



KANSAS CITY KANSAS PUBLIC SCHOOLS / USD 500

PURCHASING OFFICE | 2010 N. 59TH STREET | ROOM 370 \ KANSAS CITY, KS 66104

WEB SITE: WWW.KCKPS.ORG/PURCHASING

EXTERIOR WALL REPAIR SUMNER ACADEMY

BID NO:	IFB 20-011	ISSUE DATE:	MAY 27, 2020
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Kansas City Kansas Public Schools will receive sealed bids, on this form at the Purchasing Office, 2010 N. 59th Street, Room 370, Kansas City, KS 66104 until **2:00 PM., June 16, 2020**, at which time bids received will be publicly opened and read, all in accordance with bid instructions, specifications and/or bid conditions attached hereto or as shown below.

Contact/Technical Contact:

Wayne C. Correll, Purchasing Manager | (913) 279-2270 | email: wayne.correll@kckps.org

BID INSTRUCTIONS:

FAXED BIDS WILL NOT BE ACCEPTED / EMAILED BIDS WILL NOT BE ACCEPTED.

Per attached specifications listed in this invitation to bid. Bidders must specify unit price on services/rates/deliverables on the Bid Form or bid may be determined to be non-responsive.

Kansas City Kansas Public Schools is temporarily accepting bids via email. No Faxed Bids will be accepted.

Until further notice, the Purchasing Office of the Kansas City Kansas Public Schools is closed to the public as a result of the COVID-19 crisis. All public bid openings will be conducted via video conference call.

During this time all bids are to be submitted via UPS, FedEx or emailed to wayne.correll@kckps.org. All bids submitted must be received by the Purchasing Office by the specific bid closing date and time of 2:00PM Central Time. If emailed, it is the responsibility of the 'bidder' to ensure the bid date and time is met. FedEx and UPS currently deliver directly to the Central Office of the Kansas City Kansas Public Schools. Bids are not considered received until they are date and time stamped in the Purchasing Office. The Purchasing Office will not be responsible for late deliveries.

For questions regarding confirmation that your bid has been received by the Purchasing Office, please email Wayne Correll at wayne.correll@kckps.org.

The Public Bid Opening for this solicitation shall be opened in public via Zoom Video Conference Call at the hour stated in the notice at the below number:

KCKPS Purchasing Department is inviting you to a scheduled Zoom meeting.

Topic: Bid Opening IFB 20-011 Exterior Wall Repair Sumner Academy
Time: Jun 16, 2020 02:00 PM Central Time (US and Canada)

Join Zoom Meeting
<https://us02web.zoom.us/j/86771442811?pwd=Sm5Bcm03dWNYQmMlWHJ4YlhqYjF5Zz09>

Meeting ID: 867 7144 2811
Password: 990197

One tap mobile
+1 6699006833,,86771442811# US (San Jose)
+1 2532158782,,86771442811# US (Tacoma)

Dial by your location
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 929 205 6099 US (New York)
+1 301 715 8592 US (Germantown)
+1 312 626 6799 US (Chicago)

Meeting ID: 867 7144 2811
Find your local number: <https://us02web.zoom.us/u/kcTqE8xsp>

A bid tabulation will be provided in response to an emailed request to wayne.correll@kckps.org.

Per attached specifications listed in this invitation to bid. Bidders must specify unit price on services/rates/deliverables on the Bid Form or bid may be determined to be non-responsive.

- Pricing shall be FOB Kansas City, KS (All freight and fuel charges must be included in the bid price).
- Award will be to ONE Contractor.
- The District reserves the right to reject any or all bids, to waive any informalities, irregularities or technical defects in bids, and unless otherwise specified by the District to accept any item or groups of items in the bid, as may be in the best interest of the District.
- Time (days, weeks, etc.) required for delivery is a significant consideration with respect to this award process. The time required for delivery must be indicated in the space provided or your bid may be found non-responsive and may not be considered.
- Bid shall include copies of pertinent warranty information pertaining to the product or service offered. The bidder agrees that equipment furnished under any resultant purchase order issued by Kansas City Kansas Public Schools and Engineering Diagnostics shall be covered by commercial warranties the contractor gives to any customer for such supplies. All warranty information and certificates shall be furnished and become the property of the District upon delivery and acceptance of said items and/or the contractor must honor services and all rights and remedies stated in the warranties.
- All items are new manufacture unless otherwise specifically stated in this bid.
- All products must have passed the first line quality standard as set by the manufacturer and no seconds, blemished articles or items having defective workmanship are included.

- Bid may not be considered if a service charge, minimum dollar or minimum quantity order is applied.
- The outcome of this bid will be posted on the District's Purchasing site www.kckps.org/purchasing under Awards Section and will include a bid tabulation/summary.
- Bidder shall acknowledge all addenda for this bid and include the form acknowledgements with their bid.

INCLEMENT WEATHER OR EMERGENCY

IF THERE IS A BUILDING CLOSING THE DAY OF THE OPENING OF PROPOSALS DUE TO INCLEMENT WEATHER OR AN EMERGENCY, THE OPENING OF PROPOSALS WILL OCCUR AT 2:00PM (CENTRAL) THE NEXT BUSINESS DAY THE DISTRICT IS OPEN.

See Attachment A for Additional Terms & Conditions

EXTERIOR WALL REPAIR – SUMNER ACADEMY

The Kansas City Kansas Public Schools Facilities Department is accepting sealed bids from qualified contractors to provide labor and materials for the following work:

Scope of Work

The Work consists of remedial waterproofing:

- Remedial exterior masonry repair.
- Through-wall flashing installation.
- Selective masonry repointing.
- Other Work shown in the Drawings.

The Work summarized above is provided as a convenience and may not be inclusive of all specified work.

Any measurements and areas shown/indicated in this solicitation are approximations, and not guaranteed to be 100% accurate. Each bidder is responsible for making an on-site measurement of the area to be serviced, in order to determine exact requirements.

Location of the Work

Sumner Academy

1610 North 8th Street
Kansas City, KS 66101

Pre-Bid Meeting/Site Visit

A pre-bid meeting will be held at **9:00 AM** on **June 2, 2020**.

All work is to be completed prior to December 31, 2020.

The Pre-Bid Meeting/ Site Visit will be held at:

Sumner Academy

1610 North 8th Street
Kansas City, KS 66101

A "walk-thru" to all review of the project area will follow the Pre-Bid meeting. Attendance at the Pre-Bid Meeting is recommended, but not mandatory.

Bid Security

Bid Bond: Bid security shall be submitted with each bid in the amount of five percent (5%) of the bid amount. No bids may be withdrawn for a period of sixty (60) days after opening of bids. Owner reserves the right to reject any and all bids and to waive informalities and irregularities.

Payment & Performance Bond: Bidder agrees to furnish a Payment & Performance Bond, in the

amount of 100% (one hundred percent) of total contract value within ten (10) days after receipt of the contract

Prevailing Wage

Prevailing Wage IS NOT required.

Time of Completion

Successful bidder shall begin the Work on receipt of the Notice to Proceed and shall complete the Work (Substantial Completion) no later than **December 31, 2020**.

Liquidated Damages

Completion of this project before December 31, 2020 is imperative. At the District's sole discretion, liquidated damages in the amount of Two-Hundred-Fifty Dollars (\$250.00) per calendar day will be assessed against the Contract if the project is not completed by the date indicated.

Clean-Up

The Contractor will keep the premises free from accumulations of debris and waste materials caused by its employees in performance of the work. At completion of the project, Contractor shall remove all crating, packaging, waste and debris from the building and the site, and all tools, scaffolding and surplus materials, and shall leave the building and site "broom clean" or its equivalent.

Permits, Codes and Ordinances

Each Contractor shall file and pay for required permits affecting its work (if applicable). Each contractor shall conform to applicable codes and ordinances, including OSHA requirements.

Damage to District Property

Contractor at its own expense shall promptly remedy and repair all damages or loss to any property caused in whole or part by its employees, subcontractor(s), supplier or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable.

No Smoking: The District adheres to the mandatory "No Smoking" policy on school premises and/or at school functions. All bidders shall comply with this "No Smoking" policy.

**SECTION 011101
SUMMARY OF WORK**



PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Sumner Academy is a high school building located in Kansas City, Kansas. The building is clad with clay brick, natural stone, exposed concrete, aluminum-glass windows in punched openings.
- B. The Work consists of remedial waterproofing:
 - 1. Remedial exterior masonry repair.
 - 2. Through-wall flashing installation.
 - 3. Selective masonry repointing.
 - 4. Other Work shown in the Drawings.
- C. The Work summarized in this Section 011101 is provided as a convenience and may not be inclusive of all specified work.
- D. Reference the Drawings for graphical depiction of the locations where Work is to be completed and the relationship and orientation of components. The purpose of the Drawings is to show the finished configuration of the Work, and not the intermediate steps, means, and methods in executing the Work. The Drawings show typical details, and are not intended to show complete details in every respect.
- E. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both.

1.02 WORK INCLUDED

- A. **Base Bid** - Furnish materials, labor, equipment, and services necessary for and incidental to the execution and completion of the following Work:

Base Bid Repair Item	Section	Description
1	045211 and 099121	Auditorium North Wall Pilaster Corroding Metal Column Repair. Provide the following: remove brick masonry to expose the metal column within the masonry, abrasive blast clean and coat all exposed metal within the wall, replace masonry removed.
2	045211 and 079201	Auditorium North Wall Water Repellent. Provide the following: masonry cleaning and water repellent application.
3	045211, 076201, and 079201	Auditorium north wall sill through-wall flashing installation. Provide the following: masonry removal; through-wall flashing; metal flashing and counterflashing; sealant; and masonry replacement.
4	045211	Selective Auditorium North Wall Repointing. Provide the following: mark deteriorated (friable, cracked, missing, weathered mortar) masonry head and bed joints for Engineer and approval to replace the mortar; repoint mortar joints approved for mortar replacement.
5	079201	Coping Stone-To-Stone Sealant Replacement. Provide the following: replace all coping-to-coping stone sealant all (3) sides of stone units.
6	045211	Brick harvesting. Provide the following: remove existing brick from wall to replace cracked/damaged brick at Repair Items 1, 3, and 7 locations, replace brick masonry removed with units closely matching newer brick color and dimensions.
7	045211 and 079201	North Light Court Through-Wall Flashing Installation. Provide the following: masonry removal; through-wall flashing; sealant; masonry replacement.
8	045211 and 079201	North Light Court Lintel Replacement. Provide the following at Engineer designated lintels; lintel replacement.
9	045211	Selective North Light Court Wall Repointing. Provide the following: mark deteriorated (friable, cracked, missing, weathered mortar) masonry head and bed joints for Engineer and approval to replace the mortar; repoint mortar joints approved for mortar replacement.
10	071902	North Light Court Water Repellent. Provide the following: masonry cleaning and water repellent application.
11	079201	Replace Sealant. Provide the following at masonry-EIFS and metal-EIFS joints: carefully remove existing sealant; clean substrates (do not damage EIFS substrate); backer rod/bond break tape; and sealant

1.03 COMMENTARY

- A. Where used in these Specifications, "Commentary" provides supplemental, non-mandatory information to assist Contractor to interpret these Specifications. Commentary is set off from the text of the specifications by a box, and is not part of the Contract Documents.

1.04 GENERAL REQUIREMENTS

- A. The Sections of Division 1 – General Requirements govern the execution of all Sections of the Specifications.
- B. Commencing the Work of each Section implies that Contractor has inspected and accepts the existing conditions, and that all pertinent RFIs have been answered sufficiently in accordance with Section 014301.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 013001
ADMINISTRATIVE REQUIREMENTS**

PART 1 - GENERAL

1.01 MEETINGS AND COMMUNICATION

- A. Attend all meetings called by Property Contact or Engineer. Contractor's representative at meetings shall have authority to bind Contractor, Subcontractors and suppliers to revisions, modifications, and decisions agreed upon.
- B. Advise Engineer at least 24 hours in advance of progress meetings regarding items to be added to the agenda.
- C. Meetings will be scheduled a minimum of 48 hours in advance, unless agreed otherwise by all attendees.
- D. Initiate no communication (including meetings or telephone calls) directly with Owner or Property Contact, except where specifically required by these Specifications or regarding safety or an emergency. Engineer is the designated administrator of the Contract Documents, and shall be contacted prior to other parties for communication other than coordination of the Work.
- E. By inviting Contractor to Bid the Work, Engineer, Property Contact, and Owner each authorize the Contractor to contact them by telephone, fax, and e-mail concerning this Project (subject to the restrictions outlined above). Similarly, by accepting the invitation to Bid the Work, Contractor authorizes Engineer, Property Contact, and Owner to contact Contractor by telephone, fax, and e-mail concerning this Project. No further authorization will be required to comply with "do not call" laws or similar rule.
- F. Immediately notify Engineer and Property Contact if anyone becomes injured at the site.
- G. Some project communication will use electronic mail. Maintain an e-mail account during the Project.

1.02 COORDINATION, SEQUENCING, AND SCHEDULING

- A. Coordinate the Work with Property Contact and conduct work in a manner to minimize inconvenience to tenants and management and to expedite the Work.
- B. Building Operating Hours are defined as 7:00 a.m. to 6:00 p.m. Monday through Friday. Notify Property Contact at least 48 hours in advance to coordinate Work to be performed outside of Building Operating Hours ("After-Hours").
- C. Schedule work within 30 feet of the air intakes to be performed when the fans are shut down. Coordinate schedule with Property Contact.
- D. Notify Property Contact at least 48 hours in advance of areas that may be required to be restricted from public access, including parking spaces.
- E. Provide sufficient and adequate materials, personnel, and equipment to facilitate rapid completion of the Work without undue delays.

- F. Coordinate scheduling, submittals, and Work of the various Sections of the Specifications to ensure efficient and orderly sequence of installation of interdependent construction elements.
- G. Coordinate and schedule phases of the Work of the Contract Documents with Property Contact, Engineer, Subcontractors, material suppliers and other parties as necessary to ensure the smooth and orderly transition of separate phases and to meet the schedule and requirements of Owner.
- H. Perform routine work each day in a consistent manner, so that tenants and building management can predict the times that noise or other inconveniences are likely to occur.
 - 1. Unless otherwise agreed by both Owner and Contractor, the standard for acceptable noise levels during Building Operating Hours will be the ability to carry on a clear 2-way conversation using a telephone handset (not speaker phone) in the interior office space closest to the work area.
- I. To avoid conflict of operations or delay in completion of the Work, Engineer may provide Contractor with non-binding recommendations pertaining to the methods, sequencing, and priority of the operations, without taking responsibility for the execution or results thereof. Engineer will not be responsible for nor have control or charge over the acts or omissions of Contractor; Contractor shall remain solely liable for performance.

1.03 STORAGE

- A. Supply temporary, secure storage required for equipment and materials for the duration of the project. Coordinate location of temporary storage with Property Contact.
- B. Coordinate location of temporary storage with Property Contact.
- C. Coordinate delivery of materials with Property Contact. Do not use building's loading dock without permission from Property Contact.
- D. Any materials or equipment remaining on site, including in designated storage area, after Final Completion (or earlier contract termination) become the property of the Owner, without requiring a bill of sale nor notification to Contractor.

1.04 PARKING

- A. Park in Property Contact designated spaces.
- B. Do not leave Contractor vehicles on site overnight without the Property Contact's consent.

1.05 TRASH DISPOSAL

- A. Do not use Owner's trash disposal systems. Provide a dumpster at the site where indicated by Property Contact.
- B. Coordinate pick-up and drop-off of dumpster with Property Contact.
- C. Remove from the site materials that overfill the dumpster.

1.06 CHANGES TO SCOPE OF WORK

- A. The Specifications and Drawings reflect existing conditions to the best of Owner's and Engineer's knowledge. Should minor conditions be encountered which are not exactly as indicated, Contractor shall make modifications to the scope of work as required at no additional cost to Owner.
- B. To achieve satisfactory performance from the Work, it may be necessary to conduct unanticipated minor work items encountered during the course of the Work. On behalf of Owner, Engineer will suggest additional work items as appropriate. No Change Orders for additional payment will be considered for additional work items unless they represent a substantial change to the scope of Work.
- C. For substantial changes, promptly submit a Change Proposal, including changes in scope, price, or time. Change Proposal pricing shall be broken out and calculated as follows:
 - 1. Contractor's direct costs (including Subcontractors, material, labor, and equipment).
 - 2. Overhead and profit (combined factor), per the Bid Form.
 - 3. Cost of bonds, applied to the sum of the above items.
 - 4. Applicable tax.

Commentary - Non-Mandatory Information: Proposed changes to the Contract Price or Contract Time that are not submitted by Contractor in a timely manner will not be considered by Owner. Owner is NOT obligated to compensate Contractor for work performed by Contractor that is beyond the scope of fully executed Contract Documents, Changer Orders, and/or Work Change Directives. See the General Conditions for a full discussion of these requirements.

