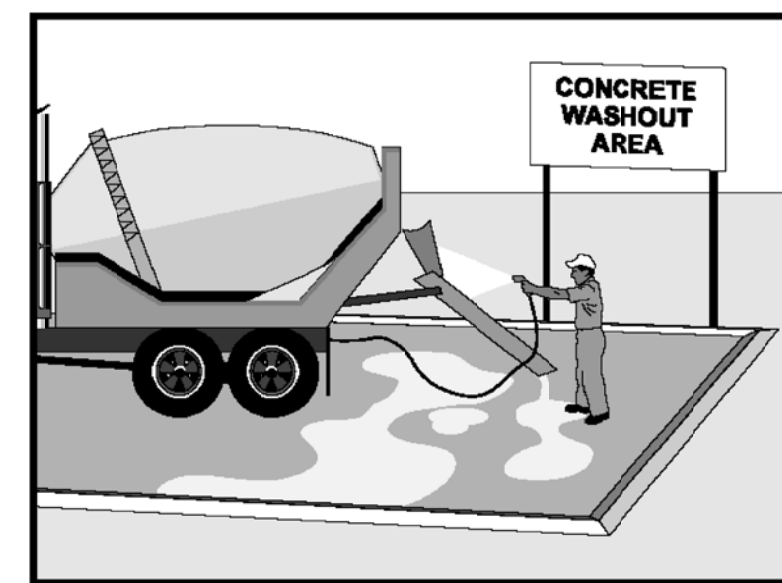


Concrete Waste Management WM-8



Objectives	
EC	Erosion Control
SE	Sediment Control
TC	Tracking Control
WE	Wind Erosion Control
NS	Non-Stormwater Management Control
WM	Waste Management and Materials Pollution Control

Legend:
 Primary Objective
 Secondary Objective

Description and Purpose
 Prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employee and subcontractors.

Suitable Applications
 Concrete waste management procedures and practices are implemented on construction projects where:

- Concrete is used as a construction material or where concrete dust and debris result from demolition activities
- Slurries containing portland cement concrete (PCC) or asphalt concrete (AC) are generated, such as from saw cutting, coring, grinding, grooving, and hydro-concrete demolition
- Concrete trucks and other concrete-coated equipment are washed onsite
- Mortar-mixing stations exist
- See also NS-8, Vehicle and Equipment Cleaning

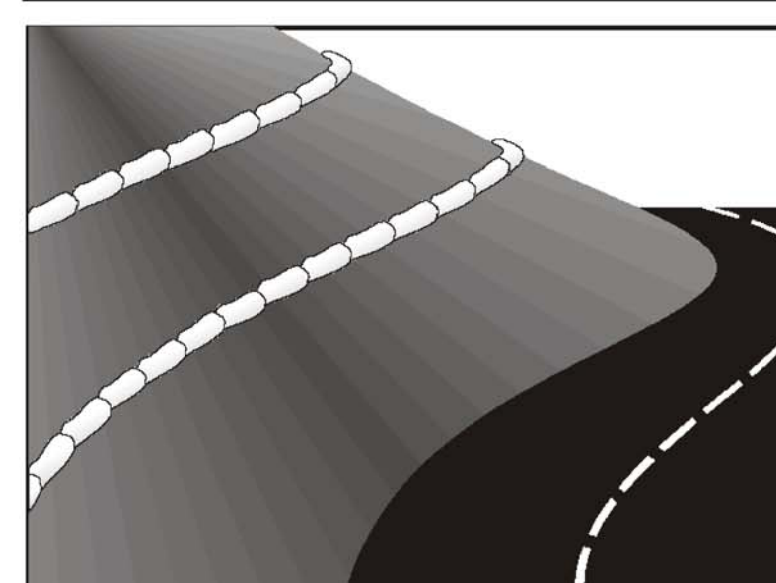
Limitations
 Offsite washout of concrete wastes may not always be possible.

