

**INVITATION TO BID**

**NKU-49-18**



**University Center Façade Repairs**

**April 25, 2018**

**Proposal NO:**

NKU-49-17

**Issue Date:**

April 25, 2018

**Title:**University Center Facade  
Repairs**Purchasing Officer:**

Blaine Gilmore

**Phone:**

859.572.6449

**RETURN ORIGINAL COPY OF PROPOSAL TO:****Northern Kentucky University  
Procurement Services  
1 Nunn Drive  
617 Lucas Administrative Center  
Highland Heights, KY 41099****IMPORTANT: BIDS MUST BE RECEIVED BY: 05/10/2018 BEFORE 2:30 P.M. HIGHLAND HEIGHTS, KY time.****NOTICE OF REQUIREMENTS**

1. The University's General Terms and Conditions and Instructions to Bidders, viewable at <http://procurement.nku.edu/policies/terms-and-conditions.html>, apply to this Request for Proposal.
2. Contracts resulting from this RFP must be governed by and in accordance with the laws of the Commonwealth of Kentucky.
3. Any agreement or collusion among Offerors or prospective Offerors, which restrains, tends to restrain, or is reasonably calculated to restrain competition by agreement to bid at a fixed price or to refrain from offering, or otherwise, is prohibited.
4. Any person who violates any provisions of KRS 45A.325 shall be guilty of a felony and shall be punished by a fine of not less than five thousand dollars nor more than ten thousand dollars, or be imprisoned not less than one year nor more than five years, or both such fine and imprisonment. Any firm, corporation, or association who violates any of the provisions of KRS 45A.325 shall, upon conviction, may be fined not less than ten thousand dollars or more than twenty thousand dollars.

**AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST**

I hereby swear (or affirm) under the penalty for false swearing as provided by KRS 523.040:

1. That I am the offeror (if the offeror is an individual), a partner, (if the offeror is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the offeror is a corporation);
2. That the attached proposal has been arrived at by the offeror independently and has been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other Contractor of materials, supplies, equipment or services described in the Request for Proposal, designed to limit independent bidding or competition;
3. That the contents of the proposal have not been communicated by the offeror or its employees or agents to any person not an employee or agent of the offeror or its surety on any bond furnished with the proposal and will not be communicated to any such person prior to the official closing of the RFP;
4. That the offeror is legally entitled to enter into contracts with the Northern Kentucky University and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 45A.330 to .340, 164.390, and
5. That the Offeror, and its affiliates, are duly registered with the Kentucky Department of Revenue to collect and remit the sale and use tax imposed by Chapter 139 to the extent required by Kentucky law and will remain registered for the duration of any contract award
6. That I have fully informed myself regarding the accuracy of the statement made above.

**SWORN STATEMENT OF COMPLIANCE WITH FINANCE LAWS**

In accordance with KRS 45A.110 (2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to a bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

**CONTRACTOR REPORT OF PRIOR VIOLATIONS OF KRS CHAPTERS 136, 139, 141, 337, 338, 341 & 342**

The Contractor by signing and submitting a proposal agrees as required by 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341 and 342 that have occurred in the previous five (5) years prior to the award of a contract and agrees to remain in continuous compliance with the provisions of the statutes during the duration of any contract that may be established. Final determinations of violations of these statutes must be provided to the University by the successful Contractor prior to the award of a contract.

**CERTIFICATION OF NON-SEGREGATED FACILITIES**

The Contractor, by submitting a proposal, certifies that he/she is in compliance with the Code of Federal Regulations, No. 41 CFR 60-1.8(b) that prohibits the maintaining of segregated facilities.

**RECIPROCAL PREFERENCE**

- (1) Prior to a contract being awarded to the lowest responsible and responsive bidder on a contract by a public agency, a resident bidder of the Commonwealth shall be given a preference against a nonresident bidder registered in any state that gives or requires a preference to bidders from that state. The preference shall be equal to the preference given or required by the state of the nonresident bidder.
- (2) A resident bidder is an individual, partnership, association, corporation, or other business entity that, on the date the contract is first advertised or announced as available for bidding:
  - (a) Is authorized to transact business in the Commonwealth; and
  - (b) Has for one (1) year prior to and through the date of the advertisement, filed Kentucky corporate income taxes, made payments to the Kentucky unemployment insurance fund established in KRS 341.490, and maintained a Kentucky workers' compensation policy in effect.
- (3) A nonresident bidder is an individual, partnership, association, corporation, or other business entity that does not meet the requirements of subsection (2) of this section.
- (4) If a procurement determination results in a tie between a resident bidder and a nonresident bidder, preference shall be given to the resident bidder.
- (5) This section shall apply to all contracts funded or controlled in whole or in part by a public agency.
- (6) The Finance and Administration Cabinet shall maintain a list of states that give to or require a preference for their own resident bidders, including details of the preference given to such bidders, to be used by public agencies in determining resident bidder preferences. The cabinet shall also promulgate administrative regulations in accordance with KRS Chapter 13A establishing the procedure by which the preferences required by this section shall be given.
- (7) The preference for resident bidders shall not be given if the preference conflicts with federal law.
- (8) Any public agency soliciting or advertising for bids for contracts shall make KRS 45A.490 to 45A.494 part of the solicitation or advertisement for bids

**DEFINITIONS**

As used in KRS 45A.490 to 45A.494: (1) "Contract" means any agreement of a public agency, including grants and orders, for the purchase or disposal of supplies, services, construction, or any other item; and

(2) "Public agency" has the same meaning as in KRS 61.805.

**SIGNATURE REQUIRED:** This proposal cannot be considered valid unless signed and dated by an authorized agent of the offeror. Type or print the signatory's name, title, address, phone number and fax number in the spaces provided. Offers signed by an agent are to be accompanied by evidence of his/her authority unless such evidence has been previously furnished to the issuing office. Your signature is acceptance to the Terms and conditions above.

<b>DELIVERY TIME:</b>	<b>NAME OF COMPANY:</b>	<b>DUNS #</b>
<b>PROPOSAL FIRM THROUGH:</b>	<b>ADDRESS:</b>	<b>Phone/Fax:</b>
<b>PAYMENT TERMS:</b>	<b>CITY, STATE &amp; ZIP CODE:</b>	<b>E-MAIL:</b>
<b>SHIPPING TERMS: F.O.B. DESTINATION - PREPAID AND ALLOWED</b>	<b>TYPED OR PRINTED NAME:</b>	<b>WEB ADDRESS:</b>
<b>FEDERAL EMPLOYER ID NO.:</b>	<b>SIGNATURE:</b>	<b>DATE:</b>

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**General Terms and Conditions and Instructions to Proposers:**

<http://procurement.nku.edu/policies/terms-and-conditions.html>

**NOTICE OF ADVERTISEMENT****BRIEF SCOPE OF WORK:**

Northern Kentucky University is seeking a Contractor to provide all materials, labor, tools, supervision, and equipment required to perform repairs to the NKU University Center Façade. Work includes, but is not limited to:

- 1) Sealant repairs
- 2) Rout and seal crack repairs
- 3) Abandoned anchor repairs
- 4) Application of Silane water repellent

**PROJECT TIMETABLE:**

Invitation for Bid Issued	April 25, 2018
Pre-Bid Meeting	May 1, 2018 @ 3:00 pm EST
Last Day for Questions	May 2, 2018 @ 12:00 Noon
<b>BIDS DUE</b>	<b>May 10, 2018 at 2:30 PM EST</b>

**Pre Bid Conference:**

There will be a pre-bid meeting held on May 1, 2018 at 3:00 pm EST to view the site and address any questions or concerns. Please meet inside the 2<sup>nd</sup> floor (Plaza Level) of the NKU University Center. Please email Ryan Straus, Bid Specialist, [strausr2@nku.edu](mailto:strausr2@nku.edu) with any questions.

**SUBMITTAL OF BID:**

The bidder shall submit, by the time and date specified via US Postal Service, courier or other delivery service, its bid response in a **sealed package** addressed to:

**Blaine Gilmore  
Interim Director, Procurement Services  
Lucas Administrative Center, Suite 617  
1 Nunn Drive  
Northern Kentucky University  
Highland Heights, KY 41099**

Both inner and outer envelopes/packages should bear respondent's name and address, and clearly marked on package(s) as follows:

**ITB NKU-49-18  
University Center Façade Repairs**

**Special Conditions to Proposers****QUESTIONS AND REQUESTS FOR INFORMATION**

Information relative to this project obtained from other sources, including other university administration, faculty or staff may not be accurate, will not be considered binding and could adversely affect the potential for selection of your bid. All requests for information, questions or comments relative to this project should be directed, in writing to:

**Ryan Straus**  
**Bid Specialist, Procurement Services**  
**Lucas Administrative Center, Suite 617**  
**Northern Kentucky University**  
**Highland Heights, KY 41099**  
[Strausr2@nku.edu](mailto:Strausr2@nku.edu)

**GENERAL TERMS AND CONDITIONS TO PROPOSERS:**

The general terms and conditions linked below shall be applicable to this Bid and take precedence over any Contractor terms and conditions:

<http://procurement.nku.edu/policies/terms-and-conditions.html>

**PARKING PERMITS:**

Contractor must obtain parking permits for all vehicles that will be parked on campus. Permits can be obtained at the welcome center for \$28.75/month.

<http://parking.nku.edu/rules/guidelines.html>

**GOVERNING LAW:**

Proposers shall conform to and observe all laws, ordinances, rules and regulations of the United States of America, Commonwealth of Kentucky, and all other local governments, public authorities, boards or offices relating to the Project Site or the improvements upon same, or the use thereof, and will not permit the same to be used for any illegal or immoral purposes, business or occupation. The resulting Contract shall be governed by Kentucky Law and any claim relating to this Contract shall only be brought in the Franklin Circuit Court in Accordance with KRS 45A-245.

**TOBACCO FREE CAMPUS**

Effective January 1st, 2014, NKU will be a tobacco free campus. The use of all tobacco products shall be prohibited in all campus buildings and outside areas on campus.

**STATUTORY AUTHORITY**

Selection of firms to provide professional services to Northern Kentucky University are governed by the provisions of the Kentucky Revised Statutes, KRS 45A.085, <http://www.lrc.ky.gov/KRS/045A00/085.PDF>

**FOREIGN CORPORATIONS**

Foreign corporations are defined as corporations that are organized under laws other than the laws of the commonwealth of Kentucky. Foreign corporations doing business within the commonwealth of Kentucky are required to be registered with the Secretary of State, New Capitol Building, Frankfort, Kentucky and must be in good standing.

The Foreign Corporate Proposer, if not registered with the Secretary of State at the time of the bid submittal, shall be required to become registered and be declared in good standing prior to the issuance or receipt of a contract.

**DOMESTIC CORPORATIONS**

Domestic corporations are required to be in good standing

**OCCUPATIONAL LICENCE**

Northern Kentucky University was annexed by the city of Highland Heights in 2008. All contractors performing work for NKU must possess a Campbell County Occupational License and a city of Highland Heights Occupational License (administered by Campbell County) and must also pay applicable payroll taxes. For further information, call 859-572-6605.

**PERMITS**

The Contractor shall obtain all permits necessary for any or all parts of the work from the authorities governing such work. The Contractor shall procure building permits, when required but no fee shall be applicable on projects for the Commonwealth. Evidence that such permits have been issued shall be furnished to the Owner before beginning work.

**BID BONDS:**

A 5% bid bond is required with submission of this ITB.

**COMPLETION DATES**

It is understood and agreed that time is of the essence. The Contractor will efficiently, diligently, and expeditiously conduct the work in a manner that will satisfy compliance with approved project schedules and completion by the completion date appearing in the body of this bid.

**COORDINATION OF WORK**

The Vendor shall be responsible for coordinating all work with the **NKU Project Manager**. The Contractor shall cooperate completely with the Owner's security forces and measures.

**DAMAGE AND REPAIRS**

The Contractor shall exercise particular care to avoid damage to his own work, the Owner's property, and adjacent property of every description. He shall make good any damage resulting from or caused by the work under this contract at his sole expense in a manner satisfactory and without extra cost to the Owner including, but not limited to, finishes, furnishings, and landscaping.

**HAZARDOUS MATERIALS**

No asbestos containing materials, lead based paints, or other hazardous materials shall be furnished or installed in this work.

**PAYMENT AND PERFORMANCE BONDS:** 100% Payment and Performance Bonds will be required for work arising from this ITB.

**EXAMINATION OF SITE**

Each vendor shall fully acquaint and familiarize themselves with the conditions as they exist and the character of the operation to be carried on under the proposed contract and has made such investigation as may be reasonably necessary so that the vendor shall fully understand the facilities, physical conditions and restrictions attending to the work under the contract. The specifications furnished represent a fair approximation of the material needed but all quotations submitted should take into account knowledge gained as a result of the above referenced visual inspection.

**EXAMINATION OF CONTRACT**

Each vendor shall also thoroughly examine and become familiar with the specifications and associated contract documents. By submitting a bid, the vendor agrees that they have carefully examined the specifications and have thereupon decided that from their own investigation Contractor has satisfied themselves as to the nature and location of work, the general and local conditions and all matters which may in any way affect the work or its performance and that as a result of such examination and investigation, vendor fully understands the intent and purpose of the documents and conditions of the bidding. Claims for additional compensation and/or extension of

time because of the vendor's failure to follow the foregoing procedure and to familiarize themselves with the Contract Documents and all conditions which might affect work will not be allowed.

**FIELD VERIFICATION**

It is the Vendor's responsibility to verify all measurements.

**HOURS OF WORK**

Working days at Northern Kentucky University are Monday through Friday, 8:00am to 4:30pm. Deviation from these working hours must be approved by said project manager.

**WARRANTY**

Warranty information is specified in the engineers scope of work

**CANCELLATION**

The resulting contract from this ITB may be cancelled by the University for non-compliance with the terms and conditions of any part of the agreement.

**TERMINATION FOR CONVENIENCE**

Northern Kentucky University reserves the right to terminate the resulting contract without cause with a 30-day written notice. Upon receipt by the Contractor of "notice of termination" the Contractor shall discontinue all services with respect to the applicable contract. The cost of any agreed upon services provided by the Contractor will be calculated at the agreed upon rate prior to "notice of termination" and a fixed fee contract will be pro-rated (as appropriate).

**INSURANCE**

If awarded, bidder / proposer must provide NKU with an insurance certificate listing NKU as a certificate holder and additionally insured.

**Northern Kentucky University  
617 Lucas Administrative Center  
1 Nunn Drive  
Highland Heights, KY 41099**

The Contractor shall furnish the University the Certificates of Insurance and guarantee the maintenance of such coverage during the term of the contract. The Contractor shall provide an original policy endorsement of its CGL insurance naming Northern Kentucky University and the directors, officers, trustees, and employees of the University as additional insured on a primary and non-contributory basis as their interest appears. Additionally, the Contractor shall provide an original policy endorsement for Waiver of subrogation in favor of the Northern Kentucky University its directors, officers, trustees, and employees as additional insured.

**Our basic insurance requirements are:**

Workers' Compensation insurance with Kentucky's statutory limits and Employers' Liability insurance with at least \$100,000 limits of liability.

Comprehensive General Liability (CGL) Insurance the limits of liability shall not be less than \$500,000 each occurrence for bodily injury and \$250,000 property damage.



Comprehensive Automobile Liability Insurance: To cover all owned, hired, leased or non-owned vehicles used on the Project. Coverage shall be for all vehicles including off the road tractors, cranes and rigging equipment and include pollution liability from vehicle upset or overturn. Policy limits shall not be less than \$500,000 for bodily injury and \$100,000 for property damage.

Excess liability insurance in an umbrella form for excess coverages shall have a minimum of \$1,000,000 combined single limits for bodily injury and property damage for each.

**REFERENCES**

**Bidder Qualifications:** The bidder is required to submit a list of completed projects where he has performed similar work to that specified herein.

**Organization:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

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

**Date Work Completed:** \_\_\_\_\_ **Value of Contract:** \_\_\_\_\_

**Project Manager assigned to this project:** \_\_\_\_\_

**Brief Project Description:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Organization:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

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

**Date Work Completed:** \_\_\_\_\_ **Value of Contract:** \_\_\_\_\_

**Project Manager assigned to this project:** \_\_\_\_\_

**Brief Project Description:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Organization:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

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

**Date Work Completed:** \_\_\_\_\_ **Value of Contract:** \_\_\_\_\_

**Project Manager assigned to this project:** \_\_\_\_\_

**Brief Project Description:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

## SUBCONTRACTORS

**SUBCONTRACTORS:** The following is a list of subcontractors proposed by the bidder to be used to complete the project. All subcontractors are subject to approval by Northern Kentucky University. Failure to submit this list completely filled out may invalidate bid. **SUBCONTRACTORS MAY NOT BE CHANGED AFTER CONTRACT AWARD WITHOUT APPROVAL BY NKU.**

[illegible]

**List of Materials and Equipment**

**(Must be submitted within 24 hours after bid opening)**

Every item listed under the different phases of this project must be clearly identified so that Northern Kentucky University will definitely know what the bidder proposes to furnish. Bidders be hereby advised that this list shall be required to be filled out completely by the apparent low bidder within twenty-four (24) hours from the close of the official reading of the bids.

The above requirement does not preclude any bidder from submitting this list, fully executed, at the time the bids are submitted.

The use of the manufacturers' dealer's name only, or stating "as per plans and specifications", will not be considered as sufficient identification. Where more than one "Make or Brand" is listed for any one item, the Owner has the right to select the one to be used.

Failure to submit a proper list may result in rejection of the Bidder's Proposal.

<b>Material And / Or Equipment</b>	<b>Manufacturer and Brand Name</b>

**NKU GENERAL SAFETY & COORDINATION REQUIREMENTS**

1. The University strives to continuously maintain both a safe and secure work environment for its students, employees, and the employees of all Contractors assigned to our campus. Therefore, it is essential the following criteria be met by all Contractors (and all their subcontractors) working at NKU.
2. **BACKGROUND CHECKS:** The Contractor shall furnish the University upon request with written documentation that verifies each of their employees working on the property of the University has cleared a background check, has no felony convictions, is not a sex offender, and has the legal right to work in the United States.
3. **DRUG-FREE WORKPLACE:** Northern Kentucky University is a drug-free and alcohol-free workplace, and all employees of Contractors and subcontractors are subject to this policy while working on University property. If there is verifiable suspicion or probable cause that an employee of the contractor or subcontractor is under the influence of drugs or alcohol, the University reserves the right to require the Contractor to have the employee tested immediately at no expense to the University. If the test results are positive the employee will be prohibited from working on University property for a period of one (1) year from the positive test, or the duration of the project, whichever is longer. The banned employee of the Contractor must pass a drug and alcohol test before working again on university property. Effective January 1st, 2014, NKU will be a tobacco free campus. The use of all tobacco products shall be prohibited in all campus buildings and outside areas on campus.
4. **CONTRACTOR PRESENCE ON CAMPUS:** All persons working for (or on behalf of) the Contractor whose duties bring them on campus shall obey the rules and regulations that are established by the University and shall comply with the reasonable directions of the University representatives. Contractor's employees shall never enter or use existing areas of campus where they are not required to be performing work. Contractors and subcontractors are always responsible for providing and maintaining portable restroom facilities for all their workers working on the project. Contractor shall be responsible for the acts of his employees and agents while on campus. Accordingly, Contractor agrees to take all necessary measures to prevent injury and loss to persons or property located on campus. Contractor shall be responsible for all damages to persons or property caused by Contractor or any of his agents or employees. Contractor shall promptly repair any damage that he, or his employees or agent may cause to the campus or to the University equipment. Contractor agrees that in event of an accident of any kind on university property, Contractor will immediately notify the University's Department of Public Safety (859) 572-5770 and furnish a full written report of the accident. All Contractor employees and subcontractors shall present a neat and clean appearance while on University property, and be able to present proper identification upon request.
5. **PROJECT WORK SITE SAFETY & SECURITY:** The University does not, and will not, assume any responsibility for any tools, materials, equipment, or property belonging to the Contractor, his employees or agents, which may be lost or stolen from University property. All contractors and subcontractors are solely responsible for properly securing and protecting their tools and equipment. When working within or on top of an existing building, the Contractor shall work with the assigned University project manager in developing a strategy for securing the project work site and protecting the campus staff and community from the project work site. When working in an open area on campus, the Contractor shall provide securable barricades/fencing around the project site to protect the campus community from the dangers within the project work site. The Contractor shall maintain this project work site 24 hour a day, 7 days a week for the duration of the project.
6. **PARKING:** All Contractors and their subcontractors are required purchase a monthly parking pass from NKU at the rate of \$28.75/month, or at a daily rate of \$5.00/day. Weekly passes are also available. This will entitle workers to park at all NKU campus lots and garages, EXCEPT for faculty and staff lots which are noted accordingly. This pass also allows for parking in any of the garages if your vehicles will fit. Parking within the jobsite WILL NOT BE PERMITTED. Workers who do so will be subject to immediate towing, without warning, and at their cost. Vehicles may be parked near a worksite for reasonable times for loading and unloading, providing normal access and egress to buildings is not hindered. All workers shall park their personal vehicles in the Welcome Center parking garage, which is located just north of the Power Plant across from the Bank of Kentucky Center.
7. **GENERAL PROJECT COORDINATION:** All work and information requests by the Contractor shall be coordinated through the assigned NKU Project Manager. Any direction provided by the campus Operations & Maintenance Staff and/or the project user group shall NOT be considered official direction from the University unless authorized in writing from the assigned NKU Project Manager. Contractor will NOT be compensated for work performed without written authorization from the assigned NKU Project Manager.