1.07 WEATHER CONDITIONS

- A. Do not proceed with the Work under adverse weather conditions, immediately after rainfall (for water-sensitive products), or when climatic conditions are outside manufacturers' recommended limitations for installation. Proceed with the Work only when weather forecasts are favorable for proper development of the performance characteristics of the materials.
- B. Anticipate and include in the Contract Time adequate lost time due to adverse weather conditions that are normal for the site during the planned construction season.
- C. At Contractor's discretion, Contractor may designate a Weather Day for a calendar day on which any of the following occur:
 - 1. The chance of rainfall at the site is forecast in advance to be 40 percent or greater.
 - 2. Rainfall occurs at the site.
 - 3. Rainfall on a previous calendar day has not evaporated completely, and wet substrates impair the proper execution of the Work.

4. The ambient temperature is above or below manufacturers' recommended limitations for installation of materials.
 5. The wind speed at the site exceeds 25 miles per hour for more than 1 hour.
- D. At Contractor's discretion, Contractor may perform non-sensitive work at the site on a Weather Day. However, Engineer will not monitor the Work on a day designated by Contractor as a Weather Day.
- E. Submit requests for Contract Time extensions due to inclement weather as they occur; do not wait until the end of the project. Submit with requests sufficient supporting documentation for Engineer to determine the legitimacy of Contractor's claim, including at a minimum:
1. Contractor's log of forecasted and actual weather conditions at the site; and
 2. One of the following:

The weather report section of a local daily newspaper, maintained in good condition.

Printed weather data downloaded from a governmental or recognized news agency Internet site.

Commentary - Non-Mandatory Information: The intent of these weather provisions is to define when a reasonable person would expect Contractor to work on the site. Working in inclement weather can be hazardous and can jeopardize the integrity of the Work. Contractor's proposed Contract Time should include a reasonable number of Weather Days, based on prevailing local conditions. If the actual designated Weather Days exceed the prevailing local conditions, then the Contract Time can be extended; but it is Contractor's burden to substantiate a claim for increased Contract Time.

1.08 PROTECTION

- A. Provide barricades and signs in accordance with Section 015001.
- B. Protect building, property, equipment, roads, approaches, parking areas, loading dock areas, sidewalks, vehicles, and landscaping from damage due to the Work, including contamination, soiling, staining, or defacing.
- C. Protect installed work, and provide special protection if specified in individual technical specification Sections.
- D. Take precautions to avoid damaging roof membranes, protection mats, base flashings, and lightning protection systems.
 1. Use existing walkways at all times. Avoid walking on the roof membrane or ballast (gravel) when possible.
 2. Dispose of trash and debris promptly and properly. Do not allow it to remain on the roof.
 3. Provide 3/4-inch protection board (plywood) under equipment to prevent equipment from compressing roof insulation or damaging roof membrane. If the equipment is on wheels and will be rolled across the roof, remove

gravel and provide 3/4-inch plywood strips to create a path for the wheels to travel.

4. Avoid twisting equipment base pads or wheels on roof membrane or protection mat.
- E. Protect workers from radiation, including rooftop microwave antennas, in accordance with OSHA regulations and ANSI standards, and FCC regulations published in 47 CFR 1.1307(b).
 1. Discuss with Property Contact special rules or policies for this property regarding radiation protection.
 2. Do not move or disturb rooftop antennas. Inform Property Contact if antennas need to be relocated to perform the Work.

1.09 DAMAGE

- A. Conduct, and record electronically a pre-job damage survey of the site. Submit with Pre-Construction Submittals.
- B. Immediately report to Property Contact and Engineer damage caused by Contractor.
- C. Accept responsibility for damage as having been caused by performance of the Work that is:
 1. Not reported by Contractor to the Property Contact in the pre-job damage survey as specified above,
 2. And discovered and reported to Contractor prior to Final Completion.
- D. Accept responsibility for damage to interior finishes and personal property caused by water infiltration during the project, from Contractor's first mobilization to the site until Final Completion, except for leak locations identified during the pre-job damage survey or in Owner's logs (if any). Immediately report water infiltration discovered to Engineer and the Property Contact.
- E. At Owner's discretion, for damage caused by performance of the Work:
 1. Repair damage at no cost to Owner, and to the pre-job condition to Owner's satisfaction. Solicit specifications from Engineer for repair of damage prior to implementing repairs.
 2. Reimburse Owner for cost of repairs performed by others.
- F. Engage a specialty subcontractor to repair and certify lightning protection system if damaged during the Work.

Commentary - Non-Mandatory Information: Common claims for damage caused by a contractor include roof membrane and base flashing distress from scaffolding; broken lightning protection components; broken glass; damaged landscaping and trees; and carpet soiling near roof access paths. Because Contractor is liable for damage discovered after the commencement of Work and not reported to the Property Contact, it is essential to perform a pre-job condition survey. A video taped survey is a useful and practical way to perform this task.

1.10 CIVILITY

- A. Ensure that personnel remain reasonably quiet during Building Operating Hours. Except in emergency, do not shout from elevated locations.
- B. Recreational radios are not allowed on the site.
- C. No profanity, alcoholic beverages, or intoxication are permitted on the site.
- D. Congregate only in areas designated by Property Contact for personnel breaks and meals.
- E. Smoking is allowed only in designated areas outside at ground level, at least 25 feet from building entrances. Discard cigarette butts into designated receptacles. No other type of smoking than cigarettes is allowed anywhere on the property.
- F. Do not drink beverages (other than built-in drinking fountains) provided at the site for tenants and their guests.

1.11 OBSTRUCTIONS

- A. The Work is specified to be completed behind obstructions. At no additional cost to Owner, remove and reinstall obstructions which interfere with the completion of the work, including building signage, electrical outlets, hose bibs, vents, lighting, speakers, security devices, lightning protection system components, or similar obstructions.
- B. Ensure that components are properly reinstalled. Anticipate and include in the Contract Time and Contract Price necessary subcontractor, engineering, design, or consulting services for reinstallation of components.
 - 1. Engage a specialty subcontractor to repair and certify lightning protection system if removed during the Work.

1.12 CODES, ORDINANCES, FEES

- A. Perform Work in strict accordance with applicable codes and ordinances of regulatory agencies having jurisdiction over this Work or this Site.
- B. Obtain and pay for construction-related permits, including building permits, traffic lane or sidewalk closure permits, or utility taps and hook-ups if required. No additional compensation or increase in Contract Time will be made for the permit process.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 GENERAL

- A. Independently verify dimensions shown on Drawings or these Specifications. Notify Engineer of discrepancies before commencing Work, ordering materials, or fabricating parts.

- B. It is the intent of these Specifications to transfer all risk to Contractor for the following issues. No Change Order will be considered for an increase in the Contract Price or Contract Time for these issues.
1. The amount of joint widening actually necessary to achieve the minimum joint widths specified.
 2. Dimensional variations from place to place on the building, or between actual field dimensions and those indicated in these Specifications and Drawings.
 3. Consequences of moisture in or on substrates. Perform testing as necessary to determine whether moisture will interfere with the Work.
 4. Adhesion to existing coatings, if not removed as part of surface preparation. Remove questionable existing coatings.
 5. Unexpected consequences that arise directly from Contractor's substitutions (i.e., not including consequences that also would have arisen from the specified materials and/or methods), whether or not substitutions were approved by Owner or Engineer.
 6. Providing an installation complete in every respect. In the event that additional details or special construction are required to complete the Work, Contractor shall furnish and install material and equipment usually furnished with systems or required to complete the installation. Where used in these Bidding Documents, unless specifically stated otherwise, the terms "provide", "furnish", and "install" each require procuring, delivering to the site, fabrication as necessary, and installing the materials, products, or components listed.

END OF SECTION

SECTION 013301
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Submit complete sets of submittals required by all Sections of these Specifications.
- B. Revise and update submittals as necessary to account for changed or substituted materials used on the Project.

1.02 GENERAL

- A. Submittals processed by Engineer do not become Contract Documents. The purpose of submittals is to establish a reporting procedure for Engineer to monitor Contractor's compliance with the Contract Documents. If deviations, discrepancies, or conflicts between submittals and the Contract Documents are discovered (before or after processing by Engineer), the Contract Documents shall control.
- B. Review of submittals by Engineer or Owner does not relieve Contractor from responsibility for compliance with the Contract Documents, or for errors that may exist in submitted information.
- C. Carefully review and coordinate all aspects of each item being submitted. Verify that each item and its appropriate submittal conform in all respects with the specified requirements.
- D. Owner will pay for Engineer's first review and, if necessary, 1 subsequent review of each submittal. The cost of additional reviews, if required, may be back-charged to Contractor at Engineer's prevailing unit rates and deducted from payments to be made to Contractor.

1.03 SCHEDULING

- A. Make submittals far enough in advance of scheduled dates of commencement, execution or installation to provide time required for reviews, for securing necessary approvals, for possible revisions and re-submittals, and for placing orders and securing delivery.
 - 1. In scheduling, allow at least 1 calendar week for review by Engineer following receipt of Submittals.
 - 2. In scheduling, allow at least 2 calendar weeks for color selection(s) by Owner; see also Section 016001.
- B. Make revisions when required by Owner and/or Engineer and resubmit for review within 3 days after receipt. If submittals are rejected, submit corrected submittals before commencing portions of the Work related to those submittals.
- C. Accept responsibility for delays resulting from incomplete or rejected submittals.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 SUBMITTAL PREPARATION

- A. Number consecutively and clearly identify submittals, including the Specification Section requiring each submittal. Show identification on at least the first page of each submittal, and elsewhere as necessary for positive identification of the submittal.
 - 1. If Engineer provides Contractor a blank submittal log at the commencement of the Contract Time, use the submittal numbering system shown on the log. A log may be provided as a convenience to Contractor; the log may not be inclusive of all required submittals.
- B. Submit **1 copy** of each submittal item specified in all Sections of the Specifications, unless indicated otherwise.
- C. Issue each submittal **on single-sided 8-1/2-inch by 11-inch copy paper**, wherever practicable.
- D. Accompany each submittal package with a letter of transmittal listing the submittals included, and describing information required for identification and checking.
- E. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents are being submitted for review (for example, circle selected part numbers in tables with multiple part numbers).
- F. Partial submittals may be rejected for non-compliance with the Contract Documents.
- G. Review comments of the Engineer will be shown on the original submittal. Engineer will make and distribute necessary additional copies. Each submittal will be processed as follows and recorded on Engineer's copy of the submittal log:
 - 1. "No corrections noted" – forwarded to Owner without modification, with Engineer's recommendation for approval.
 - 2. "Make corrections noted" – forwarded to Owner with Engineer's modifications, with Engineer's recommendation for approval as modified.
 - 3. "Revise and resubmit" – rejected by Engineer and returned to Contractor for specific revisions.
 - 4. "Not acceptable; see remarks" – rejected by Engineer and returned to Contractor due to substantial non-compliance.

3.02 PRE-CONSTRUCTION SUBMITTALS

- A. Submit "Pre-Construction Submittals" in 1 complete set at least 1 week before the pre-construction meeting, or as otherwise specified.

- B. Contractor may temporarily mobilize to the site to perform preliminary tests and mock-ups after approval of insurance submittals, but may not commence production Work until Pre-Construction Submittals have been approved.
- C. For each material intended to be used, submit:
1. Latest edition of pertinent manufacturer's published literature, including installation instructions and manufacturer's written recommendations for maintenance.
 2. Samples of materials, where practicable.
 3. Color charts for Owner's preliminary color selection; see Section 016001.
 4. Latest edition of material safety data sheets (MSDS).
 - a) Contractor's agreeing to fulfill this request for submittal of MSDS, as evidenced by the executed Contract Documents, shall constitute a representation by Contractor that Contractor is familiar with the safe use and handling of the products intended to be used; therefore, Contractor is encouraged to study the MSDS and provide copies to persons that may be affected by the products.
 - b) Maintain a copy of the approved submittal MSDS at the site, in the binder specified in Section 014301, readily accessible in case of emergency.
 - c) **DO NOT BRING ANY MATERIALS OR PRODUCTS TO THE SITE UNTIL RECEIVING APPROVAL OF THE SUBMITTED MSDS.**
- D. Submit a letter from each manufacturer (1 letter for all of their products submitted is sufficient) stating that:
1. They have reviewed these Specifications and Drawings.
 2. Their products are suitable for the intended purpose.
 3. Their products comply with applicable regulations for volatile organic compounds (VOCs).
 4. They will visit the site periodically to observe compliance with their installation requirements.
 5. They will issue a guarantee in accordance with the requirements of these Specifications.
 6. Contractor is an acceptable applicator or installer of manufacturer's guaranteed system as herein specified.
 7. Their products are compatible with materials that they will contact, as disclosed in these Specifications and Drawings, including materials not produced by that manufacturer.
- E. Submit shop drawings for details that will deviate from Drawings; for which no detail is provided in Drawings; or which are required by other Sections of these

Specifications.

1. Make shop drawings accurately to a scale sufficiently large to show pertinent aspects of the item, preferably using isometric views.
2. Where practicable, submit shop drawings on 8-1/2 -inch by 11-inch copy paper. If necessary, increase size to 11-inch by 17-inch copy paper. If necessary submit shop drawings over 11 inches by 17 inches in triplicate blue line or black line prints of each sheet.

F. Submit the following additional items:

1. Permits required by the local municipality. Contractor is solely responsible for obtaining necessary permits.
 - a) If Contractor believes that no permits are required, Contractor shall submit a notarized letter stating that, to the best of Contractor's knowledge, no permits are required.
2. Insurance certificates issued to Owner by Contractor's insurance carrier listing coverages. Certificates shall include:
 - a) Contractually required Additional Insureds.
 - b) Coverage amounts not less than those specified.
 - c) Waivers of subrogation.
 - d) Promise to provide a minimum of 30 days written notification before cancellation or material change in coverage (i.e., strike the common but unacceptable phrase "endeavor to").
3. Preliminary project schedule, in accordance with Section 013001.
 - a) Include itemized list of proposed mock-ups, and schedule for completing them.
4. The Binder specified in Section 014301, for review; the binder will be returned for use during the Work.
5. Emergency action plan, including:
 - a) Emergency contact names and phone numbers for:
 - i. Contractor's office and key personnel.
 - ii. Subcontractors' office and key personnel.
 - iii. Supplier of scaffolding or other major equipment, if rented.
 - iv. Engineer's personnel (obtain from Engineer).
 - v. Owner's personnel (obtain from Owner).
6. Barricading plan, in accordance with Section 015001.
7. Pre-job damage survey video, in accordance with Section 013001.
8. Other items required in other Sections of these Specifications or the

General or Supplementary Conditions.

3.03 POST-CONSTRUCTION SUBMITTALS

- A. Submit "Post-Construction Submittals" at demobilization.
 - 1. Request for Designation of Final Completion, with completed (initialed) punch-list.
 - 2. Record Documents showing work performed, batch numbers used, and deviations from Contract Documents.

3.04 FINAL SUBMITTALS

- A. Submit Final Submittals as soon as they are available (which may be after the Contract Time has expired). These submittals need not be issued together, but as soon as each is available.
 - 1. Completed manufacturers' guarantees, with no deviations from the approved blank copies submitted with Pre-Construction Submittals.
- B. If 90 days after Substantial Completion the Final Submittals have not been received by Engineer, Engineer may elect one of the following options, at Engineer's sole discretion:
 - 1. Designate Final Completion if documents within Contractor's control have been submitted (i.e., not including manufacturers' guarantees).
 - 2. Close out the Project without processing Contractor's Application for Payment for retainage (i.e., Contractor forfeits retainage, not as a penalty, but as reimbursement to Owner for the additional necessary coordination services performed by Engineer).

3.05 PROPOSED SUBSTITUTIONS

- A. If a product was erroneously specified, discontinued, or otherwise not available or suitable, submit a Request for Information rather than a substitution request; Engineer will provide supplemental design information. Otherwise, it is intended that the Work shall be completed with the products specified. Further, it is essential to obtain competitive bids based on the same products and procedures.
- B. Proposed substitutions may be considered during construction if one of the following applies:
 - 1. There is a compelling reason that benefits the Owner, such as cost savings, superior availability, or anticipated improved performance; or
 - 2. If no product was specified in the Bidding Documents to fulfill a particular requirement, or was specified by reference standards or description only, then products submitted meeting the specified requirements will be considered.
- C. Requests for substitutions accompanied by insufficient data will not be considered. No substitution will be considered unless request includes information required in the General Conditions and:

1. CSI Substitution Request Form 13.1A.
 2. A complete description of the proposed substitution.
 3. The name of the material or equipment for which it is to be substituted
 4. Drawings, cuts, samples, performance and test data, and other data or information necessary for a complete evaluation.
 5. The proposed increase or decrease in the Contract Time and Contract Price.
- D. Submission of a proposed substitution shall constitute a representation by Contractor that Contractor has investigated the proposed product and determined that it meets or exceeds the requirements of the specified product.
1. See also the discussion of Contractor's liability for unexpected consequences of substitutions in Section 013001.
- E. If proposed substitutions are not accepted in writing by Engineer or Owner, the Work shall be completed with the products and procedures specified for the Contract Price and within the Contract Time.

