TOWN OF GEORGETOWN
CONSTRUCTION STANDARDS

Chapter 2

Earthwork &

Erosion Control

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EARTHWORK & EROSION CONTROL

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2.00.0 EARTHWORK AND GRADING

All work performed according to this section most comply with the general requirements contained within Chapter 1. and the NPDES requirements established by the Colorado Department of Public Health and Environment (CDPHE). All earthwork. operations shall be executed in a manner that will minimize dust, noise, excessive accumulation of debris, danger to the public, and interference with other construction. Positive drainage and adequate erosion control shall be provided at all times during the earth work operations.

Earthwork operations shall be executed to provide compaction to a minimum 85 percent Standard Proctor density at ± 3% of optimum moisture in areas to be eventua1y turfed or planted and compaction to minimum of 95 percent Standard Proctor density at ± 3% of optimum moisture under all walks, trails, streets, structures, public rights-of-way, and other site improvements. In areas of granular materials, use of the Modified Standard Proctor (ASTM-1557) shall be used for a compaction to a minimum 90 percent density at ± 3% of optimum moisture. Testing, if required by the Town to demonstrate compliance with this specification, shall be performed per AASHTO T-180 or the above referenced ASTM standard by a qualified soils technician and stamped by a Professional Engineer registered in the State of Colorado and practicing in the field of soil mechanics in order to assure compliance with the Town's specifications for compaction. All costs for such testing shall be paid by the Responsib1e Party. Refer to the applicable section in these CONSTRUCTION STANDARDS for compaction requirements within the public right-of-way.

Upon completion of earthwork operations, the Responsible Party shall have the site and soil clean to allow for proper installation of irrigation, plantings, and related site improvements. Completed grades shall be smoothly and uniformly sloped, proper1y compacted, and shall provide drainage away from site improvements. All banks or slopes constructed shall be maintained in a stable condition by approved methods to prevent slips, washouts, or erosion. No area to be seeded or sodded shall be steeper than a 4: 1 maximum slope (4 horizontal: 1 vertical), nor flatter than a 2-percent minimum slope. Final grades will conform to the final drainage study and overlot grading plans.

2.10.0 EROSION CONTROL

The primary goal of all erosion control systems is to prevent unacceptable erosion and maintain water quality at acceptable levels. This shall be accomplished by analyzing pertinent environmental factors and applying technical procedures that result in a workable plan. All erosion control measures shall also comply with Chapter 15.52 of the Town's Municipal Code.

There are two major elements in developing an erosion and sedimentation control plan. The first step is to prepare an investigation and analysis of the natural characteristics of a site (such as soil type, steepness of slopes, and available vegetation) that will help the Responsible Party anticipate where erosion problems might occur. Detailed information on soils, vegetation, topography. geologic, and hydrological conditions shall be obtained for the site. The second element is design and placement of erosion control best management practices. Attention shall be given to identify and evaluate problems that may cause serious erosion during and after construction. Runoff from the site, as well a s runoff from the watershed above shall be controlled and discharged safely. Measures shall be taken to prevent erosion and sediment deposition on downstream properties.

2.10.1 Limitations

No person shall clear or grade land without implementing soil erosion and sediment control in accordance with the requirements of the CDPHE Water Quality Control Division.

2.11.0 EROSION AND SEDIMENT CONTROL PLANS

2.11.1 Review and Approval

Responsible party shall submit a copy of the approved CDPHE permit for stormwater discharges associated with construction activity prior to beginning any work.

2.11.2 Grading and Erosion Control Notes

The following minimum control measures shall be installed on, as well as incorporated into the over1ot grading and erosion control p1an:

GRADING NOTES

(A) All site grading (excavation, embankment, and compaction) shall conform to the recommendations of the latest soil investigation report for this property.

(B) Natural vegetation shall be retained and protected wherever possible. Exposure of soil to erosion by removal or disturbance of vegetation shall be limited to the area required for immediate construction operation and for the shortest practical period of time.

