TOWN OF GLASTONBURY
REQUEST FOR QUALIFICATIONS
RPGL-2019-25
ROOFING STUDY OF GLASTONBURY SCHOOLS
ADDENDUM NO. 1
January 25, 2019

The attention of respondents submitting proposals for the above-referenced project is called to the following Addendum to the specifications. The items set forth herein, whether of omission, addition, substitution or other change, are all to be included in and form a part of the proposed Contract Documents for the work. Respondents shall acknowledge this Addendum on the Proposal Response Page (Attachment A).

Question 1.	***Please define the funding source for the Roofing Study and if funds are currently available.***
Answer	Funding is available for roofing study in the Town Capital Improvement Program.
Question 2.	***Please define the intended funding source for future Design and Construction phases, should the project proceed to those phases. Clarify the selected Consultants involvement with CT reimbursement process during this evaluation phase.***
Answer	Future projects might be funded from a variety of sources. Respondent shall have demonstrated experience with the State of Connecticut reimbursement process to assist the Town with necessary requirements.
Question 3.	***Please confirm that April 15 – April 19, 2019 is available for the selected consultant to complete the field evaluation (including roof cores) portion of the project.***
Answer	April 15-19, 2019 is the Spring recess for the District. Buildings will be generally available during that time.
Question 4.	***Please confirm and state the due date for questions as the RFQ states that questions must be received, "at least five (5) business days prior to the advertised response deadline." This would mean that questions are due on Friday, February 1, 2019 at 11:00AM. There was some ambiguity as to question due date (Feb. 4?) at the pre-proposal meeting.***
Answer	All questions shall be submitted by noon on February 4, 2019.
Question 5.	***Please clarify when the Hourly Rates (on a per square foot basis) are to be submitted. Item 9. On page 7 appears to indicate that an "actual fee proposal is not required". However the next sentence states, "Respondents shall include the following…in actual fee proposal upon request." Please clarify if these costs are to be included in the RFQ response or not. We understand the Consultant's Schedule of Fees is required.***
Answer	General description (square foot, hourly, etc.) of professional fee structure is required, actual fee proposal is not required. Respondents shall include the following hourly rates in their proposal response: • IR roof scan per square foot • Aerial Photography per square foot • Roof Inspection per square foot • % mark up on Materials • % mark up on Sub Consultants

	• Cost per core sample • Cost per report
Question 6.	***Please confirm the due dates for preliminary information are due by April 30, 2019 and the study/cost estimates complete by June 1, 2019. If due dates are maintained as noted, will the selected Consultant be granted access to the roof after school hours or on weekends?***
Answer	All efforts will be made to meet prescribed dates. Town reserves the right to extend dates if necessary.
Question 7.	***Would the Town be willing to share the existing Structural Report or Hazardous Material Report with consultants as part of the pre-proposal due diligence process?***
Answer	<u>Hazmat</u>: All of the existing school roofs had a complete replacement after 1990. In July 1989, the EPA issued the Asbestos Ban and Phase-Out Rule (ABPR), which planned to impose a full ban on the manufacturing, importation, processing and sale of asbestos-containing products. However, the ban did not include other uses of asbestos such roofing products. Although, it is unlikely that the district school roofs contain asbestos, the EPA - NESHAPS regulation requires pre-construction survey/sampling of any building materials scheduled for removal. This report will be completed during the design phase by the Town's Environmental Consultant and would be inserted in the Roof Consultants design package. Hazmat determination is not part of the Roof Consultants scope. <u>Structural</u>: All existing roofs installed between 1990-2011 were designed to meet the energy code at the time of design. All have tapered roof insulation under the roof membrane. The district does not possess structural reports; however the district will provide any available drawings, including roof details to the successful Roof Consultant.
Question 8.	***Can you provide the 2009 roof reports?***
Answer	See roof reports attached.

END OF ADDENDUM NO. 1 TEXT

100% Submittal

Roof Management/ Consulting Services for 2009 at Glastonbury Public Schools

September 11, 2009

PREPARED BY:

Roofing Resources, Inc.

PROFESSIONAL ROOF CONSULTANTS

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Roofing Resources, Inc.

September 11, 2009

Mr. Bradley Devlin
Director of Facilities
Glastonbury School District
320 Hubbard Street
Glastonbury, CT 06033-0191

RE: Roof Management / Consulting Services 2009 – Glastonbury School District

Dear Mr. Devlin:

Roofing Resources, Inc. recently conducted a visual roof evaluation to provide current conditions, provide incidental remedial repairs, provide opinion of repairs to deficient areas and provide roofing options for budgeting in FY2010. Included in this report are Three (3) options:

Option 1 – Visual Evaluation with Minor Repairs:

- The scope of work includes all buildings and roof areas in the Glastonbury School District.
- Onsite school management interviews will be conducted to determine problem areas as a priority.
- Roof systems will be walked to visually identify all field, perimeter, and termination conditions.
- Notes will be made on drawings if available. If drawings are not available notes will be catalogued for reporting.
- Digital photographs will be taken of identified system issues along with repairs if completed.
- Minor, typical, bi-annual maintenance repairs and patching will be completed using in-kind materials during the evaluations. All conditions identified and determined to require more extensive repair will be detailed and completed at a time and material basis only after the School Districts review and approval.
- Out of scope work can be considered with intensive investigation including coring, measurements, infrared survey, AutoCAD drawings, specification writing, quality assurance, and other services to fully determine the source of issues and/or the requirements for repair or maintenance.
- The appropriate client representative will receive a report of all work completed along with recommendations.

Option 2 – Hebron Avenue School Replacement Options, Solar Survey, and Respective Budget Estimates:

- The scope of work includes all roof areas scheduled to be replaced on the Hebron Avenue Elementary School.
- All previous roof system documentation will be verified for accuracy.
- School management will be interviewed to understand current energy, mandates including cool roof listing, LEED best practices, VOC compliance, and any other pertinent State or Local Government requirements.

- A general solar survey will be included. The solar evaluation will include a summarized findings and recommendations report for steps to be completed to fully integrate a solar installation with a future roof system replacement.
- A comprehensive summary report including roof system options for consideration and corresponding budgets projected to 2010 costs.
- Out of Scope work includes a full building structural evaluation, development of full roof system replacement specification and construction documents, detailed AutoCAD Drawings corresponding to specification documents, project bid and project quality management.

Option 3 – Naubuc School Metal and Masonry Repairs:

- Secure metal cap flashings and seal as needed.

We trust our roof services and report meet with your requirements for this facility. Please contact our office if you have any questions or if we may be of service in any other way.

Regards,
Roofing Resources, Inc.

Kenneth Areskog
Regional Manager

C: Gregory Rose – SR Products, Inc.
Erich Poch - RRI

VISUAL ROOF EVALUATION REPORT - 2009

CLEINT:	Glastonbury School District 320 Hubbard Street Glastonbury, CT 06033-0191
CONTACT:	Mr. Bradley Devlin Director of Facilities (860) 652-7950
PROJECT:	Roof Management and Consulting Services for 2009 Glastonbury School District consisting of: Buttonball Lane ES Eastbury ES Gideon Welles JHS Glastonbury HS & Gymnasium Hebron ES Hopewell ES Naubuc ES Smith MS
DATE OF SITE VISITS:	June 23rd - June 25th and July 1st, 2009
SURVEY CONDUCTED BY:	Kenneth Areskog Roofing Resources, Inc. (RRI) (770) 558-2219

As part of the roof system leak investigation, Roofing Resources, Inc. (RRI) performed a visual assessment on the referenced schools located in Glastonbury, CT. This assessment included a visual walk-over of existing buildings, interview of on-site personnel to assist in determining locations and history of existing leaks, visual verification of existing components and inspection of the existing conditions along with minor repairs and cleaning of debris around roof drains and other isolated locations. RRI will provide opinions and options for remediation along with opinion of costs.

OBSERVATION, FINDINGS & RECOMMENDATIONS

Buttonball Lane ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 11 through 23)

Approximate Roof Area: 62,500 square feet

This school is a single-storied building with multi-level roof areas. The façade is comprised of brick with multi-paned aluminum framed windows. The roof system is comprised of a reinforced EPDM fully adhered membrane over what appears to be a mechanically attached tapered polyisocyanurate insulation board. Core samples were not taken and warranty information was not available. The physical appearance of the membrane appears to be in good condition; however this roof is beginning to show signs of aging with the advent of de-lamination of splice seams at patches and field seams.

Anomalies and repair recommendations with quantities include:

- Approximately 400 de-laminated perimeter patches shall be repaired by applying a new surface splice over the existing patch.
- Approximately 475 de-laminated field patches shall be repaired by applying a new surface splice over the existing patch.
- Approximately 250 linear feet of deteriorated sealant to existing surface mounted counter flashing shall be repaired with removal of the old sealant and the replacement of new sealant.
- Approximately 250 linear feet of de-laminated field seams around six (6) roof drain targets shall be overlaid with new strip-ins.
- Approximately 160 linear feet of de-laminated field seams at one (1) expansion joint location shall be overlaid with new strip-ins.
- Strip-in flashings at six (6) existing scupper locations shall be overlaid with new strip-ins.
- Trim two (2) trees with branches extending unto the roof.

All roof drains and roof areas were cleaned of debris. Surface splices, open seams, pourable sealer pockets with voids were topically treated as needed.

Eastbury ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 24 through 31)

Approximate Roof Area: 44,300 square feet

This school is a single-storied building with multi-level roof areas. The façade is comprised of brick with multi-paned aluminum framed windows. The roof system is comprised of a non-reinforced EPDM fully adhered membrane over what appears to be a mechanically attached tapered polyisocyanurate insulation board. Core samples were not taken; however, provided warranty information indicates a 20-year Firestone warranty is in place with an expiration date of 2015. The physical appearance of the membrane appears to be in good condition; however this roof is beginning to show signs of aging with the advent of de-lamination of splice seams at patches and field seams.

Anomalies and repair with quantities include:

- Missing roof drain strainers at two (2) drain locations shall be replaced.
- Poor roof drainage was observed between drains at Area 2 and at roof scuppers on Area 2 and 6. No action required until roof is renovated.
- Three (3) oxidized curb caps shall be primed and re-coated.
- Unused gas piping shall be removed and discarded.
- Open flashing laps were observed at two (2) scuppers shall be repaired applying new strip-ins.
- Missing downspout shall be replaced with approximately 10' linear feet of 3"x4" new leader with splash block.
- Possible wet insulation observed by A/C unit on Area 2. Approximately 200 square feet appear soft to foot traffic.
- Approximately 50 de-laminated perimeter patches shall be repaired by applying a new surface splice over the existing patch.
- Approximately 100 de-laminated field patches shall be repaired by applying a new surface splice over the existing patch.

- Approximately 700 linear feet of de-laminated field seams around six (16) roof drain targets shall be overlaid with new strip-ins.
- Approximately 1,500 linear feet of de-laminated field seams shall be overlaid with new strip-ins.
- Trim tree with branches extending unto the roof.

All roof drains and roof areas were cleaned of debris. Surface splices, open seams, pourable sealer pockets with voids were topically treated as needed.

Gideon Welles JHS: (See photographic Journal Showing Aerial and Roof Areas on Pages 32 through 51)

Approximate Roof Area: 82,600 square feet

This school is a two-storied building with multi-level roof areas. The façade is comprised of brick with multi-paned aluminum framed windows. The roof system is comprised of a gravel surface asphalt built-up roof system. Core samples were not taken, therefore, no additional information was obtained on concealed components. It was indicated a 20-year warranty was issued in 1991. The physical appearance of the membrane appears to be in fair/poor condition; however this roof is beginning to show signs of aging with the advent of de-lamination of gravel surfacing and the deterioration of flashing components. Generic asphalt built-up roofs have limited service-life after 20 years due to thermal changes over an extended period of time.

Anomalies and repair with quantities include:

- Approximately sixty (60) areas are exhibiting signs of gravel migration causing the asphalt membrane to be exposed to the sunlight which may deteriorate the membrane prematurely. These areas shall be swept back to the gravel adhesion point, new asphalt adhesive applied and the gravel re-applied.
- Approximately 400' linear feet of base flashings are showing signs of deterioration. These areas shall have the existing base flashings removed and replace with new modified bitumen flashings.
- Roof Areas 1 and 16 have trees extending onto the roof area. These trees shall be trimmed back from the roof.

All roof drains, gutters and roof areas were cleaned of debris. Voids in the strip-ins around the roof's perimeters were re-sealed as needed. In addition, pitch pockets with voids were topically treated in affected areas.

