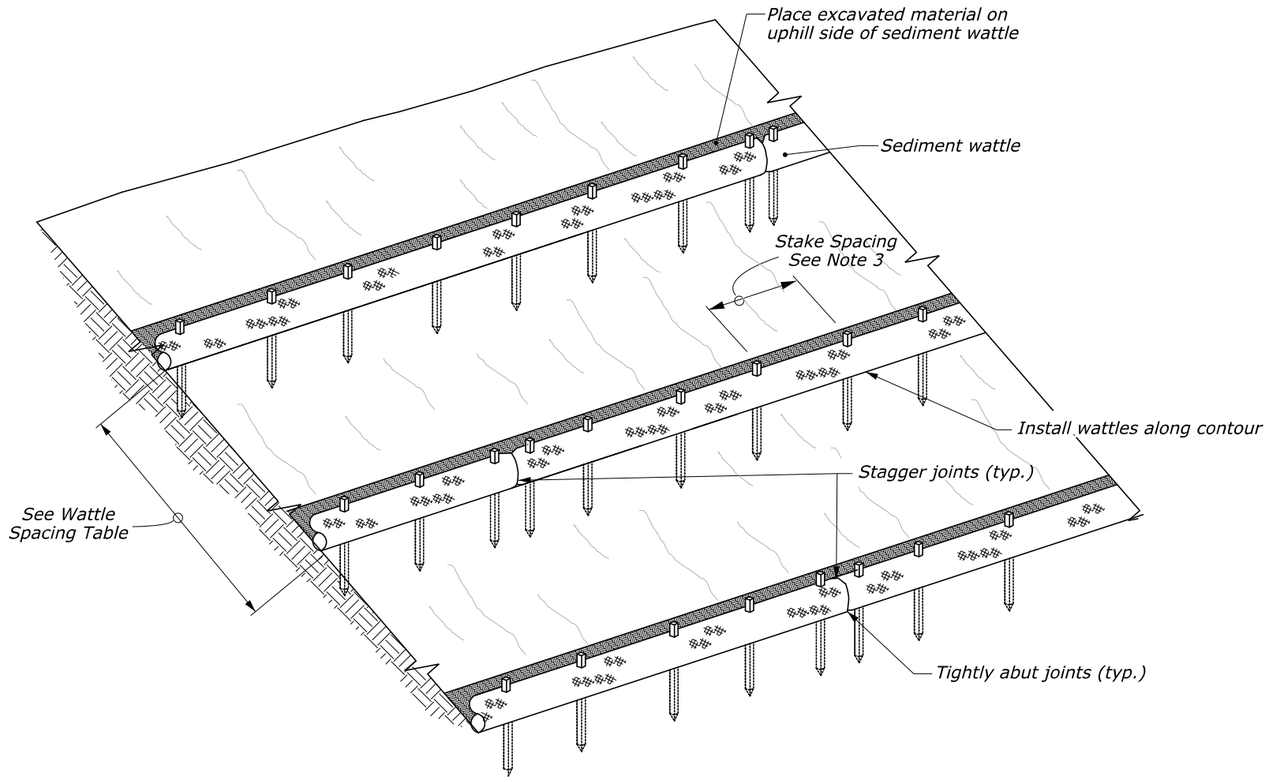
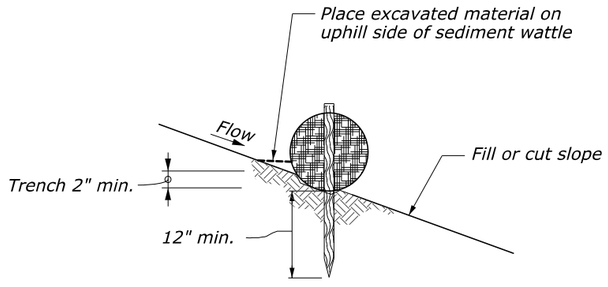
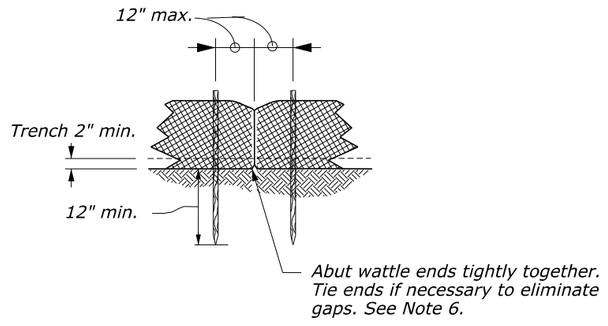
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
•	•	:	•	•



