

COVENTRY BOARD OF EDUCATION – RFP 2011-1
REQUEST FOR STRUCTURAL ANALYSIS AND TESTING SERVICES

OVERVIEW AND SCOPE

The Coventry Board of Education is seeking structural analysis and testing services for the gymnasium, auditorium, and adjacent areas that were added to Coventry High School (CHS) in 1999-2000, and the gymnasium and stage areas at George Hersey Robertson (GHR) School. The result of the analysis should include determining whether these areas were built as specified in the design documents, whether the structures as built conform to the building codes at the time of construction, and recommendations for remedial work to bring these areas into code compliance if necessary.

WORK TO BE PERFORMED

Successful bidder will investigate the construction of the CHS Auditorium, the CHS and GHR Gymnasiums, and the GHR Stage. These investigations should be combined with an evaluation of the adequacy of the as-built conditions in order to determine the total extent of repairs that may be required at the schools.

Tasks include the following:

A. Roof Structure

Based on the findings of Silva Engineering (attached Exhibit A, letter of March 10 from Silva Engineering entitled, “*Coventry High School and G. H. Robertson Intermediate School Structural Evaluations*”) re the CHS and GHR Gymnasiums, the successful bidder will conduct investigations of the following areas in the CHS and GHR additions (attached Exhibit B):

1. Elements supported by the steel roof joists

Determine if the support framing is located at the steel joist panel points.

2. Bridging of steel roof joists

Determine if required steel bridging has been installed and properly attached.

3. Steel roof joist capacity

Determine if installed roof joists include the design capacity for actual supported loads, including actual live load ratings.

B. Masonry Walls

Investigations detailed in Exhibit A have revealed inconsistencies in the masonry installation at CHS, including:

1. Inadequate or missing masonry joint reinforcement.
2. Inadequate installation of masonry ties connected to steel columns.
3. Missing clip angels between masonry walls and steel framing.
4. Improperly spaced vertical reinforcement.
5. Missing bond beams with horizontal reinforcement as specified.

The successful bidder will conduct an investigation of the masonry wall construction to include the following:

1. Review existing available construction documents.
 - Identify all masonry wall segments noted as inspected in the existing “Masonry Inspection Reports”.
 - Review Change Orders, correspondence and other related documents for design revisions that occurred during construction.
2. Evaluate wall segments with existing documented inspection reports
 - Select representative number of locations for surface penetrating radar evaluation.
 - Compare field results with design requirements, shop drawings and inspection reports.
 - Make recommendations for further evaluation as required.
3. Evaluate wall segments without existing documented inspection reports.
 - Perform surface penetrating radar evaluation on selected areas, with additional radar evaluations based on initial findings
 - Compare field results with design and shop drawings.
 - Continuously evaluate results and reduce level of testing if satisfactory results are obtained.
4. Perform preliminary structural evaluation of masonry walls.
 - Determine approximate building lateral forces.
 - Evaluate capacity of select masonry walls to resist the approximate forces.
 - Determine need for more detailed structural evaluation.

Report

Upon completing the roof structure and masonry wall investigations, submit a report documenting the findings and providing recommendations for required remedial action if any. Present findings to a joint meeting of the Board of Education and the Town Council, if requested.

SELECTION CRITERIA

In keeping with State of Connecticut Public Act No. 08-169, proposals for this project will be accepted only from those bidders judged capable of successfully completing the work.

The Owner will evaluate proposals based on the following criteria:

- A. Candidate's background and professional expertise,
- B. The Candidate's ability to complete the project within the required timeline,
- C. The Candidate's demonstrated understanding of the work.
- D. The proven ability to submit cost-effective solutions.
- G. Fee proposal, in accordance with PA 08-169.

After review of all factors, terms and conditions, including price, the Coventry Board of Education reserves the right to reject any and all proposals, or any part thereof, or waive defects in same, or accept any proposal deemed to be in the best interest of the Coventry Board of Education.

ADDITIONAL CRITERIA

Regulations of Connecticut State Agencies Section 4-114a-3(10) requires agencies to consider the following factors when awarding a contract that is subject to contract compliance requirements:

- A. The Candidate's success in implementing an affirmative action plan;
- B. The Candidate's success in developing an apprenticeship program complying with Section 46a-68-1 to 46a-68-17 of the Connecticut General Statutes, inclusive;
- C. The Candidate's promise to develop and implement a successful affirmative action plan;
- D. The Candidate's submission of EEO-1 data indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- E. The Candidate's promise to set aside a portion of the contract for legitimate small contractors and minority business enterprises (see CGS3 1 -9e).