(C) Topsoil shall be stockpiled to the extent practicable on the site for use on areas to be re-vegetated. Any and all stockpiles shall be located and protected from erosive conditions.

(D) Temporary vegetation shall be installed on all disturbed land where permanent surface improvements are not scheduled for installation within three months. Vegetation shall be a drought tolerant, native species mix. Project scheduling should take advantage of spring or fall planting conditions for natural germination.

(E) At all times, the property shall be maintained and watered to prevent wind-caused erosion. Earthwork operations shall be discontinued when fugitive dust significantly impacts adjacent property. If earthwork isn't completed or discontinued and dust from the site continues to create problems, the Responsible Party shall immediately institute mitigative measures and shall correct damage to adjacent property.

(F) Temporary cut/fill slopes shall not exceed a slope of 2:1 (2H: IV). Permanent slopes shall not exceed 4: 1 (4H: IV) in areas to be seeded or sodded. Uti1ity construction is not approved under this plan.

(G) The Responsible Party shall provide any additional dust abatement and erosion control measures deemed appropriate by the Town, should conditions merit them.

(H) Temporary fences may be required along al1 boundaries of the construction limits as shown on the approved erosion control plan, to prevent grading on property not owned by the Responsible Party. In addition, the Town may require additional temporary erosion control fences if field conditions merit them.

2.11.3 Standard Erosion Control Details

All grading and erosion control measures shall conform with the STANDARD DETAILS provided in this chapter.

TOWN OF GEORGETOWN
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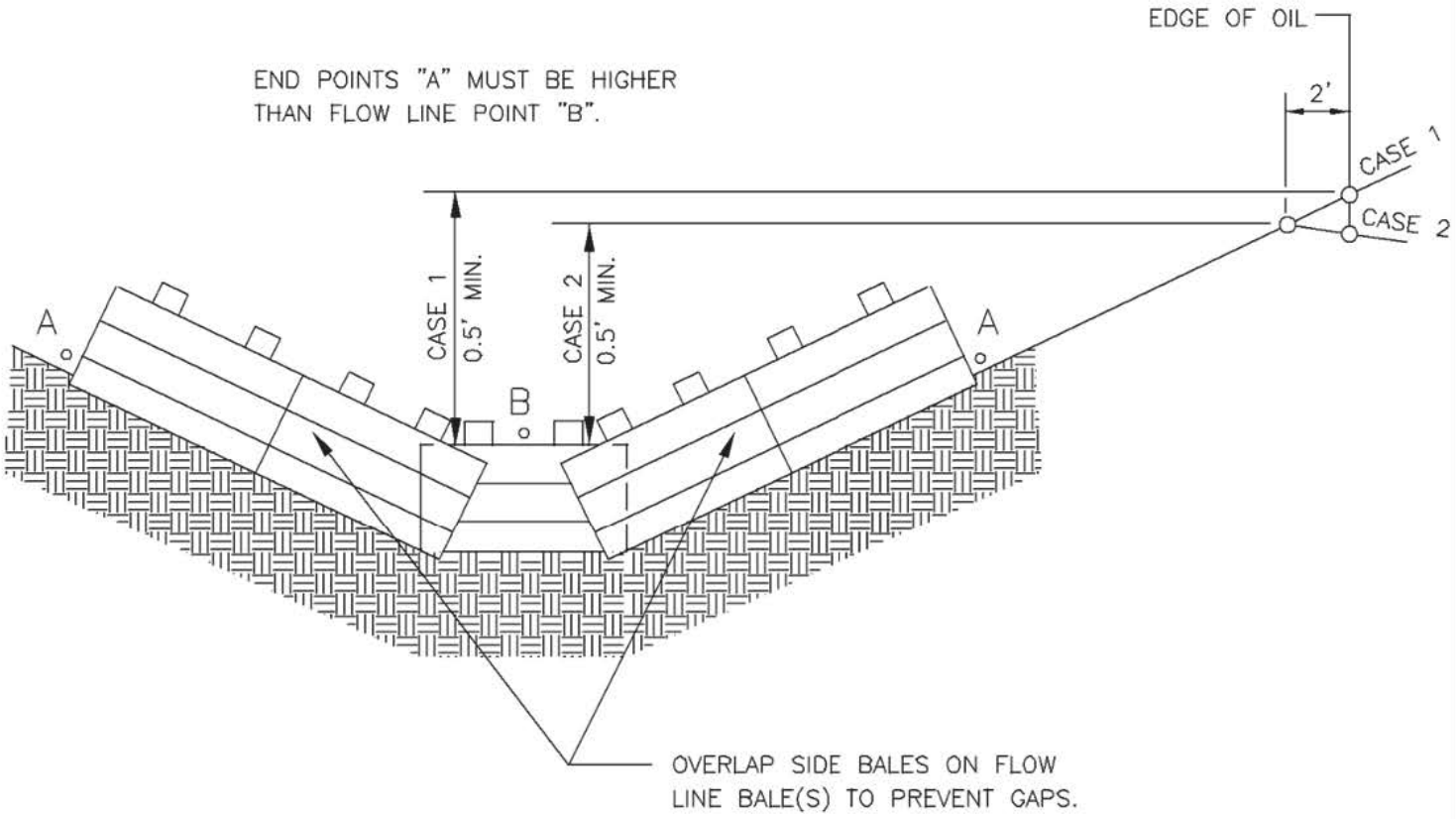
Chapter 2

