



Department of Land Use

OPEN SPACE WALK THROUGH

Steeple Glen (20031122); Building Permits Issued 83.64%; Date: 10-30-18

Disclaimer and Caveat: It is expected that the Developer at this subdivision will follow the Landscape Plan, Lines and Grade Plan, Storm Water As-builts, and Sediment Plan along with the Record Plan to achieve compliance with New Castle County Open Space and Storm Water standards. Every inspection is a new inspection. The items listed below represents NCC's assessment of the open space areas that was observed on the date listed above. Any deficiencies listed relating to the stormwater facilities must be corrected before acceptance by the Dept. of Public Works. A Certified Landscape Plan showing no deficiencies and approved Storm Water as-builts must be received by the Department of Land Use before scheduling an Open Space inspection.

General Comments for all of the Open Space at Steeple Glen

1. Remove all trash and debris.
2. Remove all visible mesh and fabric.
3. Seed germination is needed in many areas of the open space. Overseed/sod as needed.
4. Replace all dead landscape.
5. Replace all cracked sidewalk and pavers. For example, right front entrance and mailbox areas.
6. Verify all sidewalks are installed as shown on the approved plans.
7. A check dam appears in the right front swale on Church Road. Is this permanent?
8. Remove all trash and debris from the road outlets.
9. Animal holes and erosion appear near Micro Pool road piping.
10. Remove sediment and vegetation from rip rap, scuppers, and check dams.
11. Flush all pipes and remove sediment from all structures. Do not flush material downstream or into the stormwater management facilities.
12. Fill in the flow channel of all structures. Catch basins have standing water (OS4C, OS4D, CB14, CB16, CB17, CB18, and OS3A). No outfall structures and manholes were available or accessible at the time of the walk through visit. The contractor shall provide support in providing access for inspection purposes during any future Open Space Inspections.
13. Secure the outer fence post nearest to the front entrance sign.
14. Add topsoil and seed behind lots 71-74.
15. Add topsoil and seed next to lot 13.
16. Repair the sunken area behind lot 45 (Ground sunk from pipe installation in CB 14).
17. A many of the open space open channel conveyances are not graded as design or do not exist. Regrade the open space as needed to provide the design channels and positive conveyance as designed.

Clubhouse Area: Seed and top soil is need in this area. Vast amounts of matting are visible.

Ground Cover Management: The landscape plan indicates that the items listed below need to be maintained as described.

- Stormwater/Bioretenion; groundcover in these areas is to be cut to 12" in the early spring.
- Wetlands; do not disturb this area.
- Reforestation; Meadow grass is to be maintained at a height of 8" to 24" and cut 2 or 3 times per year.

Stormwater Management Facility Comments

Due to the age of the infrastructure installed and the lack of detailed as-built installation, information, and data, all outfall pipes from stormwater management facilities shall be videoed with an accompanying report documenting proper installation and good operating condition.

Retention Facility #1:

1. Remove deposited sediment from all the curb cut inlets.
2. Runoff from the curb cut and scupper bypasses the designed forebays and retention facility. Regrade the facility in accordance with the design plan and demonstrate the stormwater runoff is treated as intended.
3. The forebay areas per the design plan do not exist. Install the forebays per the approved plan.
4. Per the design plan, a weir connecting the forebay areas to the shallow stormwater area does not exist and it was replaced by berms. Eliminate the berm, re-grade the forebays, add the weir, and grade the swales as designed.
5. Outlet Structure of the micro pool area (OS-1) is holding water. Fill in the sump area and create a flow channel.
6. Install trash rack to the 5" low flow orifice.
7. Add as-built stone information for the outfall pipe riprap apron area.
8. Eliminate the erosion trench on the westerly side of the basin. Regrade the basin bottom to be consistent with the approved plans.
9. The scupper is not installed per the detail nor the location per the approved plan.
10. Add seed and topsoil all bare areas.
11. Remove sediment and vegetation from all rip rap.
12. Remove, regrade, and stabilize all ruts.

