



**STUDIO  
FOUR  
DESIGN**

PROJECT MANUAL FOR:

## **JEFFERSON MIDDLE SCHOOL STRUCTURAL SETTLEMENT STABILIZATION REPAIR**

OAK RIDGE SCHOOL'S PROJECT NUMBER: RFP 18-004  
OAK RIDGE SCHOOLS BOARD OF EDUCATION  
BUSINESS DEPARTMENT  
304 NEW YORK AVE  
OAK RIDGE, TENNESSEE 37830

PROJECT ADDRESS:  
JEFFERSON MIDDLE SCHOOL  
200 FAIRBANKS ROAD  
OAK RIDGE , TENNESSEE 37830

DATE: 12/15/2017

PROJECT MANUAL PREPARED BY:  
STUDIO FOUR DESIGN, INC.

DRAWINGS PREPARED BY:  
CHAD STEWART & ASSOCIATES, INC.

**SECTION 00 0102**  
**PROJECT INFORMATION**

**PART 1 GENERAL**

**1.01 PROJECT IDENTIFICATION**

- A. Project Name: Jefferson Middle School Structural Settlement Stabilization Repair, located at:  
Jefferson Middle School.  
200 Fairbanks Road  
Oak Ridge, Tennessee 37830
- B. The Owner, hereinafter referred to as Oak Ridge Schools: Oak Ridge Schools Board of Education
- C. Oak Ridge Schools' Project Manager: Allen Thacker
  - 1. Department: Supervisor of Maintenance and Operations
  - 2. Phone/Fax: 865-425-3171 / 865-425-3188
  - 3. E-mail: rthacker@ortn.edu

**1.02 NOTICE TO PROSPECTIVE BIDDERS**

- A. These documents constitute an Invitation to Bid to and request for qualifications from General Contractors for the construction of the project described below.
- B. Notice Date: 02/09/18.

**1.03 PROJECT DESCRIPTION**

- A. Summary Project Description: Structural repairs for approximately 85 linear feet on the southwestern wall and 31 linear feet of the southern wall consisting of installing push piers, repairing masonry in work area, recaulking affected window frames, raising stairwell slab.
- B. The southwestern wall must be stabilized and repaired for a length of approximately 85'-0". This length should roughly correspond to the distance from the corner of the building to the 3rd classroom window bay, and the extent of the required repair shall be field verified.
- C. Excavate as required to fully expose the foundation at each pier location. To install the push piers, the existing strip footing must be exposed and removed as required to install the retrofit brackets.
- D. Install PP288 push piers with FS288B grout filled retrofit brackets having a 48" long external sleeve. Each push pier will be loaded to a maximum service load of approximately 20,000 lb. To ensure an adequate safety factor of 1.5, each push pier must be embedded to refusal and must be individually loaded to 31,000 lb (+/- 1000 lb). Refusal is assumed to typically occur 50'-0" below grade.
- E. The first push pier shall be installed approximately 2'-0" from the corner of the building and spaced at 4'-0" on center maximum thereafter.
- F. Once the brackets are installed and the push piers have reached refusal and have been fully loaded, the foundation repair specialist shall incrementally raise the building as much as possible without causing additional damage to the exterior wall.
- G. The southern wall must also be stabilized and repaired for a length of approximately 31'-0". This length should roughly correspond to the distance from the corner of the building to the face of the cast-in-place retaining wall, and the extent of the required repair shall be field verified.
- H. The southern wall foundation most likely steps down with grade to tie into the basement retaining wall foundation. Excavation to the bottom of the existing foundation will be required to properly install the push piers.
- I. The procedures described in the above steps shall be repeated for the southern wall.

- J. Once the foundation repairs have been made and the building has been raised as recommended above, the damaged brick veneer on the southern face of the building shall be removed and replaced. All brick veneer that has been separated from the CMU backing shall be removed and re-installed using new anchors. Anchor the new brick veneer with DA5801 Durawall post-installed brick ties at a maximum spacing of 32" on center horizontally and 18" on center vertically.
- K. The existing window frames must be re-set and re-caulked all around to ensure no additional water infiltration or leaking is possible. Seal the windows and doors with an elastomeric sealant such as SikaFlex15-LM, or as referenced in Section 07 9200.
- L. The existing slab-on-grade within the stairwell appears to be a floating slab and appears to have settled approximately 2". The subgrade below the slab shall be injected with pressure injected polyurethane foam to consolidate the subgrade and raise the stairwell slab back to its original position.
- M. Any remaining masonry cracks shall be patched with an elastomeric sealant such as SikaFlex15-LM, or as referenced in Section 07 9200, and repainted as required. It is important to note that this sealant will tolerate additional movement and will be ideal for patching the remaining masonry cracks.
- N. The sealed, repaired, and patched cracks shall be monitored after the foundation repairs have been made to ensure that no additional movement is occurring.
- O. Due to the extent of the damage, we estimate the need for approximately 32 push piers, approximately 400 square feet of pressure injected polyurethane foam, approximately 300 square feet of brick repair and localized crack patching and painting as required.

#### **1.04 PROCUREMENT TIMETABLE**

- A. Last Request for Substitution Due: 7 days prior to due date of bids.
- B. Last Request for Information Due: 7 days prior to due date of bids.
- C. Bid Due Date: February 9, 2018, before 2 PM local time.
- D. Bid Opening: February 9, 2018, 2 PM local time.
- E. Bids May Not Be Withdrawn Until: 30 days after due date.
- F. Contract Time: To be stated in bid documents.
- G. Desired Construction Start: June 5, 2018.
- H. Desired Final Completion Date: Not later than July 22, 2018.
- I. Completion date is critical due to requirements of Owner's operations.
- J. The Oak Ridge Schools reserves the right to change the schedule or terminate the entire procurement process at any time.

#### **1.05 PROCUREMENT DOCUMENTS**

- A. Availability of Documents: Complete sets of procurement documents may be viewed at:
  1. Oak Ridge School's Business Department address listed on cover.
- B. Documents may be viewed via the following web link <https://www.ortn.edu/central-office/business-and-operations/bid-information/> .

**END OF SECTION**

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ADVERTISEMENT FOR BIDS**

**FROM:**

**1.01 THE OAK RIDGE SCHOOLS (HEREINAFTER REFERRED TO AS OAK RIDGE SCHOOLS):**

- A. Oak Ridge Schools Board of Education
- B. Address:
  - Oak Ridge Schools
  - Business Services
  - School Administration Building
  - 304 New York Avenue
  - Oak Ridge, TN, 37830
- C. Phone:
  - (865) 425-9005
  - (865) 425-9060

**1.02 AND THE STRUCTURAL ENGINEER (HEREINAFTER REFERRED TO AS STRUCTURAL ENGINEER):**

- A. Chad Stewart & Associates, Inc.
- B. Address:
  - 800 South Gay Street. Suite 1625
  - (865) 329 9920

**1.03 AND THE ARCHITECT (HEREINAFTER REFERRED TO AS ARCHITECT):**

- A. Studio Four Design, Inc.
- B. Address:
  - 414 Clinch Avenue
  - (865) 523-5001

**1.04 DATE: FEBRUARY 9, 2018**

**1.05 TO: POTENTIAL BIDDERS**

- A. Your firm is invited to submit an offer to Oak Ridge Schools for structural repairs of a Jefferson Middle School delivered to the Oak Ridge Schools Business Department before 2:00 pm local standard time on the 9th day of February, 2018, for:
- B. Project: Jefferson Middle School Structural Settlement Stabilization Repair
- C. Oak Ridge Schools' Project Number: RFP 18-004
- D. A **MANDATORY** Pre-bid Meeting will take place on Wednesday, January 24, 2018, at 2:30 PM ET at Jefferson Middle School, 200 Fairbanks Road, Oak Ridge TN 37830.
- E. Submit your offer on the Bid Form provided. Two full copies of the bid must be submitted, each with original signatures on both forms.
- F. Every document must be enclosed in an envelope clearly marked as a bid document and include TN contractor license information.
- G. Any response, bid, or proposal received after the above deadline shall be considered late, and will not be opened or considered.
- H. Facsimile or emailed responses will not be considered.
- I. Your offer will be required to be submitted under a condition of irrevocability for a period of 30 days after submission.

