

DRAINAGE NARRATIVE

THIS SITE IS LOCATED AT LOT 2, BOSQUE PLAZA IN ALBUQUERQUE, BERNALILLO COUNTY. THIS SITE IS LOCATED ON THE NATIONAL FLOOD INSURANCE RATE MAP NO. 35001C0116G EFFECTIVE ON 09/26/2008, AND LIES WITHIN ZONE X, WITH NO PORTION OF THE SITE LOCATED WITHIN A 100 YEAR FLOOD PLAIN.

THE EXISTING SITE IS PART OF AN APPROVED MASTER DRAINAGE PLAN TITLED "REVISED DRAINAGE REPORT FOR SOUTHWEST CORNER OF LA ORILLA AND COORS, LOTS 1.2, 3.4, 5.6AA, 7A, 8 OF THE LANDS OF MARTIN L. TAYLOR" DATED AUGUST 5, 2004, COA# E-12/D6. THE EXISTING ON-SITE DRAINAGE IS DIRECTED TOWARDS AN EXISTING ONSITE 40' PUBLIC DRAINAGE EASEMENT AND POND. PROPOSED GRADING FOR THIS SITE HONORS THE EXISTING DRAINAGE PATTERNS. THE MASTER PLAN INCLUDED DRAINAGE PONDS SIZED FOR THE LOTS ASSUMING TYPICAL LOT LAND TREATMENTS AREAS OF 85% TYPE D AND THE REMAINING 15% WITH TYPE C.

THIS PROPOSED DEVELOPMENT INVOLVES THE ADDITION OF A NEW BUILDING AND PAVED PARKING AREA. THIS PROJECT DISTURBS APPROXIMATELY 1.6 ACRES. THE PROPOSED GRADING DIRECTS ALL RUNOFF TOWARDS THE EXISTING ONSITE 40' PUBLIC DRAINAGE EASEMENT/POND. THE PROPOSED PLAN HAS DRAINAGE FOR THE LOT BASED ON LAND TREATMENTS OF 58% TYPE D AND THE REMAINING 42% WITH TYPE C. THE DEVELOPED RUNOFF IS LESS THAN ALLOWABLE FROM THE MASTER PLAN. THEREFORE NO ADDITIONAL PONDING HAS BEEN ADDED FOR THE 100 YEAR STORM VOLUME (SEE CALCULATIONS).

Hydrology Calculations				
DPM - Volume 2, October 2008				
Section 22.2 Hydrology				
Precipitation Zone	1			
100 Year Storm Depth, P (360)	2.2			
Treatment Area	A	B	C	D
Excess Precipitation Factors	0.44	0.67	0.99	1.97
Peak Discharge Factors	1.29	2.03	2.87	4.37
Land Treatment Area	Acres	Existing	Allowable	Proposed
Type "A" (Native Grass, weeds and shrubs)	0.00	0.00	0.00	
Type "B" (Native Grass, >20% Slope)	0.00	0.00	0.00	
Type "C" (Desert Landscaping, rock/plastic)	0.29	0.29	0.81	
Type "D" (Impervious, Roof, Pavement)	1.63	1.63	1.11	
Total (Acres)	1.923	1.923	1.923	
Excess Precipitation(in)	1.82	1.82	1.56	
Volume (100), cf	12725	12725	10870	
Volume (10), cf	8526	8526	7283	
Q (100), cfs	7.97	7.97	7.19	
Q (10), cfs	5.34	5.34	4.82	
P (360) Ponding Volume, cf = V(10)proposed-V(10)Allow able = -1243				
Additional P(360) Ponding Not Required				

ONSITE FIRST FLUSH DRAINAGE

FIRST FLUSH STORAGE REQUIRED BY COA HYDROLOGY:
PROVIDE STORAGE FOR FIRST FLUSH RUNOFF PER SECTION 22 OF DPM
TABLE A-6 USE 0.44 - 0.1 = 0.34 IN

FIRST FLUSH (IN) APPLIED OVER IMPERVIOUS AREAS (ACRES)
THEREFORE (0.34 / 12) X 1.11 X 43560 = 1370 CF (0.0315 ACRE-FT)

FIRST FLUSH PONDING AREA REQD. = 1370 CF < CAPACITY OF EXISTING POND
(40' X 300' X 4') INCLUDING EXISTING RUNOFF VOLUME FROM 100 YEAR (P360) STORM
SEE 9/S-501 FOR POND SECTION AND VOLUMES.