Glastonbury HS & Gymnasium: (See photographic Journal Showing Aerial and Roof Areas on Pages 52 through 90)

Approximate Roof Area: 137,550 and 51,250 square feet, respectively

This school is a single to two-storied building with multi-level roof areas. The façade is comprised of brick with multi-paned aluminum framed windows. The roof systems on the main school areas are comprised of a mostly gravel surfaced built-up roof systems with new additions added with white granular surfaced modified bitumen roof systems. The gymnasium roofs are comprised predominantly of fully adhered non-reinforced EPDM membrane with out-sections of gravel surfaced built-up and newer white granular surfaced modified bitumen roof systems. Core samples were not taken and

warranty information was not available. The physical appearances of the predominant gravel-surfaced roofs are marginal with some areas in poor condition and some areas in fair condition. The newer granular surfaced modified bitumen roofs are in good condition with some incidental installation anomalies. The EPDM membrane roof systems are in good condition; however, a moderate amount of repairs are needed to extend the service life of this roof system.

Anomalies and repair with quantities include:

Main School Roof:

- Approximately fifteen (30) areas of exposed felts were observed around roof drains and perimeter edges shall have new adhesive applied with the gravel replaced.
- Approximately 200' linear feet of exposed membrane was observed around the perimeter shall have new adhesive applied with the gravel replaced.
- Rotor clean two (2) roof drains.
- Approximately 100' linear feet of neoprene expansion joint is split and shall be repaired with new EPDM adhesive tape.
- Approximately 300' linear feet of loose base flashings are in need of repair/replacement.
- Replace approximately 100 linear feet of deteriorated sealant to existing reglet-mounted counter flashing.
- Approximately twenty (20) pitch pockets are constructed in a clustered manner. This correction should be considered with a roof replacement.
- Approximately fifty (50) areas at expansion joint and/or base flashing terminations shall be re-enforced with mastic and mesh.

Gymnasium Roof:

- Approximately 200 square feet of soft (probably wet) insulation was observed by a large roof-top unit shall be removed and replaced with new components.
- Approximately 50 de-laminated field patches shall be repaired by applying a new surface splice over the existing patch.
- Approximately three (3) areas of exposed felts were observed around roof drains shall have new adhesive applied with the gravel replaced.

All roof drains and roof areas were cleaned of debris. Surface splices, open seams, pourable sealer pockets with voids were topically treated as needed.

Hebron ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 91 through 93)

Approximate Roof Area: 56,750 square feet

This school is a single-storied building with some raised roof areas. The façade is comprised of brick with multi-paned aluminum framed windows. The roof systems are comprised of fully adhered EPDM membrane roof systems on the raised roof areas and ballasted EPDM roof systems on the lower roof areas. The raised roof areas appear to have mechanically attached insulation systems. The lower roof area insulation was not obtained. Core samples were not taken and warranty information was not

available. The physical appearance of the membrane appears to be in fair condition on the raised roof areas and poor condition on the lower roof areas.

Anomalies and repair with quantities include:

Raised Roof Areas:

- Approximately 100 de-laminated field patches shall be repaired by applying a new surface splice over the existing patch.

Lower Roof Areas:

- Membrane is pulling loose from terminations in many areas. Due to the condition of these roof areas, temporary repairs shall be used to prevent water from damaging the interior space.

All roof drains and roof areas were cleaned of debris.

<u>Hopewell ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 94 through 109)</u>

Approximate Roof Area: <u>59,650 square feet</u>

This school is a single-storied building with multi-level roof areas. The façade is comprised of brick with multi-paned aluminum framed windows. The roof system is comprised of a reinforced EPDM fully adhered membrane over what appears to be a mechanically attached tapered polyisocyanurate insulation board. Core samples were not taken and warranty information was not available. The physical appearance of the membrane appears to be in good condition; however this roof is beginning to show signs of aging with the advent of de-lamination of splice seams at patches and field seams.

Anomalies and repair with quantities include:

- Approximately 200 de-laminated perimeter patches shall be repaired by applying a new surface splice over the existing patch.
- Approximately 600 de-laminated field patches shall be repaired by applying a new surface splice over the existing patch.
- Overlay approximately 1,500 linear feet of de-laminated field seams around thirty-five (35) roof drain targets with new strip-ins.
- Approximately 50 linear feet of repair requires strip-in at building removal area indicated at Roof Area 2 & 10.
- Trim tree branches extending unto the roof.

All roof drains and roof areas were cleaned of debris. Surface splices, open seams, pourable sealer pockets with voids were topically treated as needed.

Naubuc ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 110 through 127)

Approximate Roof Area: 43,500 square feet

This school was constructed with a single-storied brick façade building with additions added over the years. The additions are single and two-storied structures. The roof systems comprise of gravel-surfaced built-up roofs on the four (4) main wings with fully adhered EPDM roofs on the connecting roof areas. Asphalt shingles are installed on the original building at the mansard and a shingle roof was incorporated into the EPDM connecting roof areas. The façade is comprised of brick with punch opening windows and multi-paned aluminum framed windows. The insulation below the EPDM roof systems appears to be mechanically attached tapered polyisocyanurate insulation; however the insulation below the gravel-surfaced built-up roofs was not available. Core samples were not taken and warranty information on the gravel-surfaced roofs was not available, however the EPDM roof systems are currently under warranty. The physical appearance of the gravel-surfaced built-up roofs appears to be in fair condition with some areas appearing in poor condition. The EPDM roof system and asphalt shingles appear to be in satisfactory condition.

Option 3 – Naubuc School Metal and Masonry Repairs:

- All loose metal caps were securely fastened to the brick masonry substrates at the 1st floor perimeter columns.

Anomalies and repair with quantities include:

- Apply approximately 300 square feet of liquid membrane to wall panels on clerestory.
- Re-saturate approximately 300 square feet of exposed membrane on gravel-surfaced built-up roof areas.
- Seal laps on approximately 8- linear feet of expansion joint.
- Overlay approximately ten (10) de-laminated field patches at one (1) expansion joint location.
- Replacement four (4) roof strainers and check all drain ring clamps.
- Trim tree branches extending unto the roof.
- Tuck-point mortar beds on chimney.
- Replace broken roof-top turbine.

All roof drains and roof areas were cleaned of debris. Surface splices, open seams, pourable sealer pockets with voids were topically treated as needed.

Smith MS: (See photographic Journal Showing Aerial and Roof Areas on Pages 128 through 144)

Approximate Roof Area: 71,000 square feet

This school is a multi-level building of single to two-storied floors. The façade is comprised of brick with ribbons of decorative cut-faced masonry block with punch opening and multi-paned aluminum framed windows. The roof system is comprised of a pea-gravel aggregate built-up roof system. Core samples were not taken; therefore no insulation information was available. The built-up roof areas currently have a 20-year warranty. Sloped roof areas have asphalt shingles. The physical appearance of the membrane appears to be in good condition.

Anomalies and repair with quantities include:

- Gravel stop strip-ins, expansion joint terminations and base flashings are showing early signs of distress. Approximately 4,000 linear feet of strip-in, expansion joint and base flashings shall require protection from ultraviolent sunlight.
- Replacement two (2) roof strainers and check all drain ring clamps.

All roof drains and roof areas were cleaned of debris. Surface splices, open seams, pourable sealer pockets with voids were topically treated as needed.

OPINION OF COSTS & REPAIR/REPLACEMENT RECOMMENDATIONS

Buttonball Lane ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 11 through 23)

It is our professional opinion the current roof system condition to be in GOOD condition; therefore we recommend the following Repair Budget to be: $0.25 per sf @ 62,500 sf

Eastbury ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 24 through 31)

It is our professional opinion the current roof system condition to be in GOOD condition; therefore we recommend the following Repair Budget to be: $0.25 per sf @ 44,300 sf

Gideon Welles JHS: (See photographic Journal Showing Aerial and Roof Areas on Pages 32 through 51)

It is our professional opinion the current roof system condition to be in POOR-FAIR condition; therefore we recommend the following Replacement and Repair Budget to be: $25.00 per sf (replacement) and $0.75 per sf (repairs) @ 44,300 sf

Glastonbury HS & Gymnasium: (See photographic Journal Showing Aerial and Roof Areas on Pages 52 through 90)

It is our professional opinion the current roof system condition to be in POOR-FAIR-GOOD condition; therefore we recommend the following Replacement and Repair Budget to be: $25.00 per sf (replacement) and $0.75 per sf (repairs) @ 137,550 and 51,250 square feet NOTE: Good areas are designated as newer modified bitumen roof systems. General maintenance can be considered at $0.05 per sf.

Hebron ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 91 through 93)

It is our professional opinion the current roof system condition to be in POOR-FAIR condition; therefore we recommend the following Replacement and Repair Budget to be: $25.00 per sf (replacement) and $0.75 per sf (repairs) @ 46,750 and 10,000 square feet

Hopewell ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 94 through 109)

It is our professional opinion the current roof system condition to be in GOOD condition; therefore we recommend the following Repair Budget to be: $0.25 per sf @ 59,650 sf

Naubuc ES: (See photographic Journal Showing Aerial and Roof Areas on Pages 110 through 127)

It is our professional opinion the current roof system condition to be in POOR-FAIR-GOOD condition; therefore we recommend the following Replacement and Repair Budget to be: $25.00 per sf (replacement) and $0.75 per sf (repairs) @ 43,500 square feet NOTE: Good areas are designated as newer EPDM and asphalt shingle roof systems. General maintenance can be considered at $0.05 per sf.

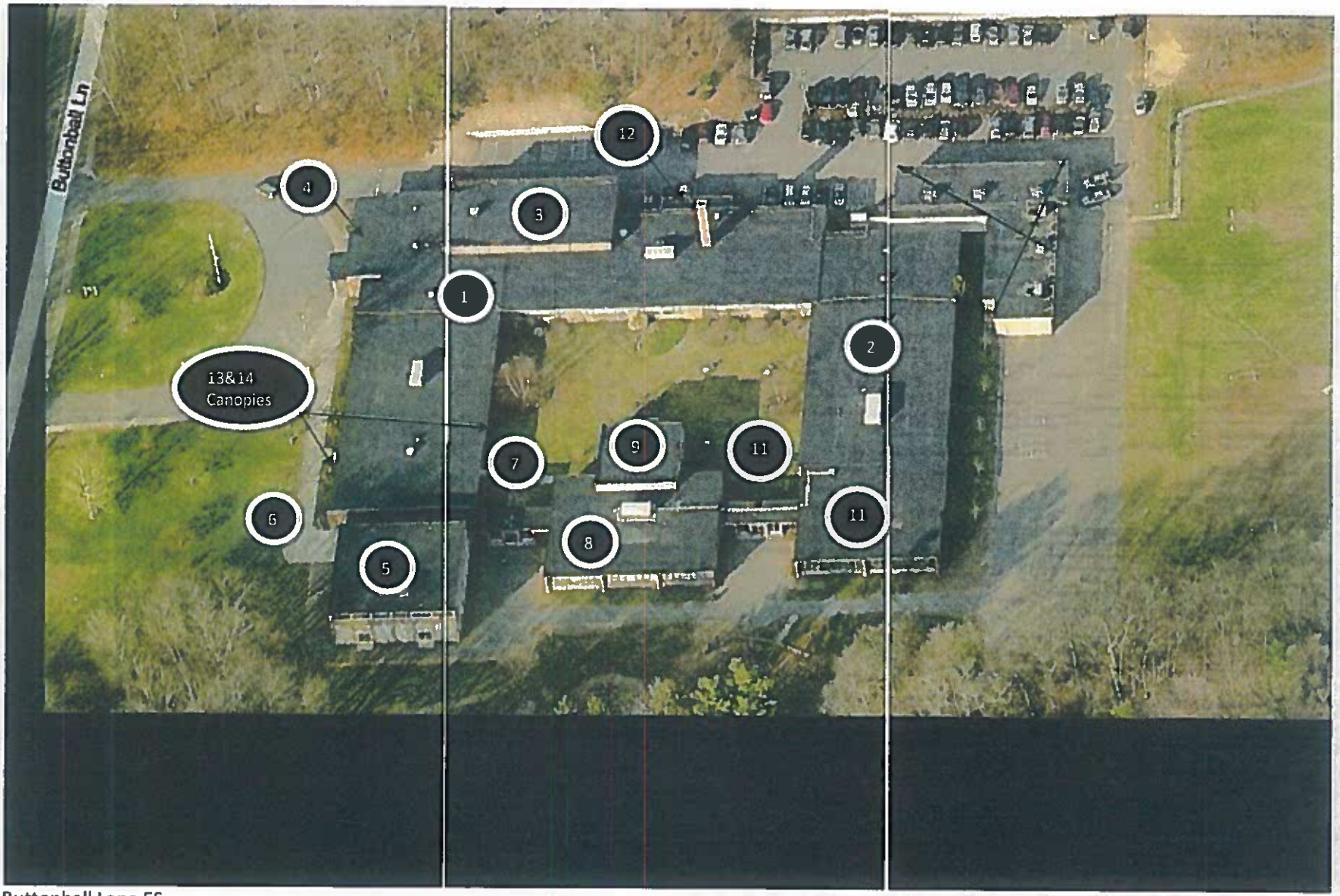
Smith MS: (See photographic Journal Showing Aerial and Roof Areas on Pages 128 through 144)

It is our professional opinion the current roof system condition to be in GOOD condition; therefore we recommend the following Repair Budget to be: $0.25 per sf 71,000 square feet

NOTE: Cost estimates on areas where replacement and/or repairs are recommended can be provided upon request. The budget estimates are to provide guidelines for budgeting only.

