

**CITY OF EVANSTON**

**SPECIFICATIONS AND BID DOCUMENTS**  
**Construction Bid with Sub-contractors**

**BID NUMBER: 22-14**

**For**

**Parking Garage Structural Repairs**  
**February 3, 2022**



**BID DUE DATE:** **2:00 P.M., Tuesday, March 1, 2022**

**VIRTUAL BID OPENING:** **2:15 P.M., Tuesday, March 1, 2022**  
**Google Meet ID:**  
[meet.google.com/erk-vjyw-pza](https://meet.google.com/erk-vjyw-pza)  
**Phone Numbers:**  
[\(US\)+1 617-675-4444](tel:+16176754444)  
PIN: 491 020 418 0044#

**VIRTUAL PRE-BID MEETING:** **Non-mandatory**  
**2:00 P.M., Thursday, February 10, 2022**  
**Google Meet ID**  
[meet.google.com/bbx-siyx-eay](https://meet.google.com/bbx-siyx-eay)  
**Phone Numbers**  
[\(US\)+1 617-675-4444](tel:+16176754444)  
PIN: 112 008 274 3013#

**BID BOND:** **5% of Contract Amount**

**PERFORMANCE/MATERIAL  
& LABOR PAYMENT BOND:** **100% of Contract Amount**

**CONTRACT PERIOD:** **Contract award through October 28, 2022**

**ELECTRONIC BID SUBMITTAL:**

Bid responses will only be accepted electronically  
via E-bidding through DemandStar ([WWW.DEMANDSTAR.COM](http://WWW.DEMANDSTAR.COM))

**It is highly recommended that new DemandStar users complete the account setup  
process prior to project due date/time.**

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**\*NOTE: THE SELECTED BIDDER WILL BE SUBJECT TO THE REGULATIONS CONTAINED IN CITY OF EVANSTON ORDINANCE 60-O-14 AMENDMENTS TO THE LOCAL EMPLOYMENT PROGRAM (LEP)**

## CITY OF EVANSTON

### NOTICE TO BIDDERS

Bids will be received by the City's Purchasing Office until 2:00 P.M. local time Tuesday, March 1, 2022 and will be publically read virtually via Google Meets at 2:15 P.M. Interested parties can use the following link: [meet.google.com/erk-vjyw-pza](https://meet.google.com/erk-vjyw-pza) or join by phone 617-675-4444 PIN: 491 020 418 0044# to access the virtual bid opening. Effective immediately, the City of Evanston will no longer accept hard copy paper submittals for any solicitation. Responses will only be accepted electronically via E-bidding through DemandStar ([www.demandstar.com](http://www.demandstar.com)). Although registration is required, vendors can download solicitations and upload responses for free. Bids shall cover the following:

#### **Parking Garage Structural Repairs**

**Bid Number: 22-14**

Work on this project includes repairing concrete and steel at the Chicago Avenue Garage, Church Street Garage, Maple Avenue Garage, and Sherman Plaza Garage. Those four parking garages are located at, 1236 Chicago Avenue, 525 Church Street, 1800 Maple Avenue, and 821 Davis Street, respectively, in Evanston, Illinois.

A non-mandatory pre-bid meeting will be held virtually at 2:00 P.M. on Thursday, February 10, 2022. Interested parties can use the following link to access the meeting: [meet.google.com/bbx-siyx-eay](https://meet.google.com/bbx-siyx-eay) or by phone at 617-675-4444, PIN: 491 020 418 0044#. The above item shall conform to the Invitation for Bids on file in the Purchasing Office. Parties interested in submitting a bid should contact the Purchasing Office to receive a copy of the bid or see the City's website at: [www.cityofevanston.org/business/bids-proposals/](http://www.cityofevanston.org/business/bids-proposals/) or DemandStar at: [www.demandstar.com](http://www.demandstar.com).

The City of Evanston (the City) in accordance with the laws of the State of Illinois, hereby notifies all Bidders that it will affirmatively ensure that the contract(s) entered into pursuant to this Notice will be awarded to the successful Bidders without discrimination on the ground of race, color, religion, sex, age, sexual orientation, marital status, disability, familial status or national origin. The State of Illinois requires under Public Works contracts that the general prevailing rate of wages in this locality be paid for each craft or type of worker hereunder. This requirement is in accordance with The Prevailing Wage Act (820 ILCS 130) as amended. The City of Evanston reserves the right to reject any or all submittals or to accept the submittal(s) deemed most advantageous to the City.

