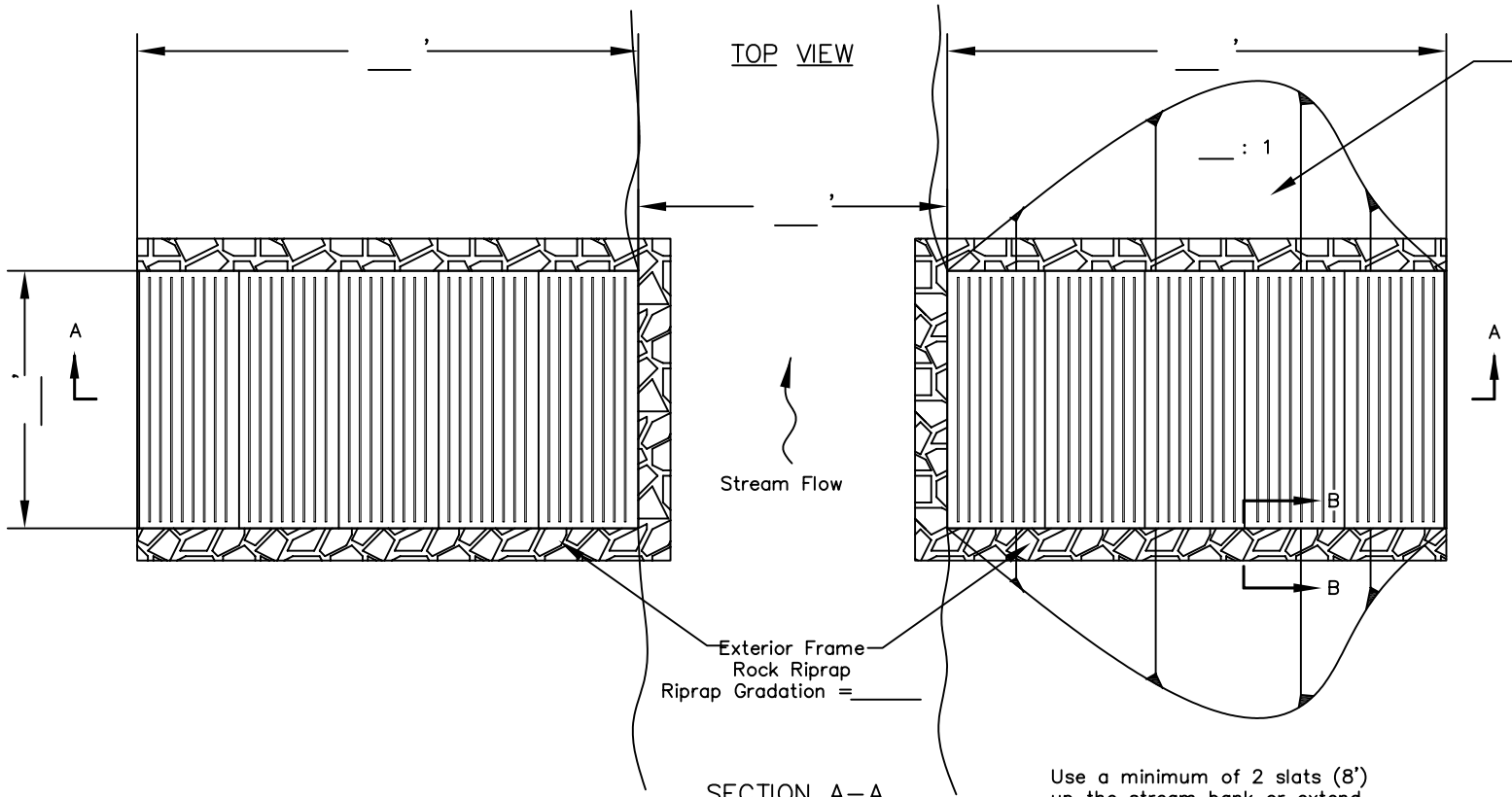
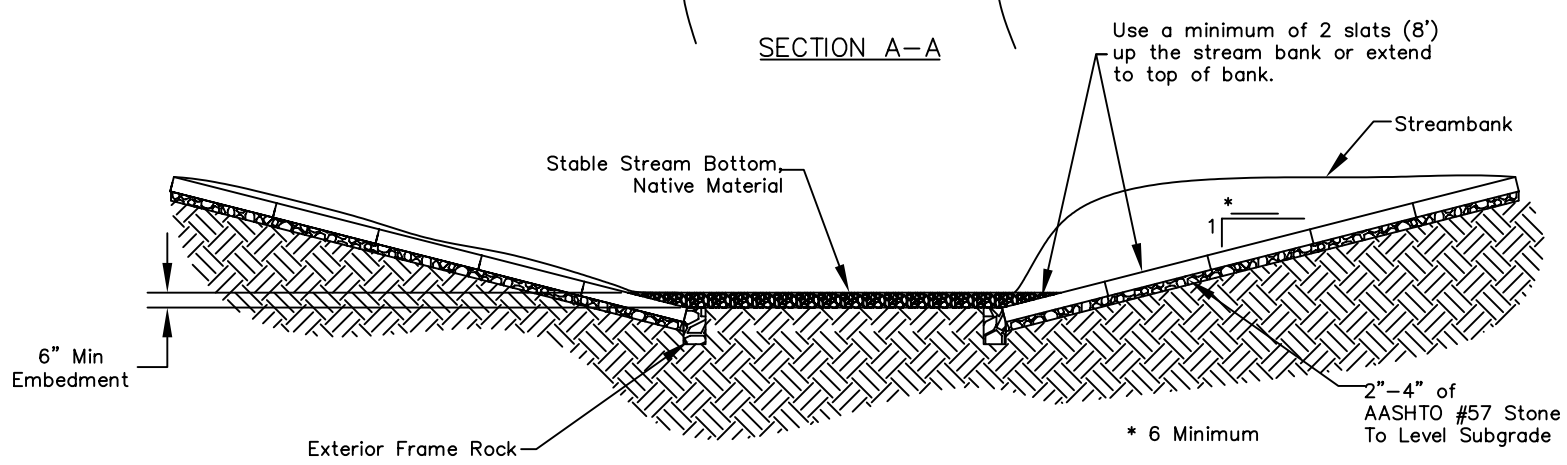