ADDITIONAL CAPABILITIES

With design/build capabilities, RRI is prepared to provide all materials and labor to perform the outlined scope of work. We are also available to provide any additional assistance which may include technical assistance, quality assurance, project management, forensic assistance and engineering services.



Buttonball Lane ES
Buttonball Lane, Glastonbury, CT

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Anamoly
Open voids at cover strip transitions

Area 1—Anamoly
Deteriorated sealants at top edge of surfaced mounted counter-flashings with open sheet metal miters

Area 1—Anamoly
Splice laps are delaminating at some roof drain targets

Area 1—Anamoly
Cover strips at edge metal transitions are lifting. Remedial repairs were conducted where moisture wasn't present

Area 1—Anamoly
Splice patches throughout roof area are delaminating around the edges. NOTE: This condition is typical at all roof locations

Area 1—Observation
Terminations appear to be in satisfactory condition

Area 2 —Overview

Area 2 —Overview

Area 2 —Overview

Area 2 —Overview

Area 2 —Overview

Area 2 —Anomaly
Splice lap is delaminating along the edge at most locations.

Area 2—Anomaly
Splice laps are delaminating at some roof drain targets
NOTE: Splice patches about area are delaminating around the edges.

Area 2 —Observation
Terminations appear to be in satisfactory condition

Area 3 —Overview

Area 3 —Overview

Area 3 —Overview

Area 3 —Overview

Area 3 —Overview

Area 3 —Anomalies
Open laps at all scuppers, splice patches at edge metal transitions are delaminating and splice patches in the field of the roof are delaminating

Area 4—Overview

Area 4—Overview

Area 4—Anomalies
Splice patches at edge metal transitions are delaminating, splice patches in the field of the roof are delaminating and counter-flashing sealants are deteriorating

Area 5 — Overview

Area 5 — Overview

Area 5 — Overview

Area 5 —Overview

Area 5 —Overview

Area 5 — Anomalies
Splice laps are delaminating at some roof drain targets
NOTE: Splice patches about area are delaminating around the edges.

Area 5 —Anomalies
Splice patches at wall transitions around the perimeter are delaminating

Area 6 —Overview

Area 6 —Overview

Area 6—Amonalies
Splice patches in the field of the roof are delaminating and counter-flashing sealants are deteriorating

Area 7—Overview

Area 6—Anomalies
Splice patches in the field of the roof are delaminating

Area 7 — Observations
Terminations appear satisfactory

Area 8 — Overview

Area 8 — Overview

Area 8—Overview

Area 8—Overview

Area 8— Overview

Area 8 — Overview

Area 8 — Anomalies
Splice patches at edge metal transitions are delaminating, splice patches in the field of the roof are delaminating and counter-flashing sealants are deteriorating

Area 8—Observations
Terminations appear to be in satisfactory condition

Area 9 —Overview

Area 9 —Overview

Area 9 —Overview

Area 9 — Anomalies
Splice patches at edge metal transitions are delaminating, splice patches in the field of the roof are delaminating

Area 9 — Anomaly
Open splices on roof drain targets

Area 10 —Overview

Area 10—Overview

Area 10—Observations
Terminations appear to be satisfactory

Area 11—Overview

Area 11 — Overview
NOTE: Excessive ponding was observed

Area 11 — Overview

Area 11 — Anomalies
Splice patches at edge metal transitions are delaminating and splice patches in the field of the roof are delaminating

Area 12 —Overview

Area 12 —Overview

Area 12 —Observations
Terminations appear to be in satisfactory condition.
Gutters were cleared of debris

Area 13 — Overview

Area 13 — Overview and Observations
Terminations appear to be in satisfactory condition.
Some delamination of splice seams/patches were observed.

Area 14 — Overview and Observations
Terminations appear to be in satisfactory condition.
Some delamination of splice seams/patches were observed.

Eastbury ES
Neipsic Rd., Glastonbury, CT

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Anomaly
Galvanized steel curb caps oxidizing

Area 1—Observation
Unused utility pipe—Recommend removal

Area 1—Anomaly
Metal edge strip-in delaminating from gravel guard

Area 1—Anomalies
Cover plate strip-ins are splitting at seam, many splice patches about roof area delaminting and roof drain target splices are delaminating around the edges

Area 2—Overview

Area 2—Overview

Area 2—Overview
NOTE: Small raised roof area ponds water and has failed edge metal strip-in flashings around perimeter

Area 2 —Overview

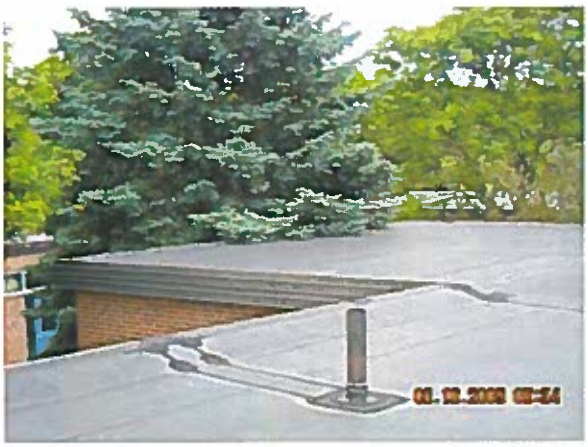
Area 2 — Overview

Area 2— Overview

Area 2—Anamoly
Water ponds between roof drains, splice laps are delaminating at some roof drain targets, many splice patches are delaminating and edge metal cover strips are splitting or delaminating

Area 2—Anamoly
Open splice seams at scupper outlet

Area 2— Anomaly
Field seams are delaminating in some areas



Area 2 —Overview
NOTE: Recommend removal of tree branches from roof area

Area 2 —Anomaly
Missing downspout

Area 3—Overview

Area 3 —Overview

Area 3 — Anomalies
Splice laps are delaminating at some roof drain targets, many splice patches are delaminating and edge metal cover strips are splitting or delaminating

Area 4 — Overview

Area 4— Overview

Area 4 — Overview

Area 4 —Overview

Area 4 —Anomalies
Cover plate strip-ins are splitting at seam, many splice patches about roof area delaminting and roof drain target splices are delaminating around the edges
NOTE: Excessive blisters along cover strip on batten

Area 5 —Overview

Area 5 —Overview

Area 5 —Overview

Area 5 —Anomalies
Splice patches at edge metal transitions are delaminating and splice patches in the field of the roof are delaminating

Area 6—Overview

Area 6—Overview

Area 6— Overview

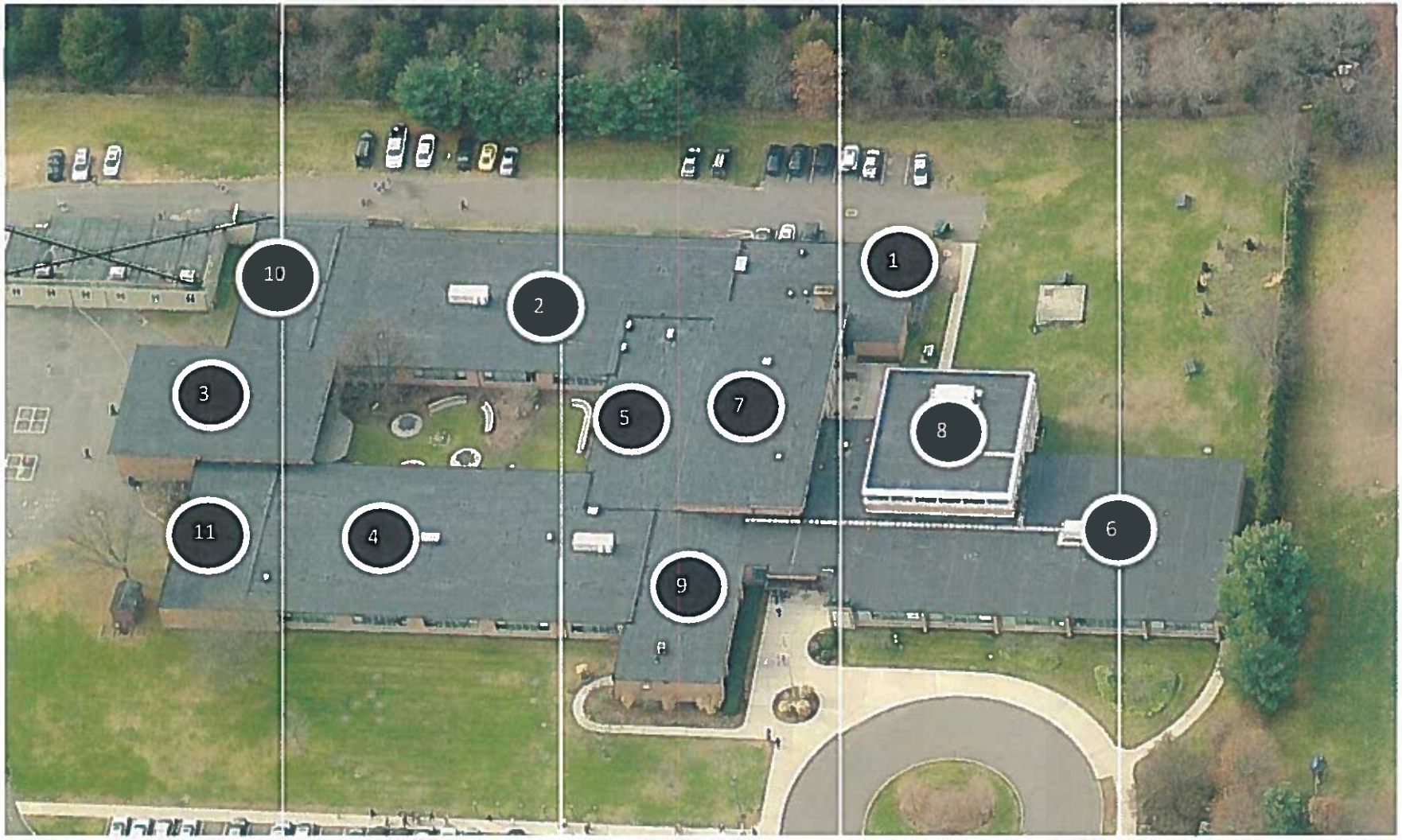
Area 6 — Anomaly
Strip-in flashings a open around scupper flashing

Area 6 — Anomaly
Missing roof drain strainers, splice laps are delaminating at some roof drain targets, many splice patches are delaminating and edge metal cover strips are splitting or delaminating

Area 6 — Anomaly
Brick tuck-pointing recommended

Area 7 —Overview

Area 7 —Anomalies
Edge metal cover strips are splitting or delaminating



Hopewell ES
1068 Chestnut Hill Rd., Glastonbury, CT

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1— Anomaly
Splice patches are delaminating at their perimeters

Area 1— Anomaly
Target splices are delaminating at their perimeters

Area 1—Observation
View of roof termination at wall

Area 1—Observation
View of expansion joint termination at the wall

Area 1— Observation
View of perimeter edge metal

Area 1—Observation
View of expansion joint termination at the outside roof edge

Area 1—Anomaly
Open splice along outside edge was sealed

Area 1—Anomaly
Openings in splice patches. Remedial repairs were conducted in these areas.