END OF SECTION

**SECTION 014301
QUALITY ASSURANCE**

PART 1 - GENERAL

1.01 DESIGN INTENT

- A. Engineer designed the Work conveyed in these Contract Documents for Owner's benefit. These Contract Documents are between Owner and Contractor only. Nothing contained in these Contract Documents shall create a contractual relationship with Engineer. Contractor acknowledges that Engineer owes Contractor no duty.
- B. Owner and Contractor acknowledge that the normal design process continues throughout construction, as issues arise. *therefore*, communication with Engineer during construction is essential, and Engineer welcomes Contractor's comments, ideas, and questions.
- C. Contractor shall issue Requests for Information (RFIs) to Engineer in a timely manner, in writing (preferably by electronic mail).
 - 1. Number each RFI.
 - 2. Indicate the latest date by which a response is needed so as not to delay the Work. Allow at least 2 business days after receipt for a response (complex issues may require longer to research).
 - 3. Maintain a log of RFIs showing the status of each.
 - 4. If practicable, include a proposed solution to each issue raised in an RFI.

1.02 CONTRACTOR

- A. Maintain an effective quality assurance program, independent of activities by Owner, Engineer, or manufacturers. Contractor may not rely on Owner's monitoring nor on Engineer's monitoring (which is performed on behalf of Owner) as a substitute for performing Contractor's own quality assurance program.
- B. Accept sole responsibility for the quality of the Work.
- C. Provide copies of these Specifications and Drawings to subcontractors and manufacturers.
- D. Notify Engineer orally, followed in writing, of conditions that Contractor believes will yield unsatisfactory performance, or of items of non-conformity between these Specifications and manufacturers' recommendations or instructions, or of discovered errors or omissions. Failure to submit written notification shall be construed as a representation by Contractor that the Contract Documents are acceptable to Contractor, that they are sufficient in scope and detail to indicate and convey understanding of terms and conditions for performance and furnishing of the Work, and that Contractor reasonably believes the Work will perform as intended.

- E. Maintain a 3-ring binder at the site during the project. Update binder at least once per week and allow Engineer to review during site visits. Maintain the following information and divisions:
1. A fully executed copy of the Contract Documents, including specifications and Drawings.
 2. Change Orders, Work Change Directives, and Field Orders.
 3. Correspondence between Contractor, Engineer and/or Owner.
 4. Meeting minutes.
 5. Site visit reports.
 6. Schedules.
 7. Daily logs of work completed and materials used, including batch numbers.
 8. Complaint log, listing complaints received from any party of any nature, and the actions taken and resolution, with dates.

1.03 SCHEDULE

- A. Submit initial schedule before mobilizing to the site to commence the Work. Submit an updated schedule each time the previously submitted schedule becomes inaccurate, but no less often than with each application for payment.

1.04 MONITORING AND DEFECTIVE WORK

- A. Engineer intends to periodically monitor the Work for general compliance with the design intent and with the Contract Documents, and to observe the progress and status of the Work.
- B. If Engineer is not kept adequately informed of Contractor's schedule and therefore has to repeat a site visit or wait an undue amount of time at the site to observe particular steps in the execution of the Work, the cost of the wasted time may be back-charged to Contractor at Engineer's prevailing unit rates and deducted from payments to be made to Contractor.
- C. Provide access for Engineer to observe Work in progress and completed Work.
1. Unless Contractor submits requirements for Engineer to use Contractor's access equipment (such as forms or training) prior to executing the Contract Documents, then no such requirements will be enforceable.
 2. Engineer intends to spend an average of 6 man-hours per week per Contractor crew on site evaluating the Work with Contractor during Contractor's regular working hours. During these site visits, Contractor's productivity may be interrupted.
- D. Engineer will make a hand-written report of each site visit. If requested by Engineer, Contractor's Superintendent shall sign each report to acknowledge that he has reviewed it, whether or not he agrees with the information reported.

- E. Engineer will provide periodic reports of activities and Defective Work items in a timely manner to Owner and Contractor. However, Defective Work shall be corrected when it is reported (subject to the Owner's discretion as outlined below), regardless of whether the report is timely.
 - 1. If Engineer or Owner does not discover or report a Defective Work item, that item shall not be considered accepted.
 - 2. Erroneous approval by Engineer or Owner of Work shall not be binding if that Work is later discovered to be Defective.
 - 3. Once reported to Contractor, Defective Work items shall be considered to require correction (subject to the Owner's discretion as outlined below) until they are actually corrected, regardless whether they are mentioned again.
- F. Notify Engineer at least 48 hours before concealing completed work. Work concealed before approval by Owner or Engineer shall be considered Defective and shall be uncovered at Contractor's expense.
- G. When a portion of the Work is designated by Engineer or Owner as Defective, Contractor shall correct the Defective Work with no increase in the Contract Time or Contract Price.
- H. When a portion of the Work is designated by Engineer or Owner as Defective, Contractor shall promptly investigate the extent to which similar work has the same conditions. All similar work shall be considered Defective until the full extent of the defective conditions are documented by Contractor to Owner's satisfaction.

1.05 MANUFACTURER'S REPRESENTATIVE

- A. Ensure that manufacturers' representatives perform site visits at the beginning, regularly during, and at Substantial Completion of the Work.
- B. Notify Engineer of manufacturers' representatives planned site visits in a timely manner so that Engineer can coordinate his site visits to correspond. Ensure that manufacturers visit the site only after notifying Engineer.
- C. Provide to Engineer copies of correspondence obtained from manufacturers pertinent to the Work promptly after correspondence is received.

Commentary - Non-Mandatory Information: It is in the best interest of all parties that manufacturers are fully involved in the project, to ensure the successful use of their products. Therefore, submittals are required to demonstrate that the manufacturers are familiar with the project, and it is required that they visit the site as often as possible. It is the Contractor's responsibility to ensure manufacturers' involvement.

1.06 CREW QUALIFICATIONS

- A. Contractor's personnel shall have a minimum of 5 years documented experience performing similar work satisfactorily.

- B. Each person performing work on this project shall be individually pre-qualified as follows:
 - 1. Conduct a mock-up of the Work that individual will perform during production, as specified below.

1.07 MOCK-UPS

- A. Perform a mock-up of each portion of the Work within 7 days after the Contract Time commences to run, and at least 7 days prior to commencing production work of that type.
 - 1. Submit a proposed schedule for commencing mock-ups for items not commenced within these times, even for those items for which mock-ups or production work cannot possibly, reasonably, or obviously be commenced within these times. Include the proposed location where each product combination will be applied.
 - 2. Coordinate schedule with Engineer at least 48 hours in advance of performing mock-ups.
 - 3. Ensure that a manufacturer's technical representative is on site to observe the mock-ups.
- B. Select areas to perform the mock-ups that are:
 - 1. Representative of the majority of the typical work on the project.
 - 2. Readily accessible by Property Contact for review.
 - 3. In inconspicuous locations.
- C. The first work performed of each type may be designated as the mock-up, and, if accepted, may remain as part of the Work.
 - 1. Until mock-up is approved, perform no additional work of that type.
 - 2. Perform the mock-ups using the same materials, preparation and application procedures to be used in the production work. The mock-ups shall reflect the proposed color, texture, and workmanship expected during the work.
 - 3. On behalf of Owner, Engineer will approve or reject mock-ups. If accepted, the mock-ups will establish the standards for the quality, appearance, products, and procedures of the Work.
 - 4. Approval of mock-ups does not constitute waiver of any provisions of the Contract Documents unless such deviations are specifically approved in writing.
- D. Allow the mock-ups to remain undisturbed during the Work as a standard for judging completed work.
- E. Remove and replace rejected mock-ups at no additional cost to Owner.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 015001
TEMPORARY FACILITIES AND CONTROLS**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide or coordinate with Property Contact the use of temporary power, water, barriers and other construction facilities.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 TEMPORARY POWER SERVICE

- A. Connect to existing power service. Do not disrupt Owner's need for continuous power service by connecting to service or by consumption of power.
- B. Owner will pay cost of energy used. Exercise appropriate measures to conserve energy.
- C. Owner will provide supplemental electrical power service for Contractor's use at no cost to Contractor only if requested by Contractor in a written submittal accompanying Bid.
 - 1. If Contractor fails to request additional electrical power service with Bid and Owner's existing power service is insufficient for Contractor's needs, Contractor shall provide permanent additional electrical service connections by a licensed electrical contractor at no cost to Owner, or provide gasoline powered electric generators.
- D. Provide arc-fault and ground fault circuit interrupters on power cords (AFCI and GFCI).

3.02 TEMPORARY WATER SERVICE

- A. Connect to existing water source for construction operations.
- B. Owner will pay cost of water used. Exercise appropriate measures to conserve water.

3.03 TEMPORARY FIRE PROTECTION

- A. Maintain a minimum of 1 30-pound Type ABC Dry Chemical fire extinguisher at each work site.

3.04 BARRICADING

- A. Provide barricades, walk-through sidewalk covers, fences, netting, and signs sufficient to:
 - 1. Completely protect persons and property below and adjacent to work areas, and control traffic from exterior walls out to curbs (and beyond if necessary) so that the public is not exposed to hazards from the work.

2. Prevent unauthorized entry into work areas.
 3. Allow tenants and visitors to safely access the building.
- B. Do not close off or make building entrances or exits inaccessible, nor block open doors or hatches, unless approved in advance by Property Contact.
 - C. Provide signs, professionally printed in large black letters on a bright background color, reading “no parking”, “workers above”, etc., as necessary to supplement the barricades.
 - D. Barricades may be previously used or rental equipment, but shall be constructed with reasonable quality, with straight and plumb lines. Ensure that materials and workmanship are commensurate with the building being protected. Paint barricades to match building or as required by Owner to minimize aesthetic detraction.
 - E. Submit a plan-view drawing showing the proposed barricading.

Commentary - Non-Mandatory Information: As stated elsewhere in the Contract Documents, the Contractor is solely responsible for site safety, including protecting the public. Because the project involves remedial construction on an occupied building, public access must be maintained during the Work, but in a controlled manner. The exact manner of protecting the public is not specified because it is the Contractor’s responsibility. The Contractor must provide barricades to prevent pedestrians from accessing unprotected areas. Fences may be used to direct pedestrians to covered areas.

3.05 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary equipment, facilities and materials, prior to Substantial Completion.
- B. Clean and repair damage caused by installation or use of temporary services and connections.
- C. Restore existing facilities used during construction to pre-construction condition.

END OF SECTION

**SECTION 016001
PRODUCT REQUIREMENTS**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provisions for the quality and handling of materials.

1.02 QUALITY ASSURANCE

- A. Provide best available type of the products specified. If there is a cost associated with different variants of specified products, include in Contract Price the most expensive type.
- B. Comply with the Contract Documents and referenced standards as minimum requirements.
- C. Ensure that materials are new (not surplus), first quality (not rejected from other projects or “seconds”), and delivered to site in the manufacturer's original, unopened, and properly labeled containers.
- D. Ensure that product labels indicate the manufacturer's name; name and type of material; color; mixing and installation instructions; and curing time, if applicable.
- E. Ensure that containers of those materials having a critical shelf life bear the date material was packaged or the expiration date of the material. Remove from site material for which the normal shelf life has expired.
- F. Maintain containers in a clean condition, free of foreign materials and residue.
- G. Do not re-use materials or components removed from existing structure, except as specifically required or allowed by Contract Documents.

1.03 DELIVERY

- A. Transport products by appropriate methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging.
- B. Provide equipment and personnel to handle products by appropriate methods to prevent soiling or damage.
- C. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

1.04 STORAGE

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. Neatly arrange the products in storage to provide access for inspection. Periodically inspect products to ensure that they are undamaged and maintained under required conditions.

1.05 COLOR SELECTION

- A. For each material or product requiring color selection, submit standard color chip fan or manufacturer's applicable color charts.
 - 1. Submit 1 directly to Owner, to expedite selection.
 - 2. Maintain an identical duplicate, and submit another identical duplicate to Engineer at the same time, to facilitate communication.
- B. For paints and coatings:
 - 1. Owner will select up to 4 Preliminary Colors for each substrate.
 - 2. Provide 8-1/2-by-11-inch drawdown card for each Preliminary Color selected by Owner. Include pigment formula label on the front (coated side) of each drawdown card.
 - 3. If Owner rejects all of the Preliminary Colors for substrate, repeat the process above until Owner selects Test Colors.
 - 4. Owner will select up to 2 Test Colors for application on mock-up areas.
 - 5. Apply a mock-up of each Test Color. Each mock-up shall be a minimum of 2-feet by 2-feet.
- C. For sealants and other products:
 - 1. Owner will select up to 4 Test Colors for each substrate for application on mock-up areas.
 - 2. Apply a mock-up of each Test Color. Each mock-up shall be a minimum of 2 feet long.
- D. Owner will select Final Colors from mock-ups. Owner's approval will be for appearance only, and shall not constitute approval of the mock-up for any other purpose.
- E. If Owner rejects all of the Test Colors for substrate, repeat this process until Final Colors are approved.
- F. Contractor will be entitled to a commensurate Contract Time extension for each repeat process if Contractor provides detailed records documenting the delay. No increase in Contract Price will be considered unless the Owner fails to select Final Colors reasonably efficiently and Contractor obtains approval before incurring additional costs.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 017401
CLEANING AND WASTE MANAGEMENT**

PART 1 - GENERAL

1.01 HOUSEKEEPING

- A. Provide required personnel, equipment, and materials needed to maintain the site in a clean condition throughout the project duration. Except as may be specifically provided otherwise in the Contract Documents, “clean” shall be construed to mean the level of cleanliness generally provided by skilled cleaners using commercial quality maintenance equipment and materials.
- B. Use only cleaning materials and equipment that are compatible with the surface being cleaned, as recommended by the manufacturer of the materials.
- C. Provide adequate storage for items awaiting removal from the site, with appropriate measures for fire safety and the ecology of the surrounding area.
- D. Do not store flammable or odor-causing materials or rubbish overnight or near air intakes for building.
- E. Do not allow rubbish to accumulate or to remain on the premises or site beyond a reasonable length of time. Remove trash daily from the work area.
- F. Do not drop or throw rubbish or waste from one level to another.
- G. Immediately after unpacking materials, collect and remove from the premises packing case lumber or other packing materials, wrappings and other like flammable wastes.
- H. Assume sole responsibility for leaving Work, including that performed by subcontractors or vendors, in a clean and proper condition, satisfactory to Owner.
- I. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution regulations.
 - 1. Do not burn or bury rubbish or waste materials on the site.
 - 2. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
 - 3. Do not dispose of wastes into streams or waterways.

1.02 FINAL CLEANING

- A. Remove marks, stains, fingerprints, and soil or dirt from painted, decorated, and stained work, ceiling and wall surfaces, window frames and glass, doors, and clean as required to leave in first class condition.
- B. Sweep and/or vacuum surfaces clean prior to final payment.
- C. Upon completion of the work, thoroughly clean the site and surrounding grounds, and remove and dispose of trash and rubbish left in the course of the work.
- D. As Work progresses, remove construction soiling from windows on each zone.

- E. After completion of remedial work, employ professional window washers to clean windows to that degree typically performed on a Class A building.
 - 1. Perform a mock-up to test cleaning products and methods on glass. Obtain Property Contact's approval of final cleaning result on mock-up before proceeding with remainder of building.
 - 2. Verify acceptable final cleaning by viewing through glass from interior. Clean to match standard approved during mock-up.
- F. Property Contact will be the sole judge of acceptability of final cleaning of windows.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

**SECTION 045211
MASONRY RESTORATION**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. See table in Section 011101.

1.02 REFERENCES

- A. BIA “Technical Notes.”
- B. ASTM C144 “Standard Specification for Aggregate for Masonry Mortar.”
- C. ASTM C150 “Standard Specification for Portland Cement.”
- D. ASTM C270 “Standard Specification for Mortar for Unit Masonry.”
- E. ACI 530 ACI 530-02/ASCE 5-02/TMS 402-02 “Building Code Requirements for Masonry Structures”, published by the American Concrete Institute, American Society of Civil Engineers, and the Masonry Society.
- F. ACI 530.1 ACI 530.1-02/ASCE 6-02/TMS 602-02 “Specification for Masonry Structures”, published by the American Concrete Institute, American Society of Civil Engineers, and the Masonry Society.

1.03 SUBMITTALS

- A. Product Data: Submit product data for each different masonry unit, accessory, and other manufactured products specified.

1.04 QUALITY ASSURANCE

- A. Unit Masonry Standards: Masonry design, materials, and construction shall conform to all requirements of the ACI 530.1, except as modified in this section.

1.05 MOCK-UP

- A. Perform a mock-up of Masonry Work within 7 days after the Contract Time commences to run, and at least 7 days prior to commencing production work of that type.
- B. The first work performed of each type may be designated as the mock-up, and, if accepted, may remain as part of the Work. Until mock-up is approved, perform no additional work of that type.

