

Item No. 627S
Grass-Lined Swale

627S.1 Description

This item governs natural or constructed drainage ways of parabolic or trapezoidal cross section that are located below adjacent ground level and is stabilized by suitable vegetation (Environmental Criteria Manual Section 1.4.3.B). The flow is normally wide and shallow and conveys the runoff down the slope.

A grass-lined swale shall be used when it is necessary to convey runoff only without causing erosion. In cases where there is base flow involved, it shall be handled by the addition of a subsurface drain or a stone or gabion mattress lined low flow channel to the grass-lined swale.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

627S.2 Submittals

The submittal requirements for this specification item shall include:

- A. The submittal requirements (if necessary) for Standard Specification Item Numbers 594S, Gabions and Revet Mattresses", 602S, "Sodding for Erosion Control", 604S, "Seeding for Erosion Control" and 605S, "Soil retention Blanket".
- B. Aggregate types, gradations, and physical characteristics for the Portland Cement Concrete mix,

627S.3 Materials

A. Grass-lined Swale

1 Seed and Mulch

Seed and mulch shall conform to Item No. 604S, "Seeding for Erosion Control".

2 Sod

Sodding shall conform to Item No. 602S, "Sodding for Erosion Control".

3 Soil Retention Blanket

The soil retention blanket shall conform to Standard Specification Item No. 605S, "Soil Retention Blanket".

627S.4 Construction Methods

Except as indicated on the Drawings or directed by the Engineer or designated representative, all trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the waterway.

The waterway shall be excavated or shaped to line, grade, typical sections, and cross-section indicated on the Drawings and shall be free of bank projections or other irregularities, which could impede normal flow.

Fill shall conform to Standard Specification Item No. 132S, "Embankment".

All soil and materials not needed to complete the swale shall be removed.

627S.5 Measurement

Acceptable work performed as prescribed by this item shall be measured by lineal feet (lineal meters: 1 lineal meter equals 3.281 lineal feet) along the centerline of the stone center "pilot" channel.

627S.6 Payment

Work performed and materials furnished for this item shall be paid at the unit bid price per lineal foot.

Payment will be made under:

Pay Item No. 627S-GSS: Grass-Lined Swale Lineal Foot	Per
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End

<i>SPECIFIC</i> CROSS REFERENCE MATERIALS
Specification 627S, "Grass-Lined Swale and Grass-Lined Swale with Stone Center "

City of Austin Environmental Criteria Manual

Designation	Description
Section 1.4.4.B.4	Permanent Erosion and Sedimentation Control
Section 1.4.6.B	Standards for Grass-Lined Swales

City of Austin Standard Specifications

Designation	Description
Item No. 132S	Embankment
Item No. 403S	Concrete for Structures
Item No. 594S	Gabions and Revet Mattresses
Item No. 602S	Sodding for Erosion Control
Item No. 604S	Seeding for Erosion Control
Item No. 605S	Soil Retention Blanket

City of Austin Standard Details

Designation	Description
No. 627S-1	Grass-Lined Swale

<u>RELATED</u> CROSS REFERENCE MATERIALS
Specification 627S, "Grass-Lined Swale "

City of Austin Standard Specifications

Designation	Description
Item No. 101S	Preparing Right of Way
Item No. 102S	Clearing and Grubbing
Item No. 111S	Excavation

Item No. 120S Channel Excavation

Item No. 401	Structural Excavation and Backfill
Item No. 404S	Pneumatically Placed Concrete
Item No. 406	Reinforcing Steel
Item No. 408	Concrete Joint Material
Item No. 410	Concrete Structures
Item No. 606S	Fertilizer
Item No. 608S	Planting
Item No. 610S	Preservation of Trees and Other Vegetation
Item No. 620S	Filter Fabric

Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

<u>Designation</u>	<u>Description</u>
Item No. 100	Preparing Right of Way
Item No. 110	Excavation
Item No. 132	Embankment
Item No. 158	Specialized Excavation Work
Item No. 166	Fertilizer
Item No. 168	Vegetative Watering
Item No. 169	Soil Retention Blanket
Item No. 204	Sprinkling