

SILT FENCES

1. DESCRIPTION & PURPOSE:

STORMWATER SILT FENCES (SWSF) ARE TEMPORARY SEDIMENT BARRIERS MADE OF POROUS FABRIC HELD UP BY WOODEN OR METAL POSTS DRIVEN INTO THE GROUND. THEY ARE INEXPENSIVE AND RELATIVELY EASY TO REMOVE. THE FABRIC PONDS STORMWATER RUNOFF, CAUSING SEDIMENT TO BE RETAINED BY THE SETTLING PROCESSES. IT ALSO KNOCKS DOWN WIND-DRIVEN SAND. IT KEEPS SOIL OUT OF CITY STREETS, THUS PREVENTING CLOGGED STORM DRAINS AND THE DEGRADATION OF AQUATIC HABITATS.

2. PRIMARY USE:

STORMWATER SILT FENCE (SWSF) IS PRIMARILY FOR STORMWATER CONTROL, BUT DUST CONTROL MAY BE A SECONDARY BENEFIT. SEE SEPARATE DUST CONTROL SILT FENCE (DCSF) FOR SILT FENCE USED PRIMARILY FOR FUGITIVE DUST CONTROL. BOTH TYPES OF SILT FENCE MAY BE SHOWN ON A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) MAP AND/OR AN EROSION AND SEDIMENT CONTROL (ESC) PLAN WITH CLEAR DIFFERENTIATION BETWEEN THE TWO.

STORMWATER SILT FENCE IS UNSUITABLE TO CONTROL STORMWATER AT CONCENTRATED DISCHARGE POINTS, LARGE DRAINAGE AREAS, OR WHERE THE SILT FENCE ISN'T ON CONTOUR. WHERE SILT FENCES ARE UNSUITABLE, A SEPARATE STORMWATER CONTROL IS REQUIRED, SUCH AS A BERM OR A POND, IN ADDITION TO DUST CONTROL SILT FENCE. DUST CONTROL SILT FENCES ARE STILL NEEDED TO CONTROL WIND EROSION ON TOP OF OTHER STORMWATER CONTROLS, SUCH AS BERMS AND PONDS, AT THE DOWNSTREAM PERIMETER OF CONSTRUCTION SITES.

STORMWATER SILT FENCE IS USED AS A **PERIMETER STORMWATER CONTROL** WHEN INSTALLED DOWNSLOPE FROM EXPOSED SOIL PER PART 2.2.3 OF THE EPA'S CONSTRUCTION GENERAL PERMIT (CGP), AND AS AN **AIR QUALITY CONTROL** AROUND THE REST OF THE PERIMETER IN SUPPORT OF CGP PART 2.2.6 AND THE ALBUQUERQUE-BERNALILLO COUNTY AIR QUALITY PROGRAM.

3. STORMWATER QUALITY DESIGN SPECIFICATIONS:

A. SILT FENCE IS FOR **SHEET FLOW ONLY**, NEVER FOR CONCENTRATED STORMWATER. STORMWATER SILT FENCE ISN'T ALLOWED AS THE STORMWATER CONTROL AT CONCENTRATED DISCHARGE POINTS. OTHER STORMWATER CONTROLS, SUCH AS PONDS AND BERMS, ARE REQUIRED AT DISCHARGE POINTS.

ALTERNATIVELY, SILT FENCES MAY BE USED ALONG THE SIDES OF STABILIZED CONCENTRATED FLOW PATHS THROUGH CONSTRUCTION SITES TO REMOVE SEDIMENT FROM THE STORMWATER BEFORE IT ENTERS THE STABILIZED CONCENTRATED FLOW PATH.

B. THE **DRAINAGE AREA** IS LIMITED TO 25,000 SF PER 100 FT OF FENCE OR COMBINED WITH A SEDIMENT BASIN ON A LARGER SITE.

C. THE **MAXIMUM SLOPE DISTANCE** ABOVE THE FENCE IS FURTHER LIMITED BY THE SLOPE STEEPNESS, AS SHOWN IN THE TABLE BELOW.

LAND SLOPE (%)	MAXIMUM SLOPE DISTANCE ABOVE FENCE (FT)
2	250
5	180
10	100
20	50
30	30

D. STORMWATER SILT FENCES MUST BE CONSTRUCTED **ON CONTOUR**, LEVEL ACROSS THE BOTTOM, WITH THE ENDS TURNED UPHILL AS NECESSARY TO PREVENT FLANKING. A SILT FENCE ALONE SHOULDN'T BE USED AS A DIVERSION. AN AIR QUALITY SILT FENCE MAY BE USED IN CONJUNCTION WITH A DIVERSION BERM OR SWALE ALONG A SLOPING PERIMETER ON THE DOWNHILL SIDE OF CONSTRUCTION SITES.