PROPOSED PROJECT SCHEDULE

Mandatory site pre-bid walk-through	June 22 through June 24, 2011
Submission of detailed proposals	June 29, 2011
Review of proposals and candidate interviews (if necessary)	June 30 through July 7, 2011
Selection of successful bidder	July 8, 2011
Completion of analysis and proposed remediation	July 31, 2011

FEE SCHEDULE

Pricing should be provided as follows:

- Option 1 – a fixed fee for all work as specified in this RFP
- Option 2 – an hourly rate with an estimate of hours to complete all work specified in this RFP

NOTES TO CANDIDATES

You must submit two (2) written copies of your proposal and electronic copy on storage device no later than 2:00 pm on June 29, 2011. Questions concerning this Request for Proposal should be in writing and directed to:

Gregg Blackstone, Business Manager
(860) 742-7317 x-107

gblackstone@coventryct.org

Inquiries must reference the date of the bid opening and must be received no later than seven (7) calendar days prior to such date. Failure to comply with these conditions will result in the Candidate waiving the right to dispute the bid specifications and conditions.

FORMAT OF PROPOSAL

All responses to this RFP must conform to these instructions.

1. Delivery of responses:

- a. Responses must be in sealed envelopes and marked with the reference title, the number 2011-1, and due date and time. The Candidate's name and address must appear on the envelope.
- b. The Coventry Board of Education is dedicated to waste reduction and the practice of using and promoting the use of recycled and environmentally preferable products.

Bidders are encouraged to submit bids that are printed double-sided (except for the signed proposal page) on recycled paper, and to use paper dividers to organize the bid for review. All bid pages should be secured with a binder clip, staple or elastic band, and may not be submitted in plastic binders or covers, nor may the bid contain any plastic inserts or pages.

2. Information should be complete, accurate and concise; your submittal should describe:

- a. Your abilities and relevant prior experience in the area(s) of service offered, and is to include a list of prior clients, complete with names, addresses and telephone numbers of contact persons.
- b. How you will deal with each element of the work described.
- c. Your work currently under contract as it pertains to your ability to meet time schedules outlined.
- d. The extent to which qualified staff will be available to provide the services offered. Include a complete resume and project assignment for each professional or technical person to be assigned to the project.
- e. How you propose to schedule the project.
- f. A list of mechanical, electrical, plumbing, site and/or civil engineers that you would use on each phase of the design.
- g. any support that is expected from the Board of Education in terms of services, etc.
- h. The Coventry Board of Education is exempt from paying excise, transportation, and sales taxes imposed by the Federal Government and/or the State. Such taxes must not be included in prices. No exemption certificates are required and none will be issued.

ACCEPTANCE PERIOD

In submitting the proposal, the Candidate agrees that the proposal will remain valid for a period of ninety (90) days after the closing date for submission, and may be extended beyond that time by mutual agreement. Prices quoted must be firm, for acceptance by the Coventry Board of Education, for a period of ninety (90) days.

ADDENDA TO THE RFP

In the event it becomes necessary to revise any part of this RFP, addenda will be provided to all prospective firms who have received the RFP documents.

THE CANDIDATE

The Candidate shall be thoroughly familiar with the requirements of all specifications and the actual physical conditions of the project sites. The submission of a proposal shall be construed as evidence that the Candidate has examined the actual job conditions, requirements, and specifications. Any claim for labor, equipment or materials required or difficulties encountered that could have been foreseen will not be recognized.

ASSIGNMENT OF CONTRACT

No contract may be assigned or transferred without the consent of the Coventry Board of Education.

INSURANCE COVERAGE

The successful Candidate will be required to furnish and maintain Architect's Errors and Omissions Insurance and a comprehensive general liability certificate of insurance naming the Coventry Board of Education as additional insured. The insurance is to be suitable liability, worker's compensation, and professional coverage. The Certificates of Insurance will be provided by companies licensed in the State of Connecticut and will be in reasonable amounts satisfactory to the Coventry Board of Education.

FEDERAL, STATE AND LOCAL LAWS

All applicable Federal, State, and local laws, and rules and regulations of all authorities having jurisdiction over the locality of the project shall apply to the contract and are deemed to be included herein.