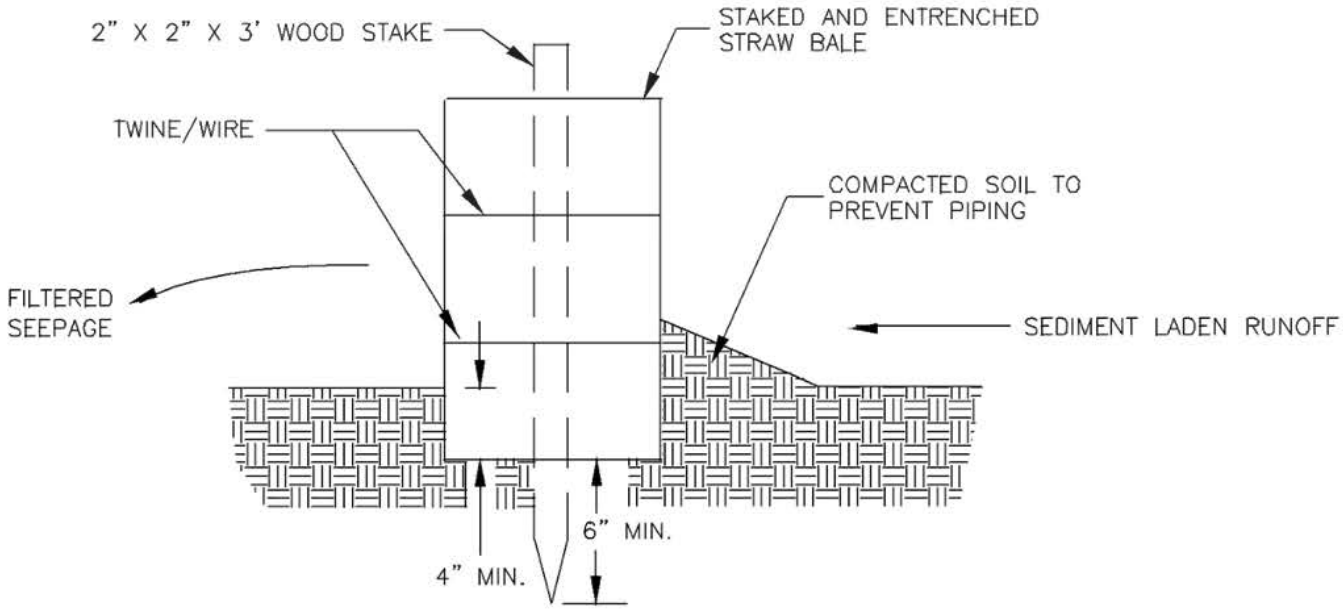
Earthwork & Erosion

Control

Standard Details

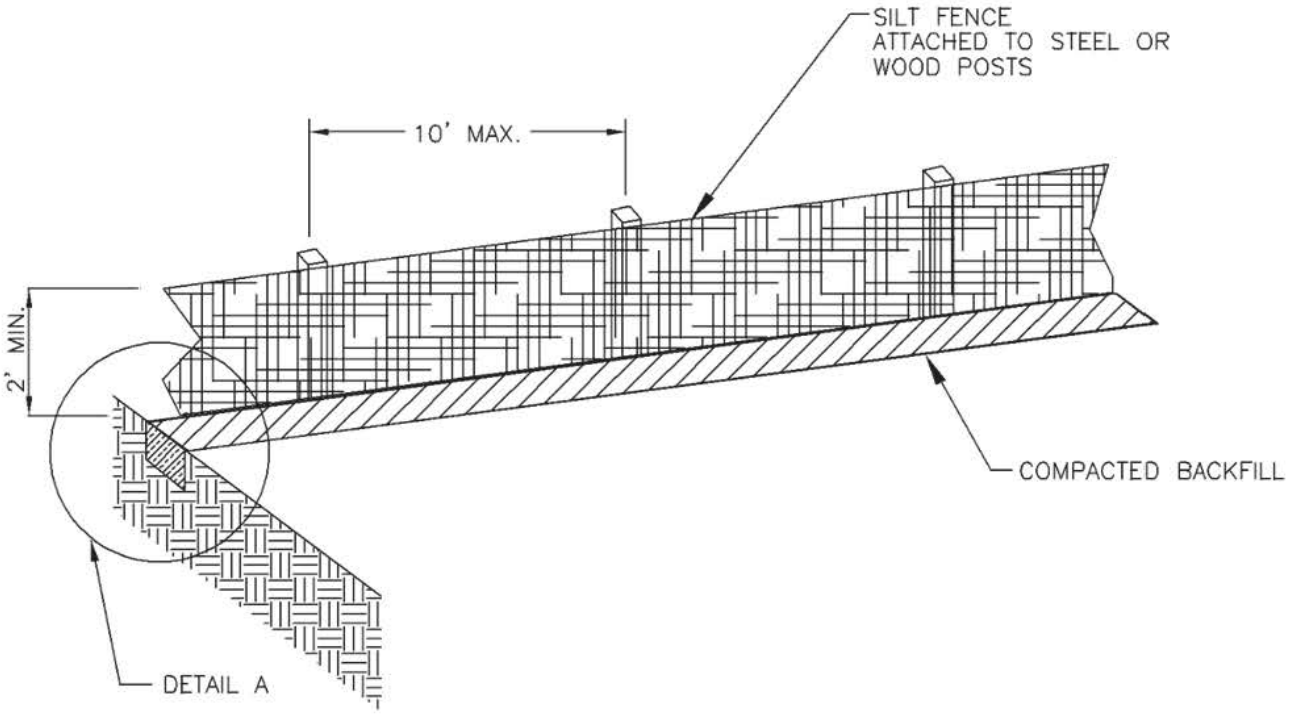


DITCH EROSION BALES

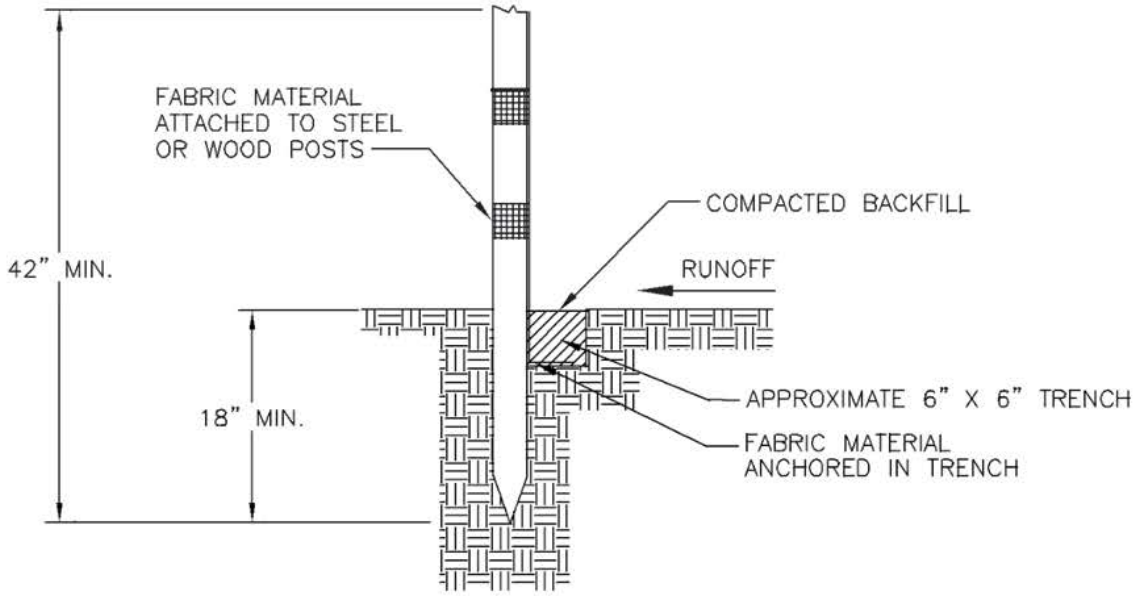


CROSS SECTION OF A PROPERLY INSTALLED STRAW BALE

TOWN of GEORGETOWN 404 Sixth Street Georgetown, CO 80444	EROSION BALES STAKING DETAILS	
	DATE: JULY, 2017	SHEET 2-1 of 4

