Mt. Hood Cleaners
New Building Addition
Sandy, OR

Stormwater Report

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FDG Project No. E21-046

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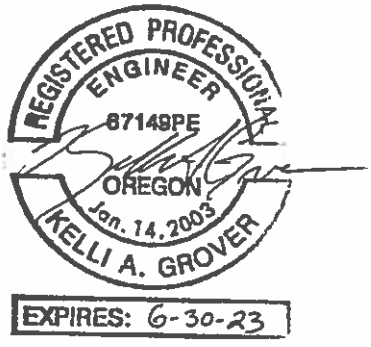

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Appendix

I. OBJECTIVE

The objective is to provide detention and treatment of stormwater runoff from the proposed development at Mt. Hood Cleaners, in accordance with local stormwater requirements. The development pertains to a new addition to an existing building, totaling 1,200 sq. ft of impervious area introduced to the site.

The City of Sandy requires all new developments to provide water quality treatment in accordance with the City of Portland Stormwater Management Manual. The stormwater discharge from the new impervious area will be collected in the downspouts and transported to the proposed stormwater management vegetated planter.

II. EXISTING CONDITIONS

The site is located on a portion of the Mt. Hood Industrial Park, at 37625 Sunset Street in Sandy, Oregon, where an existing building resides.

The subject site is flat in nature and contains several existing buildings. The ground cover is a combination of some concrete areas along with grass and gravel throughout most of the area. The site is surrounded by other industrial uses to the west, south, north, and northwest sides.

III. METHODOLOGY

As per the City of Sandy code, the City of Portland stormwater manual was applied in developing the proposed stormwater management for the redevelopment of impervious surface areas. The simplified approach was used to develop the minimum stormwater facility size.

IV. ANALYSIS

The simplified approach form in accordance to the City of Portland Stormwater Management Manual was used to create a minimum area for the facility (see appendix for data and calculations) to manage stormwater generated from new construction on the individual tax lot.

A. WATER QUALITY CONTROL

The City of Sandy water quality requirement of 70% reduction of TSS will be achieved by the vegetated planter by filtering the stormwater through a growing media that is then collected in a perforated underdrain pipe.

B. QUANTITY CONTROL

The simplified approach takes into account smaller projects and the impervious areas that generate storm runoff. The simplified approach has a built in factor of 0.06 multiplied by the

impervious area to generate the minimum sizing of the planter. A sizing of 72 square feet is needed to collect the runoff generated by the 1200 square foot addition.

V. CONCLUSION

The proposed improvements at Mt. Hood Cleaners will require stormwater detention and water quality treatment to conform to the City of Sandy development code.

The proposed vegetated planter and storm drain overflow will provide the water quality treatment system. The storm facility has been sized in accordance with the City of Sandy design standards and the methods employed represent standard industry practices.

VI. REFERENCES

- USGS Soil Maps for Multnomah County, Oregon
- City of Portland, Stormwater Management Manual
- City of Sandy Development Code

SIMPLIFIED APPROACH FORM

PROPOSED STORMWATER FACILITIES

Proposed Stormwater Facilities

Please note: Each individual taxlot is required to manage the stormwater runoff it generates from new construction or redevelopment on the same lot to the maximum extent feasible. The following table includes accepted simplified stormwater management facilities as described in Chapter 2 of the 2016 Stormwater Management Manual. Copies of the manual are available online at **www.portlandoregon.gov/bes/swmm.**

	STORMWATER FACILITY TYPE	TOTAL AREA MANAGED BY FACILITY TYPE (SF)	FACILITY SIZING FORMULA	FACILITY SIZE (SF)
IMPERVIOUS AREA REDUCTION TECHNIQUE	Tree Credit		Complete Tree Credit Worksheet and attach	n/a
	Ecoroof		1:1 ratio only	n/a
	Pervious Pavement		1:1 ratio only	n/a
SURFACE INFILTRATION OR FILTRATION	Downspout Extension		Area x 0.10	
	Rain Garden		Area x 0.10	
	Basin		Area x 0.09	
	Swale		Area x 0.09	
	Planter	1200	Area x 0.06	72
	Filter Strip (paved areas only)		Area x 0.20	
SUBSURFACE DISPOSAL UIC	Soakage Trench		Westside soakage trench no longer an option under the simplified approach. Only a single soakage trench sizing possible. *See below for sizing information.*	
	Drywell		Enter drywell type and quantity for facility size. *See below for sizing information.*	
TOTAL IMPERVIOUS AREA MANAGED			Total Impervious Area Managed must match Total New or Redeveloped Impervious Area. Site plans must identify stormwater facility location, drainage areas, overflows and escape routes.	

Subsurface facilities can receive overflow from impervious area reduction techniques or surface infiltration/filtration facilities or can be used independently to manage runoff. If stormwater is generated from anything other than roof area, stormwater facilities are subject to UIC requirements (see Chapter 1 for UIC requirements).

Sizing Charts:

DRYWELL TYPE	AREA MANAGED
2'x2' mini drywell	Up to 500 sf
28"x5'	Up to 1,000 sf
4'x5'	Up to 3,000 sf
4'x10'	Up to 6,000 sf

SOAKAGE TRENCH	LENGTH PER 1,000 SF OF IA	WIDTH	DEPTH	SIZING
Soakage Trench	20'	2.5'	1.5'	AREA x 0.05