8. **TEMPORARY USE OF CAMPUS UTILITIES:** As a general rule, utilities required by the Contractor to perform their work can be obtained from the University. However, the University reserves the right to require the Contractor to furnish a meter to record the usage of each provided utility for the duration of the project. For projects requiring utility metering, a deduct change order will be issued at the end of the Project to reimburse the University for the Contractor utility usage. The Contractor is responsible for determining and coordinating the procurement of any utility where the University cannot reasonably provide.
9. **CAMPUS UTILITY SHUTDOWNS:** Unless noted otherwise for a specific project, at least seven (7) calendar days notice is required for any campus utility shutdowns and/or any road/parking lot closures necessary for the Contractor to perform their work. All utility shutdowns and closures shall be coordinated with the assigned NKU Project Manager, and the University reserves the right to schedule these shutdowns and closures at night and/or on weekends to minimize disruptions to the campus community. All requests for assistance from NKU's Operations & Maintenance staff in locating existing utilities shall also be submitted to the assigned NKU project manager at least (7) calendar days in advance.

**Bid Bond**  
5% of Contract Price

**KNOW ALL MEN BY THESE PRESENTS**, that we (here insert full name and address or legal title of Contractor)

as Principal, hereinafter called the Principal, and (here insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of Kentucky as Surety, hereinafter called Surety, are held and firmly bound unto **Northern Kentucky University** as Obligee, hereinafter called Obligee, in the sum of :

\_\_\_\_\_ Dollars (\$\_\_\_\_\_),

representing 5% of the Principal's total bid price and for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS**, the Principal has submitted a bid for \_\_\_\_\_ (Here insert full name, address and description of project)

NOW THEREFORE, if the Obligee shall accept the bid of the Principal within the period specified, or if no period is specified, within 45 days after its opening, and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bid or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bonds or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this day of \_\_\_\_\_ 2018

(Principal)	(Seal)
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\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Title)

(Surety)	(Seal)
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\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Title)

***THIS DOCUMENT MUST BE NOTORIZED***  
**This is only an example. Other forms may be used.**

PROJECT MANUAL  
FOR  
NORTHERN KENTUCKY UNIVERSITY  
UNIVERSITY CENTER  
FACADE REPAIRS

Bid Documents

January 30, 2018

By

**THP Limited, Inc.**  
100 E. Eighth Street  
Cincinnati, OH 45202  
513-241-3222

[www.thpltd.com](http://www.thpltd.com)

THP #17283.00







## PROJECT MANUAL INDEX

### DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

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DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

SECTION 004100

BID FORM

Bid for University Center Façade Repairs (Divisions 1 through 7).

Bid submitted by \_\_\_\_\_ Date \_\_\_\_\_ 2018.

The Form of Proposal must be fully completed and sealed in an envelope clearly marked on the outside with the Contract designation.

In submitting this Proposal, the undersigned agrees that the Bid will not be withdrawn for a period of 60 consecutive calendar days following the date of Bid Opening. Further, that if a notice to proceed or if a prepared agreement provided by the Issuing Office is received at the successful business address identified below within the above named 60 day period, the undersigned will, within seven days of such receipt, acknowledge acceptance of the Contract Award and will deliver Certificates of Insurance and will proceed in accordance with the requirements of the Contract Documents for the project.

Submit Bids to:

Mr. Ryan Straus  
Procurement Services  
Lucas Administration Center 617  
Highland Heights, KY 41099  
Ph. (859) 572-6605  
strausr2@nku.edu

We, the undersigned, having familiarized ourselves with the local conditions affecting the cost of the Work, and with all Contract Documents for this Work, and also having visited the site and the structure incorporated in the Work, and having received and become familiar with and incorporated into the make-up of the Specifications, the following addenda: \_\_\_\_\_ for the construction of University Center Façade Repairs in conformance with the DRAWINGS AND SPECIFICATIONS prepared for the same by:

THP Limited, Inc.  
100 East Eighth Street  
Cincinnati, Ohio 45202

Hereby proposes to furnish all labor, equipment, utilities and transportation to furnish and deliver all materials and to perform and supervise all Work as required by the said DRAWINGS AND SPECIFICATIONS, ADDENDA AND CONDITIONS OF THE CONTRACT, for completing the DIVISIONS OF WORK hereinafter designated, for the sums of money enumerated for the said divisions, the sums representing, respectively:

NKU University Center Façade Repairs  
1/30/18 - Bid Set  
THP #17283.00

- A. **Base Bid:** *(Total Cost for all work included in the Contract Documents, inclusive of all lump sum and unit price work efforts..)*

For the sum of ..... (\$.....)  
..... Dollars

**Base Bid Itemization:** *(Total must be equal to Base Bid amount listed above.)*

1. General conditions, permit fees, protection, mobilization, Signage, demobilization, barricades, etc ..... (\$.....)
2. Total cost of Unit Price repairs (per quoted Unit Prices From Part C multiplied by allowance quantities listed in Section 012100) ..... (\$.....)
3. Sealant replacement ..... (\$.....)
4. Façade cleaning and application of water repellent ..... (\$.....)
5. Cash Allowance (per Section 012100) ..... (\$.....)

- B. **Alternate Bids:** *(Total cost for Alternate work as identified on the Drawings as an addition to the Base Bid).*

Alternate 1 – Unit price concrete repairs (per quoted Unit Prices from Part D multiplied by Allowance Quantities listed in Section 012100) ..... (\$.....)  
..... Dollars

- C. **Unit Prices for Base Bid Work:** *(For additions to or deductions from the allowance quantities listed in Section 012100).*

No. 1 – Rout and Seal Crack Repair ..... (\$...../ lin. ft.)  
..... Dollars per lin. ft.

No. 2 – Abandoned Anchor Repair ..... (\$...../ location)  
..... Dollars per location

NKU University Center Façade Repairs

1/30/18 - Bid Set

THP #17283.00

D. **Unit Prices for Alternate Work:** *(For additions to or deductions from the allowance quantities listed in Section 012100).*

No. 3 – Concrete Spall or Delamination Repair.....(\$\_\_\_\_\_/ sq. ft.)

\_\_\_\_\_ Dollars per sq. ft.

The undersigned states that this Proposal is made in the character or capacity checked in this paragraph, that he is the agent of, and is duly authorized to sign for

\_\_\_\_\_  
Legal Name of Firm

\_\_\_\_\_  
Address - No P.O. Box allowed

\_\_\_\_\_  
City State Zip Code

that the Proposal is signed with the full understanding of the plans, provisions, specifications, and the foregoing terms of the Proposal.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 2016.

**SIGNATURES**

Name and Address of all Partners

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Name of Organization

\_\_\_\_\_  
By

Attest: \_\_\_\_\_  
(Seal)

\_\_\_\_\_  
Title of Person Signing

END OF SECTION

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 011000

SUMMARY OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Summary of Base Bid Work Efforts:

1. Sealant Repairs.
2. Rout and Seal Crack Repairs.
3. Abandoned Anchor Repairs.
4. Application of Silane Water Repellent.

B. Summary of Alternate Bid Work Efforts: Concrete Delamination and Spall Repairs.

1.2 CONTRACTS

A. Base and alternate bids for all the work will be received from the Contractor.

B. The Work will be performed under one General Contractor.

1.3 CONTRACTOR'S DUTIES

A. Assume all Contractor responsibilities and provide for the Work required by the Contract Documents.

B. Give required notices where and when requested.

C. Comply with codes, ordinances, rules, regulations, orders and other legal requirements of public authorities which bear on the performance of the Work.

D. Pay all legally required taxes. Refer to Bidding Requirements, General Conditions for information relative to sales tax for which the Owner is exempt.

E. Apply, secure and pay for all required local permits, fees, licenses and approvals per the General Conditions of the Contract.

1.4 NOTES TO CONTRACTOR

A. The division of the body of the Specifications into various Parts has been arranged for clarity in the delineation of the various parts of the whole Work. It is not the intent of such division to develop any secondary responsibilities for the satisfactory completion of the Work and all its parts as required of the Contractor by the Contract Documents, nor is the assignment of any parts of the Work to any trade or craft to be inferred from the Contract Documents.



- B. Division 01 Specifications typically address items in a general nature and the Contractor must take notice that more specific requirements may be included in the Technical Sections.

## 1.5 PROJECT COORDINATION

- A. The Contractor has full responsibility and authority regarding the scheduling and coordination of the Work within the Contract time and within the requirements of Article 1.7.
- B. The Contractor also has full responsibility for the completeness and quality of the Work as outlined in the Contract Documents, and must staff the project with qualified, competent personnel to the extent required for the Work.
- C. The Contractor's Project Manager and Lead Project Superintendent are subject to the review and approval of the Owner. Upon request at any portion of the project (i.e. pre-award, post-award and prior to project start, or during the project), the Contractor shall produce a detailed resume, with references, documenting the experience of the Project Manager and Lead Project Superintendent for the Owner's review and approval.
- D. All subcontractors shall abide by the Project Schedule and coordination requests made by the Contractor.
- E. If a subcontractor is substantially responsible for specific components of the Work (i.e. concrete repairs or new concrete placements, waterproofing efforts, electrical work, painting, etc.), the Contractor must have a regular, periodic site presence during those efforts, not less than two separate days per week, nor less than 20 percent of the total work week time, to provide a level of coordination and quality control consistent with that expected of a wholly self-performing Contractor labor force.
- F. Unless otherwise directed or allowed, the Owner (or the Owner's representative) communicates directly with the Contractor. All dealings and decisions regarding execution of the Work shall be from the Owner, (or Owner's representative,) to the Contractor; and the reverse flow.
- G. The Contractor communicates directly with the subcontractors, vendors and suppliers. At the Engineer's option, direct communications between the Engineer and subcontractor may occur, for clarification of material delivery, installation procedures, technical support, logistics and other matters. Contractor will be kept advised of any such Engineer/subcontractor communications.
- H. The subcontractor shall coordinate with the Contractor who has the overall responsibility for the Work.
- I. Where Work of any one Section of the Specifications affects the Work of other Sections, successive Work shall not be installed until conditions have been inspected by the Contractor and are satisfactory for successive Work. Installation of successive Work shall serve as the Contractor's acceptance and confidence

with the conditions being covered by subsequent work. The performance of successive Work shall be the responsibility of the Contractor to coordinate.

- J. Contractor is required to be on site to conduct regular, bi-weekly job progress meetings with the Owner. Contractor shall include Engineer via telephone for said progress meetings and shall distribute written meeting minutes as directed by Owner.
- K. The Owner reserves the right to hold additional job progress and coordination meetings on an as-needed basis as determined by the Owner. The Contractor shall be given 48 hours notice (when possible) to said meeting.
- L. A preconstruction project meeting shall be held by the Owner prior to the start of work.

#### 1.6 APPLICABLE CODES

- A. The Contractor shall comply with all Federal, State and Municipal laws, codes, ordinances and regulations applicable to the Work in this Contract and also with all requirements of the National Fire Protection Association, the National Electric Code, and the Occupational Safety and Health Administration (OSHA).
- B. If the above laws, codes or ordinances conflict with this Specification, then the laws, codes or ordinances shall govern, except in such cases where the Specification exceeds them in quality of materials or labor, then the Specifications shall be followed.

#### 1.7 PROJECT SCHEDULE AND SEQUENCING

- A. The Contractor shall submit to the Owner a complete itemized time schedule and detail program for construction, purchasing of critical materials, and for submission of shop drawings and samples. This schedule is required within seven calendar days after Notice of Award. The schedule shall indicate the duration of time required for the performance of all work. All construction activities and each phase of work must be clearly indicated on the schedule. The schedule must be signed by an official of the firm. It must be realistic as its faithful execution will be considered a commitment, not an estimate.
- B. Normal working hours are 6:00 AM to 4:30 PM, Monday through Friday. Noise-producing work shall be performed from 10:30 PM to 8:00 AM, Sunday/Monday through Thursday/Friday.
- C. Work requested by the Contractor to be performed outside of normal working hours must be approved and coordinated through the Owner. Provide the Owner a minimum of 4 working days notice prior to the requested time to perform work outside normal working hours. Such request shall include type of work to be performed and expected duration.
- D. Odor or fume producing work performed in the vicinity of fresh air intakes (or similar occupied building access points) must be performed at night after the shutdown of fresh air intakes. At the Contractor's option, and if approved in

advance by the Owner, work may begin prior to air intake shutdown. If work is elected to begin prior to intake shutdown, the Contractor shall at their expense, employ measures to draw fresh air from areas beyond the work activities that produce odors/fumes. All methods or procedures must be approved by, and meet the satisfaction of the Owner.

- E. Work performed outside of normal business/working hours shall be performed at no additional cost to the Owner. Additional cost incurred for testing and inspection, including services of the Engineer or Owner's representative shall be solely borne in full by the Contractor.
- F. Site Restrictions
  - 1. When work is performed which may create a hazard to persons or property above, below or in the proximity of the work, those areas shall be blocked or otherwise protected to eliminate the hazard.
  - 2. All work at entry/exits is to be performed in such a manner to allow traffic flow in and out without significantly constricting the accessibility.
- G. Change order work that is to be performed on a time and materials basis shall be billed as if performed during normal work hours. In the event that work is required to be performed outside normal work hours due to schedule or site restrictions, the Contractor shall be compensated at their standard overtime rate.
- I. Should the Contractor fall behind the approved or adjusted schedule in the performance of his Work and, in the judgment of the Owner, it appears that the Contractor cannot complete his Work within the time established by the Contract, then the Contractor shall work overtime, additional shifts or adopt such other procedures with the Owner's approval, as may be necessary to restore adherence to the schedule while maintaining the required level of quality control, testing and inspection. The full cost of such work or procedures shall be borne by the Contractor, including the cost of additional services of the Owner or Owner's representative.
- J. Work rejected by the Owner as not meeting the intent or requirements of the Contract Documents shall be replaced by the Contractor and shall not result in additional costs to the Owner. Rejected work will not be cause for an extension to the Contract Time.
- K. The Contractor is responsible for securing work area for performance of the Work.
- L. Project Schedule and Sequence:
  - 1. The Contractor shall mobilize and begin work not later than two weeks from receiving authorization from Owner to proceed.
  - 2. The Contractor shall deliver submittals to the Engineer at least 7 days prior to mobilizing.
  - 3. The anticipated Substantial Completion Date for Base Bid work, including

Change Orders, is 12 weeks from date of mobilization. If Alternate 1 is selected, Substantial Completion Date will be extended by 2 weeks.

4. Final completion of all Work shall be 14 days beyond specified Substantial Completion date. Refer to paragraph 1.9.3 for additional information.
- M. Within 7 days after Notice of Award, submit a detailed plan for the project schedule implementation following the outline sequence shown above.

## 1.8 PROJECT CONDITIONS

- A. Existing emergency access routes must be maintained at all times where work is being performed.

## 1.9 SAFETY

- A. The Contractor is responsible for all safety issues regarding performance of the Work.
- B. The Contractor must submit to the Owner a copy of the contractor's safety program prior to the start of work.
- C. The Contractor shall have weekly Tool Box Safety Meetings which must be attended by all Contractor and subcontractor personnel on-site.
- D. Fire extinguishers shall be provided at all contractor furnished gasoline operated equipment, contractor storage area, at membrane application areas and membrane mixing areas, and at each area of other work efforts with flammable components. Extinguishers to be 10 lb. A, B, C Class.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 012100

ALLOWANCES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Base Bid Quantity Allowances.
- B. Alternate Bid Quantity Allowances.

1.2 RELATED SECTIONS

- A. Section 012900 – Payment Procedures.
- B. Section 030101 – Façade Concrete Repairs.
- C. Section 079201 – Façade Sealants.

1.3 QUANTITY ALLOWANCE

A. General:

- 1. Allowances include all labor, material, tools, equipment, supervision transportation, handling, storage, overhead and profit, and all other costs associated with performance of work.
- 2. Additions to a quantity allowance as listed in this Section will be paid by the Owner at the unit price established in Section 012900 – Payment Procedures.
- 3. Deletions from a quantity allowance as listed in this Section will be credited to the Owner at the unit price established in Section 012900 – Payment Procedures.

B. Base Bid Quantity Allowance Items:

- 1. Rout and Seal Crack Repair.....40 linear feet
- 2. Abandoned Anchor Repair ..... 10 locations

C. Alternate Bid Quantity Allowance Items:

- 1. Concrete Spall or Delamination Repair ..... 75 square feet

D. The Contractor shall include the total cost for all Base Bid Quantity Allowance items listed above in the Base Bid Lump Sum Total as reflected on the Bid Form – Section 004100.

E. The Contractor shall include the total cost for all Alternate Bid Quantity Allowance items listed above in the appropriate Alternate Bid Lump Sum Total as reflected

on the Bid Form – Section 004100.

1.4 CASH ALLOWANCE

A. General:

1. Cash allowances will be performed on a time and material basis. The Contractor shall furnish and certify daily detail records of all labor and materials provided.
2. If the cost to complete the work is less than the cash allowance, a deduct Change Order will be prepared by the Owner for the cost difference.

B. Cash Allowance Items:

1. A cash allowance of \$5,000.00 shall be included in the Base Bid to address unforeseen work items be paid on a time-and-material basis.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

DIVISION 01 - GENERAL REQUIREMENTS  
SECTION 012300  
ALTERNATES

PART 1 GENERAL

1.1 RELATED SECTIONS

- A. Section 01100 – Summary of Work.
- B. Section 012100 – Allowances.
- C. Section 012900 – Payment Procedures.
- D. Section 030101 – Façade Concrete Repairs.

1.2 ALTERNATES

- A. General:
  - 1. Cost for Alternates shall be complete, including all labor materials, tools, equipment, supervision, transportation, handling storage, overhead and profit and performance and material bonds.
  - 2. The Owner may choose any or all Alternates in any order unless otherwise indicated.
  - 3. The Owner reserves the right to reject any or all Alternates.
  - 4. Failure to provide a cost for each requested Alternate on the Bid Form may be cause for rejection of bid by the Owner.
  - 5. Alternates that are submitted by the Contractor at zero cost change must be indicated on the Bid Form by writing "No change in cost".
- B. Provide a cost in the spaces provided on the Bid Form – Section 004100 for the following Alternates. Refer to Drawings for additional information.
  - 1. Alternate 1: Concrete delamination and spall repairs on wall and parapet surfaces.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION



DIVISION 01 - GENERAL REQUIREMENTS

SECTION 012600

CONTRACT MODIFICATION PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Change of Work Procedures.

1.2 CONTRACT MODIFICATIONS

- A. Minor Changes in the Work:

1. Interpretation of Contract Documents or minor changes in the Work not involving changes in Contract Price or Time shall be issued by the Owner in writing and shall be executed promptly by the Contractor.

- B. Contract Modifications:

1. Changes to the Contract that affect the cost/time shall be processed as follows:
  - a. Contractor shall submit a written proposal, with a complete itemized breakdown, showing quantities and unit costs of the major items of materials, labor hours, labor costs per hour, overhead and profit, and time modifications to the Owner for review and acceptance.
  - b. The Owner will review the proposal and respond with one of the following:
    - 1) Reject the proposal in writing.
    - 2) Issue a Construction Change Directive.
    - 3) Issue a Change Order.

- C. Change Orders

1. Cost for change orders shall be calculated as the sum of hourly wages, materials, overhead and profit.
2. The percentage to be used for General Contractor overhead and profit shall be 15 percent for self-performed labor, 10 percent for subcontractors and 10 percent for materials and equipment.
3. The percentages to be used for Sub-Contractor overhead and profit shall not exceed 10 percent for labor and 10 percent for materials and equipment.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTIONS - NOT USED

END OF SECTION

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 012900

PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Unit Prices.
- B. Measurement Procedures for Allowances.

1.2 RELATED SECTIONS

- A. Section 012900 – Payment Procedures.
- B. Section 030101 – Façade Concrete Repairs.

1.3 UNIT PRICES

- A. General:
  - 1. Unit prices shall apply for both additions to and deletions from the Work.
  - 2. Unit prices shall be complete including all labor, materials, tools, equipment, supervision, transportation, handling, storage, overhead and profit, and all other costs associated with the work.
  - 3. No monetary variance of unit prices for additive and deductive quantities will be accepted and will be cause for rejection of Bid.
  - 4. The Owner reserves the right to accept or reject any or all unit prices.
  - 5. All unit price items on the Bid Form must be completed. If unit price is zero, then it must be indicated as such in the space provided.
  - 6. Failure to provide unit prices as required on the Form of Proposal may be cause for rejection of Bid.

1.4 MEASUREMENTS

- A. Prior to the start of work in each work area or phase, the Contractor and the Owner will inspect the area and document locations and quantities of all allowance items. The Contractor shall notify the Owner at least 3 days in advance of required inspection. Refer to Section 012100.
- B. Quantity allowance items will be recorded and the date of the inspection and the persons performing the inspections will be recorded on each item sheet.
- C. The Owner's representative will measure and count the allowance items. The

Contractor will record the results.

- D. At the completion of each item inspection, both the Owner and Contractor will sign the record sheets.
- E. The Owner will copy the sheets and provide a copy of all sheets to the Contractor within 3 working days from the date of inspection.
- F. These inspection sheets will be the only basis for determining final quantities of all quantity allowance items.
- G. Measurements will be recorded to the nearest inch.

#### 1.5 PAYMENTS

- A. For each application of payment submitted by the Contractor, a summation of all quantity allowance items shall be sent for verification.
- B. Differences in sum totals between the Owner and Contractor will be resolved by comparing quantity sheets to determine exact final quantities. Quantities NOT measured AND confirmed per Article 1.4 shall not be approved for payment.
- C. The difference between an actual quantity and a specified quantity will be multiplied by the unit cost for that item to establish a dollar value. The dollar value for quantities above the allowance quantity will be added to the contract amount. The dollar value for quantities below the allowance quantity will be subtracted from the contract amount.
- D. Adjustments to the contract amount will be made by approved change order.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 013300

SUBMITTALS PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Procedural requirements for non-administrative submittals, including shop drawings, product data, samples and other miscellaneous work-related submittals. Shop drawings, product data, samples and other work-related submittals are required to amplify, expand and coordinate the information contained in the Contract Documents.
- B. Shop drawings are technical drawings and data that have been specifically prepared for this project, including but not limited to:
  - 1. Fabrication and installation drawings.
  - 2. Setting diagrams.
  - 3. Shop work manufacturing instructions.
  - 4. Coordination drawings (for use on-site).
  - 5. Schedules.
  - 6. Concrete Mix Designs.
- C. Standard information prepared without specific reference to a project is not considered to be shop drawings.
- D. Product data includes standard printed information on manufactured products that has not been specifically prepared for this project, including but not limited to the following items:
  - 1. Manufacturer's product specifications and installation instructions.
  - 2. Standard color charts.
  - 3. Catalog cuts.
  - 4. Printed performance curves, independent technical analysis of performance, or similar.
  - 5. Operational range diagrams.
  - 6. Standard product operating and maintenance manuals.
  - 7. Mill reports.
  - 8. Material safety data sheets on all material provided or used in execution of the

Work.

