



PROJECT PROFILE

New Dungeness Lighthouse

Stucco Condition Assessment | Sequim, WA



CLIENT

New Dungeness Light Station Association

BACKGROUND

First constructed and lit in 1857 and added to the National Register of Historic Places in 1993, the New Dungeness Light Station was the first U.S. lighthouse completed on the Strait of Juan de Fuca. Originally 91 feet tall, the tower was lowered to its current height of 63 feet in 1927 over deterioration concerns.

The Association was concerned with the condition of the structure's exterior stucco, which was observed to be significantly cracking and delaminating from the sandstone and brick substrate. While a historically appropriate finish, the stucco is not original to the lighthouse.



SOLUTION

WJE's Pacific-Northwest-based experts, supported by one of our three petrography laboratories, provided the client with a detailed condition survey of the building's exterior and a scientific analysis of the stucco material's composition. WJE's ability to perform this breadth of services provided the Association with a thorough understanding of the physical condition of the building's exterior and the underlying cause for distress. Through this investigation, the WJE team was able to identify that the present finish is the results of several phases of stucco and limewash applications over the original sandstone and brick substrates.



With WJE's detailed understanding of the stucco at both the macro and microscopic levels, we provided the Association with repair solutions to address immediate concerns and to improve long-term material performance while ensuring that the historic integrity of the lighthouse is maintained.