- J. The Owner reserves the right to accept or reject any or all offers.
- K. All documents shall be submitted to the following address:
  - Oak Ridge Schools
  - Mary Casteel-Waters, Purchasing Specialist
  - Re: Jefferson Middle School Structural Settlement Stabilization Repair
  - RFP 18-004
  - 304 New York Ave Oak Ridge, TN 37830
- M. Conflict of Interest: All bidders must disclose with their bid the name of any officer, director, or agent who is also an employee of the State of Tennessee, or any of its agencies (which includes Oak Ridge Schools). Further, all bidders must disclose the name of any state or Oak Ridge School employee who owns, directly or indirectly, an interest in the bidder's firm or any of its branches. Bidding by state or Oak Ridge School employees is prohibited.
- N. The awarded bidder will be required to post a performance and payment bond in the amount of 25% of the contract price if it exceeds \$100,000 as stated by State of Tennessee Code Annotated 12-4-201.

**END OF SECTION**

**SECTION 00 2113  
INSTRUCTIONS TO BIDDERS**

**SUMMARY**

**1.01 THE INSTRUCTIONS IN THIS DOCUMENT AMEND OR SUPPLEMENT THE INSTRUCTIONS TO BIDDERS AND OTHER PROVISIONS OF THE BIDDING AND CONTRACT DOCUMENTS.**

**1.02 RELATED DOCUMENTS**

- A. Document 00 4100 - Bid Form
- B. Document 00 4325 - Substitution Request Form
- C. Document 00 5000 - Contracting Forms and Supplements

**INVITATION**

**2.01 BID SUBMISSION**

- A. Bids signed and under seal, executed, and dated will be received at Oak Ridge Schools Business Department before 2:00 pm local standard time on the 9th day of February, 2018.

Mary Casteel-Waters, Purchasing Specialist

RE: Jefferson Middle School Structural Settlement Stabilization Repair RFP 18-004

304 New York Ave

Oak Ridge, TN 37830

- B. Offers submitted after the above time shall be returned to the bidder unopened.
- C. Only bids returned with the proper bid form will be accepted. Envelopes must be sealed and marked as a bid document. Any bid may be withdrawn prior to the date and time as set forth above.
- D. Offers will be opened publicly immediately after the time for receipt of bids.
- E. Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.
- F. Tennessee Contractors License: In accordance with the Tennessee contractors licensing act of 1994, as amended, (t.c.a. sections 62-6-101, et seq.) For bids of twenty-five thousand dollars (\$25,000) or more, the person or firm awarded this contract must have a current Tennessee contractor's license. In addition, subcontractors doing work covered by the act must also have a current Tennessee contractor's license. It is essential that the following information appear on the outside lower left corner of the envelope/package containing your bid:
  - 1) Date and closing time of bid
  - 2) The name, license number, expiration date thereof, and license classification for the bidder/prime contractor.
- G. Title VI of the Civil Rights Act of 1964: All interested parties, without regard of race, color, or national origin, shall be afforded the opportunity to bid and shall receive equal consideration. Title VI states "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program activity receiving Federal financial assistance." Oak Ridge Schools strives to protect individuals' civil rights through active compliance with the requirements of Title VI.
- H. For bids less than twenty-five thousand dollars (\$25,000) no contractor's license is required, however, the bidders name and address should appear in the upper left corner of the envelope, with the collective number and due date and time of opening shown in the lower left corner of the envelope/package containing your bid.

- I. When an error is made in extending total prices, the unit bid price will govern. Carelessness in quoting prices or in preparation of bid otherwise, will not relieve the bidder. Erasures or changes to bids must be initiated by the same party or parties who signed and sealed the offer. Any alteration, erasure, addition to or omission of required information, change of the specifications, or bidding schedule, is made at the risk of the bidder.
- J. Invoices that are submitted by the awarded bidder are required to provide accurate and current addresses. Payment terms shall be specified in the bid response, including any discounts for early payment. The Oak Ridge Schools Business Department discourages the practice of picking up checks in person, unless there is an emergency situation.
- K. The bidder's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

## **2.02 INTENT**

- A. The intent of this Bid request is to obtain an offer to perform work to complete Structural Repairs located at Jefferson Middle School for a Stipulated Sum contract, in accordance with the Contract Documents.

## **2.03 CONTRACT TIME**

- A. Oak Ridge Schools requires the work for Jefferson Middle School Structural Settlement Stabilization Repair to start on or about June 5, 2018, and be completed no later than July 22, 2018. A penalty of \$250.00 per day will be assessed for each day after July 22, 2018, if the project is not complete.

## **BID DOCUMENTS AND CONTRACT DOCUMENTS**

### **3.01 DEFINITIONS**

- A. Bid Documents: Contract Documents supplemented with Invitation To Bid, Instructions to Bidders, Information Available to Bidders, Bid Form Supplements To Bid Forms and Appendices identified.
- B. Contract Documents: Defined in AIA A201 Article 1 including issued Addenda.
- C. Bid, Offer, or Bidding: Act of submitting an offer under seal.
- D. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.

### **3.02 CONTRACT DOCUMENTS IDENTIFICATION**

- A. The Contract Documents are identified as Project Number 16639, as prepared by Structural Engineer, Chad Stewart & Associates, who is located at 800 S. Gay Street, Suite 1625, Knoxville TN 37929, and with contents as identified in the Table of Contents.

### **3.03 AVAILABILITY**

- A. Bid documents may be obtained at the following online link: <https://www.ortn.edu/central-office/business-and-operations/bid-information/> .
- B. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

### **3.04 EXAMINATION**

- A. Bid Documents may be viewed at the following online link: <https://www.ortn.edu/central-office/business-and-operations/bid-information/> .
- B. Upon receipt of Bid Documents verify that documents are complete. Notify Structural Engineer should the documents be incomplete.
- C. Immediately notify Structural Engineer upon finding discrepancies or omissions in the Bid Documents.

### **3.05 INQUIRIES/ADDENDA**

- A. Direct questions to Architecture Project Manager, Jacene Phillips, email; [jphillips@s4dinc.com](mailto:jphillips@s4dinc.com).
- B. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by bidders must be in writing not less than 7 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients and Oak Ridge Schools.