Targeted Constituents	
Sediment	<input checked="" type="checkbox"/>
Nutrients	<input type="checkbox"/>
Trash	<input type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	<input type="checkbox"/>
Oil and Grease	<input type="checkbox"/>
Organics	<input type="checkbox"/>

Potential Alternatives	
None	<input type="checkbox"/>



Gravel Bag Berm SE-6



Objectives	
EC	Erosion Control
SE	Sediment Control
TR	Tracking Control
WE	Wind Erosion Control
NS	Non-Stormwater Management Control
WM	Waste Management and Materials Pollution Control

Legend:
 Primary Objective
 Secondary Objective

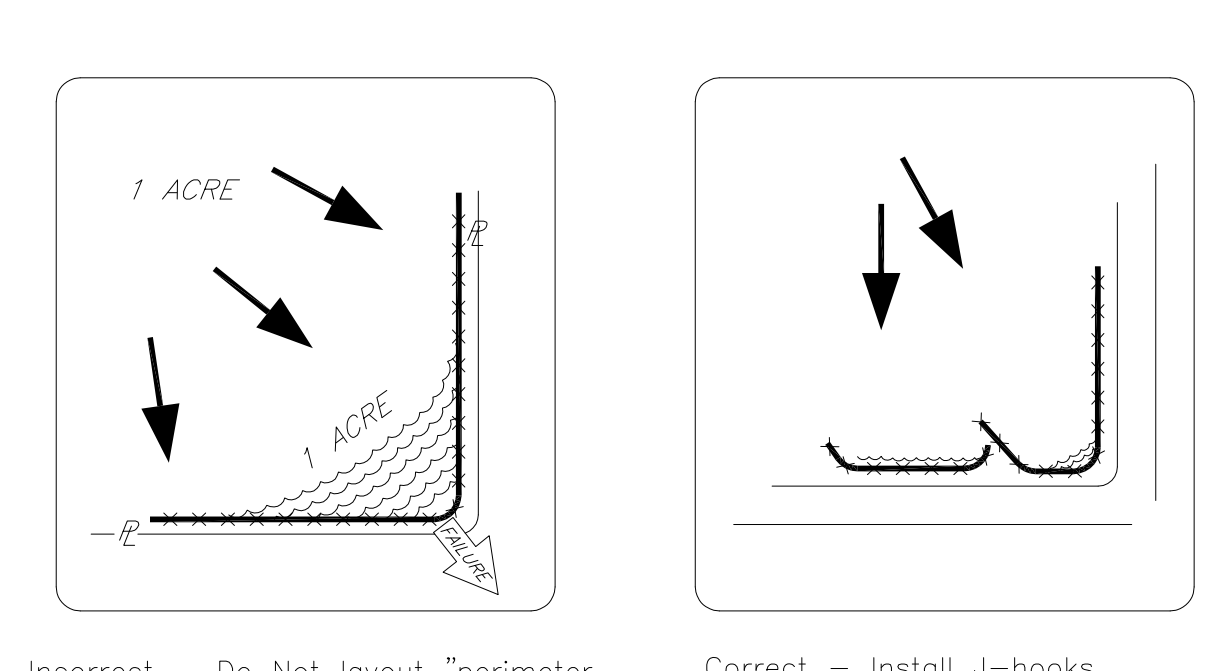
Description and Purpose
 A gravel bag berm is a series of gravel-filled bags placed on a level contour to intercept sheet flows. Gravel bags pond sheet flow runoff, allowing sediment to settle out, and release runoff slowly as sheet flows, preventing erosion.

Suitable Applications
 Gravel bag berms may be suitable:

- As a linear sediment control measure:
 - Below the toe of slopes and erodible slopes
 - As sediment traps at culvert/pipe outlets
 - Below other small cleared areas
 - Along the perimeter of a site
 - Down slope of exposed soil areas
 - Around temporary stockpiles and spoil areas
 - Parallel to a roadway to keep sediment off paved areas
 - Along streams and channels
- As a linear erosion control measure:

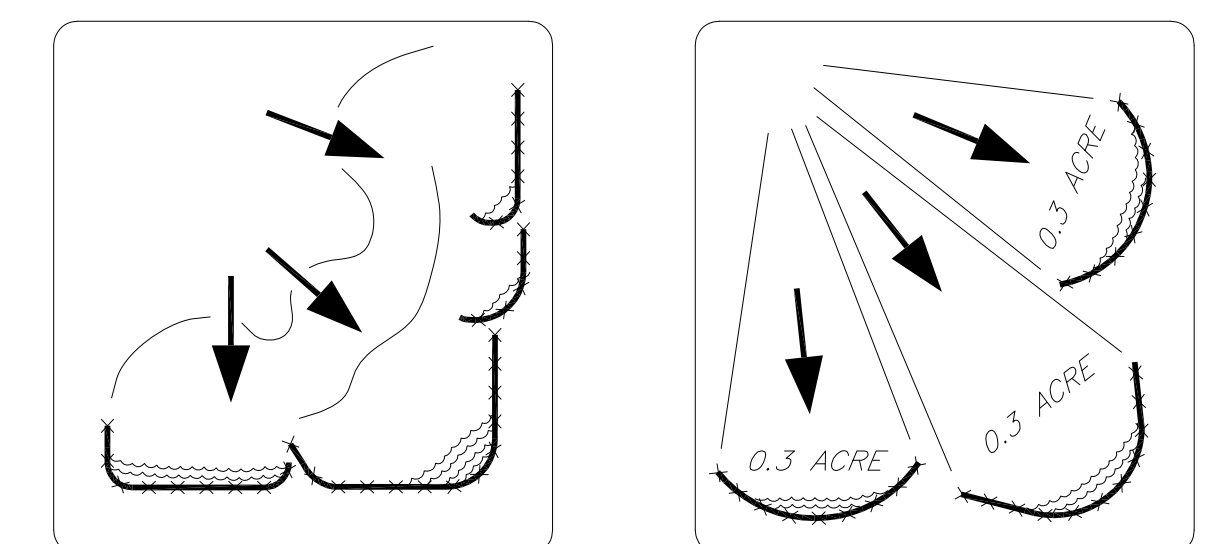
Targeted Constituents	
Sediment	<input checked="" type="checkbox"/>
Nutrients	<input type="checkbox"/>
Trash	<input type="checkbox"/>
Metals	<input type="checkbox"/>
Bacteria	<input type="checkbox"/>
Oil and Grease	<input type="checkbox"/>
Organics	<input type="checkbox"/>

Potential Alternatives	
SE-1 Silt Fence	<input type="checkbox"/>
SE-5 Fiber Roll	<input type="checkbox"/>
SE-8 Sandbag Barrier	<input type="checkbox"/>
SE-9 Straw Bale Barrier	<input type="checkbox"/>



Incorrect - Do Not layout "perimeter control" silt fences along property lines. All sediment laden runoff will concentrate and overwhelm the system.