- C. Coordinate schedule with Engineer and Owner at least 48 hours in advance of performing mock-ups.
- D. Select areas to perform the mock-ups that are:
 - 1. Representative of the majority of the typical work on the project,
 - 2. readily accessible by Property Contact for review,
 - 3. in an inconspicuous location.
- E. Perform the mock-ups using the same materials, preparation and application procedures to be used in the production work. The mock-ups shall reflect the proposed color, texture, and workmanship expected during the work.
- F. Allow the mock-ups to remain undisturbed during the Work as a standard for judging completed work.
- G. Owner and Engineer will approve or reject mock-ups. If accepted, the mock-ups will establish the standards for the quality, appearance, products, and procedures of the Work. Remove and replace any rejected mock-ups at no additional cost to Owner.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location to prevent deterioration or damage due to moisture, temperature changes, contaminants, corrosion, and other causes. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.07 ENVIRONMENTAL REQUIREMENTS

- A. Cold/Hot Weather Procedures. Comply with ACI 530.1 and the following:
 - 1. Do not install masonry when temperature of surrounding air has dropped below 45 degrees Fahrenheit (F), unless it is rising; and at no time when

it has dropped below 40 degrees F, except with written permission from the Engineer.

2. When masonry work is authorized at temperatures below 40 degrees F, but above freezing, provide mortar at temperature between 70 degrees and 100 degrees F at time of use by heating mortar sand or mixing water at the time of mixing.
3. Do not lay masonry units having a temperature below 20 degrees F.
4. Maintain air temperature above 40 degrees F on both sides of masonry for 72 hours after placement.
5. Protect masonry construction from direct exposure to wind and sun when erected in ambient air temperatures of 95 degrees F in the shade with relative humidity less than 50 percent. Maintain temperature of mortar and grout below 120 degrees F. Maintain mortar consistency by retempering with cool water. Use mortar within 2 hours of initial mixing.

1.08 PROJECT CONDITIONS

- A. Stain Prevention: Prevent mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove mortar, and soil that come in contact with such masonry.
 1. Protect base of walls from mortar splatter by coverings spread on ground and over wall surface.
 2. Protect sills, ledges, projections, etc. from mortar droppings.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Comply with referenced unit masonry standard and other requirements specified in this Section applicable to each material. The following material requirements are in addition to the requirements of ACI 530.1.

2.02 CLAY BRICK MASONRY UNITS

- A. ASTM C216, grade SW, type FBS, to match existing size and color as closely as possible. Submit 12 specimens of face brick to illustrate range of size, color and texture. Match existing as close as possible.
- B. At Contractor's discretion, whole bricks may be salvaged and reused where excavated.

2.03 MORTAR AND GROUT MATERIALS

- A. General: Do not use admixtures, including color pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless approved, in writing, by the Engineer.
 - 1. Do not use calcium chloride in mortar or grout.
 - 2. Do not use cold-weather admixtures in mortar or grout.
- B. Type N, ASTM C270, proportion specification. Submit samples to Property Contact for color selection.
- C. Obtain mortar ingredients of uniform quality and color:
 - 1. Cement: Non-staining grey or white (as appropriate) Portland Cement, ASTM C150, Type I or II.
 - 2. Sand: ASTM C144, clean, fine, sharp sand to match the color of sand in the original mortar.
 - 3. Hydrated lime: ASTM C207, Type S.
 - 4. Water: Clean, potable, and free of oils, acids, alkalis, salts, organic materials, or other substances that may be deleterious to the performance of the masonry.
 - 5. Mortar Coloring Pigment: Pure ground mineral oxides, non-fading and alkali proof, to match existing mortar color as closely as possible. Not to exceed 10 percent of the weight of the mortar.
- D. Manufactured masonry cement mix **will not** be allowed as a substitute for the specified mortar mix.

2.04 PREFABRICATED THROUGH-WALL FLASHING

- A. Prefabricated through-wall flashing: TotalFlash by Mortar Net USA, 12 inch width or equivalent. Provide prefabricated corners and end dams, and accessories recommended by through-wall flashing manufacturer.

2.05 HELICAL BRICK ANCHORS

- A. Helical, stainless steel remediation anchor designed to attach brick to existing backup materials, provide: Helifix Dry Fix anchor or equivalent.

2.06 ACCESSORIES

- A. Weeps: MortarNet Weep Vent or equivalent approved by Engineer.

- B Wall Ties: Provide hot dipped galvanized metal wall ties that are appropriate for the conditions and configurations of the Work. Provide stainless steel or hot dipped galvanized tie fasteners; provide fasteners appropriate for the backup wall conditions, that are recommend by the tie manufacturer, and that are approved by Engineer.
- C Water: clean and potable.
- D Detergent: if necessary for cleaning. Test multiple cleaning agents as necessary to satisfactorily remove stains and surface discoloration. Consult manufacturer's representative for compatible product selection.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Accept the conditions of the job site as they exist and perform work accordingly.
- B. Provide appropriate protection for adjacent finishes by providing drop cloths, barricades, etc. as required. Temporarily remove, if required, or protect electrical and non-electrical signs, electrical outlets, lighting fixtures, etc. from wall surfaces. Reinstall removed items upon completion.

3.02 INSPECTION

- A. Examine existing masonry walls to determine quantities of masonry re-pointing required. Document repair areas on elevation drawings and review areas with Engineer prior to commencing with Work.

3.03 MORTAR PREPARATION

- A. Mix mortar in a mechanically operated mortar mixer for at least 3 minutes after all ingredients are in the drum, and at least long enough to make a thorough, complete intimate mix of the materials.
- B. Adjust consistency of mortar to the satisfaction of the mason; water may be added as is necessary or convenient in using the mortar. This should be done by forming a basin in the mortar, adding water and mixing it in – not by splashing water over the surface. Mortar in which a final set has begun so that it has become harsh shall not be used.

3.04 REMOVE MASONRY TO INSTALL THROUGH-WALL FLASHINGS

- A. Remove brick masonry as required to provide new through-wall flashing.
- B. Remove masonry in a “leap-frog” pattern so that existing masonry remains between areas of masonry removal that is capable of supporting the weight of the masonry

above. Install an adjustable jack brace or similar device in excavated areas to support the weight of the masonry above.

- C. Remove brick masonry units by removing mortar using a tuck-pointer's tooting chisel. Hand-grinders and masonry saws may be permitted for removal of the bricks provided they can be used without causing damage to the portion of the masonry, building sheathing, or building paper that is to remain intact.
- D. Use care to ensure that grinder stays in joints, and does not skip across face of masonry. Avoid chipping edges of masonry units with grinder or chisel.
- E. Carefully chisel out old mortar from the head and bed joints around the excavation. Remove all dust, debris and other materials deleterious to bonding of new mortar.
- F. Carefully remove old mortar and other deleterious materials from brick masonry units to be reused.
- G. Do not damage intact masonry surrounding removal locations by allowing displacement. Ensure masonry is adequately supported. Do not remove existing masonry in quantities that would detrimentally affect structural integrity of wall.
- H. Accept responsibility for repairing any cracks or mortar separations in the masonry wall caused by the Work.

3.05 THROUGH-WALL FLASHING INSTALLATION

- A. Install new through-wall flashing according to the manufacturer's recommendations. Require manufacturer's representative to observe through-wall flashing mock-up and approve installation.
- B. Seal all laps and penetrations in the through-wall flashing according to the manufacturer's recommendations.
- C. Provide prefabricated outside and inside corner units.
- D. Install end dams where through-wall flashings are terminated. Seal around end dams with through-wall flashing component sealants.

3.06 BRICK MASONRY REPLACEMENT

- A. Carefully chip out brick units and remove all existing mortar from surrounding joints at masonry exhibiting:
 - 1. cracks through brick units
 - 2. loose bricks
 - 3. voids or holes
 - 4. large spalls

5. mortar joints with cracks (fractures) on more than one side of a brick unit.
- B. For large areas, do not remove existing masonry in quantities that could detrimentally affect structural integrity of wall.
 1. Use the “leap frog” method of masonry removal and replacement, or an approved substitute method: Remove a maximum of 6 contiguous linear feet of masonry, measured along the shelf angle. Stagger the removed sections, alternating with 4 linear feet of intact masonry.
 2. This is an alternate method to remove all masonry at once: Install an adjustable jack brace in each excavated area to support the weight of the masonry above before removing the adjacent masonry to expose the entire flashing length.
 - C. Pre-wet all masonry prior to placement to prevent improper mortar cure.
 - D. Ensure that brick masonry replacement work is laid plumb, level, and true to line and all corners. Ensure that all angles are square.
 - E. Use line blocks whenever possible. When it is absolutely necessary to use a line pin, rake out the hole in the joint and fill with mortar during subsequent work.
 - F. Accurately execute all pattern work, bonds, or special details to match existing masonry.
 - G. Completely fill all head joints of replacement units with mortar.
 - H. Allow mortar droppings sticking to unit faces to dry, then remove with trowel and scrub surface lightly with bristled brush.

3.07 MORTAR JOINT RE-POINTING

- A. Pre-hydrate re-pointing mortar to reduce excessive shrinkage.
 1. Thoroughly mix all dry ingredients.
 2. Add only enough water to the dry mix to produce a damp, workable consistency that will retain its shape when formed into a ball.
 3. Allow re-pointing mortar to stand in dampened condition for approximately 1 hour.
- B. Add additional water to pre-hydrated re-pointing mortar to bring to a workable consistency.

- C. Provide mortar with mortar color closely matching the existing mortar color in the area where re-pointing is occurring. Provide at least 3 mortar color mock-ups in the existing mortar joints for approval; provide additional mortar mock-ups as required for Property Contact approval of mortar color.
- D. Re-point joints that are observed from a distance of 2 feet to be deteriorated or friable, or that exhibit:
 - 1. Voids.
 - 2. Cracks (fractures) on no more than one side of a brick unit.
 - 3. Separation cracking between brick and mortar.
- E. Remove defective mortar in exterior brick veneer joints back to a uniform depth of 3/4 inch, or until sound mortar is reached. Cut back existing mortar to form right angles (90 degrees) at terminations by means of a toothing chisel or pointer's grinder. Ensure that masonry units are not damaged during removal of mortar.
- F. Remove dust and debris from joint by vacuuming or hose stream.
- G. Wet mortar joints to a saturated, surface dry condition before applying fresh mortar.
- H. Pack re-pointing mortar into joints in maximum 1/4-inch layers. Ensure that each layer is "thumbprint hard" before applying the next layer.
- I. Tool joints to concave profile after last layer of re-pointing mortar is "thumbprint hard."

3.08 MASONRY CLEANING

- A. Remove construction dust, debris and mortar droppings on the face of masonry.
 - 1. Start by dry brushing using a stiff fiber bristle brush.
 - 2. If necessary, use low-pressure water jet to clean surfaces. Use a nozzle design that rotates or contains a device for aerating the water stream to break up the force. Do not exceed 400 pounds per square inch water pressure at the nozzle. Supplement the scouring and scrubbing action of the water spray by fiber-bristle brushing (i.e., push-broom).

3.09 HELICAL ANCHOR

- A. Prepare and install anchor according to manufacture's directions.

3.10 CLEAN-UP

- A. Protect finished exposed work from stains.
- B. Protect other surfaces on or below the area being restored, and leave them clean and neat. Clean all stains or dirt resulting from this operation and affecting adjacent materials to the satisfaction of the Owner at no additional cost.
- C. Protect pavement, grass, landscape, etc., at the storage, construction and mixing areas. Remove and replace all damaged materials to the Owner's satisfaction at no additional cost.

END OF SECTION

SECTION 071902
WATER REPELLENT APPLICATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. See table in Section 011101.

1.02 ENVIRONMENTAL REQUIREMENTS

- A. Apply water repellent only when the substrate temperature and the temperature of the surrounding air are above 50 degrees F. and below 95 degrees F.
- B. Do not apply treatments during rain, to wet substrates, or when rain is likely within 24 hours after application.
- C. Do not apply treatments in direct heat of sun or to frost-covered substrates, or during high winds.
- D. quality assurance
- E. Ensure that manufacturer's representative inspects the project regularly for proper application of water repellent.
- F. Before commencing application and again after applying water repellent, perform RILEM water uptake tube tests at 5 different locations on the building. Select convenient test locations with Engineer, and carefully record the locations of the first tests so that the future tests can be performed in the same places.
- G. Maintain all containers and equipment used in application of water repellent in a clean condition, free of foreign materials and residue.
- H. Perform a site mock-up of the water-repellent on a test area (minimum size 5 feet by 5 feet) to ensure covering rates and verify application technique.
- I. Prior to application of water repellent, perform a RILEM water uptake tube test in each mock-up area.
- J. Apply both regular and extra strength water repellants to substrate.
- K. Allow 10 days for water repellent to cure before inspecting and testing.
- L. Verify compatibility between water repellent and other substrate treatments (i.e., sealants, paints).

PART 2 - PRODUCTS

2.01 WATER REPELLENT

- A. PROFESSIONAL Water Sealant: Penetrating silicone rubber water repellent; clear liquid. Manufactured by Professional Products of Kansas, Inc., 4456 S. Clifton, Wichita, KS 67216, (800) 676-7346, (316) 522-9300, Fax (316) 522-9346.

1. Regular or extra strength product will be used, based on mock-up results.

2.02 ADDITIONAL MATERIALS

- A. Water: Clean and potable.
- B. Detergent: If necessary for cleaning contaminated surfaces. During mock-up, test multiple cleaning agents as necessary to satisfactorily remove stains and surface discoloration. Consult manufacturer's representative for compatible product selection.
- C. Masking: As recommended by water repellent manufacturer.
- D. Rollers: 1/2-inch lamb's wool roller recommended.
- E. Caustic-resistant brushes: various sizes, as needed.
- F. If spraying: high volume, low-pressure spray equipment (not airless), fitted with solvent-resistant gaskets and hoses to avoid discoloration.
- G. Low-pressure water jet with a nozzle design that rotates or contains a device for aerating the water stream to break up the force. Do not exceed 500 pounds per square inch water pressure at the nozzle.

PART 3 - EXECUTION

3.01 GENERAL

- A. Perform work of this Section in accordance with manufacturer's recommendations.
- B. Protect exterior of building, landscaping, ground, and adjacent personal and real property from damage, staining, and discoloring.
- C. Remove and reinstall obstructions for complete sealing, as specified in Section 013001.
- D. Store removed obstructions in a location approved by Property Contact.
- E. Following completion of water-repellent application in each area, have items reinstalled by workers skilled in the trades involved.

3.02 PREPARATION

- A. Complete the removal of deteriorated materials and perform repairs as specified prior to the work of this Section.
- B. Mask surfaces not intended to be sealed. Do not remove protection until all cleaning and rinsing is complete.

3.03 CLEANING

- A. Use low-pressure water jet to clean surfaces.

- B. Supplement the scouring and scrubbing action of the water spray by fiber-bristle brushing (i.e., push-broom) and accepted detergent. Scrub as necessary to remove dirt, contaminants, staining, or discoloration encountered.
- C. Proceed with cleaning in a systematic manner, from the top to the bottom in all areas. Schedule cleaning so that contaminants from the cleaning process will not fall on newly sealed surfaces.
- D. Allow surfaces to air dry for at least 72 hours before applying sealer.
- E. apply water repellent
- F. Mask surfaces not intended to receive water repellent Protect adjacent materials (glass, trim, plants, cars, etc.) from over-spray.
- G. Apply water repellent as shipped by the manufacturer. Do not dilute.
- H. Use water repellent within 48 hours after opening container.
- I. Have manufacturer's representative inspect and verify coverage.
- J. Inform Engineer if coverage appears to be insufficient or if material does not adequately absorb into substrate.
- K. Water repellent can be applied to slightly damp surfaces, but surface should be visibly dry, not wet to the touch.
- L. Option 1: Apply water repellent with high volume, low-pressure spray equipment, roller, or natural bristle brush; ensure that equipment is clean, free of oils or contaminants.
 - 1. Apply clear water repellent from the bottom up, to the point of saturation, until it runs down surface 8 inches below the spray pattern or application area.
- M. Option 2: Apply water repellent with a heavily saturated brush or roller, ensure that sufficient material is applied to thoroughly saturate the substrate.
 - 1. Apply water repellent from the bottom up, to the point of saturation, at an approximate coverage rate of 125 to 175 square feet per gallon
- N. Make sure that level of saturation is constant throughout the Work.
- O. Brush out heavy runs or drips that do not penetrate; use a small brush to ensure voids or irregularities in SUBSTRATE are fully covered.
- P. Maintain a "wet edge" during application.
- Q. Generally, 1 coat of water repellent will be sufficient. Extremely porous surfaces may require 2 coats. Follow manufacturer's recommendations for 2nd coat Extend water repellents behind obstructions as necessary to maintain the system integrity.
- R. Protect treated surfaces for at least 12 hours after application from rain or human contact.

3.04 CLEAN-UP

- A. Remove masking materials.
- B. Clean building surfaces, grounds, landscaping or adjacent property soiled by work of this Section.

3.05 REJECTION CRITERIA

- A. The Work may be rejected for non-compliance with these Contract Documents, including referenced industry standards and manufacturer's recommendations. In particular, the following Rejection Criteria are listed for Contractor's convenience; this list may not be exhaustive or comprehensive:
 - 1. Poor aesthetic appearance, such as streaks or runs.
 - 2. Foreign materials on substrate.
 - 3. Lack of water repellent or excess water repellent.