- E. Samples are physical examples of work, including, but not limited to the following items:
  - 1. Partial sections of manufactured or fabricated work.
  - 2. Small cuts or containers of materials.
  - 3. Complete units of repetitively-used materials.
  - 4. Swatches showing color, texture and pattern.
  - 5. Color range sets.
  - 6. Units of work to be used for independent inspection and testing.

## 1.2 SUBMITTAL PROCEDURES

### A. General:

- 1. Promptly after the Contract has been signed, the Contractor shall submit complete and detailed shop drawings to the Owner or its representative for the work of the various trades, and the Owner or its representative shall approve or reject them with reasonable promptness.
- 2. The Contractor prior to submitting the shop drawings shall review all shop drawings, check all conditions, check and verify all field measurements, and mark all corrections, sign and date each set.
- 3. No shop drawings will be reviewed without the signature of Contractor, which will signify that he has checked drawings.
- 4. No faxed copies to the Engineer for approval will be accepted.

### B. Coordination of Submittal Times:

- 1. Prepare and transmit each submittal sufficiently in advance of the scheduled performance of related work and other applicable activities.
- 2. Transmit different kinds of submittals for the same unit of work so that processing will not be delayed by the need to review submittals concurrently for coordination.
- 3. The Owner will endeavor to complete his review of submittals within 7 days of receipt. Submittals shall be returned noted: "No exceptions noted", or "Exceptions noted", or "Exceptions noted: revise and resubmit". Fabrication of material before the receipt of shop drawings for that material noted "No exceptions noted" shall be at the Contractor's risk.

- C. No extension of time will be authorized because of the Contractor's failure to transmit submittals sufficiently in advance of the work.

D. Submittal Preparation:

1. Mark each submittal with a permanent label for identification. Provide the following information on the label for proper processing and recording of action taken.
  - a. Project name.
  - b. Date.
  - c. Name and address of Owner.
  - d. Name and address of Contractor.
  - e. Name and address of subcontractor.
  - f. Name and address of supplier.
  - g. Name of manufacturer.
  - h. Number and title of appropriate Specification Section.
  - i. Drawing number and detail references, as appropriate.
  - j. Similar definitive information as necessary.
2. Provide a space on the label for the Contractor's review and approval markings, and a space for the Owner's "Action" marking.

1.3 SPECIFIC SUBMITTAL REQUIREMENTS

A. General:

1. Specific submittal requirements for individual units of Work are specified in the applicable Specification Section.
2. Except as otherwise indicated in the individual Specification Sections, comply with the requirements specified herein for each type of submittal.

B. Shop Drawings:

1. Information required on shop drawings shall include dimensions, identification of specific products and materials which are included in the Work, information showing compliance with specified standards, and notations of coordination requirements with other work.
2. Provide special notation of dimensions that have been established by field measurement.
3. Highlight, encircle or otherwise indicate deviations from the Contract Documents on the shop drawings.

4. Coordination Drawings:

- a. Provide coordination drawings where required for the integration of the Work, including Work first shown in detail on shop drawings or product data.
- b. Show sequencing and relationship of separate units of Work which must interface in a restricted manner to fit in the space provided or function as indicated.
- c. Coordination drawings are considered shop drawings and must be definitive in nature.

5. Do not permit shop drawings copies without an appropriate final "Action" marking to be used in connection with the Work.

6. Do not reproduce Contract Documents or copy standard printed information as the basis of shop drawings.

7. Initial Submittal:

- a. Provide four (4) prints and Electronic versions of each submittal; two prints will be returned. One of the returned prints shall be maintained by the Contractor and marked-up as a "Record Document."

8. Final Submittal:

- a. Provide four (4) prints of each revised submittal as directed by the Engineer based on Initial Submittal review. Two prints will be returned. One of the returned prints shall be maintained by the Contractor and marked-up as a "Record Document."

C. Product Data:

1. General information required specifically as product data includes manufacturer's standard printed recommendations for application and use, compliance with recognized standards of trade associations and testing agencies, and the application of their labels and seals (if any), special notation of dimensions which have been verified by way of field measurement, special coordination requirements for interfacing the material, product or system with other work, and material safety data sheets.

2. Preparation:

- a. Collect four sets of the required product data into a single submittal for each unit of Work or system.
- b. Mark each copy to show which choices and options are applicable to the project.
- c. Where product data has been printed to include information on several

similar products, some of which are not required for use on the Project or are not included in this submittal, mark the copies to show clearly that such information is not applicable.

3. Submittals:

- a. Product data submittal is required for information and record and to determine that the products, materials and systems comply with the provisions of the Contract Documents.
- b. The initial submittal is also the final submittal, except where it is observed that there is non-compliance with the provisions of the Contract Documents and the submittal promptly returned to the Contractor marked with the appropriate "Action."

4. Final Distribution:

- a. The Owner will retain two sets of the submittals.
- b. Furnish copies of product data to subcontractors, suppliers, fabricators, manufacturers, installers, governing authorities and others as required for proper performance of the Work.
- c. Show distribution on transmittal forms.

5. Installation Copy:

- a. Do not proceed with installation of materials, products and systems until a copy of product data applicable to the installation is in the possession of the installer.
- b. Do not permit the use of unmarked copies of product data in connection with the performance of the Work.

D. Samples:

- 1. Submit a minimum of two samples for visual review of general generic kind, color, pattern, and texture, and with other related elements of the Work.
- 2. Samples are also submitted for quality control comparison of these characteristics between the final sample submittal and the actual work as it is delivered and installed.
- 3. Refer to individual Work Sections of these Specifications for additional sample requirements which may be intended for examination or testing of additional characteristics.
- 4. Compliance with other required characteristics is the exclusive responsibility of the Contractor; such compliance is not considered in the Owner's review and "Action" indication on sample submittals.
- 5. Documentation required specifically for sample submittals includes a generic



description of the sample, the sample source or the product name or manufacturer, compliance with governing regulations and recognized standards. Indicate limitations in terms of availability, sizes, delivery time and similar limiting characteristics.

E. Miscellaneous Submittals:

1. Inspection and Test Reports:

- a. Classify each inspection and test report as being either "shop drawings" or "product data," depending on whether the report is specially prepared for the project or a standard publication of workmanship control testing at the point of production.
- b. Process inspection and tests reports accordingly.
- c. Refer to Section 014000 - Quality Requirements for report distribution.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

## DIVISION 01 - GENERAL REQUIREMENTS

### SECTION 014000

#### QUALITY REQUIREMENTS

##### PART 1 GENERAL

###### 1.1 SECTION INCLUDES

- A. General: Required inspection and testing services are intended to assist in the determination of probable compliance of the Work with requirements specified or indicated. These required services do not relieve the Contractor of responsibility for compliance with these requirements or for compliance with requirements of the Contract Documents.
- B. Definitions: Quality control services include inspections, tests and related actions, including reports, performed by independent agencies and governing authorities, as well as directly by the Contractor. These services do not include Contract enforcement activities performed directly by the Owner.
- C. Specific quality control requirements for individual units of Work are specified in the Sections of these Specifications that specify the individual element of the Work. These requirements, including inspections and tests, cover both production of standard products and fabrication of customized work. These requirements also cover quality control of the installation procedures.
- D. Inspections, tests and related actions specified in this Section and elsewhere in the Contract Documents are not intended to limit the Contractor's own quality control procedures which facilitate overall compliance with requirements of the Contract Documents.
- E. Requirements for the Contractor to provide quality control services as required by the Owner, governing authorities or other authorized entities are not limited by the provisions of this Section.

###### 1.2 RESPONSIBILITIES

- A. Contractor Responsibilities: Except where they are specifically indicated as being the Owner's responsibility, or where they are to be provided by another identified entity approved by the Owner, all inspections, tests and similar quality control services are the Contractor's responsibility - these services also include those specified to be performed by an independent agency and not directly by the Contractor. Costs for these services shall be included in the Contract Sum. The Contractor shall employ and pay an independent agency, testing laboratory or other qualified firm approved by the Owner to perform quality control services specified.

- B. Owner Responsibilities: The Owner will employ and pay for the services of an independent agency, testing laboratory or other qualified firm to perform services which are the Owner's responsibility. Such services shall be coordinated by the Contractor as required.
- C. Retest Responsibility: Where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance of related Work with the requirements of the Contract Documents, then retests are the responsibility of the Contractor, regardless of whether the original tests were the Contractor's responsibility. Retesting of Work revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original Work.
- D. Responsibility for Associated Services: The Contractor is required to cooperate with the independent agencies performing required inspections, tests and similar services. Provide such auxiliary services as are reasonably requested. Notify the testing agency sufficiently in advance of operations to permit assignment of personnel. These auxiliary services include, but are not necessarily limited to the following:
  - 1. Providing access to the Work.
  - 2. Taking samples or assistance with taking samples.
  - 3. Delivery of samples of test laboratories.
  - 4. Security and protection of samples and test equipment at the Project site.
- E. Limitations of Authority of Testing Service Agency: The agency is not authorized to release, revoke, alter or enlarge the Contract Documents. The agency shall not approve or accept any portion of the Work. The agency shall not perform any duties of the Contractor.
- F. Coordination: The Contractor and each independent agency engaged to perform inspections, tests and similar services for the Project shall coordinate the sequence of their activities so as to accommodate required services with a minimum of delay in the progress of the Work. In addition, the Contractor and each independent testing agency shall coordinate their work so as to avoid the necessity of removing and replacing work to accommodate inspections and tests. The Contractor is responsible for scheduling times for inspections, tests, taking of samples and similar activities.
- G. If the laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to be inspected, tested or approved, the Contractor shall give the Owner timely notice of its readiness and of the date arranged so the Owner may observe such inspection, testing or approval.

- H. Special Tests: The Owner may on occasion request the Contractor to perform a special test on materials or equipment installed to verify conformance to the Specifications. The Owner will pay for all such tests if the materials or equipment meet or exceed specified requirements. However, if the items tested fail to meet these requirements, then the Contractor shall pay all costs of such tests and shall rectify at no cost to the Owner.

### 1.3 QUALITY ASSURANCE

- A. Qualification for Service Agencies: Except as otherwise indicated, engage inspection and test service agencies, including independent testing laboratories, which are pre-qualified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which are recognized in the industry as specialized in the types of inspections and tests to be performed. Owner must approve Contractor's designated testing agency.
- B. Codes and Standards: Testing, when required, shall be in accordance with all pertinent codes and regulations and with selected standards indicated in the various Sections of these Specifications under the Article entitled QUALITY ASSURANCE.

### 1.4 SUBMITTALS

- A. General: Refer to Section 013300 – Submittal Procedures, for submittal requirements.
- B. Submit a certified written report of each inspection, test or similar service performed by the Testing Laboratory directly to the parties below.
  - 1. Contractor, 1 copy.
  - 2. Engineer, 1 copy.
  - 3. Owner's representative, 1 copy.
  - 4. Owner, 1 copy
  - 5. Submit additional copies of each written report directly to the governing authority when the authority so directs.
- C. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to the following:
  - 1. Name of testing agency or test laboratory.
  - 2. Dates and locations of samples and tests or inspections.
  - 3. Names of individuals making the inspection or test.
  - 4. Designation of the Work and test method.

5. Complete inspection or test data.
6. Test results.
7. Interpretations of test results.
8. Notation of significant ambient conditions at the time of sample taking and testing.
9. Comments or professional opinion as to whether inspected or test work complies with requirements of the Contract Documents.
10. Recommendations on retesting, if applicable.

#### 1.5 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services performed on the Work, repair damaged Work and restore substrates and finishes to eliminate deficiencies, including deficiencies in the visual qualities of exposed finishes. Protect Work exposed by or for quality control service activities, and protect repaired Work. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION

## DIVISION 01 - GENERAL REQUIREMENTS

### SECTION 014216

#### DEFINITIONS AND STANDARDS

#### PART 1 GENERAL

##### 1.1 DESCRIPTION OF REQUIREMENTS

- A. General: This Section specifies procedural and administrative requirements for compliance with governing regulations and the codes and standards imposed upon the Work. These requirements include the obtaining of permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes and standards.
  - 1. "Regulations" is defined to include laws, statutes, ordinances and lawful orders issued by governing authorities, as well as those rules, conventions and agreements within the construction industry which effectively control the performance of the Work regardless of whether they are lawfully imposed by governing authority or not.

##### 1.2 DEFINITIONS

- A. Owner: Northern Kentucky University and their properly authorized agents, including the Engineer and other consultants serving as Owner's Representatives reviewing work.
- B. Engineer: THP Limited, Inc., Cincinnati, Ohio.
- C. Owner's Representative: THP Limited, Inc., or other authorized agent as designated by the Owner.
- D. General Explanation: A substantial amount of specification language consists of definitions for terms found in other Contract Documents, including the Drawings. (Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon). Certain terms used in Contract Documents are defined in this Article. Definitions and explanations contained in this Section are not necessarily either complete or exclusive, but are general for the Work to the extent that they are not stated more explicitly in another element of the Contract Documents.
- E. General Requirements: The provisions or requirements of Division 01 Sections apply to entire work of Contract and, where so indicated, to other elements which are included in the Project.
- F. Indicated: The term "indicated" is a cross reference to graphic representations, notes or schedules on Drawings, to other paragraphs or schedules in the Specifications, and to similar means of recording requirements in Contract Documents. Where terms such as "shown", "noted", "scheduled", and "specified" are used in lieu of "indicated", it is for the purpose of helping reader locate cross reference, and no limitation of location is intended except as specifically noted.

- G. Directed, Requested, Etc.: Where not otherwise explained, terms such as "directed", "requested", "authorized", "selected", "approved", "required", "accepted", and "permitted" mean "directed by Owner or Engineer", "requested by Owner or Engineer", and similar phrases. However, no such implied meaning will be interpreted to extend the Owner's, Engineer's or Owner's representative's responsibility into the Contractor's area of construction supervision.
- H. Project Site: The term "project site" is defined as the space available to the Contractor for performance of the Work, either exclusively or in conjunction with others performing other work as part of the project. The extent of the project site is shown on the Drawings.
- I. Furnish: Except as otherwise defined in greater detail, term "furnish" is used to mean supply and deliver to project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.
- J. Install: Except as otherwise defined in greater detail, term "install" is used to describe operations at project site, including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.
- K. Provide: Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
- L. Installer: The term "installer" is defined as the entity (person or firm) engaged by the Contractor, its subcontractor or sub-subcontractor for performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in the operations they are engaged to perform.
- M. Final Completion: The term "Final Completion" refers to the degree of completion at which time the Project as a whole is turned over for full use to the Owner and all Work is completed in compliance with the Contract Documents.
- N. Entrance: The term "entrance" is defined as a pedestrian doorway, stair, walkway, passageway, landing, elevator or other type of connector which connects or allows access from one structure to another structure.

### 1.3 INDUSTRY STANDARDS

- A. General Applicability of Standards: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, applicable standards of the construction industry have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if public copies were bound herewith. Refer to other Contract Documents for resolution of overlapping and conflicting requirements which result from the application of several different industry standards to the same unit of work.

Refer to individual unit of work Sections for indications of which specialized codes

and standards the Contractor must keep at the project site, available for reference.

1. Referenced standards (referenced directly in Contract Documents or by governing regulations) have precedence over non-referenced standards which are recognized in industry for applicability to the Work.
  2. Non-referenced standards recognized in the construction industry are hereby defined, except as otherwise limited in the Contract Documents as having direct applicability to the Work, and will be so enforced for the performance of the Work. The decision as to whether an industry code or standard is applicable to the Work, or as to which of several standards are applicable, is the sole responsibility of the Engineer.
- B. Publication Dates: Except as otherwise indicated, where compliance with an industry standard is required, comply with standard in effect as of date of Contract Documents.
- C. Copies of Standards: The Contract Documents require that each entity performing work be experienced in that part of the Work being performed. Each entity is also required to be familiar with recognized industry standards applicable to that part of the Work. Copies of applicable standards are not bound with the Contract Documents.
- D. Where copies of standards are needed for proper performance of the Work, the Contractor is required to obtain such copies directly from the publication source.
- E. In case of conflict between the published standard and Project Specifications, the more stringent shall govern.
- F. References to known standard specifications shall mean the latest edition of such specifications adopted and published at date of execution of the Contract.
- G. No claim by Contractor for additional compensation will be entertained on account of his failure to be fully informed as to requirements of any referenced standard.

#### 1.4 REGULATORY REQUIREMENTS

A. Adherence to Codes and Regulations:

1. Before proceeding with the Work, the Contractor shall thoroughly review the Drawings and Specifications to assure the design to be in accordance with all laws, ordinances, rules and regulations, and he shall assume full responsibility therefore and shall bear all costs attributable thereto UNLESS notice is given to the Owner in writing of the discrepancy BEFORE proceeding with the Work.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTIONS - NOT USED

END OF SECTION



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DIVISION 01 - GENERAL REQUIREMENTS  
SECTION 015000  
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Administrative and procedural requirements for temporary services and facilities, including such items as temporary utility services, temporary construction and support facilities, and project security and protection.

1.2 OWNER OPERATION, MAINTENANCE OF OPERATION AND SAFETY

- A. The facility shall remain functional throughout the construction period.
- B. All construction operations shall be carefully coordinated with the Owner to minimize the overall inconvenience to the Owner, maintain the use of the entrances at all specified times and to expedite job progress.
- C. All fumes and dust arising from construction operations shall be controlled so that persons using the facility and the spaces surrounding it are not adversely affect.
- D. The Contractor shall protect his Work and equipment from damage during the construction period.
- E. The Contractor shall take all necessary precautions during all Work Areas to prevent debris from falling and causing damage outside the work area, including damage to existing mechanical/electrical fixtures. The Contractor shall be held liable for all damage caused by excavation, patching, drilling, coring, cutting, sandblasting, dust and debris. The Contractor shall be held liable for all damage to mechanical/electrical fixtures systems due to construction related activities. Contractor shall be responsible for all injury to people and property, including motor vehicles, caused by any construction related activity. The Owner will endeavor to field complaints and forward same to Contractor. Contractor is responsible for contacting people or property owner and resolving complaints.
- F. When Work is performed that may create a hazard to persons or property above, below, or in the proximity of Work, affected areas shall be blocked or otherwise protected to eliminate the hazard. Coordinate this activity with the Owner a minimum of 4 working days prior to the requested time for performance of such work.
- G. Access to all emergency egress routes outside the limits of an individual construction area shall be continuously and safely maintained. Emergency egress routes shall not be impaired due to construction activities.
- H. Coordinate Work Areas with the Owner to minimize interference with normal operations.

### 1.3 WORK AREAS

- A. The Work is divided into sections termed Work Areas. Work outside the closed Work Area is not allowed, except work permitted by the Construction Documents or authorized by the Owner.
- B. The Construction limit lines are defined as the extent of the Work Areas designated on the Drawings. Areas outside the construction limits may not be used by the Contractor for staging, storage of materials, or any other purpose, except as indicated in the Construction Documents.

### 1.4 MATERIAL AND EQUIPMENT STORAGE AND DELIVERY

- A. An area of the facility will be made available to the Contractor for material and equipment storage, staging and other facilities deemed necessary by the Contractor.
- B. Deliveries shall not block entrance or exit to the facility by patrons or other services. Deliveries are to be coordinated with the Owner.

### 1.5 PROTECTION OF THE SURROUNDING AREA

- A. All construction operations shall be conducted such as to protect the surrounding areas and adjacent buildings.
- B. Fumes and dust shall also be controlled to prevent harmful or undesirable effects in the surrounding areas. All potential avenues for penetration of fumes or dust into occupied spaces adjacent to the work area must be located and sealed by the Contractor in a manner acceptable to the Owner prior to the start of the work in the affected area.
- C. Areas below regions of construction activity may remain open for portions of that activity. However, the Contractor is totally responsible for damage as a result of the Work.

### 1.6 PROTECTION OF EXISTING CONDITIONS

- A. All portions of the existing structure, all utilities and all other building contents not part of the work damaged, moved or altered in any way during construction shall be replaced or repaired to the Owner's satisfaction at the Contractor's expense.
- B. Contractor and Owner shall conduct a preconstruction inspection of all finish materials and equipment located within the Work area to record in writing existing damaged finish materials and/or equipment not directly involved with this Contract. The Contractor shall be deemed responsible for damaged finish material and/or equipment not recorded during the preconstruction inspection. Contractor shall replace or repair to the Owner's satisfaction damaged finish material and/or equipment. It is the Contractor's responsibility to schedule and coordinate this preconstruction walk-through with the Owner. Provide a minimum of 5 calendar days notice prior to the requested walk-through time.

- C. Accidental interruptions caused by the Contractor to services outside of the work area shall be reported to the Owner at once, and immediate, emergency efforts to restore the service shall be made at the expense of the Contractor.
- D. When performing work adjacent to building and structures, protect buildings and structures from dirt, dust and debris.
- E. Protect drain openings during construction from construction debris entering drainage system. Provide filter cloth over openings to prevent debris from entering pipes, but still allowing water to enter. Clean debris from drains as necessary to maintain water removal. Remove drain protection during non-working hours and reinstall prior to commencing work.