Correct - Install J-hooks

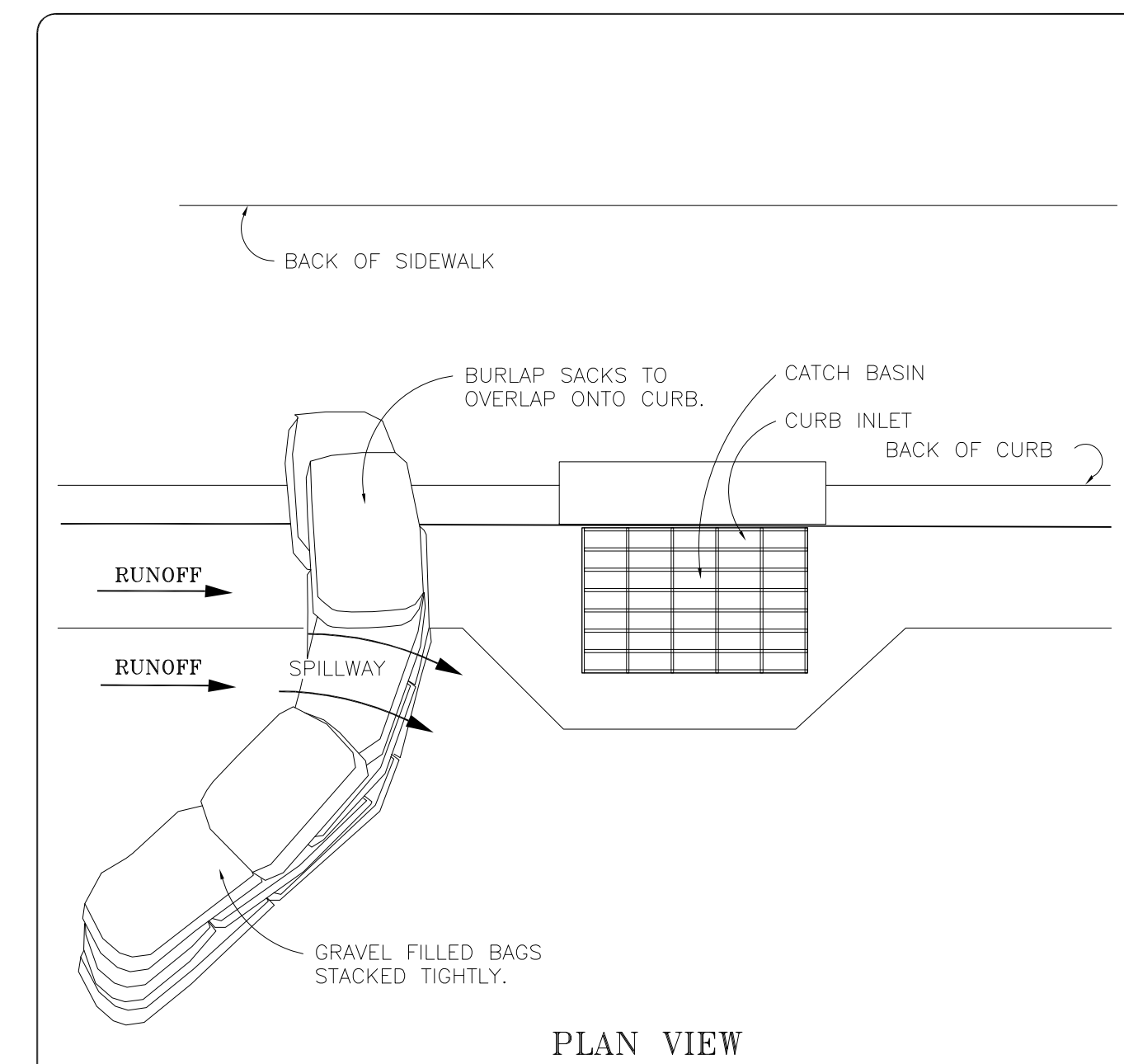


Discreet segments of silt fence, installed with J-hooks or "smiles" will be much more effective.

SILT FENCE PLACEMENT FOR PERIMETER CONTROL

FILE: SF-PERIMETER CONTROL

SE-1 SILT FENCE INSTALLATION



NOTES:
 1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. SANDBAGS OF EITHER BURLAP OR WOVEN "GEOTEXTILE" FABRIC, ARE FILLED WITH GRAVEL LAYERED AND PACKED TIGHTLY.
 3. LEAVE A ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
 4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB AND GUTTER SEDIMENT BARRIER

SE-6 GRAVEL BAG BARRIER DETAIL

Stockpile Management WM-3



Objectives	
EC	Erosion Control
SE	Sediment Control
TC	Tracking Control
WE	Wind Erosion Control
NS	Non-Stormwater Management Control
WM	Waste Management and Materials Pollution Control

Legend:
 Primary Objective
 Secondary Objective

Description and Purpose
 Stockpile Management procedures and practices are designed to reduce or eliminate air and stormwater pollution from stockpiles of soil, paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate sub base or pre-mixed aggregate, asphalt binder (so called "cold mix" asphalt), and pressure treated wood.

Suitable Applications
 Implement in all projects that stockpile soil and other materials.

Limitations
 None identified.

