



**Environmental  
Protection Agency**

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

July 19, 2012

**RE: CUYAHOGA COUNTY  
CITY OF BEACHWOOD  
BEACHWOOD HIGH SCHOOL  
CONSTRUCTION STORM WATER  
PERMIT NO: 3GC05439  
NOTICE OF VIOLATION**

Mr. Jeff Smith  
Beachwood Public Schools  
25100 Fairmount Boulevard  
Beachwood, OH 44122

Mr. Chuck Worsdall  
Ozanne Construction Co., Inc  
1635 East 25<sup>th</sup> Street  
Cleveland, OH 44114

Mr. Brandon Flesher  
Mr. Excavating, Inc.  
8616 Euclid Chardon Road  
Kirtland, OH 44094

Mr. David Stahl  
Turner Construction Co.  
1422 Euclid Avenue, #1400  
Cleveland, OH 44115

Dear Mr. Smith, Mr. Worsdall, Mr. Flesher, and Mr. Stahl:

On July 9, 2012 I performed a compliance inspection for storm water best management practices (BMPs) at the above referenced site. I was accompanied by the following representatives of the GPD Group for the City of Beachwood: Matt Adkins, Project Engineer, and Steve Handler, Inspector. While on site I met with Jim Collins, Superintendent of the site and Anthony Mirando, Site Safety Manager, both with Turner Construction Company, and Robert Shepherd, Project Superintendent with Ozanne. Our records indicate that Beachwood Public Schools has obtained coverage under the Ohio EPA General Storm Water National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities #3GC05439\*AG.

After review of the site and Storm Water Pollution Prevention Plan (SWP3), I noted the following deficiencies in BMP implementation:

1. **Failure to install a temporary outlet structure in a sediment basin.** This is a violation of Part III.G.2.d of the NPDES Permit for Construction Activities. A detention basin has been installed in the north side of the site. A skimmer is called for in the plans as a temporary outlet structure. However, this was not installed in the basin. The skimmer device must be installed immediately and stay functioning during construction on the site.
2. Rills have formed in the retention basin. This area needs to be stabilized to prevent further erosion of the basin.

Mr. Jeff Smith, Beachwood Public Schools  
Mr. Chuck Worsdall, Ozanne Construction Co., Inc.  
Mr. Brandon Flesher, Mr. Excavating, Inc.  
Mr. David Stahl, Turner Construction Co.  
July 19, 2012  
Page 2

3. There are two concrete washout pits on site. One of them did not have a liner replaced when the first one became full. These washout areas must have a liner to contain the washwater. Also, concrete washings were missing this pit. Ensure proper washout methods are being utilized.
4. Mortar and contaminated water is spilling onto the ground and into a sediment trap. This water cannot be discharged into the storm sewer or other storm water systems. Please contain this spillage and dispose of the used mortar in a solid waste dumpster.
5. There is oil spilled onto the ground under the fuel tank. This contaminated soil must be disposed of in a solid waste dumpster. Also, there were small gas tanks sitting out. These either need to be kept inside or in secondary containment.
6. The type of inlet protection being used (filter fabric under a catch basin grate) is not shown on the SWP3. The SWP3 is a living document; everything found on site should be shown on the plan. Please amend the SWP3 to show this type of inlet protection. Also, the filter fabric in one catch basin needed to be replaced. Continue weekly inspections and clean out the catch basin fabric as needed.
7. As a suggestion, a rock construction entrance may be installed at the construction entrance next to the mortar mixer. The water runoff from the mixer is making this area very muddy. Dirt is being tracked out off of the site, however, Mr. Collins informed me that this area is swept daily. A rock construction entrance would minimize this tracking and keep the area less muddy. Please see the enclosed specification for rock construction entrances from *Rainwater and Land Development, Ohio's Standards for Stormwater Management, Land Development and Urban Stream Protection* (Ohio Department of Natural Resources, 2006).

You are directed to provide me with a letter of response indicating the actions that you have taken or will take to address the deficiencies noted above. Include any amendments to the SWP3 with your response. Your response must be received **no later than August 1, 2012**. Failure to comply with the NPDES permit is a violation of Ohio Revised Code 6111.04 and 6111.07 and is punishable by fines.

If you have any questions, please contact me at (330) 963-1125 or by e-mail at [Katie.Bowman@epa.state.oh.us](mailto:Katie.Bowman@epa.state.oh.us).

