



SUBJECT: Planning Commission request regarding establishment of pervious surface requirements or guidelines for new projects

DEPARTMENT: Community Development

STAFF: Erik Nolthenius, Planning Manager
Alexis Morris, Director of Community Development
Allen Baquilar, Director of Engineering

TITLE/RECOMMENDATION

Provide staff direction on whether to spend time and resources on the Planning Commission's request.

FISCAL IMPACT

The fiscal impact associated with this item is approximately \$15,000 and would be the responsibility of the General Fund. This includes outside legal review and assistance in preparing an update to [Brentwood Municipal Code Section 14.20.050](#), stakeholder workshops and meetings.

BACKGROUND

On July 2, 2024, Planning Commissioner Johnson requested a future agenda item regarding the establishment of pervious surface requirements or guidelines for new projects. On August 6, 2024, Commissioner Johnson explained the request in more detail. The request stems from recent project-specific discussions about the use of pervious surfaces to satisfy stormwater treatment requirements. After taking public comment, the Planning Commission deliberated and voted unanimously to request that the City Council direct staff to study the establishment of pervious surface requirements or guidelines.

Per [Brentwood Municipal Code Section 14.20.050](#) ('Stormwater Control Plan Required'), every application for a development project, including, but not limited to, a rezoning, tentative map, parcel map, conditional use permit, variance, site development permit, design review, or building permit that is subject to the development runoff requirements in the City's National Pollutant Discharge Elimination System (NPDES) permit must be accompanied by a stormwater control



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plan that meets criteria in the most recent version of the Contra Costa Clean Water Program (CCCWP) Stormwater C.3. Guidebook.

The current version of the C.3 Guidebook requires regulated projects to meet the following goals:

- Reduce Stormwater Runoff: Minimize the quantity of stormwater runoff from new developments and redevelopment projects.
- Improve Water Quality: Ensure that stormwater is treated before it enters waterways, reducing pollutants like sediment, metals, oils, and chemicals.

The C.3 Guidebook provides a menu of low-impact design (LID) strategies aimed at maintaining or restoring the natural hydrologic functions of a site. LID design detains, treats, and infiltrates runoff by minimizing impervious area, using pervious pavements and green roofs, dispersing runoff to landscaped areas, and routing runoff to rain gardens, cisterns, swales, and other small-scale facilities distributed throughout a site.

Pervious surfaces include pervious concrete, pervious asphalt, porous pavers, and granular materials for roadways, sidewalks, or plazas that are designed to infiltrate runoff to the underlying soil rather than diverting the runoff to be treated at a bioretention basin.

The cost to install pervious surfaces are approximately three times higher than standard asphalt and concrete due to the specialized materials (such as material with void spaces) and specialized certification required to ensure proper installation.

Pervious surfaces are not recommended on certain sites. For example, they are not suggested for sites that contain clay soils due to soil expansion and contraction during wet and dry seasons, which results in a breakdown of the pervious surface. In addition, installation of pervious pavement on sloped sites requires special design features to prevent flooding/ponding at low points. Therefore, pervious surfaces would not be an available option for all projects.

Due to the specialized nature of pervious surfaces, the City Engineer has not adopted this material as an acceptable standard material within the public right of way. Pervious surfaces require specialized and more frequent maintenance and have a shorter lifespan than standard impervious surfaces which would affect the ability to adequately maintain City infrastructure without additional funding. Therefore,



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residential projects that propose pervious streets have typically been required to form Homeowners' Associations for maintenance.

Lastly, with the latest update to the C.3 Guidebook on July 19, 2024, projects within Brentwood that create or replace an acre or more of impervious surface are now subject to Hydromodification Management (HM) required to control stormwater runoff intensities and durations to reduce the potential for downstream erosion of natural creeks and rivers. This typically requires projects to include on-site detention basins or underground vault systems precludes other uses, such as parks, over or within these stormwater facilities.

In summary, C.3 Guidelines encourage pervious surfaces in projects, however, it may not be the recommended LID strategy for all projects due to the specialized nature, higher cost to design, build and maintain, and site specific conditions (i.e. slope and soil). Also, with the recent requirement for HM, a basin or other detention facility would still be required for projects which would similarly limit space available that would otherwise be available due to pervious pavements for additional units, park or open space within developments.

CITY COUNCIL STRATEGIC INITIATIVE

Not Applicable.

PREVIOUS ACTION

Not Applicable.

DATE OF NOTICE

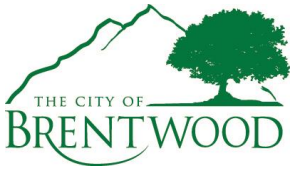
Not Applicable.

ENVIRONMENTAL DETERMINATION

Not Applicable.

ALTERNATIVE OPTION(S)

Do not direct staff to spend time and resources on this Planning Commission request at this time.



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ATTACHMENT(S)

None.