Implementation
 Protection of stockpiles is a year-round requirement. To properly manage stockpiles:

- Locate stockpiles a minimum of 50 ft away from concentrated flows of stormwater, drainage courses, and inlets.
- Protect all stockpiles from stormwater runoff using a temporary perimeter sediment barrier such as berms, dikes, fiber rolls, silt fences, sandbag, gravel bags, or straw bale barriers.

Targeted Constituents	
Sediment	<input checked="" type="checkbox"/>
Nutrients	<input checked="" type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	<input type="checkbox"/>
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input checked="" type="checkbox"/>

Potential Alternatives	
None	<input type="checkbox"/>



Street Sweeping and Vacuuming SE-7



Objectives	
EC	Erosion Control
SE	Sediment Control
TR	Tracking Control
WE	Wind Erosion Control
NS	Non-Stormwater Management Control
WM	Waste Management and Materials Pollution Control

Legend:
 Primary Objective
 Secondary Objective

Description and Purpose
 Street sweeping and vacuuming includes use of self-propelled and walk-behind equipment to remove sediment from streets and roadways, and to clean paved surfaces in preparation for final paving. Sweeping and vacuuming prevents sediment from the project site from entering storm drains or receiving waters.

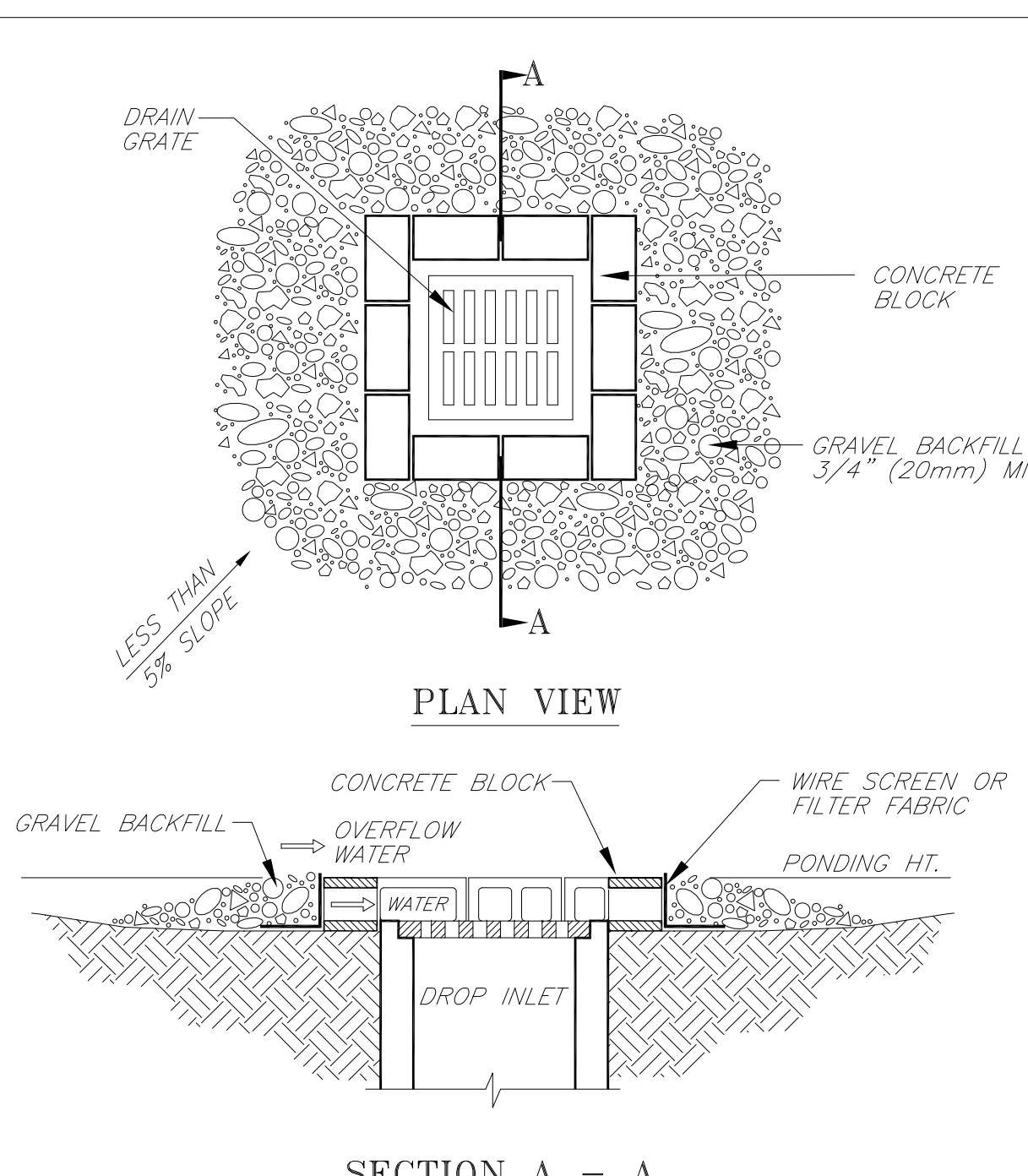
Suitable Applications
 Sweeping and vacuuming are suitable anywhere sediment is tracked from the project site onto public or private paved streets and roads, typically at points of egress. Sweeping and vacuuming are also applicable during preparation of paved surfaces for final paving.