END OF SECTION

SECTION 076201
FLASHING AND SHEET METAL INSTALLATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. See table in Section 011101.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Stainless Steel: Type 304 or Type 316, not lighter than 24 gauge, and with a standard 2B finish for the following:
 - 1. Through-wall flashings.

2.02 ACCESSORIES

- A. Solder: ANSI/ASTM B 32 50/50 Type.
- B. Flux: Non-corrosive soldering salts.
- C. Modified Bitumen Flashing Cement: "Tam-Pro CPA Premium MB SBS Flashing Cement", as manufactured by Tamko Roofing Products or approved equal.
- D. Sealant: "DC 795", one part silicone sealant manufactured by Dow Corning.
- E. Compressible Tape: Norton elastomeric tape.

2.03 FABRICATION

- A. Form pieces in longest practicable lengths.
- B. Hem exposed edges of metal 1/2 inch; miter and solder corners.
- C. Form materials with cover plate seam.
- D. Weld, solder, mechanically fasten or crimp and seal metal joints.
- E. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- F. Fabricate with required connection pieces.
- G. Form sections square, true, and accurate in size, in maximum possible lengths and free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.
- H. Slot holes for fastening sheet metal copings as necessary to allow for thermal expansion and contraction. Cover exposed holes with appropriate washers.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, or vents through roof are solidly set, cant strips are in place, and nailing strips located.

- B. Verify membrane termination and base flashings are in place, sealed, and secure.
- C. Installation of materials implies that Contractor has inspected and accepts the existing conditions.
- D. Field measure site conditions prior to fabricating work.

3.02 MISCELLANEOUS

- A. Set sheet metal and trim items level, true to line, and plumb.
- B. Secure to substrates with approved fasteners.
- C. Set metal pre-formed in place and fasten to substrate by means of cleats and/or fasteners as required on the Drawings, Specifications and site conditions.

3.03 GENERAL

- A. Furnish and install sheet metal work to provide weatherproof installations warranted against leaks and weather damage through severe temperature and weather conditions. Overlap seams in direction of water flow.
- B. Ensure that sheet metal work presents a finished appearance that is neat, uniform and possessing aesthetic characteristics of good architectural sheet metal work.
- C. Provide miscellaneous sheet metal work not specifically assigned to other trades. Furnish miscellaneous sheet metal work, accessories or other items essential to completeness of sheet metal and metal roofing installations.
- D. Install flashing and sheet metal in accordance with the manufacturer's installation instructions and the applicable details in the SMACNA Architectural Sheet Metal Manual and NRCA Roofing and Waterproofing Manual.

3.04 SOLDERING

- A. When soldering metal, thoroughly clean the parts to be joined of grease, dirt, and other foreign matter, using a clean cloth and solvent. Smooth surfaces should be roughened with clean emery cloth or sandpaper. Do not use ordinary steel wool.
- B. Perform soldering slowly with well-heated base metals, so as to thoroughly heat the seam and sweat the solder through its full width.
- C. Thoroughly wash acid flux with a soda solution after soldering and thoroughly rinse. Remove all soldering flux residue on exposed and painted surfaces.
- D. Use ample solder and ensure that seams show at least 1 full inch of evenly flowed solder. Wherever possible, perform soldering in flat position. Solder seams on slopes steeper than 45 degrees a second time.
- E. Counterflashings:
 - 1. Secure to metal drip edges with stainless steel screws at 8-inch center-to-center spacings.
 - 2. Provide 1-inch minimum side laps between adjacent counterflashing sections. Seal lapped joints with sealant and mechanically fasten with blind rivets.

3. Ensure that counterflashings extend 3 inches beyond top edge of base flashings.
4. Lap sections of sheet metal through-wall flashings 3-inches minimum. Solder or seal sheet metal side laps with double bead of specified sealant.
5. Stagger side laps in sheet metal 3-inches minimum from laps in sheet membrane flashings.
6. Install 2-piece counterflashings as shown on Drawings. Insert into through-wall flashing receiver; bend receiver downward at a 45 degree angle to provide a drip edge.

F. Miscellaneous:

1. Allow for thermal expansion of exposed sheet metal work exceeding 30-foot running length maximum.
2. Set sheet metal and trim items level, true to line, and plumb.
3. Secure to wood with approved fasteners.
4. Secure to masonry and concrete with approved fasteners.
5. Set metal already formed in place and fasten to substrate by means of cleats and/or fasteners as required on the Drawings, Specifications and site conditions.

3.05 GALVANIC CORROSION

- A. Prevent dissimilar metal contact where possible. This includes not only bi-metallic joints, but also fasteners that pass through new and existing flashing metals.
- B. Provide fasteners and pop rivets for sheet metal flashings and accessories of like material.

3.06 CLEANING

- A. Clean exposed metal flashing and sheet metal, after installation, of substances that may cause corrosion of metal or deterioration of the finishes.

END OF SECTION

SECTION 079201
SEALANT INSTALLATION AND REPLACEMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. See table in Section 011101.

1.02 QUALITY ASSURANCE

- A. Use only applicators that are SWRI-trained.
- B. Perform Work in accordance with technical publications of SWRI; the FGMA Sealant Manual published by GANA; ASTM C1193; and the manufacturer's written recommendations.
- C. Ensure that sealant manufacturer's representative regularly inspects joints for proper application of sealant.
- D. Perform field adhesion testing on all substrates immediately after receiving notice to proceed. Allow in Contract Time adequate time for curing and testing adhesion prior to commencement of production work. Perform testing in accordance with ASTM C1521.

PART 2 MATERIALS

2.01 PRODUCTS

- A. Sealant that will not be coated or painted: Sonneborn NP-1 or equivalent.
- B. Primer: **Use primer on all substrates receiving new sealant unless field adhesion testing indicates that they are not needed.**
 - 1. For Sonneborn NP-1 use Sonneborn 773 or 766 primers.
 - 2. Other primers may need to be substituted; test multiple primers during mock-up to obtain optimum adhesion.

2.02 ACCESSORIES

- A. Backer rod: bi-cellular cylindrical sealant backer rod complying with ASTM C1330, Type B, such as SofRod or ITP Soft Type Backer Rod. Provide a range of sizes to ensure that installed backer rod is compressed 25 percent of joint width.
- B. Bond-breaker tape: Pressure sensitive adhesive polyethylene tape, as recommended by sealant manufacturer.
- C. Masking Tape: Non-staining, non-absorbent, compatible; high-temperature, if necessary.
- D. Flags: For marking test cuts.
- E. Plastic squirt bottles, for applying primer; similar to a ketchup bottle.
- F. Solvent, for joint cleaning: Non-corrosive, non-staining type recommended by sealant manufacturer; compatible with joint forming materials. Check the quality

of each batch of solvent by wiping on a mirror to ensure that no residue is left after drying.

- G. Cloth: 100 percent cotton, lint-free cloth.
 - 1. One acceptable source is Dallas Wiping Materials, Inc., (800) 522-8875.
- H. Brush (for primer application): Natural fiber-bristled.

Commentary - Non-Mandatory Information: It is very important to provide cleaning cloths, brushes, and solvent that are not contaminated with trace amounts of hydrocarbons, which can interfere with sealant bond. For example, polyester fabric rags or plastic-bristle brushes can dissolve and be deposited on the substrate by cleaning solvents. Therefore, 100 percent cotton cloth is specified, and each batch of solvent must be tested for purity.

PART 3 EXECUTION

3.01 GENERAL

- A. Verify sealant and primer compatibility (non-reactive) and adhesion to substrates.
- B. Commencing installation of sealant implies that Contractor has inspected and accepts the existing conditions. Notify Engineer of:
 - 1. Non-compatible materials adjacent to sealant and do not proceed until resolved.
 - 2. Joints wider than 1 inch before sealing.
 - 3. Loose substrate components that move during sealant installation or replacement.
- C. Remove, clean, prime, and back no more area than can be sealed in the same day. Take precautions to protect building interior from infiltration through open joints that cannot be completed due to unanticipated changes in weather.
- D. Protect exterior of building, landscaping, ground, and adjacent personal and real property from damage, staining, and discoloring.
- E. Apply masking tape adjacent to joint faces. If acceptable results can be demonstrated without masking, then requirement for masking may be eliminated at locations not readily observable from the ground, inside the building, or other public vantage points.
- F. Complete necessary repair work to substrates before commencing sealant work.

3.02 PREPARATION

- A. Remove existing sealant from specified joints. Remove existing sealant residue or exudate adhered to joint faces until free of contamination and laitance.
- B. Grind joints with power grinders to clean substrate. Use care to ensure that grinder stays in joints, and does not skip across face of substrates. Avoid scratching substrate surfaces with grinder. Grind edges to a smooth, clean, uniform width and profile.
- C. Slightly round corners of stones at joint intersections, approximately 1/8-inch

radius, to avoid sharp corners in sealant joints.

- D. Some dust infiltration through open joints is expected during grinding, and will not be construed as soiling. However, take reasonable precautions to minimize dust infiltration.
- E. Use care to avoid chipping the face of substrate along edges by grinding. Preserve a smooth interface between face of substrate and face of sealant.
 - 1. Fill flush w/ stone face, tool concave and each chip in edge.
- F. Widen narrow joints to maintain specified joint dimensional tolerances. Beveling joint profile is acceptable. Widen joints to the following minimum widths:
 - 1. Window perimeter joints (stone-to-metal): 3/8 inch.
 - 2. “True” panel joints (stone-to-stone joints between precast concrete panels): 1/2 inch.
 - 3. “False” panel joints (stone-to-stone joints within one precast concrete panel): 1/4 inch.
 - 4. Other joints: 3/8 inch.
- G. Provide each crew with a check block to confirm adequate joint width before sealing. If check block does not easily fit into joint, grind edges to uniform minimum width so that check block can be slid along joint easily.
- H. Take precautions to avoid damaging shims and lateral anchors, if encountered in joints.
 - 1. Grind such obstructions back from substrate surface a uniform 1/4-inch.
 - 2. Butt backer rod up to each side of obstruction, and transition between different backing materials with continuous bond-breaker tape extending at least 3 inches each side of obstruction.

3.03 CLEANING

- A. Follow sealant manufacturer's instructions for cleaning.
- B. Wear protective clothing while using solvent. Do not allow solvent to contact human skin.
- C. Clean joint faces with clean cloth and solvent approved by the sealant manufacturer. Remove all dirt, grease, loose materials, water and other foreign matter that might impair adhesion of sealant.
- D. Do not contaminate solvent source container. Dispense small amount into separate container, keep lid on source container, and apply from separate container.
- E. Apply solvent using clean cloth. Remove solvent with second clean cloth. Continue wiping with new clean cloths until cloths come away clean.

3.04 PRIMING

- A. Apply primer to all substrates to receive sealant. Strictly adhere to sealant

manufacturer's instructions for primer application.

- B. Do not contaminate primer source container. Dispense small amount into separate squirt bottle. Keep lid on source container, and apply primer from separate container. Discard primer left in separate container at end of day.
- C. Wear protective clothing while using primer, which contains solvent. Do not allow primer to contact human skin.
- D. Apply primer using a clean cloth or paintbrush.
- E. Do not over-apply primer. Avoid primer drips, runs, skips, or voids.
- F. **Wipe off primer with second clean cloth.**
- G. Follow manufacturer's recommendations for primer flash- or dry-time prior to sealant application. Re-prime joints that are not sealed the same day that they are primed.

3.05 JOINT SHAPE AND SIZE

- A. Form joint shape and size in accordance with sealant manufacturer's published recommendations, ASTM standards, and as shown on Drawings. Use butt-joint profile wherever practicable; use fillet-joint profile where minimum joint dimensions cannot be achieved with butt-joint profile.
- B. Butt joints:
 - 1. Supply each crew with multiple diameters of backer rod to accommodate varying joint widths. Examine each joint and size backer rod to achieve required depth and compression. Do not twist multiple pieces of backer rod together; use appropriately sized backer rod.
 - 2. Use longest pieces of backer rod practicable to reduce number of discontinuities in backer rod. Make cuts using **scissors**; do not tear backer rod.
 - 3. Butt ends of backer rod tightly together at necessary cuts. Establish and maintain a consistent procedure for backing at intersections. Bending backer rod around joint corners is not acceptable.
 - 4. Use bond-breaker tape if joint depth cannot accommodate backer rod.
 - 5. Use a depth guide to ensure that depth of backer rod remains uniform, with no sudden changes in depth, so that cured sealant depth approximates one half the width of the joint. In all joints, ensure that the depth remains within the following tolerances:
 - a) Depth of sealant at center of joint shall not exceed width of joint; and
 - b) Maximum sealant depth at center of joint shall not exceed 1/2 inch; and
 - c) Minimum sealant depth across any section shall be at least 1/4 inch.

6. Replace backer rod that becomes wet; do not seal over wet backer rod.
 7. Apply sealant with appropriate equipment and pressure to ensure penetration of sealant into required joint depth.
 8. Push sealant ahead of nozzle and slightly overfill joints to avoid air voids.
 9. Immediately dry tool sealant beads smooth and slightly **concave**.
- C. Fillet joints:
1. Maintain at least 1/4-inch adhesion “bite” on each substrate.
 2. Maintain a nominal 1/4-inch (absolute minimum 1/8-inch) “throat” thickness, .measured at a point 1/4-inch from edge of substrate (or bond-breaker tape, if present)
 3. Examine joint dimensions and size backer rod to achieve required depth. Use bond-breaker tape in joints too small for backer rod.
 4. Use longest pieces of backer rod practicable to reduce number of discontinuities in backer rod. Butt ends tightly together at necessary cuts.
 5. Push sealant ahead of nozzle and slightly overfill joints to avoid air voids.
 6. Dry tool sealants smooth and **triangular**. Do not tool concave; avoid feather-edging sealant.
- D. Ensure that sealant does not mix with solvent in application equipment (bulk-loader guns). If guns are cleaned with solvent after each use, allow guns to thoroughly air dry before reloading.
- E. After dry tooling, joints may be wet-tooled (“slicked”) with clean, potable water; do not use lubricant, solvent, or detergent.
- F. After final tooling, do not disturb sealant until sealant is fully cured. Ensure that sealant is full smooth bead, and free of ridges, wrinkles, sags, air pockets and embedded impurities.

Commentary - Non-Mandatory Information: Dimensional control is critical to the durability of sealant joints. Therefore, it is important to establish procedures during the mock-ups for backing each type of joint. Maintaining the dimensional tolerances will be strictly enforced.

3.06 CLEANING

- A. Remove masking tape immediately after tooling.
- B. Scrape excess sealant off face of substrates with a single-edged razor immediately after tooling and before curing; or, if more effective, after curing.
- C. Clean building surfaces, grounds, or adjacent property soiled by Work of this Section.

3.07 PROTECTION

- A. Protect sealant installation from damage, rain, or irrigation water until curing is completed.

3.08 REJECTION CRITERIA

- A. The Work may be rejected for non-compliance with these Contract Documents, including referenced industry standards and manufacturer's recommendations. In particular, the following Rejection Criteria are listed for Contractor's convenience; this list may not be exhaustive or comprehensive:
1. Poor sealant adhesion.
 2. Poor sealant cure.
 3. Foreign materials on substrate in adhesion "bite" area of joint.
 4. Lack of priming or excess priming.
 5. Sealant depth too deep, too shallow, or non-uniform.
 6. Joint too narrow.
 7. 3-sided adhesion, or bond-breaker not full width of joint.
 8. Scratches on substrate, such as caused by grinder.
 9. Poor aesthetic appearance of finished joints, including ridges, wrinkles, sags, air pockets, or embedded impurities.

END OF SECTION

SECTION 099121
REMEDIAL PAINTING

PART 1 – GENERAL

1.01 WORK INCLUDED

3.09 SECTION INCLUDES

- A. See table in Section 011101.
- B. "Paint" as used herein means all coating system materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime-, intermediate-, or finish-coats.

1.02 SUBMITTALS

- A. Submit manufacturer's standard color chips to match existing colors and to provide range of possible colors. Custom color matching of existing colors will be required if standard colors are not acceptable.
- B. After Owner's preliminary selection of color(s) from color chips, submit one 12-inch by 12-inch sample of each selected color for initial approval.

1.03 MOCK-UP

- A. Designate an area (minimum size 5 feet by 5 feet or 5 linear feet for lintel) to serve as the mock-up for cleaning, priming, and painting to ensure covering rates and to verify application technique. Notify Engineer at least 24 hours prior to each stage of the mock-up.
- B. Apply paint in mock-up area on each substrate for Owner's final approval of color(s).

1.04 QUALITY ASSURANCE

- A. Applicator qualifications: At least 2 years documented experience in commercial paint application.
- B. Ensure that paint manufacturer's representative inspects the project regularly for proper preparation and application of paint.
- C. Perform all work in accordance with pertinent technical publications of the Society for Protective Coatings (SSPC).

1.05 SITE CONDITIONS

- A. Comply with manufacturer's recommendations for environmental conditions under which systems can be applied, including ambient and surface temperatures.
- B. Notify Engineer in writing immediately upon discovery of any adverse condition that might affect the performance of the work described in these Specifications.