LEGEND

EROSION AND SEDIMENT CONTROL PLAN

PB -PB -PB -PB

PROJECT PERIMETER & DISTURBED AREA

SF - SF - SF

SILT FENCE

+

MULCH SOCKS

→

FLOW DIRECTION

STAGING AREA

STABILIZED CONSTRUCTION ENTRANCE

TRASH RECEPTACLE

CHEMICAL TOILET

CONCRETE WASHOUT

RETENTION POND

EXISTING BLOCK WALL

CHECK DAM

DROP INLET PROTECTION

OUTFALL

S

POSTING SIGN

↓

PRESERVED VEGETATION

RECEIVING WATERS: RIO GRANDE RIVER

CRITICAL HABITAT: CRITERION "C"; RIO GRANDE SILVERY MINNOW AND YELLOW BILLED CUCKOO ARE DOWNSTREAM FROM SITE

GPS LOCATION: 35.1585, -106.6774

LEGACY HOME HEALTH

PROJECT TITLE

ALBUQUERQUE, BERNALILLO COUNTY, NM

CITY, COUNTY, STATE

12/05/17

DATE

C. DURKIN

DRAWN BY

inspections Plus, Inc.

DAVID SCULE

NEW MEXICO

14522

REGISTERED PROFESSIONAL ENGINEER

12/5/17

Engineer Stamp

Curb Storm Inlet Protection with Wattles



Inlet Filter Installation Instructions:



1. Remove sediment, debris, ice and snow from the inlet grate surface and surrounding area.

2. Verify fit by placing filter over inlet grate to ensure that Inlet Filter extends at least one inch beyond the front and both curb ends. The overlap slows water

flow and starts filtering sediment and debris before water drops into the inlet.