Sincerely,



Katie Bowman  
Assistant to the District Engineer  
Division of Surface Water

KB/cl

Attachment: Photos, *Rainwater and Land Development* manual pages

cc: Matt Adkins, Project Engineer, GPD Group  
Steve Handler, Inspector, GPD Group  
Jim Collins, Superintendent, Turner Construction Co.  
Anthony Mirando, Site Safety Manager, Turner Construction Co.  
Robert Shepherd, Project Superintendent, Ozanne  
Todd Houser, Cuyahoga SWCD  
Merle S. Gorden, Mayor, City of Beachwood

## INSPECTION PHOTOS

### Beachwood High School



**Figure 1:** Skimmer device as shown in the plan  
**Figure 2:** Outlet structure of the detention basin



**Figure 3:** Rills forming in the detention basin



**Figure 4:** Concrete washout pit with no liner and concrete missing the pit  
**Figure 5:** Mortar mixings spilling into the sediment trap





**Figure 6:** Contaminated soil



**Figure 7:** Gas containers with no secondary containment or spill kit



**Figure 8:** Area where a rock construction entrance would be useful

City of Beachwood, Cuyahoga County  
Photos taken on July 9, 2012  
Photos taken by Katie Bowman, DSW

## 7.4 Construction Entrance

---



### Description

A construction entrance is a stabilized pad of stone underlain with a geotextile and is used to reduce the amount of mud tracked off-site with construction traffic. Located at points of ingress/egress, the practice is used to reduce the amount of mud tracked off-site with construction traffic.

### Conditions Where Practice Applies

A construction entrance is applicable where:

- Construction traffic leaves active construction areas and enters public roadways or areas unchecked by effective sediment controls;
- Areas where frequent vehicle and equipment access is expected and likely to contribute sediment to runoff, such as at the entrance to individual building lots.

### Planning Considerations

Construction entrances address areas that contribute significant amounts of mud to runoff by providing a stable area for traffic. Although they allow some mud to be removed from construction vehicle tires before they enter a public roads, they should not be the only practice relied upon to manage off-site tracking. Since most mud is flung from tires as they reach higher speeds, restricting traffic to stabilized construction roads, entrances and away from muddy areas is necessary.

If a construction entrance is not sufficient to remove the majority of mud from wheels or there is an especially sensitive traffic situation on adjacent roads, wheel wash areas may be necessary. This requires an extended width pad to avoid conflicts with traffic, a supply of wash water and sufficient drainage to assure runoff is captured in a sediment pond or trap.

Proper installation of a construction entrance requires a geotextile and proper drainage to insure construction site runoff does not leave the site. The use of geotextile under the stone helps to prevent potholes from developing and will save the amount of stone needed during the life of the practice. Proper drainage may include culverts to direct water under the roadway or water bars to direct muddy water off the roadway toward sediment traps or ponds.

### **Design Criteria**

The area of the entrance must be cleared of all vegetation, roots, and other objectionable material. Geotextile will then be placed the full width and length of the entrance.

Stone shall be placed to a depth of at least 6 inches. Roads subject to heavy duty loads should be increased to a minimum of 10 inches. Surface water shall be conveyed under the entrance, through culverts, or diverted via a water bars or mountable berms (minimum 5:1 slopes) so as to convey sediment laden runoff to sediment control practices or to allow clean water to pass by the entrance.

The stabilized construction entrance shall meet the specifications that follow.