PART 2 - PRODUCTS

2.01 PAINT

- A. Existing Column Within Masonry: Primer coat Tnemec Series 135 or equivalent approved by Engineer, provide 4.0 to 6.0 mils dry film thickness (DFT) applied in a minimum of 1 coat. Finish coat Tnemec Series 46-465 or equivalent approved by Engineer, provide 10 DFT applied in a minimum of 1 coat.
- B. New Lintels: Primer coat Tnemec Series 27 Typoxy or equivalent approved by Engineer, provide 3.0 to 5.0 mils dry film thickness (DFT) applied in a minimum of 1 coat. Finish coat Tnemec Series 1075 Endurashield or equivalent approved by Engineer, provide 3.0 to 5.0 mils dry film thickness DFT applied in a minimum of 1 coat.

2.02 ACCESSORIES

- A. Spray equipment or brushes for painting.
- B. Masking: Clear plastic.

2.03 CLEANING MATERIALS

- A. Provide detergent(s) or cleaner(s) safe for application on exposed metals, concrete, and surrounding building materials. Ensure that cleaners are compatible with sealant materials. Perform spot testing to ensure efficacy and compatibility of cleaner prior to general use.
- B. Water, clean and potable.

PART 3 - EXECUTION

3.01 GENERAL

- A. Perform all work of this Section in accordance with paint manufacturer's recommendations.
- B. Ensure that substrate repairs and sealant work are completed prior to paint application.
- C. Verify paint compatibility (non-reactive) and adhesion to all substrates. Apply test patch of coating for adhesion test and color approval.
- D. Notify Engineer of non-compatibility of substrates and paint, and do not proceed until resolved.
- E. Remove building components if necessary for complete coating of the adjacent surfaces; retain them in a manner to prevent damage; store them in a location approved by Owner. Following completion of painting in each area, have items reinstalled by workers skilled in the appropriate trades.
- F. Commencement of paint application implies that Contractor has inspected and accepts the existing surface conditions.

3.02 PREPARATION

- A. Provide transparent masking over materials not to be coated prior to surface preparation and painting.
- B. Protect exterior of building, landscaping, ground, and adjacent personal and real property from damage, staining, and discoloring.

- C. Proceed with cleaning in a systematic manner, from the top to the bottom in all areas. Schedule cleaning and painting so that dust or other contaminants from cleaning process will not fall on wet, newly painted surfaces.

3.03 CLEANING SUBSTRATES

- A. Prepare all surfaces before applying paint in accordance with paint manufacturer's recommendations. Remove loose paints, dirt, or any other materials that present the potential for adverse paint performance; substrates must be free of dirt, oil, grease, salts, wax, mildew, or other contaminant(s).
- B. Existing column within masonry: SSPS-SP6 (commercial blast cleaning). New lintels: SSPS SP-3 (power tool cleaning) to roughen surface and SSPS SP-1 (solvent cleaning) surface preparation.
- C. Penthouse Exterior Walls: Provide power wash cleaning.
- D. Apply primer to metal substrates within 24 hours after cleaning.

3.04 APPLY PAINT

- A. Ensure that all substrates are thoroughly dry before paint application.
- B. Apply all materials under adequate illumination; evenly spread and smoothly flowed on with proper equipment in accordance with paint manufacturer's recommendations.
- C. Apply products in a manner recommended by the paint manufacturer for the substrates to be coated under the site conditions present. Apply products by experienced craftsmen in a workmanlike manner. Drips, runs, sags, holidays, or splatters will not be acceptable.
- D. Apply subsequent coats of paint, separated by the drying time recommended by the manufacturer. Achieve the specified dry film thickness for each coat. Ensure that coverage and "hide" are complete. When color, stain, dirt or undercoats show through the final coat of paint, cover the surface with additional coats of finish, at no expense to the Owner, until a paint film of uniform finish, color, appearance and coverage is achieved.
- E. Remove masking materials and excess coating immediately after application.

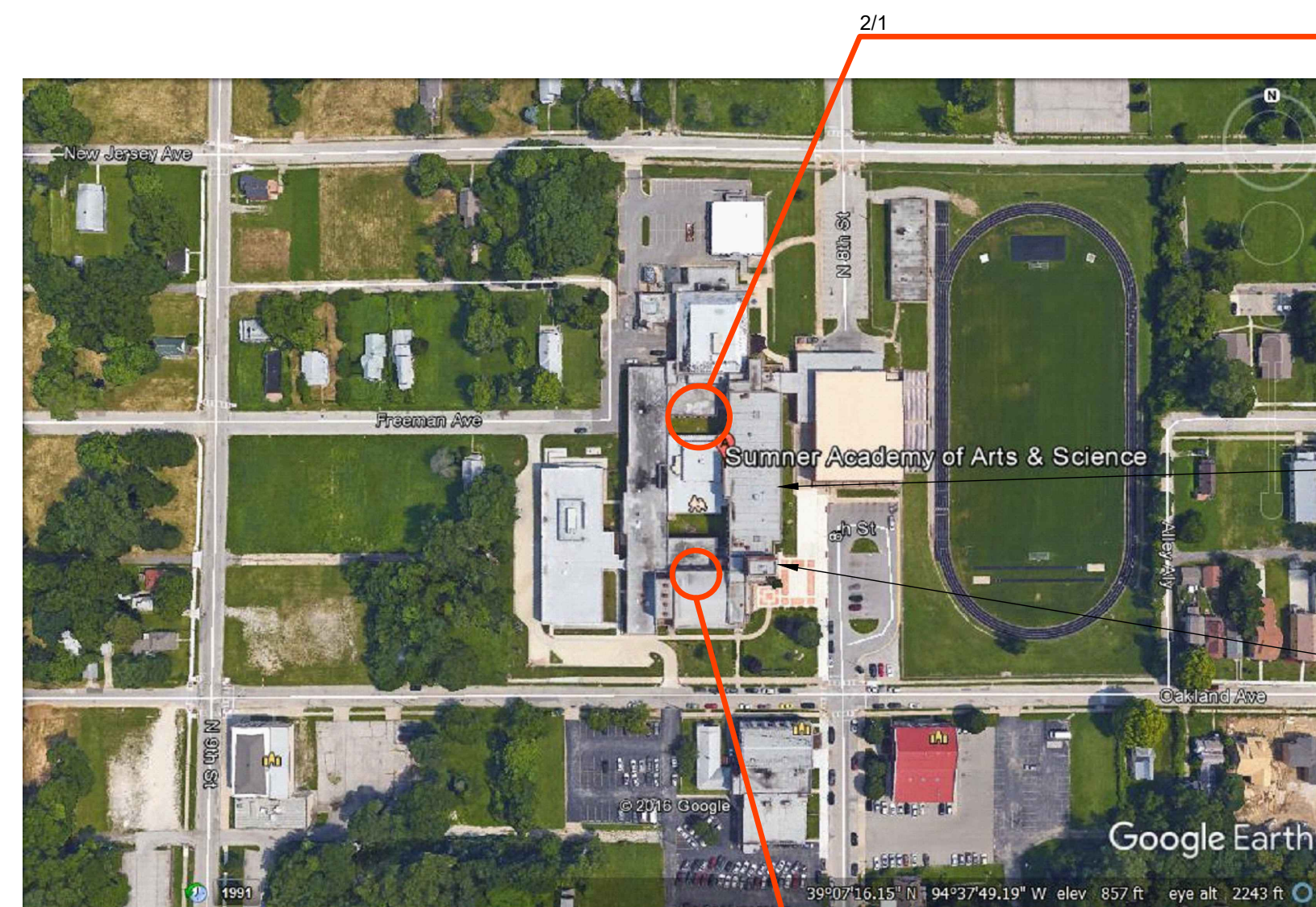
3.05 CLEAN-UP

- A. Clean building surfaces, grounds, landscaping or adjacent property soiled by Work of this section, including overspray.
- B. Upon completion, remove all paint, stains, splatters, etc., from any surface not designated to be painted. Any stained or ruined surface shall be repaired or replaced to the satisfaction of the Owner at no additional expense.
- C. Prevent accidental spilling of paint materials. In event of spill:
 - 1. Remove spilled material and waste or other equipment used to clean up spill.
 - 2. Clean surfaces to their original undamaged condition.

3.06 PROTECTION OF FINISHED WORK

- A. Close off freshly painted areas from public access, or conspicuously mark with “wet paint” signs.
- B. Protect coating from damage, rain, or irrigation water until proper curing is completed.

END OF SECTION



CLASSROOM WING LINTEL REPLACEMENT REPAIR ITEM 3 WORK SEE 2/2

BUILDING ENTRY MASONRY PINNING REPAIR ITEM 2 SEE 1/2

AUDITORIUM NORTH WALL REPAIR SEE PHOTOGRAPH NO. 2/1

PHOTOGRAPH 1
NO SCALE



PERFORM REPAIR ITEMS 11 REPLACE SEALANT AT MASONRY-EIFS AND METAL-EIFS JOINTS THIS WALL OPENING

PERFORM REPAIR ITEMS 2 & 4 THESE WALLS

DENOTES EXTENT OF REPAIR ITEM 5 AT COPING STONES

DENOTES APPROXIMATE EXTENT OF REPAIR ITEM 1 AND DETAIL 7/1 AT (3) PILASTERS

EXTENT OF REPAIR ITEMS 2 & 4

EXTEND REPAIR ITEM 3 AND DETAIL 10/1 TO THE NORTH-SOUTH WALL

REPAIR ITEM 3 AND DETAIL 10/1 TYPICAL AROUND SILL OF MASONRY AND AROUND ALL SIDES OF PILASTERS

PHOTOGRAPH 3
NO SCALE



PERFORM REPAIR ITEMS 11 REPLACE SEALANT AT MASONRY-EIFS AND METAL-EIFS JOINTS THESE (4) WALL OPENINGS

EXTENT OF REPAIR ITEMS 9 & 10

EXTEND REPAIR TO CORNER

REPAIR ITEMS 7 & 8 TYPICAL (4) WALL OPENING HEADS

PHOTOGRAPH 4
NO SCALE

PHOTOGRAPH 2
NO SCALE



REPLACE COPING-COPING STONE AND COPING STONE-MASONRY SEALANT (3) SIDES OF STONE

PHOTOGRAPH NOT TAKEN IN WORK AREA BUT IS SIMILAR TO COPING UNITS IN WORK AREA

PHOTOGRAPH 5
NO SCALE



REPAIR ITEM 6 HARVEST ORIGINAL BRICK TO REPLACE CRACKED BRICK FROM THIS WALL. REPLACE BRICK REMOVED WITH BRICK UNITS CLOSELY MATCHING COLOR AND DIMENSIONS OF THE NEWER BRICK BELOW THE ORIGINAL BRICK. PROVIDE TEMPORARY SUPPORT OF THE WALL MASONRY AS ORIGINAL BRICK REMOVAL PROCEEDS. DO NOT DAMAGE ROOF MEMBRANE OR CLAY COPING UNITS.

ORIGINAL BRICK NEWER BRICK

PHOTOGRAPH 6
NO SCALE

GENERAL NOTES

- These notes shall be read in conjunction with the Specifications and the Drawings. In the event of a conflict, notify the Engineer for clarification.
- Before executing anything herein shown, examine actual job conditions. Report any discrepancy, dimensional or otherwise, between Drawings and any other error, omission, or difficulty affecting the work to the Engineer for review prior to bidding. Field verify all dimensions and elevations shown on the Drawings prior to bidding.
- Any condition encountered in the existing structural system which is different from that indicated in Drawings or which might create a failure or hazard shall be brought to the immediate attention of the Engineer.
- The existing conditions indicated on the Drawings are based on surveys made by the consultant(s) as well as on material provided by the Owner and no claim is made as to its absolute completeness and/or accuracy.
- All details and sections are intended to be typical and shall be construed to apply to any similar situation elsewhere, except where a different detail is shown.
- The photographs provided may not be a completely accurate depiction of existing building conditions and configurations. Field verify existing building conditions and configurations prior to bidding, notify Engineer of discrepancies for review.
- Remove and reinstall to match preconstruction conditions all ancillary items that may impede the Work (i.e. downspouts, conduit, signs, and other similar items) that may be present. Extend the repair to natural break points such as corners, vertical and horizontal joints, change of materials/finishes and similar conditions.
- Provide structural steel with the following types and grades: angles ASTM A 36.
- Galvanizing: For those items indicated for galvanizing, apply zinc-coating by the hot-dip process compliance with the following requirements: ASTM A 123.

Base Bid Repair Item	Section	Description
1	045211 and 099121	Auditorium North Wall Pilaster Corroding Metal Column Repair. Provide the following: remove brick masonry to expose the metal column within the masonry, abrasive blast clean and coat all exposed metal within the wall, replace masonry removed.
2	045211 and 079201	Auditorium North Wall Water Repellent. Provide the following: masonry cleaning and water repellent application.
3	045211 and 079201	Auditorium north wall sill through-wall flashing installation. Provide the following: masonry removal; through-wall flashing; metal flashing and counterflashing; sealant; and masonry replacement.
4	045211	Selective Auditorium North Wall Repointing. Provide the following: mark deteriorated (friable, cracked, missing, weathered mortar) masonry head and bed joints for Engineer and approval to replace the mortar; repoint mortar joints approved for mortar replacement.
5	079201	Coping Stone-To-Stone Sealant Replacement. Provide the following: replace all coping-to-coping stone sealant all (3) sides of stone units.
6	045211	Brick harvesting. Provide the following: remove existing brick from wall to replace cracked/damaged brick at Repair Items 1, 3, and 7 locations, replace brick masonry removed with units closely matching newer brick color and dimensions.
7	045211 and 079201	North Light Court Through-Wall Flashing Installation. Provide the following: masonry removal; through-wall flashing; sealant; masonry replacement.
8	045211 and 079201	North Light Court Lintel Replacement. Provide the following at Engineer designated lintels; lintel replacement.
9	045211	Selective North Light Court Wall Repointing. Provide the following: mark deteriorated (friable, cracked, missing, weathered mortar) masonry head and bed joints for Engineer and approval to replace the mortar; repoint mortar joints approved for mortar replacement.
10	071902	North Light Court Water Repellent. Provide the following: masonry cleaning and water repellent application.
11	079201	Replace Sealant. Provide the following at masonry-EIFS and metal-EIFS joints: carefully remove existing sealant; clean substrates (do not damage EIFS substrate); backer rod/bond break tape; and sealant

