STORMWATER/EROSION CONTROL PLAN REVIEW CHECKLIST

GENERAL REQUIREMENTS:

- ☐ Plans stamped by engineer licensed in Washington
- ☐ Check for correct engineering number and if all quantities are completed in approval block
- ☐ Standard details for storm water/erosion control improvements or reference to General Requirements and Detail book
- ☐ List project site parcel number(s) on cover sheet

EROSION/SEDIMENT CONTROL PLAN & SITE DRAINAGE CONDITIONS:

Show the character of the existing site and proposed features, including but not limited to

- ☐ Include General Erosion Prevention & Sediment Control Notes (E-1.00a & b)
- ☐ Show Site specific Erosion Control details and/or specifications
- ☐ NPDES Construction Stormwater General Permit required if over 1 acre disturbed and site potentially discharges to surface water. (e.g. wetlands, creeks, rivers, ditches, storm systems)
- ☐ Construction Stormwater Pollution Prevention Plan (SWPPP) required if new plus replaced hard surface totals 2,000 sq. ft. or more, or land disturbing activity totals 7,000 sq. ft. or more. Abbreviated SWPPP may be submitted when less than an acre is disturbed (*See Appendix A, section 4.2)
- ☐ Clearing limits marked
- ☐ Existing and Proposed contours (2-foot maximum contour interval)
- ☐ Show all critical areas (i.e. wetlands, buffers, steep slopes, flood plains, streams etc-check maps online)
- ☐ Show all existing on-site structures and utilities (above and below ground)
- ☐ Drainage flow routes and existing discharge points to and from the site
- ☐ Areas of cut/fill (compacted fills) are shown with hatching or shading
- ☐ Stabilized construction entrance(s) shown on plan (E-1.05) or note if working from paved surface
- ☐ Temporary Sedimentation Pond –over 3 acres tributary area (E-2.41)
  - ☐ Show on Plans ☐ Add note that may be required for wet weather construction
- ☐ Sediment Trap - less than 3 acres tributary area (E-2.40).
  - ☐ Show on Plans ☐ Add note that may be required for wet weather construction
- ☐ Existing and proposed storm water facilities with sediment protection (E-2.20)
- ☐ Show protection for Low Impact Development (LID) BMPs (pervious pavement, bioretention, native vegetation and soil)
- ☐ Show designated concrete washout area
- ☐ Post-Construction Soil Quality and Depth (MR5 BMP T5.13)

STORMWATER PLAN:

- ☐ Include General Storm Water Construction Notes (D-1.0)
- ☐ Proposed property lines/boundaries, Tracts (public/private), and utility easements
- ☐ Label all private storm as "Private" or include note
- ☐ Street names, edge of pavements, right-of-ways, existing and proposed widths labeled
- ☐ All existing and proposed utilities on plan and profile. Check for potential conflicts
- ☐ Standard location (3 feet north/east of centerline. (Sec. 4-3.02)
- ☐ Dimensions of proposed/existing stormwater facilities, including typical cross-sections of proposed facilities (swales, drywells, detention ponds, wet ponds, infiltration trench)
- ☐ Stormwater profile (required for all systems in public ROW or draining to public facilities & public systems)
- ☐ Check for allowable piping material for public improvements (Sec 4-3.05)
- ☐ Check all pipe length, diameter, slopes, & invert elevations for main and laterals

- ☐ Check landscaping plan for conflicts with stormwater facilities
- ☐ All changes in pipe size, material type, direction, or grade require catch basin or manhole for public improvements (max MH spacing is 400 feet)
- ☐ Connections to pipe system at catch basin or MH only for public improvements
- ☐ Stormlines enter catch basins at reasonable angles (vertical & horizontal) for public improvements
- ☐ Minimum pipe cover for mainlines, if < 4 ft. D.I.P. required for public improvements (C-900 or C905 P.V.C may be used by approval)
- ☐ Stormwater pipes have adequate separation from other utilities (Sec. 4-3.09)
- ☐ Maximum inlet spacing of 400-feet on grade. (Sec. 4-4.01)
- ☐ Flanking inlets required at low points where significant ponding may occur. (Sec. 4-4.01)
- ☐ Combination inlets or curb inlets required at low points (Sec. 4-4.01)
- ☐ Combination inlets required on slopes greater than 10%. (Sec. 4-4.01)
- ☐ If positive lot drainage is not possible, provide design for private lot(s) drainage system
- ☐ Detail provided for any non-standard storm facility (alternatives to standard details)

RUNOFF TREATMENT FACILITIES:

- ☐ Check if oil control required for "High Use Sites" per section 4-6.01
- ☐ Enhanced Treatment required for project that drain to or infiltrate within ¼ mile of fish bearing waters per section 4-6.01
- ☐ Check if oil/water separator required per section 4.06-04
- ☐ Show dimensions and details on all stormwater facility(s) sufficient for construction
- ☐ Finish elevations on all outfalls inverts, top of level spreaders, top of grates
- ☐ Provide appropriate sloped field inlet (D-1.5) for biofiltration swales
- ☐ Energy dissipater at end of outfall piping or at curb cuts. If rip rap used, show length, width, depth, size, etc.
- ☐ UIC wells comply with Ecology guidance, trenches comply with WAC, Chapter 173-218
- ☐ Public vaults require access hatches - manhole lids not approved
- ☐ Add note. Building permit required if wall > 4' total height from base of footing to top of wall or retaining wall abuts sidewalk
- ☐ Adequate maintenance access to storm facilities from street (gravel or paved access road minimum 15' wide, ≤ 20 % slope, maintenance easement minimum 15' in width)
- ☐ Barrier or fencing around the stormwater facility for safety or for public facilities (3.5' vinyl chain link fence, gate opening, top rail on fence) especially around retaining walls (Gates to swales shall be 12' wide) and meet WSDOT specs (Sec. 4-7.05)

LOW IMPACT DEVELOPMENT (LID)BMPS

- ☐ *LID BMPs designed to LID Manual and Section 4-7 of the General Requirements*

BIORETENTION FACILITIES

- ☐ Provide facility cross section(s) w/min. 3.1 (preferred 4.1) side slopes. Include any walls
- ☐ Specify 18" Biorentention Soil Mix (BSM) per Section 4-7.01 of the General Requirements
- ☐ Call out dimensions, pipe length and invert elevation of underdrains
- ☐ Include bioretention planting plan in details and/or on landscape plan
- ☐ Finish elevations on all outfalls inverts, bottom of cell, check dams, top of grates, etc.
- ☐ All stormwater piping associated with the facilities shown and labeled, including catch basin, pipe materials, sizes, slopes, and invert elevations
- ☐ Provide appropriate domed or atrium grate for overflow inlets
- ☐ If an underdrain is used, show drain rock, pipe, and filter fabric specifications
- ☐ Designs for any retaining walls proposed. Specify top and bottom of wall elevations, dimensions, type, backfill, installation, wall section, etc . Structural walls shall meet City building permit requirements
- ☐ Minimum 5-foot separation from property line (not including public ROW)

PERMEABLE PAVEMENTS

- ☐ Detail for permeable pavement selected for project including base rock choker course and permeable

pavement design mix or paver specification

- ☐ Run-on from adjacent areas limited
- ☐ If run-on from impervious surfaces, limit sheet flow path length of up-gradient to less than or equal permeable pavement flow path (impervious area cannot exceed permeable pavement area)
- ☐ Slope limited to 5% for asphalt, 10% for concrete, 12% for pavers
- ☐ Native soils meet soil suitability for treatment or 6-inch sand treatment layer specified
- ☐ Design mix and detail drawings, including geotextile, base material, wearing layer

REVERSED SLOPE SIDEWALKS:

- ☐ Details for the vegetated surface receiving water from reversed slope sidewalks

FLOW CONTROL FACILITIES:

- ☐ Bottom elevations on all drywells and show on profile
- ☐ Details of any flow control structures, orifices, etc. drawn to scale
- ☐ Pond details including side slopes, spot grades, finish grade contours, emergency overflow, etc.
- ☐ Infiltration systems located per Section 4-6.02
- ☐ If no design provided for roof downspout system, provide table for length of perforated pipe required per 1,000 square feet of typical roof for short plats/subdivisions
- ☐ Individual lot roof downspouts draining to street only with perforated stub-out connection (BMP T5.10C) and only when BMP T5.10A or BMP T5.10B are not feasible
- ☐ UIC wells comply with Ecology guidance; trenches comply with WAC, Chapter 173-218. See Note on last page.

FACILITY EASEMENTS AND TRACTS:

- ☐ Check public & private storm easements (labeled and dimensioned on stormwater plan, site plan or final plat) Include recording number for existing easements
- ☐ Access and Inspection Easement required for all private stormwater facilities. Requires a min. 15' wide easement from public road through a driveway to facilities, blanket easement or POV Agreement called out on the stormwater plan and site plan or final plat
- ☐ If public facility is outside of public ROW. Label stormwater tract and/or easement to be dedicated to the City of Vancouver (swale, pond, vault, main) on the stormwater plan, site plan and final plat
- ☐ Label private stormwater facilities as private. Include note that private facilities will be maintained by owner or homeowner's association.
- ☐ For private facilities in subdivision or short plat outside of private road, label stormwater tract(s) and/or easement(s) to be dedicated to the homeowner's association on storm plan and plat. For yard drainage systems crossing lot lines include cross easement to each lot crossed