

Structural Stormwater Conveyance

Definition/Purpose

A *Structural Stormwater Conveyance* includes various techniques to divert or control runoff from paved surfaces where a vegetated diversion is not feasible. The purpose is to manage stormwater runoff (sheet flow or concentrated) from a direct discharge point and divert or control it to an approved BMP, a naturally vegetated area, or to eliminate gully erosion. This may be accomplished through the use of the following: curb cuts, trench drains, drop inlet and grade control structures, raised concrete or asphalt areas in parking lots, earthen berms or check dams.

Policies

1. The impervious surface treatment area must have existed for at least 3 years.
2. Practice is only eligible in situations where runoff from existing impervious surfaces does not flow onto a stable pervious area and is directed instead to a direct discharge point and is causing erosion, sedimentation, and/or nutrient losses.
3. Practice is only eligible in situations where the land use does not allow for a vegetated diversion or grassed swale to be installed, and additional techniques are required.
4. Structural stormwater conveyance techniques must be directed to an appropriately sized, approved BMP, a naturally vegetated area, or other stable outlet to allow for volume reduction and treatment or to eliminate gully erosion.
- ~~5. The practice shall be sized to convey runoff generated by the peak discharge from the 2-year storm.~~
5. This practice shall be designed to convey runoff generated from the 2-year 5-minute storm event for "curb diversions" and the 10-year 5-minute storm event for all other situations.
6. If installing a downstream BMP, it shall be appropriately sized to treat the volume according to specific program BMP guidelines.
7. If the downstream area is natural and will not be improved, the natural soil should be capable of infiltrating the volume of water generated by the aforementioned storm within 24 hours or the outlet remain stable from the conveyed additional water.
- ~~8. Devices shall not promote ponding or detention of runoff on the impervious surface. If placed in a low spot, where excessive head could build up, the device shall be sized for the 10-year storm.~~
9. Flow shall exit the conveyance in a ~~non-erosive~~non-erosive manner. This may require outlet protection or other velocity dissipation techniques.
10. Practice must be designed by a Professional Engineer (PE).
11. Treatment of impervious surfaces adjacent to waterways should be given funding priority.

STRUCTURAL STORMWATER CONVEYANCE	
Lifespan	5 years single-family home, 10 years all other properties
BMP Units	NUMBER
Required Effects	Tons of soil saved (NRCS RUSLE2 or equivalent or volumetric calculation)
JAA	Design must be signed and sealed by a Professional Engineer
CS2 Reference Materials	<ul style="list-style-type: none">• NC-ACSP-11 Signature Page• Map with BMP location and fields

Structural Stormwater Conveyance

Definition/Purpose

A *Structural Stormwater Conveyance* includes various techniques to divert or control runoff from paved surfaces where a vegetated diversion is not feasible. The purpose is to manage stormwater runoff (sheet flow or concentrated) from a direct discharge point and divert or control it to an approved BMP, a vegetated area, or to eliminate gully erosion. This may be accomplished through the use of the following: curb cuts, trench drains, drop inlet and grade control structures, raised concrete or asphalt areas in parking lots, earthen berms or check dams.

Policies

1. The impervious surface treatment area must have existed for at least 3 years.
2. Practice is only eligible in situations where runoff from existing impervious surfaces does not flow onto a stable pervious area and is directed instead to a direct discharge point and is causing erosion, sedimentation, and/or nutrient losses.
3. Practice is only eligible in situations where the land use does not allow for a vegetated diversion or grassed swale to be installed, and additional techniques are required.
4. Structural stormwater conveyance techniques must be directed to an appropriately sized, approved BMP, a naturally vegetated area, or other stable outlet to allow for volume reduction and treatment or to eliminate gully erosion.
5. This practice shall be designed to convey runoff generated from the 2-year 5-minute storm event for “curb diversions” and the 10-year 5-minute storm event for all other situations.
6. If installing a downstream BMP, it shall be appropriately sized to treat the volume according to specific program BMP guidelines.
7. If the downstream area is natural and will not be improved, the natural soil should be capable of infiltrating the volume of water generated by the aforementioned storm within 24 hours or the outlet remain stable from the conveyed additional water.
8. Devices shall not promote ponding or detention of runoff on the impervious surface.
9. Flow shall exit the conveyance in a non-erosive manner. This may require outlet protection or other velocity dissipation techniques.
10. Practice must be designed by a Professional Engineer (PE).
11. Treatment of impervious surfaces adjacent to waterways should be given funding priority.

Community Conservation Assistance Program

STRUCTURAL STORMWATER CONVEYANCE	
Lifespan	5 years single-family home, 10 years all other properties
BMP Units	NUMBER
Required Effects	Tons of soil saved (NRCS RUSLE2 or equivalent or volumetric calculation)
JAA	Design must be signed and sealed by a Professional Engineer
CS2 Reference Materials	<ul style="list-style-type: none">• NC-ACSP-11 Signature Page• Map with BMP location and fields