### **3.06 PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS**

- A. Where the Bid Documents stipulate a particular product, substitutions will be considered up to 10 days before receipt of bids. However, regardless of the date received, consideration of substitution requests is not an obligation of the Designer or Owner and the Designer will determine if sufficient time is available for evaluation of the request.
- B. Submit substitution requests by completing the form in Section 00 4325 - Substitution Request Form; see this section for additional information and instructions. Use only this form; other forms of submission are unacceptable.
- C. When a request to substitute a product is made, Structural Engineer may approve the substitution and will issue an Addendum to known bidders.
- D. In submission of substitutions to products specified, bidders shall include in their bid all changes required in the Work and changes to Contract Time and Contract Sum to accommodate such substitutions. A later claim by the bidder for an addition to the Contract Time or Contract Sum because of changes in work necessitated by use of substitutions shall not be considered.
- E. The submission shall provide sufficient information to determine acceptability of such products.
- F. Provide complete information on required revisions to other work to accommodate each proposed substitution.
- G. Bidders submitting bids in reliance upon a substitution when the substitution has not been approved prior to bidding do so at their own risk.
- H. Provide products as specified unless substitutions are submitted in this manner and accepted.

## **SITE ASSESSMENT**

### **4.01 SITE EXAMINATION**

- A. Examine the project site before submitting a bid.

### **4.02 PREBID CONFERENCE**

- A. A mandatory bidders conference has been scheduled for 2:30 p.m. on the 24th day of January at the location of Jefferson Middle School.
- B. All general contract bidders and suppliers are invited.
- C. Representatives of Structural Engineer will be in attendance.
- D. Summarized minutes of this meeting will be circulated to attendees. These minutes will not form part of the Contract Documents.
- E. Information relevant to the Bid Documents will be recorded in an Addendum, issued to Bid Document recipients.

## **QUALIFICATIONS**

### **5.01 EVIDENCE OF QUALIFICATIONS**

- A. To demonstrate qualification for performing the Work of this Contract, bidders may be requested to submit written evidence of previous experience, license to perform work in the State.

### **5.02 SUBCONTRACTORS/SUPPLIERS/OTHERS**

- A. Oak Ridge Schools reserves the right to reject a proposed subcontractor for reasonable cause.
- B. The Bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a sub-contract under this contract must be acceptable to the Owner.

## **BID SUBMISSION**

### **6.01 SUBMISSION PROCEDURE**

- A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.
- B. Submit two copies of the executed offer on the Bid Forms provided, signed and sealed with the required security in a closed opaque envelope, clearly identified with bidder's name, project name and Oak Ridge Schools' name on the outside.
- C. Warranty: The bidder shall provide warranty information on the equipment, components and items bid with the bid submittal.

### **6.02 BID INELIGIBILITY**

- A. Bid Forms, Appendices, and enclosures that are improperly prepared will, at the discretion of Oak Ridge Schools, be declared unacceptable.

## **BID ENCLOSURES/REQUIREMENTS**

### **OFFER ACCEPTANCE/REJECTION**

#### **7.01 DURATION OF OFFER**

- A. Bids shall remain open to acceptance and shall be irrevocable for a period of thirty (30) days after the bid closing date.

#### **7.02 ACCEPTANCE OF OFFER**

- A. The owner (Oak Ridge Schools) further reserves the right to reject any and all bids, to waive any and all informalities and to negotiate contract terms with the successful bidder (e.g., product line-item deletions or adjustments), and the right to disregard all non-conforming, non-responsive, or conditional bids. Oak Ridge Schools may conduct such investigations, as it deems necessary, to assist in the evaluation of any bid to establish the responsibility qualifications, and financial ability of the bidder, proposed sub-contractors and other persons and organizations to perform the work in accordance with the contract documents to the bidder who does not pass any such evaluation to the owner's satisfaction. The contract shall be awarded to the bidder, whose evaluation by the owner indicates to the owner that the award will be in the best interest of Oak Ridge Schools. It is also understood that the "apparent low bidder" will be announced at the bid opening; however the "successful bidder," who may or may not be the lowest bidder, will not be announced until all issues, which include, but are not limited to quality, service, conformity to specifications, etc. have been resolved and until a period of review has been completed by the owner. Oak Ridge Schools does not enter into contracts that provide for mediation or arbitration.
- B. If two or more bidders submit identical bids and is equally qualified; selection shall be made at the discretion of the owner.

- C. No purchase or contract is authorized or valid until the issuance of an Oak Ridge Schools Purchase Order in accordance with Oak Ridge Schools Policy. No employee is authorized to purchase equipment, supplies or services prior to the issuance of such a Purchase Order.
- D. After acceptance by Oak Ridge Schools, Structural Engineer on behalf of Oak Ridge Schools, will issue to the successful bidder, a written Notice to Proceed.

**END OF SECTION**

## Bid Form

Owner: Oak Ridge Schools Board of Education Mary  
Casteel-Waters, Purchasing Specialist  
RE: RFP 18-004 Jefferson Middle School Structural Settlement  
Stabilization Repair  
School Administration Building  
304 New York Ave  
Oak Ridge, TN 37830

Project: Jefferson Middle School Structural Settlement Stabilization Repair – RFP 18-004

Bid Opening: Friday, February 9, 2018 at 2:00 PM ET;  
Business Office Conference Room

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Main Bid: ***This Price is to be for the complete package, materials, licenses and labor to complete this project. Having examined the Place of The Work and all matters referred to in the Instructions to Bidders and the Contract Documents prepared by Chad Stewart & Assoc. Inc and Studio Four Design Inc. for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the Sum of:***

Bid Amount: \_\_\_\_\_dollars.

(\$ \_\_\_\_\_), in lawful money of the United States of America

Company: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**SECTION 00 4322  
UNIT PRICES FORM**

**PARTICULARS**

**1.01 THE FOLLOWING IS THE LIST OF UNIT PRICES REFERENCED IN THE BID SUBMITTED BY:**

**1.02 (BIDDER) \_\_\_\_\_**

**1.03 TO (OAK RIDGE SCHOOLS ): OAK RIDGE SCHOOLS BOARD OF EDUCATION**

**1.04 THE FOLLOWING ARE UNIT PRICES FOR SPECIFIC PORTIONS OF THE WORK AS LISTED, AND ARE APPLICABLE TO AUTHORIZED VARIATIONS FROM THE CONTRACT DOCUMENTS.**

**UNIT PRICE LIST**

**2.01 ITEM DESCRIPTION**

**2.02 BRICK REPLACEMENT: BY THE SQUARE FOOT. INCLUDES REMOVING DAMAGED BRICK AS REQUIRED FOR REPAIR AND SUPPORT ADJACENT MASONRY VENEER. PREP AREA FOR NEW BRICK, INSTALL NEW BRICK AND MORTAR TO MATCH EXISTING, CLEAN AND AGE MORTAR AND BRICK VENEER TO MATCH ADJACENT MASONRY.**

\_\_\_\_\_  
**UNIT QUANTITY (SF)      UNIT VALUE**

**2.03 REPOINTING: BY THE SQUARE FOOT. INCLUDES REMOVING EXISTING MORTAR AT HORIZONTAL AND VERTICAL JOINTS TO 1/2" DEPTH, PREPPING THE WALL, INSTALLING NEW MORTAR, AND CLEAN AND AGE MORTAR TO MATCH EXISTING ADJACENT MORTAR JOINTS.**

