Tool (<u>click here</u>); submit Excel workbook (Site Data Sheet, nage Area Sheets, Site Summary Sheet, BMP Sheets, and BMP Summary sheet) See the <u>Wake County</u> <u>mwater Manual</u> for guidance	
$ \mathbf{M} $	3.	Drai	nage Area Maps with stormwater discharge points (existing/post construction/post BMP)	
		a.	For Water Supply Watersheds: Provide drainage map showing drainage acres to the drainage features for properties in the water supply watershed zoning districts	
\checkmark	4.	Cop	y of the USGS Quad Map with delineated project limits in color	
	5.	Cop	y of the Wake County Soil Survey map from 1970 manuscript with delineated project limits	
	6.	Prop	posed Site Plan:	
		a.	North arrow, graphic scale, signed/dated engineer's seal, drafting version date, and legend	
		b.	Show all Riparian Buffers [<i>Article 9-21</i>]; (Neuse: [15A NCAC 02B.0233 & 0242]; Falls [15A NCAC 02B.0277(4)(h)]; Jordan: [15A NCAC 02B.0277(4)(h)]	
		c.	Delineation of all existing and proposed impervious surfaces: roads, well lots, recreation sites, single family residences, etc. (consistent with SW Hybrid Tool Inputs)	
		d.	Delineation of current FEMA boundaries (floodway, flood fringe & future/0.2%)	
		e.	Delineation of flood prone soil areas	



		f.	Proposed drainage easements and widths (in Feet)	
		g.	Location and type of all proposed stormwater management structures (grass swale, wet/dry detention basin, filtering/infiltration basin, bioretention, etc.). Must be located in a common area of development.	
		h.	Proposed stormwater easements, access lanes and backwater easements. Provide and label minimum 20 ft. Access easement and 10 ft. Maintenance easement from toe of stormwater pond embankment. Provide and label 20 ft. Drainage easement between every 4 residential lots or 4 acres of drainage area.	
		i.	Location of stormwater management structures should meet setback requirements from all wastewater system components in accordance with <i>Regulations Governing Wastewater Treatment and Dispersal Systems in Wake County</i> .	
		j.	A note should be added to the recorded plat distinguishing areas of disconnected impervious	
	7.	Prov	vide documentation of soil re-delineations (as needed)	
Standards and Requirements By marking items with an "X", applicant acknowledges potential standards to be applied to the proposed development.				
Wake County UDO Article 8 – Subdivision Design and Improvements				
	8.	Streams or Drainageways [Article 8-37-2] — Easements for streams or drainageways must be provided and must follow the existing course of such streams or drainageways. Easements for drainage of surface waters from 4 lots or less may cross lots only if the Planning Board or Planning Director determines that such location will not pose a hazard to persons or property.		
	9.	Standards [Article 8-43] — All subdivisions within the zoning districts R-40W, R-80W and overlay districts WSO-2NC, WSO-3CA, WSO-3NC and WSO-4P must be designed and constructed so that all development directly associated with the subdivision (e.g., roads, utilities, grading, drainage facilities) and all subsequent development (e.g., buildings, driveways, yards, on-site utilities, grading, drainage facilities) on the subdivision's lots and other parcels: • minimizes impervious or partially pervious surface coverage. • diffuses the flow of stormwater runoff, encourages sheet flow and avoids concentrated discharge of stormwater into surface waters. • incorporates Best Management Practices (BMPs) to minimize adverse water quality impacts. • transports stormwater runoff from the development by vegetated conveyances; and • avoids disturbance of vegetation within water supply watershed buffers.		
Wake County UDO Article 9 - Stormwater Management Requirements See Wake County's Stormwater Manual: Submittal and Design Guidance				