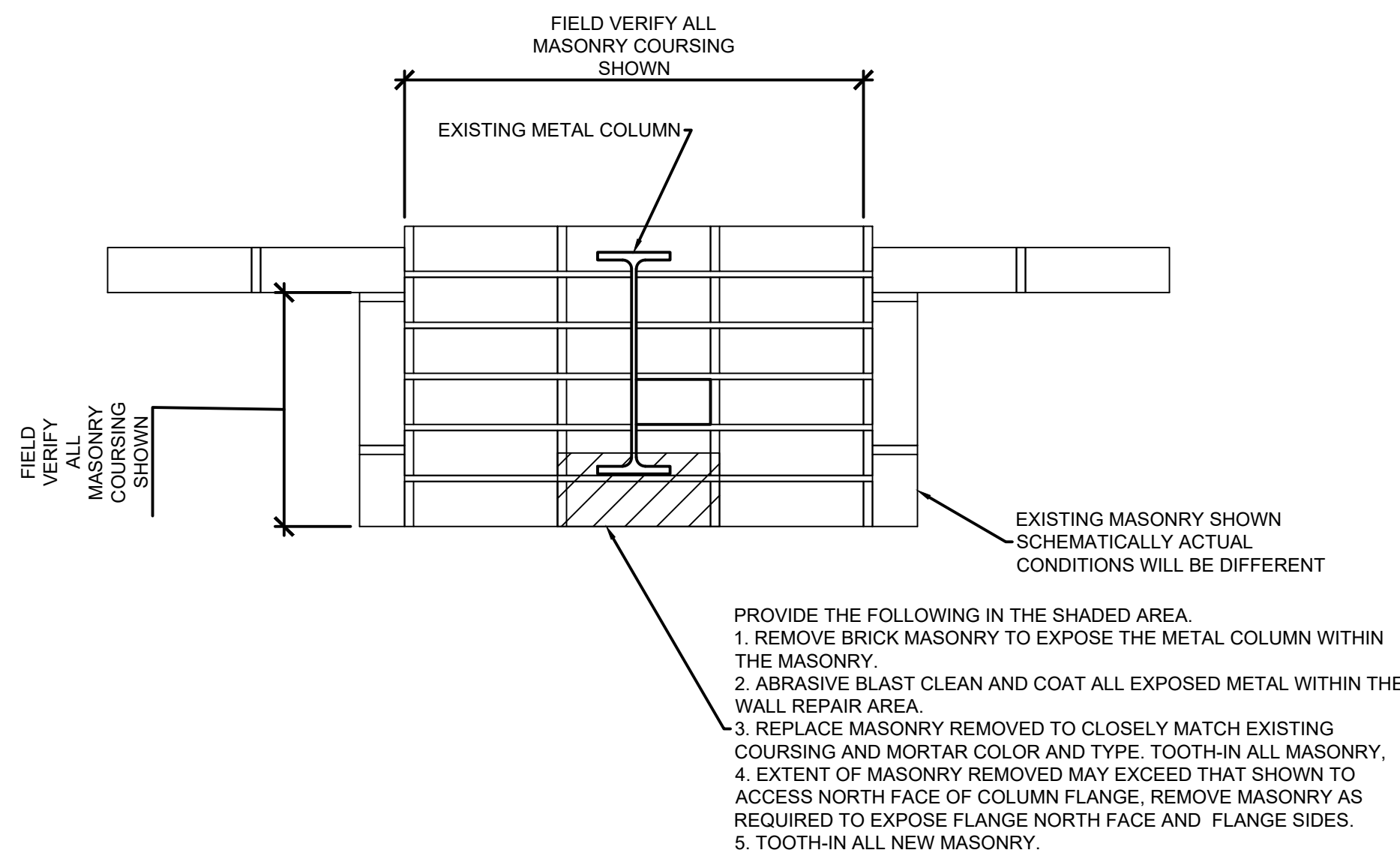


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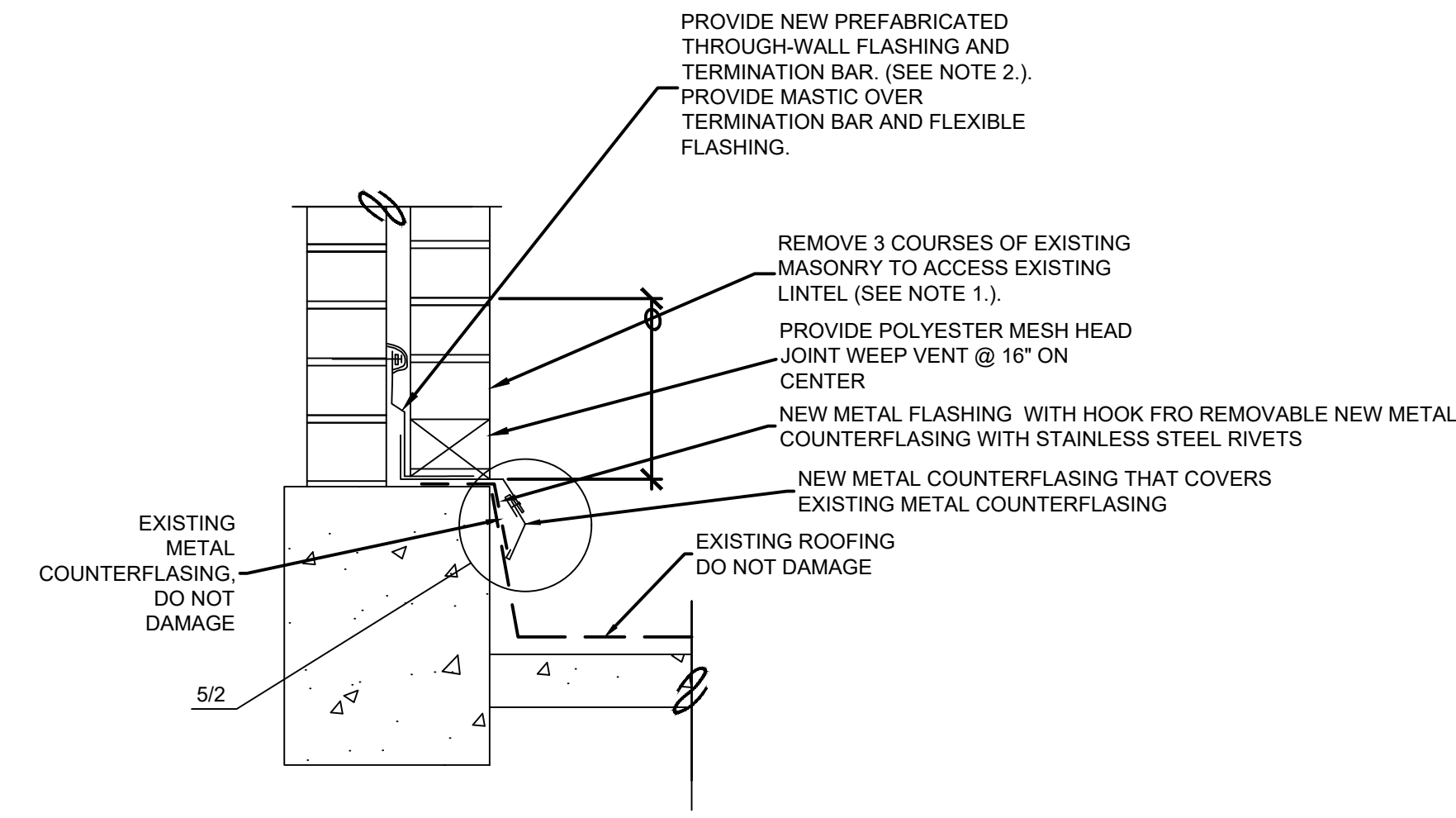
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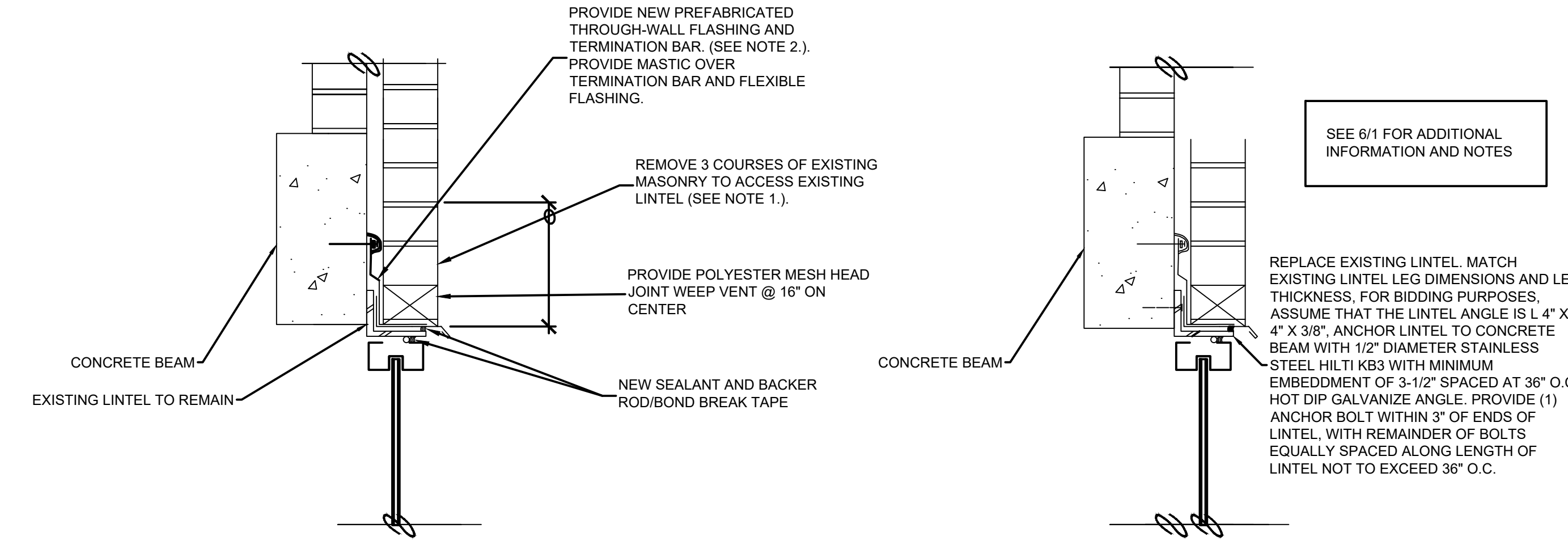
SECTION THROUGH LINTEL 1
NOT TO SCALE REPAIR ITEM 1

- PROVIDE THE FOLLOWING IN THE SHADED AREA.
1. REMOVE BRICK MASONRY TO EXPOSE THE METAL COLUMN WITHIN THE MASONRY.
 2. ABRASIVE BLAST CLEAN AND COAT ALL EXPOSED METAL WITHIN THE WALL REPAIR AREA.
 3. REPLACE MASONRY REMOVED TO CLOSELY MATCH EXISTING COURSING AND MORTAR COLOR AND TYPE. TOOTH-IN ALL MASONRY.
 4. EXTENT OF MASONRY REMOVED MAY EXCEED THAT SHOWN TO ACCESS NORTH FACE OF COLUMN FLANGE. REMOVE MASONRY AS REQUIRED TO EXPOSE FLANGE NORTH FACE AND FLANGE SIDES.
 5. TOOTH-IN ALL NEW MASONRY.



SECTION THROUGH SILL 4
NOT TO SCALE REPAIR ITEM 4

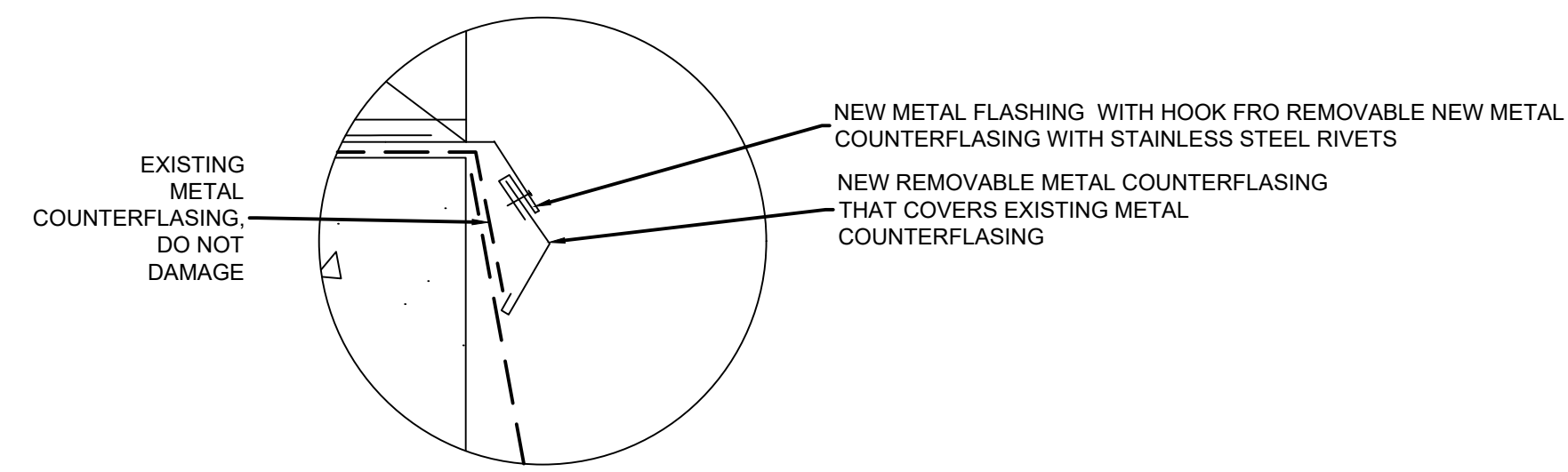
- REPAIR ITEM 4 NOTES
1. MAINTAIN STABILITY OF THE EXISTING BRICK ABOVE BRICK LINTEL REMOVAL AREAS AT ALL TIMES. PROVIDE TEMPORARY STEEL ANGLES OR OTHER MEANS TO SUPPORT EXISTING MASONRY. PROVIDE NEW BRICK AND MORTAR MASONRY TO CLOSELY MATCH THE EXISTING BRICK AND MORTAR COLOR, TEXTURE, BOND PATTERN, AND TYPE OF MORTAR JOINT. PROVIDE NEW BRICK AND MORTAR MASONRY SO THAT NEW MASONRY IS REASONABLY INDISTINGUISHABLE FROM THE EXISTING MASONRY WHEN VIEWED IN INDIRECT LIGHT FROM A DISTANCE OF AT LEAST 20 FEET.
 2. INSTALL NEW PREFABRICATED FLASHING ACCORDING TO THE MANUFACTURER'S DIRECTIONS. ADHERE FLASHING TO CLEANED SURFACES ONLY. REMOVE DUST, WAX, OIL AND OTHER MATERIALS THAT MAY IMPAIR THE FLASHING ADHESION. ANCHOR TERMINATION BAR TO EXISTING CONCRETE OR MASONRY WITH STAINLESS STEEL CONCRETE 1/4" SCREWS AT 8" ON CENTER. PROVIDE PREFABRICATED END DAMS WHERE NEW THROUGH-WALL FLASHING TERMINATES AT JAMBS.



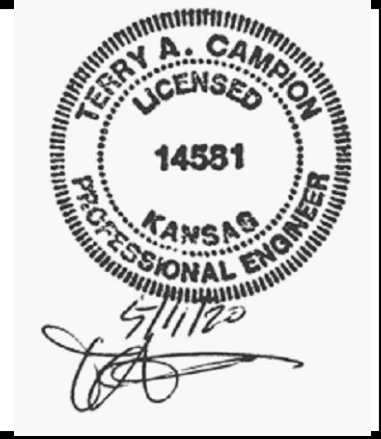
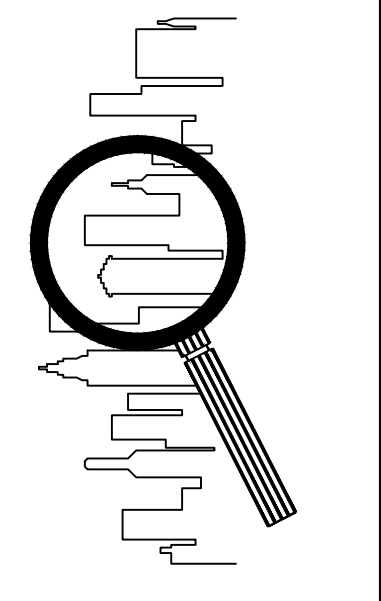
SECTION THROUGH LINTEL 2
NOT TO SCALE REPAIR ITEM 2

SECTION THROUGH LINTEL 3
NOT TO SCALE REPAIR ITEM 3

- REPAIR ITEM 2 AND 3 NOTES
1. MAINTAIN STABILITY OF THE EXISTING BRICK ABOVE BRICK LINTEL REMOVAL AREAS AT ALL TIMES. PROVIDE TEMPORARY STEEL ANGLES OR OTHER MEANS TO SUPPORT EXISTING MASONRY. PROVIDE NEW BRICK AND MORTAR MASONRY TO CLOSELY MATCH THE EXISTING BRICK AND MORTAR COLOR, TEXTURE, BOND PATTERN, AND TYPE OF MORTAR JOINT. PROVIDE NEW BRICK AND MORTAR MASONRY SO THAT NEW MASONRY IS REASONABLY INDISTINGUISHABLE FROM THE EXISTING MASONRY WHEN VIEWED IN INDIRECT LIGHT FROM A DISTANCE OF AT LEAST 20 FEET.
 2. INSTALL NEW PREFABRICATED FLASHING ACCORDING TO THE MANUFACTURER'S DIRECTIONS. ADHERE FLASHING TO CLEANED SURFACES ONLY. REMOVE DUST, WAX, OIL AND OTHER MATERIALS THAT MAY IMPAIR THE FLASHING ADHESION. ANCHOR TERMINATION BAR TO EXISTING CONCRETE OR MASONRY WITH STAINLESS STEEL CONCRETE 1/4" SCREWS AT 8" ON CENTER. PROVIDE PREFABRICATED END DAMS WHERE NEW THROUGH-WALL FLASHING TERMINATES AT JAMBS.
 3. MASONRY WALL SHOWN, LINTEL AT WINDOW HEAD SIMILAR.



SILL DETAIL 5
NOT TO SCALE REPAIR ITEM 4



DRAWN BY: tc DATE: 5-11-20
CHECKED BY: eb DATE: 5-11-20
FILENAME:

REVISIONS

SHEET NO.

BID FORM

By signing this bid form, the vendor certifies the forms being offered meets or exceeds all requirements and conditions of the bid, special provisions and specifications. In compliance with the above and subject to all the conditions hereof, the undersigned offers and agrees to furnish all items upon which prices are quoted, at the price set opposite each item.

The undersigned certifies that no Federal, State, County or Municipal tax is included in the above quoted prices and that none will be added. Public schools are TAX EXEMPT. Exemption certificates will be provided upon request.

Bid Form – All Work	
Base Bid – (to include all labor, materials and other costs)	\$
Bid Value Written Out	
Number of Days After Receipt of Order to Start Project	Days
Number of Days to Complete Project	Days

The Lump Sum written out immediately above governs this Bid. For comparative purposes and as the basis for future add/deduct negotiations, also list individual prices for the following work items. The total of these items must equal the Lump Sum above, and should accurately reflect the apportionment of the Bid, including overhead, profit, and taxes.

Where given, use the quantities provided for bidding; if provided quantities are later determined to be inaccurate, an equitable adjustment will be made in the Contract Price by multiplying Bidder's unit rate price times the actual quantity performed; no other pricing will be considered for changes in the Contract Price. If a quantity is not provided, Bidder shall make an independent study to estimate the actual quantity; no Change Order will be considered to correct inaccurate quantities estimated by Bidder.

