

Part Int

Huntersville WQ Design Manual, Chapter 9

Plan Submittal & Review

Generally, plan submittal requirements will remain the same.

Sketch plan meeting is required with Town Staff and their designee. Sketch plan submittal must include Site Evaluation Tool (SET) outputs to demonstrate compliance with the Performance Criteria

Sketch Plan Requirements



- •Boundary of project with intersecting property lines
- •All water courses
- Impervious area calculations
- Existing streets on or within 300 ft. of property
- •Limits of all wooded areas
- •Soil types and limits
- •Contour map at 2 ft. intervals
- •Slope analysis

Skeich Plan Requirements (continued)



- •Natural drainage ways
- •Wetland Limits
- •Rough finished grades with streets, open space, building lines, etc.
- Zoning information
- Stream buffers
- Proposed front, rear and side yard dimensions
- SET Calculations
- Proposed LID BMPs and locations

Skeich Plan Requirements (continued)



- •Location of general buffers or screens
- •Small vicinity map
- •Scale of map no smaller than 100 ft. to the inch
- •North point
- •Date

Preliminary Plan Submittal



- •BMP summary table with coordinates
- •Calculations and design drawings for each BMP and overall site hydrology calculations illustrating compliance with Performance Criteria
- •Planting plan/schedule for each BMP
- •Maintenance Plan for all BMPs

Final Plat Requirements



In addition to typical plat requirements, the following additional requirements will apply:

•All BMPs should be recorded on the plat and applicable deeds, with their coordinates. Specific wording required on deeds can be found in Section 8.17.12 of the Zoning Ordinance.

•Any vegetation, tree save areas, open space or site conditions that contribute to the project's compliance with the Performance Criteria should be called out, protected, and recorded through the plat and applicable deeds.

Erosion & Sediment Control Principles



- Planning
- Scheduling of Operations
- Soil Erosion Control
- Sediment Erosion Control
- Maintenance
- Inspection

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Principle One: Planning



- Topography
- Drainage Ways
- Soils
- Natural Vegetation



Principle Two: Scheduling of Operations

Expose the smallest practical area of land for the shortest possible time.Staging construction – stabilizing one part of the site before disturbing another, minimizing soil exposure.

Stock pile topsoil for later use.

Principle Three: Soil Erosion Control Practices Erosion Control is your First Line of Defense

Soil Stabilization

- •Temporary Seeding
- •Permanent Seeding
- Sodding
- •Trees, Shrubs, Vines, and Ground Covers
- •Mulching
- •Riprap

Principle Four: Sediment Control Practices

Temporary Sediment Trap

Sediment Basin

Sediment Fence

Rock Dam



Site Must Be Stabilized Prior to Putting Bioretention Systems On-Line!



Construction Technique & Sequencing for Bioretention Method One

Avoid disturbing the proposed bioretention areas during construction. Divert drainage away from these areas to prevent excessive sedimentation. Install bioretention and divert water into them only when watershed is stabilized.

Method Two

Convert sediment traps into bioretention areas. All sediment must be removed and the watershed must be stabilized.



Principle Five: Inspection and Maintenance

Implement a thorough maintenance and follow up operation.

Take care of problems as soon as they are discovered.



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BIORETENTION BMP INSPECTIONS

EXCAVATION AND UNDERDRAIN INSPECTION

- Trench dimensions
- Sediment control protection
- Stone, underdrain and filter fabric
- Proper grade
- Top soil (On- site)



BIORETENTION BMP INSPECTIONS

FINAL INSPECTIONS

- Proper top soil
- Proper plant material
- Maintenance covenant
- Outlet installation
- Ground cover and mulch
- Drainage area stabilized
- Conforms to plans



Maintenance Covenant



Prior to the issuance of an Occupancy Permit for any building within a development served by a BMP, the applicant or owner must establish a maintenance covenant, which is approved by LUESA and recorded at the Office of the Register of Deeds. An example Maintenance Covenant can be found in Appendix F of the Design Manual.

Maintenance Inspections

•Preventive maintenance inspections by owner during first year and at least once every three years, or as stipulated in maintenance agreement.

•Inspections by LUESA staff to ensure water quality BMP's remain functional.

APPROVALS AND REPORTS

FIELD INSPECTION REPORT (FIR)

- Failure to comply with approved plans
- Incorrect measurements
- Improper fill materials
- Failure to follow proper procedures
- Failure to provide certification or maintenance agreements
- Any construction deficiencies, repairs or corrections

ENFORCEMENT

If Owner/Developer fails to comply with FIR

- Notice of Violation
- Stop Work Order
- Revocation of Permit



Owner/ Developer will have 30 days from the written notice to appeal to the Zoning Board of Adjustment

PENALTIES

Civil Penalties:

- Warning (10 days)
- ⇒ 1st Citation- \$50
- ⊃ 2nd Citation- \$200
- ⇒ 3rd Citation- \$500

Criminal Actions:

- Criminal Summons-Environmental Court
- **Civil Actions:**
- Lien
 - Injunction
- Order of Abatement