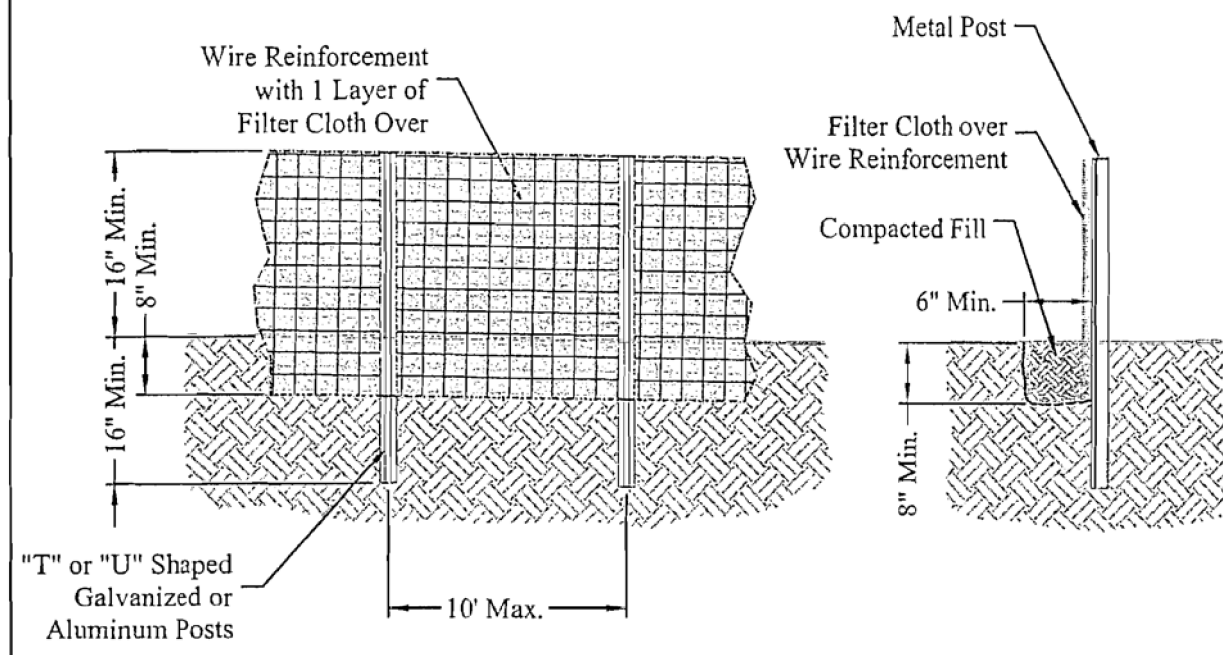


3. Position the mat. Place Inlet Filter on grate with the net side down, flush to the back edge and extending beyond the grate opening on the front and both sides. The zip ties attach Inlet Filter to the inlet grate cover WITHOUT LIFTING THE GRATE COVER.

4. The filter material covering the inlet can be any material that will prevent the sediment and other foreign matter from entering the

storm drain system.

Reinforced Silt Fence



Definition

A temporary barrier of Geotextile Class "F" over wire reinforcement used to intercept sediment laden runoff from small drainage areas.

Purpose

The purpose of silt fence is to reduce runoff where velocity and allow the deposition of transported sediment to occur. Limits imposed by ultraviolet light on the stability of the fabric will dictate the maximum period that the silt fence may be used.

1. Silt fence provides a barrier that can collect and hold debris and soil, preventing the material from entering critical areas, streams, streets, etc.
2. Silt fence can be used where the installation of a dike would destroy sensitive areas; woods, wetlands, etc.

Conditions where the Practice Applies

Silt Fence is limited to intercepting sheet flow runoff from limited distances according to slope. It provides filtering and velocity dissipation to promote gravity settling of sediment.

Design Criteria

Steel posts must be used. Silt fence should be placed as close to the contour as possible. No section of silt fence should exceed a grade of 5 percent for a distance more than 50 feet. Where ends of the geotextile fabric come together, the ends shall be overlapped, folded, and stapled to prevent sediment bypass. The length of the flow contributing to silt fence shall conform to the following limitations.

Slope (%)	Slope Steepness	Slope Length (Ft.) (Maximum)	Silt Fence Length (Ft.) (Maximum)
0-10	0-10:1	Unlimited	Unlimited
10-20	10:1-5:1	200	1,500
20-23	5:1-3:1	100	1,000
33-50	3:1-2:1	100	500
50 +	2:1 +	50	250

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Erosion Control Notes

1. All perimeter erosion and sediment control measures shall be installed prior to the execution of any grading work and maintained by the grading contractor for the duration of the grading project. Failure to install and maintain erosion control is a violation of State Law and subject to fine.

2. The appropriate erosion control devise(s) shall be installed prior to the inception of any land disturbing activity and shall be properly maintained for construction activities.

3. All Erosion Control devices and their installation shall meet the standards prescribed in the current guidelines for storm water management for construction activities.

4. Sediment collected behind the sediment filters and silt fences shall be removed when sediment reaches on third the height of the barrier.

5. Sediment filters and silt fences shall be inspected and maintained no less than weekly or within 24 hours of a rainfall event of 0.25 inches or more. Maintenance shall include but not be limited to sediment removal, barrier repair and / or replacement.

6. Construction Site Entrance: The contractor shall construct as a minimum one stabilized construction entrance at the location shown on the plans. If additional ingress and egress to the construction site is required, the contractor shall coordinate with the construction manager the location of these additional stabilized construction entrances. Usage of non-stabilized for ingress and egress will not be permitted. The stabilized entrances shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way and paved driving lanes. This may require periodic top dressing with additional stone as conditions warrant. Repair of the entrances or cleaning of the right-of-way and paved driving lanes that have been soiled shall be performed by the contractor at his own expense satisfactory to the construction manager. When necessary, vehicle wheels and tires shall be cleaned to remove sediment prior to entering onto public right-of-way and public streets. When washing is required, it shall be done on an area stabilized with crushed stone.

