

Response to Questions on the FY 2009 Advertised Budget Plan

Request By: Chairman Connolly, Supervisors Foust and Frey

Question: What are the roof warranty periods for the Government Center building and Centreville Library? What does the County usually include in terms of roof specifications and policies in RFPs?

Response: The construction of the Government Center began in 1989 and was completed in January 1992 with a 10 year roof warranty. The Centreville Library roof was installed in December 1991 with a 10 year warranty. Both roofs are EPDM roofs (Ethylene propylene diene terpolymer single-ply rubber roofing membrane). EPDM has gained industry-wide acceptance and respect by providing immediate and long-term roofing solutions. As environmentalists and code regulators place more emphasis on the sustainable performance of building materials, EPDM continues to be the roofing material that stands the test of time. Characteristics that contribute to EPDM's overall system performance include:

- Cyclical membrane fatigue resistance
- Proven hail resistance
- High resistance to ozone, weathering and abrasion
- Flexibility in low temperatures
- Superior resistance to extreme heat and fire
- Thermal shock durability
- Ultraviolet radiation resistance

The Facilities Management Department conducts a semi-annual inspection of all roofs at which time all debris from the roof and around drains and gutters is cleared. Any problems observed are repaired or turned over for contractor repair. Inspections do result in prevention of some potential leaks from torn membranes or separated seams, as well as obvious areas where the tar "bulges" up on built-up roofs. Unfortunately a visual inspection does not always result in identified problems, such as small leaks which are difficult to track down even when water is apparent in the building. These types of problems are not always determined during semi-annual visual inspections.

In the early 1990's DPWES developed and implemented the NACO Guidelines for Architects and Engineers. Since that time, standard roof system warranties of either 15 or 20 years have been the established goal. The extent of the standard roof warranty offered by the roof manufacturers is dependent on the type of roofing system used. Different roofing systems are available for both flat roof buildings and sloped roof buildings. Flat roofs are typically specified as either built-up asphalt roofs, or applied membrane (EPDM) roofs. Sloped roofs are typically specified as either standing seam metal roofs or some type of asphalt shingle roof. Virtually all roof systems implemented by DPWES on new and major renovation projects since that time have carried at least a 15 year warranty, with the majority having at least a 20 year warranty.