VEHICLE TRACKING CONTROL
(a.k.a. track out control, mud tracking control)

Vehicle tracking control is an umbrella term for a variety of practices that are applied at construction site entrances to control vehicles tracking mud offsite. Tracking controls can also be applied within a site where there is a need to minimize sediment transport from active construction areas to other areas that area being protected (e.g. LID features, developed areas of the site). For example, during building construction, tracking controls can be applied at the lot exit so that vehicles don't track mud onto the roads and ultimately into storm drains.

Preventing vehicle mud tracking helps to keep sediment out of storm drains, end-of-pipe controls and natural features, and reduces the risk of dust pollution. Vehicle tracking controls generally fall into the following categories:

- **Mud mats** | Mud mats include rock/stone pads underlain with geotextile fabric or pre-fabricated products in various designs. They are used primarily for stabilizing site entrances, but some pre-fabricated mud mat products may also encourage some mud removal by providing an uneven or bumpy surface that digs into the mud caked onto the tires.
- **Shaker racks / grates / ridges** | These racks or grates are pre-fabricated products that are designed to (i) provide a stable entrance and (ii) dislodge mud from tires as vehicles bounce slightly while driving over the uneven surface. As their ability to remove mud relies on the bouncing/shaking action, they need to be long enough – at least one full tire rotation – to provide opportunity for dislodgment.
- **Wheel washers** | A well installed vehicle wheel washing system can provide the highest level of protection from offsite mud tracking. These types of devices are designed to spray water onto tires as the vehicle drives through them, essentially pressure washing mud from the tires. They typically include or are installed with a rack through which water drains and an area for capturing of dirty wash water, which is directed towards a sediment control measure. Wheel washers come is a wide variety of designs and configuration. Wheel washing can also be less sophisticated, such as passive washing – where the vehicle is simply driven through a pool of wash water in a contained area – and manual washing carried out with a hose by on site staff.

Figure B2-28: Vehicle tracking controls. From top to bottom: mud mat, shaker rack, vehicle wheel washer.

Application

Vehicle tracking controls should be applied when:

- The site is greater than one hectare in size;
- There will be grading and filling operations in close proximity to construction site entrances; or
- Weather and site conditions will result in saturated, muddy soils;

Wheel washing should be used as the vehicle tracking control if:

- Mud tracking is an ongoing issue and simpler vehicle tracking controls are not providing effective mitigation;
- Other tracking controls cannot be constructed due to site constraints
- The site contains contaminated soils; or
- The local municipality makes it a requirement.

Design and installation

Mud mats

The following are recommended design specifications for mud mats constructed with rock pads:

Design attribute	Specifications
Length	≥ 20 m
Width	Full width of the entrance
Rock / stone layer thickness	450 mm
Rock / stone details	For the first 10 m in from the road: 50 mm diameter clear stone Remaining length: 150 mm diameter clear stone
Bottom layer type	Non-woven geotextile fabric or graded aggregate filter

- See mud mat design detail in Figure B2-29.
- For pre-fabricated mud mat products, adhere to manufacturer specifications for design and installation.
- Where constructed over top of a culvert or ditch, a sediment control barrier (e.g. sediment fence, filter sock) should be installed along the edges of the pad to prevent sediment from being washed into the area below.
- Ensure that drainage from the mud mat is conveyed to a sediment control measure for removal of suspended sediment.

Shaker racks / grates / ridges

- For pre-fabricated products, adhere to manufacturer specifications for design and installation.
- Ensure that the device installed is long enough to allow for at least one full tire rotation so that the vehicle will bounce enough to dislodge mud.
- Ensure device installed is wide enough to accommodate the passage of any construction vehicle on site.
- The rack should be installed with space below to allow for sediment deposition.
- Install rock pads on either side of the shaker rack.
- Convey drainage from the shaker rack to a sediment control measure.
- Where constructed over top of a culvert or ditch, a sediment control barrier (e.g. sediment fence, filter sock) should be installed along the edges of the installation to prevent sediment from being washed into the area below.

Wheel washing

- Where a full proprietary system is used, ensure that product selection, placement and installation is consistent with guidance provided by the manufacturer / supplier of the product.
- The particular model of wheel washing system needed should be determined based on the number of vehicles cleaned daily and the amount of mud that needs to be removed from each vehicle
- Ensure all dirty wash water will be drained into a containment area below and then conveyed to a sediment control measure for removal of suspended sediment.