SEDIMENT WATTLE SLOPE LAYOUT



STAKE DETAIL



WATTLE JOINT DETAIL

NOTE:

1. *Repair all rills or gullies prior to installation.*
2. *Install sediment wattles along slope contours. For any 20' section of sediment wattle, do not allow the sediment wattle to vary more than 5% from level.*
3. *Stake sediment wattles in place with 1" x 1" or 1" Ø wood stakes. Space stakes 4' o.c. max. Stake sediment wattles at each end.*
4. *Drive stakes into undisturbed soil at least 12" deep. Expose stakes 2" above top of wattle.*
5. *For sediment wattles on bare soil, construct trenches parallel to the contour. Place sediment wattles in continuous contact with trench bottom and sides. Tamp soil backfill against upstream side of wattle to ensure storm water is forced to flow through wattle rather than under it.*
6. *Sediment wattles may be overlapped according to the manufacturer's recommendations.*

WATTLE SPACING TABLE	
Slope Gradient	*12" Ø wattle Maximum spacing (ft)*
1V:4H or flatter	*60*
1V:4H to 1V:3H	*45*
1V:3H to 1V:2H	*30*
1V:2H or steeper	*15*

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL

SEDIMENT WATTLE

DETAIL APPROVED FOR USE 01/2011

REVISED:

DETAIL C157-55

Central Federal Lands Highway Division
US Department of Transportation - Federal Highway Administration

NOTES TO THE DESIGNER

Last Updated: January 2011

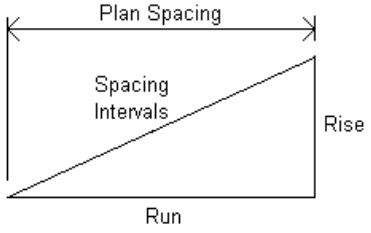
General Information

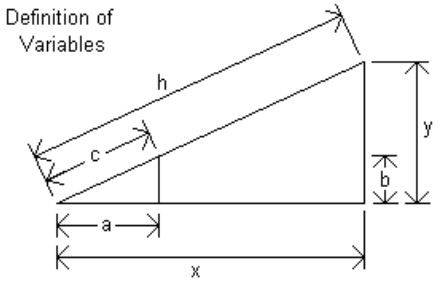
1. ***Appropriate Applications***. Sediment wattles placed on slopes help slow, filter, and spread overland flows. Sediment wattles reduce the effects of long or steep slopes. Sediment wattles are suitable for the following:
   - Along the toe, top, face, and at grade breaks of exposed and erodible soils
   - Can be used with other erosion control devices, including mulch, bonded fiber matrix, etc. Use RECP in the same area as wattles only on rare occasions.

2. ***Limitations***. Sediment wattles are not effective on bare soils unless trenched.

3. ***Layout Guidance.***
   - Sediment wattles are installed along the contour. Estimate proposed contours or generate proposed contours using GEOPAK. To draw the wattles along the contours, use the D&C manager > Pay_items > Division_100> 157051500 Sediment wattle.
   - The wattle spacing shown in the drawing is based on a slope distance. Remember to adjust for the horizontal distance when drawing wattles into the plan view. See drawing below.

Plan view spacing of lines on a slope





b	a	h	x
Rise	Run	Spacing Intervals	Plan Spacing
1	1	15	10.607
1	2	30	26.833
1	3	45	42.691
1	4	60	58.209
1	5	60	58.835
1	6	60	59.184

   - Recommended wattle spacing is shown in the drawing and can be used for most applications. Consider adjusting spacing based on soil conditions (e.g. for soft loamy soils, place rows closer together. For hard, rocky soils, place the rows farther apart).

