

IMPERVIOUS AREA WORKSHEET

Public Works Department
 701 Laurel St., Menlo Park, CA 94025
 tel 650-330-6740



For new development and redevelopment projects

To comply with the City of Menlo Park Stormwater Ordinance 859 (Chapter 7.42) and the NPDES Permit issued by the California State Water Board, project applicants must report changes in impervious surface area resulting from their new development or redevelopment projects within the city. Therefore, all new project applicants shall complete this worksheet, submit it to Engineering for plan review and include the relevant data on the site design plans. Please include an exhibit showing the existing and proposed impervious/pervious areas.

Imperviousness refers to the inability of a surface to absorb water. Higher imperviousness causes more water to run off the surface. Imperviousness reduces the amount of ground water recharge and increases the amount of storm water flowing to local creeks and the Bay. Excessive stormwater causes erosion of creek banks and flooding. Storm water also carries pollutants normally found in pesticides, herbicides, engine oil, copper from brake dust, etc.

Impervious Surface is defined in this worksheet as any modified surface that reduces the land's natural ability to infiltrate or pass water into the soil. This includes any surface that causes storm water to run off in greater quantities than it would have under natural soil conditions given the same rain intensity.

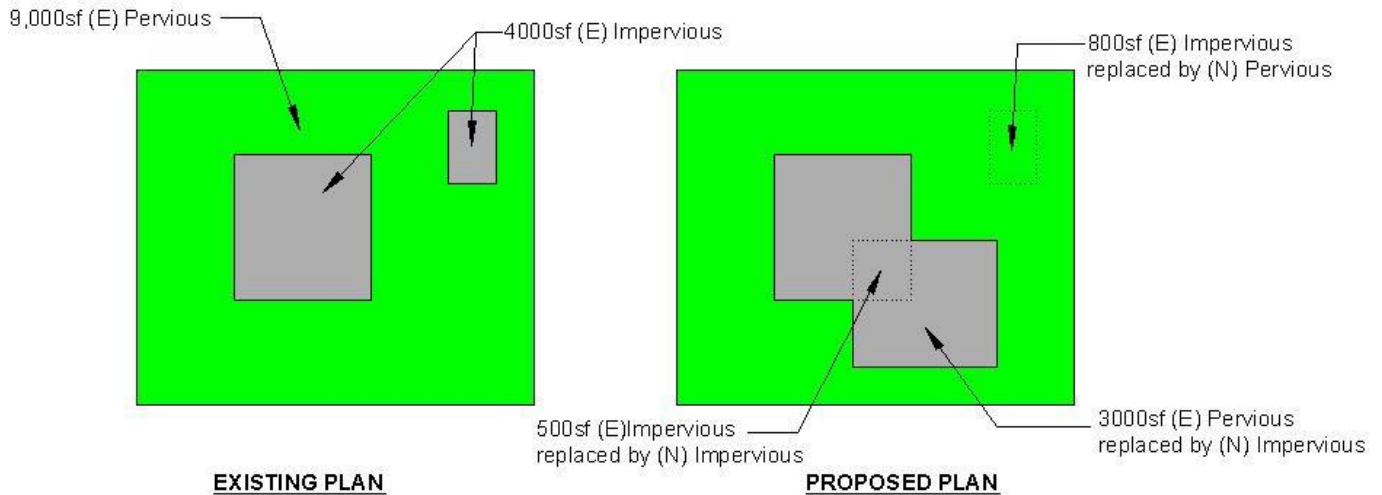
Typical pervious and impervious surfaces

Pervious Surfaces	Impervious Surfaces	Pervious Surfaces	Impervious Surfaces
Lawn/Vegetal Cover	Rooftops	Lawn/Vegetal Cover	Rooftops
Soil	Compacted Soil or Aggregate	Soil	Compacted Soil or Aggregate
Sand	Paved Walkways	Sand	Paved Walkways
Ponds	Swimming Pools	Ponds	Swimming Pools
Streams/Creeks	Patios	Streams/Creeks	Patios
Unpaved Gravel	Driveways Asphalt/Concrete	Unpaved Gravel	Driveways Asphalt/Concrete
Pervious Concrete	Permanent Structures	Pervious Concrete	Permanent Structures
Pervious Asphalt	Sidewalks	Pervious Asphalt	Sidewalks
Permeable Pavers	(Unit	Permeable Pavers	(Unit

*Permeable pavers are considered impervious if the underlying substrate is highly compacted soil or impermeable aggregate.

Sample calculation

SAMPLE 13,000 SF LOT PROJECT



Impervious area summary

Total Area of Parcel		A <u>13,000</u> ft ²
Existing Pervious Area		B <u>9,000</u> ft ²
Existing Impervious Area		C <u>4,000</u> ft ²
Existing % Impervious	$(C/A) \times 100$	D <u>30.8</u> %
Existing Impervious Area To Be Replaced W/ New Impervious Area		E <u>500</u> ft ²
Existing Pervious Area To Be Replaced W/ New Impervious Area		F <u>3,000</u> ft ²
New Impervious Area (Creating and/or Replacing)*	E + F	G <u>3,500</u> ft ²
Existing Impervious Area To Be Replaced W/ New Pervious Area		H <u>800</u> ft ²
Net Change In Impervious Area *This area is required to be detained/retained on-site	F - H	I <u>2,200</u> ft ²
Proposed Pervious Area	B - I	J <u>6,800</u> ft ²
Proposed Impervious Area* *Verify that J + K = A	C + I	K <u>6,200</u> ft ²
Proposed % Impervious	$(K/A) \times 100$	L <u>47.7</u> %

Impervious area worksheet				
Submit this form with the improvement plan set to the City of Menlo Park Engineering Division.				
Date:		APN:		
Property Address:				
Project Description:				
Contact Name:				
Contact Telephone Number:				
Contact Email:				
Title And Sheet# of Submitted Drawing used For Calculations:				
Land Use (Check one):				
Residential	Commercial	Industrial	Professional	Roadway
Drainage Basin (Check one):				
Atherton Creek	San Francisquito Creek	San Francisco Bay		
I certify that the calculations below accurately reflect the proposed changes and final impervious surfaces for the above project.				
Calculations Performed by (print):	Name:			
	Title:			
Calculations Performed by (signature):	Signature:			
	Date:			

Impervious area table		
Total Area of Parcel		A _____ ft ²
Existing Pervious Area		B _____ ft ²
Existing Impervious Area		C _____ ft ²
Existing % Impervious	$(C/A) \times 100$	D _____ %
Existing Impervious Area To Be Replaced W/ New Impervious Area		E _____ ft ²
Existing Pervious Area To Be Replaced W/ New Impervious Area		F _____ ft ²
New Impervious Area (Creating and/or Replacing)*	E + F	G _____ ft ²
Existing Impervious Area To Be Replaced W/ New Pervious Area		H _____ ft ²
Net Change In Impervious Area¹	F – H	I _____ ft²
Proposed Pervious Area	B – I	J _____ ft²
Proposed Impervious Area* *Verify that J + K = A	C + I	K _____ ft²
Proposed % Impervious	$(K/A) \times 100$	L _____ %
¹ Net change in impervious area is the area required by		