

Mitchell Elementary School

Bridgewater, Massachusetts



Raymond Design Associates - Architects

- *Gene Raymond Jr., AIA, LEED AP – Project Lead*
- *John Bartecchi – Constructability and Cost Estimating*
- *Jeff Yost – Project Architect*
- *Steven Lamothe, RA, LEED AP – Project Designer*

Steere Engineering – Structural Engineers

- *Donald Leffert, PE*

Vertex – Air Quality Consultants

- *Erik Borgesen*

Garcia Galuska DeSousa – HVAC Engineers

- *Dominic Puniello PE – Mechanical Engineer*

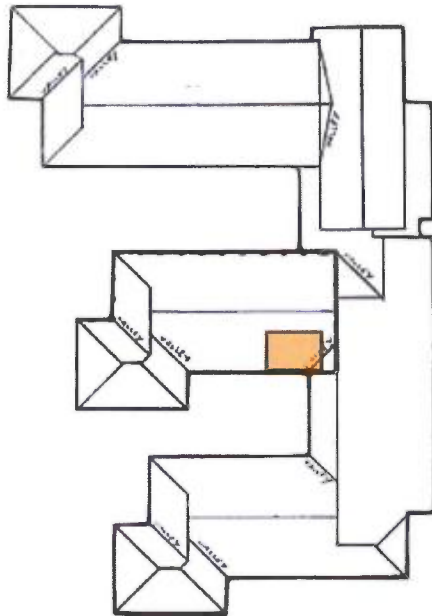
Study Team



George H Mitchell Elementary School

Ice Dams and Snow – Winter 2015

RDA



CENTRAL WING- SOUTH OF RIDGE-

- ROOF FAILURE AREA
- TWO DAMAGED TRUSSES IMMEDIATELY WEST OF FAILURE

Roof Collapse – Winter 2015

Raymond Design Associates - Architects

- *Introduction*
- *Shuttering Plans*
- *Existing Building Configuration*

Steere Engineering - Structural Engineers

- *Findings*
- *Recommendations*

Vertex - Air Quality Consultants

- *Findings*
- *Recommendations*

Raymond Design Associates - Architects

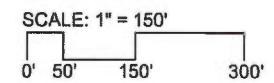
- *Roof Options*
- *Air Quality Recommendations*
- *Program Options*
- *Order of Magnitude Cost Options*

