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February 13, 2017

Eva Atwood
Stratton VA Hospital
113 Holland Avenue
Albany, NY 12208

RE: 2017 Roofing Work on roofs 17, 18, 21, 22, 25, 26, 29, 30, 40 and 51

Dear Eva,

This letter is to provide you a summary of my inspection of the roofs in consideration for restoration and replacement in 2017. The inspection took place on November 18 and 23 2016.

There are two types of roofing systems that were inspected. Roof 51 is a gravel surfaced built-up roof. All the remaining roofs are smooth surface built up roofs with a white coating.

Roof 51
Approximately 3,509 SF
Composition
Gravel surface
3 plies Burmastic CompositePly
1/8" tapered polyisocyanurate insulation
Concrete deck

Roof Issues:

- Core sample was wet
- Abandoned penetrations in roof
- Retrofit drains have been installed
- Very large pitch pockets have been installed
- Heavy moss growth on roof surface
- Duct work has isolated a small section of roofing (2'x8') making it difficult to access and drain water out of this area
- Ladder to roof is not anchored at coping cap
- Rooftop curbs are installed in a way that restrict water flow to drains and results in ponding conditions
- Section of the roof are difficult to access due to close proximity of equipment
- Some equipment is resting on the gravel surface without any slip sheet or protection

Recommendations:

- The roof should be removed down to the decking due to the presence of wet

insulation

- The insulation layout including heights is critical to properly drain the roof surface and accommodate the R-30 minimum, 1/8" tapered insulation.
- To accommodate the increased insulation thickness equipment may need to be raised to create an 8" flashing height.
- Reroofing budget \$200,000. This budget does not include the raising of any roof top equipment.

Roof 40

Approximately 3,960 SF

Composition

2 base plies of BURmastic CompositePly and smooth cap sheet with white coating

Average 3.5", 1/8" tapered polyisocyanurate insulation

Vapor retarder

Concrete deck

Roof issues

- Coating is worn off in some areas
- Walkway pads have deteriorated
- Equipment supports do not have slip sheet underneath them
- Vegetation growth/moss on roof

Recommendations:

- The roof should be scanned for moisture content to be determined if the roof can be restored versus being torn off and replaced.
- Restoration budget \$65,000
- Replacement budget \$140,000

Roof 17, 18, 21, 22, 25, 26, 29, 30

Approximately 20949 SF

Composition

White coating

3 plies Burmastic CompositePly

2 1/2" minimum, 1/8" tapered polyisocyanurate insulation

Concrete deck

Roof issues

- Wall coating is deteriorating in many locations (roof 22 is the most deteriorated)
- Door threshold flashing height is 4" in most locations
- Perimeter flashing height is 11" in most locations
- Core on roof 18 was wet
- Pitch pockets are not topped off and hold water
- Sealant at termination bar is cracked
- Some roofs have abandoned penetrations
- Some equipment (roof 21) have equipment setting on the roof that should be properly flashed into roof or installed on raised sleepers
- Some wall penetrations (roof 21,22) are sealed with "Great Stuff" which is deteriorated.
- Very low flashing height (roof 2) for penetrations (4" high)

- Some areas of ponding water
- Abandoned Satellite dish? (roof 25)
- Open joints in wall panels (roof 26)
- Lightning protection system on roofs, some cables are disconnected (roof 29)

Recommendations

- Roofs should be scanned for moisture to further determine if they can be restored vs replaced.
- Replacement of roof will require the raising the flashing heights at the thresholds of the equipment access doors and roof top equipment. Flashing height needs to be 8" above roof level.
- Wall penetrations and joints need to be properly sealed
- Brick walls will need to be repaired/repointed
- Installation of metal wall panel system budget \$165,000
- Removal and reinstallation of lightning protection system \$35,000*estimate*
- Restoration Budget \$356,000
- To accommodate the increased insulation thickness with a full tear off and replacement, equipment may need to be raised to create an 8" flashing height.
- Replacement Budget \$837,000. This does not include the cost to raise the equipment or metal flashing heights/door thresholds

Roof Moisture Scan for all smooth surface roofs \$4,020.00