# INSULAR ABC 'S INITIATIVE DEFERRED MAINTENANCE REDUCTION PROGRAM St. Thomas / St. John School District Monday, December 7, 2015

### REQUEST FOR PROPOSAL FOR STRUCTURAL ASSESSMENT & DESIGN SERVICES

### DMRP-RFP – STTJ-001; STRUCURAL DESIGN FOR ULLA MULLER ELEMENTARY SCHOOL

- To engage and retain a locally licensed Structural Engineer to thoroughly Investigate,
  Document, Develop and Prepare Design & Construction Documents and Specifications
  to address the structural deficiencies and conditions at the Ulla Muller Elementary
  School as identified and cited in the Insular ABC's Initiative Phase III Task Findings
  and Recommendations prepared by Martin & Chock, Inc. in the Structural Summary
  Report dated October 2015:
- Specifically the following three campus buildings are included:

Ulla Muller Elementary School: Building Nos. 03- Cafeteria & Classroom
Ulla Muller Elementary School: Building Nos. 04- Classroom /Main Office
Ulla Muller Elementary School: Building Nos. 05- Nurse & Special Education

These facilities have been cited with a range of structural and non-structural deficiencies posing a high Critical Health and Safety Risk to all of the facility's occupants and users. The objective is to eliminate all such structural deficiencies and risk at currently in these structures.

- 1. The selected licensed structural engineer (individual or firm) shall document all field conditions, surveys, design all concrete repair details, design all pre-stressing tendon repair details and prepare all project required specifications.
- The selected individual or firm shall be responsible to perform limited Contract
   Administrative Services as it pertains to the review, inspection and certification of all
   work performed for compliance and conformance with the approved project design and
   specifications documents.
- 3. The selected individual or firm shall initially perform all necessary investigative work to determine the complete and comprehensive extent of the all structural deficiencies found at the principal buildings identified above in the cited Structural Summary Report but shall not rely only upon that document as the only basis for developing the requisite design and construction specifications for the project. The Selected Structural engineer shall provide a fixed lump sum fee for this initial Structural Assessment Report.

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- 4. Provide a draft set of project design and specifications documents for the owner's review and input prior to completion of the work effort.
- 5. Attached hereto please find a copy of all relevant and pertinent Owner Exhibits associated with these buildings and facilities, including but not limited to Photographs, Report Excerpts, Preliminary Scopes of Work, Etc..
- 6. Furnish ten (10) Complete Sets of all final Project Design & Specifications Documents
- 7. Proposer shall itemize all cost contemplated with each of the schools and buildings as itemized above.
- 8. Engineer's proposals shall include provisions For Photographic Record and Documentation of conditions Before, During and After construction; Periodic Inspections During Construction and Final Certification of Completed Work in accordance with project Specifications.
- 9. A Pre-Proposal Submission Site Visit will be conducted as follows:

Site Visit: Ulla Muller Elementary School

DATE: Monday, December 14, 2015

TIME: 8:30 A.M

10. Proposal Closing Date: Tuesday, December 22nd, 2015
11. Closing Time: 4:00 PM Atlantic Standard Time

- 12. The Proposal shall consist of a Qualification Statement, which shall contain the following at minimum:
  - 1. Firm Name, Mailing Address, Telephone, E-mail and Fax Number;
  - 2. Year Established and any Former Names;
  - 3. Types of Services for which firm is Qualified;
  - 4. Name of Principals of the Firm and States in which Firm/Principal is Registered (A principal of the firm must be registered in the U.S. Virgin Islands);
  - 5. Names of key personnel who will be assigned to this project and their resume of education and experience;
  - 6. Office staff available for this assignment and their qualification;
  - 7. Sub-consultants proposed for this assignment and their qualifications;
  - 8. Current workload: Scope, Cost, Percent completed, Both as Prime and Subcontractor:
  - 9. List of selected completed projects, their scope and cost, and name, telephone number of owner's representative we can contact;

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10. Narrative description of your approach to this project, your anticipated projected schedule and any unique or unusual circumstances you anticipate with this project.