Forebay Facility 4C:

1. Reinstall stone weir to reflect the trapezoidal shape as designed to prevent erosion. Provide the necessary cross sections on the as-built plans to demonstrate compliance.
2. Install the Stilling Basin at FES #1 as designed.
3. Demonstrate the swale adjacent to Unit 35 exists such that runoff has positive slope and is directed into the forebay as designed.

Stormwater Management Facility 4C:

1. Outlet Structure (OS-4C) is holding water. Fill in the sump area and create a flow channel.
2. Install trash rack to the 5" low flow orifice.
3. All the riprap areas should be free of sediment and vegetation.
4. Remove sediment from the FES -5 and all pipes.
5. The 6 inch Dome Grate Drain was not visible or located. Install as designed or maintain area around grate for visual inspection and access.

Stormwater Management Facility 4D:

1. Remove all sediment and vegetation from the FES's and rip rap.
2. Clear/Maintain a 10' access path to and the around the outfall pipe to the first downstream connection with the community of Waterford.
3. Install trash rack to the 5" low flow orifice.
4. Outlet Structure (OS-4D) is holding water. Fill in the sump area and create a flow channel.
5. Install Rip Rap Forebay at FES-6 as designed.
6. The 6 inch Dome Grate Drain was not visible or located. Install as designed or maintain area around grate for visual inspection and access.

Stormwater Management Facility 4A:

1. Provide support to access and inspect all the manholes located between structures OS-4A to CB-13. Also the video of all these connecting pipes between these structures.
2. The area around structure OS-4 needs to be secured.
3. All missing and dead plants in the Bioretention area shall be replaced according to the Landscaping Plan.
4. All the animal burrows/holes need to be filled.
5. Install the Stilling Basin at FES-3 per the detail on the approved plan.
6. Install trash rack over low flow weir.
7. Remove all material contaminated with sediment in Bioretention Area. Re-install media and 3 inches of triple shredded mulch in all areas where necessary.
8. Remove all sediment and vegetation from the FES and rip rap.
9. Repair all eroded areas and stabilize.

10. Regrade and/or install all inlet swales within the open space area to direct the runoff in a positive manner to the stormwater facility or Headwall as designed.

Forebay Facility 3A:

1. The riprap area in front of the HW-1 is lower than the invert of the pipe and was holding water. Regrade the swale and channel to allow discharge to the headwall properly.
2. Regrade the swale behind Units 19-23 to eliminate standing water. Re-seed and stabilize all bare areas.
3. Remove sediment from CB-11.
4. Reinstall stone weir to reflect the trapezoidal shape as designed to prevent erosion. Provide the necessary cross sections on the as-built plans to demonstrate compliance.
5. Install the Stilling Basin at FES #4 as designed.
6. Eliminate standing water at FES #8.
7. Remove all sediment and vegetation from the FES and rip rap.

Stormwater Facility 3A:

1. Outlet Structure (OS-3A) is holding water. Fill in the sump area and create a flow channel.
2. CB-7A was missing or not visible in the field.
3. The 6 inch Dome Grate Drain was not visible or located. Install as designed or maintain area around grate for visual inspection and access.
4. Install trash rack to the 8" low flow orifice.
5. Remove all sediment and vegetation from FES and rip rap.
6. Repair erosion and animal burrow near OS3A.
7. Repair all eroded areas and stabilize.

Subsurface Infiltration Facilities #1 & #2:

- 1) Provide access to the grit chambers.
- 2) The physical locations of the facilities must be shown on the plan view of the as-built plans for future maintenance purposes.
- 3) Replace the lid of grit chambers for facility #1 to reflect stormwater and not poisonous gases.

Other Issues

- Demonstrate all terms of the water management agreement have been fulfilled.
- Submit as-builts to the Department of Land Use Engineering Section. The as-builts must be approved and stamped by the Department of Land Use.
- Submit an updated landscape plan to the Department of Land Use that certifies that the landscape has been installed per plan and is thriving. The plan must be stamped by a Landscape Architect.
- Pass an Open Space Inspection.