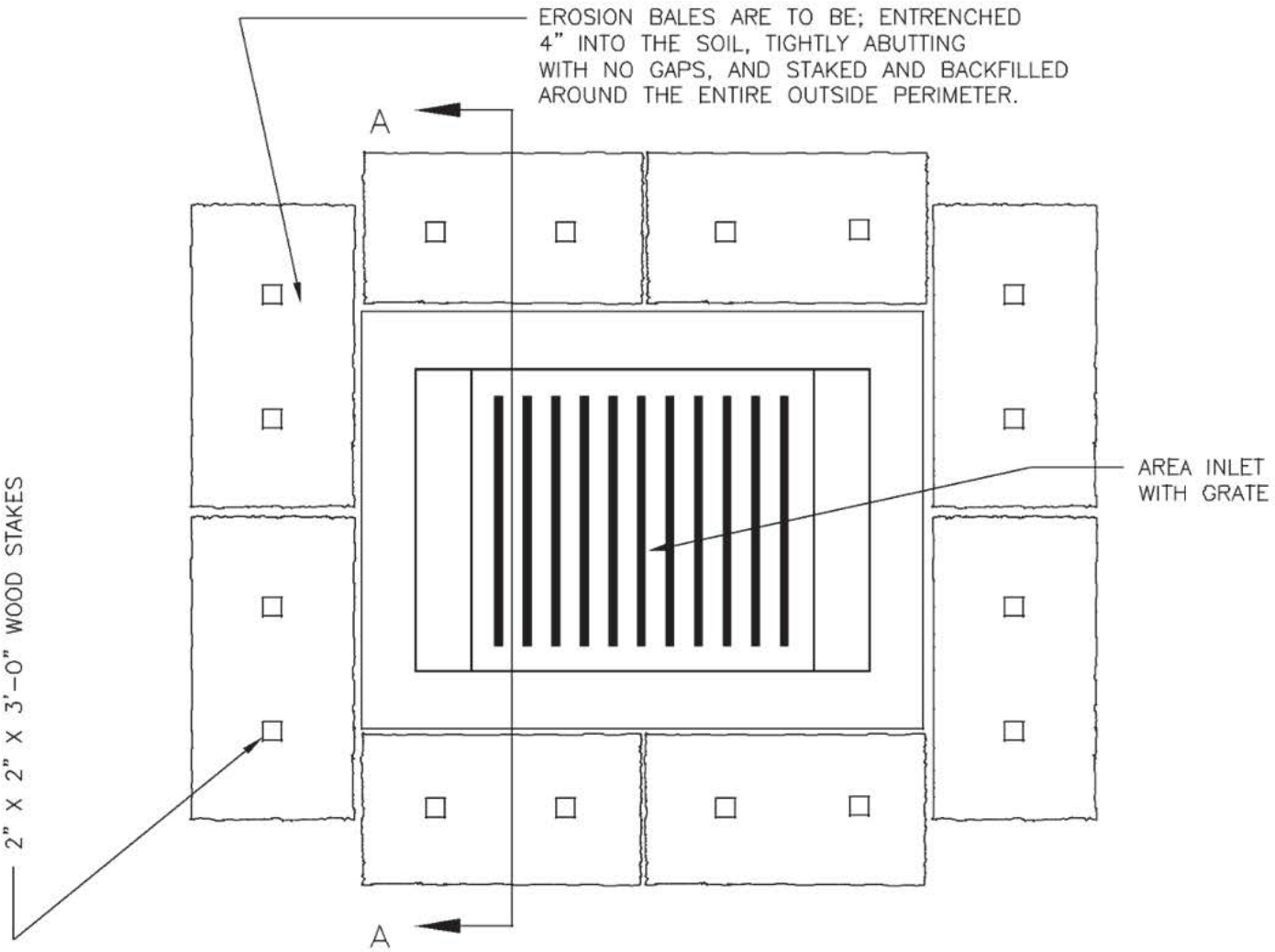


SILT FENCE DETAIL
NOT TO SCALE

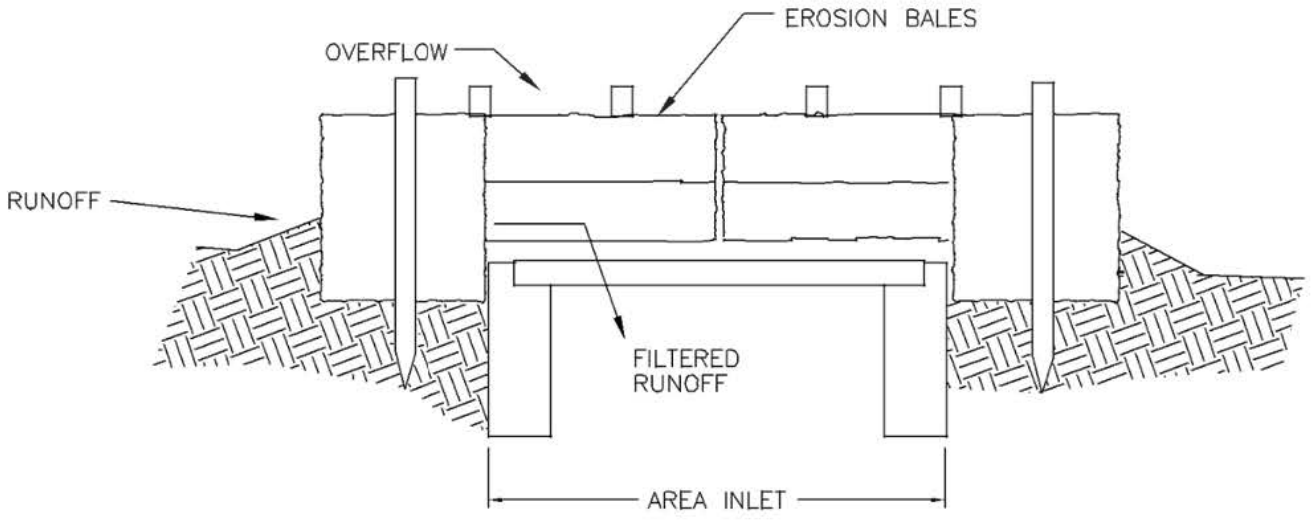


DETAIL A
NOT TO SCALE

TOWN of GEORGETOWN 404 Sixth Street Georgetown, CO 80444	SILT FENCE DETAILS	
	DATE: JULY, 2017	SHEET 2-2 of 4



