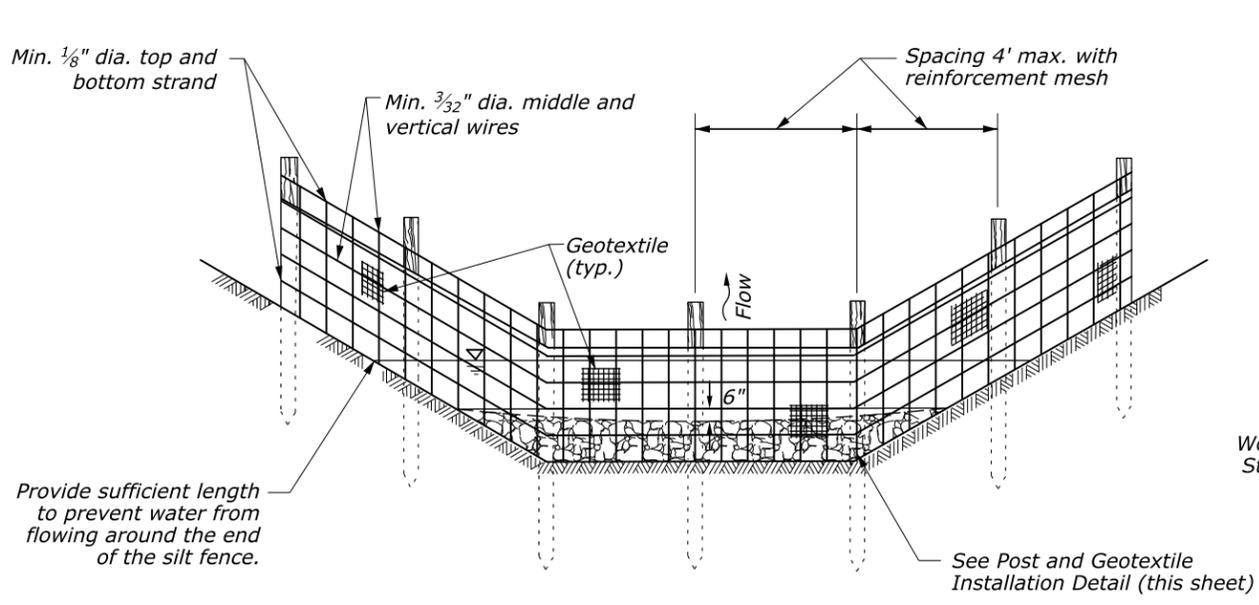
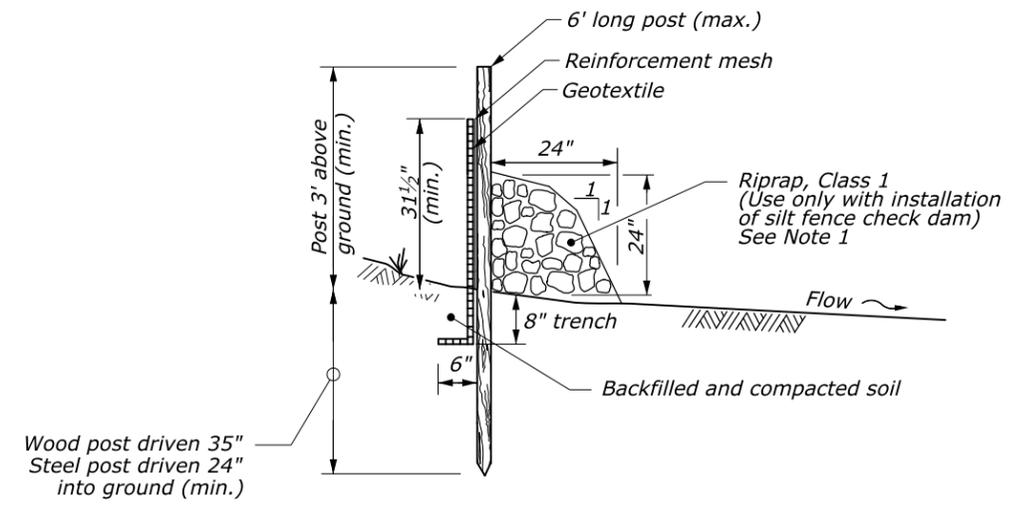


