



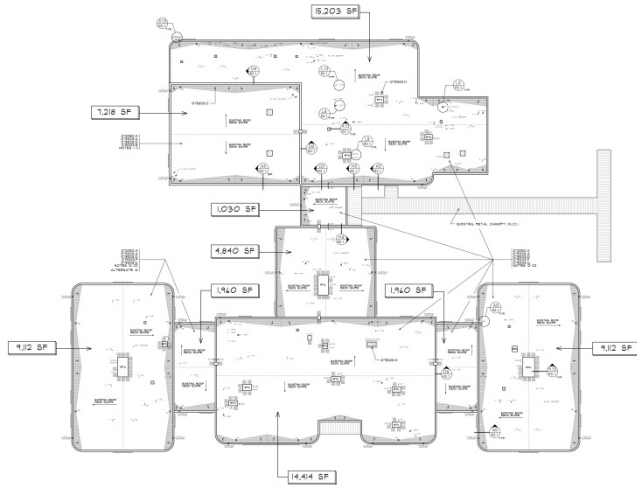
**Lenoir City Middle School
Roof Replacement
Lenoir City Schools
Lenoir City, Tennessee**



Lenoir City Middle Roof 64,849 s.f.
Construction Cost \$222,255
Cost/s.f. \$3.43
Completion Date 2007

ARCHITECTS
WEEKS
AMBROSE
McDONALD
INC.

Architects Weeks Ambrose McDonald, Inc. was selected by Lenoir City Schools to perform design and inspection services for the roof replacement on Lenoir City Middle School.



Lenoir City Middle School Roof Plan

Lenoir City Middle School had an existing ballasted EPDM roof installed that was difficult to maintain by the school system maintenance department.



Existing Ballasted EPDM



Existing Ballasted EPDM

The EPDM membrane had reached its acceptable service life and it had been bridging at the parapet walls causing splits and tears at the base of the membrane. The school maintenance department attempted minor repairs around the parapet but unfortunately they used an incompatible product for the EPDM membrane which made the condition even worse at the walls and other roof penetrations.



EPDM Membrane "Bridging"



Poor Roof Drainage

Due to limited funding for the roof replacement, Architects Weeks Ambrose McDonald conducted a moisture analysis of the underlying roof insulation to see if it could be retained for the new roof system. The moisture analysis confirmed the existing roof insulation could be retained for the new roof which saved the Owner thousands of dollars.

The roof replacement consisted of removing the existing rock ballast and 45 mils thick EPDM membrane, removing/replacing portions of the existing insulation found to be wet or unserviceable, installing a high density coverboard over the existing insulation, attaching the insulation composite to the roof deck, and installing a 60 mils thick fully adhered EPDM membrane for a 20-year roof guarantee.



Existing Ballasted Roof



New Adhered EPDM Roof