Area 2—Overview

Area 2—Overview

Area 2—Overview

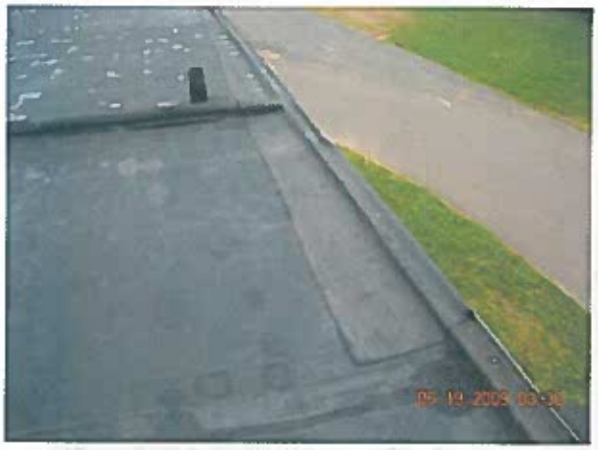
Area 2—Overview

Area 2—Overview

Area 2— Anomaly
Splice patches delaminating at their perimeters

Area 2— Observation
View of expansion joint at wall transition

Area 2—Overview
View of expansion joint at roof transition at roof edge
Debris was removed from the roof's surface



Area 2— Anomaly
View of roof repair where building was modified.
Splice patch appears open at termination points

Area 2—Anomaly
Repair patch was not flashed into the expansion joint

Area 2—Observation
View of roof repair at roof modification

Area 2—Observation
View of expansion joint at wall transition

Area 2—Anomaly
Metal counter flashing in poor condition

Area 2—Anomaly
Splice patches repaired where applicable

Area 3—Overview

Area 3—Overview

Area 3—Overview

Area 3—Anomaly
Splice patches delaminating in many areas

Area 4—Overview

Area 4—Overview

Area 4—Overview

Area 4—Overview

Area 4—Overview

Area 4—Anomaly
Splice patches delaminating in many areas

Area 4—Overview

Area 4— Anomaly
Debris was removed from the roof area

Area 4— Anomaly
Many splice patches are delaminating at the transitions

Area 4— Anomaly
Splice targets are delaminating around the edges

Area 4— Anomaly
Splice patches are delaminating in many areas

Area 4— Anomaly
Splice patches at roof perimeters are open at metal junctions. These areas received remedial repairs where applicable.

Area 4— Anomaly
Target patches at roof projections are delaminating at many areas.

Area 5—Overview

Area 5—Overview

Area 5—Overview

Area 5—Overview

Area 5— Anomaly
Splice patches delaminating at edges

Area 5— Anomaly
Target patches delaminating at edges

Area 5— Observation
View of expansion joint at wall transition

Area 5— Observation
View of expansion joint at wall transition

Area 5—Anomaly
Splice patches at roof perimeters are open at metal junctions. These areas received remedial repairs where applicable.

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Anomaly
Sealant deterioration at termination bar

Area 6—Anomaly
Surface splice open at roof to vertical transition

Area 7—Overview and Observation
Note: Ponding water

Area 7—Overview and Observation
Note: Ponding water

Area 8—Overview

Area 8—Overview

Area 8—Observation
Fasteners appear to be protruding beneath membrane

Area 8—Overview
Sealants appear to be deteriorating at gutter laps.

Area 9—Overview

Area 9—Overview

Area 9—Overview

Area 9—Observation
Outside view of roof scupper

Area 9—Anomaly
Surface splices delaminating at edges

Area 9—Anomaly
Surface splices delaminating at edges

Area 10—Overview

Area 10—Overview

Area 10— Anomaly
Conduits clustered through roof penetration pocket

Area 10—Anomaly
Vegetation should be trimmed back from roof area

Area 10— Observation
Wall crack was topically repaired in the past. Current sealants are deteriotating.

Area 10—Anomaly
Expansion joint cover strip is delaminating in areas

Area 11—Overview

Area 11—Overview

Area 11—Anomaly
Splice patches along perimeter are delaminating from edge metal

Area 11—Anomaly
Surface splices are delaminating in many areas

Area 11—Observation
View of termination at wall

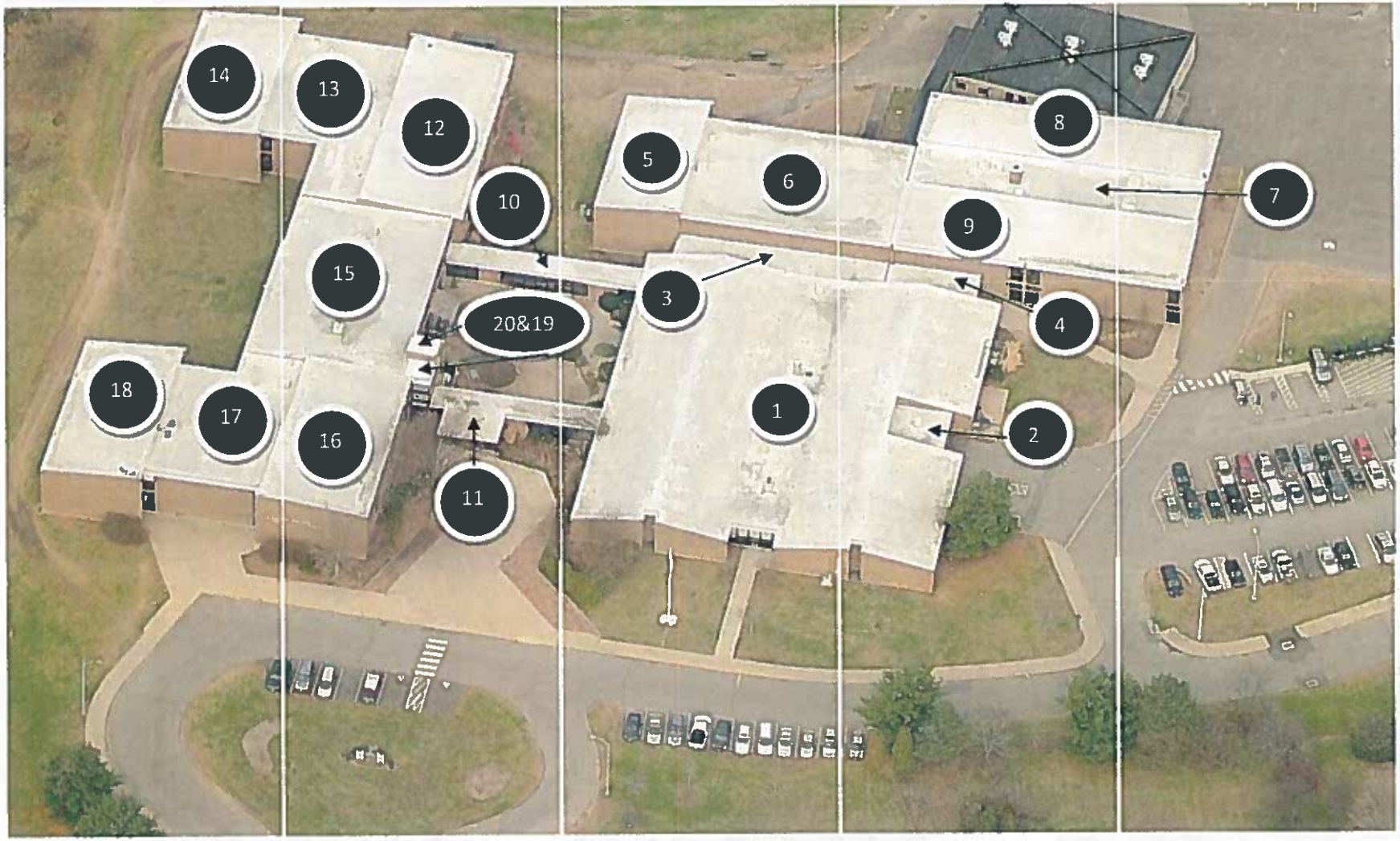
Area 12—Overview

Area 12—Overview

Area 12—Overview

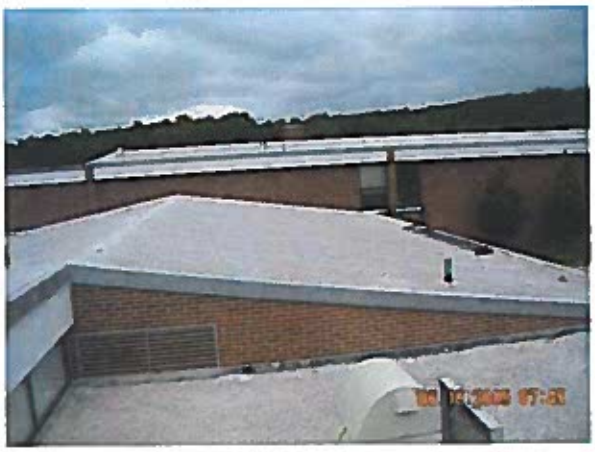
Area 12—Anomaly
Splice patches are delaminating in areas

Area 12—Anomaly
Target patches are delaminating in areas



Gideon Welles MS
1029 Neipsic Road, Glastonbury, CT

Area 1—Overview



Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Anomaly
Exposed membrane around drain areas
NOTE: Exposed areas where typically identified at roof ridges, roof perimeter corners and roof drains

Area 1— Anomaly
Non-waterproofed pipe insulation appears to extending into pourable sealer pocket

Area 1— Anomaly
Strip-in flashings were un-adhered to the edge metal in many location. Where identified, remedial repairs were conducted to these locations

Area 2—Overview

Area 2—Overview
No apparent anomalies were observed at this roof area

Area 3— Overview

Area 3— Overview

Area 3—Anamoly
Termination securement missing at this location

Area 3 —Anomaly
Deteriorated sealant joints were observed

Area 3 — Observation
Termination appears satisfactory

Area 3 —Observation
Suggest applying counter flashing metal over area shown

Area 4 —Overview

Area 4 —Overview

Area 4 —Anomaly
Base flashing does not extend beyond roof edge metal

Area 4 —Anomaly
Deteriorated joint sealant

Area 5 —Overview

Area 5 —Overview

Area 5 —Overview

Area 5 —Amonaly
Strip-in membrane delaminating from edge metal

Area 6 —Overview

Area 6 —Overview

Area 6 —Overview

Area 6 — Anomaly
Missing termination on base flashing

Area 6 —Anomaly
Expansion joint does not extend past metal edge

Area 6 — Observation
Expansion joint termination appears to be satisfactory

Area 7—Overview

Area 7—Overview

Area 7 — Overview

Area 7 — Overview

Area 7 — Anomaly
Poor edge metal termination

Area 7 — Anomaly
Poor edge metal termination

Area 7 — Anomaly
Loose base flashings around ventilators

Area 7 — Anomaly
Poor base flashing installation at roof hatch

Area 7 — Observation
View of base flashing

Area 7 —Anomalies
Open termination at base flashings
NOTE: Base flashings appear to be in poor condition

Area 7 — Anomaly
Mortar beds for brick in poor condition

Area 8 —Overview

Area 8 — Overview

Area 8 —Overview

Area 8 —Anomalies
Some exposed membrane areas

Area 8 — Anomaly
Strip-in delaminating from edge metal
Remedial repairs conducted to these areas

Area 9 — Overview

Area 9 — Overview

Area 9—Overview
No apparent anomalies were observed

Area 10—Overview

Area 10— Anomaly
Gutters were cleared of debris

Area 11 — Overview

Area 11 — Overview

Area 11 — Anomaly
Poor tie-in between expansion joint and edge metal

Area 11 — Anomaly
Expansion joint material is deteriorated

Area 11 — Anomaly
Broken roof drain strainer

Area 11 — Anomaly
Remedial repairs were conducted to the strip-in at locations delaminated from edge metal

Area 11 — Anomalies
Debris was removed from the roof surface

Area 11 — Anomaly
Apparent opening below window

Area 11 —Observation
Base flashings appear to be in satisfactory condition

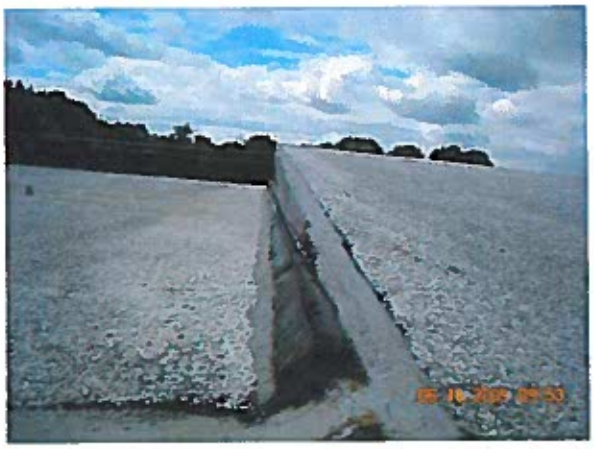
Area 12 —Overview
NOTE: Exposed membrane along perimeter edge

Area 12 — Overview

Area 12 —Overview

Area 12 — Overview
NOTE: Exposed membrane along perimeter edge

Area 12 — Overview
NOTE: Exposed membrane along perimeter edge

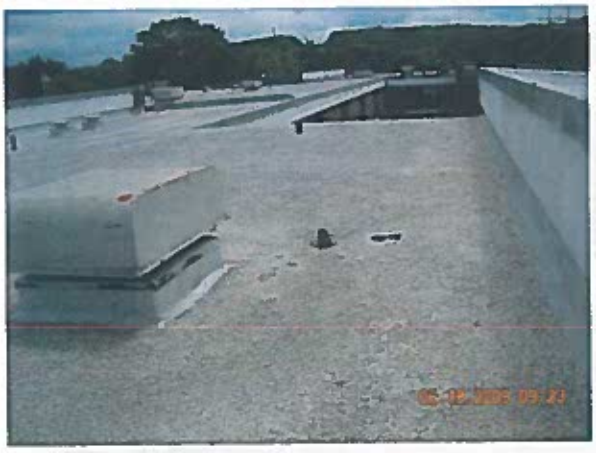


Area 12 — Anomalies
Poor roof tie-in at roof transitions

Area 13 —Overview

Area 13 —Overview

Area 13 —Observations
Terminations appear to be in satisfactory condition.
Gutters were cleared of debris



Area 13 — Overview

Area 13 — Overview and Observations
Terminations appear to be in satisfactory condition.
Some delamination of splice seams/patches were observed.