The Evanston City Council also reserves the right to award the contract to an Evanston firm if that firm's bid is within 5% of the low bid.

Each Bidder shall be required to submit with their bid a disclosure of ownership interest statement form in accordance with the provisions of City Code Section 1-18-1 *et seq.* Failure to submit such information will result in the disqualification of such bid.

Jillian Ostman  
Purchasing Specialist

## INSTRUCTIONS TO BIDDERS/REQUIREMENTS FOR BIDDING

### 1. ON-LINE NOTIFICATION OF SOLICITATIONS

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The City is utilizing Demandstar.com ([www.demandstar.com](http://www.demandstar.com)) for on-line notification purposes only for sealed bids when it is anticipated that the amount of the resulting contract will be in excess of its formal bid limit of \$25,000, such as this requirement. Interested Bidders are required to submit a sealed bid to the City by the date/time indicated for this requirement on the forms provided by the City.

### 2. SUBMISSION OF BIDS

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- A. The City of Evanston will no longer accept hard copy paper submittals for any solicitation. Responses will only be accepted electronically via E-bidding through DemandStar ([WWW.DEMANDSTAR.COM](http://WWW.DEMANDSTAR.COM)). Although registration is required, vendors can download solicitations and upload bid responses for free. **Please refer to attached DemandStar E-bidding documents.**
- B. ANY BIDS RECEIVED AFTER THE TIME AND DATE SPECIFIED FOR THE RECEIPT OF BIDS WILL NOT BE ACCEPTED. It is the sole responsibility of the Bidder to insure that his or her bid is delivered by the stated bid opening time. THE CITY IS NOT RESPONSIBLE FOR INCOMPLETE UPLOADED SUBMITTALS.
- C. Bids will be opened on the date and time stated.
- D. Any Bidder may withdraw his or her bid by letter or with proper identification by personally securing his or her bid at any time prior to the stated bid opening time. No telephone request for withdrawal of bids will be honored.

### 3. PREPARATION OF BIDS

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The Bidder must prepare the bid on the attached bid forms. Unless otherwise stated, all blank spaces on the bid form or pages must be filled in. Either a unit price, lump sum price, or a "no-bid", as the case may be, must be stated for each and every item and must be either typed in or written in ink.

### 4. SIGNING OF BIDS

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- A. Bids which are signed for a partnership should be signed in the firm's name by all partners or in the firm's name by Attorney-in-Fact. If signed by Attorney-in-Fact, there should be attached to the bid a Power of Attorney evidencing authority to sign the bid, dated the same date as the bid and executed by all partners of the firm.
- B. Bids which are signed for a corporation should have the correct corporate name thereon and signature of an authorized officer of the corporation manually written below the corporate name following words "By: \_\_\_\_\_" title of office held by the person signing for corporation, which shall appear below signature of an officer.
- C. Bids which are signed by an individual doing business under a fictitious name should

be signed in the name of the individual "doing business as. \_\_\_\_\_."

- D. The name of each person signing the bid shall be typed or printed below his or her signature.

**5. CONSIDERATION OF BIDS**

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The Purchasing Specialist shall represent and act for the City in all matters pertaining to this bid and the contract in conjunction therewith.

**6. WITHDRAWAL OF BIDS**

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Bidders may withdraw or cancel their bids at any time prior to the advertised bid opening time. After the bid opening time, no bid shall be withdrawn or canceled for a period of sixty (60) calendar days. When contract approval is required by another agency, such as the Federal Government or the State of Illinois, no bid shall be withdrawn or canceled for a period of ninety (90) calendar days.

**7. ERRORS IN BIDS**

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Bidders are cautioned to verify their bids before submission. Negligence on the part of the respondent in preparing the bid confers no right for withdrawal or modification of the bid after it has been opened. In case of error in the extension of prices in the bid, unit prices will govern.

