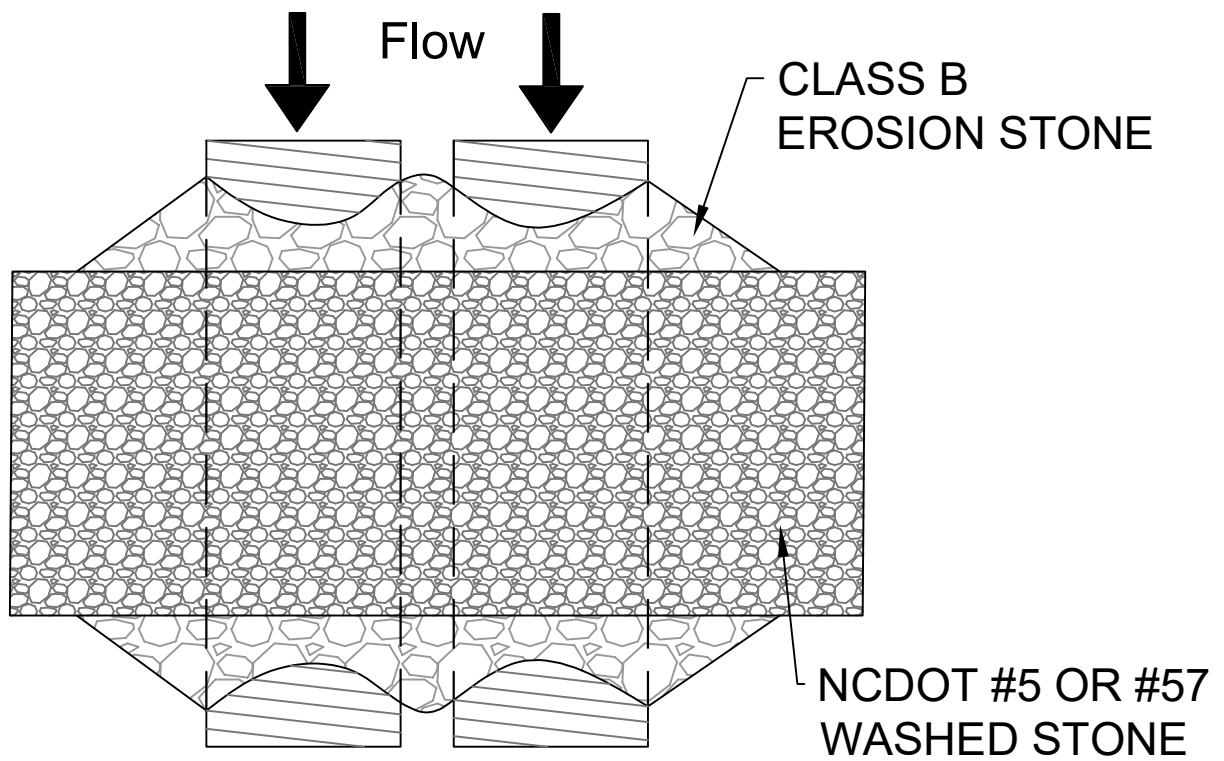
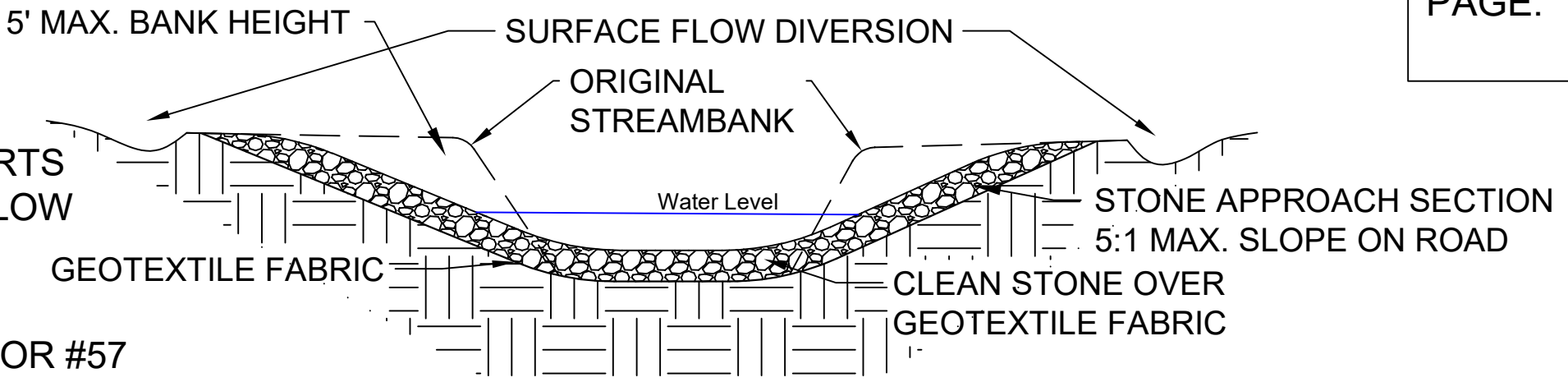


TEMPORARY CULVERT SECTION VIEW



TEMPORARY CULVERT PLAN VIEW



TEMPORARY FORD CROSSING SECTION VIEW

NOTES:

1. Stream crossings shall adhere to all permitting requirements from the U.S. Army Corps of Engineers (Permit 404) and NC Division of Water Quality (Permit 401).
2. If permanent utility crossings are planned, stream crossings at those locations should be considered to minimize stream impacts.
3. Keep clearing and excavation of the stream banks, bed and approach sections to a minimum.
4. Divert all surface water from the construction site onto undisturbed areas adjoining the stream.
5. Keep all stream crossings at right angles to the stream flow.
6. Align road approaches with the center line of the crossing for a minimum distance of 30 feet. Raise bridge abutments and culvert fills a minimum of 1 foot above the adjoining approach sections to prevent erosion from surface runoff and to allow flood flows to pass around the structure.
7. Ford approaches shall not exceed a slope of 5:1.
8. Bank heights at ford crossings shall not exceed 5 feet at any point.
9. Stabilize all disturbed areas subject to flowing water, including planned overflow areas, with riprap or other suitable means if design velocity exceed the allowable for in-place soil.
10. Ensure that bypass channels necessary to dewater the crossing site are stable before diverting the stream. Upon completion of the crossing; fill, compact, and stabilize all disturbed areas.
11. Remove temporary stream crossings immediately when they are no longer needed. Restore channel to its original cross-section, smooth and appropriately stabilize all disturbed area.

MAINTENANCE:

1. Inspect temporary stream crossings at least weekly and after each rainfall of 1.0 inch or greater.
2. Check for blockage in the channel, erosion of abutments, channel scour, riprap displacement, or piping.
3. Make all repairs immediately to prevent further damage to the installation.



TEMPORARY STREAM CROSSING