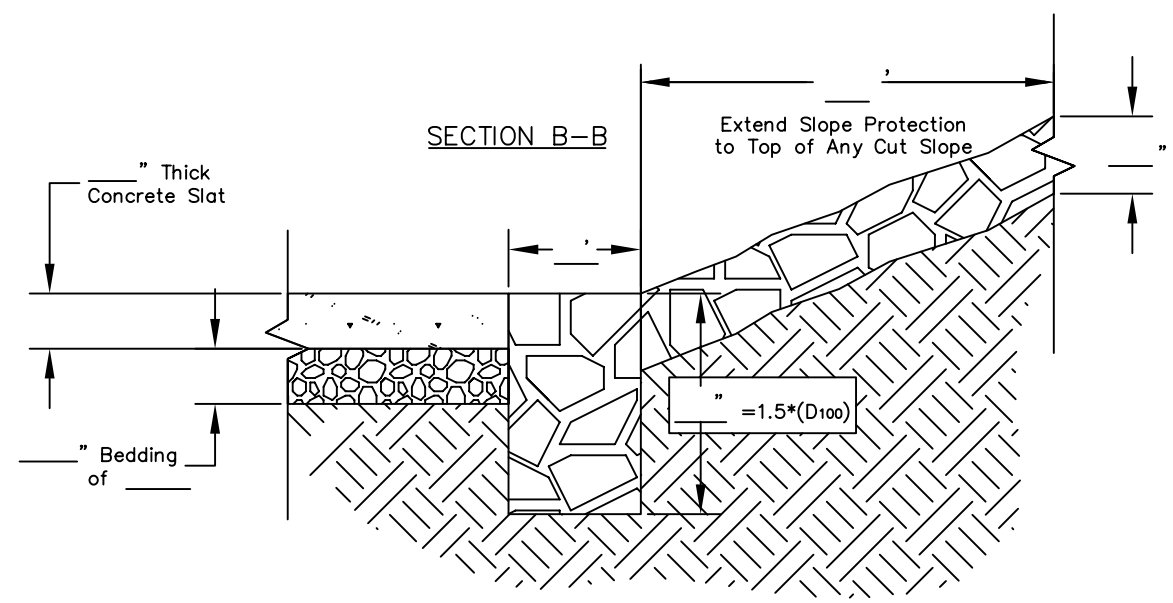