#### 1.7 TEMPORARY FACILITIES

- A. Existing electric and water service shall remain at their present level of service within the facility and may be used by the Contractor. The Owner will pay for current and water used. Additional electricity and water and their service connections which may be required for construction shall be provided by the Contractor. Contractor shall verify existence and usability of listed services prior to submitting Bid. Non-listed services required by the Contractor shall be provided by the Contractor.
- B. The Contractor shall provide his own job phone.
- C. The Contractor shall provide temporary toilet facilities for use by its employees and subcontractors. Locate in an area approved by the Owner. Use of Owner facilities is not allowed.
- D. Job signs are not allowed.
- E. The Contractor shall furnish temporary lighting or heat required so that work may proceed to meet the Contract schedule.
- F. The Contractor shall arrange and establish a location satisfactory to the Owner where workmen may eat; provide a rubbish container, and clean and remove all debris at the end of each work day.
- G. At all times when work is being performed, the Contractor's foreman shall be on-site. Both the foreman and the superintendent shall have a mobile phone or beeper with him/her at all times while on the job site. Provide the Owner with the telephone number.
- H. A job site office/trailer is not required.

#### 1.8 PARKING

- A. Contractor is required to purchase required parking passes from the University.

#### 1.9 USE OF FACILITY

- A. Contractor employees are not permitted to use Owner and tenant facilities except as previously noted. Failure to comply with this restriction can result in the dismissal of the offending employee from the construction site.
- B. Except for materials being used during a work shift, store all materials in approved storage area.
- C. Materials being used for work shall be uniformly distributed throughout the work area to avoid overloading or otherwise causing distress to the supported structural system.

#### 1.10 TRAFFIC CONTROL

- A. Provide signage and barricades required to clearly and safely re-route pedestrian traffic in away from work areas. Coordinate with the Owner a minimum of 7 days in advance of when an area is scheduled to be closed.
- B. Erect barricades to prevent unauthorized entry of pedestrian traffic into, on or under the Work Area. Post appropriate signs to warn against entry. Construct barricades to prevent unauthorized entry during non-work hours.

#### 1.11 USE OF STREETS AND WALKS

- A. The Contractor must coordinate use of streets and walks directly with the Owner.
- B. The Contractor shall provide and maintain control device necessary for the protection of his Work, and areas which the Owner may consider hazardous, including necessary lighting.
- C. While performing the work, the Contractor shall provide and maintain signage, barricades, warning devices, etc. that may be necessary or required by the Owner for the protection of pedestrians.

#### 1.12 CLEANUP

- A. Each Contractor or Subcontractor, upon completion of his division of the work, shall collect and remove all rubbish, surplus material, tools and scaffolding pertaining to his work, and shall keep the work area neat and orderly by periodic removal and cleanup. Crates and cartons in which materials or equipment are received shall be removed daily. Contractor shall leave each phase of the work broom-clean upon completion of that phase.
- B. Each Contractor shall be responsible for daily collection and disposal of rubbish created by his materials, men and work. If this is not done, the Owner may direct that cleanup be done and the cost of same shall be deducted from the Contractor's contract.
- C. Contractor shall clean surfaces of all lights, control panels, overhead piping, duct work, etc., after construction is complete, to the same level of cleanliness as surfaces were before construction.

D. Protect from damage during subsequent construction activities all new work and existing construction cleaned upon the completion of any one phase.

E. Contractor shall legally dispose of all debris (including concrete) off the site.

#### 1.13 FIRE PROTECTION

A. It shall be the responsibility of the Contractor to take the proper precautions to prevent fires when fire-hazardous work is being performed.

B. Gasoline and other flammable liquids shall be kept in approved safety cans at all times.

#### 1.14 WATCHMEN

A. The services of a watchman will not be provided by the Owner.

B. The Contractor shall assume full responsibility for protection and safety of material and equipment stored at the job site both within and outside of the work areas or storage areas.

#### 1.15 ADDITIONAL REQUIREMENTS

A. During the term of this Contract, the employees of the Contractor shall not consume or be under the influence of alcohol while on the premises of the Owner. The use of nonprescription, over the counter drugs and medications (i.e., Contact, Actifed, etc.) is discouraged, but if used, manufacturer's guidelines must be followed. Drugs considered illegal by federal, state, and local authorities are strictly prohibited.

B. Owner reserves the right with or without cause and at its sole discretion, provided that such right is lawful, to have the Contractor temporarily or permanently remove any of the Contractor's employees from the Project.

C. Shutting down of existing apparatus and service lines shall be done only at times prescribed and approved by the Owner. Apparatus and service lines shall not be left out of service overnight, during non-working periods or during scheduled events.

D. Notice of temporary service interruption (or potential interruption) shall be given to the Owner and his designated representative not less than (5) working days prior to required interruption to allow adequate preparation to be made.

E. Provide the Owner with emergency telephone numbers to be able to contact the Contractor's superintendent or project manager 24 hours a day.

END OF SECTION

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 015600

BARRIERS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Orange construction fence barriers at exterior of building.
- B. Miscellaneous barriers and efforts, including construction fencing, caution tape and signage.

1.2 RELATED SECTIONS

- A. Section 015000 - Temporary Facilities and Controls.
- B. Section 030101 – Façade Concrete Repairs.
- C. Section 071916 – Silane Water Repellent.
- D. Section 079200 – Sealants.

1.3 SUBMITTALS

- A. Submittals are not required unless Owner or Engineer raise questions or concerns regarding the quality or construction of barriers or enclosures. Potential submittals, if requested, could include the following:
  - 1. Fire-retardant treatment for dimensional lumber and plywood.
  - 2. Plastic Safety Fencing.
  - 3. Caution Barrier Tape.
  - 4. Enclosure construction details.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Lumber:
  - 1. Dimensional lumber:
    - a. Minimum 2 x 4 dimensional lumber.
    - b. Fire-retardant treated (non-com) with treatment stamp visible.
  - 2. Plywood:
    - a. Minimum 1/2-inch thick.



- b. Fire-retardant treated (non-com) with treatment stamp visible.

B. Caution Tape:

- 1. 3" wide.
- 2. Minimum 4 mil thick plastic.
- 3. Safety yellow tape with black "CAUTION" lettering, minimum 1-1/2" high.

C. Fencing:

- 1. 4' high plastic orange construction safety fence with maximum 1½"x 1½" openings.
- 2. Fencing supports to be portable, wood or metal posts allowing for attachment of fencing at top and along length of post. Post to be constructed with base that accommodates weights for maintaining in up right position.

### PART 3 EXECUTIONS

#### 3.1 GENERAL

- A. Work shall not proceed until dust barriers, barricades, construction fencing or partial or full height barriers or enclosures are in place and secure.
- B. Provide barricades to isolate areas directly under work areas for protection of persons or property.
- C. Remove barricades at entrances during non-working hours which will obstruct or hinder the use of the entrance.
- D. Installation and removal of barricades or barriers shall not damage existing surfaces.
- E. The use of anchors which penetrate the existing surface are prohibited, unless approved in advance by Engineer.
- F. Remove all evidence of barriers installation upon removal.
- G. Contractor is responsible for erection, maintaining, moving and removal of barricades, fencing and barriers from the job site.
- H. Provide plywood protection on paved and landscape areas to prevent damage from equipment, dumpsters and debris.

#### 3.2 CAUTION TAPE BARRIERS

- A. Erect caution tape barriers across the interior opening of emergency egress doors within the work area. A minimum of 3 horizontal ribbons equally spaced shall be installed across the door opening. The bottom ribbon shall be 18" above the floor. The top ribbon shall be no 42" above the floor.

- B. Do not damage the existing surfaces when installing and removing the barriers. Barriers may be taped in place across the door openings. Maintain caution tape in a tight manner across opening with no sag.
- C. Inspect safety tape a minimum of 3 times daily: At the beginning of the work day; at the middle of the work day; and at the end of the work day.

### 3.3 PLASTIC CONSTRUCTION FENCING

- A. Maintain fencing in upright position. Weight bases to prevent blow-over from winds up to 50 mph. Maintain fence in straight, tight, condition free of sags, wrinkles, and bows.
- B. Connect sections of fencing together at posts to provide a continuous barricade.
- C. Provide designated access points in fence for movement of materials, equipment and personnel. Maintain access areas in an upright position. When in closed, access point to be secured to maintain continuous barricade.
- D. Install fencing around work area to prevent access by non-construction persons.
- E. Install fencing a minimum of 10' from face of wall surface and beyond work area.

END OF SECTION

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 017700

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Requirements for Close-Out of Contract.
- B. Specific requirements for individual units of work may be included in the appropriate Sections.

1.2 DEFINITIONS

- A. Contract Closeout is the term used to describe certain collective project requirements, indicating completion of the Work that are to be fulfilled near the end of the Contract time in preparation for final acceptance and occupancy of the Work by the Owner, as well as final payment to the Contractor and the normal termination of the Contract.

1.3 PREREQUISITES TO SUBSTANTIAL COMPLETION

- A. General: Complete the following before requesting the Owner's inspection for certification of substantial completion, either for the entire Work or for portions of the Work. List known exceptions in the request.
  - 1. In the progress payment request that coincides with, or is the first request following, the date substantial completion is claimed, show either 100% completion for the portion of the Work claimed as "substantially complete," or list incomplete items, the value of incomplete Work, and reasons for the Work being incomplete. Include supporting documentation for completion as indicated in these Contract Documents.
  - 2. Submit a statement showing an accounting of changes to the Contract Sum.
  - 3. Advise Owner of pending insurance change over requirements.
  - 4. Submit specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar documents.
  - 5. Obtain and submit releases enabling the Owner's full, unrestricted use of the Work and access to services and utilities. Where required, include occupancy permits, operating certificates and similar releases.
  - 6. Submit record drawings, maintenance manuals, final project photographs, damage survey and similar final record information.

7. Discontinue or change over and remove temporary facilities and services from the project site, along with construction tools and facilities, mock-ups and similar elements.
  8. Complete final cleaning-up requirements, including touch-up painting of marred surfaces. Touch up and otherwise repair and restore marred exposed finishes.
- B. Inspection Procedures: Upon receipt of the Contractor's request for inspection, the Owner will either proceed with inspection or advise the Contractor of unfilled prerequisites.
1. Following the initial inspection, the Owner will either prepare the certificate of substantial completion or will advise the Contractor of work which must be performed before the certificate will be issued. The Owner will repeat the inspection when requested and when assured that the Work has been substantially completed.
  2. Results of the completed inspection will form the initial "punch list" for final acceptance.

#### 1.4 PREREQUISITES TO FINAL ACCEPTANCE

- A. General: Complete the following before requesting the Owner's final inspection for certificate of final acceptance and final payment as required by the General Conditions. List known exceptions, if any, in the request.
1. Submit the final payment request with final releases, affidavits and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
  2. Submit an updated final statement accounting for final additional changes to the Contract Sum.
  3. Submit a certified copy of the Owner's final punch list of itemized Work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.
  4. Submit consent of Surety.
  5. Submit evidence of final, continuing insurance coverage complying with insurance requirements per General and Supplementary Conditions in these Specifications.
  6. Submit a certificate clearly indicating that all outstanding bills for materials, services and labor, and all subcontractors have been paid in full.

- B. Re-inspection Procedure: The Owner will re-inspect the Work upon receipt of the Contractor's notice that the Work, including punch list items resulting from earlier inspections, has been completed except for these items whose completion has been delayed because of circumstances that are acceptable to the Owner.
  - 1. Upon completion of re-inspection, the Owner will either approve the final payment request, or will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled, but are required for final release of final payment.
  - 2. If necessary, the re-inspection procedure will be repeated.
- C. Schedule with the Owner a close-out meeting. Coordinate this meeting with the Owner. Provide a minimum of 3 working days notice prior to the requested time for the meeting.

#### 1.5 PROJECT RECORD DOCUMENTS

- A. The Contractor shall be responsible to maintain at the job site one copy of:
  - 1. Record contract drawings.
  - 2. Record project manual.
  - 3. Addenda.
  - 4. Reviewed shop drawings, if any.
  - 5. Change orders.
  - 6. Other modifications to Contract.
- B. Maintain documents in clean, dry, legible condition.
- C. Do not use project Record Documents for construction purposes.
- D. Failure to maintain documents up-to-date will be cause for withholding payments to Contractor.
- E. Obtain one complete set of Contract Documents, including:
  - 1. Project Manual with all addenda.
  - 2. One complete set of prints of all drawings not bound in project manual.
- F. Keep Record Documents current.
- G. Contract Drawings: Contractor may, at his option, enter required information on a "working set" and then at completion of project transfer the information to final submitted "Project Record" set. All notations on the "Project Record" set shall be in red ink made in a neat and legible manner, with additional explanatory drawings or sketches as required. The Project Record Drawings shall have marked the

correct location of Work items and equipment where it differs from the location shown on the drawings, and any other information pertinent or useful in nature.

- H. Project Manual and Addenda: Contractor shall legibly mark up each section to record:
  - 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
  - 2. Changes made by change order or field order.
  - 3. Other items not originally specified.
- I. At completion of Project, deliver 3 copies of the Project Record Documents to the Owner prior to request for final payment. Accompany submittal with transmittal letter containing:
  - 1. Date.
  - 2. Project title and number.
  - 3. Contractor's name and address.
  - 4. Title and number of each Record Document.
  - 5. Certification that each document as submitted is complete and accurate.
  - 6. Signature of Contractor or his authorized representative.

#### 1.6 OPERATIONS AND MAINTENANCE DATA

- A. The Contractor shall deliver to the Owner at the final inspection all operations and maintenance data as required elsewhere in this Specification. This data shall be provided in loose-leaf binders.

#### 1.7 WARRANTIES

- A. The Contractor shall provide a general one year warranty for all work performed.
- B. As required by individual Specification Sections, provide extended warranties on parts of the Work as specified.
- C. Provide the Owner with four executed copies of all required warranties.
- D. Deliver to the Owner all required warranties prior to the application for Final Payment.
- E. Delivery of required warranties does not relieve the Contractor of obligations assumed under provisions of the Contract.
- F. Warranties provided directly by contractor are to be written using company letterhead documents.

G. A warranty may require multiple signatures if specified to be a joint warranty. Refer to individual warranty requirements in the appropriate Specification Section.

H. The warranty format shall be as follows:

Name of Project

Scope of Work

We warrant the Work to be in accordance with the Contract Documents. We shall provide all labor, material, tools and equipment necessary to correct work not in conformance with the Contract Documents or that becomes or is found to be defective within        years after the Date of Substantial Completion. We will bear the cost of making good any damage caused by the defective work, including damage caused by its correction or removal, to the Owner's property or to property for which the Owner is liable. This warranty shall not apply to work which has been abused, neglected or altered by others or to work for which the Owner has previously given the Contractor a written acceptance of the defect. The warranty period shall begin at Noon on the date of Substantial Completion.

Company

Signature

Date

Title

## 1.8 SPARE PARTS AND MAINTENANCE MATERIALS

A. The Contractor shall deliver all spare parts and maintenance materials as required elsewhere in this Specification to the Owner at the final inspection.

## 1.9 CLOSEOUT PROCEDURES

A. Removal of Protection: Except as otherwise indicated or requested by the Owner, remove temporary protection devices and facilities which were installed during the course of the Work to protect existing or previously completed Work during the remainder of the construction period. Compliance: Comply with safety standards and governing regulations for cleaning operations. Do not discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner. Where extra materials of value remaining after completion of associated work have become the Owner's property, dispose of these materials to the Owner's best advantage as directed.

PART 2 PRODUCTS - NOT USED.

PART 3 EXECUTIONS - NOT USED.

END OF SECTION



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DIVISION 03 – CONCRETE  
SECTION 030101  
FAÇADE CONCRETE REPAIRS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. All labor, material, equipment, tools and services to complete concrete work required for the project, as indicated on the drawings and the specifications, including but not limited to:
  - 1. Inspection of concrete surfaces.
  - 2. Repairs to concrete surfaces as indicated in the Drawings.
  - 3. Temporary protection of doors, windows, and roof areas during construction. Refer to specification section 015600.

1.2 RELATED SECTIONS:

- A. Section 012100 – Allowances.
- B. Section 012300 – Alternates.
- C. Section 012900 – Payment Procedures.
- D. Section 015600 – Barriers.
- E. Section 079201 – Façade Sealant.

1.3 UNIT PRICES:

- A. Unit prices are taken for the work items listed in Section 012100, for the quantity measurements listed in Section 012900. Include the quantities from Section 012100 in the lump sum bid.
- B. Final adjustment to the contract amount will depend on actual quantities of repair performed.
- C. Repair quantities will be determined by measurements made jointly by the owner or its representative and the contractor. The contractor will record the measurements with both parties signing the record to attest to its accuracy.

1.4 REFERENCES

- A. American Concrete Institute (ACI):
  - 1. ACI 301 - Specification for Structural Concrete for Buildings.
  - 2. ACI 305R - Hot Weather Concreting.

3. ACI 306R - Cold Weather Concreting.
  4. ACI 318 - Building Code Requirements for Reinforced Concrete.
- B. American Society for Testing and Materials (ASTM):
1. ASTM A185 - Specification for Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement.
  2. ASTM A615 - Specification for Deformed and Plain-Billet Steel Bars for Concrete Reinforcement.
  3. ASTM A775 - Standard Specification for Epoxy-Coated Reinforcing Steel Bars.
  4. ASTM C33 - Concrete Aggregates.
  5. ASTM C94 - Specification for Ready-Mixed Concrete.
  6. ASTM C143 - Standard Test Method for Slump of Portland Cement Concrete.
  7. ASTM C150 - Specification for Portland Cement Concrete.
  8. ASTM C260 - Specification for Air-entraining Admixtures for Concrete.
  9. ASTM C494 - Specification for Chemical Admixtures for Concrete.
- C. Structural Steel Painting Council (SSPC):
1. Surface Preparation Specification No. 3 (SP3) – Wire Wheel Cleaning.
  2. Surface Preparation Specification No. 6 (SP6) – Commercial Blast Cleaning.
- D. American Association of State Highway and Transportation Officials (AASHTO):  
AASHTO M182 - Specifications for Burlap Cloth Made from Jute or Kenaf.
- E. Keep a copy of the referenced specifications cited in this section in the on-site field office.

## 1.5 SUBMITTALS

- A. Submit literature for manufactured products, including manufacturer's specifications, test data and installation instructions.

## 1.6 QUALITY ASSURANCE

- A. The Contractor shall comply with all Federal, State and Municipal laws, codes, ordinances and regulations applicable to the Work in this Contract and also with all requirements of the National Fire Protection Association, the National Electric Code, and the Occupational Safety and Health Administration (OSHA). If the above laws, codes or ordinances conflict with this Specification, then the laws, codes or ordinances shall govern, except in such cases where the Specification

exceeds them in quality of materials or labor, then the Specifications shall be followed.

- B. Concrete that does not conform to the specified requirements, including bond to substrate, strength, finish and tolerances shall be subject to removal and replacement, including necessary preparatory work, at no additional cost to the Owner and without extension to the Contract Time.
- C. Contractor shall be responsible for restoration of other components of the Work damaged during placement of concrete or damaged during removal of unsatisfactory concrete.
- D. ACI 301, ACI 305R and ACI 306R are a part of the Contract Documents, are incorporated herein as fully as if here set forth and are referred to as General Concreting Requirements.
- E. Chloride Ion Limitations: Maximum acid-soluble chloride ion concentration, in hardened concrete shall not exceed .10% by weight of cement.
- F. Provide access to work area for Owner representative or Engineer to inspect quality of work, progress, unit price items and field conditions. Access to be completed during normal working hours. If access requires mechanical equipment (man-lift, swing stage, etc.), provide necessary operators.
- G. Mock-up: All concrete materials shall be proportioned to match color of surrounding material after patch material has cured. Prior to starting patching operation, test different techniques, grout mixes, and curing procedures on concealed areas to best match cast concrete. Receive approval of the Architect/Engineer of patching material and methods prior to proceeding with patching.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

A. Packing, shipping, Handling and Unloading:

- 1. Deliver materials to job site in sealed, undamaged containers/packaging.

B. Storage and Protection:

- 1. Protect materials in a dry place, off ground and under cover to protect them from moisture and other damage.
- 2. Do not use materials showing evidence of water or other damage.

#### 1.8 PROJECT CONDITIONS

A. Environmental requirements:

- 1. Install concrete in strict accordance with all safety and weather conditions required by product literature and ACI or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.

2. Fumes and dust shall be controlled to prevent harmful or undesirable effects in surrounding areas. Do not allow fumes, dirt, dust or debris to enter building.

## 1.9 SEQUENCE

- A. Complete all concrete repairs prior to repairing sealant control joints and perimeter sealant joints or applying silane water repellent.

## 1.10 WARRANTY

- A. A warranty period of two (2) years shall be provided for concrete work performed under this Section against defects, as determined by the Owner, including but not limited to debonding, excessive cracking and surface scaling.

## PART 2 PRODUCTS

### 2.1 MATERIALS

#### A. Prepacked Concrete Materials:

1. A single component, trowel-applied, color-matched repair mortar for concrete.
2. Basis of Design: Jahn M90 by Cathedral Stone Products, Inc.
3. Repair material to match color of existing concrete. Provide sample of existing concrete for color matching by manufacturer.

#### B. Fine and Coarse Aggregates: Meeting requirements of ASTM C-33.

#### C. Water: Mixing water shall be potable meeting requirements of ASTM C-94.

### 2.2 ACCESSORIES

#### A. Epoxy Bar Coating:

1. Sikadur 32, Hi-Mod LPL by Sika, Inc.
2. Concessive Standard Liquid by Master Builders Technologies.

#### B. Welded Wire Reinforcement: Conforming to ASTM A185.

#### C. Reinforcing Steel:

1. All reinforcing steel shall have a minimum Fy of 60 ksi.
2. Provide epoxy coated steel where shown on Drawings.

#### D. Curing Compound:

1. Liquid membrane forming curing compound shall conform to the requirements of ASTM C1315, Type 1, Class A and have data from an

independent laboratory indicating a maximum moisture loss of 0.40 grams per square cm. when applied at a coverage rate of 300 square feet per gallon.