	10.	tormwater Review Required - All residential subdivision development must submit a plan to comply with rticle 9. Minor subdivisions have the option of limiting impervious to 15%. Office, institutional, commercial or industrial development that disturbs greater than ½ acre is required to comply with the stormwater management regulations of Article 9.		
✓	11.	tormwater Permit – is required for all development and redevelopment unless exempt pursuant to the UDO. A ermit may only be issued subsequent to a properly submitted, reviewed and approved stormwater nanagement plan and permit application. [Article 9] Note: A permit may not be required if there are no post-postruction requirements (i.e., SCMs).		
✓	12.	Volume Management – is required for RESIDENTIAL regular subdivisions when the post development curve number exceeds the pre-development curve number using the Wake County Hybrid Stormwater Tool. Minor subdivisions have the option of limiting impervious to 15%.		
4	13.	SCMs - For projects requiring stormwater treatment for quality and/or quantity control, the applicant must comply with the NC BMP Manual, as well as Article 9 Stormwater Management, Part 3 Completion and Maintenance of Improvements prior to approval of the record plat.		
4	14.	Downstream Impact Analysis – Required analysis using the "10% rule" drainage area evaluation of the 10-year, 24-hour peak flow of the pre/post development to determine if the project will have any impacts on flooding or channel degradation downstream of the project site in accordance with Article 9-22.		
Nutrient Management Strategies – Neuse Rules [15A NCAC 02B.0235]; Neuse Rules apply County-wide [Article 9-21] See Wake County's Stormwater Manual: Submittal and Design Guidance Select all that apply.				
	15.	Peak Flow – new development shall not result in a net increase in peak flow leaving the site from the predevelopment conditions for the 1 yr-24 hr. storm.		
M	16.	Nitrogen Load - contributed by the proposed new development activity shall not exceed the unit area mass loading rate for nitrogen of 3.6 of pounds per acre per year: nitrogen loading shall be calculated using the Wal County Hybrid Stormwater Tool.		
		Replacement or Expansion w/No Net Increase in BUA – proposed development that would replace or expand structures or improvements that existed as of July 2001, and that would not result in a net increase in built-upon area shall not be required to meet nitrogen loading targets except to the extent that the developer shall provide stormwater control at least equal to the previous development.		
		 Replacement or Expansion with Net Increase in BUA proposed development that would replace or expand structures or improvements and that would result in a net increase in built-upon area shall meet the target of 3.6 lbs./ac/yr. for the entire site OR achieve a 30% reduction in nitrogen loading and no increase in phosphorus loading. 		



		c.	 LID option - Developments that show volume matching using Storm-EZ shall be considered as meeting nutrient export requirements without making offset payments provided the following: When analyzing a development site, the pre-development land cover shall be entered into Storm-EZ as "Woods" for the entire project area. The Wake Couty Hybrid Tool must be run to estimate the pre-development, and post-development, pre-BMP nutrient export rates for the site. See NCDENR Memo on Coordination between LID & NSW Programs 	
Wal	ce Cou	nty UDC	O Article 10 - Erosion and Sedimentation Control Requirements	
\checkmark	17.	Erosion Control: This project will require an Approved Erosion and Sediment Control Plan and Land Disturbance Permit if it involves greater than one acre of disturbance [10-13-1(A)]. Note : If the land disturbance is part of a common plan of development that is greater than one acre of disturbance, an Approved Erosion and Sediment Control Plan and Land Disturbance Permit are required for each individual tract or parcel disturbance within the common plan of development, regardless of land disturbance acreage in each tract/parcel.		
Wal	ce Cou	ntv UDC	O Article 11 - Environmental Standard Requirements	
	18.	Water Supply Watershed Buffers (WSWB) Article 11, Part 2 Select all that apply.		
		a.	 Water Supply Impoundments with a drainage area of 25 acres or more [Article 11-21-2]: WSWB required with a minimum width of 100 feet around all water supply impoundments Buildings must be setback at least 20 feet from the outer boundary of the required buffer area. 	
		b.	 Water Supply Impoundments with a drainage area of 5 to 25 Acres [Article 11-21-3]: WSWB required with a minimum width of 30 feet provided around all water impoundments Buildings must be setback at least 20 feet from the outer boundary of the required buffer area. 	
		c.	Non-Water Supply Impoundments with a drainage area of 25 Acres or more [Article 11-21-4]: • WSWB required with minimum width of 50 feet around all non-water supply impoundments. • Buildings must be setback at least 20 feet from the outer boundary of the required buffer area.	
		d.	 Perennial Streams [Article 11-21-5]: WSWB required with a minimum width of 100 feet along each side of a stream shown as a perennial stream on the most recent edition of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps. The area of the required buffer that begins at the stream bank and extends landward 50 feet is subject to the Zone 1 standards of Sec. Section 11-22-1(A). The area of the required buffer that begins at the outer edge of Zone 1 and extends landward 50 feet is subject to the Zone 2 standards of Sec. Section 11-22-1(B). No minimum building setback from the required buffer. 	