\_\_\_\_\_  
**UNIT QUANTITY (SF)      UNIT VALUE**

**END OF UNIT PRICES FORM**

**SECTION 00 4325  
SUBSTITUTION REQUEST FORM**

To: Jefferson Middle School Structural Settlement Stabilization Repair:  
Attention: Oak Ridge School's No.:  
Specified Item Name and Manufacturer: Proposed Substitute Item Name and Manufacturer:

1. The following are attached (mark all that apply):

COMPLETE DESCRIPTION                       CATALOG  
 LABORATORY TESTS                               SPEC DATA

2. This substitution will have the following effects on dimensions, gauges, weights, etc.:

3. This substitution will have the following effects on wiring, piping, ductwork, etc.:

4. This substitution will have the following effects on other trades:

5. This substitution will have the following effect on construction Schedules:

6. The proposed substitute(s) differs from the specified product(s) in quality and performance as follows:

7. Manufacturer guarantees for the substitute(s) and the specified product(s) are (check one):  
 THE SAME             DIFFERENT (if different, explain below)

8. Information on the availability of maintenance services and replacement materials for proposed substitute(s) is provided on an attached sheet if applicable.  
 ATTACHED             NOT APPLICABLE

9. Names, addresses, and phone numbers of fabricators and suppliers for proposed substitute(s) are provided on an attached sheet if applicable.  
 ATTACHED             NOT APPLICABLE

10. If the proposed substitution is accepted, it will result in:  
 NO COST IMPACT             A COST INCREASE OF \$ \_\_\_\_\_  
 A COST DECREASE OF \$ \_\_\_\_\_  
*Attach itemization if a change in cost is indicated.*

11. License fees or royalties are pending on the proposed substitute.  
 NO     YES (if yes, explain below)

12. **The undersigned or the firm represented shall pay** for additional studies, investigations, submittals, redesign, and analysis by the Designer necessitated by this substitution request. Payment does not guarantee acceptance.  
*Substitutions must be requested in accordance with applicable Contract requirements. After bidding, substitutions are to be submitted only by Contractor. Substitute products should not be ordered or installed without written acceptance.*

**SUBMITTED BY:**

Signature:

Printed Name:

Date:

Firm Name:

**DESIGNER REVIEW AND COMMENTS:**

\_\_\_ ACCEPTED

\_\_\_ REJECTED

\_\_\_ REJECTED (received too late)

\_\_\_ REJECTED (submitted incomplete)

COMMENTS:

Signature:

Printed Name:

Date:

Firm Name:

**END OF SECTION**

**SECTION 00 5000  
CONTRACTING FORMS AND SUPPLEMENTS**

**PART 1 GENERAL**

**1.01 AGREEMENT AND CONDITIONS OF THE CONTRACT**

- A. The Agreement and General Conditions are based on AIA A105.

**1.02 FORMS**

- A. Bidding Forms:
1. Drug-Free Workplace Affidavit (Attached)
    - a. Successful bidders entering into a contract with Oak Ridge Schools shall be required to complete the attached Drug Free Workplace Affidavit form in compliance with the provisions of Tennessee Code Annotated § 50-9-113.
  2. Hold Harmless Agreement (Attached)
    - a. Bidders shall be required to complete the attached Hold Harmless Agreement.
  3. Non-Collusion Affidavit (Attached)
    - a. Bidder shall be required to complete the attached Non-Collusion Affidavit.
  4. Criminal Background Compliance Affidavit (Attached)
    - a. Bidder shall be required to complete the attached Criminal Background Compliance Affidavit (Attached)
  5. Unit Prices Form, Section 00 4322
- B. Post-Award Certificates and Other Forms:
1. Application for Payment Forms: AIA G702.
- C. Closeout Forms:
1. Certificate of Substantial Completion Form, AIA G704.
  2. Affidavit of Release of Liens Form.
  3. Warranty Form.

**1.03 REFERENCE STANDARDS**

- A. AIA A105 - Standard Form of Agreement Between Owner and Contractor for a Residential or Small Commercial Project; 2007.
- B. AIA G702 - Application and Certificate for Payment; 1992.
- C. AIA G704 - Certificate of Substantial Completion; 2000.

**DRUG-FREE WORKPLACE AFFIDAVIT**

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

The undersigned, principal officer of \_\_\_\_\_,  
An employer of five (5) or more employees contracting with Oak Ridge School District to  
provide construction services, hereby states under oath as follows:

1. The undersigned is a principal officer of \_\_\_\_\_ (hereafter referred to as the  
"Company"), and is duly authorized to execute this Affidavit on behalf of the  
Company.
  
2. The Company submits this Affidavit pursuant to T.C.A. § 50-9-113 which  
requires each employer with no less than five (5) employees receiving pay who  
contracts with the state or any local government to provide construction services  
to submit an affidavit stating that such employer has a drug-free workplace  
program that complies with Title 50, Chapter 9, of the Tennessee Code Annotated.
  
3. The Company is in compliance with the terms of T.C.A. § 50-9-113.

Further affiant saith naught.  
Principal Officer

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

Before me personally appeared \_\_\_\_\_ with  
whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and  
who acknowledged that he/she is the \_\_\_\_\_ of  
\_\_\_\_\_ and is authorized to execute this instrument  
on behalf of the principal for the purposes therein contained.

Witness my hand and seal at office this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

**HOLD HARMLESS AGREEMENT**

This Hold Harmless Agreement is between \_\_\_\_\_

Name of Contractor

(hereinafter Contractor), and Oak Ridge Schools named in this bid.

Contractor agrees that as a condition precedent to "Contractor" being awarded a contract from Oak Ridge Schools, "Contractor" agrees to indemnify, protect, defend, and hold harmless Oak Ridge Schools, its Board Members, agents, and employees from all judgments, claims, demands for payment, suits or actions of every nature and description brought against Oak Ridge Schools, its Board Members, agents, and employees alleging injuries or damages sustained by any person arising out of or in the course of "Contractor's" providing goods or services to Oak Ridge Schools.

Name of Contractor: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

**STATE OF TENNESSEE**

County of Anderson

\_\_\_\_\_ personally appeared before me, the undersigned, with whom I am personally acquainted and who, upon oath, acknowledged that he/she/it executed the within instrument for the purposes therein contained, and who further acknowledge that he/she/it is authorized to execute this interment on behalf of \_\_\_\_\_.

\_\_\_\_\_  
Signature

Witness my hand and Notaries seal at office this \_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

**NON-COLLUSION AFFIDAVIT**

NON-COLLUSION AFFIDAVIT TO BE  
EXECUTED BY BIDDER/BUILDER

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_, being first duly sworn, deposes and says that he or she is of the party making the foregoing bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder neither possesses a business relationship with any employee of the District which may be involved in the award or administration of the project nor has received or solicited either directly or indirectly any inside information from an employee of the District which would give the bidder an advantage over any other bidder; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract or any interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price of any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Subscribed and sworn to (or affirmed) before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
Signature of Officer

\_\_\_\_\_  
Typed Name of Officer

\_\_\_\_\_  
Office

**WARNING! PROPOSALS WILL NOT BE CONSIDERED UNLESS THIS AFFIDAVIT IS COMPLETED AND EXECUTED, INCLUDING THE AFFIDAVIT OF THE NOTARY AND THE NOTORIAL SEAL**

**CRIMINAL BACKGROUND COMPLIANCE AFFIDAVIT**

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

The undersigned, principal officer of \_\_\_\_\_, an Employer contracting with the Oak Ridge School Board of Education to provide services having direct contact with children or access to grounds of an Oak Ridge public school while students are on grounds, hereby states under oath as follows:

1. The undersigned is a principal officer of \_\_\_\_\_ (hereafter referred to as the "Company"), and is duly authorized to execute this Affidavit on behalf of the Company.
2. The Company submits this Affidavit pursuant to T.C.A. § 49-5-413 as amended effective September 1, 2007, for entities entering into contracts with a local board of education where the Company's employees will have direct contact with school children or access to the grounds of a school when children are present. It is the duty of the Company to require applicants supply a fingerprint sample and submit to a criminal history records check to be conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation prior to permitting the person to have contact with such children or enter school grounds and to take certain other actions based upon the results of the records check.
3. The Company is in compliance with the terms of T.C.A. § 49-5-413.