2. Basis of Design: Kure 1315 by Sonneborn/BASF
- E. Form Lumber: New fire-retardant material, grade and size to adequately form, support and brace concrete and to provide finishes that match adjacent surfaces.
- F. Epoxy and Epoxy Grout:
  1. Epoxy: Sikadur 32 by Sika.
  2. Epoxy Grout: Sikadur 32 epoxy mixed with silica sand.
- G. Patch Anchors:
  1. Stainless steel, mushroom head, one piece, pre-expanded, tamper-proof, vibration resistant anchor for use in concrete. Anchor shall be formed with an "S" configuration at the working end of the anchor to create an expansion mechanism.
  2. Basis of design: Spike anchor by Powers Fasteners.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Examine surfaces intended to receive the concrete work and note conditions or defects that will adversely affect the execution and/or quality of the work.
- B. Notify Owner in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify Owner prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.

#### 3.2 PREPARATION

- A. Protection
  1. Contractor shall protect all open excavations, and reinforcing therein, from damage due to mechanical disturbance, weather conditions or other causes.
  2. Contractor shall protect occupied areas adjacent to the work area during all phases of the work including removal, preparation and placement of materials.
  3. Provide barricades to close areas immediately below the work area. Coordinate the time closing of required areas with the Owner.

#### 3.3 GENERAL

- A. Prior to the start of work, the Contractor shall survey areas to receive repair concrete to determine locations and approximate quantity of material.
- B. Prior to start of excavations, perform an on-site review of the work areas with the Owner. Provide a minimum of 2 working days notice prior to the requested review day.
- C. Prior to performing operations such as chipping, the Contractor shall make a careful and thorough survey of the area adjacent to and below where he intends to work, and shall remove all loose concrete which may fall as a result of those operations. The Contractor shall also be responsible for posting all signs and erecting all barricades as necessary to prevent pedestrians and vehicles from entering the area below hazardous work.
- D. During concrete removal work, Contractor shall not damage existing mild steel reinforcement. Mild steel reinforcement that is damaged by the Contractor, as determined by the Owner, shall have a new reinforcing bar the same size as the damaged bar lapped to each side of the damaged area. Lap lengths shall be determined by ACI 318. Cost of new reinforcing bar, concrete removal and patching for lap length shall be borne by the Contractor.
- E. It is intended that the existing reinforcement steel exposed during the work shall remain in place (unless noted on Drawing for removal) and undamaged during removal of the unsatisfactory concrete. Tie loose reinforcement bars in place in an approved manner prior to placing patch mix. If the reinforcement is deteriorated, as determined by the Owner, the Owner may direct that it be replaced and spliced in accordance with ACI splice and development requirements for reinforcement bars. Additional concrete removal may be required to expose undamaged reinforcing. If required, compensation will be made in accordance with the established Unit Prices.
- F. Concrete placement for patches or overlays on sloping surfaces shall begin on the low elevation end and proceed upwards to the high elevation end.

### 3.4 REPAIR PROCEDURE

- A. Refer to the Drawings for repair details. Contractor shall sound concrete surfaces using hammer sounding techniques to identify the limits of deteriorated concrete within the Work Area. Mark each area to be repaired. Location of marks must be approved by the Owner's representative.
- B. Before removal of concrete within a Work Area, the Contractor and the Owner's representative will record the area bounded by the marks. Take measurements to the nearest inch in such a way that results in a total plan area at each location.
- C. Contractor and Owner's representative shall affix their signatures to each measurement sheet completed, attesting to the agreed-upon accuracy of the measurements. Furnish copies of measurement sheets to both parties for their records.

- D. Calculate and sum the total repair area to yield total square feet. Measurements are the sole basis for calculation of final payment, based upon the item's unit price. Refer to Section 012100 and Section 012900. Base unit price on the area of the repair and the depths indicated on the repair details.
- E. Remove concrete within the Work Area by conventional chipping methods.
- F. Conventional Chipping Method:
  - 1. Saw cut or grind the concrete surface along the perimeter of the paint marks which define the removal area. Do not cut existing reinforcement. Depth of cuts shall be 1/2 inch. Cut perimeter of removal area before beginning chipping hammer work. Do not over cut corners of patch area.
  - 2. Perform concrete removal with no larger than 18 pound chipping hammers.
  - 3. Begin concrete removal at the center of the removal area and work towards the cut perimeter. Maintain vertical cut edge at perimeter. Reestablish edge if necessary.
  - 4. Contractor shall use due diligence to perform concrete chipping operation in a manner to avoid excessive concrete removal. Means such as utilizing wide chipping blades and performing chipping procedures on a low angle are recommended.
- G. The surface of sound, exposed concrete shall be relatively flat with a 1/4" amplitude over the repair area. Contractor is responsible for insuring that the final concrete repair area is sound.
- H. Within 24 hours of concrete repair material placement, media blast the excavation and the immediately adjacent surface. Reinforcing steel, if exposed, shall be cleaned to a SSPC-SP6 condition unless otherwise indicated.
- I. After completion of all cleaning operations, blow-out excavations with oil-free and water-free compressed air. Previously cleaned excavations that are subjected to contamination must be recleaned.
- J. The Owner will inspect excavations prior to coating reinforcing steel. Final touch-up of excavations and reinforcing steel shall be performed before proceeding.
- K. Within 8 hours after cleaning, coat all surfaces of exposed steel with one coat of epoxy bar coating. Allow coating to become tack free before proceeding with second coat.
- L. Apply second coat of epoxy bar coating to previously coated steel. Do not apply epoxy to substrate.
- M. Maintain all concrete surfaces of repair areas in a wet condition to provide a surface saturated dry condition.
- N. Just prior to material placement, blow-down area with oil-free compressed air to



remove any standing water near vertical repair locations.

- O. Place Patch Material in the excavations per manufacturer's written instructions. Pack new patch material at vertical repairs to ensure consolidation in maximum-depth areas. Screed materials flush with and finish to match existing adjacent surfaces.
- P. After finishing, fog concrete surfaces with water using approved fog spray device (hose not permitted) to prevent surface drying prior to start of curing.
- Q. Cure Patch Material in accordance with manufacturer's written instructions.

### 3.5 FIELD QUALITY CONTROL

- A. All excavations shall be inspected and approved prior to placing concrete. The Contractor shall notify the Owner 2 working days in advance of required inspection.
- B. Notify the Owner at least 2 working days prior to placing concrete.
- C. Acceptance of Structure:
  - 1. Acceptance of Structure shall be in accordance with ACI 301 Chapter 18.
  - 2. Contractor shall bear all costs of correcting rejected work, including the cost of Owner's services thereby made necessary.

### 3.6 CLEANING

- A. Empty containers shall be removed from the site at the end of each working day. Cloths soiled with adhesive materials that might constitute a fire hazard shall be placed in suitable metal safety containers or shall be removed from the building at the end of each working day. Special care shall be taken in storage or disposal of flammable materials. Comply with health, fire and environmental regulations.
- B. All spilled materials shall be completely removed from hardware, adjacent floor areas, metal work, etc. Remove spilled coating by approved methods.
- C. Repaint in matching color all curbs, columns, walls, etc., where existing paint was removed during preparation of adhesive materials installations.
- D. All hardware, adjacent floor areas, metal work, etc., and the general premises shall be left clean and free of all construction dust, dirt and debris.

END OF SECTION

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

SECTION 071916

SILANE WATER REPELLENT

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. All labor, material, equipment, special tools and services to prepare and install penetrating water repellent on surfaces as indicated on the Drawings and in the Specifications, including but not limited to:
  - 1. Inspection of surfaces to receive water repellent.
  - 2. Preparation and cleaning of surfaces to receive water repellent.
  - 3. Application of water repellent on surfaces where indicated on the drawings.
  - 4. Temporary protection of doors, windows, roof areas, and interior spaces during construction.
  - 5. Provide access to work area for Owner representative or Engineer to inspect quality of work, progress, unit price items and field conditions. Access to be completed during normal working. If access requires mechanical equipment (man-lift, swing stage, etc.), provide necessary operators.

1.2 RELATED SECTIONS:

- A. Section 030101 – Façade Concrete Repairs.
- B. Section 079200 – Sealants.

1.3 DEFINITIONS

- A. Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations which are found in publications available to and commonly used by the general architectural and engineering professions."

1.4 SUBMITTALS

- A. Literature for manufactured products, including manufacturer's specifications, test data and installation instructions or applicator's manual.
- B. Manufacturer's letter of applicator approval per Paragraph 1.4.A.
- C. Listing of completed projects per Paragraph 1.4.B.
- D. Submit personal resume to verify compliance with Paragraph 1.4.D.

- E. Letter of compatibility per Paragraph 1.4.F.
- F. Letters of compatibility per Paragraph 1.4.G.
- G. Form of Warranty meeting the requirements of Paragraph 1.7.A.

## 1.5 QUALITY ASSURANCE

- A. The Contractor shall comply with all Federal, State and Municipal laws, codes, ordinances and regulations applicable to the Work in this Contract and also with all requirements of the National Fire Protection Association, the National Electric Code, and the Occupational Safety and Health Administration (OSHA). If the above laws, codes or ordinances conflict with this Specification, then the laws, codes or ordinances shall govern, except in such cases where the Specification exceeds them in quality of materials or labor, then the Specifications shall be followed.
- B. No payments shall be approved for work performed unless Contractor coordinates in advance with the Owner for a manufacturer's representative to witness the work.
- C. If requested by Owner, the installer shall be approved in writing by the manufacturer for application of the approved water repellent.
- D. Work under this Section shall be performed by organizations which have successfully performed at least three projects of similar size and type, in a similar climate within the past five years.
- E. Final selection of the water repellent applicator shall be subject to the approval of the Owner.
- F. All work under this Section shall be under the immediate control of a person (Contractor's superintendent or other designated person) experienced in this type of work. This person shall have supervised three prior projects of similar magnitude and type, shall be present during all operations, and shall be approved by the Owner.
- G. A technically competent employee of the manufacturer (not associated with the installation crew), approved by the Owner, shall perform sub-items 1 through 8 listed below. The General Contractor shall provide Owner's Representative with 2 weeks advance notice of initial water repellent installation and 3 days advance notice for all subsequent installations requiring the manufacturer's representative's review.
  - 1. Witness and approve in writing the surface cleanliness and preparation procedures. If application of water repellent is on different materials, and/or different areas remote from each other, written approval shall be provided for each material and/or each area.
  - 2. Witness the application of water repellent on at least one phase of all of the specifically identified surfaces as indicated on Drawings.
  - 3. Advise the contractor where and when modifications to procedures are required to obtain Specification compliance.

4. After the field sample application and prior to the next application, establish in writing procedures to be used for the remainder of the work area(s). The procedures shall be written particularly for this project based on field sample(s) application observations and anticipated condition for the remainder of the work. Manufacturer's standard published literature is not acceptable. The procedures shall address, but not be limited to:
  - a. If applicable, preparation and clean-up procedures for surface(s) to receive water repellent.
  - b. Surface preparation acceptance criteria.
  - c. Special surface preparation procedures, if any, for particular areas, such as heavily stained areas.
  - d. Allowable moisture and atmospheric conditions site specific to this project.
  - e. Modifications to application rates and techniques to limit potential glazing or discoloration from over application of material.
  - f. All other special instructions necessary to ensure proper installation.
5. Prior to leaving the site, submit to the Owner for review and approval (2) copies of the written procedures developed for the remainder of the work area(s).
6. Give a copy of the written procedures to the contractor.
7. Review in person with the contractor's superintendent (or person in charge of this work) the written procedures in the presence of the Owner.
8. Provide an additional copy of the written procedures which shall remain on site at all times for the duration of the work.
- H. The water repellent and substrate surfaces shall be certified in writing as being compatible prior to beginning the work by the water repellent manufacturer.
- I. Verify in writing, from both the sealant and water repellent manufacturers that the approved sealant is compatible with the approved water repellent.
- J. Field Samples
  1. Prior to ordering water repellent, apply material to an area of each material specified to receive water repellent. Area(s) to be selected by the Owner.
  2. If application of water repellent is in several areas remote from each other, apply sample in each area.
  3. Each area shall be 100 sq. ft. (10' x 10').
  4. Review of sample area(s) shall be performed by the contractor, engineer and Owner no sooner than 72 hours after application of the water repellent.

- K. Pre-Installation Meeting: A minimum of 1 week prior to the start of work in this Section, the contractor shall schedule a pre-installation meeting with the Owner's representative, the Engineer, and the manufacturer's technical representative to review preparation, installation, cleaning procedures and schedule.
- L. Provide access to work area for Owner representative or Engineer to inspect quality of work, progress, and field conditions. Access to be completed during normal working hours. If access requires mechanical equipment (man-lift, swing stage, etc.), provide necessary operators.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials to job site in sealed, undamaged containers.
- B. Each container shall be identified with materials name, date of manufacture, lot and batch number.
- C. Store materials not being used in the work shift in an approved storage area which is well ventilated, lighted and not subject to direct sun rays.
- D. Storage area shall be heated or cooled as required to maintain the temperature within the range recommended by the water repellent manufacturer.
- E. Materials shall be kept sealed when not in use.
- F. Keep storage area neat and clean and secure from vandalism and theft.
- G. Perform work in strict accordance with all safety and weather conditions required by product literature or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.
- H. When toxic or flammable solvents are used, the water repellent applicator shall take all necessary precautions as recommended by the manufacturer. In all cases, the handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies.

## 1.7 SEQUENCING

- A. Complete all concrete repairs and sealant work prior to application of water repellent.

## 1.8 WARRANTY

- A. Completed installation shall be warranted on a single document by the manufacturer against defects of materials for a period of not less than ten (10) years, beginning with the date of substantial completion of the Project.

## PART 2 PRODUCTS

### 2.1 WATER REPELLENT MATERIALS

- A. Protectosil Chem-Trete BSM 400 by Evonik Corporation, Parsippany, N.J.
- B. Alternative products approved during bidding process with following requirements.
  - 1. Must have acceptable VOC contents in state where it is being used.
  - 2. Must be submitted for review by the Engineer a minimum of seven days prior to bid date.

## PART 3 EXECUTIONS

### 3.1 EXAMINATION

- A. Examine surfaces intended to receive the specified work and note conditions or defects that will adversely affect the execution and/or quality of the work.
- B. Notify Owner in writing of any such conditions or defects. Do not begin work until unsatisfactory conditions are corrected. Failure to notify Owner prior to beginning work constitutes acceptance by Contractor of the surfaces and conditions under which the work is to be performed, and acceptance by Contractor for the performance of the work.

### 3.2 PREPARATION

- A. Protection:
  - 1. Provide temporary protection during the course of the work to prevent water entry into the building and walls and to maintain the building in a weather tight condition. Ensure that protection is in place and water tight before ending day's work.
  - 2. Be prepared for unexpected weather changes so that temporary protection can be quickly installed.
  - 3. Protect all existing adjacent surfaces that are to remain and are not included in the work of this Section.
  - 4. Provide safeguards from work of this Section for pedestrian traffic and adjacent property. Do not permit drift of dust or liquids.
  - 5. Use safeguards recommended by manufacturers of products specified herein for personnel handling and applying said materials.
  - 6. Protect surrounding areas from construction activities, dirt, dust and debris.
  - 7. Protect all plantings and landscape materials that may come in contact with water repellent
  - 8. Protect glass, metals, specialty coated glass, plastic and vinyl components of windows, and roofing materials as recommended by the water repellent manufacturer. Do not allow overspray to be deposited on adjoining surfaces not specified to receive water repellent. Remove water repellent immediately from

adjoining surfaces.

B. Cleaning

1. Clean all surfaces prior to application of water repellent to remove all traces of dirt, dust, efflorescence, mold, salt, grease, laitance, paint, coating, biological growth, staining and other foreign materials.
2. All surface preparation and cleaning procedures shall be in strict accordance with this Specification, unless more stringent requirements are asked for by the water repellent manufacturer.
3. Areas scheduled to receive penetrating water repellent as shown on the Drawings shall be cleaned to achieve a standard of cleanliness acceptable to the Owner and water repellent manufacturer.
4. Prior to beginning surface preparation, prepare a sample area of all surfaces to be used as the minimum standard of acceptability for cleanliness and surface texture to be achieved throughout the work. Size and location shall be as directed by the Engineer. The standard shall be jointly reviewed and approved by both the Engineer and the Manufacturer relative to paragraph 3.1.B prior to start of full scale surface preparation work. The approved standard shall remain untreated until all surface preparation work is completed. Protect sample area from contamination and dirt.
5. Minimum standard of acceptability applies to all surfaces intended to receive penetrating water repellent, regardless of surface preparation procedure or process.
6. Obtain approval from the Owner for the surface preparation standard locations prior to proceeding with the surface preparation work.

3.3 GENERAL

- A. Surface temperature of substrate must be between 20° and 100° F.
- B. Do not apply material if rain is anticipated within two hours following the application, or if high winds are present.
- C. If rain has preceded the anticipated application time, allow the surface to dry a minimum of 24 hours
- D. Do not apply to a wet substrate.
- E. All re-pointing mortar must be allowed to cure a minimum of three days.
- F. All patching materials and sealants must be fully cured prior to application.

3.4 APPLICATION

- A. Apply material with low pressure (15 to 25 psi) pumping equipment with a wet fan type

spray nozzle. Alternate application may include power roller with 1" nap, or by brush.

- B. Apply water repellent on all specified surfaces from the bottom up.
- C. Apply water repellent in a flooding application so material runs down 6" to 8" below point of application.

### 3.5 CLEAN-UP

- A. During the progress of the Work, remove from the project all discarded water repellent materials, rubbish, cans, and rags in a lawful manner.
- B. Clean all surfaces affected by material overspray and repair all damage caused by overspray to adjacent construction or property at no cost to the Owner.
- C. All hardware, adjacent areas, metal work, etc., and the premises shall be left clean and free of all construction dust, dirt and debris.
- D. Empty containers shall be removed from the building at the end of each working day. All cloths soiled with water repellent that might constitute a fire hazard shall be placed in suitable metal safety containers or shall be removed from the building at the end of each working day. Special care shall be taken in storage or disposal of flammable materials. Comply with health and fire regulations.
- E. Remove protection from adjoining surfaces not scheduled to receive water repellent. Clean all residue from protection method from surfaces.

### 3.6 APPLICATION SCHEDULE

- A. Application rate for specified product: 125 square feet per gallon.

END OF SECTION



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DIVISION 7 – THERMAL & MOISTURE PROTECTION

SECTION 079201

FAÇADE SEALANT

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. All labor, material, equipment, special tools and services required to prepare surfaces and provide the following façade sealant work as required by the Drawings and this Specification, including but not limited to the following:
  - 1. Removal of existing sealant at façade control and precast panel joints, and replacement with new silicone sealant.
  - 2. Removal of existing sealant at cove joint between paved surfaces and base of building façade, and replacement with new silicone cove sealant.
  - 3. Removal of existing perimeter sealant at windows and doors, and replacement with new silicone sealant.
  - 4. Removal and replacement of wet seal at window frame/glazing intersection in specific locations indicated on the Drawings.
  - 5. Installation of premold silicone strips at roof flashings and curbs.

1.2 RELATED SECTIONS:

- A. Section 015600 – Barriers.
- B. Section 030101 – Façade Concrete Repair.
- C. Section 071916 – Silane Water Repellent.

1.3 DEFINITIONS

- A. Where the term "manufacturer's recommendations," or variations thereon, are found in this Specification, it shall mean "manufacturer's recommendations that are found in publications available to and commonly used by the general architectural and consulting professions."
- B. "Sealant foreman" as used herein means technically competent employee supervising all sealant installation work included in this Specifications section and the Drawings.

1.4 SUBMITTALS

- A. Product:
  - 1. Copies of literature for all manufactured products, including manufacturer's

specifications, test data and installation instructions or applicator's manual.

2. Material Safety Data Sheets on all materials which are classified as hazardous materials.
  3. Color samples.
  4. In-place field samples for color selection. Location(s) as selected by Owner. A maximum of (3) samples of each location of sealant may be requested by the Owner. Each sample shall be a minimum of 3 feet in length. All unapproved samples will be removed by the contractor. Refer to Article 3.5 for locations.
  5. Letter from silicone sealant manufacturer stating that products will not stain or bleed into existing building materials.
  6. Sample Manufacturer Warranty.
- B. Installer:
1. Letter per Paragraph 1.5.A.
  2. Resume of Sealant foreman per Paragraph 1.5.C.1.
  3. Sample Installer Warranty.
- C. Field Report/Testing
1. Field reports, letters, and documentation required by the manufacturer and installer for warranty.
  2. Written results of field pull tests per Paragraph 3.8.A.
  3. Proof samples of sealants intended to be installed per Paragraph 1.5.C.4.
  4. If requested, field samples of sealants installed on site per Paragraph 1.4.C.5.
- D. Closeout: Upon completion of the Work and prior to final payment, provide fully executed warranties.

## 1.5 QUALITY ASSURANCE

- A. The Contractor shall comply with all Federal, State and Municipal laws, codes, ordinances and regulations applicable to the Work in this Contract and also with all requirements of the National Fire Protection Association, the National Electric Code, and the Occupational Safety and Health Administration (OSHA). If the above laws, codes or ordinances conflict with this Specification, then the laws, codes or ordinances shall govern, except in such cases where the Specification exceeds them in quality of materials or labor, then the Specifications shall be followed.

B. Bidder Qualifications:

1. The sealant installer must be acceptable to the manufacturer. Provide written confirmation that the intended sealant installer is acceptable to the manufacturer.
2. Contractor shall have at least 5 years experience doing work of scope and size specified herein and indicated on Drawings.
3. Sealant foreman shall have supervised at least three prior projects of similar magnitude and type.

C. Pre-Installation:

1. The Contractor shall review locations where joint work is specified, and shall submit in writing existing conditions and newly specified details that will cause sealant material to fail, or not perform as specified. Failure to review existing conditions, or identify such details and procedures will cause the Contractor to become responsible for all costs relating to correcting the deficient work, including all direct and indirect costs to the Owner.

