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Wake County Environmental Services Department
Water Quality Division, Watershed Management Section
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## SECPS – Sediment and Erosion Control Construction Plan Submittal Checklist ZEBULON STORAGE MY Watershed Project Acreage 6.5 Proposed Impervious 3.0 **Disturbed Acreage** Engineer: Name: K REALIZE / Address: Address: Phone: WILMINGTON NC Email: 910-790-9490 Phone: Email: **Construction Plan Review Submittal Package Requirements** [10-30-2(B)]-The S&EC plan submittal package must include all applicable items below to demonstrate compliance with applicable regulations. Unless otherwise noted, all references shown in brackets are for the Wake County Unified Development Ordinance (UDO), adopted 04/17/06. Select all applicable items below and provide with the submittal. Erosion Control and Stormwater Joint Application (Required to initiate processing) 2. Review Fees (Required to initiate processing) RESUBMITTALS: The first resubmittal is free, but all subsequent resubmissions require a \$75 Resubmission Fee [10-30-2(B)(2)] Notarized Wake County Financial Responsibility/Ownership Form 3. (Required to initiate processing) 4. Other documents: WC ONLY PRELIMINARY ZONING AND SUBDIVISION APPROVAL: Copy of approval notification (property a. description, subdivision or COSD approval, or Board of Adjustment approval, etc.). WC ONLY FLOOD STUDY: Copy of approval notification from Wake County Flood & Stormwater Environmental Engineer, (if applicable) ENGINEERING APPROVAL: Copy of approval notification for projects in a municipality's zoning jurisdiction c. 401/404 Documentation (Buffer determination letters, PCN application, comments, and approval) d. **NCDOT Approval** e. Encroachment agreement(s) completed, signed and notarized for all off-site construction Cover letter stating the purpose of the submission, i.e. project narrative RESUBMITTALS: A letter detailing any changes, comments, proposed solutions to review comments, etc.

Copy of the USGS Quad Map with delineated project limits

Copy of the Wake County Soil Survey map with delineated project limits



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X	8.	Drainage Area Map showing drainage areas to erosion control devices	
X	9.	1 set of Erosion Control Calculations:	
'		a.	Sediment basin design (See <u>website</u> for Wake County design criteria)
		b.	Ditches, swales, and channels: Q10/V10. Tractive force (shear stress), capacity and geometry.
		c.	Dissipaters: Q10 velocities, stone size and dimensions. [10-21-4]
		d.	Velocity calculations for stormwater runoff at points of discharge resulting from a 10-year storm after development [10-21-3]
X	10.	One(1) copy of a complete set of construction drawings for 1 <sup>st</sup> submission, five (5) copies for approval	
X	11.	Prop	posed Site Plan:
		a.	Location/Vicinity Map
		b.	North arrow, graphic scale, drafting version date, legend and professional seal
		c.	Existing and proposed contours: plan and profiles for roadways
		d.	Boundaries of tract: including project limits
		e.	Limits of disturbance specified on plan
		f.	Proposed improvements: roads, buildings, parking areas, grassed landscaped, and natural areas.
		g.	Lot lines, lot numbers and road names
		h.	Utilities: community water and sewer, plan/profiles, easements and sediment controls, and offsite septic.
		i.	Stormwater Network: inlets, culverts, swales, ditches, channels and drainage easements.
		j.	TEMPORARY SEDIMENT CONTROLS: locations and dimensions of gravel entrances, diversion ditches, silt fence, sediment basins, inlet protection, etc.
		k.	PERMANENT EROSION CONTROLS: locations and dimensions of dissipaters, ditch linings, armoring, level spreaders, retaining walls, etc.
		I.	Location and requirements for stockpiles (see website for Stockpile Requirements)
		m.	Wake County Construction Details
		n.	Wake County Construction Sequence
		о.	Wake County Stabilization Guidelines



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A	p.	Wake County Basin Removal Sequence Wake County or jurisdictional municipality must grant permission to convert the sediment basin over to stormwater use prior to completing any related work (a note in the construction sequence or elsewhere on the plan should indicate this).	
X	q.	Show all Riparian Buffers [Article 9-21]; (Neuse: [15A NCAC 02B.0233 & 0242]	
M	r.	Delineation of current FEMA boundaries (floodway, flood fringe & future/0.2%)	
X	S. Delineation of flood prone soil areas		
	t.	Location and type of all proposed stormwater management structures (grass swale, wet/dry detention basin, filtering/infiltration basin, bioretention, etc.)	

