Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue Bridgeport, CT 06607

ATTN: JoAnn Michaels

DATE: February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School

Stamford, CT

Dear Ms. Michaels,

As per your request we went to the above school to perform a visual inspection of the roofs, look for possible sources of water leaks, provide a price to repair the current leaks and provide recommendations and a price for comprehensive roof maintenance to extend the useful life of the existing roofing system.



Davenport Ridge Elementary School layout and leak locations

Roof Warranty and roof types

There are two types of roofs installed at Davenport Ridge Elementary School. Over the entrance there is a coated concrete deck. The walls and open area of the deck have been flashed using mastic and felts, then painted over. There is no warranty present on this area. The balance of the roof has a Firestone roof installed in 1999. The roof had a 15-year warranty, giving an expiration date between 4 to 5 years ago. Because there are no warranties present, all leak repairs will be the Owners responsibility. The EPDM roof is in good condition. The same EPDM membrane would have been used for a 20-year warranted roof. What is deteriorating and in need of repairs and maintenance are flashing details and some field laps.

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue Bridgeport, CT 06607

ATTN: JoAnn Michaels

DATE: February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School

Stamford, CT

Page 2

Active Roof Leaks

Cafeteria





The leaks over the cafeteria are appearing in the area of a penetration pocket and steel dunnage post. We can see cracking and opening of the lap at these items. They need to be cleaned and overlaid with new flashing. The area around them must also be checked for holes or other open items.

Room 250 Assistant Principals office





The leak over this room is either coming from an open patch or open flashing on the concrete roof. Both areas need to be patched and repaired.

Room 121 Main Office





The leaks in the main office appear to be coming from a penetration pocket or dunnage post flashing.

Continued on page 3

Accepted	Date	Yours truly,
		M. Gottfried, Inc.
By		and fullerme

Roofing and Sheet Metal Contractors

Stamford, Connecticut 06906-0218 89 Research Drive. P.O. Box 2218. PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. **DATE:** February 26, 2019 1387 Seaview Avenue

Bridgeport, CT 06607 ATTN: JoAnn Michaels

Davenport Ridge Elementary School

RE: Roof report and repair quotation

Stamford, CT

Page 3

Hallway by kindergarten 406 and door



The leak in this area also lines up with a dunnage post.

Kindergarten room 405



A patch appears to be failing over the leak occurring in room 405

Kindergarten room 404





A lap that has patches on a patch lies over the leak occurring in this room. The patches need to be cleaned, primed and overlaid.

Active leak repair

From our investigation, we feel that if the dunnage posts, penetration pockets and patches shown above are properly cleaned, primed and overlaid, the area around the items checked and the penetration pockets topped off with additional pourable sealer, the leaks will stop. Our cost to perform this work is \$4,985.00

Continued on page 4

Accepted	Date	Yours truly,
		M. Gottfried, Inc.
By		and Lederme

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc.

1387 Seaview Avenue Bridgeport, CT 06607 ATTN: JoAnn Michaels **DATE:** February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School

Stamford, CT

Page 4

EPDM Roof - Suggested repairs and maintenance









Overall views of the roof

The EPDM roof at Davenport Ridge School is in acceptable condition. The main issues we saw during our visual inspection of the roof dealt with flashings, laps and patches adhered using an adhesive(newer systems us a tape technology). There are also other items in need of attention or proper flashing.









A good portion of the field laps (between the sheets of EPDM membrane) appear to have been bonded using tape technology. Some, however, look like they were adhered with glue. These laps have been caulked (not needed with tape). Items adhered with glue, as we shall see in the subsequent sections, tend to pull, lift and open over time. For this reason, we recommend cleaning, priming and overlaying approximately 3,000 lf of caulked field laps. This is an approximate estimate and will be a "good start" to periodically overlaying field laps as a means of extending the life of the roofing system.

Continued on page 5

Accepted	Date	
_		
By		

Yours truly, M. Gottfried, Inc.

By <u>David Lederman</u>, <u>Pres.</u>

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue Bridgeport, CT 06607 ATTN: JoAnn Michaels **DATE:** February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School
Stamford, CT

Page 5

Patches and membrane strips in the field of the roof











There are many EPDM patches and EPDM strips that cover holes, sheet cuts, etc., These are starting to lift, and water can be seen coming out of some of them. These should be cleaned and overlaid with new flashing membrane.

Open dunnage Post flashing





Many of the dunnage post flashings are starting to peel and lift. We believe some of these are causing current leaks. As the roof ages more of these will lift and let water into the roofing system. The membrane should be cleaned and overlaid to reseal this detail.

Open flashing laps or patches on base flashing





A number of Patches at the base perimeter flashings have bridged, pulled away from the wall, leaving a pathway for water to enter the roof. These need to be patched to prevent leaks.

