DRAINAGE FACILITIES CERTIFICATION CHECKLIST FOR SUBDIVISIONS (RESIDENTIAL/COMMERCIAL)

Please fill in all applicable items in the Certification Form for Commercial, Multi-Family and Single Family Subdivisions.

✔ Use “OK” for items checked or actual numbers for items verified/surveyed in the field.
✔ Use “N/A” for items that are not applicable to the site that is being certified.
✔ Please provide an As-Built set of full size prints as well as PDF’s showing the following:

A. Detention Facilities Certification

1. Pond Certification
   - Provide Topographic Records and Volume Verification Calculations
   - Provide Pond Cross-Sections and Spot Elevations (especially @ Pond Embankment and Pond Flow Line)
   - Positive Fall to Pan (if applicable)
   - General Pond Grading including all Side-Slopes
   - Invert Elevation
   - Forebay Construction and Elevation
   - Spillway Weir (Location, Elevation, Height, Opening Width)
   - Placement and size of riprap or alternative permanent erosion control measures
   - Orifice Plate and/or Water Quality Outlet Structure Installation
   - Water Quality Capture Volume (Volume Required, Volume Provided and Water Surface Elevation)
   - Berm and Embankment Compaction Level
   - Subsurface Media for Water Quality Ponds and Swales

2. Swales
   - Location (are they within easement?)
   - Dimension and Cross-Section Verification
• Longitudinal Slopes and Side-Slopes
• Spot Elevations
• Permanent Erosion Control Measures (drop structures, riprap, lining)
• Tie-in to Storm Lines, Pans, Curbs, or other appurtenances
• Required Minimum Freeboard, Provided Freeboard
• Landscaping Infringement on Flow Line?

3. **Pipes**
   • Size and Type
   • Slopes (As-Built and comparison to 0.4% Minimum)
   • Pipe Capacity Calculations (if slopes are significantly altered from design)
   • Invert Elevations
   • Installation and Backfill
   • Cover
   • Encasement and Clearance from other nearby utility lines
   • Joints Type and construction

4. **Concrete Pan Channels**
   • Size
   • Slope
   • Cross Section
   • Thickness
   • Elevations

5. **Inlets**
   • Size and Type
   • Size of Opening (or name of Standard Detail used)
• Grate Elevation
• Invert Elevation
• Box Size

6. **Street Cross-Pans**
   • Size
   • Type
   • Grade
   • Elevations
   • Cross-Sectional Depth
   • Tie-in to Curb and Gutter

7. **Culverts**
   • Size
   • Type
   • Invert Elevations
   • Headwalls or Wing Walls

8. **Sub-Drains**
   • Size
   • Type (Perforated/Solid)
   • Cover
   • Backfill
   • Geo-Textile Liners
   • Clean-Outs

9. **Curb Cuts**
   • Size
• Tie-in to Swale, Pipe or other appurtenances

B. Certification of Grade Elevations Adjacent to Drainage Facilities

• Minimum Opening Elevations
• Top of foundation Elevations
• Comparison to 100-year Water Service Elevations
• Comparison to Freeboard Elevations and Base Floodplain Elevations-BFE

C. Certification of Erosion Control Measures

1. Permanent BMP Measures:
   • Permanent Vegetation (no more than 6” bare spots and weeds under control)
   • Riprap or alternative permanent erosion material
   • Riprap Bedding
   • Cut-Off Walls or Channel Drop Structures Cross-Sections
   • Sediment Basins
   • Water quality ponds/Sand Filter/Bio Retention Construction and liners
   • Permanent Netting Mats or Blankets
   • Mulching and Seeding

2. Temporary BMP Measures:
   • Mulching and Seeding
   • Temporary BMP Measures as shown on Erosion Control Plan

D. Post-Construction Site Cleanup:

• Construction Debris Clean-Up
• Smoothing of Ruts in ALL Construction Areas
• Reseeding of ALL Areas Affected by Construction Activities
E. **Statement of Compliance:**

This certification is signed and stamped and by signing this form the Engineer(s) attests that they have inspected the site and to the best of their knowledge the as-built conditions of the drainage facilities are as described in the above form and in the As-Built plans enclosed.

Failure to properly disclose all known information could result in the rejection of this certification and prevent the release of any and all Building Permits and/or Certificates of Occupancy within this development.

F. **Signature and Stamp by a Colorado Registered Professional Engineer**