	e.	 Non-Perennial Watercourses [Article 11-21-6] WSWB required with a minimum width of 50 feet along each side of non-perennial watercourses, channels, ditches or similar physiographic features with a drainage area of 25 acres or more Buildings must be setback at least 20 feet from the outer boundary of the required buffer area.
	f.	 Watercourses and Channels, 5 to 25 Acres [Article 11-21-7] WSWB required with a minimum width of 30 feet along each side of a watercourse, channel, ditch, or similar physiographic feature with a drainage area of at least 5 acres, but less than 25 acres Buildings must be setback at least 20 feet from the outer boundary of the required buffer area.
	g.	 Activities Allowed within Buffers [Article 11-22-2]: Driveway crossings that access single-family dwellings, provided: no alternative to their location in the buffer (including opportunity for shared driveways) exists. buffer disturbance is no more than 60 feet wide. buffer disturbance is no more than 6,000 SF. the driveway crosses the buffer at an angle close to 90 degrees and not less than 60 degrees. side slopes do not exceed a 2:1 (horizontal to vertical) ratio (bridging and/or retaining walls may be used to meet this and the disturbance width standard); and all culverts are designed and constructed for the 25-year storm event
	h.	 Activities Allowed within Buffers [Article 11-22-2]: Road crossings (public or private roads), provided: no alternative location in the buffer exists. buffer disturbance does not extend beyond the required right-of-way or easement width, or in no case is more than 90 feet wide. buffer disturbance is no more than 9,000 SF in area. the road crosses the buffer at an angle close to 90 degrees and not less than 60 degrees. side slopes do not exceed a 2:1 horizontal: vertical ratio (bridging and/or retaining walls may be used to meet this and the disturbance width standard); and all culverts are designed and constructed for the 25-year storm
19.	Special Watershed Areas - Swift Creek Water Supply Watershed Development in the Swift Creek Water Supply Watershed is subject to the requirements of the <i>Swift Creek Land Management Plan</i> in addition to other applicable standards.	
	a.	An as-built plan prepared by a licensed professional land surveyor is required for all lots before a Certificate of Occupancy may be issued. [11-30-3]
	b.	In addition to the standards of the underlying zoning district, additional standards apply to all land within the Swift Creek Water Supply Watershed. (See [11-30-4])
20.	Special Watershed Areas - Little River Water Supply Watershed	
	a.	An as-built plan prepared by a licensed professional land surveyor is required for all lots before a Certificate of Occupancy may be issued. [11-31-1]





		b.	The following maximum impervious surface ratios apply to all nonresidential development in the Little River Water Supply Watershed: R-80W = 6% of lot/site R-40W = 12% of lot/site		
	21.	Special Watershed Areas - Smith Creek Water Supply Watershed			
		a.	All residential and commercial properties require a preliminary site plan prepared by a licensed professional land surveyor, landscape architect, architect, or engineer. [11-32-1]		
		b.	All residential and commercial properties require a preliminary site plan prepared by a licensed professional land surveyor, landscape architect, architect, or engineer. [11-20-1]		
		c.	The following maximum impervious surface ratios apply to all nonresidential development in the Smith Creek Water Supply Watershed: R-80W = 6% of lot/site R-40W = 12% of lot/site		
Wak	Wake County UDO Article 14 - Flood Hazard Area Requirements				
	22.	Flood Study Required [Article 14] A study of the potential changes in the base flood elevation caused by the obstruction (fill), encroachment, alteration or relocation (including driveway or road crossings) of the following areas:			
		a.	a FEMA mapped floodway (Note: No new structures may be constructed or placed within a floodway or non-encroachment area except as otherwise provided by subsection 14-19-2; AND No fill may be placed in a floodway or non-encroachment area except as otherwise provided by subsection 14-19-2; [Article 14-19-3(A-B)])		
		b.	a non-encroachment area [Article 14-19-3(A-B)], see note above		
		C.	a FEMA mapped area of special flood hazard that has not previously been studied in detail		
		d.	flood hazard soils areas with a total drainage area of more than 5 ac but no more than 25 ac [Article 14-15-3] – or -		
		e.	flood hazard soils areas with a total drainage area of more than 25 ac, but less than 100 ac [Article 14-15-4] – or -		
		f.	flood hazard soils area with a total drainage area of 100 ac or more [Article 14-15-5]		
	23.	Impoundments and Dams [14-23]			



Wake County Environmental Services Department Water Quality Division, Watershed Management Section 336 Fayetteville St. ● P.O. Box 550 ● Raleigh, NC 27602 TEL 919 856-7400 ● FAX 919 743-4772

	a.	Any construction, repair, alteration, or removal of a jurisdictional dam shall obtain State Agency Approval in accordance with Article 21, Chapter 143 of the North Carolina General Statutes. [Article 14-23-1]
	b.	If an impoundment is proposed to be constructed or retained within any proposed subdivision, the following standards shall apply. These County standards are separate from and do not supersede any State Agency requirements. • The impoundment and its dam shall be constructed or structurally upgraded to accommodate the runoff from a 24-hour, 100-year frequency storm. • Runoff computations must use SCS methods or other acceptable engineering standards. [Article 14-23-2]
Applicant Signature: Date:		