

## **EXHIBIT A**

### **STORM WATER MAINTENANCE PLAN**

Inspections are to be scheduled as directed in this document. All documentation on scheduled inspections, times of inspections, maintenance completed, remedial actions taken to make repairs, and any modification or reconstruction of the storm system is to be submitted to the Department of Public Works for review. Documentation of all maintenance completed shall be submitted to the Department of Public Works, Superintendent of Water/Sewer by September 30 of each year.

#### **DETENTION / RETENTION PONDS**

These facilities basically provide storage for increased surface water flow run-off resulting from development. Detention is the collection and temporary storage of surface water with the outflow rate restricted. Retention is the collecting and holding of surface and storm water outflow, thus it implies permanent storage.

##### *Required Maintenance:*

- Check the outlets regularly for clogging and clean when necessary (spring and fall).
- If necessary based on surroundings, mow grass side of slopes, maximum height of 8” (two times per year).
- Inspect entire system including inlet/outlet pipes, animal grates and filters (annually).
- Check banks and bottom for erosion and correct (spring and fall).
- Remove sediment when accumulation reaches six inches or if resuspension is observed. Measure accumulation every (5-10 years).
- Re-seed banks near inlet/outlet and stabilize eroded banks as necessary.
- Add grasses such as sedges and rushes as necessary.
- Remove dead vegetation that obstructs flow (early spring and late fall).
- If outlet is pumped, an inspection is required (annually). All maintenance and inspections are to be performed by a licensed electrician.

***Chemicals should not be applied to detention basin or side slopes***

#### **VEGETATION SWALES**

Swales are a sloped or channeled surface that directs the flow of storm water runoff. Vegetated swales are lined with vegetation that slows and filters flow when depths are shallower than the vegetation height. Filter strips are areas of land covered with vegetation used to help reduce the levels of sediment and chemicals entering surface waters due to storm water runoff. Vegetation should be uniform with fine, turf-forming water-resistant grasses.

##### *Required Maintenance:*

- Mowing throughout the summer months.
- Periodic sediment cleanout.

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#### **BASIN OUTLET STRUCTURES**

Outlet structures are used to regulate storm water discharge from detention basins into receiving waterways or an offsite storm sewer system.

- Check inlets and outlets for clogging (monthly).
- Clean inlets and outlets as necessary.
- Remove sediment if accumulation reaches 6 inches or if re-suspension is observed.
- Inspect pipes to verify that the outlet is not damaged (annually).

#### **CATCH BASINS**

A below ground structure designed to collect and convey water into the storm sewer system. Catch basins can be located in roadways and greenbelt areas of a development.

- Surfaces of all catch basins shall be checked for debris (monthly).
- Typical cleaning (once every 3 to 5 years).  
*The City will monitor the completed development for one year to determine how often the catch basin will need cleaning.*
- Inspect for damaged or missing block and mortar (annually).

#### **MANHOLES**

A manhole is a structure that allows access into a closed conduit. Manholes can be located in the roadway and greenbelts areas of a development.

- Inspect for damage or missing block and mortar (annually).
- Inspect for debris within the structure (annually).
- Typical cleaning (every 10 years).
- Problem areas as determined by the City shall be cleaned (every 5 years).

#### **CLOSED CONDUIT**

A closed conveyance designed to carry storm water runoff, which includes culvert, closed drains, and pipes.

- Typical cleaning closed drains and pipes (every 10 years).
- Video inspections (every 25 years).
- Problem areas as determined by the City shall be cleaned (every 5 years).
- Culvert cleaning (annually).