**8. ADDENDA**

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- A. Any and all changes to the specifications/plans are valid only if they are included by written addendum to all Bidders. Each Bidder must acknowledge receipt of any addenda by indicating on the Bid form. Each Bidder, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the bid therein. Failure to acknowledge any addenda may cause the bid to be rejected.
- B. Addenda information is available over the internet at: [City of Evanston Notices to Bidders](#) or [www.demandstar.com](http://www.demandstar.com), or by contacting the Purchasing Office.

**9. RESERVED RIGHTS**

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The City of Evanston reserves the right at any time and for any reason to cancel his or her solicitation, to accept or reject any or all bids or any portion thereof, or to accept an alternate response. The City reserves the right to waive any immaterial defect in any response. The City may seek clarification from any respondent at any time, and failure to respond within a reasonable time period, or as otherwise directed, will be cause for rejection.

**10. AWARD**

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It is the intent of the City to award a contract to the lowest responsible Bidder meeting specifications. The City reserves the right to determine the lowest responsible Bidder on the basis of an individual item, groups of items, or in any way determined to be in the best interest of the City. Award will be based on the following factors (where applicable): (a) adherence to all conditions and requirements of the bid specifications;

(b) price; (c) qualifications of the Bidder, including past performance, financial responsibility, general reputation, experience, service capabilities, and facilities; (d) delivery or completion date; (e) product appearance, workmanship, finish, taste, feel, overall quality, and results of product testing; (f) maintenance costs and warranty provisions; and (g) repurchase or residual value.

## **11. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS**

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Bidder's shall promptly notify the City of any ambiguity, inconsistency, or error that they discover upon examination of the bidding documents. Interpretations, corrections, and changes will be made by addendum. Each Bidder shall ascertain prior to submitting a bid that all addenda have been received and are acknowledged in the bid.

## **12. INCONSISTENCIES AND OMISSIONS**

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These specifications and the accompanying plans, if any, are intended to include all information necessary for the work contemplated. If, by inadvertence or otherwise, the plans or specifications omit some information necessary for that purpose, the contractor shall, nevertheless, be required to perform such work at no additional cost to the City so that the project may be completed according to the true intent and purpose of the plans and specifications.

## **13. CONDITIONS**

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Bidders are advised to become familiar with all conditions, instructions, and specifications governing his or her bid. Once the award has been made, failure to have read all the conditions, instructions and specifications of this contract shall not permit the Bidder to amend contract or to request additional compensation.

## **14. VERIFICATIONS OF DATA**

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- A. It is understood and agreed that the unit quantities given in these specifications are approximate only, and the contractor shall verify these quantities before bidding as no claim shall be made against the City on, or account of, any excess or deficiency in the same.
- B. The contractor shall have visited the premises and determined for itself, by actual observation, boring, test holes, or other means, the nature of all soil and water conditions (both above and below ground in the line of work) that may be encountered in all construction work under this contract. The cost of all such inspection, borings, etc. shall be borne by the contractor, and no allowance will be made for the failure of the contractor to estimate correctly the difficulties attending the execution of the work.

## **15. SPECIFICATIONS**

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Reference to brand names and numbers is meant to be descriptive, not restrictive, unless otherwise specified. Bids on equivalent items will be considered, provided the Bidder clearly states exactly what is proposed to be furnished, including complete specifications. Unless the Bidder specifies otherwise, it is understood the Bidder is offering a referenced brand item as specified or is bidding as specified when no brand is referenced, and does not propose to furnish an "equal." The City reserves

the right to determine whether a substitute offer is equivalent to, and meets the standard of quality indicated by the brand name and number.

## **16. SAMPLES**

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When samples of items are called for by the specifications, samples must be furnished free of expense, and if not destroyed in the evaluation process will be returned at the Bidder's expense upon request. Request for the return of samples must accompany the sample and must include a UPS/Fed-Ex Pickup Slip, postage, or other acceptable mode of return. Individual samples must be labeled with Bidder's name, invitation number, item reference, manufacturer's brand name and number.