D. Installation:

1. Sealant foreman shall be approved by the Engineer and Manufacturer.
2. Sealant foreman shall be on site during 90% of all sealant work. Sealant identified as not being installed under the direct supervision of the Sealant foreman shall be subject to removal and replacement, at the direction of the Owner.
3. All Sealant foreman activities shall be dedicated to 100% of sealant work. Sealant foreman to supervise work and not actively complete masonry work.
4. Proof Samples of all sealant materials used on the job site shall be prepared in advance of the work by the Contractor and submitted to the Engineer for purposes of testing and examination. Samples shall be manufactured with a unit of material from the first batch intended for use on the project. Samples (4 total) shall be at least 2 inch x 2 inch square and 1/2 inch thick, with troweled top surfaces, identified with manufacturer's batch numbers, date and location of preparation.
5. The Engineer may direct the Contractor to prepare and submit field samples of sealant used on the job site during the work. Samples shall be manufactured on site, from a unit of material used that day. Samples (2 total) shall be 2 inch x 2 inch square x 1/2 inch thick, with troweled top surfaces, identified with manufacturer's batch numbers, date and location on the project where the sealants represented in the samples were installed. Up to twenty (20) sets of Field Samples may be requested on this project.

E. Mock-up:

1. Sealant foreman and crew assigned to project to complete all mock-ups listed in Paragraph 1.5.D.
  2. Control and Precast Panel Sealant Joint:
    - a. Demonstrative removal and cleaning technique.
    - b. Demonstrate backer rod installation.
    - c. Demonstrate sealant installation and tooling technique.
  3. Window/Door/Louver Perimeter Sealant Joint:
    - a. Demonstrative removal and cleaning technique.
    - b. Demonstrate installation and tooling technique.
  4. Cove Sealant Joint:
    - a. Demonstrative removal and cleaning technique.
    - b. Demonstrate installation and tooling technique.
- F. Contractor will provide access to all work areas during normal working hours for the Owner and the Engineer to review the progress and quality of work.

#### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Packing, Shipping, Handling and Unloading: Deliver materials to job site in sealed, undamaged containers. Each container shall be identified with material's name, date of manufacture and lot number.
- B. Storage and Protection:
1. Only those materials being used during any one work shift may be stored in the Work area. Coordinate location of storage area with the Owner.
  2. Sealant materials shall be kept sealed when not in use.
  3. Storage and handling of materials shall conform to the requirements of the applicable safety regulatory agencies.
  4. Storage areas shall be heated or cooled as required to maintain the temperatures within the range recommended by the manufacturer.

#### 1.7 PROJECT CONDITIONS

- A. Environmental Requirements:
1. Install sealant materials in strict accordance with all safety and weather conditions required by product literature or as modified by applicable rules and regulations of Local, State and Federal authorities having jurisdiction.

2. Fumes and dust shall be controlled to prevent harmful or undesirable effects in surrounding areas. Do not allow fumes, dirt, dust or debris to enter building.
3. When toxic or flammable solvents are used, the Contractor shall take all necessary precautions as recommended by the manufacturer. In all cases, the handling and use of toxic or flammable solvents, including adequate ventilation and personal protective equipment, shall conform to the requirements of the applicable safety regulatory agencies.

## 1.8 SEQUENCING

- A. Prior to beginning sealant work all concrete repairs affecting sealant repairs must be completed including the cure period.

## 1.9 WARRANTY

- A. The Contractor shall warrant new exposed sealant work for a period of two (2) years against defects due to installation or material deficiencies, including but not limited to excessive softness, excessive entrapped air in cured cross sections, disbonding, cohesive failure, leakage and ultra violet exposure degradation.
- B. Beyond the contractor's (2) year warranty, the silicone manufacturer is to furnish a warranty of an additional (18) years for all types of new sealant joints to the Owner. New sealant work shall be warranted against defects due to material failure, including but not limited to excessive softness, excessive entrapped air in cured material, disbonding, cohesive failure, leakage and ultra violet exposure degradation.
- C. All required testing and quality assurance operations necessary to furnish the warranty are Contractor and manufacturer's responsibility.

## PART 2 PRODUCTS

### 2.1 SEALANTS

- A. Primer as recommended by sealant manufacturer.
- B. Approved silicone sealants:
  1. 795 silicone perimeter sealant by Dow Corning.
  2. SilPruf SCS2000 sealant by G.E.

### 2.2 PRE-MOLDS

- A. Premold strip 4" wide silicone pre-mold strips.
  1. Dow Corning 123 Silicone Seal by Dow Corning.
  2. UltraSpan Weatherstrip by GE.

## 2.3 ACCESSORIES

- A. Backer Rod: Backer Rod shall be closed-cell, polyethylene in sizes to maintain 25 percent compression. Backer rod shall not be used except where indicated on the Drawings or unless approval for each intended application location is obtained from the Owner.
- B. Bond Breaker Tape: Polyethylene tape or other approved plastic tape as recommended by sealant manufacturer. Bond Breaker Tape shall not be used except where indicated on the Drawings or unless approval for each intended application location is obtained from the Owner.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Prior to the start of work, the contractor shall review with the Engineer all conditions under which the work is to be performed, including but not limited to building elevations, roof conditions, sidewalks, and landscaping.

### 3.2 PREPARATION

- A. Prior to the start of work, protect all areas not scheduled to receive work including but not limited to roof areas, glass and window framing, cast-in-place concrete panels, paved surfaces, and lawn/landscape areas.
- B. Provide temporary protection as required to prevent water entry into the building and walls, and to maintain the building in a weather tight condition. Ensure that protection is in place and water tight before ending day's work.
- C. Be prepared for unexpected weather changes so that temporary protection can be quickly installed.
- D. Protect all existing adjacent surfaces that are to remain and are not included in the work of this Section.
- E. Provide safeguards from work of this Section for pedestrian traffic and adjacent property. Do not permit drift of dust or liquids.
- F. Use safeguards recommended by manufacturers of products specified herein for personnel handling and applying said materials.
- G. Protect surrounding areas from construction activities, dirt, dust and debris.

### 3.3 REMOVAL OF EXISTING SEALANT

- A. Remove and legally dispose of all existing sealants and sealant residue/remnants and backer rods from joint openings.
- B. Remove all remnants and residue of existing sealant from surfaces to be in contact with new sealant.

- C. Remove all existing cove sealants between horizontal and vertical surfaces in areas designated to receive new sealant
- D. Clean joints and surfaces to be in contact with new sealant of contaminants and impurities.
- E. Do not permanently mar or damage exposed face of sealant substrate or adjacent surfaces. Damaged surfaces will be repaired per the Owner's direction at Contractors expense.

### 3.4 GENERAL

- A. All materials and sealants shall be installed per the manufacturer's recommendations and requirements.
- B. Joint cavities and surfaces that become contaminated by dirt or moisture after initial cleaning and preparation shall be cleaned again and blown down with oil-free and water-free compressed air at no additional cost to the Owner.
- C. Do not install sealants during inclement weather, or when temperatures (ambient and surface) are beyond the manufacturer's recommendations.
- D. Prime all joints with primer as recommended by manufacturer unless priming is detrimental to the performance of the sealant as stated in writing by the sealant manufacturer.
- E. Just prior to new primer/sealant installation, vacuum joint to remove all dust, dirt and debris. Complete vacuuming of all joint cavities within 24 hours of the start of primer/sealant installation.
- F. Mask all exposed, adjoining surfaces to prevent staining or discoloration of surface from primer installation.

### 3.5 SEALANT AT WINDOW AND PRECAST PANEL JOINTS

- A. After primer has cured per manufacturer's recommendations, install backer rod in joint cavity. Size backer rod to be in minimum 25% compression, maximum 50% compression when installed.
- B. Install sealant into joint per manufacturer's recommendations. Force sealant into joint ahead of nozzle to minimize air pockets and bubbles in completed joint.
- C. Tool sealant concave in a continuous smooth surface without lap marks and air bubbles. Edges of sealant to be flush with exposed surface of masonry and stone.

### 3.6 COVE SEALANTS

- A. Install new sealant in cove configuration per details on the drawings and per manufacturer's recommendations.



- B. Tool sealant concave in a continuous smooth surface without lap marks and air bubbles. Edges of sealant to extend onto substrate per details on the drawings.
- C. Reinstall new cove sealant where existing cove sealant is removed, and where indicated on the drawings.

### 3.7 PRE-MOLDS

- A. Prepare surface area according to manufacturer's recommendations. Mask off area to receive preformed silicone sealant.
- B. User primer as required by manufacturer.
- C. Center preformed silicone sealant over the joint in the flashing, and install per manufacturer's directions.

### 3.8 SITE TESTS

- A. Prior to full scale installation of sealant, trial areas of each type of joint will be installed for performance of pull tests. The tests will be conducted by the manufacturer's representative. The results of the pull tests will be submitted in writing to the Engineer for review and acceptance.
- B. During the course of the project, the Engineer may choose to remove up to a six-inch length of sealant at random locations after initial curing of sealant to verify installation as specified.
  - 1. The Contractor shall include in his Bid the costs to repair one such location for each 100 ft. of sealant installation.
  - 2. If random inspections by the Engineer reveal deficient installation, additional lengths of sealant shall be removed to determine the extent of deficient material. The Contractor shall repair all deficient sealant found at no additional cost to the Owner, and no extension of time for the work.

### 3.9 CLEANING

- A. During the progress of the Work, remove from the project all discarded sealant materials, rubbish, cans and rags.
- B. All sealant materials shall be completely removed from hardware and adjacent surfaces. Premises shall be left clean and in orderly condition.
- C. All hardware, adjacent surfaces and the general premises shall be left clean and free of all construction dust, dirt and debris.
- D. Empty containers shall be removed from the project site at the end of each working day. All soiled cloths that constitute a fire hazard shall be placed in suitable metal safety containers or shall be removed from the building at the end of each working day. Special care shall be taken in storage or disposal of

flammable materials. Comply with health and fire regulations.

3.10 SEALANT SCHEDULE

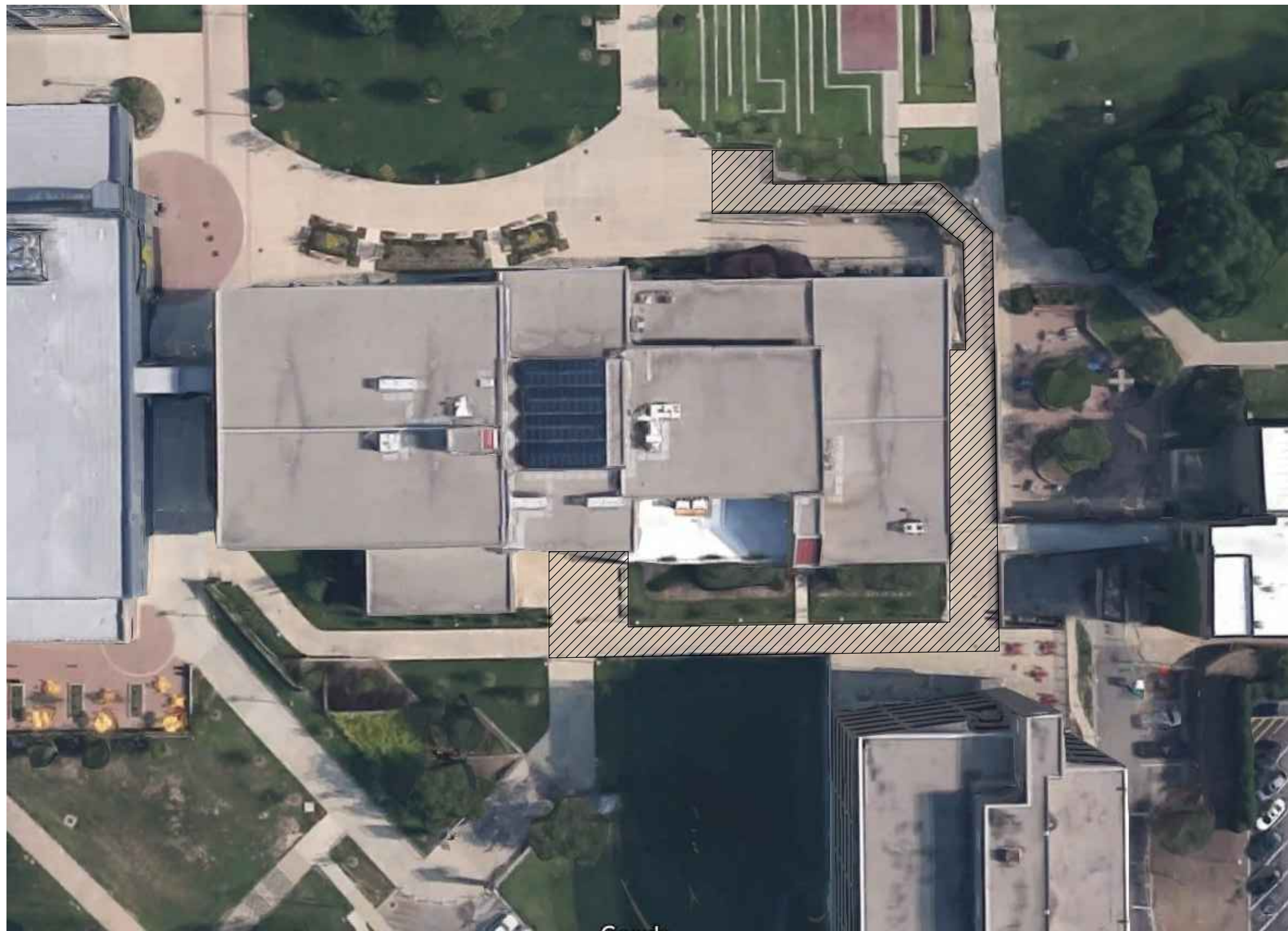
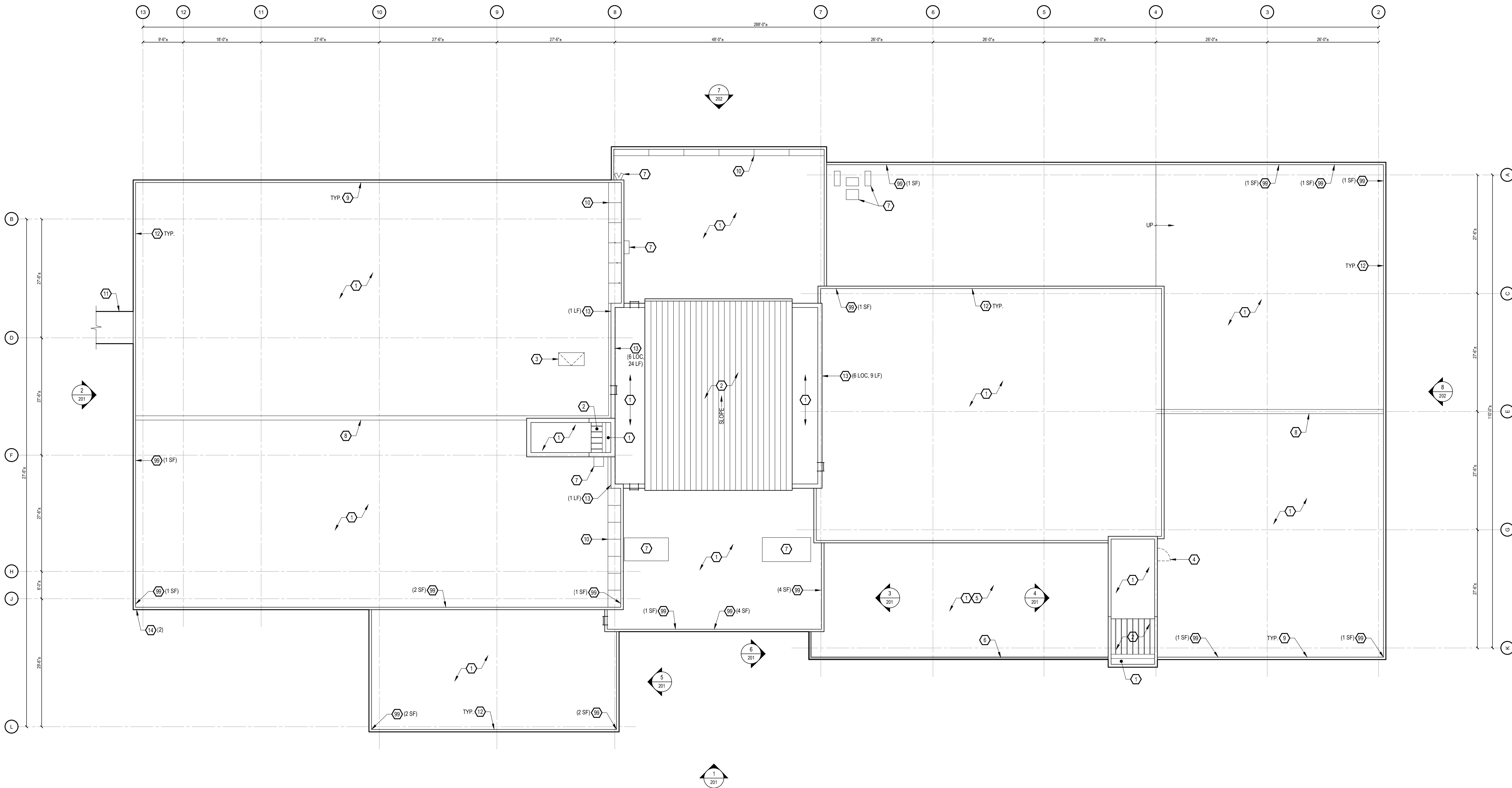
- A. All color will be selected by Owner from manufacturer's standard colors.

END OF SECTION









UNIVERSITY CENTER  
**SITE/LOCATION PLAN**  
NO SCALE



UNIVERSITY CENTER  
**ROOF PLAN**  
3/32" = 1'-0"  
NORTH

**GENERAL NOTES:**

- A. ALL KEY NOTES ARE TYPICAL, UNLESS NOTED OTHERWISE.  
B. ALL WORK ITEMS NOTED ARE LUMP SUM, UNLESS NOTED OTHERWISE.  
C. SURVEY WORK FOR UNIT COST REPAIR ITEMS. CONFIRM ALL UNIT COST REPAIRS WITH A/E PRIOR TO STARTING WORK.

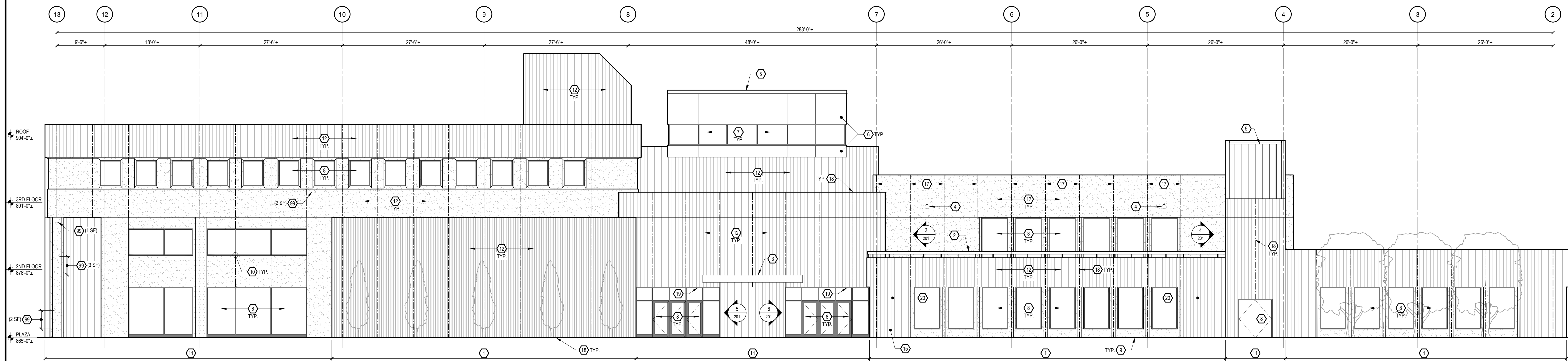
**LEGEND:**

- EXISTING SHIPS LADDER. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- KEY NOTE #  
QUANTITY ALLOWANCE THIS LOCATION
- INDICATES BRIDGE OR TUNNEL WITH SUPPORTED SLAB. REVIEW EQUIPMENT WEIGHT LIMITS WITH OWNER.