7. The contractor shall at his own expense, periodically water the site to control dust.

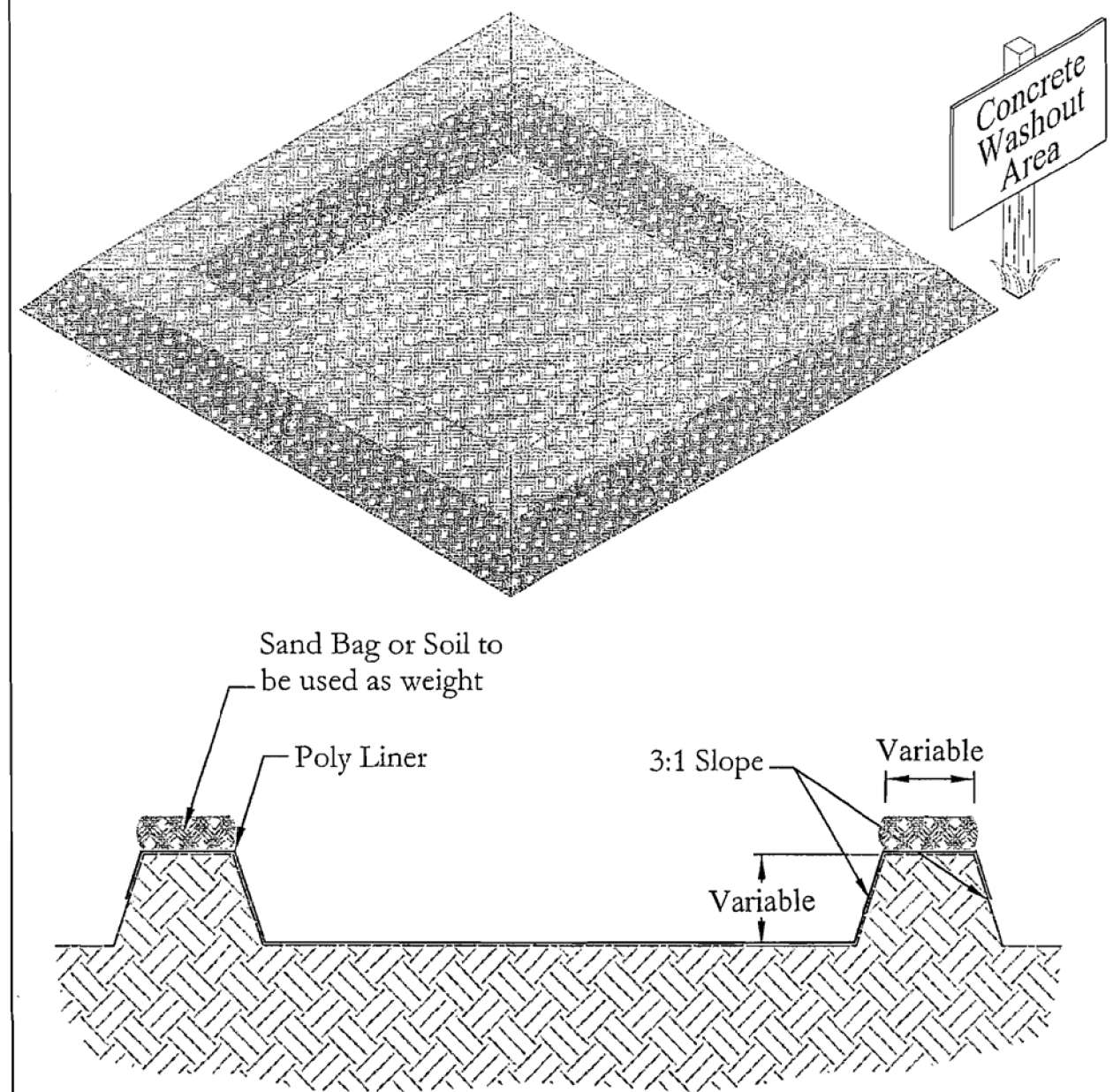
8. Sedimentation and erosion control measures shall be removed following construction or upon permanent stabilization of the disturbed and graded areas, whichever occurs last.

9. All disturbed areas that are not to be paved shall be re-seeded unless noted otherwise.

10. The contractor shall keep the site clean at all times and control dust resulting from the earthwork operation. The contractor shall not track mud onto the public streets.