Further affiant saith naught.  
Principal Officer

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

Before me personally appeared \_\_\_\_\_ with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who acknowledged that he/she is the \_\_\_\_\_ of \_\_\_\_\_ and is authorized to execute this instrument on behalf of the principal for the purposes therein contained.

Witness my hand and seal at office this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

**END OF SECTION**

**SECTION 00 7200  
GENERAL CONDITIONS**

**FORM OF GENERAL CONDITIONS**

**1.01 GENERAL CONDITIONS:**

- A. **Taxes:** Oak Ridge Schools is exempt from federal excise taxes and from state sales taxes on purchases of tangible personal property. Copies of the appropriate exemption documentation will be provided upon request. Contractors are responsible for the payment of taxes on tangible personal property which they use in the completion of their contracts, for which sales taxes have not otherwise been paid, irrespective of who holds title to the property or for whom the work is done. Applicable taxes are to be itemized on invoices submitted for payment. **BIDDERS ARE RESPONSIBLE FOR DETERMINING THE APPLICABILITY OF TAXES.**
- B. **Controlling Documents:** Compliance with Oak Ridge Schools' purchase order will be subject to all terms and conditions which comprise Oak Ridge Schools' General and Special Bid Conditions, if any, unless an exception is taken by the bidder to which Oak Ridge Schools has concurred in writing.
- C. **Legal Requirements:** The successful bidder shall be responsible for compliance with all federal, state and local laws, ordinances, rules and regulations that in any manner affect the items covered herein. Lack of knowledge by the bidder will in no way be a cause for relief from responsibility for their bid.
- D. Final payment will not be made until the said Jefferson Middle School Structural Repairs are inspected and approved as meeting all specifications by persons appointed by Oak Ridge Schools.
- E. No purchase or contract is authorized or valid until the issuance of an Oak Ridge Schools Purchase Order in accordance with Oak Ridge Schools Policy. No employee is authorized to purchase equipment, supplies or services prior to the issuance of such a Purchase Order.
- F. Furnish all materials, labor and equipment to complete the work, per Scope of Work below.
- G. **Default of Contractor:** In the event the Contractor defaults in performing this Contract, the Contractor agrees to pay Oak Ridge Schools all reasonable costs incurred in remedying such default, including a reasonable Attorney's fee.
- H. The awarded bidder will be required to post a performance and payment bond in the amount of 25% of the contract price if it exceeds \$100,000 as stated by State of Tennessee Code Annotated 12-4-201.
- I. **Personnel Supervision:** It shall be understood that the work required under this contract shall be under the supervision of properly qualified representative of the successful bidder. Work required shall be performed in the best and most workmanlike manner by the competent laborers.
- J. **Protect Oak Ridge Schools Property:** The successful bidder will be held responsible for any damage to Oak Ridge Schools property caused by his work or workmen. The property shall be restored to its original condition as required by Oak Ridge Schools.
- K. **Danger & Warning Signs:** Danger warnings and safety signs where necessary shall be erected and maintained by the Contractor at his expense.
- L. **Preserve Vegetation:** The Contractor shall preserve and protect all existing vegetation such as trees, shrubs, flowers and grass, on the site, which do not interfere with the construction as determined by Oak Ridge Schools. The Contractor will be liable for all unauthorized cutting or damaging of trees and shrubs. Including damage due to careless operation of equipment or tracking of grass areas by equipment. The Contractor shall be required to replace or restore, at his own expense, all vegetation not protected and preserved as required herein and may be destroyed or damaged.
- M. **Clean Up & Acceptance:** The Contractor shall at all times keep the construction area, including the storage areas reasonably free from accumulation of waste material and rubbish; and prior to completion of the work, shall remove any rubbish from and about these areas, as well as all

tools, scaffolding equipment and materials, subject to the approval of Oak Ridge Schools. As soon as practicable after completion of the work, a thorough examination thereof will be made by Oak Ridge Schools at the site of the work. If this work is found to comply fully with the requirements of the agreement, it will be accepted and final payment will be made.

- N. **General Guarantee of One Year:** Neither the final certificate of payment nor any provision in the contract documents nor partial or entire use of area by Oak Ridge Schools shall constitute an acceptance thereof if not in accordance with the contract documents or relieve the contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The contractor shall promptly remedy any defects, including leakage, design defects, defective materials and/or contraction, without cost to Oak Ridge Schools which shall appear within a period of one year from the date of final acceptance unless a longer period is specified. Oak Ridge Schools will give notice of observed defects with reasonable promptness.
- O. If the bidder takes exception to anything in the specifications or terms and conditions, the exception must be listed in bid. If necessary, you may supplement with an attachment. If no exceptions are taken, mark bid "No Exceptions Are Taken". If no comments on exceptions are furnished, it will be assumed that no exceptions are being taken.
- P. In compliance with the requirements of Chapter 878, Public Acts of 2006, the Contractor hereby attests that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this contract.
- Q. Successful bidders entering into a contract with Oak Ridge Schools shall be required to complete a Drug Free Workplace Affidavit form in compliance with the provisions of Tennessee Code Annotated § 50-9-113
- R. Subcontractors and employees: If work is to be performed during regular school hours when children are present, the BOE reserves the right to require background checks, dress codes, and certain ethical standards of all employees on school property.
- S. Oak Ridge Schools is tax exempt.
- T. Contracts with Oak Ridge Schools will be subject to the laws of Tennessee. Disputes will be tried in the State of Tennessee and in the Court of Anderson County. Bids will be denied if these provisions are not included in the contract.
- U. Oak Ridge Schools will indemnify vendor to the extent Tennessee law allows.
- V. All applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.
- W. All applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

#### **1.02 WARRANTY AND GUARANTEE**

- A. The contractor shall provide a full warranty on the work against defects in materials and workmanship for a period of not less than (1) year. The manufacturer and/or installer shall be advised in writing of any defects discovered during the warranty period.
- B. The contractor shall respond within thirty (30) days of any notice of discovery of defects and shall make repairs, weather permitting, during the thirty (30) day period.
- C. A written warranty and guarantee is required from the manufacturer and one from the installer and shall be submitted with the final billing. If the manufacturer and installer are the same entity, only one warranty need be submitted. A detailed statement should be include the period of time involved as well as the specific details of the warranty.
- D. The submitted warranty will include a detailed roster of maintenance and care instructions. The Owner shall follow these instructions for the warranty to remain in force.