PLEASE SUBMIT FIVE (5) COPIES OF YOUR PROPOSAL.
PROPOSALS SHALL BE SUBMITTED IN A SEALED ENVELOPE ADDRESSED
AS FOLLOWS:

Mr. Anthony D. Thomas, Director Of Procurement
Division of Procurement
Department of Education
1834 Kongens Gade,
St. Thomas, U.S. Virgin Islands

# REQUEST FOR PROPOSAL NO. DMRP-RFP-STTJ-001 FOR STRUCTURAL DESIGN SERVICES PAGE 4. CONTRACTUAL REQUIREMENTS

All bid proposals and subsequent contract and supporting documents (if selected) must reflect the <u>legal name</u> of entity. Supporting documents that must be submitted prior to contract execution and within the time established by the Government shall include, but not be limited to, the following:

- (1) Certificate of Resolution, as to the authorized negotiator and signer of a contract.
- (2) <u>Current Virgin Islands Business License</u> issued to the <u>legal name</u> of record of the entity by the Government of the Virgin Islands, Department of Licensing and Consumer Affairs.
- (3) Current original <u>Certificate(s) of Good Standing/Existence</u>, in legal name of the Contractor by the Virgin Islands Office of the Lt. Governor, Division of Corporations and Trademarks.
- (4) Certificate of Issuance or Renewal of Trade Name issued by the Virgin Islands Office of the Lt. Governor, Division of Corporations and Trademarks, if applicable.
- (5) <u>Articles of Incorporation or Organization</u>, as applicable; or documents governing operation.
- (6) <u>Certificate of Liability Insurance</u> indicating proof of coverage of <u>Professional Liability Insurance</u> and <u>General Liability/Public Liability Insurance</u> each of no less than [One Hundred Thousand Dollars and Zero Cents (\$100,000.00)] for any one occurrence. The Contractor must provide a <u>Certificate of Liability Insurance</u> and <u>Declaration/Endorsement</u> pages that indicating that the Government of the Virgin Islands, Department of Education, is as "certificate holder" and an "additional insured" on the <u>General Liability/Public Liability Insurance</u>. The Professional Liability Insurance must cover the services to be provided under the contract.
- (7) Certificate of Government Insurance/Copy of Certificate providing firm/agents are covered by Workers' Compensation Employee's Liability.

Please note the above-referenced documents are subject to modification at the Government's discretion.

Any silence, absence, or omission from the contract specifications concerning any point shall be regarded as meaning that only the best commercial practices are to prevail.

All contractual documents including insurance certificates/policies must be kept updated and maintained throughout the term of the contract



Helber Hastert & Fee Ulla F. Muller Elementary 150 200 250 Feet

Date: 3/8/2013

#### **ULLA MULLER ELEMENTARY SCHOOL BUILDINGS 3 AND 4**

#### **Existing Conditions**:

Buildings 3 and 4 (Classroom Buildings) are two-story buildings framed in reinforced concrete. Walls and columns are cast-in-place concrete while the floor and roof members are precast pre-stressed tees. Building T has a structural steel and cold-formed steel framed gable roof on top of the flat roof's precast tees.

Moderate to severe spalls were observed at the precast tees at the second floor and at the roof. The spalls are for the most part concentrated on areas where the tees are exposed to weather: at the walkways and at a short overhang around the perimeter of the buildings. In some cases, exposed reinforcing was observed. Closed or partially closed spalls on the underside and on the sides of concrete members are considered a life safety concern for they can detach unexpectedly and fall on building occupants. At the underside of the tees, it was also observed that at the joint between adjacent precast tees, the tooled joint filler has cracked and in some cases fallen. This loose material is also considered a falling hazard and should hence be treated as a life safety issue.

At the precast tees, exposed pre-stressing tendons were observed at two locations on Building 3. It appeared that the concrete had spalled from the underside of the tee's web leaving approximately 4-foot long portions of the tendons exposed. It was not possible to verify the condition of the exposed tendon for the areas around the spall and the tendon itself have been painted white.

Spalls (open and closed) were also observed on the concrete wall that serves as a railing to the second floor walkway that provides access to the classrooms. It was reported by a teacher that a large spall had recently detached from this wall and fallen down to the grounds below.

