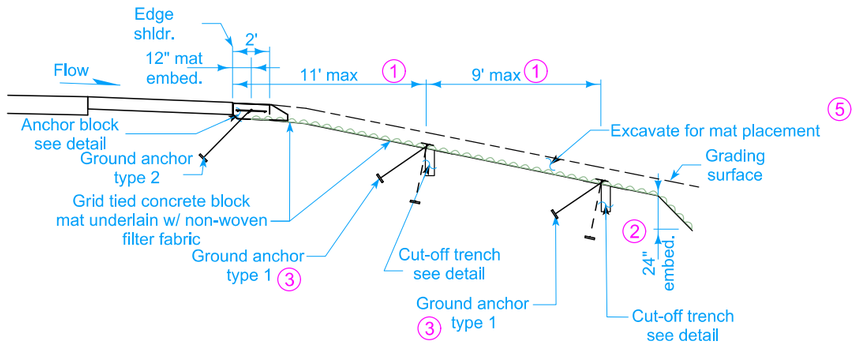
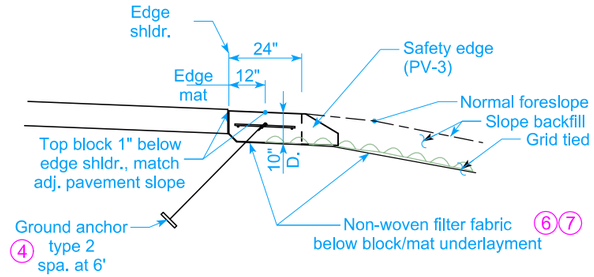
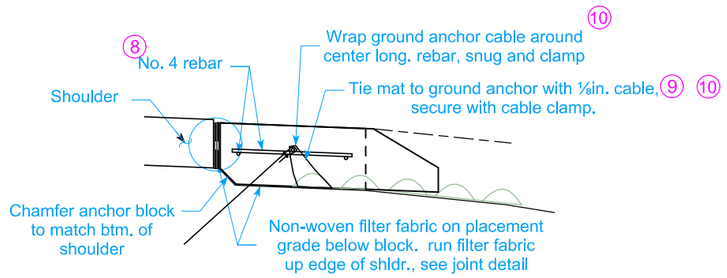


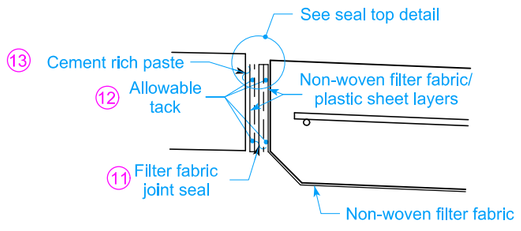
FORESLOPE LINING TYPICAL SECTION



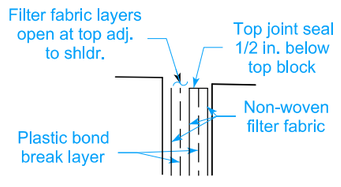
ANCHOR BLOCK TYPICAL SECTION



ANCHOR BLOCK DETAIL



JOINT DETAIL



JOINT SEAL TOP DETAIL

Measurement will be in square yards of slope covered, as measured along the slope.

Payment includes all materials, tools, and labor required to construct "Foreslope Erosion Countermeasure" as detailed.

1. Dimension along grade, adjust to place anchor between blocks
2. Embed. two feet of mat on all exposed edges at 1:1 slope. backfill trench with well compacted excavated material.
3. Type 1 ground anchor, spa. at 4'. adjacent to cut-off trench install at 45 deg. to horz., otherwise install perp. to slope or at angle per mat manuf. recommmendation. Mat shall be fastened to anchor with a steel top bearing 'X' plate, 12 inch cross, 0.11 inch thick steel. Plate shall be Zinc Plastisol coated or approved equal.
4. Type 2 anchor, install at 45 deg. to horz. as shown.
5. Excavate 10 in. for mat placement as required. place 10 in. backfill over mat using excavated material or topsoil if required per regetation requirements.
6. Non-woven filter fabric on placement grade below block and mat underlayment. fabric shall be continuous over placement width. underlayment seams shall be overlapped 2 foot minimum. underlayment shall be continuous across mat seams, with edge of overlap extending 2 feet minimum from edge of mat seam, otherwise a 4 foot wide section of underlayment shall be placed centered on the seam.
7. If pins are used to secure form for anchor block, pins shall be placed through holes between geogrid fibers. patch hole through underlayment with a portland cement mortar mix or approved equal.
8. Three (3) no. 4 reinforcing bar longitudinal along block. spa. as shown, place at midpoint of depth. place no. 4 bar transverse spa. at 36 in., 2 in. clr. all reinforcing bars epoxy coated.
9. Run cable through and diagonally under geogrid for one block width, loop up and over rebar. wrap cable in sperical manner, under geogrid then over rebar, along length of anchor block, amplitude approx. 1 ft. }. snug cable to minimize loose cable without displacing rebar. anchor cable ends with cable clamp.
10. Cable clamp does not need to develop rated cable strength. intent of clamp is to hold cable snug in advance of concrete placement.
11. Fold filter fabric in serpintine manner as shown, three layers thick. fabric shall be folded to create layers. place plastic bond break layer between fabric layers. layers adj. to shldr. open at top.
12. Allowable tack (adhesive) to facilitate placement between outer fabric layers and plastic. allowable duct tape (or equal) strip placed at top to hold outer layer against shldr. after application of paste.
13. In advance of block concrete placement spread thin layer of cement rich paste, or approved adhesive, full face of shldr. press joint seal sandwich into paste/adhesive.