## **17. REGULATORY COMPLIANCE**

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Each Bidder represents and warrants that the goods or services furnished hereunder (including all labels, packages and containers for said goods) comply with all applicable standards, rules and regulations in effect under the requirements of all Federal, State, and local laws, rules and regulations as applicable, including the Occupational Safety and Health Act as amended, with respect to design, construction, manufacture, or use for their intended purpose of said goods or services. Each Bidder must furnish a "Material Safety Data Sheet" in compliance with the Illinois Toxic Substances Disclosure to Employees Act when required.

## **18. PRICING**

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The price quoted for each item is the full purchase price, including delivery to destination, and includes all transportation and handling charges, materials or service costs, patent royalties, and all other overhead charges of every kind and nature. Unless otherwise specified, prices shall remain firm for the contract period.

## **19. DISCOUNTS**

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Prices quoted must be net after deducting all trade and quantity discounts. Where cash discounts for prompt payment are offered, the discount period shall begin with the date of receipt of a correct invoice or receipt or final acceptance of goods, whichever is later.

## **20. INSPECTION**

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Materials or equipment purchased are subject to inspection and approval at the City's destination. The City reserves the right to reject and refuse acceptance of items which are not in accordance with the instructions, specifications, drawings or data of Seller's warranty (express or implied). Rejected materials or equipment shall be removed by, or at the expense of, the Seller promptly after rejection.

## **21. BIDS AND PLAN DEPOSITS**

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- A. When required on the cover sheet, all bids shall be accompanied by a bid deposit in the amount specified. Bid deposits shall be in the form of cash, a certified check, or cashier's check drawn on a responsible bank doing business in the United States and shall be made payable to the City of Evanston. Bid Bonds are also acceptable. All bids not accompanied by a bid deposit, when required, will be

- rejected.
- B. The City will return the bid deposits of all but the 3 lowest qualified Bidders, whose deposit will be held until contract award or at the expiration of the sixty-day or ninety-day period for bid award.
  - C. The bid deposit of the successful Bidder will be retained until contract documents have been executed and the Contractor has submitted all the required information. Failure to comply with the terms of this specification may be cause for forfeiture of said deposit.
  - D. When required, plan deposits will be refunded should the plans be returned in good condition within 10 days of the bid opening.

## **22. DISPUTES**

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Any dispute concerning a question of fact arising under this bid shall be decided by the Purchasing Specialist, who shall issue a written decision to the Bidder. The decision of the Purchasing Specialist shall be final and binding.

## **23. CATALOGS**

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Each Bidder shall submit, when requested by the Purchasing Specialist, catalogs, descriptive literature, and detailed drawings, fully detailing features, designs, construction, appointments, finishes and the like not covered in the specifications, necessary to fully describe the material or work proposed to be furnished.

## **24. TAXES**

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- A. Federal Excise Tax does not apply to materials purchased by the City of Evanston by virtue of Exemption Certificate No. A-208762, Illinois Retailers' Occupation Tax, Use Tax, and Municipal Retailers' Occupation Tax do not apply to materials or services purchased by the City of Evanston by virtue of Statute.
- B. The City of Evanston is exempt from Illinois Sales Tax by virtue of Exemption Identification number E9998-1750.
- C. The City's federal tax ID number is 36-6005870.

## **25. PERMITS & FEES**

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All Bidders awarded a contract must secure and pay for any licenses required by the City of Evanston. Necessary building permits will be required, but all permit fees will be waived and moneys for same must not be included in any bid.

## **26. ROYALTIES & PATENTS**

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Seller must pay all royalties and license fees. Seller must defend all suits or claims for infringement of any patent, copyright or trademark rights, and must hold the City harmless from loss on account thereof.

## **27. LOCAL PREFERENCE POLICY**

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The Evanston City Council reserves the right to award the contract to an Evanston firm if the firm's bid is within five (5%) percent of the low bid of a non-Evanston firm.

## **28. POWER OF ATTORNEY**

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An Attorney-In-Fact, who signs any and all of the bond or contract bonds submitted with this bid, must file with each bond a certified and effectively dated copy of their Power of Attorney. These dates should be the same or after the date of the contract.