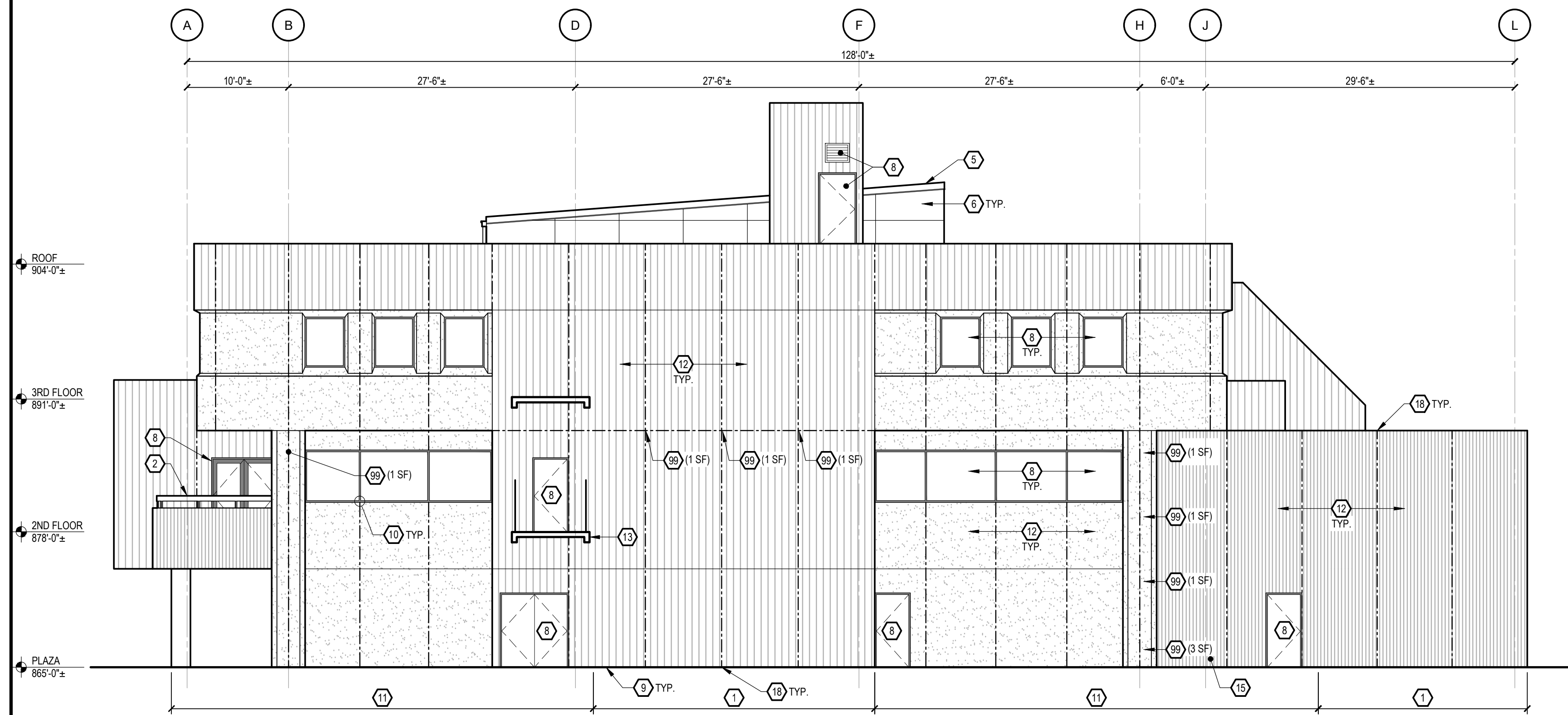
**KEY NOTES:**

1. EXISTING BUILT-UP ROOF SYSTEM. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
2. EXISTING STANDING SEAM METAL ROOFING. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
3. EXISTING ROOF ACCESS HATCH. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
4. EXISTING DOOR FROM EAST STAIR TOWER TO ROOF. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
5. NO ACCESS TO ROOF AREA. CONTRACTOR TO PROVIDE ACCESS TO ROOF BY LADDER FROM UPPER ROOF.
6. EXISTING RAILING. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
7. EXISTING ROOFTOP OR WALL-MOUNTED EQUIPMENT. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
8. EXISTING EXPANSION JOINT COVER. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
9. EXISTING CONCRETE PARAPET SURFACE. CLEAN, PREPARE AND PROVIDE WATER REPELLENT ON SURFACES. REFER TO SPECIFICATION SECTION 071900.
10. EXISTING METAL ROOF FLASHING. PROVIDE NEW SILICONE PREMOLD STRIPS AT JOINTS. REFER TO SPECIFICATION SECTION 079201.
11. EXISTING BRIDGE TO STUDENT UNION. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
12. REMOVE EXISTING URETHANE SEALANT AT ALL PANEL LIFTING LUG LOCATIONS AT TOP OF PRECAST PANELS AND REPLACE WITH SILICONE SEALANT - (4) LOCATIONS PER PANEL, VERIFY IN FIELD.
13. APPROXIMATE LOCATION OF KNOWN CRACK IN EXISTING CONCRETE WALL OR PARAPET. ROUT AND SEAL CRACK PER DETAIL 5/301. UNIT COST REPAIR - REFER TO SPECIFICATION SECTION 012000 FOR ALLOWANCE QUANTITY OF REPAIR TO BE INCLUDED IN BASE BID.
14. APPROXIMATE LOCATION OF KNOWN ABANDONED ANCHOR IN EXISTING CONCRETE WALL OR PARAPET. REMOVE ANCHOR AND REPAIR PER DETAIL 6/301. UNIT COST REPAIR - REFER TO SPECIFICATION SECTION 012000 FOR ALLOWANCE QUANTITY OF REPAIR TO BE INCLUDED IN BASE BID.
99. ALTERNATE NO. 1: APPROXIMATE LOCATION OF KNOWN SPALL OR DELAMINATION IN CONCRETE WALL OR PARAPET. REFER TO SPECIFICATION SECTION 030101 AND DETAIL 7/301 FOR REPAIR. COLOR AND FINISH OF REPAIR AREA TO MATCH EXISTING SURROUNDING SURFACE. UNIT COST REPAIR - REFER TO SPECIFICATION SECTION 012000 FOR QUANTITY OF CONCRETE REPAIR TO BE INCLUDED IN BID FOR ALTERNATE 1.

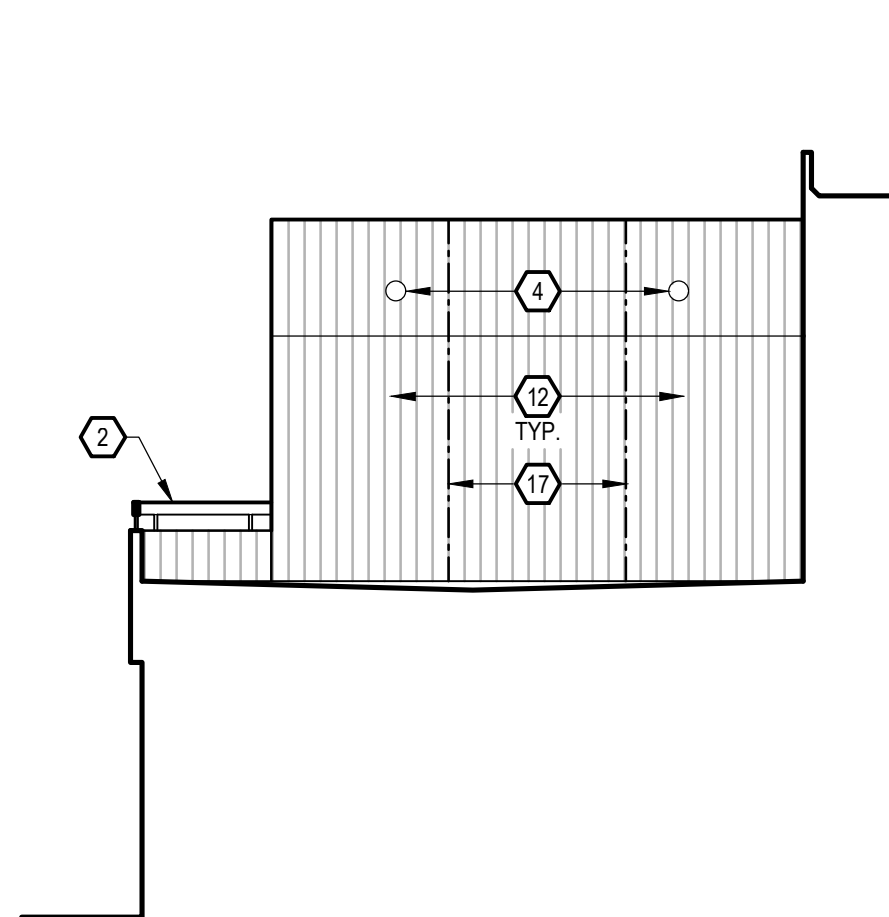




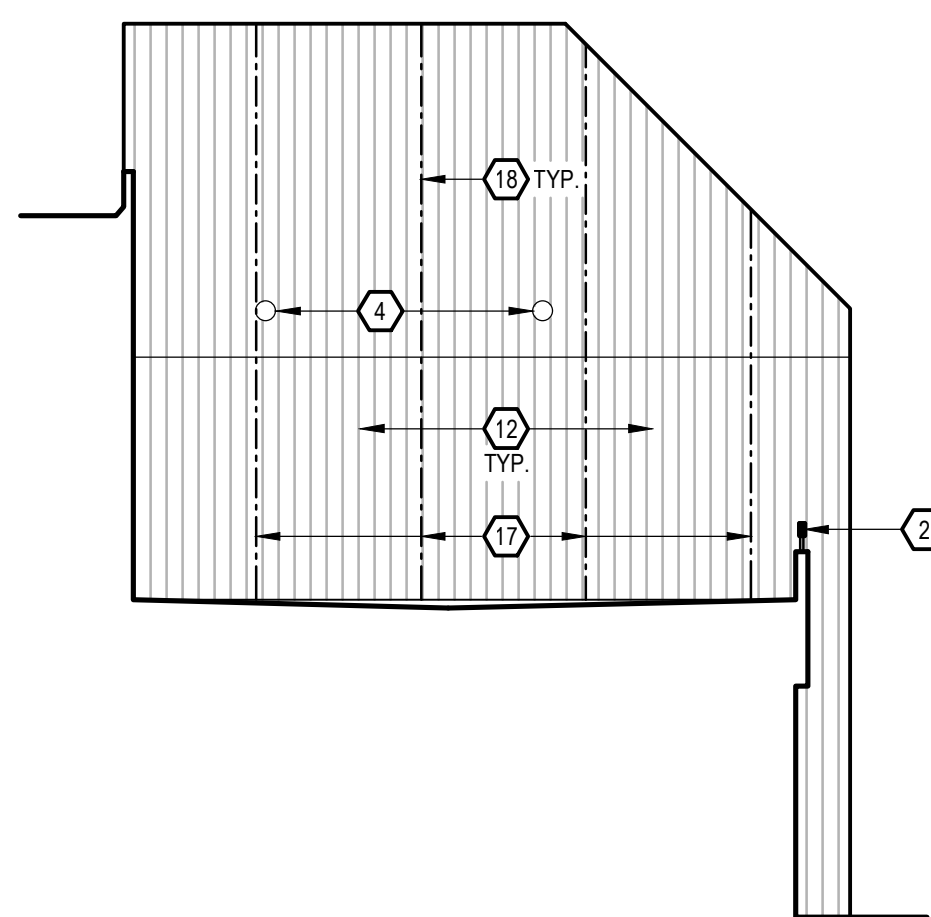
UNIVERSITY CENTER  
**1 SOUTH ELEVATION**  
201 1/8" = 1'-0"



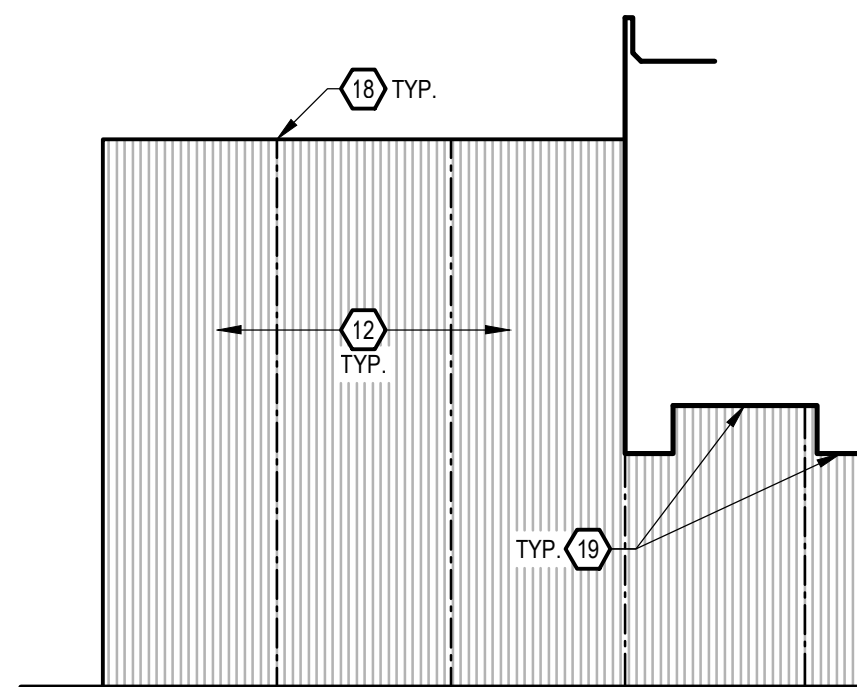
UNIVERSITY CENTER  
**2 WEST ELEVATION**  
201 1/8" = 1'-0"



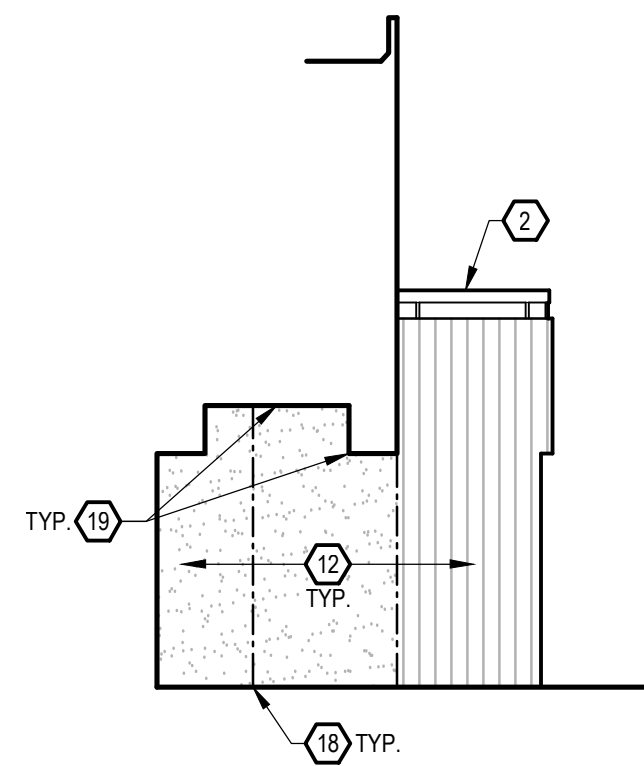
UNIVERSITY CENTER  
**3 PARTIAL EAST ELEVATION**  
201 1/8" = 1'-0"



UNIVERSITY CENTER  
**4 PARTIAL WEST ELEVATION**  
201 1/8" = 1'-0"



UNIVERSITY CENTER  
**5 PARTIAL EAST ELEVATION**  
201 1/8" = 1'-0"



UNIVERSITY CENTER  
**6 PARTIAL WEST ELEVATION**  
201 1/8" = 1'-0"

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**KEY NOTES:**

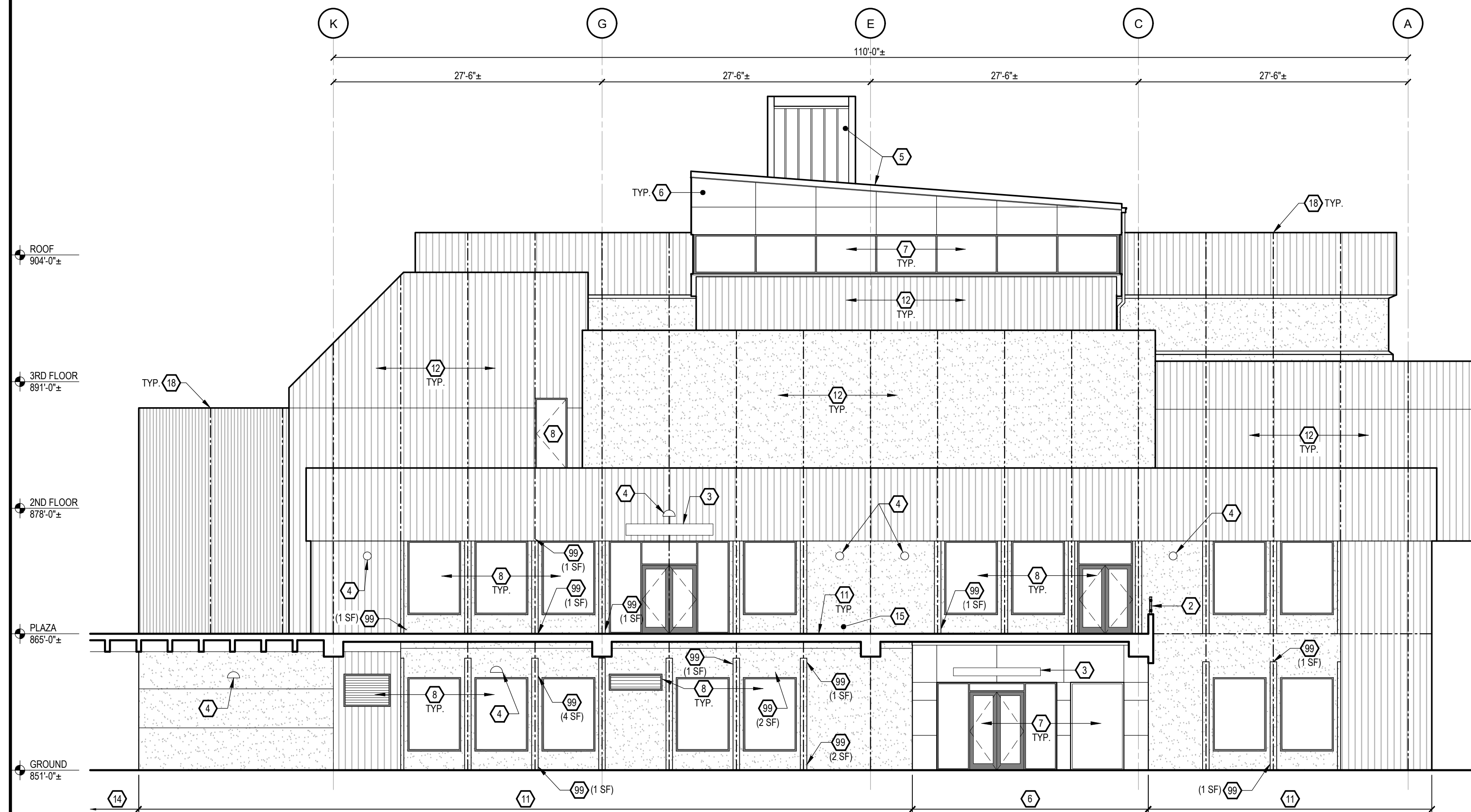
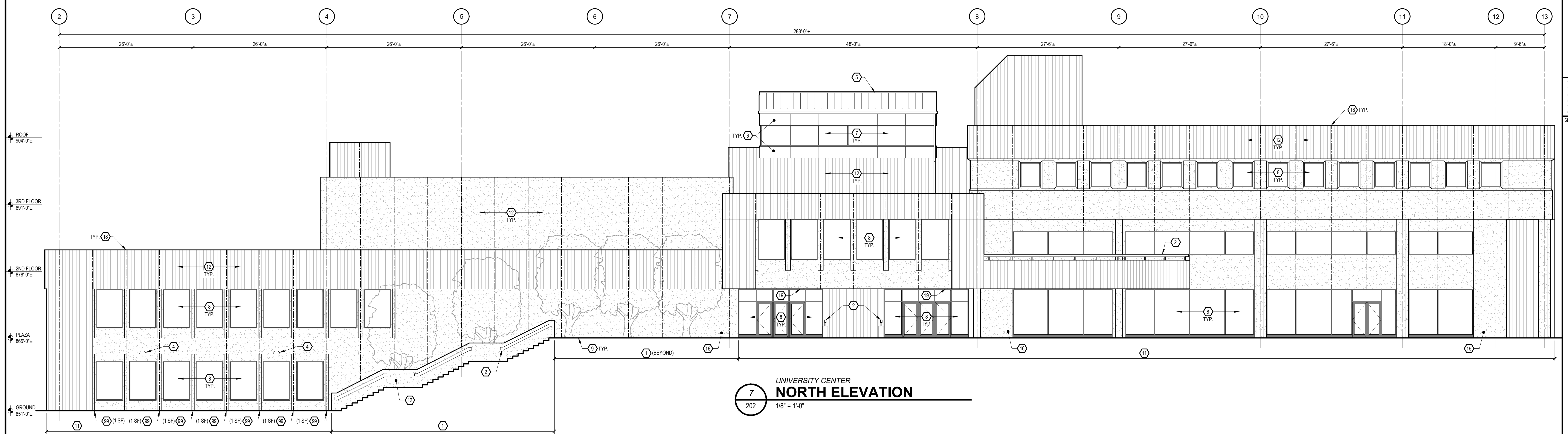
- EXISTING LANDSCAPING. DO NOT DAMAGE. COORDINATE PROTECTION WITH OWNER PRIOR TO PERFORMING WORK.
- EXISTING RAILING. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING SURFACE MOUNTED SIGNAGE. DO NOT DAMAGE. PROTECT AND/OR REMOVE AS REQUIRED DURING PERFORMANCE OF WORK. REINSTALL ALL REMOVED SIGNAGE AT COMPLETION OF WORK.
- EXISTING WALL MOUNTED LIGHT TO REMAIN. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING STANDING SEAM METAL ROOFING. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING METAL WALL PANEL. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING METAL DOOR OR WINDOW FRAME. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING METAL DOOR FRAME, WINDOW FRAME, OR LOUVER. REMOVE EXISTING PERIMETER SEALANT AND BACKER ROD BETWEEN FRAME AND CONCRETE PANEL. CLEAN, PREPARE AND PRIME JOINT CAVITY. PROVIDE NEW BACKER ROD AND SEALANT. PROTECT CONCRETE PANEL, METAL FRAMING, DOORS, AND GLASS DURING PERFORMANCE OF WORK. TYPICAL ALL SUCH LOCATIONS. REFER TO DETAIL 4/301 AND SPECIFICATION SECTION 079201.
- EXISTING SEALANT JOINT BETWEEN TOP OF FOUNDATION AND BASE OF CONCRETE WALL PANEL. REMOVE EXISTING BACKER ROD AND SEALANT. CLEAN, PREPARE AND PRIME JOINT CAVITY. PROVIDE NEW BACKER ROD AND SEALANT. WHERE CONCEALED AT LANDSCAPE AREAS, EXCAVATE AS REQUIRED TO EXPOSE AND REPLACE JOINT AS DESCRIBED ABOVE, INCLUDING BOTTOM OF VERTICAL SEALANT JOINTS BETWEEN PANELS.
- EXISTING WEEP OPENING BETWEEN VERTICAL WINDOW MULLION AND WINDOW SILL. DO NOT SEAL. LEAVE OPEN FOR DRAINAGE OF WATER. TYPICAL ALL SUCH LOCATIONS.
- EXISTING COVE SEALANT AT BASE OF BUILDING BETWEEN SIDEWALK AND ADJOINING BUILDING. REMOVE EXISTING SEALANT AND REPLACE WITH NEW SILICONE SEALANT. REFER TO DETAIL 3/301 AND SPECIFICATION SECTION 079201.
- EXISTING CONCRETE WALL SURFACE. CLEAN, PREPARE AND PROVIDE WATER REPELLENT ON SURFACES. REFER TO SPECIFICATION SECTION 071900.
- EXISTING BRIDGE TO STUDENT UNION. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING VESTIBULE TO LUCAS CENTER. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING HOSE BIBB. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING ELECTRICAL OUTLET. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING SEALANT CONTROL JOINT TO REMAIN.
- EXISTING SEALANT CONTROL JOINT TO BE REMOVED AND REPLACED AT ALL LOCATIONS, EXCEPT WHERE NOTED SPECIFICALLY BY DRAWING NOTE #17 TO REMAIN. REMOVE EXISTING BACKER ROD AND SEALANT. CLEAN, PREPARE AND PRIME JOINT CAVITY, AND PROVIDE NEW BACKER ROD AND SILICONE SEALANT. REFER TO DETAILS 1 AND 2 ON SHEET 301 AND SPECIFICATION SECTION 079201. SEALANT REMOVAL AND REPLACEMENT TO INCLUDE ALL HORIZONTAL OFFSETS: TOP OF WALL AT PARAPET, JOINTS FROM FACE OF WALL BACK TO HEADSILL AT WINDOWS, DOORS, AND LOUVERS, ETC.
- REMOVE AND REPLACE BACKER ROD AND SEALANT AT JOINT BETWEEN WALL AND BEAM OR SOFFIT. REFER TO SPECIFICATION SECTION 079201.
- REMOVE EXISTING SEALANT AT REMOVED LIGHT FIXTURE LOCATION, CLEAN SURFACE OF CONCRETE, AND FILL PENETRATION(S) IN WALL WITH SILICONE SEALANT.
- ALTERNATE NO. 1: APPROXIMATE LOCATION OF KNOWN SPALL OR DELAMINATION IN CONCRETE WALL OR PARAPET. REFER TO SPECIFICATION SECTION 030101 AND DETAIL 7/301 FOR REPAIR. COLOR AND FINISH OF REPAIR AREA TO MATCH EXISTING SURROUNDING SURFACE. UNIT COST REPAIR - REFER TO SPECIFICATION SECTION 012000 FOR QUANTITY OF CONCRETE REPAIR TO BE INCLUDED IN BID FOR ALTERNATE 1.