RIGHT TO ACCEPT/REJECT

AFTER REVIEW OF ALL FACTORS, TERMS AND CONDITIONS, INCLUDING PRICE, THE COVENTRY BOARD OF EDUCATION RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS, OR ANY PART THEREOF, OR WAIVE DEFECTS IN SAME, OR ACCEPT ANY PROPOSAL DEEMED TO BE IN THE BEST INTEREST OF THE COVENTRY BOARD OF EDUCATION.



Exhibit A

SILVA ENGINEERING, LLC

Windham Mills Business Center
322 Main Street, Building 2, 2nd Floor
Willimantic, CT 06226

Consulting Engineers

Phone: (860) 423-4506
Fax: (860) 423-1875
www.silvaengineering.com

March 10, 2011

Mr. Paul Noel
Director of Facilities
Coventry Public Schools
1700 Main Street
Coventry, CT 06238

Ref: Coventry High School and G. H. Robertson Intermediate School
Structural Evaluations

Dear Mr. Noel:

Pursuant to Silva Engineering LLC's (Silva Eng) presentation at the joint Board of Education and Town Council meeting held on February 22, this letter provides the status of immediate repairs to Coventry High School/Nathan Hale Middle School (CHS/NHMS) Gymnasium and George H. Robertson Intermediate School (GHR) Gymnasium and Stage areas. Also included are Silva Eng's recommendations for future investigations along with the associated budgetary estimates of cost for those engineering services.

Status of Immediate Repairs:

Immediate repairs to the steel joists based on the details provided to the Town on February 22, 2011 have been completed at GHR Gymnasium, and will likely be completed at CHS/NHMS Gymnasium by the end of this week. These repairs encompass the installation of web struts to the steel roof joists at the basketball backboard support locations. Completion of these repairs will allow for the reopening of the Gymnasiums for occupancy and use, subject to the following restrictions.

CHS/NHMS

1. The moveable partition wall must remain in the folded position.
2. A crack monitoring program must be established to observe and record any additional movement of the masonry wall cracks. Cracks will need to be monitored on a weekly basis at a minimum.
3. Repairs to the following outstanding items located in the Gymnasium must be completed in a timely manner.
 - Installation of clip angles to connect the east Gymnasium masonry wall to the steel framing.
 - Installation/repairs to steel joist bridging.
 - Retrofitting of the moveable wall partition support members.

Exhibit A

Mr. Paul Noel
Page 2 of 5

March 10, 2011

Masonry repairs as required to account for the inconsistent placement of reinforcement that has been discovered in the masonry walls.

GHR

1. Climbing ropes and climbing netting supports must be relocated to steel joist panel points.
2. Dividing curtain supports must be relocated to steel joist panel points.

GHR – Stage Area

1. For the near-term, stage curtains and theater lighting must be taken down.
2. Moveable partition which divide the Gymnasium from the Stage area must remain in the full extended position.

Recommended Future Action

Our investigations indicate that upon completion of the immediate repairs, outstanding questions will remain regarding the construction of the referenced buildings. Additional investigations are recommended in order to verify the actual construction of these buildings. These investigations should be combined with a preliminary evaluation of the adequacy of the as-built conditions in order to determine the total extent of repairs that will be required at the schools. Recommended tasks include the following:

Roof Structure

Based on our findings in the CHS/NHMS and GHR Gymnasiums, as well as our review of steel joist attachments above the GHR Stage, we are concerned that there may be similarly improper attachments at other locations within the buildings, particularly the CHS/NHMS Auditorium.

Preliminary review of the Auditorium shows that there are several roof-supported items which should be verified for proper installation. These include the Stage Curtain, Theater Lights, Clouds and the Catwalk.

Additionally, a review of the approved roof joist shop drawings for the area above the GHR Gymnasium and Stage area, indicates that the Fabricator requested information regarding whether the roof joists were subject to any additional loads beyond the specified gymnasium equipment. These Drawings were approved and returned to the Fabricator without comments. Since the Fabricator's request was not addressed on the drawings, we are concerned that the loads associated with the folding partition, stage curtains, and theater lighting may not have been included in the design of the joists supporting these items.

To address these concerns, Silva Eng recommends an investigation be conducted of the remaining portions of CHS/NHMS and GHR additions.

1. Elements supported by the steel roof joists.

Determine if the support framing is located at the steel joist panel points.