IOWA DOT

REVISION

NEW	10-19-21

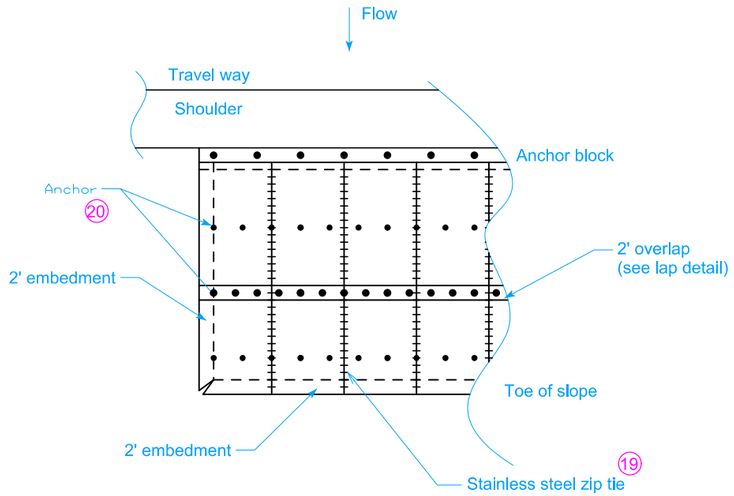
ROAD DESIGN DETAIL

570-22

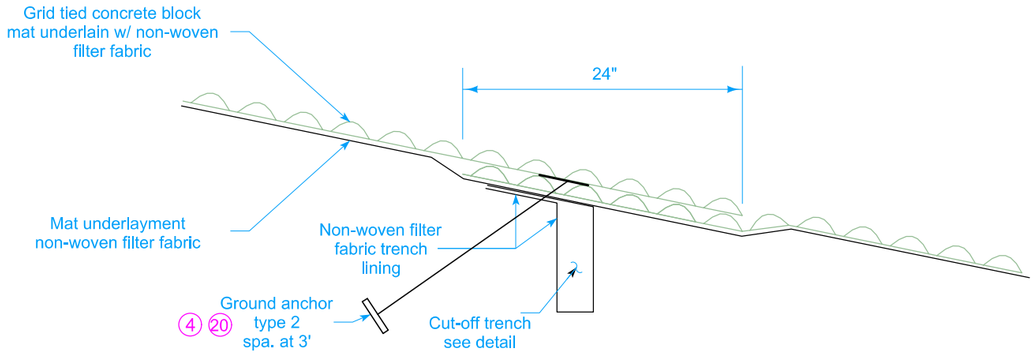
SHEET 1 of 2

REVISIONS: New.

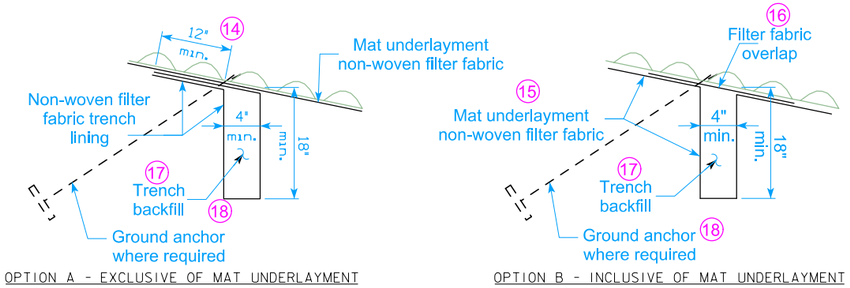
FORESLOPE EROSION COUNTERMEASURE REVETMENT DETAILS (MAJOR OVERTOPPING)



PLAN



LAP DETAIL



CUT-OFF TRENCH DETAIL

14 Fold trench lining fabric with termination toward direction of flow, 12 in. lap min. lap section shall not be pinned/staked to underlying ground except within 3 in. of edge trench.

15 Embed mat underlayment fabric into trench, 18 in. min. depth as shown. mat underlayment may be continuous around trench sides and btm. or only sides when located at underlayment seam.

16 Non-woven filter fabric overlap, 24 in. min. width, place over mat underlayment, center on trench.

17 Backfill trench with well compacted excavated material.

18 Where trench is installed adjacent to ground anchor, place anchor through mat at edge of first block upstream of edge trench.

19 For mat seams parallel to the flow direction (longitudinal seams) abutting sections of mat shall be joined using stainless steel zip ties spaced at 12 inch centers.

20 Mat shall be fastened to anchor with a steel top bearing 'X' plate, 12 inch cross, 0.11 inch thick steel. Plate shall be Zinc Plastisol coated or approved equal.

IOWA DOT

REVISION

NEW 10-19-21

ROAD DESIGN DETAIL

570-22

SHEET 2 of 2

REVISIONS: New.

FORESLOPE EROSION COUNTERMEASURE REVETMENT DETAILS (MAJOR OVERTOPPING)