1.6.3 - MAINTENANCE AND CONSTRUCTION REQUIREMENTS

A. MAINTENANCE RESPONSIBILITIES. PROPER MAINTENANCE IS AS IMPORTANT AS ENGINEERING DESIGN AND CONSTRUCTION IN ORDER TO ENSURE THAT WATER QUALITY CONTROLS. REFERRED TO HEREIN AS STORMWATER CONTROL MEASURES (SCMS), WILL FUNCTION EFFECTIVELY. SECTION 25-8-231 OF THE LAND DEVELOPMENT CODE REQUIRES MAINTENANCE BE PERFORMED ON SCMS WHEN NECESSARY AS DEFINED BY THIS SECTION.

STORMWATER CONTROL MEASURES REQUIRED FOR COMMERCIAL AND MULTI-FAMILY DEVELOPMENT SHALL BE MAINTAINED BY THE PROPERTY OWNER.

STORMWATER CONTROL MEASURES FOR SINGLE FAMILY OR DUPLEX RESIDENTIAL DEVELOPMENT SHALL BE MAINTAINED BY THE CITY OF AUSTIN ONCE THE FACILITIES HAVE BEEN ACCEPTED BY THE CITY, UNLESS OTHERWISE DETERMINED DURING THE REVIEW PROCESS. FOR THE CITY TO ACCEPT AN SCM, THE FACILITY MUST:

- 1. BE CONSTRUCTED PER THE APPROVED DEVELOPMENT PLAN;
- 2. MEET ALL APPLICABLE REQUIREMENTS OF SECTION 1.6.3 AND THE DRAINAGE CRITERIA SECTION 1.2.4 E.;
- 3. COMPLETE A ONE-YEAR WARRANTY PERIOD, INCLUDING THE COMPLETION OF ALL MAINTENANCE AND REHABILITATION ACTIVITIES IDENTIFIED BY THE WATERSHED PROTECTION DEPARTMENT; AND
- 4. OBTAIN FINAL WARRANTY RELEASE APPROVAL FROM THE WATERSHED PROTECTION DEPARTMENT.

THE CITY WILL ALSO MAINTAIN SCMS DESIGNED TO SERVICE PRIMARILY PUBLICLY OWNED ROADS AND FACILITIES. THESE SCMS MUST BE DESIGNED AND BUILT ACCORDING TO THE APPROPRIATE CITY STANDARDS.

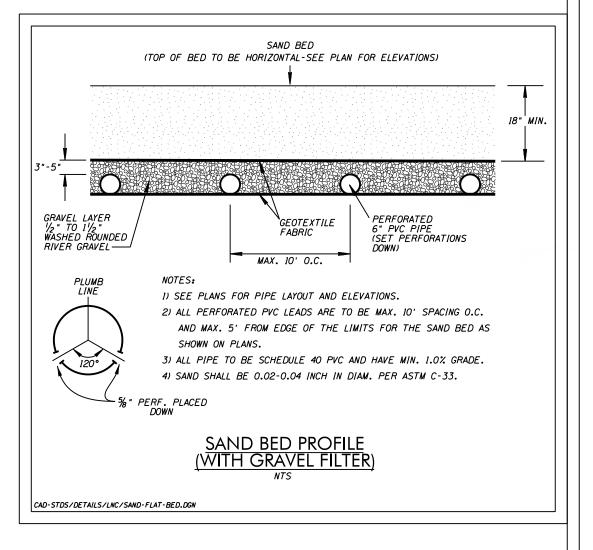
B. MAINTENANCE REQUIREMENTS—DESIGN AND CONSTRUCTION.