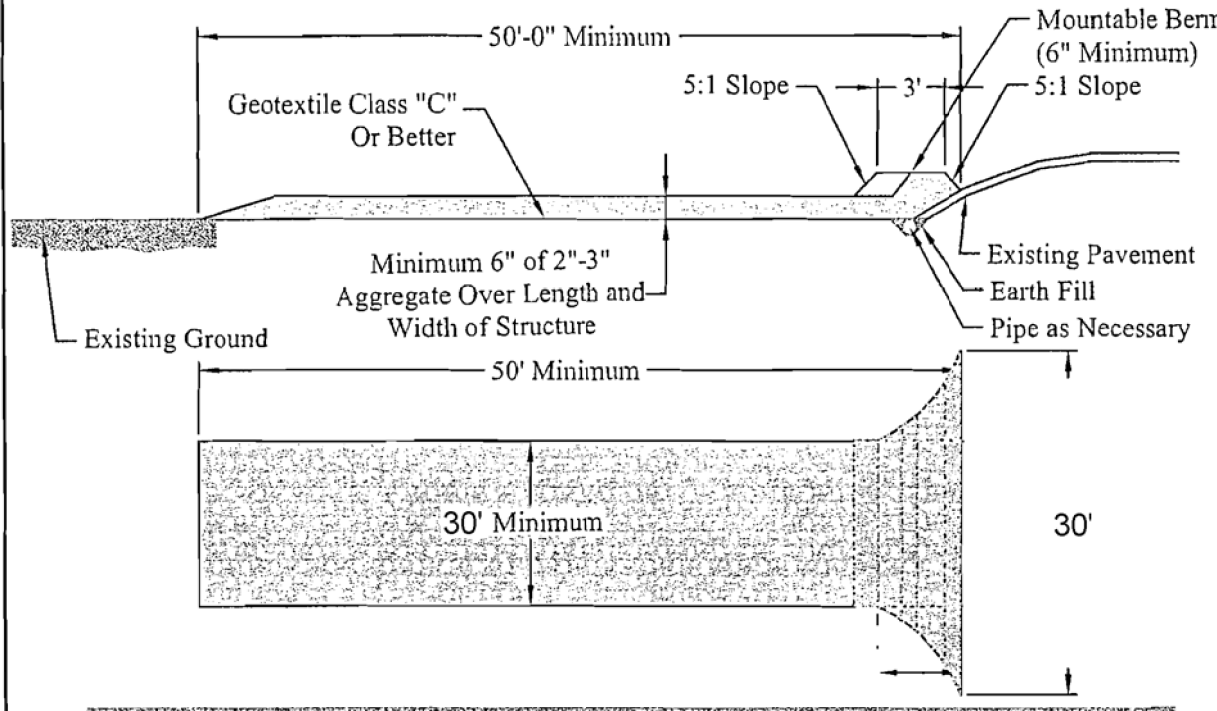
Concrete Washout Area

For use in High Water Table Areas



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Stabilized Construction Entrance



Definition

A stabilized layer of aggregate that is underlain with Geotextile Class "C" (See Standards for Geotextile). Stabilized entrances are located at any point where traffic enters or leaves a construction site.

Purpose

The purpose of the stabilized construction entrance is to reduce tracking of sediment onto streets or public rights-of-way and provide a stable area for entrance or exit from the construction site.