PLAN VIEW



CROSS-SECTION AA

TOWN of GEORGETOWN 404 Sixth Street Georgetown, CO 80444	AREA DRAIN EROSION PROTECTION DETAIL
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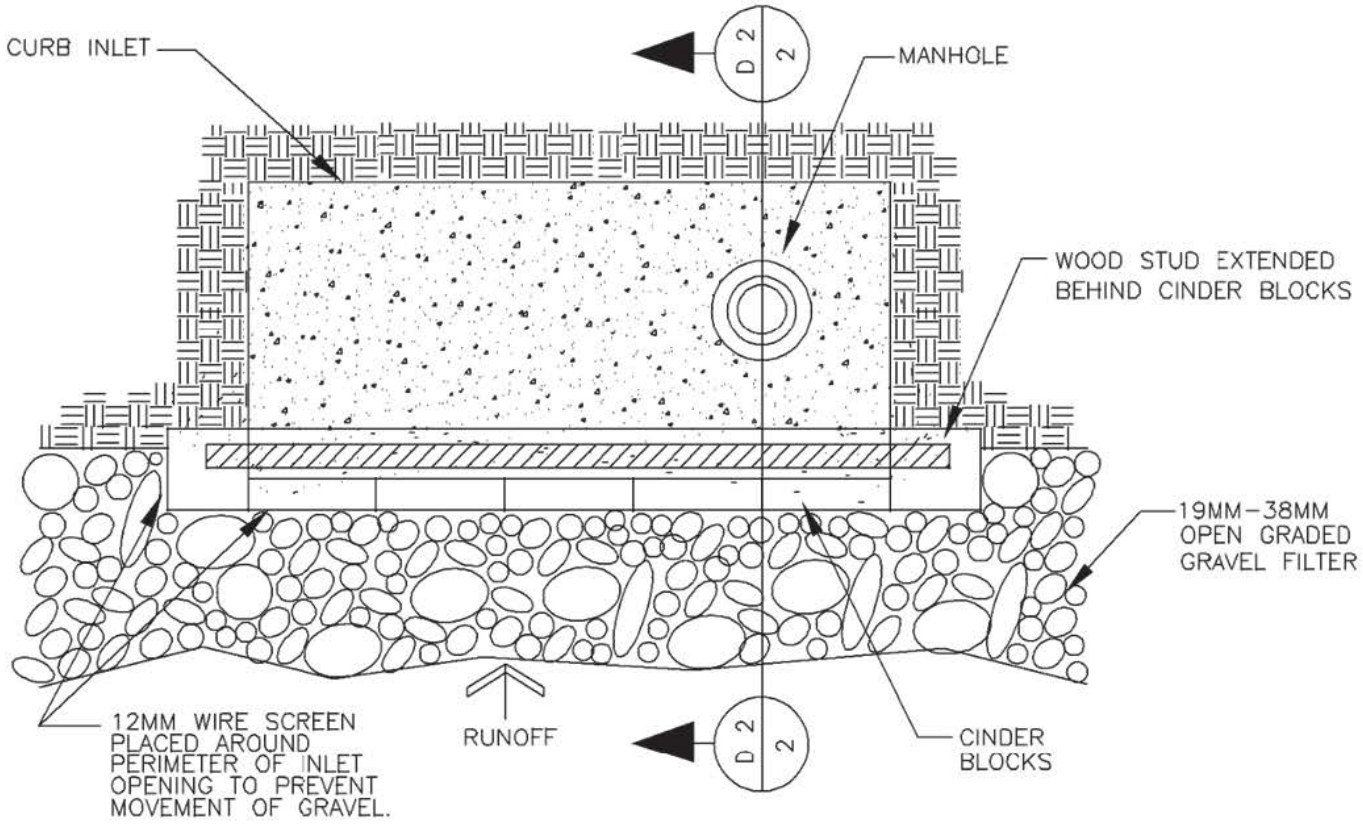
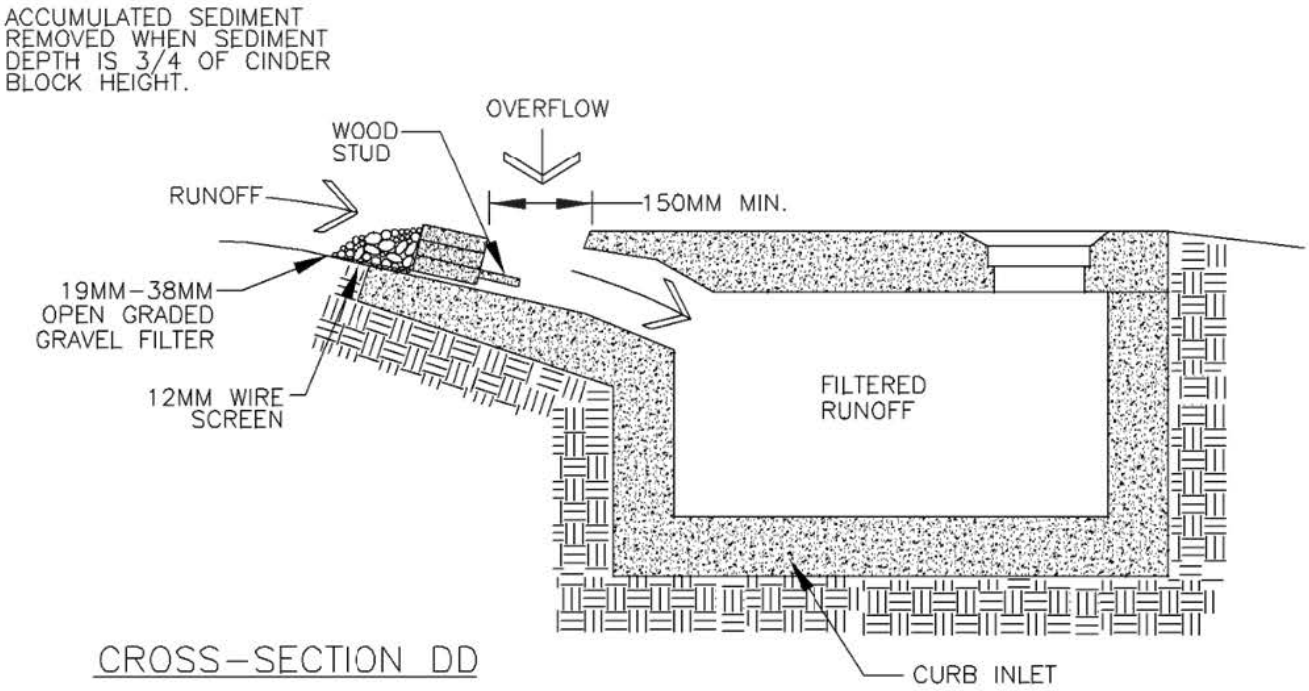


CURB INLET BLOCK AND GRAVEL DETAIL

(LOW VOLUME TRAFFIC AREAS ONLY)



CROSS–SECTION DD

TOWN of GEORGETOWN 404 Sixth Street Georgetown, CO 80444	TYPE R INLET EROSION PROTECTION DETAIL
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