Area 13 — Anomaly
Poor expansion joint tie-in

Area 13 — Anomaly
Expansion joint does not extend to the outside edge

Area 13 — Anomaly
Base flashing is not terminated at edge metal

Area 13 — Observation
Base flashings are showing signs of distress

Area 13 — Anomaly
Base flashing laps are not fully adhered

Area 14 — Overview

Area 14 — Overview

Area 14 —Anomaly
NOTE: Exposed membrane in isolated areas

Area 14 —Overview

Area 14 — Anomaly
Exposed membrane and broken roof drain strainer

Area 14 — Anomaly
Strip-in membrane along perimeter is not adhered to edge metal. Remedial repairs were conducted at these locations

Area 15 — Overview

Area 15 — Overview

Area 15 —Overview

Area 15 —Overview

Area 15 — Anomaly
Poor installation of refrigerant pipes

Area 16 — Anomaly
Expansion joint does not extend to the roof's perimeter

Area 16 — Overview

Area 16 — Overview

Area 16 —Observation
Plastic coated conduits require a gooseneck chase

Area 16 —Observation
Plastic coated conduits require a gooseneck chase

Area 16— Overview
View of edge metal detail

Area 17 — Overview

Area 17 — Overview

Area 17 — Overview

Area 17 —Observation
Base flashings appear satisfactory

Area 17 —Observation
Base flashings appear satisfactory

Area 17 — Anomaly
Base flashing missing termination securement

Area 17 — Anomaly
Conduits are not sealed at through wall locations

Area 18 — Overview

Area 18 — Overview

Area 18 —Overview

Area 18 —Overview

Area 18 —Observations
Some minor strip-in flashings are un-adhered to the edge metal. Remedial repairs were conducted at these locations.

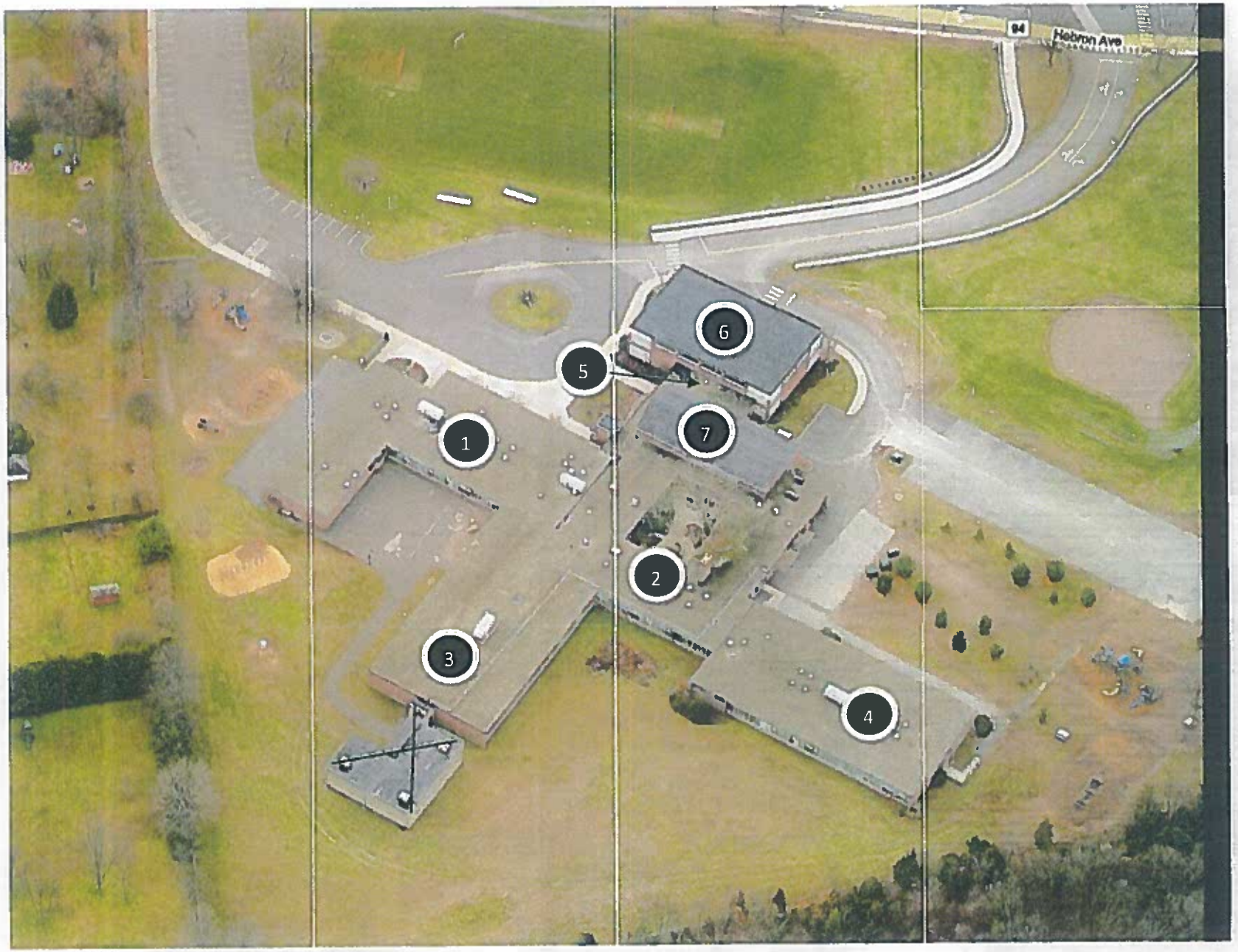
Area 19 — Overview
Gravel was removed from the membrane surface

Area 19 — Overview

Area 19 — Anomaly
Expansion joint does not extend to the roof's perimeter edge

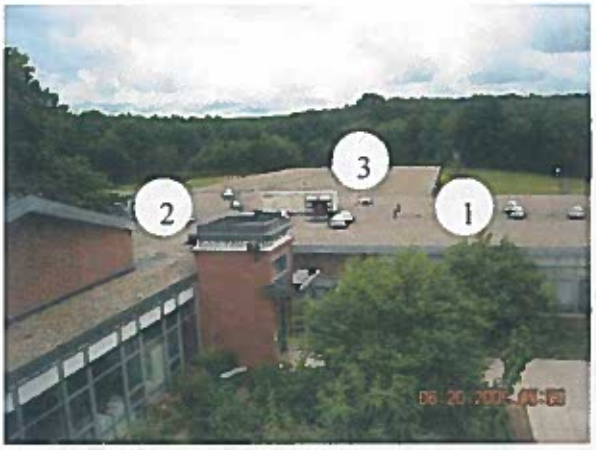
Area 20 —Overview

Area 20 — Anomaly
Gutter appears to be back-pitched



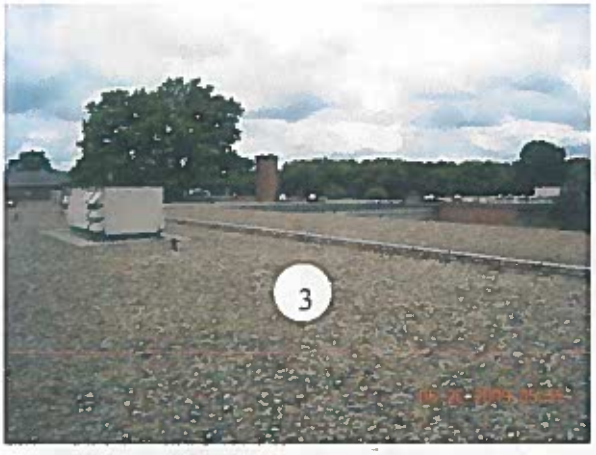
Hebron ES
Hebron Avenue, Glastonbury, CT

Area 1—Overview

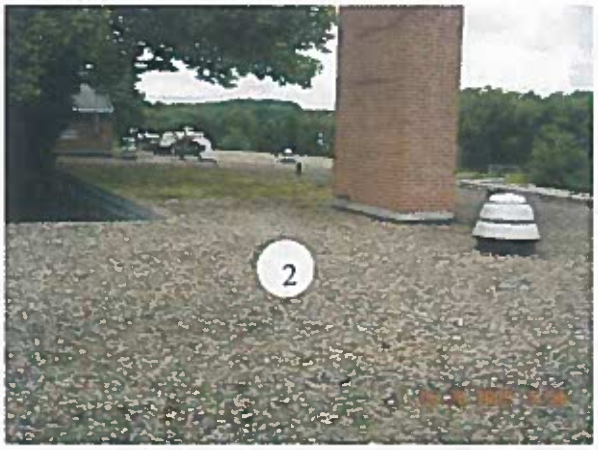


Areas 1, 2 & 3—Overview

Area 3—Overview

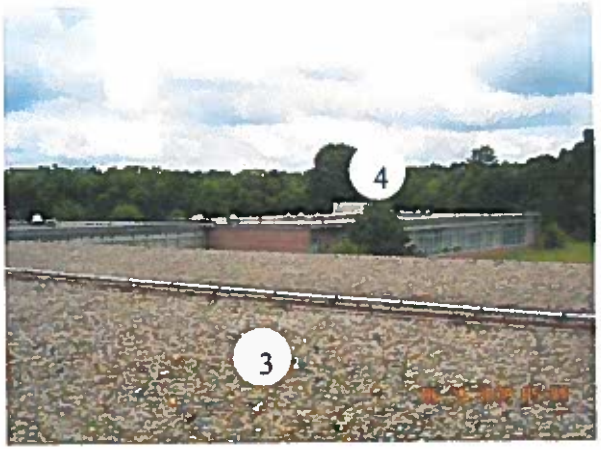


Area 3—Overview

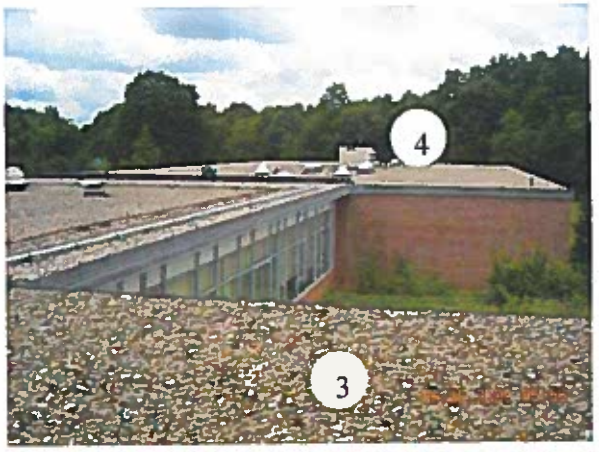


Area 2—Overview

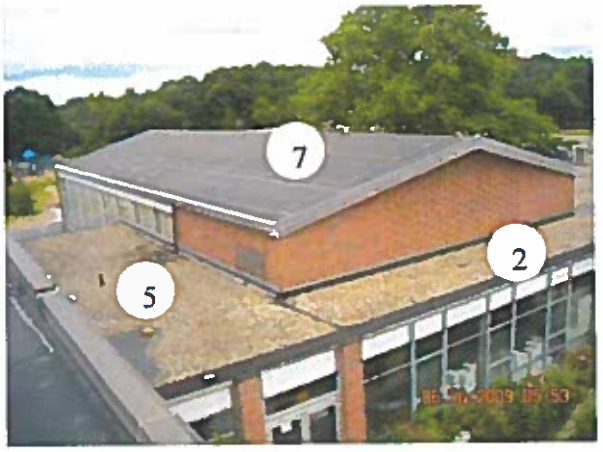
Area 2—Observation
Mortar joints on brick work failing