E. LIMIT THE LENGTH OF ANY SINGLE RUN OF SILT FENCE TO 500 FT. AND IT MUST BE PLACED ALONG A LEVEL CONTOUR.

F. DO NOT USE SILT FENCES TO DIVERT FLOW.

4. SELECT STANDARD STRENGTH OR EXTRA STRENGTH SILT FENCE MATERIAL

A. **STANDARD STRENGTH SILT FENCE** IS APPROPRIATE IF THE SLOPE OF AREA DRAINING TO FENCE IS 4:1 (H: V) OR LESS AND THE DRAINAGE AREA PRODUCES LOW SEDIMENT LOADS. THE EXPECTED LONGEVITY IS GENERALLY LIMITED TO LESS THAN FIVE MONTHS

B. **EXTRA STRENGTH SILT FENCE** IS APPROPRIATE IF THE SLOPE OF AREA DRAINING TO FENCE IS 1:1 (H: V) OR LESS AND AREA DRAINING TO FENCE PRODUCES MODERATE SEDIMENT LOADS. EXPECTED LONGEVITY IS GENERALLY LIMITED TO EIGHT MONTHS. LONGER PERIODS MAY REQUIRE FABRIC REPLACEMENT.

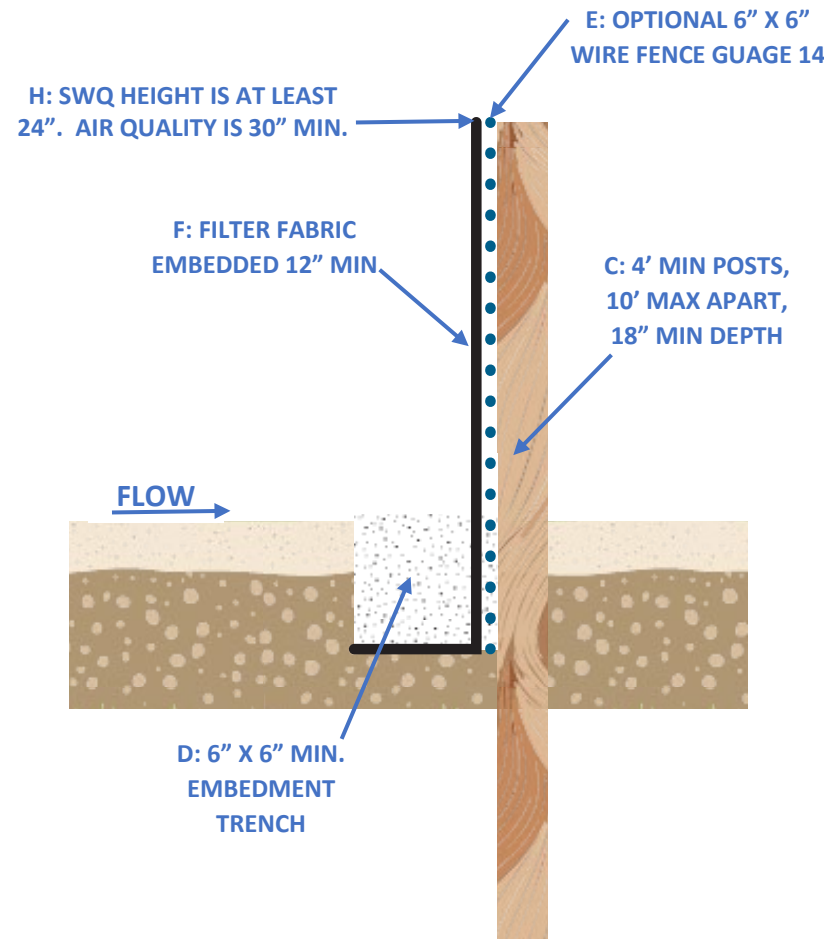
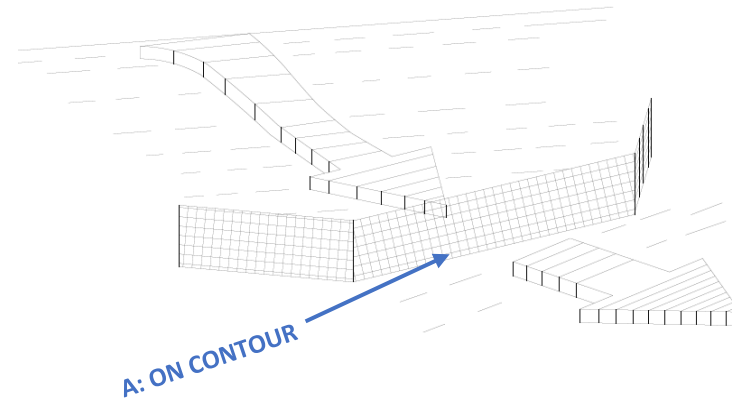
HEAVY-DUTY FENCE FABRIC HAS GREATER TENSILE STRENGTH AND PERMEABILITY THAN OTHER FABRIC TYPES. THE POSTS MAY BE SPACED CLOSER TOGETHER THAN OTHER PREMANUFACTURED SILT FENCE TYPES AVAILABLE FROM THE MANUFACTURER.