## **29. WARRANTY**

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- A. The contractor warrants that all goods and services furnished to the City shall be in accordance with specifications and free from any defects of workmanship and materials: that goods furnished to the City shall be merchantable and fit for the City's described purposes, and that no governmental law, regulation, order, or rule has been violated in the manufacture or sale of such goods.
- B. The contractor warrants all equipment furnished to be in acceptable condition, and to operate satisfactorily for a period of one (1) year from delivery of, or the completion of installation, whichever is latest, unless stated otherwise in the specifications, and that if a defect in workmanship and/or quality of materials are evidenced in this period, the Seller shall remit full credit, replace, or repair at City's discretion immediately, such equipment and/or parts that are defective at no additional cost to the City.
- C. The contractor warrants to the City that each item furnished hereunder, and any component part thereof, will be new and in conformity with the specifications in all respects, unless otherwise specified, and is of the best quality of its respective kind, free from faulty workmanship, materials, or design, and installed sufficiently to fulfill any operating conditions specified by the City.
- D. The contractor shall repair or replace any item or component part thereof found not to be in conformity with this paragraph provided the City notified the Seller of such nonconformity within one (1) year after initial use or within eighteen (18) months after delivery, whichever occurs first. In the event Seller fails to proceed diligently to so replace or repair within a reasonable time after receipt of such notice, the City may undertake or complete such replacement or repair for Seller's account, and the seller will be responsible for any additional costs. Acceptance shall not relieve the seller of its responsibility.

## **30. INCURRED COSTS**

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The City will not be liable for any costs incurred by Bidders in replying to this invitation for bids.

## **31. VARIANCES**

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Each Bidder must state or list by reference any variations to specifications, terms and/or conditions set forth herein with its bid.

## **32. INDEMNIFICATION**

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- A. The awarded Bidder/Contractor shall defend, indemnify and hold harmless the City and its officers, elected and appointed officials, agents, and employees from any and



all liability, losses, or damages as a result of claims, demands, suits, actions, or proceedings of any kind or nature, including but not limited to costs, and fees, including attorney's fees, judgments or settlements, resulting from or arising out of any negligent or willful act or omission on the part of the Contractor or Contractor's sub-contractors, employees, agents or sub-contractors during the performance of this Agreement. Such indemnification shall not be limited by reason of the enumeration of any insurance coverage herein provided. This provision shall survive completion, expiration, or termination of this Agreement.

- B. Nothing contained herein shall be construed as prohibiting the City, or its officers, agents, or employees, from defending through the selection and use of their own agents, attorneys, and experts, any claims, actions or suits brought against them. The Contractor shall be liable for the reasonable costs, fees, and expenses incurred in the defense of any such claims, actions, or suits. Nothing herein shall be construed as a limitation or waiver of defenses available to the City and employees and agents, including but not limited to the Illinois Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10/1-101 *et seq.*
- C. At the City Corporation Counsel's option, Contractor must defend all suits brought upon all such Losses and must pay all costs and expenses incidental to them, but the City has the right, at its option, to participate, at its own cost, in the defense of any suit, without relieving Contractor of any of its obligations under this Agreement. Any settlement of any claim or suit related to this Project by Contractor must be made only with the prior written consent of the City Corporation Counsel, if the settlement requires any action on the part of the City.
- D. To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend, or contribute to any sums due under any Losses, including any claim by any employee of Contractor that may be subject to the Illinois Compensation Act, 820 ILCS 305/1 *et seq.* or any other related law or judicial decision, including but not limited to, *Kotecki v. Cyclops Welding Corporation*, 146 Ill. 2d 155 (1991). The City, however, does not waive any limitations it may have on its liability under the Illinois Workers Compensation Act, the Illinois Pension Code or any other statute.
- E. The Contractor shall be responsible for any losses and costs to repair or remedy work performed under this Agreement resulting from or arising out of any act or omission, neglect, or misconduct in the performance of its Work or its sub-contractors' work. Acceptance of the work by the City will not relieve the Contractor of the responsibility for subsequent correction of any such error, omissions and/or negligent acts or of its liability for loss or damage resulting therefrom.
- F. All provisions of this Section 32 shall survive completion, expiration, or termination of this Agreement.

### **33. DEFAULT**

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Time is of the essence as to the awarded contract and, of delivery or acceptable

items or rendering of services is not completed by the time promised, the City reserves the right, without liability, in addition to its other rights and remedies, to terminate the contract by notice effective when received by Seller, as to stated items not yet shipped or services not yet rendered and to purchase substitute items or services elsewhere and charge the Seller with all losses incurred. The City shall be entitled to recover its attorney's fees and expenses in any successful action by the City to enforce this contract.

