



Office of the City Manager

CONSENT CALENDAR
June 25, 2024

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: David Sprague, Fire Chief
Colin Arnold, Interim Assistant Fire Chief

Subject: Purchase Order: Wildfire Defense Mesh

RECOMMENDATION

Adopt a Resolution authorizing the City Manager to execute a Purchase Order with Wildfire Defense Mesh from June 1, 2024 until May 31, 2027 in an amount not to exceed \$400,000 with an option to extend for an additional three (3) years.

FISCAL IMPACTS OF RECOMMENDATION

All funds required to pay for this contract are in the Department's baseline operating budget. The funding source is Measure FF.

CURRENT SITUATION AND ITS EFFECTS

The Department aims to procure and provide this material to residents, based on their location in the City and the associated risk as determined by the Department.

One of the most effective methods for reducing home ignition from embers driven by wind during a wildfire is to outfit threatened homes with mesh on all vents, gutters, and decks that is specifically designed to prevent ember intrusion. Research conducted by the Insurance Institute for Business and Home Safety (IBHS) and Underwriters Laboratories National Institute for Standards and Training (UL/NIST) has established that the presence of approved mesh reduces the likelihood of ignition from ember cast, or the front of airborne, ignited material that is driven by wind ahead of the flames during a wildfire. Most homes in the Wildland Urban Interface (WUI) were built prior to a modern understanding of fire spread in the WUI environment, much of which can be mitigated by measures such as these. While other measures are also important, mesh is readily available, cost-effective, and requires little to no modification of the existing structure, making it easy for residents to complete.

BACKGROUND

Following a pilot program last year, the Fire Department has established that the distribution of home hardening mesh can be consistently and equitably distributed in a timely manner to assist residents. This mesh was cut to specific sizes and distributed by

fire department personnel for residents to complete the installation themselves (or by their representatives). During this pilot program, the vendor also developed common pre-cut products that speed delivery of mesh and reduce staff time to distribute it.

Wildfire Defense Mesh began in Australia dedicated to developing a product that protected homes from wildfire. The family owned business is now based in the United States.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

This contract will support home hardening and resiliency to the effects of wildfire, or fire spread between structures. Structure-to-structure spread, or the ignition of common residential construction due to ember cast, increases fire spread and community destruction while releasing the carbon sequestration accomplished through the wood framing of residential construction.

RATIONALE FOR RECOMMENDATION

Wildfire Defense Mesh is the only simple “do-it-yourself” mesh that has full compliance with California Building Code, 2022 Chapter 7A, 706A Vents, 706A.2 requirements; that has been tested to ASTM E2886 and ASTM E84; and that is listed by QAI Laboratories, meeting the CBA, Chapter 7A, 706A.2 requirements for WUI vents tested to ASTM E2886. Because of this competing this product is not amenable.

ALTERNATIVE ACTIONS CONSIDERED

Future building codes may require the presence of this mesh, which would then be installed gradually as structures are permitted for additional work. This process would be slow, and would be ineffective for mitigating risk in a reasonable timeframe.

CONTACT PERSON

Colin Arnold, Interim Assistant Fire Chief, (510) 981-3473

Attachments:

1: Resolution

RESOLUTION NO. ##,###-N.S.

PURCHASE ORDER: WILDFIRE DEFENSE MESH

WHEREAS, the Fire Department aims to procure and provide this material to residents, based on their location in the City and the associated risk as determined by the Department; and

WHEREAS, one of the most effective methods for reducing home ignition from embers driven by wind during a wildfire is to outfit threatened homes with mesh on all vents, gutters, and decks that is specifically designed to prevent ember intrusion; and

WHEREAS, Wildfire Defense Mesh is the only simple “do-it-yourself” mesh that has full compliance with California Building Code, 2022 Chapter 7A, 706A Vents, 706A.2 requirements; that has been tested to ASTM E2886 and ASTM E84; and that is listed by QAI Laboratories, meeting the CBA, Chapter 7A, 706A.2 requirements for WUI vents tested to ASTM E2886 ; and

WHEREAS, because of this competing this product is not amenable; and

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that a resolution be adopted authorizing the City Manager to execute a Purchase Order with Wildfire Defense Mesh from June 1, 2024 until May 31, 2027 in an amount not to exceed \$400,000 with an option to extend for an additional three (3) years.