- E. Contactor shall obtain and pay for all permits, licenses, etc., as required by the City and County where the work is to be performed and by the State of Tennessee and shall give all legal notices and pay all fees required for the work.
- F. The successful bidder shall not assign this contract or any part thereof, or any money due or to become due hereunder, without the written approval of Oak Ridge Schools.
- G. Oak Ridge Schools may require of the successful bidder sufficient information to establish financial responsibility; that he has adequate facilities and personnel; plus any other information which may be requested by Oak Ridge Schools which it deems necessary to establish the successful bidder's ability to perform this work.
- H. Should any defective work be discovered, which, in the opinion of Oak Ridge Schools cannot be accepted, the same shall at once be removed and replaced at the Contractor's expense.

**1.03 SITE CLEANUP AND RESTORATION**

- A. The contractor will properly protect all school district property, structures, and equipment throughout the performance of the work.
- B. The contractor will conduct daily clean-up of material and equipment, ensuring the work site is kept clean and safe at all times. Proper warning signs and barricades will be used to warn the public to remain clear of operations.
- C. The contractor will restore all concrete, asphalt, grass, exterior cladding, flashing, structures, interior finishes and equipment to its pre-construction condition if damaged during construction operations.

**END OF SECTION**

**SECTION 01 2000  
PRICE AND PAYMENT PROCEDURES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Procedures for preparation and submittal of applications for progress payments.
- B. Documentation of changes in Contract Sum and Contract Time.
- C. Procedures for preparation and submittal of application for final payment.

**1.02 RELATED REQUIREMENTS**

- A. Section 00 5000 - Contracting Forms and Supplements: Forms to be used.

**1.03 APPLICATIONS FOR PROGRESS PAYMENTS**

- A. Payment Period: Monthly or at the end of the project.
- B. Form to be used: AIA G702.
- C. Forms filled out by hand will not be accepted.
- D. Execute certification by signature of authorized officer.
- E. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed and for stored products.
- F. List each authorized Change Order as a separate line item, listing Change Order number and dollar amount as for an original item of Work.
- G. Submit three copies of each Application for Payment.
- H. Invoices are required to provide accurate and current addresses.
- I. The Oak Ridge Schools Business Department discourages the practice of picking up checks in person, unless there is an emergency situation.

**1.04 MODIFICATION PROCEDURES**

- A. For minor changes not involving an adjustment to the Contract Sum or Contract Time, Structural Engineer or Architect will issue instructions directly to Contractor.
- B. For other required changes, Structural Engineer or Architect will issue a document signed by Oak Ridge Schools instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.
  - 1. The document will describe the required changes and will designate method of determining any change in Contract Sum or Contract Time.
- C. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.
- D. Substantiation of Costs: Provide full information required for evaluation.
  - 1. Provide the following data:
    - a. Quantities of products, labor, and equipment.
    - b. Taxes, insurance, and bonds.
    - c. Overhead and profit.
    - d. Justification for any change in Contract Time.
    - e. Credit for deletions from Contract, similarly documented.
  - 2. For Time and Material work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract.
- E. Execution of Change Orders: Structural Engineer or Architect will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

- F. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum.
- G. Promptly revise progress schedules to reflect any change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.

**1.05 APPLICATION FOR FINAL PAYMENT**

- A. Prepare Application for Final Payment as specified for progress payments, identifying total adjusted Contract Sum, previous payments, and sum remaining due.

**END OF SECTION**

**SECTION 01 2200  
UNIT PRICES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. List of unit prices, for use in preparing Bids.
- B. Measurement and payment criteria applicable to Work performed under a unit price payment method.

**1.02 RELATED REQUIREMENTS**

- A. Document 00 4322 - Unit Prices Form: List of Unit Prices as supplement to Bid Form
- B. Section 01 2000 - Price and Payment Procedures: Additional payment and modification procedures.

**1.03 COSTS INCLUDED**

- A. Unit Prices included on the Bid Form shall include full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit.

**1.04 UNIT QUANTITIES SPECIFIED**

- A. Quantities indicated in the Bid Form are for bidding and contract purposes only. Quantities and measurements of actual Work will determine the payment amount.

**1.05 MEASUREMENT OF QUANTITIES**

- A. Measurement methods delineated in the individual specification sections complement the criteria of this section. In the event of conflict, the requirements of the individual specification section govern.
- B. Take all measurements and compute quantities. Measurements and quantities will be verified by Oak Ridge Schools and the Structural Engineer.
- C. Measurement by Area: Measured by square dimension using mean length and width or radius.

**1.06 PAYMENT**

- A. Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities of Work that is incorporated in or made necessary by the Work and accepted by the Structural Engineer, multiplied by the unit price.

**END OF SECTION**

**SECTION 01 7000**  
**EXECUTION AND CLOSEOUT REQUIREMENTS**

**PART 1 GENERAL**

**1.01 PROJECT CONDITIONS**

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

**1.02 COORDINATION**

- A. Coordinate scheduling, submittals, and work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Coordinate completion and clean-up of work of separate sections.
- C. After Oak Ridge Schools occupancy of premises, coordinate access to site for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Oak Ridge Schools' activities.

**PART 2 PRODUCTS**

**2.01 PATCHING MATERIALS**

- A. New Materials: As specified in product sections; match existing products and work for patching and extending work.
- B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.
- C. Product Substitution: For any proposed change in materials, submit request for substitution.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new work being applied or attached.
- C. Examine and verify specific conditions described in contract documents.
- D. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.
- E. Prior to Cutting: Examine existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of work. Beginning of cutting or patching means acceptance of existing conditions.

**3.02 PREPARATION**

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

**3.03 GENERAL INSTALLATION REQUIREMENTS**

- A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.
- B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

- C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.
- D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.
- E. Make neat transitions between different surfaces, maintaining texture and appearance.

### **3.04 ALTERATIONS**

- A. Keep areas in which alterations are being conducted separated from other areas that are still occupied.
- B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
  - 1. Where openings in exterior enclosure exist, provide construction to make exterior enclosure weatherproof.
  - 2. Insulate existing ducts or pipes that are exposed to outdoor ambient temperatures by alterations work.
- C. Remove existing work as indicated and as required to accomplish new work.
  - 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction.
  - 2. Remove items indicated on drawings.
  - 3. Where new surface finishes are not specified or indicated, patch holes and damaged surfaces to match adjacent finished surfaces as closely as possible.
- D. Protect existing work to remain.
  - 1. Prevent movement of structure; provide shoring and bracing if necessary.
  - 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
  - 3. Repair adjacent construction and finishes damaged during removal work.
- E. Adapt existing work to fit new work: Make as neat and smooth transition as possible.
- F. Remove demolition debris and abandoned items from alterations areas and dispose of off-site; do not burn or bury.
- G. Comply with all other applicable requirements of this section.

### **3.05 CUTTING AND PATCHING**

- A. See Alterations article above for additional requirements.
- B. Perform whatever cutting and patching is necessary to:
  - 1. Complete the work.
  - 2. Repair area damaged by foundation repair work.
  - 3. Remove and replace defective and non-conforming work.
- C. Execute work by methods that avoid damage to other work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.
- D. Restore work with new products in accordance with requirements of Contract Documents.
- E. Patching:
  - 1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
  - 2. Match color, texture, and appearance.
  - 3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

### **3.06 PROGRESS CLEANING**

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.

- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.
- C. Collect and remove waste materials, debris, and trash/rubbish from site periodically and dispose off-site; do not burn or bury.