#### **34. GOVERNING LAW**

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This contract shall be governed by and construed according to the laws of the State of Illinois. In the event of litigation, the venue will be Cook County, Illinois.

#### **35. EQUAL EMPLOYMENT OPPORTUNITY**

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- A. In the event of the contractor's noncompliance with any provision of the Illinois Human Rights Act or Section 1-12-5 of the Evanston City Code, the contractor may be declared non-responsible and therefore ineligible for future contracts or sub-contracts with the City of Evanston, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by Statute or regulation.
- B. During the performance of this contract, the contractor agrees as follows:
1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry, or age or physical or mental handicap that does not impair ability to work, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization. Contractor shall comply with all requirements of City of Evanston Code Section 1-12-5.
  2. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin or ancestry.
  3. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine that availability (in accordance with the Fair Employment Commission's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
  4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the contractor's obligations under the Illinois Fair Employment Practices Act and the Fair Employment Practices Commission's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or

refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Illinois Fair Employment Practices Commission and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations hereunder.

5. That it will submit reports as required by the Illinois Fair Employment Practices Commission's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Fair Employment Practices Commission or the contracting agency, and in all respects comply with the Illinois Fair Employment Practices Commission's Rules and regulations for Public Contracts.
6. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency, the City Manager, the Commission and the Illinois Fair Employment Practices Commission for purposes of investigation to ascertain compliance with the Illinois Fair Employment Practices Act and the Fair Employment Practices Act and the Fair Employment Practices Commission's Rules and Regulations for Public Contract.
7. That it will include verbatim or by reference the provisions of subsections (A) through (G) of this clause in every performance sub-contract as defined in Section 2.10(b) of the Fair Employment Practices Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such sub-contractor; and that it will also include the provisions of subsections (A), (E), (F), and (G) in every supply sub-contract as defined in Section 2.10(a) of the Fair Employment Practices Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such sub-contractor. In the same manner as with other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by all its sub-contractors; and further it will promptly notify the contracting agency and the Illinois Fair Employment Practices Commission in the event any sub-contractor fails or refuses to comply therewith. In addition, no contractor will utilize any sub-contractor declared by the Fair Employment Practices Commission to be non-responsible and therefore ineligible for contracts or sub-contracts with the State of Illinois or any of its political subdivisions or municipal corporations.

### **36. M/W/EBE GOAL**

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The City of Evanston has a goal of awarding 25% of its contracts to Minority-Owned, Women-Owned, and Evanston-based businesses (M/W/EBEs). All Bidders must state the proposed involvement of M/W/EBEs in completing a portion of the services required by the City by completing the attached M/W/EBE forms. Any questions regarding M/W/EBE compliance should be submitted in writing to Tammi Nunez, Purchasing Manager at [tnunez@cityofevanston.org](mailto:tnunez@cityofevanston.org).

### **37. LOCAL EMPLOYMENT PROGRAM REQUIREMENTS**

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In an effort to increase hiring of economically disadvantaged Evanston residents on certain City construction projects, the contractor shall comply with the provisions of the City of Evanston's Local Employment Program Ordinance (LEP) set forth in Section 1-17-1 (C) of the Evanston City Code. The intent of the LEP is to have Evanston residents employed at the construction site as laborers, apprentices and journeymen in such trades as electrical, HVAC, carpenters, masonry, concrete finishers, truck drivers and other construction occupations necessary for the project. Any questions regarding LEP compliance should be submitted in writing to Tammi Nunez Purchasing Manager at [tnunez@cityofevanston.org](mailto:tnunez@cityofevanston.org).

**NOTE: CITY OF EVANSTON ORDINANCE 60-O-14 AMENDMENT LOCAL EMPLOYMENT PROGRAM (LEP) available on the City website at: Ordinance 60-O-14 Amendment LEP**

### **38. Questions**

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All questions related to this bid document should be submitted in writing to Jillian Ostman, Purchasing Specialist at [jostman@cityofevanston.org](mailto:jostman@cityofevanston.org) with a copy to Shane Cary, at [scary@cityofevanston.org](mailto:scary@cityofevanston.org). Only inquiries received a minimum of seven (7) working days prior to the date set for the opening of bids, will be given any consideration.