2. Bridging of steel roof joists.

Determine if required steel bridging has been installed and properly attached.

3. Steel roof joist capacity.

Determine if installed roof joists include the design capacity for actual supported loads.

Masonry Walls

Our preliminary investigations, including surface penetrating radar evaluations of limited wall segments, have revealed inconsistencies in the masonry installation at CHS/NHMS. These inconsistencies include:

1. Inadequate or missing masonry joint reinforcement.
2. Inadequate installation of masonry ties connected to steel columns.
3. Missing clip angels between masonry walls and steel framing.
4. Improperly spaced vertical reinforcement.
5. Missing bond beams with horizontal reinforcement as specified.

Our preliminary review of the Schedule of Special Inspections, which was prepared upon completion of design, indicates that full-time inspections were required at the onset of masonry wall construction. This requirement was to be adjusted during construction by the Structural Engineer of Record after reviewing the quality and consistency of the completed work. The actual Masonry Inspection Reports that have been reviewed to date, however, indicate that inspections were conducted periodically. Reports also appear to indicate on-site inspections were for limited courses of wall segments.

Silva Eng recommends an investigation be conducted of the masonry wall construction to include the following tasks.

1. Review existing available construction documents.
 - Identify all masonry wall segments noted as inspected in the existing "Masonry Inspection Reports".
 - Review Change Orders, correspondence and other related documents for design revisions that occurred during construction.
2. Evaluate wall segments with documented inspection reports
 - Select representative number of locations for surface penetrating radar evaluation.
 - Compare field results with design requirements, shop drawings and inspection reports.
 - Make recommendations for further evaluation as required.
3. Evaluate wall segments without documented inspection reports.
 - Perform surface penetrating radar evaluation on all of these areas.
 - Compare field results with design and shop drawings.

Exhibit A

Mr. Paul Noel
Page 4 of 5

March 10, 2011

- . Continuously evaluate results and reduce level of testing if satisfactory results are obtained.
- 4. Perform preliminary structural evaluation of masonry walls.
 - . Determine approximate building lateral forces.
 - . Evaluate capacity of select masonry walls to resist the approximate forces.
 - . Determine need for more detailed structural evaluation.

Report

Upon completing the roof structure and masonry wall investigations, submit a report documenting the findings and providing recommendations for required remedial action. Present findings to a joint meeting of the Board of Education and the Town Council, if requested.

As mentioned to you, we are presently only providing engineering services associated with the immediate repairs so that the Gymnasiums can be reopened. Additional investigative services can begin upon receipt of authorization from your office.

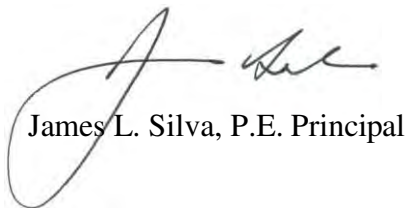
Schedule

We anticipate completion of the investigations described above within thirty days from receipt of notice to proceed.

Please do not hesitate to contact me if you have any additional questions.