### **3.07 CLOSEOUT PROCEDURES**

- A. Make submittals that are required by governing or other authorities.
- B. Notify Structural Engineer when work is considered ready for Structural Engineer's Substantial Completion inspection.
- C. Conduct Substantial Completion inspection and create Final Correction Punch List containing Structural Engineer's and Contractor's comprehensive list of items identified to be completed or corrected and submit to Structural Engineer, Oak Ridge School Representative and Architect.
- D. Correct items of work listed in Final Correction Punch List and comply with requirements for access to Oak Ridge Schools-occupied areas.
- E. Complete items of work determined by Structural Engineer listed in executed Certificate of Substantial Completion.
- F. A written warranty and guarantee is required from the manufacturer and one from the installer and shall be submitted with the final billing. If the manufacturer and installer are the same entity, only one warranty need be submitted. A detailed statement should be include the period of time involved as well as the specific details of the warranty. The submitted warranty will include a detailed roster of maintenance and care instructions. The Owner shall follow these instructions for the warranty to remain in force.

**END OF SECTION**

**SECTION 01 7800  
CLOSEOUT SUBMITTALS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Project Record Documents.
- B. Warranties and bonds.

**1.02 RELATED REQUIREMENTS**

- A. Individual Product Sections: Warranties required for specific products or Work.

**1.03 SUBMITTALS**

- A. Project Record Documents: Submit documents to Structural Engineer with claim for final Application for Payment.
- B. Operation and Maintenance Data:
  - 1. Submit two sets of revised final documents in final form within 10 days after final inspection.
- C. Warranties and Bonds:
  - 1. For equipment or component parts of equipment put into service during construction with Oak Ridge Schools's permission, submit documents within 14 days after acceptance.

**PART 2 PRODUCTS - NOT USED**

**PART 3 EXECUTION**

**3.01 PROJECT RECORD DOCUMENTS**

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Reviewed shop drawings, product data, and samples.
- B. Ensure entries are complete and accurate, enabling future reference by Oak Ridge Schools.
- C. Record information concurrent with construction progress.
- D. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and modifications.
- E. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured depths of foundations in relation to finish first floor datum.
  - 2. Field changes of dimension and detail.
  - 3. Details not on original Contract drawings.

**3.02 WARRANTIES AND BONDS**

- A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within 14 days after completion of the applicable item of work. Except for items put into use with Oak Ridge Schools' permission, leave date of beginning of time of warranty until Date of Substantial completion is determined.
- B. Retain warranties and bonds until time specified for submittal.
- C. Manual: Bind in commercial quality 8-1/2 by 11 inch three D side ring binders with durable plastic covers.

- D. Cover: Identify each binder with typed or printed title **WARRANTIES AND BONDS**, with title of Project; name, address and telephone number of Contractor and equipment supplier; and name of responsible company principal.
- E. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of product or work item.
- F. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

**END OF SECTION**

**SECTION 04 0100  
MAINTENANCE OF MASONRY**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Repointing mortar joints.
- B. Repair of damaged masonry.

**1.02 PRICE AND PAYMENT PROCEDURES**

- A. See Section 01 2200 - Unit Prices, for additional unit price requirements.
- B. Brick Replacement: By the square foot. Includes removing damaged brick as required for repair and support adjacent masonry veneer. Prep area for new brick, install new brick and mortar to match existing, clean and age mortar and brick veneer to match adjacent masonry.
- C. Repointing: By the square foot. Includes removing existing mortar at horizontal and vertical joints to 1/2" depth, prepping the wall, installing new mortar, and clean and age mortar to match existing adjacent mortar joints.

**1.03 REFERENCE STANDARDS**

- A. ACI 530/530.1/ERTA - Building Code Requirements and Specification for Masonry Structures and Related Commentaries; 2013.

**1.04 SUBMITTALS**

- A. Samples: Submit four samples of face brick units to illustrate matching color, texture and extremes of color range.

**1.05 QUALITY ASSURANCE**

- A. Comply with provisions of ACI 530/530.1/ERTA, except where exceeded by requirements of the contract documents.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver masonry neatly stacked and tied on pallets. Store clear of ground with adequate waterproof covering.

**PART 2 PRODUCTS**

**2.01 MORTAR MATERIALS**

- A. Conform to requirements of Section 04 0511.

**2.02 MASONRY MATERIALS**

- A. Brick: To match existing brick veneer.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that surfaces to be repaired are ready for work of this section.

**3.02 PREPARATION**

- A. Protect surrounding elements from damage due to restoration procedures.
- B. Mask immediately adjacent surfaces with material that will withstand cleaning and restoration procedures.

**3.03 REBUILDING**

- A. Cut out damaged and deteriorated masonry with care in a manner to prevent damage to any adjacent remaining materials.
- B. Support structure as necessary in advance of cutting out units.
- C. Cut away loose or unsound adjoining masonry as directed.
- D. Build in new units following procedures for new work specified in other section(s).

- E. Mortar Mix: Colored and proportioned to match existing work.
- F. Ensure that anchors are correctly located and built in.
- G. Install built in masonry work to match and align with existing, with joints and coursing true and level, faces plumb and in line. Build in all openings, accessories and fittings.

#### **3.04 REPOINTING**

- A. Perform repointing prior to cleaning masonry surfaces.
- B. Cut out loose or disintegrated mortar in joints to minimum 1/2 inch depth or until sound mortar is reached.
- C. Use power tools only after test cuts determine no damage to masonry units will result.
- D. Do not damage masonry units.
- E. When cutting is complete, remove dust and loose material by brushing.
- F. Premoisten joint and apply mortar. Pack tightly in maximum 1/4 inch layers. Form a smooth, compact concave joint to match existing.
- G. Moist cure for 72 hours.

#### **3.05 CLEANING NEW MASONRY**

- A. Verify mortar is fully set and cured.
- B. Scrub walls with cleaning agent solution using stiff brush. Thoroughly rinse and wash off cleaning solution, dirt and mortar crumbs using clean, pressurized water.
- C. Before solution dries, rinse and remove acid solution and dissolved mortar, using clean, pressurized water.

#### **3.06 AGING**

- A. Rub in new masonry work to match, as close as possible, adjacent original work.
  - 1. Use carbon black in small amounts, rubbing in well with burlap rags.
- B. After each application, dust off surplus and wash down with low pressure hose. Allow surface to dry before proceeding with succeeding applications.
- C. Continue process until acceptance.

#### **3.07 CLEANING**

- A. Immediately remove stains, efflorescence, or other excess resulting from the work of this section.
- B. Remove excess mortar, smears, and droppings as work proceeds and upon completion.
- C. Clean surrounding surfaces.

**END OF SECTION**

**SECTION 04 0511**  
**MORTAR AND MASONRY GROUT**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Mortar for masonry.
- B. Grout for masonry.

**1.02 RELATED REQUIREMENTS**

- A. Section 04 0100 - Maintenance of Masonry: Bedding and pointing mortar for masonry restoration work.