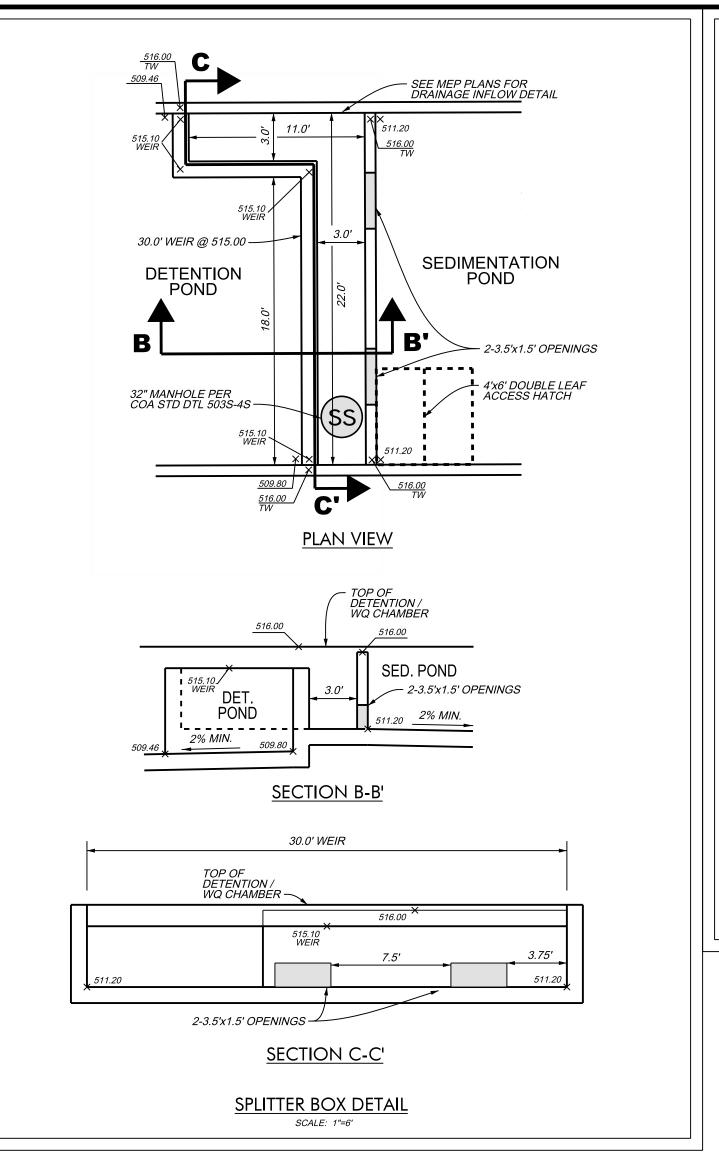
THE DESIGN OF DRAINAGE FACILITIES (INCLUDING BUT NOT LIMITED TO HEADWALLS, OPEN CHANNELS, STORM SEWERS, AREA INLETS, AND DETENTION, RETENTION AND STORMWATER CONTROL MEASURES AND THEIR APPURTENANCES) SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 1.2.4.E OF THE DRAINAGE CRITERIA MANUAL. IN ADDITION, SCMS SHALL COMPLY WITH THE FOLLOWING CONSTRUCTION REQUIREMENTS:

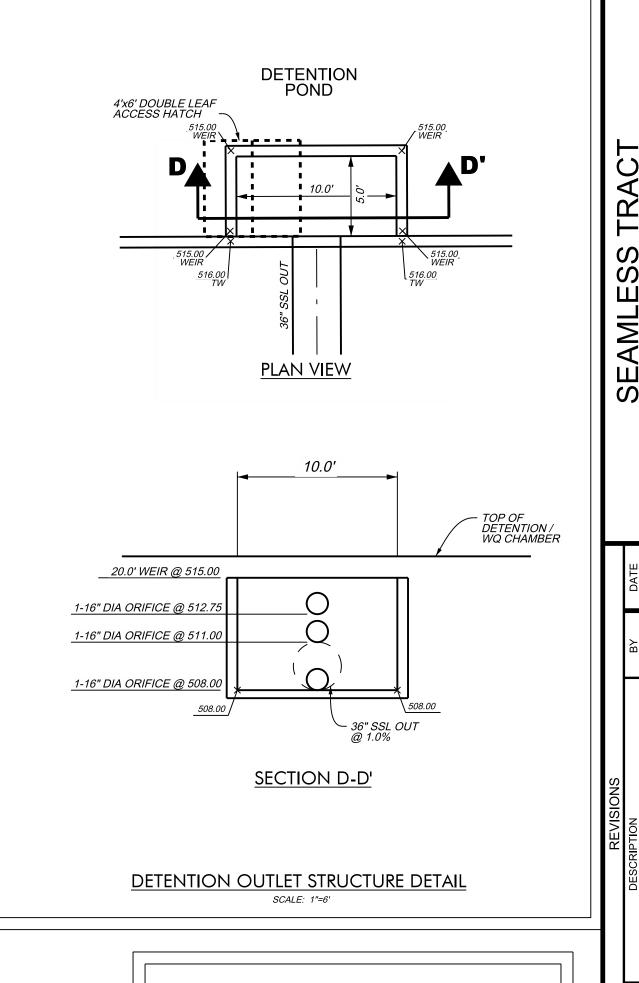
- 1. SEDIMENT REMOVED DURING CONSTRUCTION OF A DETENTION, RETENTION, OR WATER QUALITY FACILITIES MAY BE DISPOSED OF ON-SITE IF PROPERLY STABILIZED ACCORDING TO THE PRACTICES OUTLINED IN THE EROSION AND SEDIMENTATION CONTROL CRITERIA FOUND IN SECTION 1.4.0 OF THIS MANUAL. AFTER THE CITY OF AUSTIN HAS ACCEPTED A STORMWATER FACILITY DISPOSAL OF SEDIMENT MUST BE AT AN APPROVED LANDFILL.
- 2. DURING CONSTRUCTION OF SCMS, TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED.
- 3. IF RUNOFF IS TO ENTER THE SAND FILTRATION CHAMBER OF A WATER QUALITY CONTROL FACILITY PRIOR TO COMPLETION OF SITE CONSTRUCTION AND REVEGETATION, INSPECTION AND MAINTENANCE OF ALL TEMPORARY EROSION/SEDIMENTATION CONTROLS ARE REQUIRED, AS DESCRIBED IN THE ENVIRONMENTAL CRITERIA MANUAL SECTION 1.4.4, TO PREVENT HEAVY SEDIMENT LOADS CAUSED BY HOME CONSTRUCTION FROM CLOGGING THE FILTRATION MEDIA.