STATE	PROJECT	SHEET NUMBER

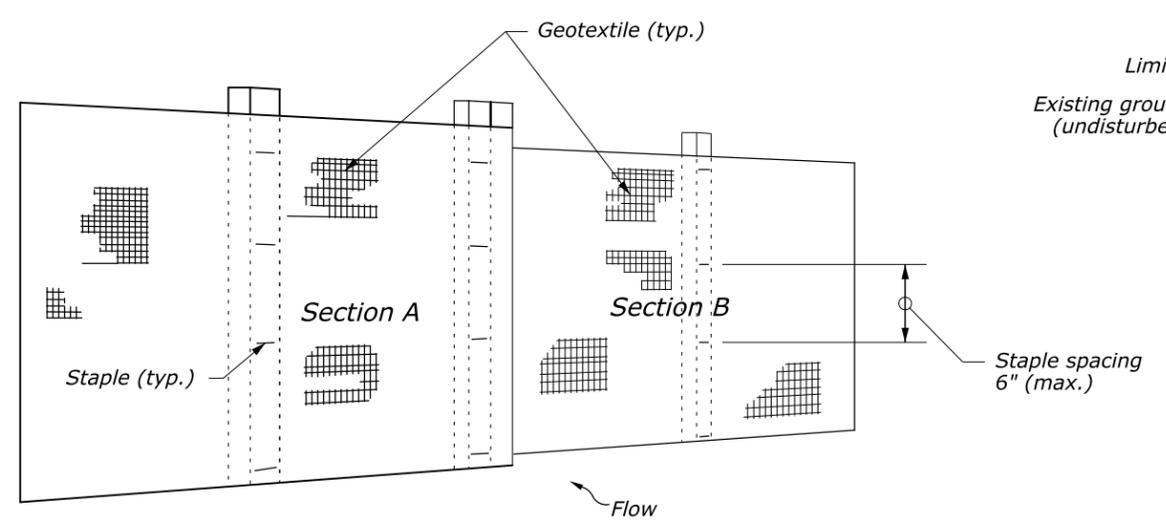


WIRE-BACKED SILT FENCE WITH CHECK DAM

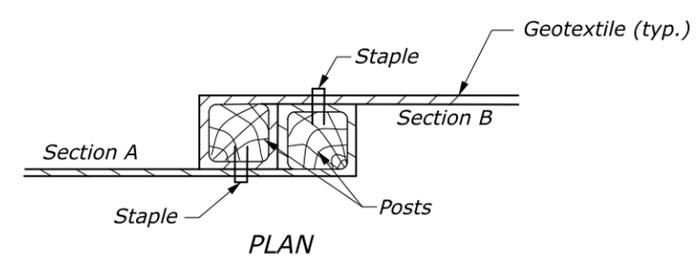


POST AND GEOTEXTILE INSTALLATION

- NOTES:**
1. Install silt fence with Class 1 riprap only in low-flow drainage ditches where shown on the Erosion and Sediment Control Plan.
 2. Install pre-assembled silt fence according to the manufacturer's recommendations.
 3. Install silt fence along ground contours. Curve ends of silt fence upgrade to prevent water from running around the ends.
 4. Attach geotextile and reinforcement mesh so they do not slide down posts. Provide detail for attaching to steel posts to the CO for approval.
 5. Use reinforcement mesh that is a minimum of 32 inches in width and has a minimum of 6 line wires with 12-inch stay spacing.
 6. Use geotextile that is a minimum of 45 inches in width and fasten adequately to the reinforcement mesh as directed by the CO.
 7. Use 60-inch minimum height steel posts of the self-fastener angle steel type.
 8. Use 70-inch minimum height by 3-inch diameter wood posts.
 9. Extend reinforcement mesh and geotextile into trench.