**1.03 REFERENCE STANDARDS**

- A. ACI 530/530.1/ERTA - Building Code Requirements and Specification for Masonry Structures and Related Commentaries; 2013.
- B. ASTM C5 - Standard Specification for Quicklime for Structural Purposes; 2010.
- C. ASTM C91/C91M - Standard Specification for Masonry Cement; 2012.
- D. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete; 2016a.
- E. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2011.
- F. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes; 2006 (Reapproved 2011).
- G. ASTM C270 - Standard Specification for Mortar for Unit Masonry; 2014a.
- H. ASTM C387/C387M - Standard Specification for Packaged, Dry, Combined Materials for Concrete and High Strength Mortar; 2015.
- I. ASTM C476 - Standard Specification for Grout for Masonry; 2016.
- J. ASTM C979/C979M - Standard Specification for Pigments for Integrally Colored Concrete; 2016.

**1.04 SUBMITTALS**

- A. Samples: Submit two samples of mortar, illustrating mortar color and color range.

**1.05 QUALITY ASSURANCE**

- A. Comply with provisions of ACI 530/530.1/ERTA, except where exceeded by requirements of the contract documents.

**1.06 DELIVERY, STORAGE, AND HANDLING**

- A. Maintain packaged materials clean, dry, and protected against dampness, freezing, and foreign matter.

**1.07 FIELD CONDITIONS**

- A. Maintain materials and surrounding air temperature to minimum 40 degrees F prior to, during, and 48 hours after completion of masonry work.
- B. Maintain materials and surrounding air temperature to maximum 90 degrees F prior to, during, and 48 hours after completion of masonry work.

**PART 2 PRODUCTS**

**2.01 MORTAR AND GROUT APPLICATIONS**

- A. At Contractor's option, mortar and grout may be field-mixed from packaged dry materials, made from factory premixed dry materials with addition of water only, or ready-mixed.
- B. Mortar Mix Designs: ASTM C270, Property Specification.
  - 1. Masonry below grade and in contact with earth: Type S.
  - 2. Exterior Masonry Veneer: Type N.

3. Exterior Repointing Mortar: Type N with maximum 2 percent ammonium stearate or calcium stearate per cement weight.

## **2.02 MATERIALS**

- A. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C387/C387M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
  1. Type: Types as scheduled in this section.
  2. Color: Mineral pigments added as required to produce approved color sample.
- B. Packaged Dry Material for Mortar for Repointing: Premixed Portland cement, hydrated lime, and graded sand; capable of producing Type O mortar in accordance with ASTM C270 with the addition of water only.
  1. Color: Mineral pigments added as required to produce approved color sample.
- C. Packaged Dry Material for Grout for Masonry: Premixed cementitious materials and dried aggregates; capable of producing grout of the specified strength in accordance with ASTM C476 with the addition of water only.
- D. Masonry Cement: ASTM C91/C91M.
  1. Type: Types as scheduled in this section; ASTM C91/C91M.
- E. Pigments for Colored Mortar: Pure, concentrated mineral pigments specifically intended for mixing into mortar and complying with ASTM C979/C979M.
  1. Color(s): To match existing.
- F. Water: Clean and potable.

## **2.03 MORTAR MIXING**

- A. Thoroughly mix mortar ingredients in accordance with ASTM C270 and in quantities needed for immediate use.
- B. Maintain sand uniformly damp immediately before the mixing process.
- C. Do not use anti-freeze compounds to lower the freezing point of mortar.
- D. If water is lost by evaporation, re-temper only within two hours of mixing.

## **2.04 GROUT MIXING**

- A. Mix grout in accordance with ASTM C94/C94M.
- B. Thoroughly mix grout ingredients in quantities needed for immediate use in accordance with ASTM C476 for fine and coarse grout.

## **PART 3 EXECUTION**

### **3.01 INSTALLATION**

- A. Install mortar and grout to requirements of section(s) in which masonry is specified.

### **3.02 GROUTING**

- A. Perform all grouting by means of low-lift technique. Do not employ high-lift grouting.
- B. Low-Lift Grouting:
  1. Limit height of pours to 12 inches.
  2. Limit height of masonry to 16 inches above each pour.
  3. Pour grout only after vertical reinforcing is in place; place horizontal reinforcing as grout is poured. Prevent displacement of bars as grout is poured.
  4. Place grout for each pour continuously and consolidate immediately; do not interrupt pours for more than 1-1/2 hours.

**END OF SECTION**

**SECTION 07 9200  
JOINT SEALANTS**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Nonsag gunnable joint sealants.
- B. Self-leveling pourable joint sealants.
- C. Joint backings and accessories.

**1.02 REFERENCE STANDARDS**

- A. ASTM C834 - Standard Specification for Latex Sealants; 2014.
- B. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2014a.
- C. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016.

**1.03 SUBMITTALS**

- A. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.
  - 2. List of backing materials approved for use with the specific product.
  - 3. Substrates that product is known to satisfactorily adhere to and with which it is compatible.
  - 4. Substrates the product should not be used on.
  - 5. Installation instructions, including precautions, limitations, and recommended backing materials and tools.
  - 6. Sample product warranty.
- B. Color Cards for Selection: Where sealant color is not specified, submit manufacturer's color cards showing standard colors available for selection.

**1.04 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Correct defective work within a one year period after Date of Substantial Completion.
- C. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Non-Sag Sealants: Permits application in joints on vertical surfaces without sagging or slumping.
  - 1. Dow Corning Corporation; Contractors Weatherproofing Sealant: [www.dowcorning.com/construction/sle](http://www.dowcorning.com/construction/sle).
  - 2. Tremco Global Sealants; Dymonic 100: [www.tremcosealants.com](http://www.tremcosealants.com).
  - 3. Sherwin-Williams Company; Loxon S1 One Component Smooth Polyurethane Sealant: [www.sherwin-williams.com](http://www.sherwin-williams.com).
  - 4. Or approved equal or better..

**2.02 JOINT SEALANT APPLICATIONS**

- A. Scope:
  - 1. Exterior Joints: Seal open joints due to structural repairs included in this scope of work, whether or not the joint is indicated on the drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
    - a. Wall expansion and control joints.
    - b. Joints between door, window, and other frames and adjacent construction.
    - c. Joints between different exposed materials.

- d. Openings below ledge angles in masonry.
- 2. Do not seal the following types of joints.
  - a. Intentional weepholes in masonry.
- B. Exterior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
- C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
  - 1. Narrow Control Joints in Interior Concrete Slabs: Self-leveling epoxy sealant.
  - 2. Other Floor Joints: Self-leveling polyurethane "traffic-grade" sealant.

### **2.03 SELF-LEVELING SEALANTS**

### **2.04 ACCESSORIES**

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.
- C. Primers: Type recommended by sealant manufacturer to suit application; non-staining.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verify that joints are ready to receive work.
- B. Verify that backing materials are compatible with sealants.
- C. Verify that backer rods are of the correct size.

### **3.02 PREPARATION**

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

### **3.03 INSTALLATION**

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Install bond breaker backing tape where backer rod cannot be used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range, or will be outside that range during the entire curing period, unless manufacturer's approval is obtained and instructions are followed.
- F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.
- G. Concrete Floor Joint Filler: After full cure, shave joint filler flush with top of concrete slab.

### **3.04 FIELD QUALITY CONTROL**

- A. Remove and replace failed portions of sealants using same materials and procedures as indicated for original installation.

### **3.05 POST-OCCUPANCY**

- A. Post-Occupancy Inspection: Perform visual inspection of entire length of project sealant joints at a time that joints have opened to their greatest width; i.e. at the low temperature in the thermal cycle. Report failures immediately and repair.

**END OF SECTION**



