

<u>Trash Racks Standard Operating Procedures</u>

The purpose of this operating procedure is to ensure timely and proper cleaning of all trash racks. Additionally, the operating procedure provides requirements for removing disposed/ cleared materials. The benefits of properly maintained trash racks include:

- Efficient use of the existing outlet control structure that will maintain the designed discharge/storage capacity of the retention basin and prevent flooding within the area.
- Prevention of costly maintenance items such as the removal of debris from the basin and/or concrete channel, repair or replacement of damaged embankments, and the repair of erosion in emergency spillway.
- Sufficient drainage of upstream storm water inlets and piping leading into the retention basin.
- A controlled discharge into the surrounding environment preventing flooding and soil erosion outside of the retention basin.

General Inspection and Maintenance

Maintenance should include checks of each trash rack for damaged or broken sections and repairing as needed. Trash racks should be checked before, during, and after storm events to ensure they are functioning properly and to remove accumulated debris. Extreme caution should be used when attempting to remove accumulated debris during periods of high flow.

Schedule of Inspections

- Monthly cleaning & inspection of all trash racks.
- Before an impending storm.
- During storm.
- Day after storm.

Monthly Inspection Procedure

- Inspect all mechanical connections such as fasteners and hinges for damage or corrosion. Pull on the trash rack to ensure the fasteners are still tight.
- Inspect all vertical and horizontal bars for damage.
- Inspect all welds for cracking or failure.
- Inspect grating hinges and fasteners for corrosion or failure by pulling on them. Check to make all fasteners are secure.
- Remove all debris from trash racks with rake or by hand, if necessary.



- o Manual raking requires a person to physically lower and position the rake against the trash rack, drag the rake and debris to the top of the rack, and then pull the debris over the rack onto the deck or into a debris bin.
 - Natural debris: tree trunks, branches, bushes, grasses, plants, weeds, aquatic plant growth (floating and submerged), etc.
 - Manmade debris (trash): tires, plastics, cans, bottles, lumber, etc.
- Remove any siltation in the channel preceding the inlet opening, as well as any debris that has potential to clog the trash racks or inlet opening. Any damage to the trash rack must be repaired immediately, if possible, and reported on the DPW Work Order form.
- Complete Work Order of inspection
 - o Identify types of debris
 - o Photograph site and upload to the DPW Work Order system
- Generate Work Order for required work noted during inspection

Before an Impending Storm Inspection Procedure

- Remove all debris from trash racks with rake or by hand, if necessary.
- Remove any siltation in the channel preceding the inlet opening, as well as any debris that has
 potential to clog the trash racks or inlet opening. Any damage to the trash rack must be repaired
 immediately.
- Complete Work Order of inspection
- Generate Work Order for required work noted during inspection

During Storm Inspection Procedure

- Remove all debris from trash racks with rake or by hand, if necessary.
- Complete Work Order of inspection
- Generate Work Order for required work noted during inspection

Day after Storm Inspection Procedure

- Inspect all mechanical connections such as fasteners and hinges for damage or corrosion. Pull on the trash rack to ensure the fasteners are still tight.
- Remove all debris from trash racks with rake or by hand, if necessary.
- Remove any siltation in the channel preceding the inlet opening, as well as any debris that has
 potential to clog the trash racks or inlet opening. Any damage to the trash rack must be repaired
 immediately.
- Complete Work Order of inspection
- Generate Work Order for required work noted during inspection

Safety and Equipment

- Number of staff per site: 2
- Safety gear: work boots, safety vest and/or jacket, gloves, waders, life jacket (if necessary)
- Equipment required: trash rakes, dump truck, backhoe (if necessary)
- Police Detail, if necessary

Removed Material Procedure

• Material (debris and siltation) removal from trash rack area must occur at time of site visit and be taken from the respective site and brought to Nahant Street Yardwaste Site.

Trash Rack Locations

- A. 83 Messenger Court
- B. 129 Greenwood Street
- C. 64 Harrison Ave
- D. 5 Melrose Terrace
- E. 9 Ware Street
- F. 37 Old Nahant Road
- G. 100 Farm Street
- H. East side of Beasley Field (Wakefield High School)
- I. 34 Broadway
- J. 22 Bennett Street
- K. 51 Spring Street
- L. 11 Essex Street
- M. 119 Oak Street
- N. 161 Farm Street
- O. Across the street from 35 North Ave
- P. Behind 40 Lake Street
- Q. Behind 104 Farm Street (2)

Revising the SOP

• These procedures are reviewed annually and updated as needed.

Effective

1/1/2020

Donald Schneider

Highway Supervisor

Joseph Conway

Director of Public Works