These guidelines apply to stream crossings and the associated approaches down each bank. Other reinforcement criteria should be applied to walkways and pasture entrances as detailed in Specification 575. Fencing requirements for any of these practices should reference Specification 382 for details.

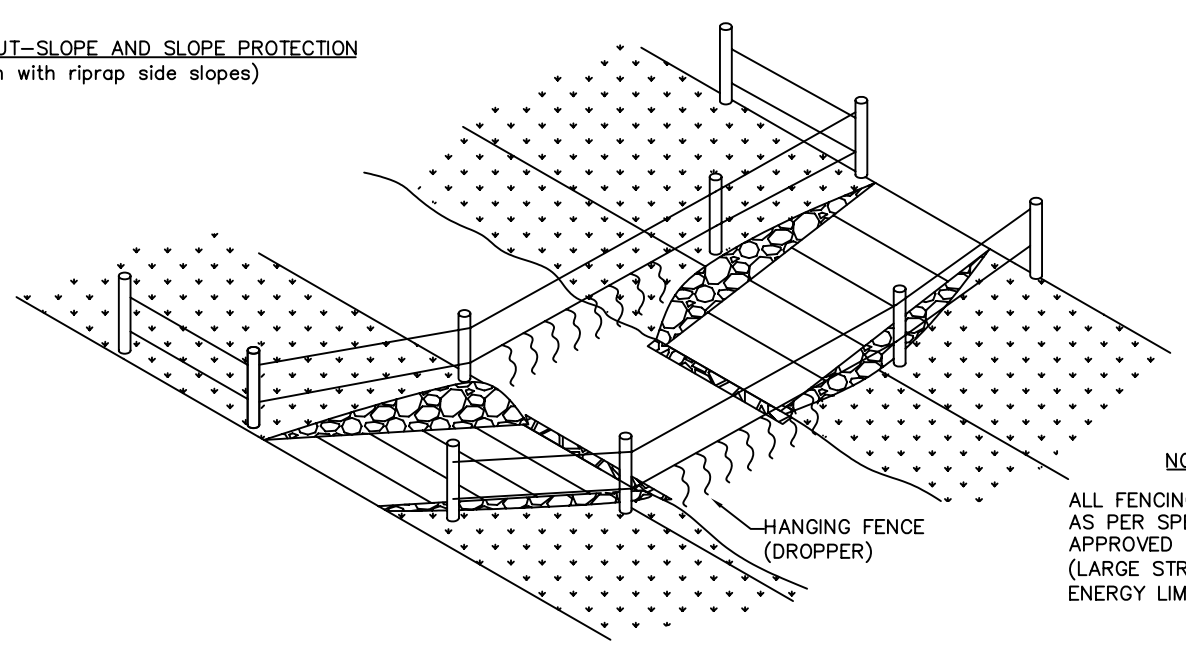
SLOPE PROTECTION/EXTERIOR RIP–RAP SIZING AND CONCRETE SLAT STABILITY

Allowable Velocity (fps)	Slope Protection Rip–Rap Size (Gradation)	Exterior/Frame Rip–Rap Size (Gradation)	Concrete Slats Optional Along W/ Req'd Slope/Frame Stone (Yes/No)
up to 8.3	R–4	None Req'd	Yes
8.4 to 10.5	R–5	R–5	Yes
>10.5	---Refer to EFH App.16A---		No

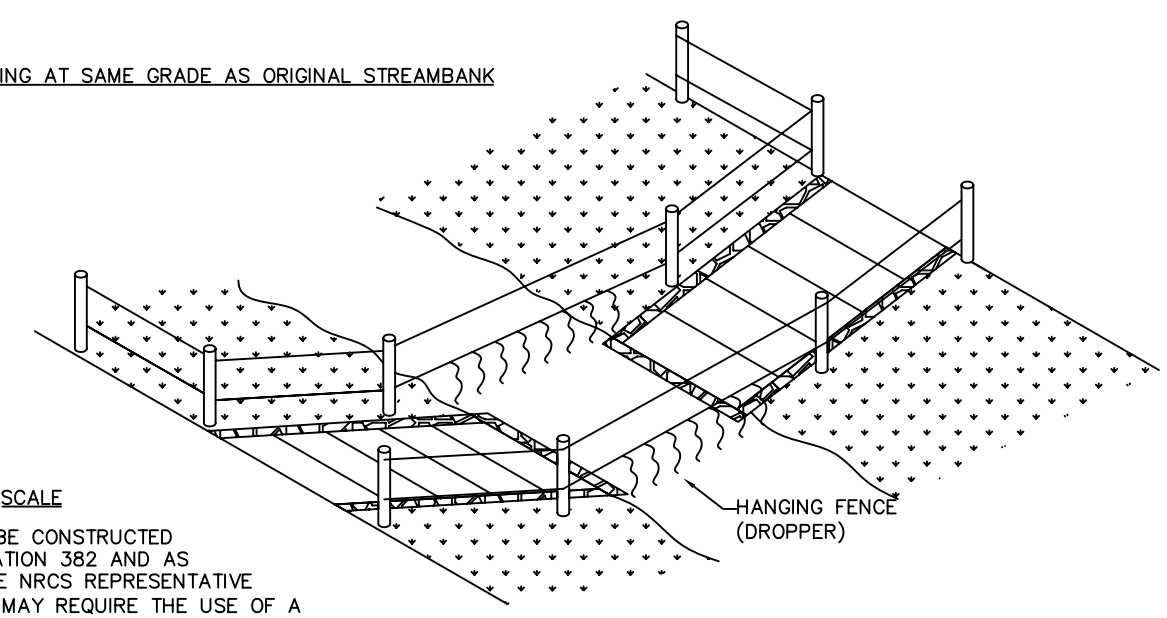




STREAMBANK CUT–SLOPE AND SLOPE PROTECTION
(shown with riprap side slopes)



CROSSING AT SAME GRADE AS ORIGINAL STREAMBANK



NOT TO SCALE

ALL FENCING TO BE CONSTRUCTED AS PER SPECIFICATION 382 AND AS APPROVED BY THE NRCS REPRESENTATIVE (LARGE STREAMS MAY REQUIRE THE USE OF A ENERGY LIMITER FOR HIGH WATER)

Date 9/06
Designed
Drawn JMW
Checked
Approved by

COUNTY, PENNSYLVANIA

SLAT CROSSING W/ STABLE STREAM BOTTOM

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File No. Conc Slat Crossing.dwg

Drawing No. PA–029

Sheet ____ of ____