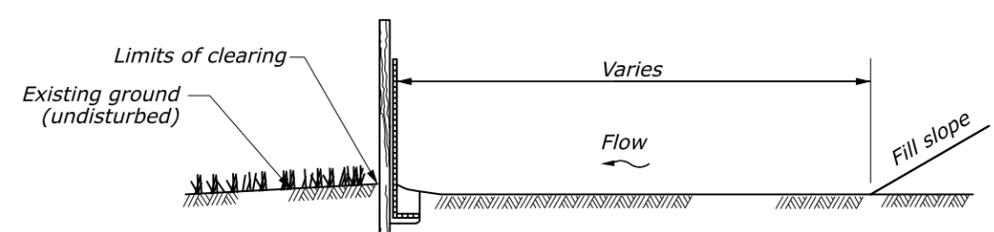


ELEVATION

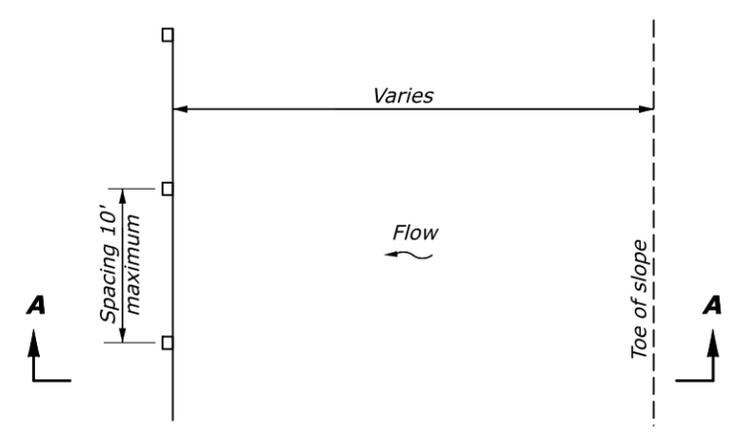


PLAN

JOINING TWO ADJACENT SILT FENCE SECTIONS
(See Note 4)

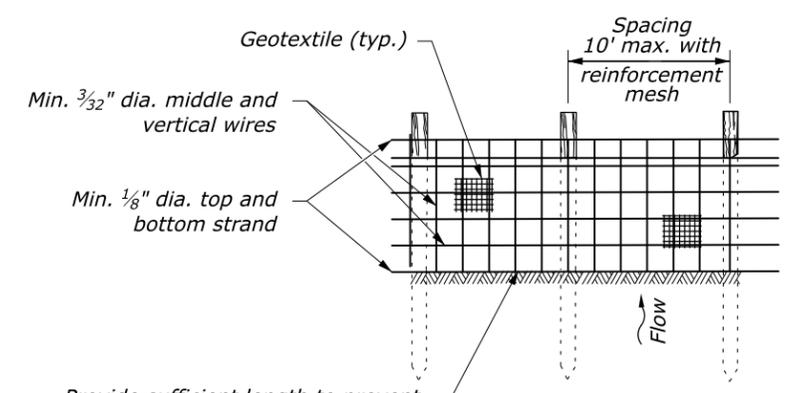


SECTION A-A



PLAN

WIRE-BACKED SILT FENCE INSTALLATION AT TOE OF FILL



ELEVATION

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

EFLHD DETAIL

WIRE-BACKED SILT FENCE

DETAIL APPROVED FOR USE	DETAIL
APPROVED: MARCH 2015	E157-02
REVISED: SEPTEMBER 2020	

NO SCALE

M:\PROJECTS\COLLABORATION\Louisayne_02172021_Details_Workset15702_detail.dgn (Sheet) 17 February 2021 1:52 PM



NOTES TO THE DESIGNER

March 19, 2018

General Information

1. *Appropriate Applications.* Wire-backed silt fences filter and allow settlement of soil particles from sediment-laden water. Silt fences may be placed:

- Below the toe of exposed and erodible slopes;
- Along slope contours (not on gradients);
- Around temporary stockpiles;
- Along streams and channels; and
- Along the perimeter of a project to contain sediments within project limits.