Study Scope

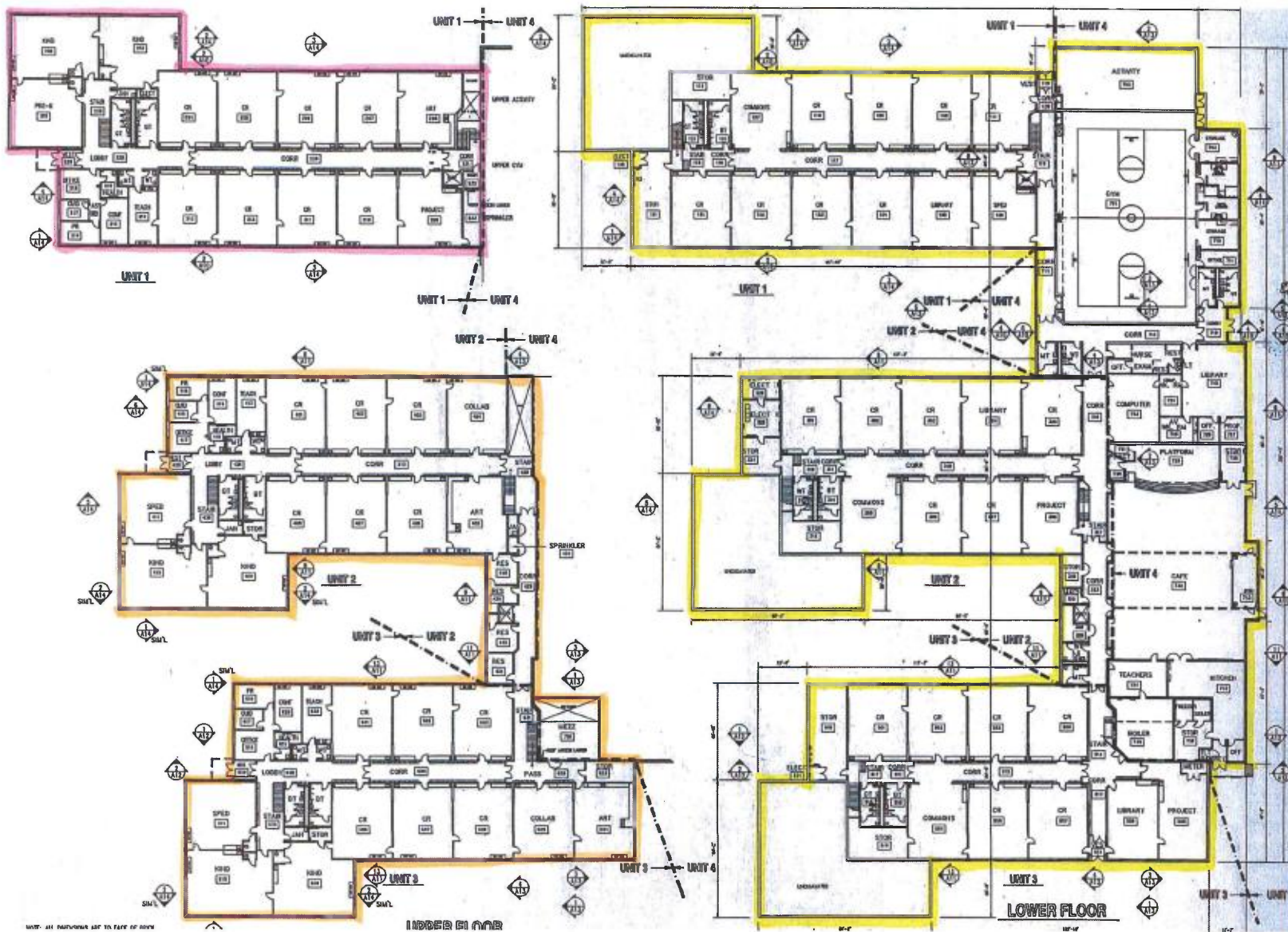


OPTION #1 - BASE REPAIRS - 134,235SF

K-3: 940 PUPILS
PK: 105 PUPILS
TOTAL: 1,045 PUPILS PK-3



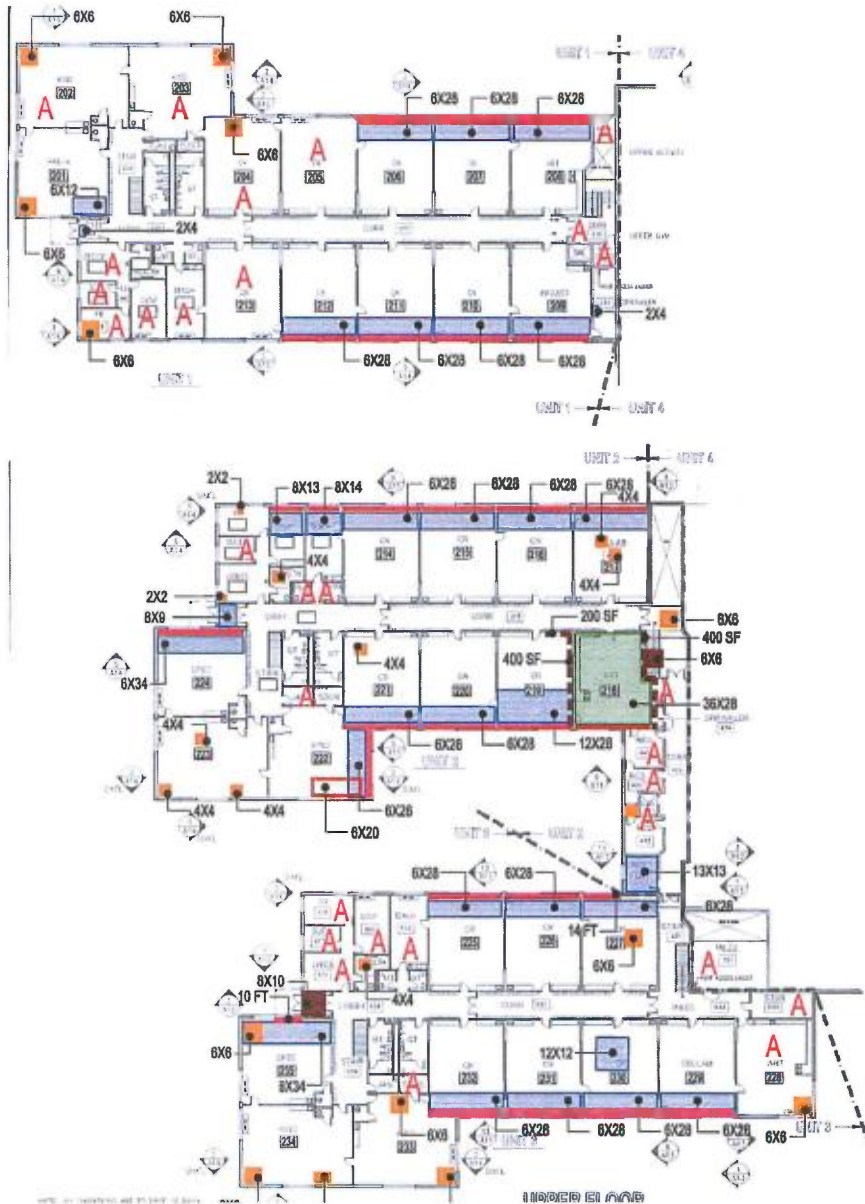
Existing Site Plan



Existing Floor Plans



Shuttering Plan – Fall 2015



- A** NO WORK
- TYPE 1** INSTALL 6" (R-19) FIBERGLASS BATT INSULATION IN EXISTING STUD BAYS FULL HEIGHT OF WALL. SCREW 3/4" X 2 1/2" WOOD STRAPPING HORIZONTALLY @ 2'-0" O.C. ON METAL STUDS. STAPLE 5 MIL POLY VAPOR BARRIER TO WOOD STRAPPING AND TAPE ALL SEAMS. INSTALL 6" (R-19) FIBERGLASS BATT INSULATION ALONG WEB OF 24 INCH STEEL BEAM. REFER TO SECTION 5A2.0
- TYPE 2** INSTALL 6" (R-19) FIBERGLASS BATT INSULATION ALONG WEB OF 24 INCH STEEL BEAM
- TYPE 3** INSTALL (R-38) FIBERGLASS BATT INSULATION ON EXISTING CEILING STRAPPING. PROVIDE 3/4" LONG VENT BAFFLES AT EAVES. PROVIDE CONTINUOUS POLY VAPOR BARRIER FULL HEIGHT AND LENGTH OF AREA DEPICTED. TAPE ALL SEAMS AND PENETRATIONS, TYP.
- TYPE 4** INSTALL (R-15) FIBERGLASS BATT INSULATION AND CONTINUOUS POLY VAPOR BARRIER ON EXISTING 3 1/2" STUDS / 4 FT HIGH
- TYPE 5** NEW SPRAY FOAM INSULATION ON UNDERSIDE OF ROOF DECK TO MEET R-38 INSULATION VALUE
- TYPE 6** INSTALL 1X2 WOOD STRAPPING AND (R-38) FIBERGLASS BATT INSULATION
- TYPE 7** INSTALL NEW AC GRID / GWS LAY-IN PANELS AND (R-38) FIBERGLASS BATT INSULATION OVER IT. EXISTING GRID SYSTEM IS 16" X 48"
- TYPE 8** INSTALL NEW 1/2" GWS TO EXISTING STRAPPING. INSTALL NEW (R-38) FIBERGLASS BATT INSULATION AND CONTINUOUS POLY VAPOR BARRIER
- TYPE 9** FRAME AND INSULATE CHEEK WALLS FROM TOP WALL TO UNDERSIDE OF SLOPED ROOF
- 6X28** DIMENSIONS GIVEN ARE IN FEET, TYPICAL

Shuttering Plan – Upper Floor