Repair Item	Base Bid - Descriptions	Unit	Unit Price	Quantity	Extended Price
1	Auditorium North Wall Pilaster Corroding Metal Column Repair	Lump Sum	\$	NA	\$
2	Auditorium North Wall and North Light Court Water Repellent.	Lump Sum	\$	NA	\$
3	Auditorium north wall sill through-wall flashing installation.	Lump Sum	\$	NA	\$
4	Selective Auditorium North Wall Repointing.	Sq. Ft. ¹	\$ <small style="float: right;">Per Sq. Ft.</small>	100 Sq. Ft.	\$
5	Coping Stone-To-Stone Sealant Replacement.	Lump Sum	\$	NA	\$
6	Brick harvesting	Each Brick	\$ <small style="float: right;">Per Brick</small>	1,000 Bricks	\$
7	North Light Court Through-Wall Flashing Installation.	Lump Sum	\$	NA	\$
8	North Light Court Lintel Replacement.	Linear Foot	\$	35 Lin. Ft.	\$
9	Selective North Light Court Wall Repointing.	Sq. Ft. ¹	\$ <small style="float: right;">Per Sq. Ft.</small>	100 Sq. Ft.	\$
10	North Light Court Water Repellent.	Lump Sum	\$	NA	\$

Repair Item	Base Bid - Descriptions	Unit	Unit Price	Quantity	Extended Price
11	Replace Sealant.	Lump Sum	\$	NA	\$
12	Construction Performance and Payment bonds	Lump Sum	\$	Lump Sum	\$

1. Linear feet of repointing will be converted to a square foot quantity using the ratio of 5.5 linear feet equals 1 square foot.

Designations	If Yes, Please Identify Certified Designation	
MBE/WBE/Other Certification Is your firm certified MBE/WBE or Other? (Circle One)>>	Yes / No	

WE HEREBY AGREE TO FURNISH THE ITEMS ON WHICH PRICES ARE QUOTED ABOVE IN ACCORDANCE WITH ALL TERMS AND CONDITIONS PREVIOUSLY LISTED AND ANY ATTACHED SPECIFICATIONS.

BY: _____ DATE _____
 TITLE: _____ FIRM: _____
 PHONE: _____ EMAIL: _____

ATTACHMENT A – USD 500 STANDARD TERMS AND CONDITIONS

1. SCOPE: The following terms and conditions shall prevail unless otherwise modified by U.S.D. 500 within this bid document. U.S.D. 500 reserves the right to reject any bid which takes exception to these terms and conditions.
2. DEFINITIONS AS USED HEREIN:
 - a. The term “bid request” means a solicitation of a formal sealed bid.
 - b. The term “bid” means the price offered by the bidder.
 - c. The term “bidder” means the offeror or Contractor.
 - d. The term “U.S.D. 500” means Unified School District No. 500.
 - e. The term “Board of Education” or “BOE” means the governing body of Unified School District No.500
3. COMPLETING BID: Bids must be submitted ONLY on the form provided in this bid document. All information must be legible. Any and all corrections and /or erasures must be initialed. Each bid sheet must be signed by the authorized bidder and required information must be provided.
4. CONFIDENTIALITY OF BID INFORMATION: Each bid must be sealed and submitted in or under cover of the enclosed envelope to provide confidentiality of the bid information prior to the bid opening. Supporting documents and/or descriptive literature may be submitted with the bid or in a separate envelope marked “Literature for Bid (Number).” Do NOT indicate bid prices on literature. All bids and supporting bid documents become public information after the bid opening and are available for inspection by the general public in accordance with the Kansas Open Records Act.
5. ACCURACY OF BID: Each bid is publicly opened and is made part of the public record of U.S.D. 500. Therefore, it is necessary that any and all information presented is accurate and/or will be that by which the bidder will complete the contract. If there is a discrepancy between the unit price and extended total, the unit price will prevail.
6. EXAMINATION OF INSTRUCTIONS, CONDITIONS AND/OR SPECIFICATIONS: Bidders shall thoroughly examine and be familiar with all instructions, conditions, and/or specifications. The failure of a Bidder to receive or examine any form, attachments, addendum or other document, or visit to the site when required in order to acquaint the Bidder with existing conditions, shall in no way relieve the Bidder from obligations concerning the bid or the contract. The submission of a bid shall be taken as prima facie evidence of compliance.
7. VERBAL STATEMENTS OF STAFF: Bidders shall not rely upon any oral statements or conversations they may have with District employees, agents, or representatives regarding the solicitation, whether at the Pre-Bid Conference or otherwise. All questions must be submitted by bidders in writing and shall be answered by the District in a written addendum to the solicitation.
8. SUBMISSION OF BID: Bids are to be sealed and submitted to the Purchasing Department Office, 2010 North 59th Street, Room 370, Kansas City, Kansas, 66104, prior to the date and time indicated on the cover sheet.
9. ADDENDA: All changes in connection with this bid will be issued by the Purchasing Office in the form of a written addendum. Signed acknowledgement of receipt of each addendum must be submitted with the bid. It is the responsibility of bidders to review the District website regularly for updates.
10. LATE BIDS AND MODIFICATION OR WITHDRAWALS: Bids received after the deadline designated in this bid document shall not be considered and shall be returned unopened.
11. BIDS BINDING: All bids submitted shall be binding upon the bidder if accepted by U.S.D. 500 within sixty (60) calendar days after the bid opening.
12. EQUIVALENT BIDS: When brand or trade names are used in the bid invitation, it is for the purpose of item identification and to establish standards for quality, style and features. Bids on equivalent items of substantially the same quality, style and features are invited unless items are marked “No Substitute.” Equivalent bids must be accompanied by descriptive literature and/ or samples may be required and shall be supplied at no charge to the school district.
13. NEW MATERIALS, SUPPLIES AND EQUIPMENT: Unless otherwise specified, all materials, supplies or equipment offered by a bidder shall be new, unused, of recent manufacture, first class in every respect, and suitable for their intended purpose. All equipment shall be assembled and fully serviced, ready for operation when delivered.
14. WARRANTY: Supplies or services furnished as a result of this bid shall be covered by the most favorable commercial warranties, expressed or implied, that the bidder and/or manufacturer gives to any customer. The rights and remedies provided herein are in addition to and do not limit any rights afforded to U.S.D. 500 by any other clause of this bid reserves the right to request from bidders a separate manufacturer certification of all statements made in the Proposal.
15. METHOD OF AWARD AND NOTIFICATION: Bids will be analyzed and the award made to the lowest and best, responsive and responsible bidder(s) whose bid conforms to the specifications and whose bid is considered to be the best value in the opinion of U.S.D. 500.
16. U.S.D. 500 reserves the right to reject any or all bids and any part of a bid: to waive informalities, technical defects, and minor irregularities in bids received: and to award the bid on an item by item basis by specified groups of items or to consider bids submitted on an “all or nothing” basis if the bid is clearly designed as such or when it is determined to be in the best interest of U.S.D. 500.
17. OFFER/ACCEPTANCE: The signed bid shall be considered an offer on the part of the bidder: such offer shall be deemed accepted ONLY upon the issuance by U.S.D. 500 of a valid Purchase Order or other contractual documents.
18. DELIVERY TERMS: All deliveries shall be F.O.B. Destination and all freight charges shall be included in the bid price.
19. DAMAGED AND/OR LATE SHIPMENTS: U.S.D 500 has no obligation to accept damaged shipments and reserves the right to return at the Contractor’s expense damaged merchandise even though the damage was not apparent or discovered until after receipt of the

items. The Contractor is responsible to notify U.S.D. 500 Purchasing Office of any late or delayed shipments. U.S.D. 500 reserves the right to cancel all or any part of an order if the shipment is not made as promised.

20. CREDIT TERMS: Bidder shall indicate all discounts for full and/or prompt payment. Discounts shall be considered as a cost factor in the determination of award, except discounts offered for payment within less than ten (10) calendar days. Discounts offered shall be computed from date of receipt of correct invoice or receipt and acceptance of products, whichever is later.
21. SELLER'S INVOICE: Invoices shall be prepared and submitted in duplicate to address shown on the Purchase Order. Invoices shall contain the following information: Purchase Order number, contract number, item number, description of supplies or services, sizes, unit of measure, quantity, unit price and extended totals.
22. TAX EXEMPT: U.S.D. 500 is exempt from Federal, State and local taxes by KS-FZLEKBLQ. Sites of all transactions under the order(s) that shall be derived from this bid request shall be deemed to have been accomplished within the State of Kansas.
23. SAFETY: All practices, materials, supplies and equipment shall comply with the federal Occupational Safety and Health Act, as well as any pertinent Federal, State and/or local safety or environmental codes.
24. DISCLAIMER OR LIABILITY: U.S.D. 500 will not hold harmless or indemnify any bidder for any liability whatsoever.
25. TERMINATION RIGHTS: KCKPS shall have the right to terminate/cancel the Agreement for its convenience and without penalty upon thirty (30) days prior written notice to the Contractor.
26. HOLD HARMLESS: The Contractor agrees to protect, defend, indemnify and hold the Board of Education, its officers, employees and agents fee and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees or other expenses or liabilities or every kind and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings or causes of action of every kind and character in connection with or arising directly or indirectly out of this agreement and/or the performance hereof. Without limiting the generality of the foregoing, any and all such claims, etc., relating to personal injury, infringement of any patent trademark, copyright (or application for any thereof) or of any other tangible or intangible personal or property right, or actual or alleged violation of any applicable statute, ordinance, administrative order, rule or regulation, or decree of any court, shall be included in the indemnity hereunder. The Contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, etc., at his/her sole expense and agrees to bear all other costs and expenses related thereto, even if such claim is groundless, false or fraudulent.

NO MUTUAL INDEMNIFICATION:

K.S.A.72-8201a: Contracts; indemnification or hold harmless provisions, void.

- (a) It is the public policy of the state of Kansas that all contracts entered into by the board of education of a school district, or any officers or employees thereof acting on behalf of the board, provide that the school district and board of education shall be responsible solely for the district's or board's actions or failure to act under a contract.
 - (b) The board of education of a school district or any officers or employees thereof acting on behalf of the board shall not have the authority to enter into a contract under which the school district or board agrees to, or is required to, indemnify or hold harmless against damages, injury or death resulting from the actions or failure to act on the part of any party to a contract other than the board or district.
 - (c) The provisions of any contract entered into in violation of this section shall be contrary to the public policy of the state of Kansas and shall be void and unenforceable.
27. INSURANCE: Upon receipt of award, Contractor shall provide Certificate of Insurance as required within three (3) days after notification issued by the Purchasing Department.
- A. The following general insurance requirements apply to any and all work under this contract by all Contractors and subcontractors of any tier.
- (1) Any and all insurance required by this contract with each and any and all insurance required by this contract shall be maintained during the entire length of this contract, including any extensions thereto, and until all work has been completed to the satisfaction of the Kansas City Kansas Public Schools. Any and all insurance must be on an occurrence basis.
 - (2) No Contractor or subcontractor shall commence work under a contract until all insurance requirements contained within the solicitation have been complied with and until evidence of all insurance requirements in each and every contract with each and every subcontractor of any tier and shall require the same to comply with all such requirements.
 - (3) The Kansas City Kansas Public Schools and Engineering Diagnostics, LLC shall be covered as an Additional Insured under any and all insurance required by this contract. Confirmation of this shall appear on all certificates of insurance and on any and all applicable policies. The title of the awarded contract shall also appear on any and all applicable policies.
 - (4) The Kansas City Kansas Public Schools shall be given no less than thirty (30) days' written notice of cancellation. The Kansas City Kansas Public Schools shall be given not less than thirty (30) days' prior written notice of material changes of any insurance required under this contract. The Kansas City Kansas Public Schools shall be given written notice of renewal of coverage not less than thirty (30) days prior to the expiration of any particular policy.
 - (5) Each and every agent shall warrant when signing the certificate of insurance that he is acting as an authorized representative on behalf of the companies affording insurance coverage under the contract and that he is licensed by the State of Kansas to conduct insurance business in the State of Kansas and that the companies affording insurance coverage are currently licensed by the State of Kansas and are currently in good standing with the Commissioner of Insurance for the State of Kansas.
 - (6) Any and all companies providing insurance required by this contract shall meet the minimum financial security requirements as set forth below. The rating for each company must be indicated on the certificate of insurance.

For all contracts, regardless of risk, companies providing insurance under this contract must have a current:

- (a) Best's Rating not less than A, and
 - (b) Best's Financial Size Category not less than Class VII
- (7) In the event the Contractor neglects, refuses, or fails to provide insurance required by the contract documents, or if such insurance is canceled for any reason, Kansas City Kansas Public Schools shall have the right, but not the duty, to procure the same, and the cost thereof shall be deducted from monies then due or thereafter to become due to the Contractor or Kansas City Kansas Public Schools shall have the right to cancel the contract.
- B. Worker's Compensation and Employer's Liability Insurance
- The Contractor shall procure and maintain Worker's Compensation and Employer's Liability Insurance in the following limits. Such insurance is to cover each and every employee who is or may be engaged in work under this contract.
- Worker's Compensation.....Statutory
- Employer's Liability
- Bodily Injury by Accident.....\$1,000,000 each accident
 - Bodily Injury by Disease.....\$1,000,000 each employee
 - Bodily Injury by Disease.....\$1,000,000 policy limit
- C. Comprehensive General Liability Insurance
- The Contractor shall procure and maintain Comprehensive Insurance in an amount not less than \$1,000,000 for bodily injury and property damage combined single limit. The following specific extensions of coverage shall be provided and indicated on the certificate of insurance:
- (1) Comprehensive Form
 - (2) Contractual Insurance
 - (3) Personal Injury
 - (4) Broad Form Property Damage
 - (5) Premises – Operations
 - (6) Completed Operations
- This coverage shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under this contract. Policy coverage must be on an occurrence basis.
- D. Automobile Liability Insurance
- The Contractor shall procure and maintain Automobile Liability Insurance in an amount not less than \$1,000,000 for bodily injury and property damage combined single limit. The following extensions of coverage shall be provided and indicated on the certificate of insurance.
- (1) Comprehensive Form
 - (2) Owned, Hired, Leased and non-owned vehicles
- If the Contractor does not own any vehicles in the corporate name, non-owned vehicles coverage shall apply and must be endorsed on either the Contractor's personal automobile policy or the Comprehensive General Liability coverage required under this contract.
- E. Commercial Crime insurance (when applicable)
- The Contractor shall procure and maintain Commercial Crime/Fidelity insurance in an amount not less than \$1,000,000.00, including coverage for theft or loss of KCKPS property.
28. LAW GOVERNING: All contractual agreements shall be subject to, governed by, and construed according to the laws of the State of Kansas.
29. ANTI-DISCRIMINATION CLAUSE: No bidder on this request shall in any way, directly or indirectly, discriminate against any person because of age, race, color handicap, sex, national origin, or religious creed.
30. BID BOND/PERFORMANCE BOND (Applicable ONLY to Construction/Remodel/Repair Projects, Unless Waived by the District).
- A. Each proposal must be accompanied by a certified or cashier's check, or a bid bond in the amount of five percent (5%) of the Contractor's total bid.
 - B. A Performance Bond and a Material and Labor Payment Bond in amounts equal to one hundred percent (100%) of the contract price shall be furnished by the successful bidder. Bonds shall be issued by a surety acceptable to the Board.
 - C. NO BID BOND OR PERFORMANCE BOND IS REQUIRED FOR SERVICES
31. DISQUALIFICATION:
- A. The Director of Purchasing may, at her/his sole discretion, disqualify a bidder for one or any combination of the following reasons:
 - 1. Bidder's product does not meet the specifications or bid conditions of the solicitation;
 - 2. Bidder's tendered bid is not received on the District's bid form;
 - 3. Bidder's tendered bid is not signed;
 - 4. Required bid bond is not furnished at time of bid opening;
 - 5. Failure to comply with bid instructions, terms and conditions that are judged to be essential to the competitive process and in the best interests of the District.
 - B. Disqualification of bidders on future bids may be considered for any one or combination of the following reasons:
 - 1. Refusal of the bidder to complete a contract or bid;

2. Bidder's past history of late deliveries or partial/incomplete shipments,
 3. Bidder's products or services have proven unreliable, unworkable or have not accomplished the result requested in the District's specifications.
32. SUPPLIER DIVERSITY: The Kansas City Kansas Public Schools encourages supplier diversity and participation of MBE/WBE/DBE designated businesses. However, such participation will not result in any selection or scoring advantage in the bid evaluation process.
 33. CONTRACTUAL PROVISIONS ATTACHMENT: The Provisions found in Contractual Provisions Attachment (Form DA-146a, Rev. 06-12), which is attached hereto, are hereby incorporated in this contract and made a part thereof."
 34. INCLEMENT WEATHER/EMERGENCY POLICY

IF THERE IS A SCHOOL OR BUILDING CLOSURE THE DAY OF THE SCHEDULED BID OPENING, DUE TO INCLEMENT WEATHER OR AN EMERGENCY, THE BID OPENING WILL OCCUR AT 2:00PM (CENTRAL) THE NEXT BUSINESS DAY THAT THE DISTRICT IS OPEN.