Applicable SCRs

1. Section 157:
   http://www.cflhd.gov/design/_documents/construction/scr_03/S157-03E.doc

Typical Pay Item Used

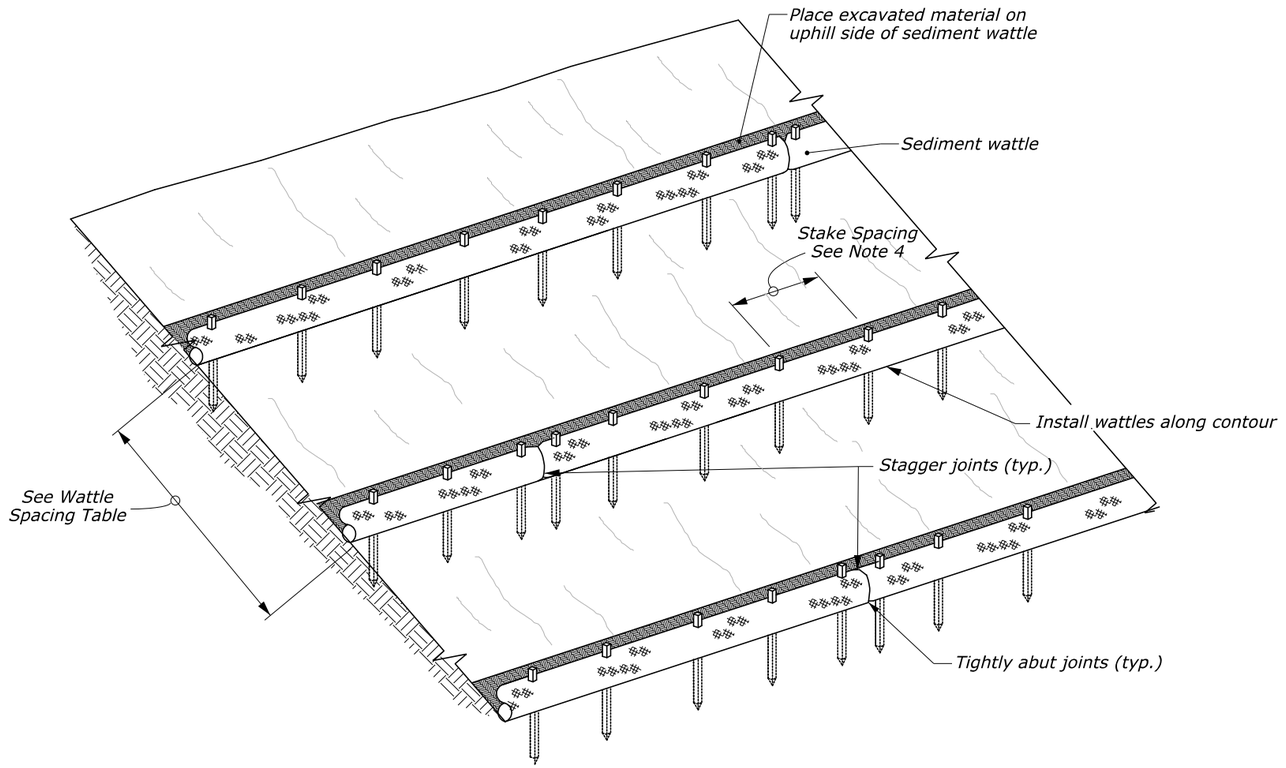
- 15705-1500 Soil erosion control, sediment wattle [LNFT]

