

Exercise 1: Stormwater Review of Example Small Project

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Outline of Presentation

- Project Data
- Review/Correction of C.3 Regulated Projects Checklist
- Other Project Issues
- Questions and Answers

Project Data – Pomeroy Apartments

- Existing Site – Single family residence, building and shed on 0.3 acre lot
- Proposed project – 3 apartment buildings (5 units) with shared driveway and parking
- Site average slope – 1%
- Site soil type – C/D

Project Data – Impervious Area Breakdown

Existing Area

Location/Description	Area (Sq. Ft.)	Material
Existing House	2,025	Roof
Existing Building and Shed	610	Roof
Subtotal Buildings	2,635	
Existing Driveway	1,613	AC
Existing Walkways/Patio/Porch	764	Concrete
Subtotal AC/Conc.	2,377	
Total Impervious	5,012	Impervious
Landscape/Ground	7,411	
Total Pervious	7,411	Pervious
Total Site	12,423	

Project Data – Impervious Area Breakdown

Proposed Area

Location/Description	Area (Sq. Ft.)	Material
Footprint & Roof Overhangs. Building 1	1,126	Roof
Footprint & Roof Overhangs. Building 2	1,126	Roof
Footprint & Roof Overhangs. Building 3	1,126	Roof
Subtotal Buildings	3,378	
Carports	877	Roof
Walkways	1,036	Concrete
Porch/Patio, Unit 4	56	Concrete
Subtotal Porch/Patio	1,969	
Total Impervious	5,347	Impervious
Common Dwy/Stalls, Interlocking Pavers	4,329	Pavers
Landscape/Ground	2,747	Ground
Total Pervious	7,076	Pervious
Total Site	12,423	

Total Impervious Increase: 335 Sq. Ft.

Impervious Surface Table

Table of Impervious and Pervious Surfaces

Type of Impervious Surface	a	b	c	d
	Pre-Project Impervious Surface (sq. ft.)	Existing Impervious Surface to be Replaced ⁷ (sq. ft.)	New Impervious Surface to be Created ⁷ (sq. ft.)	Post-project landscaping (sq. ft.), if applicable
Roof area(s) – excluding any portion of the roof that is vegetated ("green roof")	2,635	2,635	3,378	743
Impervious ⁵ sidewalks, patios, paths, driveways	764	764	1,092	-328
Impervious ⁵ uncovered parking ⁶	1,613	877	877	0* N/A
Streets (public)				
Streets (private)				1,071
Totals:	5,012	4,276	5,347	2,747
Area of Existing Impervious Surface NOT replaced			N/A 0	
Total New Impervious Surface (sum of totals for columns b and c):			5,347 ✓	

¹ Single family home projects that are not part of a larger plan of development are not C.3 Regulated Projects, regardless of size.

² Roadway projects that replace existing impervious surface are subject to C.3 requirements only if one or more lanes of travel are added.

² See Standard Industrial Classification (SIC) codes [here](#)

³ Project description examples: 5-story office building, industrial warehouse, residential with five 4-story buildings for 200 condominiums, etc.

⁴ Per the MRP, pavement that meets the following definition of pervious pavement is NOT an impervious surface. Pervious pavement is defined as pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding unpaved, landscaped areas, or that stores and infiltrates the rainfall runoff volume described in Provision C.3.d.

⁵ Uncovered parking includes top level of a parking structure.

⁶ "Replace" means to install new impervious surface where existing impervious surface is removed. "Created" means to install new impervious surface where there is currently no impervious surface.

* pervious pavement

Site Design Measures Review

- Checklist provided:
 - Minimize impervious surface
- Missing item:
 - Construct driveways and parking lots with permeable surfaces
- Other possible items:
 - Direct roof, sidewalk or patio runoff to vegetated areas

Source Control Measures Review

- Checklist provided:
 - None
- Missing items:
 - On-site storm drain inlet marking
 - Landscaping measures
- Other possible items:
 - Control measures for refuse area, if any

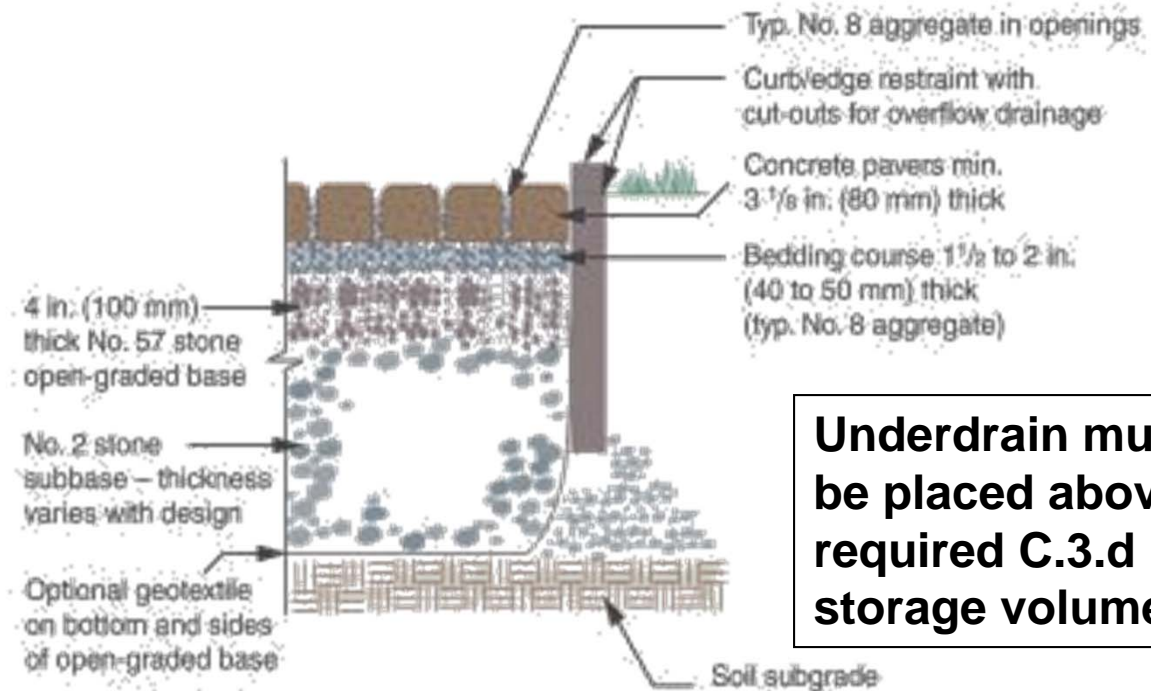
Construction BMP Review

- Checklist provided:
 - Protect storm drain inlets
 - No cleaning/fueling/maintaining vehicles onsite
 - Store/handle/dispose of materials properly
 - Train employees/subcontractors on BMPs
 - Control/prevent discharges of pollutants and non-stormwater
- Missing items:
 - Attach SMCWPPP BMP Plan Sheet
 - Trap sediment onsite
 - Limit/stabilize construction access routes

Other Project Issues

- Use of pervious pavement allows this project to drop below C.3 threshold and avoid treatment measures
- Important to review details and confirm that pervious pavement is designed to store and infiltrate the C.3.d amount of runoff
- Refer to pervious pavement design guidance in Section 6.6 of updated C.3 Technical Guidance

Pervious Pavement Detail



Underdrain must be placed above required C.3.d storage volume

Permeable interlocking concrete paver section (Source: ICPI)

Questions?

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