Pinehurst NDS
SPU Inspection Checklist

Natural Drainage System (NDS) Block Scale Checklist

Street Name: _____

DATE CONSTRUCTION STARTED: _____

This checklist is based on the project specifications. It is intended to highlight items critical to the performance of the Pinehurst NDS bioretention system, and therefor items SPU design would like the Construction RE to observe first hand. Information about the construction provided by checklist and notes will be stored in the project files, and help us evaluate performance of system over its design life. Please send final checklist to Masako Lo; design will scan and add to project electronic files.

Soils Material Testing

		Specification Reference
❑	Bioretention soil mixing or placement does not occur is soil wet or subjected to water within 48-hours of bioretention soil being.	9-14.1(5) & (6)
❑	Every batch of composted material delivered to the site has passed solvita compost maturity test.	9-14.1(8)
❑	Stockpiles of engineered soil, bioretention soil, compost and Type 26 not being contaminated, and are protected from being saturated.	9-14.1(5)

NDS Swale Construction

		Specification Reference
❑	1. City RE has reviewed checklist with Contractor.	Courtesy; Not required
❑	2. Preconstruction meeting for block conducted.	1-08.4
❑	3. Clearing and Grubing limits have been marked and reviewed.	2-01.3(1)
❑	4. Tree shrub and plant material protection is installed.	1-07.16(2) &(3), 2-01.3(5)
❑	5. TESC BMPs are in place.	1-07.15
❑	6. Construction points provided by SPU surveyed.	2-03.3(19)B
❑	7. Swale shape delineated with marking paint and approved by SPU design	2-03.3(19)B
❑	8. Water meters and service connections have been relocated to accommodate swale design.	
❑	9. Side sewers within swale areas potholed. If located clay trench dam placed.	2-03.3(19)B , 7-17.3(6).
❑	10. Any utility crossings through swale have clay dam placed	2-03.3(19)B
❑	11. Swale excavation meets detail dimensions (except in the areas where dimensions may be modified to accommodate existing tree roots)	2-03.3(19)B
❑	12. Native soil at or within 6” of final swale excavation grade inspected and deemed acceptable by geotechnical engineer.	2-03.3(19)B

	I.E. no highly pervious lenses that might direct water to residential properties, no perched water table condition or dense gray colored glacial till. (If present, note here and alert project engineer ASAP; redesign elements may be necessary. Materials lab will report to design engineer a suggested change in infiltration rate +-X%). Note general observations below.	
❑	13. Construction activities that have a significant potential to create sediment laden water entering swales in concluded. (Rock facing, culvert installation, roadway completion, sidewalk completion). Please not in observations if sequencing order different.	Preventative
❑	14. Log Weir (if used) installed, including clay dam.	7-05.3(3)C
❑	15. Earth Berms installed and compacted	
❑	16. Prior to excavation of final 6" native soil and through planting of swales verify ONGOING CONSTRUCTION ACTIVITIES checklist daily.	Preventative
❑	17. Final 6" of native soil excavation occurred when soil UNsaturated.	2-03.3(19)B
❑	18. SPU RE verifies significant change in soil type did not occur in the 6" depth.	Designer request
❑	19. Photos of bottom of swale taken just prior to placement of any soils. **If any sediment laden water has entered swale the area contaminated has had top 3" soil removed.**	2-03.3(19)B
❑	20. SSD pipe (if used) placed with slots in proper location, and appropriate depth of Type 26 bedding.	Plans
❑	21. Bioretention soil inspected and deemed not saturated before placement.	2-03.3(19)B
❑	22. Bioretention soil placed and compacted by saturated.	2-03.3(19)B
❑	23. Elevation check by Contractor (pre mulch placement) performed. Contractor to record elevations at check points. SPU Staff present during the checks by the contractor	
❑	24. "Critical" swale grade check points meet the design accuracy ❑ 0.3' for location ❑ 0.1' for elevation	2-03.3(19)B 1-05.5(2) 1-05.5(2)
❑	25. Photos of bottom of swale taken just prior to placement of mulch. **If any sediment laden water has entered swale the area contaminated has had top 3" bioretention soil removed and replaced.**	2-03.3(19)B
❑	26. 3" Mulch depth placed (verify with ruler)	2-03.3(19)B
❑	27. SPU project manager informed that NDS swale work on street is complete and ready for landscaping.	
❑	28. Final inspection done before handing off street to conservation corp. **If any sediment laden water has entered swale the area contaminated has had top 3" mulch removed and replaced.**	2-03.3(19)B

Ongoing Construction Activities to be verified daily for bioretention swale construction steps 15 through plant establishment (per 2-03.3(19)B)

- ❑ 1. Adjacent property runoff interceptor (trench drains, berms or other measures used to prevent runoff from entering swale excavation zone) in place and free of significant debris.
- ❑ 2. TESC controls in place and functioning to protect bioretention swale for receiving any stormwater runoff.

NDS Swale Planting Phase

- ❑ 1. Landscape contractor instructed on protection of swale soils.
- ❑ 2. Plant materials meet specifications.
- ❑ 3. Planting methods have not caused compaction.
- ❑ 4. Plant coverage/density meets design coverage.
- ❑ 5. SPU project manager informed that NDS swale planting work completed.

Notes and Observations during Block Construction

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Inspector