Updates

January 2011

- New Detail drawing

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
•	•	•	•	•

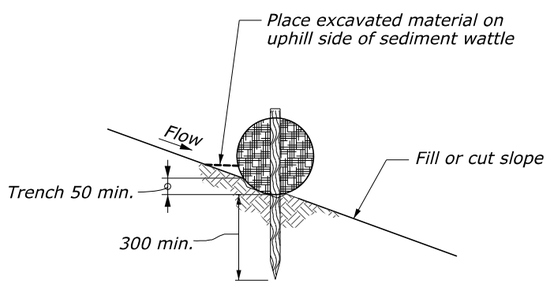


SEDIMENT WATTLE SLOPE LAYOUT

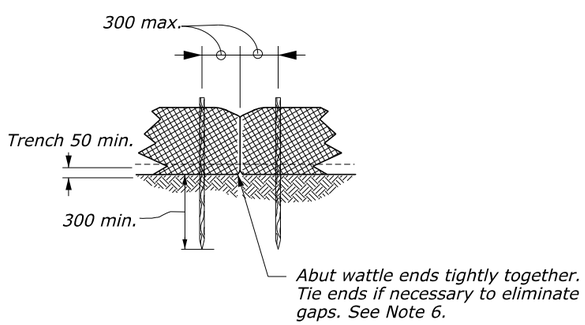
NOTE:

1. Repair all rills or gullies prior to installation.
2. Install sediment wattles along slope contours. For any 6 m section of sediment wattle, do not allow the sediment wattle to vary more than 5% from level.
3. Stake sediment wattles in place with 25 mm x 25 mm or 25 mm Ø wood stakes. Space stakes 1.2 m o.c. max. Stake sediment wattles at each end.
4. Drive stakes into undisturbed soil at least 300 mm deep. Expose stakes 50 mm above top of wattle.
5. For sediment wattles on bare soil, construct trenches parallel to the contour. Place sediment wattles in continuous contact with trench bottom and sides. Tamp soil backfill against upstream side of wattle to ensure storm water is forced to flow through wattle rather than under it.
6. Sediment wattles may be overlapped according to the manufacturer's recommendations.
7. Dimensions without units are millimeters.

WATTLE SPACING TABLE	
Slope Gradient	300 mm Ø wattle Maximum spacing (m)
1V:4H or flatter	18
1V:4H to 1V:3H	14
1V:3H to 1V:2H	9
1V:2H or steeper	5



STAKE DETAIL



WATTLE JOINT DETAIL

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

METRIC DETAIL

SEDIMENT WATTLE

DETAIL APPROVED FOR USE 01/2011

REVISED:

DETAIL CM157-55

25-Jan-2011 11:06 AM N:\CFL-DPIT\Details Team\In_progress\157_erosion_control\files_in_progress\C157-55.dgn

Central Federal Lands Highway Division
US Department of Transportation - Federal Highway Administration

NOTES TO THE DESIGNER

Last Updated: January 2011

General Information

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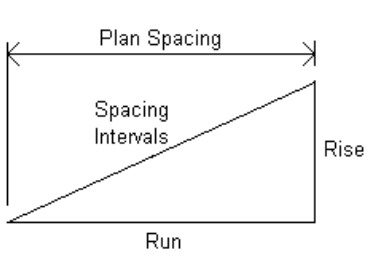
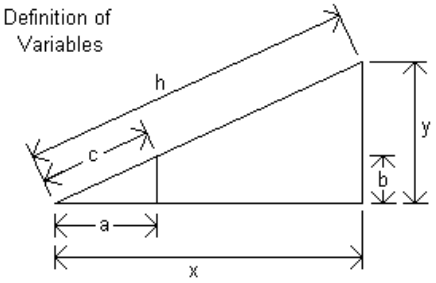
Plan view spacing of lines on a slope





b	a	h	x
Rise	Run	Spacing Intervals (m)	Plan Spacing (m)
1	1	5	3.536
1	2	9	8.050
1	3	14	13.282
1	4	18	17.463
1	5	18	17.651
1	6	18	17.755

   - Recommended wattle spacing is shown in the drawing and can be used for most applications. Consider adjusting spacing based on soil conditions (e.g. for soft loamy soils, place rows closer together. For hard, rocky soils, place the rows farther apart).

Applicable SCRs

1. Section 157:
   http://www.cflhd.gov/design/_documents/construction/scr_03/S157-03M.doc

Typical Pay Item Used

- 15705-1500 Soil erosion control, sediment wattle [m]

Updates

January 2011

- New Detail drawing