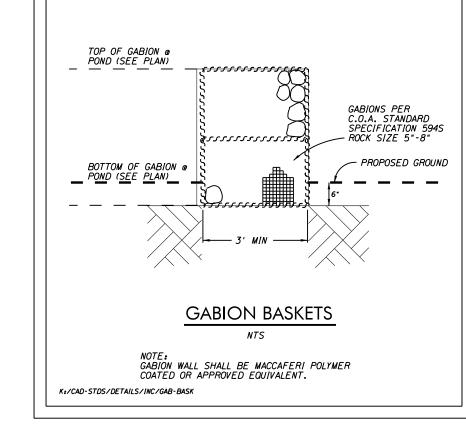
- 4. IN ALL CASES, TREES SHALL BE PRESERVED ACCORDING TO THE REQUIREMENTS OF SECTION 3 OF THE ENVIRONMENTAL CRITERIA MANUAL. THE ACCESS DRIVE AND STAGING AREA SHALL BE DESIGNED TO PRESERVE TREES 8" (INCHES) IN DIAMETER AND GREATER TO THE MAXIMUM EXTENT POSSIBLE. TREES 8" IN DIAMETER AND LARGER SHALL BE SURVEYED AND SHOWN FOR THE PROPOSED ACCESS EASEMENT AT THE TIME OF CONSTRUCTION PLAN PERMITTING.
- FOR FILTRATION SYSTEMS THE DESIGN MEDIA DEPTH MUST BE VERIFIED. ACCOUNTING FOR CONSOLIDATION. IF INSUFFICIENT DEPTH IS PRESENT. ADDITIONAL MEDIA MUST BE ADDED AND PRE-SOAKED UNTIL THE DESIGN DEPTH IS ACHIEVED. PRE-SOAKING - APPLY 5-10 GALLONS OF WATER PER SQUARE FOOT OF MEDIA AREA WITHIN ONE HOUR.
- RETAINING WALLS RETAINING WALLS WITHIN SCMS REQUIRE WATER-TIGHTNESS. WATER-TIGHTNESS IN RETAINING WALLS IS ESSENTIAL TO THE FUNCTION OF THE STRUCTURE. WATERSTOPS SHALL BE PROVIDED DURING CONSTRUCTION OF EXPANSION JOINTS IN RETAINING WALLS PER STANDARD SPECIFICATION 414S, CONCRETE RETAINING WALLS.
- GROUTED ROCK WALLS GROUTED ROCK WALLS ARE ACCEPTABLE ONLY IF THE DESIGN INCLUDES AN IMPERMEABLE BARRIER SUCH AS AN APPROVED GEOMEMBRANE LINER OR REINFORCED CONCRETE RETAINING WALL. FREE STANDING DRY STACKED ROCK WALLS ARE NOT ACCEPTABLE IN ANY SCM.
- C. MAJOR MAINTENANCE REQUIREMENTS.
- THE FOLLOWING MAINTENANCE ACTIVITIES SHALL BE PERFORMED ON ALL SCMS, IN ADDITION TO THE REQUIREMENTS LISTED FOR THE INDIVIDUAL SCM TYPES, TO ENSURE PROPER FUNCTION:
- A) ACCUMULATED PAPER, TRASH AND DEBRIS SHALL BE REMOVED EVERY SIX (6) MONTHS OR AS NECESSARY TO MAINTAIN PROPER OPERATION.
- B) STRUCTURAL INTEGRITY SHALL BE MAINTAINED AT ALL TIMES. BASINS ANDA. VEGETATION WITHIN THE BASIN SHALL NOT EXCEED EIGHTEEN (18) INCHES IN HEIGHT AT ANY ALL APPURTENANCES SHALL BE INSPECTED ANNUALLY, OR MORETIME. FREQUENTLY IF SPECIFIED, AND REPAIRS SHALL BE MADE IF NECESSARY. WHEN MAINTENANCE OR REPAIRS ARE PERFORMED, THE SCM SHALL BE RESTORED TO THE ORIGINAL LINES AND GRADES.
- C) CORRECTIVE MAINTENANCE SHALL OCCUR:
- I. ANY TIME DRAWDOWN OF THE WATER QUALITY VOLUME DOES NOT OCCUR WITHIN NINETY-SIX (96) HOURS (I.E., NO STANDING WATER IS ALLOWED), UNLESS A GREATER MAXIMUM DRAWDOWN TIME IS SPECIFIED IN THE PLANS.
- II. FOR DETENTION PONDS ONLY, ANY TIME DRAWDOWN DOES NOT OCCUR WITHIN TWENTY-FOUR (24) HOURS.
- D) THE INLET AND OUTLET OF SCMS SHALL BE MAINTAINED UNIMPEDED IN ORDER TO CONVEY FLOW AT ALL TIMES. OBSERVED BLOCKAGES TO THE INLET AND OUTLET, DUE TO VEGETATION, SEDIMENT, DEBRIS, OR ANY OTHER CAUSE, SHALL BE REMOVED.
- E) NO UNVEGETATED AREA SHALL EXCEED TEN (10) SQUARE FEET. THIS PERFORMANCE REQUIREMENT APPLIES TO THE ENTIRE POND INCLUDING THE POND BOTTOM, SIDE SLOPES, AND AREAS ADJACENT TO THE POND, AND IS INTENDED TO LIMIT EROSION.
- F) INTEGRATED PEST MANAGEMENT SHALL BE PERFORMED AND SHALL ADHERE TO SECTION 1.6.2.F, INTEGRATED PEST MANAGEMENT GUIDELINES.