Limitations
 Sweeping and vacuuming may not be effective when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose).

- Implementation**
- Controlling the number of points where vehicles can leave the site will allow sweeping and vacuuming efforts to be focused, and perhaps save money.
 - Inspect potential sediment tracking locations daily.
 - Visible sediment tracking should be swept or vacuumed on a daily basis.

Targeted Constituents	
Sediment	<input checked="" type="checkbox"/>
Nutrients	<input type="checkbox"/>
Trash	<input checked="" type="checkbox"/>
Metals	<input checked="" type="checkbox"/>
Bacteria	<input type="checkbox"/>
Oil and Grease	<input checked="" type="checkbox"/>
Organics	<input type="checkbox"/>

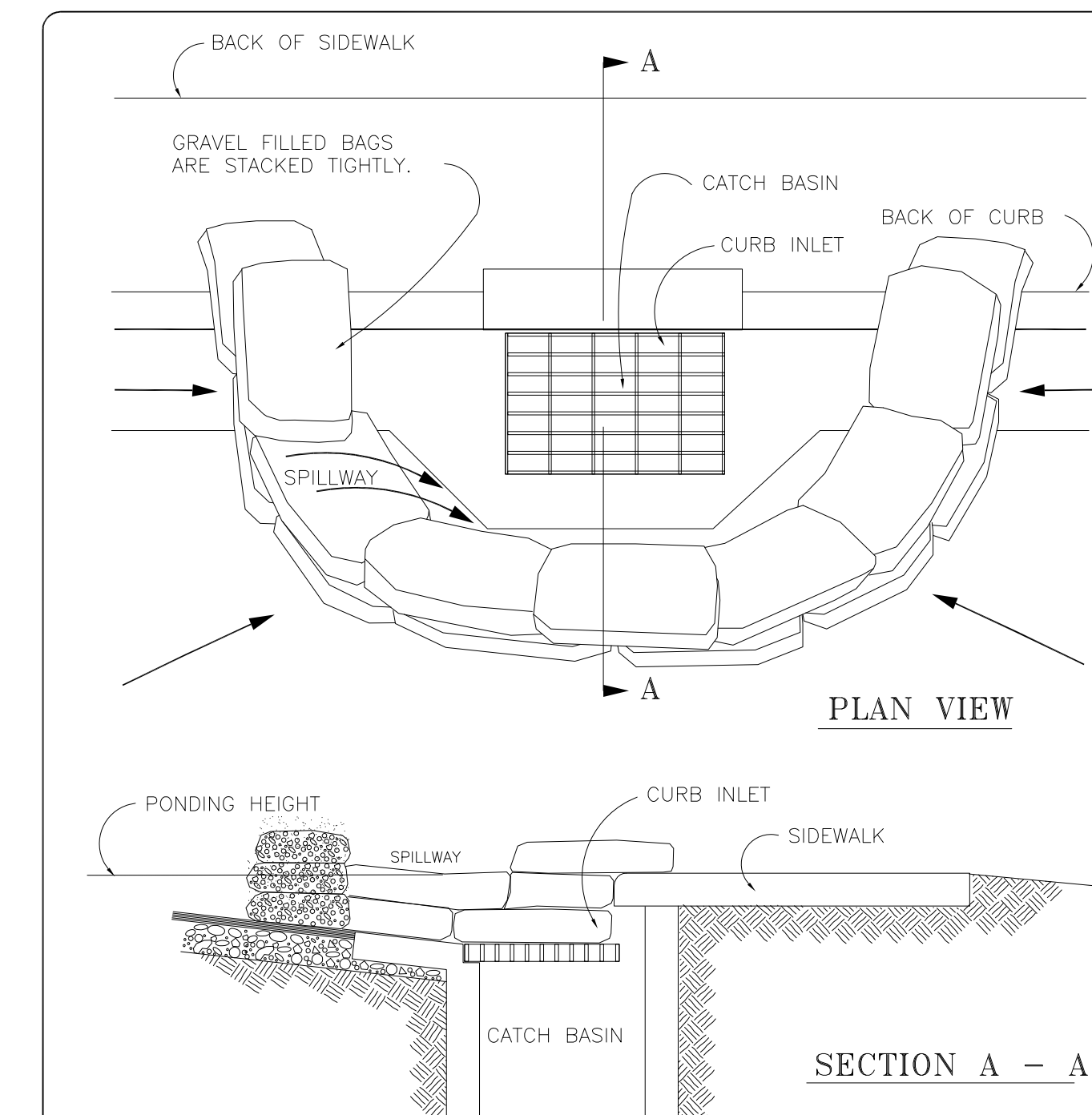
Potential Alternatives	
None	<input type="checkbox"/>



NOTES:
 1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)
 2. EXCAVATE A BASIN OF SUFFICIENT SIZE ADJACENT TO THE DROP INLET.
 3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.

BLOCK AND GRAVEL DROP INLET SEDIMENT BARRIER

SE-10 STORM DRAIN PROTECTION



NOTES:
 1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. SANDBAGS OF EITHER BURLAP OR WOVEN "GEOTEXTILE" FABRIC, ARE FILLED WITH GRAVEL LAYERED AND PACKED TIGHTLY.
 3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
 4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER

SE-10 STORM DRAIN PROTECTION

WM-8 CONCRETE WASTE MANAGEMENT

SE-6 GRAVEL BAG INSTALLATION

SE-1 SILT FENCE INSTALLATION

SE-6 GRAVEL BAG BARRIER DETAIL

WM-3 STOCKPILE MANAGEMENT

SE-7 STREET SWEEPING AND VACUUMING

SE-10 STORM DRAIN PROTECTION

SE-10 STORM DRAIN PROTECTION

WM-3 STOCKPILE MANAGEMENT

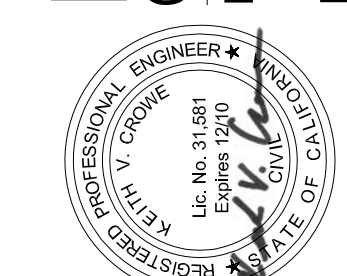
SE-7 STREET SWEEPING AND VACUUMING

SE-10 STORM DRAIN PROTECTION

SE-10 STORM DRAIN PROTECTION

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 Consulting Engineer

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 KVCrowe@Charter.net



Project:
 ACCESSIBILITY IMPROVEMENTS

ROLLING HILLS APARTMENTS

TEMPLETON, CA

Client:
 Rolling Hills Housing Associates, LP

Sheet Contents:
 EROSION CONTROL PLAN DETAILS

Date:
 Aug 2010
Revised:

Job No:
 Rolling Hills Apartments

Sheet:
C-7.0