Areas 3 & 4 —Overview



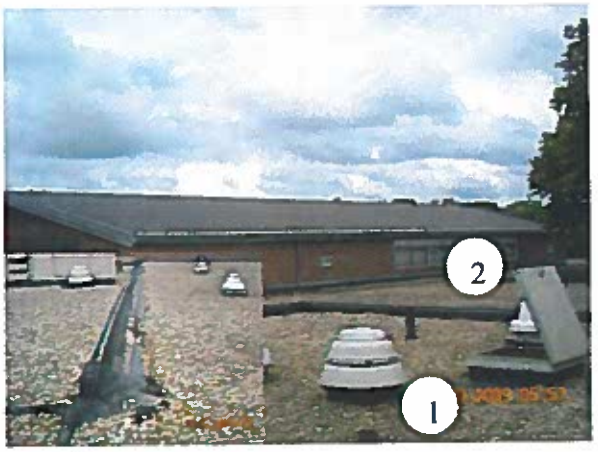
Areas 3 & 4 —Overview



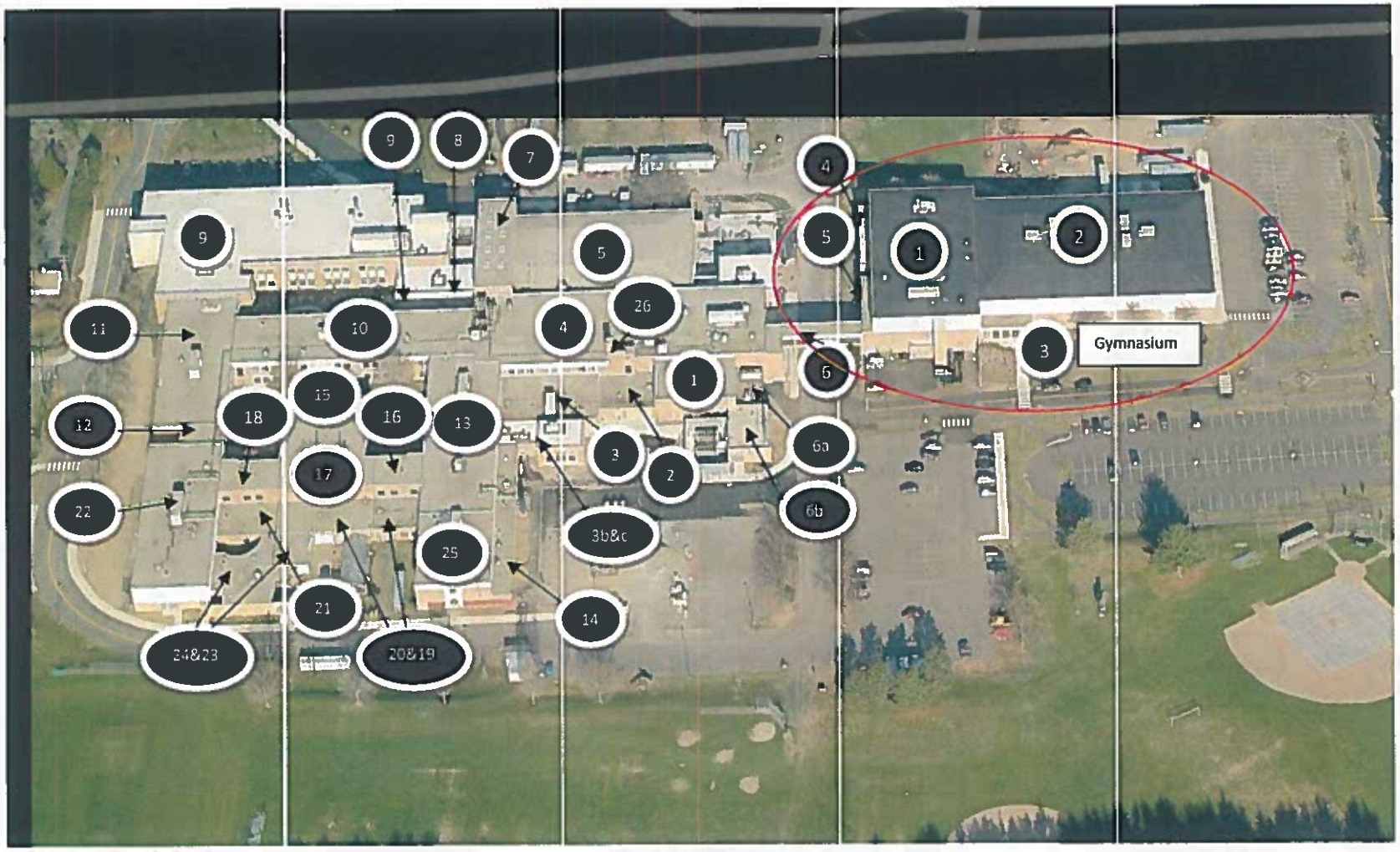
Areas 2, 5 & 7 —Overview

Area 6—Overview

Area 6—Overview



Areas 1 & 2 — Anomaly
Membrane shrinkage at expansion joint



Glastonbury HS & Gymnasium
Hubbard Rd., Glastonbury, CT

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1— Anomalies
Exposed membrane felts at roof drain. Similar exposed felt conditions appear around perimeter edges

Area 1— Anomaly
Apparent loose base flashings

Area 1— Anomalies
Additional areas of exposed membrane. Circle indicates a restricted roof drain leader

Area 2 — Overview

Area 2 — Overview

Area 2 — Overview

Area 2 — Anomaly
Missing termination bar beneath window support sill

Area 2—Anamoly
Apparent loose base flashings

Area 2—Anamoly
Missing sealant at counter flashing reglet

Area 3— Overview
Splice laps are delaminating at some roof drain targets

Area 3— Overview
Cover strips at edge metal transitions are lifting. Remedial repairs were conducted where moisture wasn't present

Area 3— Overview
Splice patches throughout roof area are delaminating around the edges. NOTE: This condition is typical at all roof locations

Area 3— Anomaly
Apparent exposed membrane at roof drains

Area 3— Anomaly
Damaged strip-in at edge metal

Area 3— Anomaly
Open sealant at expansion joint termination

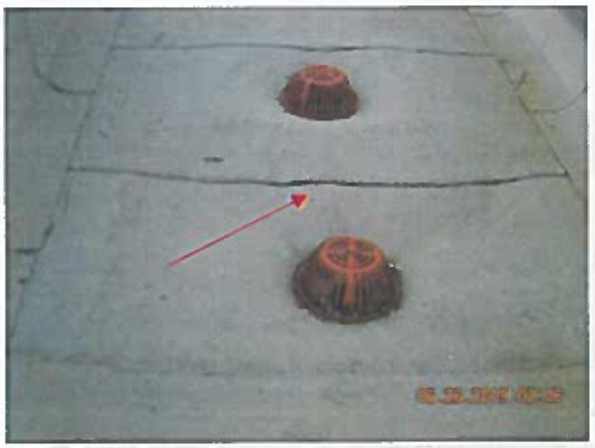
Area 3a—Overview

Area 3a —Overview

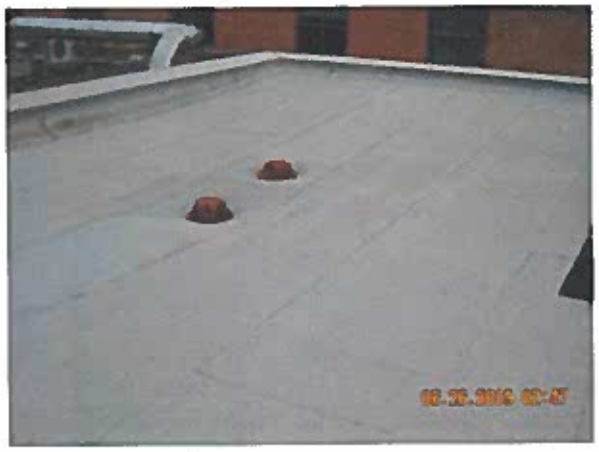
Area 3a —Overview

Area 3a —Anomaly
Splice lap is delaminating along the edge at most locations.

Area 3a —Anomaly
Refrigerant pipe insulation extends intp pourable sealer



Area 3a —Anomaly
Open membrane laps around roof drain flashings



Area 3b —Overview

Area 3b —Overview

Area 3b —Overview
Some areas indicate membrane sheet was overheated when installed.

Area 4 —Overview

Area 4 —Overview

Area 4 — Overview

Area 4—Overview

Area 4—Overview

Area 4— Overview

Area 4 — Overview

Area 4 — Overview

Area 4 — Anomaly
Expansion joint is deteriorated

Area 4 — Anomaly
Pipe penetrations are clustered

Area 4 —Anomaly
Base flashings are damaged around curb unit

Area 4— Anomaly
Apparent restricted roof drain with missing drain strainer

Area 5 —Overview

Area 5 —Overview

Area 5 —Overview

Area 5— Overview

Area 5—Anomaly
Apparent exposed membrane areas

Area 5—Anomaly
Excessive gravel buildup at roof's perimeter

Area 5 — Anomaly
Open metal work at wall transitions

Area 5 — Anomaly
Loose base flashings along wall

Area 5a — Overview

Area 5a—Overview

Area 5a—Anomaly
Some areas of membrane were installed with excessive wrinkles in the sheet

Area 5b — Overview

Area 5b — Overview

Area 5b — Anomaly
Open expansion joint corner (sealant)

Area 5b—Anomaly
Open expansion joint corner (sealant) and some areas of membrane were installed with excessive wrinkles in the sheet

Area 5b — Anomaly
View of wrinkle in sheet between roof drains

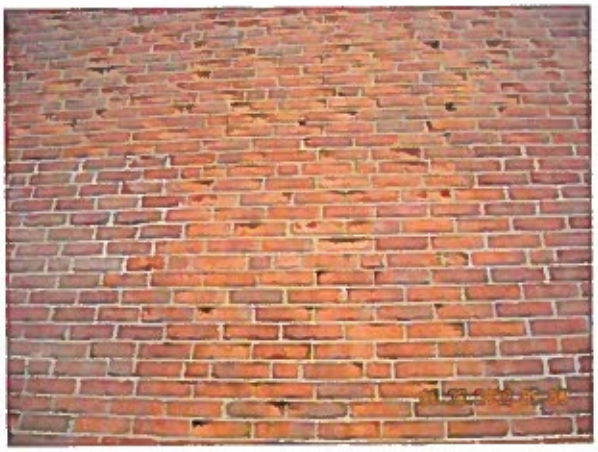
Area 5c —Overview

Area 5c —Overview
NOTE: Roof area appears to be in satisfactory condition

Area 6a — Overview

Area 6a — Overview

Area 6a — Anomaly
Pipe penetration pockets are clustered with deteriorated fillers (typical)



Area 6a — Observation
Brick work deteriorating from moisture intrusion

Area 6b — Overview

Area 6b —Overview

Area 6b — Anomaly
Some voids in the flashing laps were identified

Area 7 — Overview

Area 7 — Anomaly
Some exposed membrane was observed around roof drains

Area 7 — Anomaly
Some splits in the strip-in flashings were observed around the perimeter

Area 7 — Anomaly
Some exposed membrane was observed around roof drains

Area 8 — Overview

Area 8 — Overview

Area 8 — Anomaly
Open terminations were observed along with open inside corners on sheet metal work

.

Area 8 — Observation
Wall joints sealants are deteriorated

Area 9 —Overview

Area 9 —Overview

Area 9 — Anomaly
Base flashings are in poor/deteriorated condition

Area 9 — Anomaly
Base flashings are in poor/deteriorated condition

Area 9 — Observation
Brick work damage at coping termination

Area 9 — Anomaly
Physical damage was observed at the metal coping

Area 9a —Overview

Area 9a —Overview / Observation
Membrane has many wrinkles in the sheet

Area 9b — Overview

Area 9b — Overview

Area 9b — Overview

Area 9b — Overview

Area 9b — Overview

Area 9b — Overview

Area 9b — Anomaly
Appears cricket was not installed during the installation

Area 9b — Anomaly
Plastic conduits are not recommended to penetrate a penetration pocket

Area 9b — Overview
Gutter detail on penthouse roof

Area 9b — Overview
Solar panels

Area 9c & d — Overview

Area 9c & d — Overview

Area 9c & d — Overview

Area 10 — Overview

Area 10 — Overview

Area 10 — Overview

Area 10 — Overview

Area 10 — Overview

Area 10 — Anomalies
Sealants deteriorating at expansion joint transitions

Area 10 — Anomalies
Sealants deteriorating at expansion joint transitions

Area 10 — Anomaly
Penetration pipes mastic deterioratingare clustered along with

Area 11 — Overview
.