Sincerely,

SILVA ENGINEERING, LLC



James L. Silva, P.E. Principal

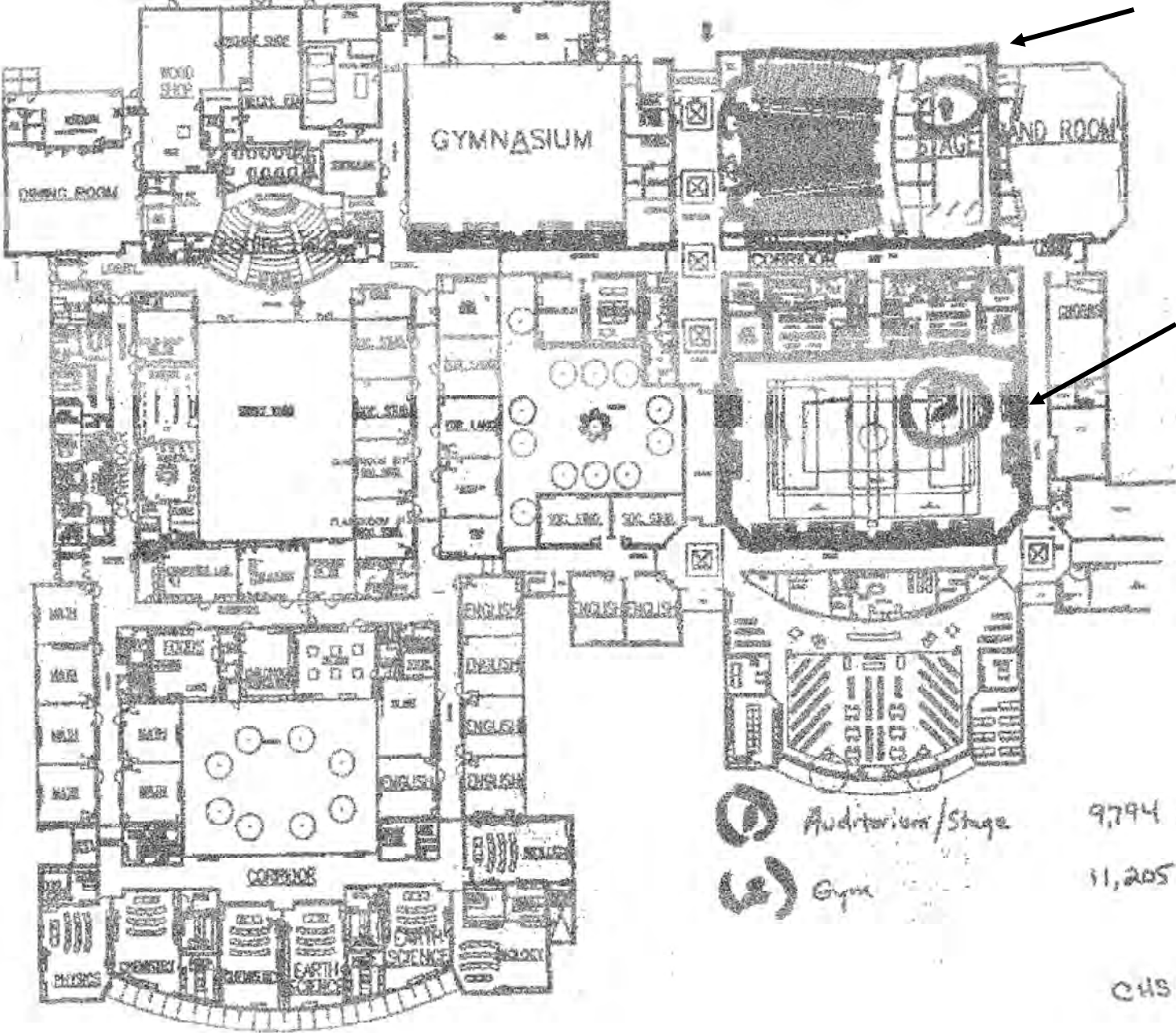
The floor plan of Robertson Elementary School is divided into several main sections. At the top, there are five 5th Grade Class Rooms, a Resource room, and an Art Class Room. To the right of these is a Music Room, a Practice room, and a Storage area. Further right is a large Gymnasium with a Platform and a 1/2 Gymnasium. Below the 5th Grade Class Rooms are two more 5th Grade Class Rooms, a Computer Room, a Speech/Tag room, a Transition room, a Women's room, a Men's room, a Work Room, a Lounge, and a P.E. Office. In the center, there are four 4th Grade Class Rooms, a Multi HCP room, a Girls' Room, a Boys' Room, and a Custodian Storage room. At the bottom, there are five 3rd Grade Class Rooms, a Resource Room, a Nurse's Office, a Principal's Office, a Corridor, a Classroom Assembly Cafeteria, and a Cooler. The plan also includes a Lobby, an OT/PT room, and a P.E. Office.

ROBERTSON

Gym/Stage 8960

Gym/stage 8,960 sq ft

Exhibit B



Structural Engineering RFP – firms to contact:

Michael R. Plickys, PE
Macchi Engineers
44 Gillett Street
Hartford, CT 06105-2694.

Mr. Peter Cellella
Szewczak Associates
200 Fisher Drive
Avon Park North
Avon, CT 06001

Mr. James R. Bancroft, PE
Lenard Engineering
1768 Storrs Road
P.O. Box 580
Storrs, CT 06268-0580

James L. Silva, PE, Principal
Silva Engineering
322 Main Street
Building 2, Second Floor
Willimantic, CT 06226

James D. Parry, PE
Fuss and O'Neill
146 Hartford Road
Manchester, CT 06040