- G) THE MINIMUM VEGETATION HEIGHT SHALL BE FOUR (4) INCHES IN THE SCM AND ALL APPURTENANCES, INCLUDING THE TOE OF THE BERM OR WALL OUTSIDE THE SCM, WHERE APPLICABLE.
- H) SEDIMENT BUILD-UP SHALL BE REMOVED:
- I. WHEN THE ACCUMULATION EXCEEDS SIX (6) INCHES IN SPLITTER BOXES, WET WELLS AND BASINS.
- II. WHEN SEDIMENT TRAPS ARE FULL.
- III. WHEN SEDIMENT, OF ANY AMOUNT, CAUSES STANDING WATER
- CONDITIONS OR REDUCES BASIN STORAGE BY MORE THAN 10%. I) WHEN SEDIMENT IS REMOVED, THE FOLLOWING REQUIREMENTS APPLY:
- IRRIGATION SHALL BE PROVIDED, AS NEEDED, UNTIL VEGETATION IS ESTABLISHED (WELL ROOTED). SEE SECTION 1.6.3.D, IRRIGATION
- II. THE DESIGN DEPTH OF THE FILTRATION MEDIA SHALL BE VERIFIED. SEE SECTION 1.6.3.B.5.
- III. TILLING OF THE FILTRATION MEDIUM IS NOT ALLOWED.
- J) FOR SUBSURFACE PONDS MAINTENANCE PLAN REQUIREMENTS, REFER TO ECM SECTION 1.6.2(E).
- 2. SEDIMENTATION AND FILTRATION SCMS (SECTION 1.6.5).
- A. VEGETATION WITHIN THE SCM SHALL NOT EXCEED EIGHTEEN (18) INCHES IN HEIGHT AT ANY TIME, EXCEPT AS CALLED FOR IN THE DESIGN.
- B. VEGETATION THAT IS MOWED OR CUT SHALL BE REMOVED FROM THE SCM. 3. DETENTION BASINS.







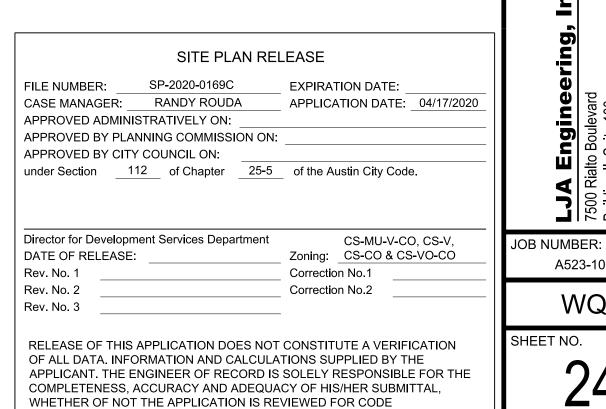




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COMPLIANCE BY CITY ENGINEERS.