Inspection and maintenance

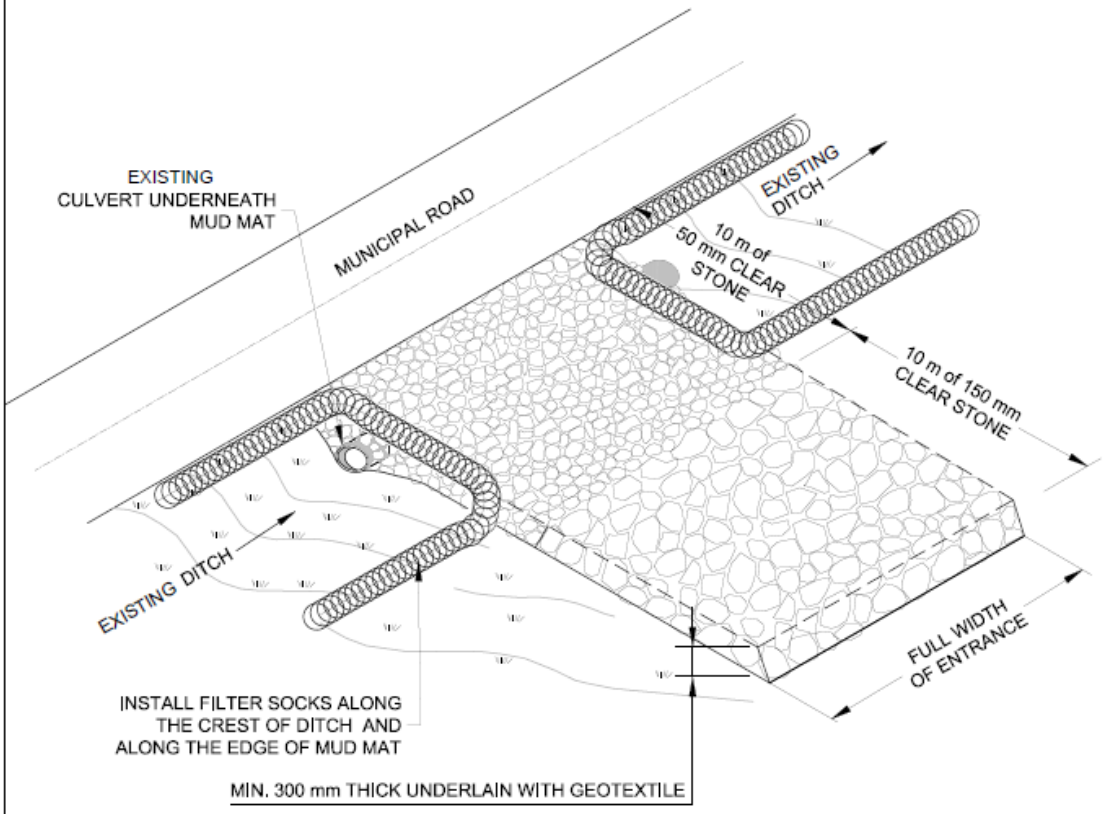
- Inspect vehicle tracking controls weekly, and before and after significant rainfall (see definition in Section 10.1.2) or snowmelt events, and keep a record of the inspection.
- Inspect mud mats for excessive sediment accumulation. For rock pads look for signs that the voids have been filled with sediment and replace granular material as needed.
- Clean up any sediment tracked onto public roads at the end of each day.
- Ensure the installation of storm drain inlet protection for inlets in roads that will be subject to street sweeping, since this can sometimes cause additional sediment to be swept into storm drain inlets.
- Any repair or maintenance needs identified should be repaired within 48 hours or sooner if natural receptors are at imminent and foreseeable risk of adverse impact.

Decommissioning

- Ensure all components are removed with minimal disturbance, and that waste materials are properly disposed of.
- Grade and restore the area as per the final stabilization plans.

MUD MAT DETAIL NOTES:

1. MUD MAT TO BE UNDERLAIN WITH A GEOTEXTILE CLOTH
2. SEDIMENT WILL BE CLEANED FROM PUBLIC RIGHT OF WAYS AS REQUIRED
3. STORM INLETS IN CLOSE VICINITY TO MUD MAT TO BE PROTECTED WITH INLET CONTROL MEASURES



NOTE: THIS DETAIL REPRESENTS AN IDEAL SCENARIO. SITE CONDITIONS VARY AND EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE TAILORED FOR EACH SITE AND PROJECT

Toronto and Region Conservation Authority	TRCA ESC DESIGN DETAIL	SCALE N.T.S.	REV 1	DATE MARCH 2019
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Figure B2-29: Design detail for mud mat for construction site vehicle access