Spalls were also observed at the bottom of exterior concrete columns near grade. The spalls were moderate, with exposed reinforcing in some cases. Damage to the columns was typically observed to be a result of improper drainage of air conditioning units (water from the units drains directly on to the base of the column).

#### Recommended Scope of Work:

- O1 Conduct a structural survey of all exposed precast and cast-in-pace concrete elements. The survey shall document the type, location, size, and extent of all cracks and spalls (open and closed). The survey shall also document the location, extent, and condition of exposed pre-stressing tendons in precast pre-stressed concrete tees.
- O2 Fill all cracks and patch all spalls in cast-in-in place concrete columns, walls, and beams per approved concrete repair procedures.
- 03 Fill all cracks and patch all spalls in precast pre-stressed concrete tees per approved concrete repair procedures.

- O4 Thoroughly clean and remove all rust from exposed pre-stressing tendons in precast pre-stressed tees. Patch the areas around the exposed tendons per approved concrete repair procedures. If it is determined that loss of pre-stressing force in the tendon has occurred, additional reinforcing may be required. A suggested form of additional reinforcing is in the form of glass or carbon fiber sheets bonded to the underside of the web of the affected tee.
- 05 Remove all loose and cracked joint fill material from the underside of joints between precast pre-stressed tees. Install new joint filler at all joints.
- O6 A licensed structural engineer shall perform all surveys, design all concrete repair details, design all pre-stressing tendon repair details, and prepare all required specifications.

#### **ULLA MULLER ELEMENTARY SCHOOL BUILDINGS 3 AND 4**



#### **ULLA MULLER ELEMENTARY SCHOOL BUILDINGS 3 AND 4**



#### ULLA MULLER ELEMENTARY SCHOOL BUILDING 5

#### **Existing Conditions:**

Building 5 (Nurse/Special Education) is a two-story building framed in reinforced concrete and wood. Walls, columns, and floor slabs are cast-in-place concrete. The gable roof consists of plywood sheathing over prefabricated wood trusses.

On the east side of the building, the second floor framing cantilevers beyond the perimeter of the building to create a walkway for access to the second floor classrooms. Cantilever concrete beams of varying depth typically provide support for this second floor walkway. These cantilever beams were observed to be in poor condition due to severe and widespread spalls with exposed reinforcing. In some cases, the spalls are on the underside of the beam creating a life safety concern (falling hazard).

At one location, a simple-span concrete beam instead of a cantilever beam supports the second floor walkway. This simple-span beam spans between the perimeter of the building and a concrete wall supporting an exterior concrete stair. A large diagonal crack extending through most of the cross section was observed near the middle third of the span of this concrete beam. The crack appears to be a shear crack and given the brittle and unexpected nature of a shear failure, the damage on this beam is considered a life safety issue.

On the north, south, and west sides of the building, the second floor concrete slab cantilevers beyond the perimeter of the building to create a short awning. At the underside of this overhang, there are open and closed spalls that coincide with the spacing of what appears to be either reinforcing bars or some type of metal fitting. It has been reported that a large piece of concrete recently detached from the underside of this overhang and fell on top of the entrance to the nurse's room. It was also observed that the underside of the second floor slab at the walkway has been covered up with plywood. It is unknown whether the plywood was added as a protective measure against falling debris from spalled concrete.

#### Recommended Scope of Work:

- 01 Provide shoring as required at the second floor walkway slab and beams.
- 02 Remove plywood sheathing from the underside of second floor walkway slab. Patch all concrete spalls, if any, per approved concrete repair procedures.
- 03 Fill all cracks and patch all spalls at the cantilever portions of the second floor slab (awning on north, south, and west sides of the building) per approved concrete repair procedures.
- 04 Fill all cracks and patch all spalls at the cantilever concrete beams supporting the second floor walkway slab per approved concrete repair procedures.
- 05 Repair, reinforce, and/or replace the second floor walkway concrete beam spanning between building wall and stair wall.

#### **ULLA MULLER ELEMENTARY SCHOOL BUILDING 5**