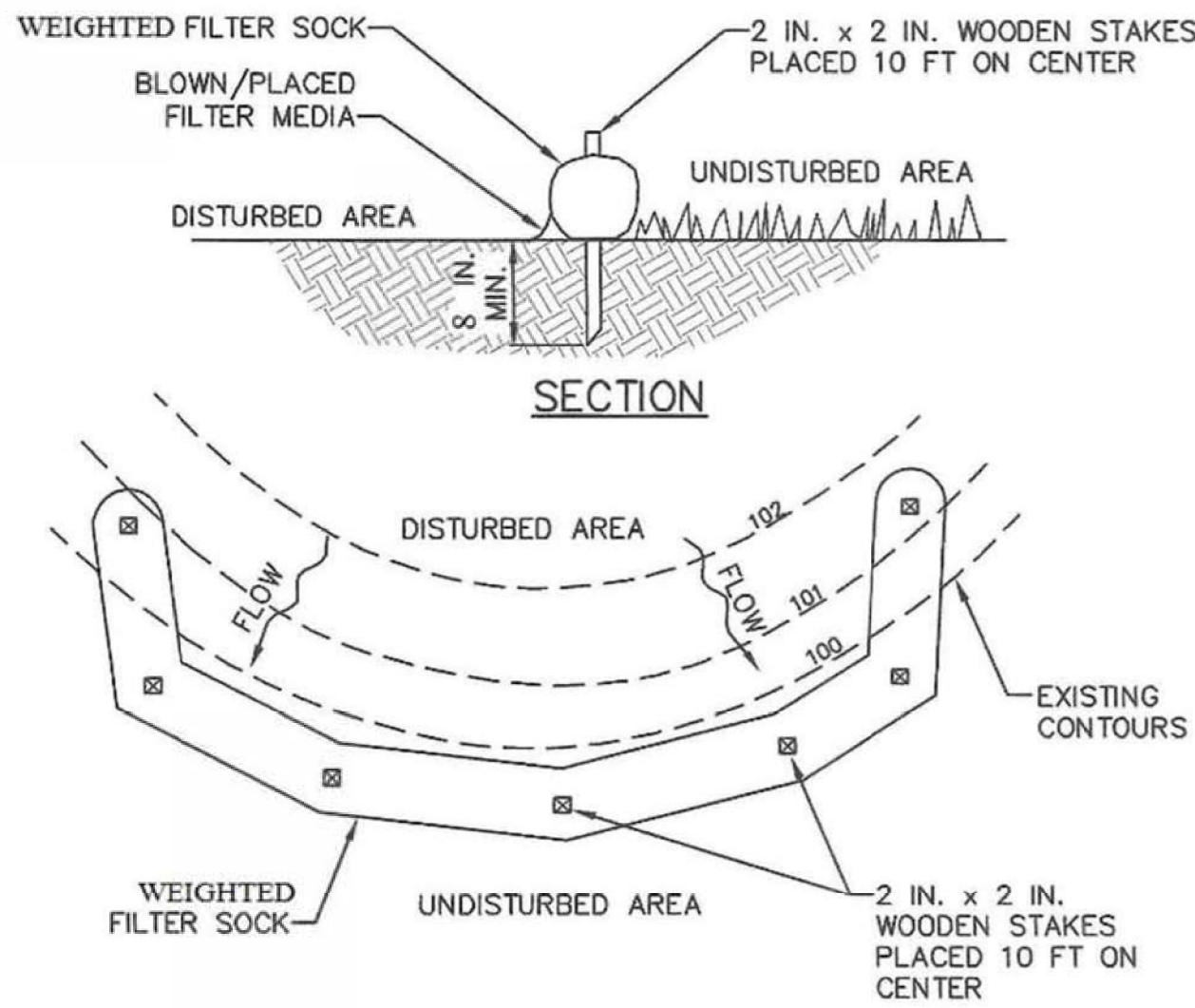
Conditions where the Practice Applies

1. Stabilized construction entrances shall be located at points of construction ingress and egress.
2. For single family residences, the entrance should be located at the permanent driveway.
3. Stabilized construction entrances should not be used on existing pavement.

Design Criteria

1. Length - Minimum of 50'-0"
2. Width - Minimum of 30'-0", should be flared at the existing road to provide a turning radius.
3. Geotextile Class "C" shall be placed over the existing ground prior to placing stone. The Plan approval authority may not require geotextile fabric for single family residence.
4. Stone-crushed aggregate 2"-3" (See Standards for Geotextile and Rock). Recycled concrete equivalent may be used also. The rock should be placed at least 6" deep over the length and width of the entrance.
5. Surface Water - All the surface water flowing to or diverted toward construction entrances shall be piped under the entrance to maintain positive drainage. Pipe installed under the construction entrance shall be protected with a mountable berm. The pipe shall be sized according to the drainage, with the minimum diameter being 6".
6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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12/5/17

Engineer Stamp

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