Area 11 — Overview

Area 11 — Overview

Area 11 — Anomaly
Several areas of exposed membrane

Area 11 — Overview of wall transitions

Area 12 — Overview

Area 12 — Overview

Area 12 —Overview

Area 12 — Anomaly
Damaged base flashing

Area 12 — Anomaly
Expansion joint damage

Area 13— Overview

Area 13 — Overview

Area 13 — Overview

Area 13 —Anomaly
Base flashings loose at inside corner

Area 13 — Observation
Ponding water at base of A/C unit

Area 13 — Anomaly
Wall joint open at edge metal to expansion joint transition

Area 14 — Overview

Area 14 — Overview

Area 14 — Overview

Area 14 — Overview

Area 14 — Anomaly
Exposed membrane was observed in many areas around the perimeter edge metal

Area 15 — Overview

Area 15 — Overview

Area 15 — Anomaly
Expansion joint did not extend to roof edge causing split in membrane

Area 15 — Observations
Major repair was conducted around large A/C unit

Area 16 — Overview

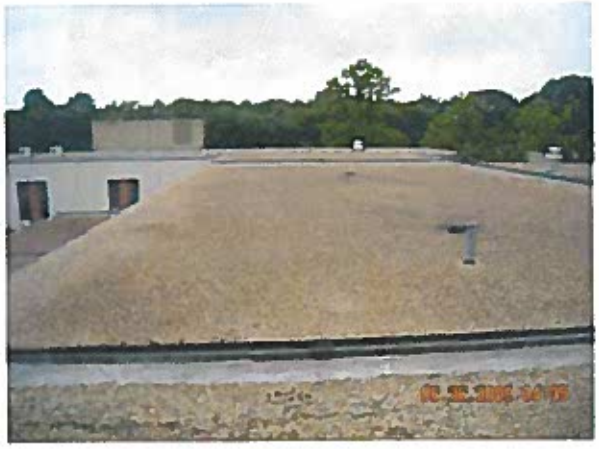
Area 16 — Overview

Area 16 — Anomaly
Expansion joint did not adequately extend to roof edge

Area 16 — Anomaly
Expansion joint open at the roof edge

Area 16 — Anomaly
Expansion joint did not extend to roof edge

Area 16 — Anomaly
Exposed membrane at some areas around the perimeter



Area 17 — Overview

Area 17 — Overview

Area 17 — Anomaly
Expansion joint did not extend to roof edge causing split in membrane

Area — anomaly
Exposed membrane was observed around roof drain areas

Area 17 — Overview

Area 17 — Overview

Area 18 —Overview

Area — Anomaly
Expansion joint did not extend correctly to roof edge causing splits in membrane

Area —Anomaly
Expansion joint did not extend to roof edge causing split in membrane

Area 18 — Anomaly
Expansion joint did not extend correctly to roof edge causing split in membrane

Area 18 — Anomaly
Expansion joint did not extend correctly to roof edge causing split in membrane

Area 18 — Anomaly
Exposed membrane was observed around roof drain areas

Area 19 — Overview

Area 19 — Overview

Area 19 — Overview

Area 19 — Anomaly
Open end on expansion joint termination

Area 19 — Anomaly
Expansion joint cover is deteriorated

Area 20 — Overview

Area 20 — Overview

Area 20 — Anomaly
Expansion joint cover strips are loose

Area 20 — Anomaly
Drain flashings membrane is exposed

Area 20 — Anomaly
Expansion joint does not correctly terminate to the perimeter edge

Area 20 — Anomaly
Expansion joint transitions are in poor condition

Area 21 — Overview

Area 21— Overview

Area 21— Overview

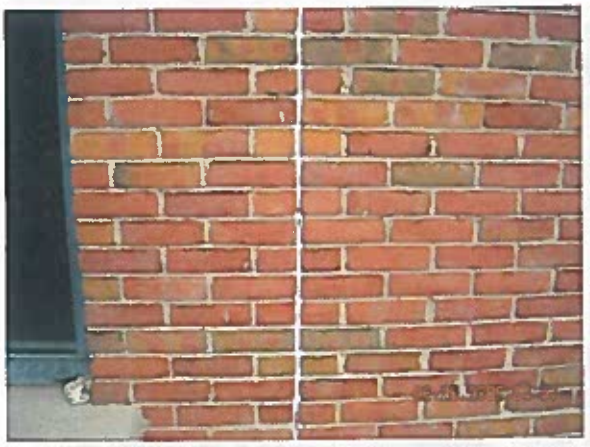
Area 21— Anomaly
Poor termination design at expansion joint transition

Area 21— Anomaly
Base flashings are on poor condition

Area 21— Anomaly
Several open cover strips at window area

Area 21— Anomaly
Some areas of exposed membrane at roof drains

Area 21— Anomaly
Poor expansion joint tie-in at wall



Area 21— Observation
Sealant at wall joints are deyeriorated

Area 22 — Overview

Area 22 — Overview

Area 22 — Overview

Area 22 — Overview

Area 22 — Anomaly
Repairs are in poor condition at penetration removal area

Area 22—anomaly
Insulated pipe installed into penetration pocket

Area 23— Overview

Area 23— Overview

Area 23— Anomaly
Expansion joint cover strips are delaminating

Area 23—Anomaly
Expansion joint does not terminate to the perimeter edge

Area 24 — Overview

Area 24 — Overview

Area 24 — Overview

Area 24 — Overview

Area 24—Anomaly
Expansion joint does not terminate to the perimeter edge

Area 24—Anomaly
Some areas of exposed membrane at roof drains

Area 24—Anomaly
Several open cover strips at window area

Area 24—Observation
Base flashing terminations appear to be in satisfactory condition

Area 25—Overview

Area 25—Overview

Area 25—Anomaly
Base flashings are loose at perimeter wall

Area 25—Anomaly
Base flashings are loose at perimeter wall

Area 26—Overview

Area 26—Overview

GYMNASIUM ROOF AREAS

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Overview

Gymnasium Area 1—Anomaly
Some pipe boots are deteriorated with delaminating splices

Gymnasium Area 1—Anomaly
Plastic coated conduits are not recommended for penetration pockets

Gymnasium Area 1—Anomaly
Many splice patches are delaminating

Gymnasium Area 1—Overview
Lower roof area

Gymnasium Area 1—Overview
Scupper detail appears in satisfactory condition

Gymnasium Area 2—Overview

Gymnasium Area 2—Overview

Gymnasium Area 2—Overview

Gymnasium Area 2—Overview

Gymnasium Area 2—Overview

Gymnasium Area 2—Overview

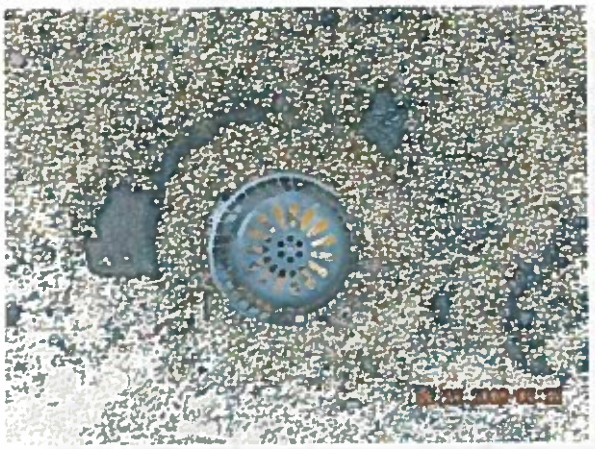
Gymnasium Area 2—Overview

Gymnasium Area 2—Anomaly
Many splice are delaminating

Gymnasium Area 2— Anomaly
Termination splices at perimeter edges are delaminating at their edges

Gymnasium Area 3— Overview

Gymnasium Area 3— Overview



Gymnasium Area 3— Anomaly
Exposed membrane was observed around roof drain

Gymnasium Area 4— Overview

Gymnasium Area 4— Overview

Gymnasium Area 4— Observation
View of base flashings under cantilever

Gymnasium Area 4— Anomaly
View of open base flashing along outside wall

Gymnasium Area 5 — Overview

Gymnasium Area 5 — Overview

Gymnasium Area 5 — Anomaly
Exposed membrane was observed at roof drain

Gymnasium Area 5 — Observation
Expansion joint detail does not extend to outside edge

Gymnasium Area 6 — Overview

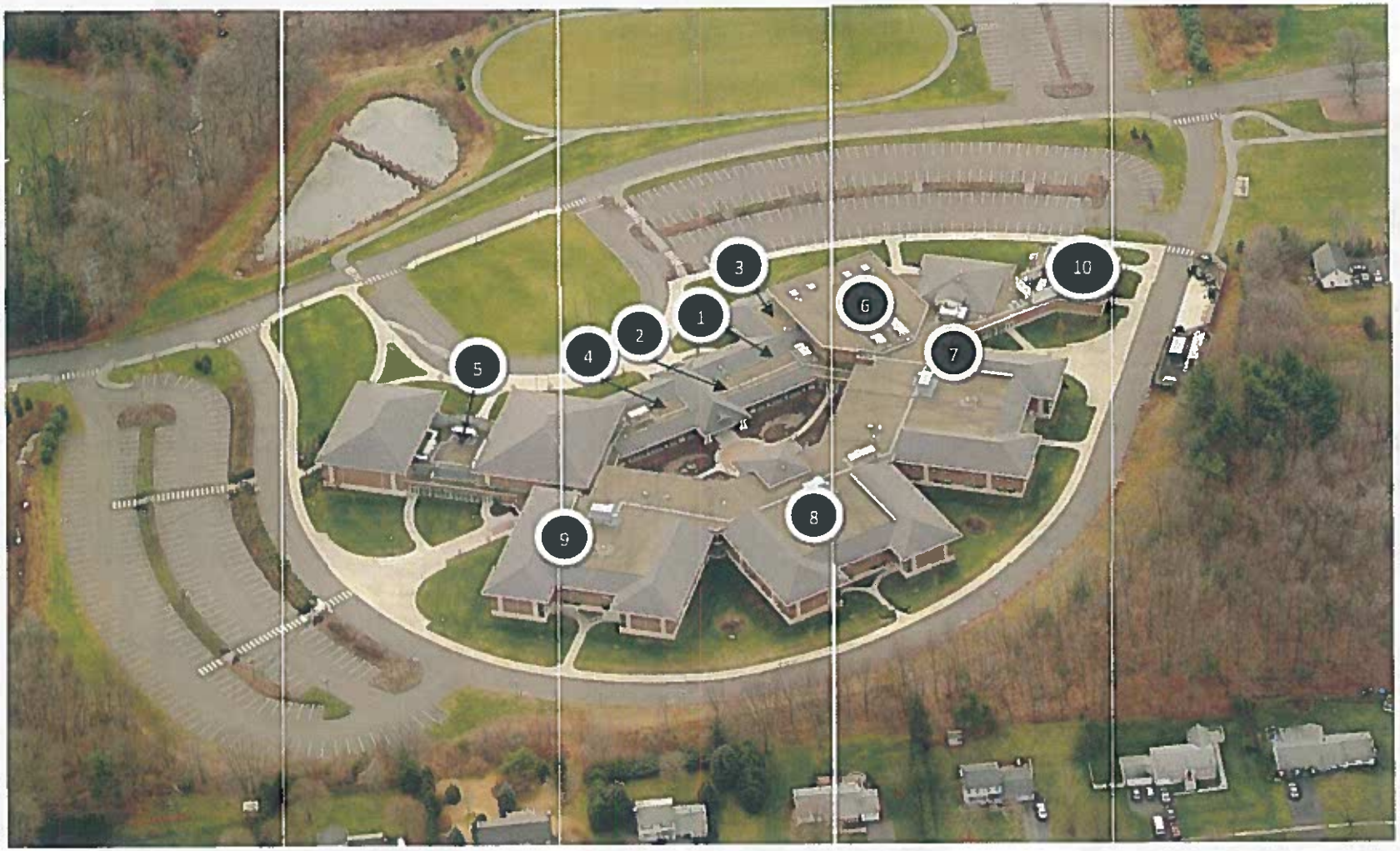
Gymnasium Area 6 — Overview

Gymnasium Area 6 — Overview

Gymnasium Area 6 — Observation
Expansion joint does not extend to the outside edge

Gymnasium Area 5 — Observation
View of expansion joint termination

Gymnasium Area 5 — Anomaly
Exposed membrane observed at roof drain



Smith MS
Addison Rd., Glastonbury, CT

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Anomaly
Low flashing height with topical repairs

Area 1—Observation
View of expansion joint at wall transition

Area 2—Overview

Area 2—Overview

Area 2—Observation
View of roof tie-in transition

Area 3—Overview

Area 3 —Observation
Built-up roof to shingle roof transition

Area 3 —Observation
Built-up roof to shingle roof transition

Area 4—Overview

Area 4—Overview

Area 4—Overview

Area 5 – Overview

Area 5 – Overview

Area 5 – Overview

Area 5 – Overview

Area 5 – Overview

Area 5 – Overview

Area 5 – Overview

Area 5 – Overview

Area 5 — Observation
Built-up roof to shingle roof transition

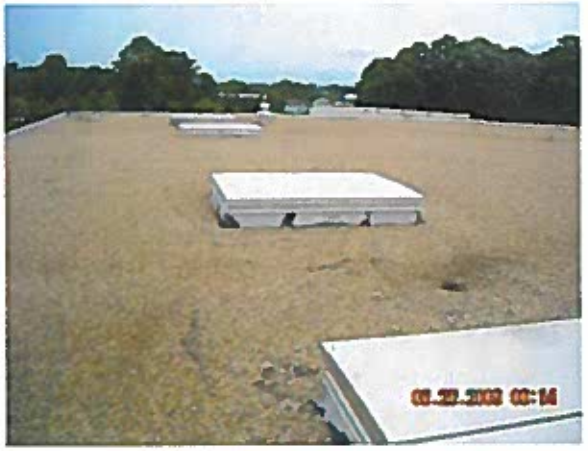
Area 5 —Observation
Built-up roof to shingle roof transition