### **Maintenance**

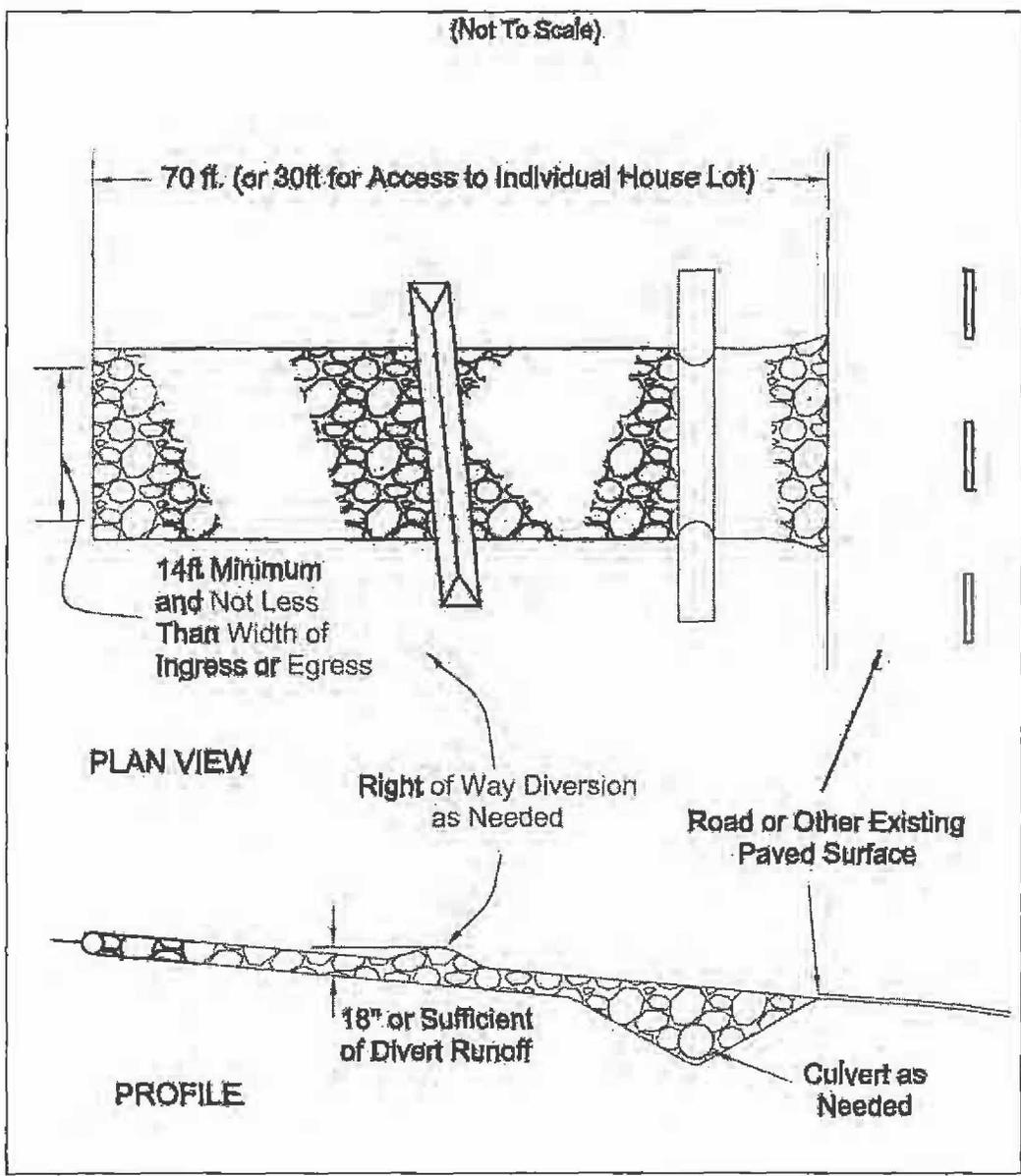
The entrance shall be maintained in a condition that will prevent tracking or flow of mud onto public rights-of-way. This may require periodic top dressing with additional stone or the washing and reworking of existing stone as conditions demand and repair and/or cleanout of any structures used to trap sediment. All materials spilled, dropped, washed, or tracked from vehicles onto roadways or into storm drains must be removed immediately. The use of water trucks to remove materials dropped, washed, or tracked onto roadways will not be permitted under any circumstances.

### **Common Problems / Concerns**

Mud is allowed to accumulate and is tracked on to public right-of-ways. The entrance and associated construction roads may need dressing with additional stone.

Soft depression areas develop in entrance area. Stone may not have been underlain with geotextile or insufficient stone base has been provided.

Specifications  
for  
**Construction Entrance**



Specifications  
for  
**Construction Entrance**

---

1. Stone Size—ODOT # 2 (1.5-2.5 inch) stone shall be used, or recycled concrete equivalent.
2. Length—The Construction entrance shall be as long as required to stabilize high traffic areas but not less than 70 ft. (exception: apply 30 ft. minimum to single residence lots).
3. Thickness -The stone layer shall be at least 6 inches thick for light duty entrances or at least 10 inches for heavy duty use.
4. Width -The entrance shall be at least 14 feet wide, but not less than the full width at points where ingress or egress occurs.
5. Geotextile -A geotextile shall be laid over the entire area prior to placing stone. It shall be composed of strong rot-proof polymeric fibers and meet the following specifications:
6. Timing—The construction entrance shall be installed as soon as is practicable before major grading activities.
7. Culvert -A pipe or culvert shall be constructed under the entrance if needed to prevent surface water from flowing across the entrance or to prevent runoff from being directed out onto paved surfaces.
8. Water Bar -A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.
9. Maintenance -Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.

Figure 7.4.1

Geotextile Specification for Construction Entrance	
Minimum Tensile Strength	200 lbs.
Minimum Puncture Strength	80 psi.
Minimum Tear Strength	50 lbs.
Minimum Burst Strength	320 psi.
Minimum Elongation	20%
Equivalent Opening Size	EOS < 0.6 mm.
Permittivity	$1 \times 10^{-3}$ cm/sec.

10. Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restricted from muddy areas.
11. Removal—the entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent roadway or entrance.