Standards and Requirements								
By marking items with an "X", applicant acknowledges potential standards to be applied to the proposed development.								
Wake County UDO Article 10 - Erosion and Sedimentation Control Requirements								
X	12.	Erosion Control: This project will require a Land Disturbance Permit if it involves greater than one acre of disturbance. See website for details.						
×	13.	10-20-1 Minimum Standards - All soil erosion and sedimentation control plans and measures must conform to the minimum applicable standards specified in North Carolina's Erosion and Sediment Control Planning and Design Manual and the Wake County Sedimentation and Erosion Control Plan Review Manual. Erosion control devices must be installed to prevent any offsite sedimentation for any construction site regardless of the size of the land disturbance.						
7	14.	10-20-3 Operation in Lakes or Natural Watercourses -Land disturbing activity in connection with construction in, on, over, or under a lake of natural watercourse must minimize the extent and duration of disruption of the stream channel. Where relocation of a stream forms an essential part of the proposed activity, the relocation must minimize unnecessary changes in the stream flow characteristics.						
He	× <sup>15.</sup>	10-20-10 Standards for High Quality Water (HQW) Zones  Land-disturbing activities to be conducted in High Quality Water Zones must be designed as follows:						
		a.	Uncovered areas in High Quality Water (HQW) zones must be limited at any time to a maximum total area of 20 acres within the boundaries of the tract.					
		b.	Maximum Peak Rate of Runoff - Erosion and sedimentation control measures, structures, and devices within HQW zones must be planned, designed and constructed to provide protection from the runoff of the 25-year storm.					
		c.	<b>Settling Efficiency</b> - Sediment basins within HQW zones must be designed and constructed so that the basin will have a settling efficiency of at least 70% for the 40 micron (0.04mm) size soil particle transported into the basin by the runoff of that 2-year storm which produces the maximum peak rate of runoff.					
		d.	<b>Grade</b> - The angle for side slopes must be sufficient to restrain accelerated erosion (side slopes no steeper than 2 horizontal to 1 vertical if a vegetative cover is used for stabilization unless soil conditions permit a steeper slope or where the slopes are stabilized by using mechanical devices, structural devices or other acceptable ditch liners)					



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16.	Riparian Buffer Rules:	
×	a.	Due to the location of this project, it should be noted that a rule to protect and maintain existing buffers along watercourses in the Neuse River Basin became effective on July 22, 1997. The <b>Neuse River Riparian Area Protection and Maintenance Rule (15A NCAC 2B.0233)</b> applies to all perennial and intermittent streams, lakes, ponds and estuaries in the Neuse River Basin with forest vegetation on the adjacent land or "riparian area".
	b. Due to the location of this project, it should be noted that a rule to protect and maintain existing buffers along watercourses in the Jordan Lake Watershed became effective on August 11, 2009. The Jordan Lake Water Supply Watershed Buffer Rules (15A NCAC 02B .0267) applies to all perennial and intermittent streams, lakes, ponds and estuaries in the Jordan Lake Watershed with forest vegetation on the adjacent land or "riparian area".	
17.	Senate Bill 1020; "SECTION 3.(h) Additional standards for land-disturbing activities in the water supply watershed":	
	a.	Erosion and sedimentation control measures, structures, and devices shall be planned, designed, and constructed to provide protection from the runoff of the 25-year storm
	b. Sediment basins shall be planned, designed, and constructed so that the basin will have a settling efficiency of at least seventy percent (70%) for the 40-micron size soil particle transported into the basin by the runoff of the two-year storm that produces the maximum peak rate of runoff	
	c.	Newly constructed open channels shall be planned, designed, and constructed with side slopes no steeper than two horizontal to one vertical if a vegetative cover is used for stabilization unless soil conditions permit steeper slopes or where the slopes are stabilized by using mechanical devices, structural devices, or other acceptable ditch liners.
	<b>X</b>	a.   b.

Applicant Signature:	Keith ( Sette
Date:	7/1/23