**LEGEND:**

- EXISTING SEALANT CONTROL JOINT IN CONCRETE WALL. REFER TO KEY NOTE #17 FOR REPAIR.
- KEY NOTE #  
QUANTITY ALLOWANCE THIS LOCATION
- EXISTING BOARD-FORM TEXTURE CONCRETE
- EXISTING SANDBLASTED TEXTURE CONCRETE
- EXISTING RIBBED TEXTURE CONCRETE

REVISIONS	DATE	BY	DESCRIPTION
1			OWNER REVIEW SET
2			DESIGN SET

PROJECT COORDINATOR	G.O. Donahue
PROJECT MANAGER	W.T. Shandersky
PARTNER IN CHARGE	W.M. Judd



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**KEY NOTES:**

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- EXISTING RAILING. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING SURFACE MOUNTED SIGNAGE. DO NOT DAMAGE. PROTECT AND/OR REMOVE AS REQUIRED DURING PERFORMANCE OF WORK. REINSTALL ALL REMOVED SIGNAGE AT COMPLETION OF WORK.
- EXISTING WALL MOUNTED LIGHT TO REMAIN. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
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- EXISTING COVE SEALANT AT BASE OF BUILDING BETWEEN SIDEWALK AND ADJOINING BUILDING. REMOVE EXISTING SEALANT AND REPLACE WITH NEW SILICONE SEALANT. REFER TO DETAIL 3/301 AND SPECIFICATION SECTION 079201.
- EXISTING CONCRETE WALL SURFACE. CLEAN, PREPARE AND PROVIDE WATER REPELLENT ON SURFACES. REFER TO SPECIFICATION SECTION 071900.
- EXISTING BRIDGE TO STUDENT UNION. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING VESTIBULE TO LUCAS CENTER. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING HOSE BIBB. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING ELECTRICAL OUTLET. DO NOT DAMAGE. PROTECT DURING PERFORMANCE OF WORK.
- EXISTING SEALANT CONTROL JOINT TO REMAIN.
- EXISTING SEALANT CONTROL JOINT TO BE REMOVED AND REPLACED AT ALL LOCATIONS, EXCEPT WHERE NOTED SPECIFICALLY BY DRAWING NOTE #17 TO REMAIN. REMOVE EXISTING BACKER ROD AND SEALANT. CLEAN, PREPARE AND PRIME JOINT CAVITY, AND PROVIDE NEW BACKER ROD AND SILICONE SEALANT. REFER TO DETAILS 1 AND 2 ON SHEET 301 AND SPECIFICATION SECTION 079201. SEALANT REMOVAL AND REPLACEMENT TO INCLUDE ALL HORIZONTAL OFFSETS: TOP OF WALL AT PARAPET, JOINTS FROM FACE OF WALL BACK TO HEADSILL AT WINDOWS, DOORS, AND LOUVERS, ETC.
- REMOVE AND REPLACE BACKER ROD AND SEALANT AT JOINT BETWEEN WALL AND BEAM OR SOFFIT. REFER TO SPECIFICATION SECTION 079201.
- REMOVE EXISTING SEALANT AT REMOVED LIGHT FIXTURE LOCATION, CLEAN SURFACE OF CONCRETE, AND FILL PENETRATION(S) IN WALL WITH SILICONE SEALANT.
- ALTERNATE NO. 1: APPROXIMATE LOCATION OF KNOWN SPALL OR DELAMINATION IN CONCRETE WALL OR PARAPET. REFER TO SPECIFICATION SECTION 030101 AND DETAIL 7/301 FOR REPAIR. COLOR AND FINISH OF REPAIR AREA TO MATCH EXISTING SURROUNDING SURFACE. UNIT COST REPAIR - REFER TO SPECIFICATION SECTION 012000 FOR QUANTITY OF CONCRETE REPAIR TO BE INCLUDED IN BID FOR ALTERNATE 1.

**LEGEND:**

--- EXISTING SEALANT CONTROL JOINT IN CONCRETE WALL. REFER TO KEY NOTE #17 FOR REPAIR.

KEY NOTE #  
 QUANTITY ALLOWANCE THIS LOCATION

EXISTING BOARD-FORM TEXTURE CONCRETE  
 EXISTING SANDBLASTED TEXTURE CONCRETE  
 EXISTING RIBBED TEXTURE CONCRETE

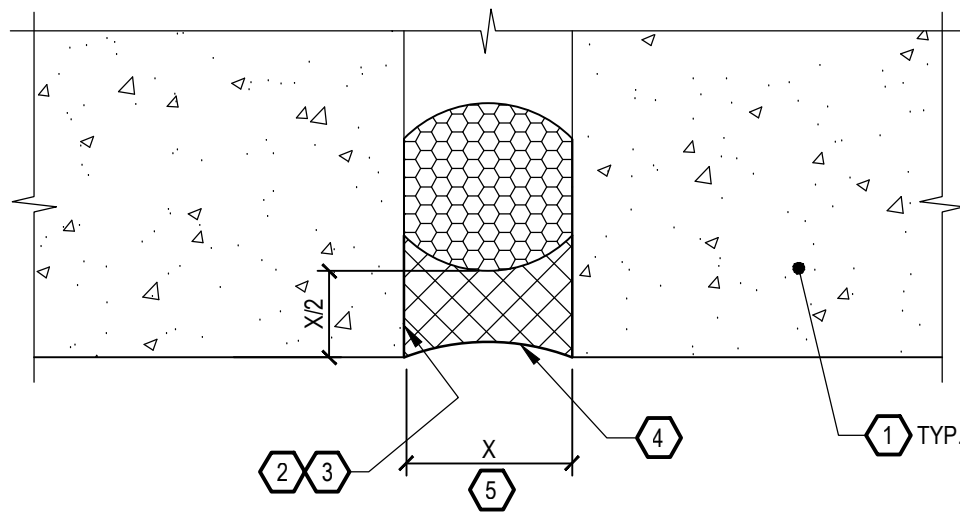
ISSUES	NO.	DATE	DESCRIPTION
1	1	10/10/18	OWNER REVIEW SET
2	2	10/10/18	DESIGN SET

REVISIONS	NO.	DATE	DESCRIPTION
1	1	10/10/18	OWNER REVIEW SET
2	2	10/10/18	DESIGN SET

PROJECT COORDINATOR: G.O. Donahue  
 PROJECT MANAGER: W.T. Shandersky  
 PARTNER IN CHARGE: W.M. Judd

**NKU**  
 UNIVERSITY  
 CENTER  
 FACADE  
 REPAIRS

DRAWING TITLE:  
**NORTH AND EAST  
 ELEVATIONS**  
 JOB NUMBER: 17283.00  
 DATE: 1/30/2017  
 DRAWING NUMBER:

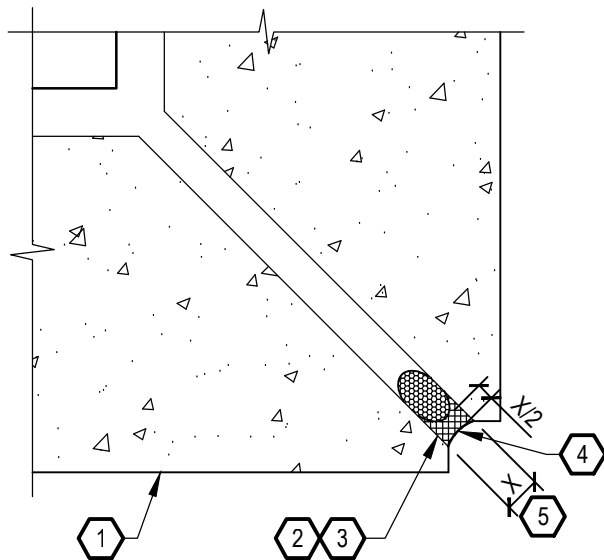


1. EXISTING CONCRETE WALL PANEL.
2. REMOVE EXISTING BACKER ROD AND JOINT SEALANTS, AND REMOVE ALL SEALANT RESIDUE FROM WALLS OF JOINT OPENING.
3. PREPARE ALL SURFACES INTENDED FOR NEW SEALANT. REFER TO SPECIFICATION SECTION 079201.
4. PRIME SUBSTRATE, INSTALL BACKER ROD AND PROVIDE NEW SEALANT. MINIMUM DEPTH OF SEALANT TO BE 1/4\"/>
5. JOINT WIDTH VARIES.

TYP. JOINT SEALANT

## DETAIL

NO SCALE

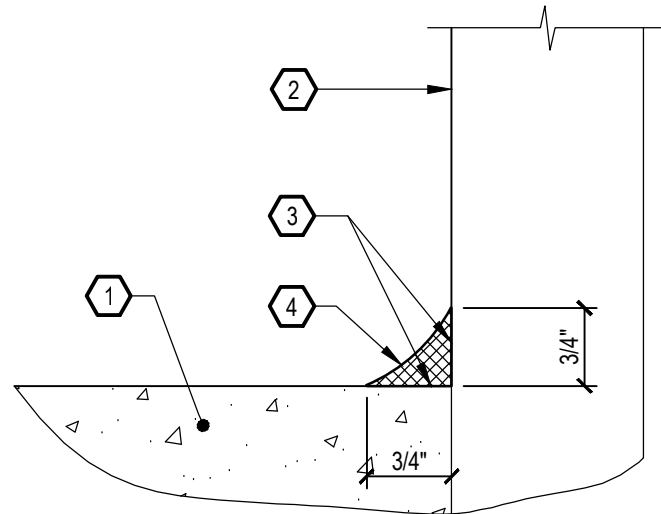


1. EXISTING CONCRETE WALL PANEL.
2. REMOVE EXISTING BACKER ROD AND JOINT SEALANTS, AND REMOVE ALL SEALANT RESIDUE FROM WALLS OF JOINT OPENING.
3. PREPARE ALL SURFACES INTENDED FOR NEW SEALANT. REFER TO SPECIFICATION SECTION 079201.
4. PRIME SUBSTRATE, INSTALL BACKER ROD AND PROVIDE NEW SEALANT. MINIMUM DEPTH OF SEALANT TO BE 1/4\"/>
5. JOINT WIDTH VARIES.

TYP. CORNER JOINT SEALANT

## DETAIL

NO SCALE

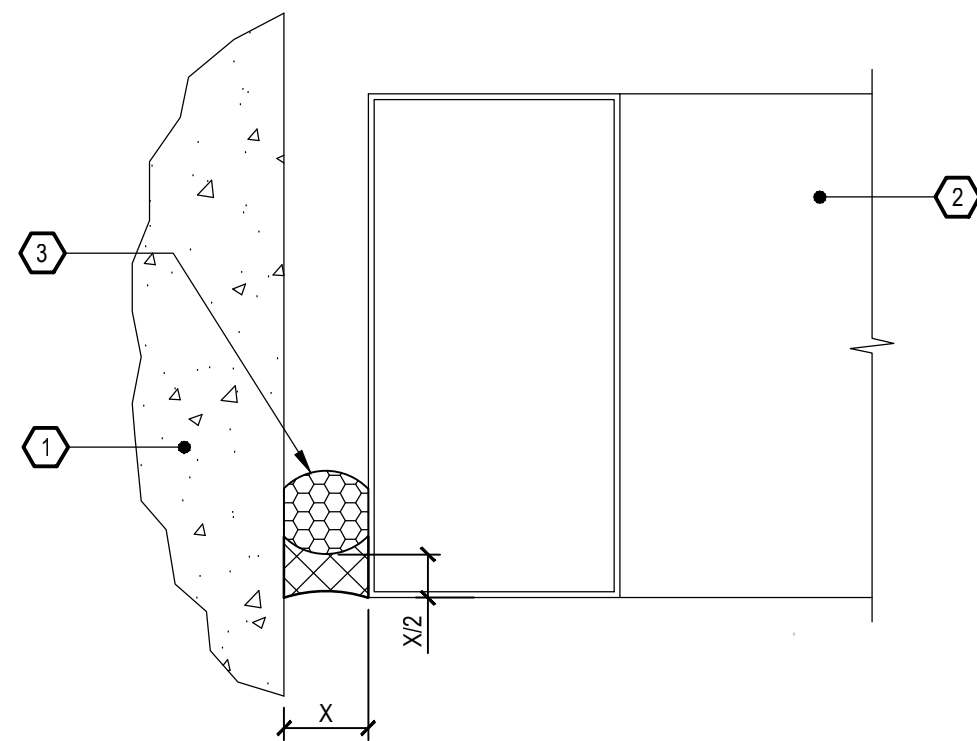


1. EXISTING PAVEMENT.
2. EXISTING WALL, CURB, THRESHOLD, OR VERTICAL PROJECTION.
3. PREPARE ALL SURFACES INTENDED FOR NEW SEALANT. REFER TO SPECIFICATION SECTION 079201.
4. PROVIDE NEW COVE SEALANT. PROVIDE MINIMUM 1/2\"/>
5. DIMENSIONS UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION SECTION 079201.

TYP. COVE SEALANT

## DETAIL

NO SCALE

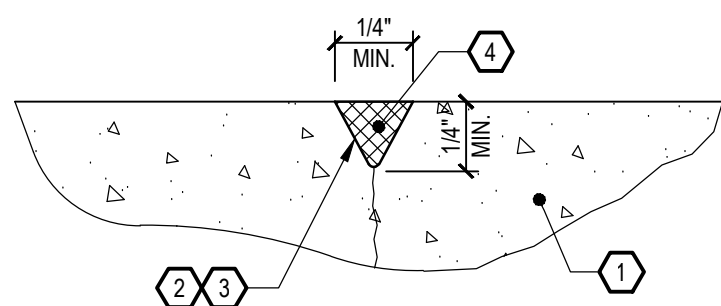


1. EXISTING CONCRETE WALL. DO NOT DAMAGE.
2. EXISTING DOOR, LOUVER, OR WINDOW FRAME. DO NOT DAMAGE.
3. REMOVE EXISTING SEALANT AND BACKER ROD. CLEAN AND PREPARE SURFACES TO RECEIVE NEW SEALANT. PROVIDE NEW BACKER ROD AND SEALANT. MINIMUM DEPTH OF SEALANT TO BE 1/4\"/>

TYP. PERIMETER JOINT SEALANT

## DETAIL

NO SCALE



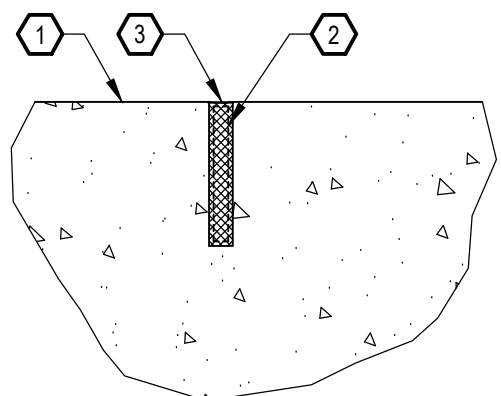
1. EXISTING CONCRETE WALL OR PARAPET.
2. ROUT CRACKS IN A V\"/>
3. PREPARE ALL SURFACES INTENDED FOR NEW SEALANT. REFER TO SPECIFICATION SECTION 079201.
4. PRIME SUBSTRATE AND PROVIDE NEW SILICONE SEALANT. INSTALL SEALANT FLUSH WITH ADJOINING SURFACE. REFER TO SPECIFICATION SECTION 079201.

ROUT AND SEAL CRACK REPAIR

## DETAIL

NO SCALE

UNIT PRICE PER LINEAR FOOT



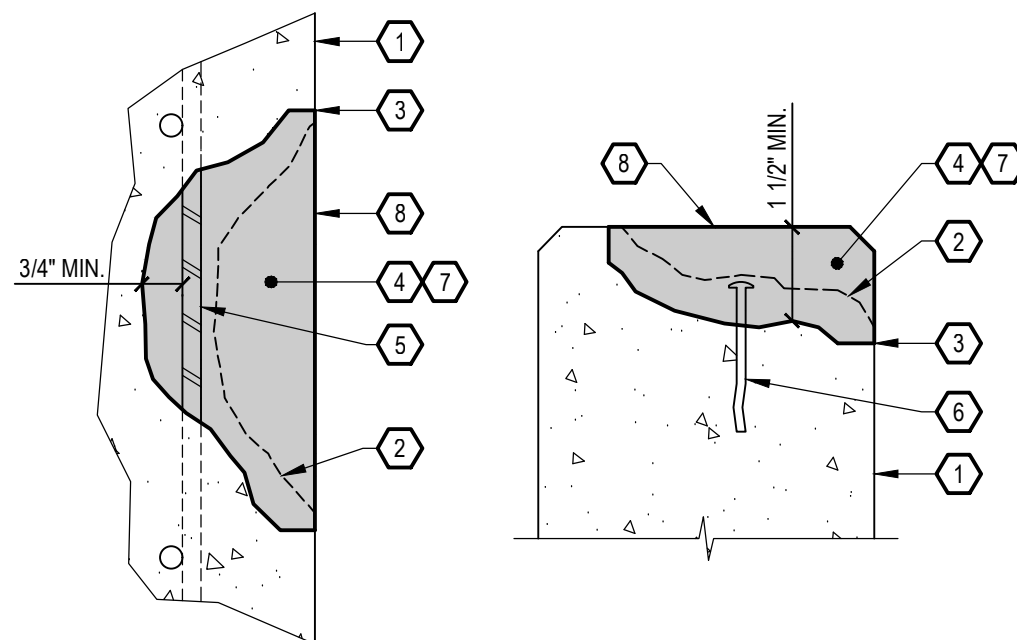
1. EXISTING CONCRETE WALL OR PARAPET. DO NOT DAMAGE.
2. REMOVE EXISTING ABANDONED ANCHOR. DO NOT DAMAGE EXISTING CONCRETE WITH REMOVAL METHODS. REMOVAL METHOD SHALL NOT INCREASE DIAMETER OF EXISTING HOLE BY MORE THAN 1/16\"/>
3. PROVIDE NEW SEALANT IN ABANDONED ANCHOR HOLE. FILL HOLE FULL WITH NO VOIDS. TOOL SEALANT FLUSH WITH FACE OF WALL. DO NOT ALLOW SEALANT TO EXTEND BEYOND HOLE OPENING ONTO SURROUNDING CONCRETE SURFACE. NEW SEALANT TO MATCH CONCRETE COLOR. REFER TO SPECIFICATION SECTION 079201.

ABANDONED ANCHOR REPAIR

## DETAIL

NO SCALE

UNIT PRICE PER LOCATION



NOTE:  
DETAIL APPLIES TO REPAIRS ON VERTICAL AND HORIZONTAL SURFACES.

1. EXISTING CONCRETE WALL OR PARAPET.
2. EXISTING DELAMINATION PLANE.
3. PROVIDE 3/4\"/>
4. REMOVE ALL SOUND AND UNSOUND CONCRETE WITHIN SHADED AREA. REFER TO SPECIFICATION SECTION 030100.
5. FOR REPAIR AREAS WHERE REINFORCING IS EXPOSED, EXCAVATE 3/4\"/>
6. FOR REPAIR AREAS WITHOUT REINFORCING, EXCAVATE TO 1 1/2\"/>
7. PREPARE CAVITY SURFACES AND INSTALL PATCH MATERIAL. REFER TO SPECIFICATION SECTION 030100.
8. SURFACE OF PATCH TO MATCH EXISTING WALL COLOR, TEXTURE, AND PROFILE.

TYP. CONCRETE SPALL OR DELAMINATION REPAIR

## DETAIL

NO SCALE

ALTERNATE 1  
UNIT PRICE PER SQUARE FOOT