STORMWATER SILT FENCE MATERIAL	
PHYSICAL PROPERTY	REQUIREMENTS
TENSILE STRENGTH AT 20% (MAXIMUM) ELONGATION	STANDARD STRENGTH: 30 LB/IN (MINIMUM) EXTRA STRENGTH: 50 LB/IN (MINIMUM)
UV RESISTANT	90%
SLURRY FLOW RATE	0.3 GAL/MIN (MINIMUM)

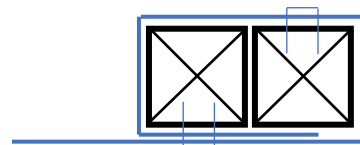
REVISIONS	CITY OF ALBUQUERQUE
Draft 7/29/2025	CONSTRUCTION STORMWATER QUALITY STORMWATER SILT FENCE (SWSF)
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5. CONSTRUCTION SPECIFICATIONS:

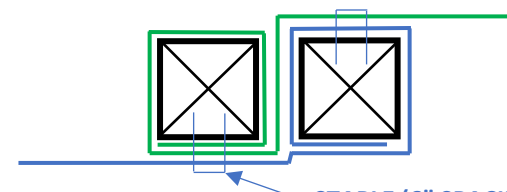
- A. INSTALL SILT FENCE ALONG A LEVEL CONTOUR, WITH THE ENDS TURNED UPHILL (12" VERTICAL MIN.) FAR ENOUGH TO PREVENT FLANKING. EXCEPT FOR THE ENDS, THE DIFFERENCE IN ELEVATION BETWEEN THE HIGHEST AND LOWEST POINT ALONG THE TOP OF THE SILT FENCE SHALL NOT EXCEED ONE-THIRD THE FENCE HEIGHT.
- B. CLEAR THE GROUND AT THE SILT FENCE LOCATION TO BARE DIRT. REMOVE VEGETATION, ROCKS, GRAVEL, AND PAVEMENT.
- C. INSTALL POSTS SPACED A MAXIMUM OF 10 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 18 INCHES. HARDWOOD POSTS MUST BE 2" X 2", AND STEEL POSTS (STANDARD "U" OR "T" SECTION) MUST HAVE A MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT AND SHALL HAVE A MINIMUM LENGTH OF 4' FEET. DOUBLE POSTS ARE REQUIRED AT BOTH ENDS OF EACH PIECE OF SILT FENCE AND AT SPLICES.
- D. EXCAVATE A TRENCH A MINIMUM OF 6" DEEP BY 6" WIDE ALONG THE UPHILL SIDE OF THE POSTS. ALTERNATIVELY, A 12" DEEP STATIC SLICE IS ALLOWED.
- E. OPTIONAL WIRE FENCE REINFORCEMENT IS TYPICALLY 14 GAUGE OR MORE WITH A MAXIMUM MESH SPACING OF 6 INCHES, FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE REINFORCEMENT SHOULD ALSO EXTEND 6" INTO THE TRENCH.
- F. THE FILTER FABRIC SHOULD BE STAPLED OR WIRED TO THE FENCE AND POSTS, AND 12 INCHES OR MORE OF THE FABRIC SHOULD EXTEND INTO THE TRENCH. THE WIRE REINFORCEMENT (IF USED) AND FILTER FABRIC SHOULD BE STRETCHED TIGHTLY WHILE ATTACHING THEM.
- G. EMBED THE FILTER FABRIC 12" MINIMUM INTO THE TRENCH AND BACKFILL WITH CLEAN EARTH, FREE OF ROCKS AND ORGANIC MATTER, AND COMPACTED WITH OPTIMUM MOISTURE BY WHEEL ROLLING, TAMPING, OR OTHER SIMILAR MEANS. THE FINISHED GRADE SHOULD BE THE SAME ON BOTH SIDES OF THE FENCE, AND THE DEPTH OF EMBEDMENT SHOULD BE MEASURED FROM THE LOWEST GRADE ADJACENT TO THE FENCE. SUBSTITUTIONS INSTEAD OF EMBEDMENT, LIKE WATTLES, ARE NOT ALLOWED.
- H. THE HEIGHT OF A STORMWATER SILT FENCE SHALL BE A MINIMUM OF 24 INCHES ABOVE THE HIGHEST GROUND SURFACE ADJACENT TO THE FENCE. ADDITIONAL HEIGHT (30" MIN.) IS REQUIRED TO SATISFY THE ALBUQUERQUE-BERNALILLO COUNTY AIR QUALITY PROGRAM.
- I. THE FILTER FABRIC MAY BE ATTACHED TO A CHAIN LINK FENCE CONSTRUCTED IN ACCORDANCE WITH COA STD DWG 2252 INSTEAD OF THE ABOVE-SPECIFIED WIRE FENCE REINFORCEMENT AND POSTS, PROVIDED THAT CHAIN LINK REINFORCEMENT AND FILTER FABRIC ARE EMBEDDED AS SPECIFIED ABOVE.