2. *Limitations.*

- Silt fence is used only in sheet flow conditions, not in concentrated flow areas. It should be placed parallel to the contour / perpendicular to the slope. If silt fence is placed off the contour it will act as a diversion.
- Silt fence is typically installed along the contour (constant elevation), not on slopes, to avoid channelizing water.

3. *Layout Guidance.*

- Maximum length of slope draining to any point along the silt fence is 200 feet or less.
- The drainage area should not exceed ¼ acre per 100 feet of silt fence.
- Slope of area draining to silt fence is 1V:1H or flatter.
- Avoid installing silt fence on slopes as much as possible – silt fence is typically installed along slope contours.

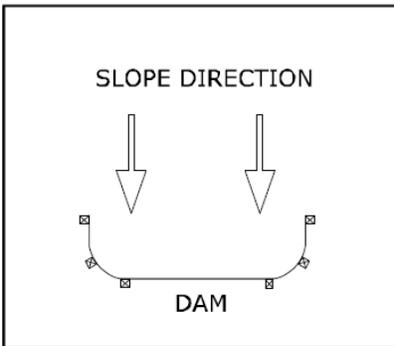
4. *Miscellaneous.*

- Design the silt fence with a “smile” or J-hook shape to create a storage area and to prevent the water from running around the ends of the silt fence.
- Avoid long runs of silt fence, smaller segments are preferable.
- Place beyond the toe of the slope to increase the ponding effect.
- Do not use in streams, channels, drain inlets, or anywhere flow is concentrated.
- Do not lay out “perimeter control” silt fence along property lines; all sediment laden runoff will concentrate and overwhelm the system.
- The distance of sheet flow to the silt fence should not exceed 100 feet.
- Add maintenance requirements to sheet M01

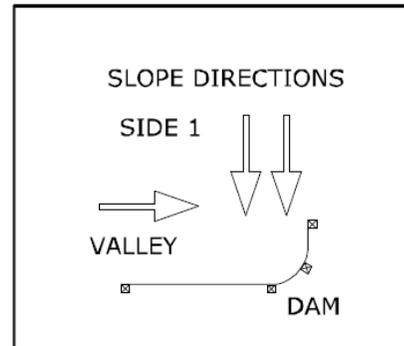
Land Slope to Flow Length	
Land Slope	Maximum Sheet Flow Distance to Fence
3% - 5%	100-0.
5% - 10%	75-0.
10% - 20%	50-0.
20% - 50%	25-0.

5. Silt Fence Design Examples

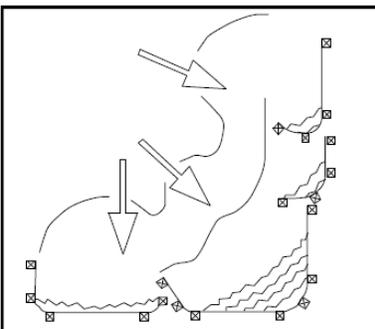
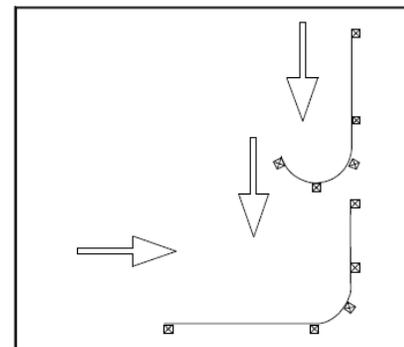
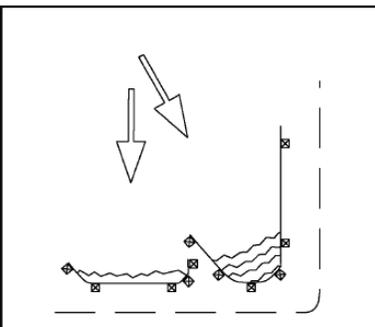
Placement on One Slope



Placement on Two Slopes



Placement for Perimeter Control



Applicable SCRs

Typical Pay Item Used

- 15705-0100 Soil Erosion Control, Silt Fence [LNFT]

Updates

Added guidance recommended by EFL Environment, 3/10/2014.
Added Design Examples, 3/10/2014.
Added guidance to add maintenance requirements to Sheet M01, 3/19/2018.