Continued on page 6

Accepted	Date	
Rv		

Yours truly, M. Gottfried, Inc.

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue Bridgeport, CT 06607 ATTN: JoAnn Michaels

RE: Roof report and repair quotation

DATE: February 26, 2019

Davenport Ridge Elementary School Stamford, CT

Page 6

Penetration Pockets







Penetration pockets need to be "topped off" with additional sealer where the existing sealer has pulled away from either the penetration of edge of the pocket. The base flashings on the field sheet of the penetration pockets are lifting as well. These need to be overlaid with new membrane.

Open curb flashings and corners at curbs





All of the corners and curb flashings must be checked and overlaid with new flashing membrane if they are bridging, peeling or separating from the EPDM sheet.

Drains



Continued on page 7

Accepted	Date	
	·	
D		

Yours truly, M. Gottfried, Inc.

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue

Bridgeport, CT 06607 ATTN: JoAnn Michaels **DATE:** February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School

Stamford, CT

Page 7

In addition to needing cleaning, (the whole roof must have debris removed) the drains need to be inspected to make sure the sealant and flashings are intact. At the above drain, there is a patch partially covered by debris that looks questionable. It should be overlaid.

Improperly flashed vents



This vent does not appear to be properly flashed. The boot is squished down to the roof, and the perimeter of the boot has been caulked, usually a sigh that problems have occurred. The boot should be removed, and the pipe field wrapped.

Uprights in the perimeter metal edging



It looks like water had been getting in through the vertical uprights on the perimeter edging and they were caulked to close the joint. These uprights should be patched with EPDM flashing material.

Continued on page 8

AcceptedDate	Yours truly, M. Gottfried, Inc.
By	and Laterme

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue

Bridgeport, CT 06607 ATTN: JoAnn Michaels **DATE:** February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School

Stamford, CT

Page 8

Light tunnel skylight flashing





There are a number of light tunnel skylights that have been installed on the roof. These have been sealed using small pieces of flashing going around the base flange. This is not a proper flashing installation. A large sheet of EPDM should be installed over all the patches. The sheet would have the round skylight cut out from the middle. EPDM flashing should then be applied to the vertical of the skylight and turned out and onto the new EPDM piece.

Open joints in metal shelf flashing around the perimeter of the raised section of roof







There is a raised section of the roof surrounded by vertical panels that sit on a metal shelf. The joints in the shelf have opened. They should be sealed with an EPDM patch. In addition, the Owner may want to have the panels and the frame inspected to see if that should be caulked by a professional caulking company.

Continued on page 9

Accepted	Date
D	

Yours truly, M. Gottfried, Inc.

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue

Bridgeport, CT 06607 ATTN: JoAnn Michaels **DATE:** February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School

Stamford, CT

Page 9



The membrane flashing on the perimeter curb of the raise roof section of roof is bubbling. The membrane on these bubbles will dry, crack and most likely break, creating entry points for water. These should be cut and overlaid with new membrane before problems develop around this roof area.

EPDM roof - summation

As noted in the above pictures, even though the field sheets of EPDM membrane are in good condition, the flashings and patches at perimeters, dunnage penetrations, penetration pockets, curbs, drains, skylights, some perimeter edging, a few thousand feet of field lap, etc., need to be inspected, properly cleaned, primed and overlaid or reflashed with new membrane. Our cost to perform this work is \$ 121,540.00

Continued on page 10

Accepted	Date
Rv	

Yours truly, M. Gottfried, Inc.

Roofing and Sheet Metal Contractors

89 Research Drive, P.O. Box 2218, Stamford, Connecticut 06906-0218 PHONE: (203) 323 8173 Website: mgottfried.com FAX: (203) 359 2498

TO: Viking Construction, Inc. 1387 Seaview Avenue Bridgeport, CT 06607 ATTN: JoAnn Michaels **DATE:** February 26, 2019

RE: Roof report and repair quotation
Davenport Ridge Elementary School

Stamford, CT

Page 10

Concrete roof













The other area of roofing on the school is on the concrete deck over the entryway. This is a concrete deck that has a coating on it. The perimeter parapet walls appear to have an asphaltic base flashing that had also been coated. The coating on the deck is in poor shape. The perimeter base flashing is also in poor condition. There are cracks, splits, holes, etc., in the flashing. Some of the cracks even have organic growth. Repairs on this roof can be approached in a couple of ways. If the deck is not of concern; the perimeter flashing should be cleaned, loose material and organics removed, and new base flashing installed. If it is desired to install a new coating on the deck that can be done as well. This area should be discussed with the Owner and schools project architect to see the extend of the work desired and to determine a product and specification for the work. We can provide pricing after those items are determined.

Accepted	Date
D	

Yours truly, M. Gottfried, Inc.