Area 5 —Observation
Built-up roof to shingle roof transition

Area 5 —Observation
Built-up roof to shingle roof transition

Area 6—Overview

Area 6—Overview



Area 6—Overview

Area 6—Overview

Area 6 —Observation
Built-up roof gravel edge detail

Area 6 —Observation
Poor base flashing detail

Area 6 —Observation
Poor base flashing detail (close-up)

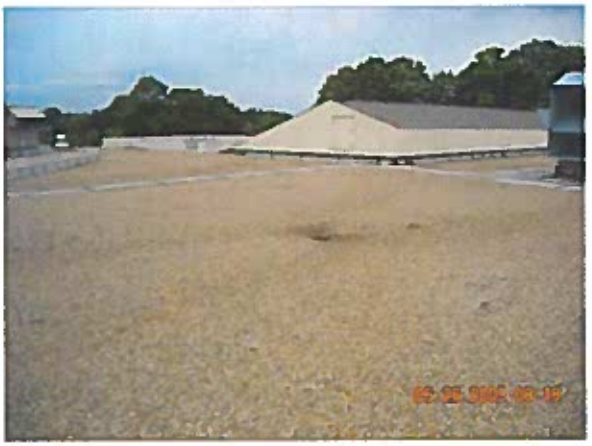
Area 7—Overview

Area 7—Overview

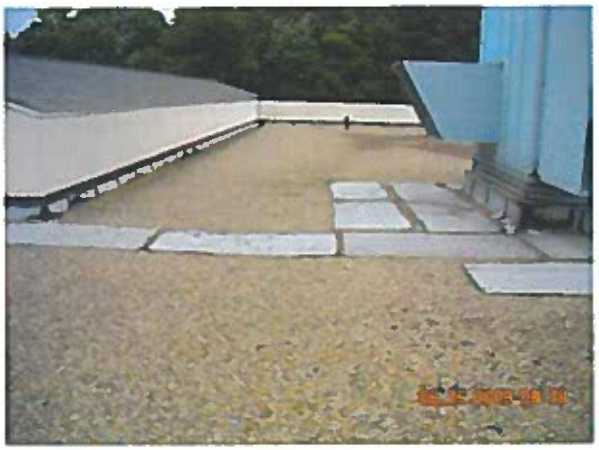
Area 7—Overview

Area 7—Overview

Area 7—Overview



Area 7—Overview



Area 7—Overview

Area 7—Overview

Area 7—Overview

Area 7—Overview

Area 7—Overview

Area 7—Overview

Area 7—Overview

Area 7 —Observation
Built-up roof gravel edge to expansion joint detail

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Overview

Area 8—Observation
Built-up roof gravel edge and expansion joint detail

Area 8— Observation
View of typical base flashing detail

Area 8—Observation
Built-up roof gravel edge detail

Area 8—Observation
Built-up roof to asphalt shingle transition

Area 8—Observation
View of pitch pocket detail

Area 9—Overview

Area 9—Overview

Area 9—Overview

Area 9—Anomaly
Missing drain strainers

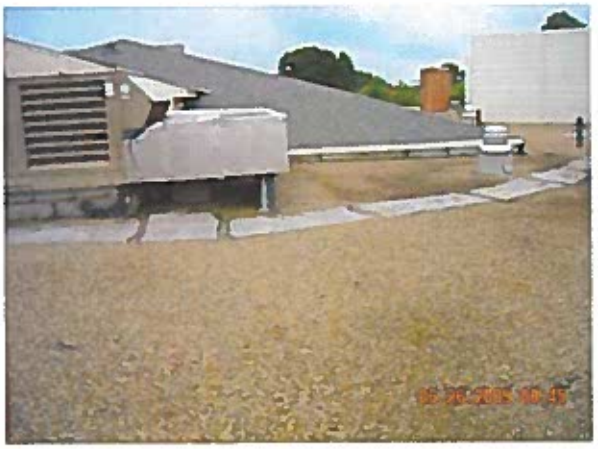
Area 9—Anomaly
Poor tie-in detail at built-up to shingle transition

Area 9—Anomaly
Poor tie-in detail at built-up to shingle transition

Area 10—Overview

Area 10—Overview

Area 10—Overview



Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

Area 10—Overview

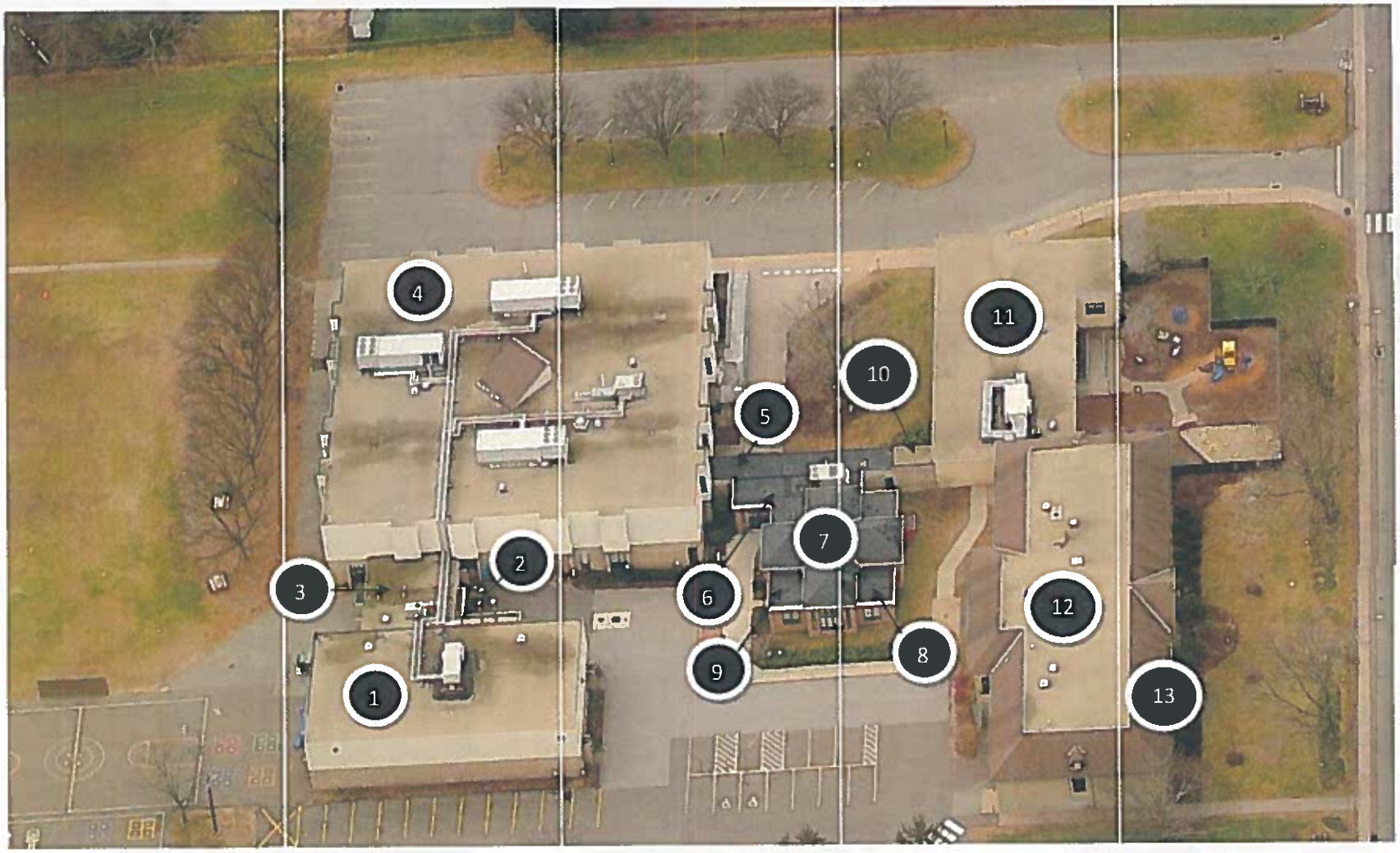
Area 10—Overview

Area 10—Overview

Area 10—Anomaly
Clustered pipe conduits

Area 10—Anomaly
Poor base flashing detail at transition

Area 10—Anomaly
Poor base flashing detail at transition



Naubus ES
Griswold St., Glastonbury, CT

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Overview

Area 1—Observation
Perimeter edge metal

Area 1— Anomaly
Broken drain strainer along with exposed membrane felts

Area 1—Observation
Outside perimeter edge repaired

Area 1— Observation
Repair patch installed beneath unit

Area 1— Anomaly
Tie-in on repair beginning to deteriorate

Area 1— Anomaly
Tie-in on repair beginning to deteriorate

Area 1—Anomaly
Exposed membrane felts around roof drains

Area 2— Overview

Area 2— Overview

Area 2— Overview

Area 2— Anomaly
Scupper metal damaged

Area 2— Anomaly
Scupper metal damaged

Area 2— Observation
Limited flashing access

Area 2—Anomaly
Poor termination at Area 2 to Area 3 roof areas

Area 3—Overview

Area 3—Overview

Area 3—Overview

Area 3—Overview

Area 3—Anomaly
Poor expansion joint detail with open laps

Area 3—Anomaly
Poor expansion joint detail with open laps

Area 3—Anomaly
Low counter flashing trim

Area 3— Anomaly
Broken drain strainer

Area 3—Anomaly
Open expansion joint laps

Area 4—Overview

Area 4—Overview

Area 4—Overview

Area 4—Overview

Area 4—Anomaly
Cracked cementitious board on skylight

Area 4—Anomaly
Cracked cementitious board on skylight

Area 4— Observation
View of transition flashing

Area 4—Anomaly
Damaged curb flashing a support stand

Area 4—Anomaly
Support screwed into roof system

Area 5—Overview

Area 5—Overview

Area 5—Overview
NOTE: Roof gravel was cleaned from roof surface

Area 5—Anomaly
Splice patches delaminating from membrane

Area 5—Observation
Roof termination

Area 5—Observation
Roof termination

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Anomaly
Splice patches over expansion joints are delaminating

Area 6—Observation
View of roof termination at wall

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Overview

Area 6—Anomaly
Hip to ridge shingle was resealed at both locations

Area 6—Anomaly
Ridge vent was resecured

Area 8—Overview

Area 8—Overview

Area 9—Overview

Area 9—Overview

Area 10—Overview

Area 10—Observation
View of roof termination at drip edge

Area 10—Observation
View of roof termination at wall flashing

Area 10—Observation
View of roof termination at wall flashing

Area 11—Overview

Area 11—Overview

Area 11—Overview

Area 11—Overview

Area 11—Overview

Area 11—Observation
View of roof termination at wall

Area 11—Overview

Area 11—Overview

Area 11—Anomaly
Missing drain strainer

Area 11—Anomaly
Missing curb flashing

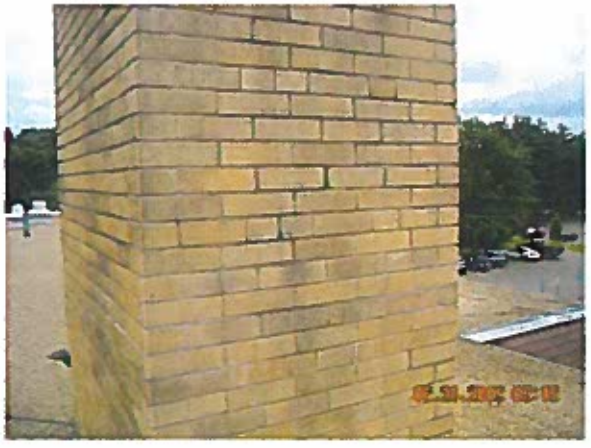
Area 11—Anomaly
Roof repair is showing indications of deterioration

Area 12—Overview

Area 12—Overview

Area 12—Anomaly
Turbine vent is broken

Area 12—Anomaly
Strip-in repair indicating signs of deterioration



Area 12—Anomaly
Chimney mortar joints in need to repair

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview

Area 13—Overview
NOTE: Ridge to hip transition shingle were sealed

WALL ELEVATION PHOTOGRAPHS

View of unsecured metal caps (typical)
NOTE: Contractor secured all metal caps

Mortar joints appear to be fdeteriorating

Some damaged brick was observed

Window perimeter sealants in poor condition

Damaged brick observed

Wall joints in need of repair

Option No. 3—Metal cap repairs (typ.)

Option No. 3—Metal cap repairs (typ.) NOTE: Metal caps secured around perimeter of building.