SECTION



**TERMINAL
END STAKE DETAIL (TOP VIEW)**



**JOINING DETAIL
(TOP VIEW)**

6. MAINTENANCE:

- A. SELF-INSPECTION IS REQUIRED BY A CERTIFIED INSPECTOR EVERY 14 DAYS AND IMMEDIATELY AFTER EACH RAINFALL OF 1/4" OR MORE, AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- B. INSPECTION CHECKLIST
 - i. DOES THE SILT FENCE FOLLOW A CONTOUR?
 - ii. ARE THE ENDS OF THE SILT FENCE TURNED UPHILL FOR THE LAST 12" VERTICALLY?
 - iii. IS THE HEIGHT OF THE SILT FENCE 24" OR MORE ABOVE GROUND?
 - iv. IS THE COLOR BAND EMBEDDED 6" OR MORE?
 - v. IS THE SILT FENCE SECURE TO THE WIRE FENCE REINFORCEMENT OR THE STAKES?
 - vi. HAS SEDIMENT ACCUMULATED BEHIND THE FENCE BY MORE THAN 1/2 THE HEIGHT OF THE FENCE? IF YES, THEN CLEAR IT.
 - vii. DOES ANY 100-FOOT OF SILT FENCE SERVE MORE THAN 25,000 SQUARE FEET (ABOUT 1/2 ACRE) OF EXPOSED AREA?
 - viii. IS THERE ANY INDICATION OF WASH AROUND OR UNDER WASH? IF YES, THEN RESET THE FENCE AND DETERMINE IF IT IS OVERLOADED (I.E., ANOTHER FENCE SHOULD BE INSTALLED UPSTREAM).
- C. REPAIRS MUST BE COMPLETED WITHIN 24 HOURS OF FINDING THE DEFECT. DEFECTS TYPICALLY INCLUDE LOOSE POSTS OR ATTACHMENTS TO POSTS OR WIRE REINFORCEMENT. SOMETIMES REPAIRS INCLUDE TRENCHING AND EMBEDMENT. CORRECTIVE ACTIONS MUST BE COMPLETED WITHIN 7 DAYS OF DETECTING THE DEFECT.
- D. CORRECTIVE ACTIONS INCLUDE RESETTING THE EXISTING FENCE OR REPLACING THE SECTION WHERE THE FILTER FABRIC HAS BEEN TORN OR WORN OUT. HOLES IN THE FILTER FABRIC REQUIRE REMOVAL AND REPLACEMENT WITH DOUBLE POSTS ON BOTH REPLACEMENT ENDS. PATCHES ARE NOT ADEQUATE REPAIRS OF HOLES. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE BEFORE THE END OF THE EXPECTED USABLE LIFE, AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED.
- E. EITHER REMOVE SEDIMENT DEPOSITS WHEN THE DEPOSIT REACHES HALF THE HEIGHT OF THE FENCE OR INSTALL A SECOND SILT FENCE AS DIRECTED BY THE PE/CPESC
- F. THE SILT FENCE SHALL REMAIN IN PLACE UNTIL THE PE/CPESC DIRECTS IT BE REMOVED. UPON REMOVAL, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY EXCESS SEDIMENT ACCUMULATIONS, DRESS THE AREA TO GIVE IT A PLEASING APPEARANCE, AND VEGETATE ALL BARE AREAS PER CONTRACT REQUIREMENTS.
- G. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCES RESULTING FROM END RUNS AND UNDERCUTTING.

REVISIONS	CITY OF ALBUQUERQUE
Draft 7/29/2025	CONSTRUCTION STORMWATER QUALITY STORMWATER SILT FENCE (SWSF)
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