### **39. COORDINATION OF EXISTING SITE WITH DRAWINGS**

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- A. Before submitting a bid, bidders shall carefully examine the drawings and specifications, visit the site, and fully inform themselves as to all conditions and limitations.
- B. Should a bidder find discrepancies in, or omissions from the drawings or specifications, or should be in doubt as to their meaning, the bidder should at once notify the Purchasing Specialist, who will issue necessary instructions to all bidders in the form of an addendum.

### **40. AFFIRMATIVE ACTION IN SUB-CONTRACTING (EXCERPT FROM RESOLUTION 59-R-73)**

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"Contractor agrees that he shall actively solicit bids for the sub-contracting of goods or services from qualified minority businesses. At the request of the City, Contractor shall furnish evidence of his compliance with this requirement of minority solicitation. Contractor further agrees to consider the grant of sub-contracts to said minority bidders on the basis of substantially equal bids in the light most favorable to said minority businesses. Contractor further affirms that in obtaining his performance and bid bonds, he will seek out and use companies who have records of, and/or who will make commitments to, the bonding of minority contractors on a rate basis comparable to their bonding of similar non-minority contractors. The contractor may be required to submit this evidence as part of the bid or subsequent to it."

#### **41. COMPLIANCE WITH LAWS**

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- A. The bidder shall at all times observe and comply with all laws, ordinances and regulations of the Federal, State, Local and City Governments, which may in any manner affect the preparation of bids or the performance of the contract.

#### **42. QUALIFICATION OF BIDDERS**

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- A. All bidders must be qualified in accordance with the instructions, procedures and methods set forth in this specification.
- B. In awarding contract, City may take into consideration, skill, facilities, capacity, experience, ability, responsibility, previous work, financial standing of bidder, amount of work being carried on by bidder, quality and efficiency of construction equipment proposed to be furnished, period of time within which proposed equipment is furnished and delivered, necessity of prompt and efficient completion of work herein described. Inability of any bidder to meet requirements mentioned above may be cause for rejection of the bid. In addition, if the project covered by this contract is a minority set-aside project, the contractor's qualifications as a minority firm will determine the eligibility of the contractor to bid.

#### **43. COMPETENCY OF BIDDER**

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- A. No bid will be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default to the City of Evanston upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to said City, or had failed to perform faithfully any previous contract with the City.
- B. The bidder, if requested, must present within forty eight (48) hours evidence satisfactory to the Purchasing Manager of performance ability and possession of necessary facilities, pecuniary resources and adequate insurance to comply with the terms of these specifications and contract documents.

#### **44. PREFERENCE TO CITIZENS**

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The Contractor shall abide by the Illinois Preference Act, 30 ILCS 570 et seq., which stipulates that whenever there is a period of excessive unemployment in Illinois, defined as any month immediately following two (2) consecutive months during which the level of unemployment in Illinois exceeds five percent (5%) as measured by the U.S. Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ only Illinois laborers unless otherwise exempted as so stated in the Act. ("Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident) Other laborers may be used IF Illinois laborers are not available or are incapable of performing the particular type of work involved if so certified by the Contractor and approved by the project engineer.

## **GENERAL CONDITIONS**

### **1. BASIS OF AWARD**

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The City of Evanston reserves the right to award a contract to a responsive and responsible Bidder(s) who submits the lowest total bid, or to reject any or all bids and bidding, when in its opinion the best interest of the City will be served by such action. The City reserves the right to consider the specified alternates in its evaluation of the bids.

### **2. BIDS**

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#### **A. LUMP SUM BID**

1. The bidder is to submit a lump sum bid for each bid line on the Bid Form which includes all costs incidental to performing the specified work. It is understood and agreed that the unit quantities given in the supporting pages are approximate only and the bidder shall verify these quantities before bidding as no claim shall be made against the City on account of any excess or deficiency in the same.

2. Unit prices given in the supporting pages shall be used by the City and the Contractor for any subsequent changes in the contract.

### **3. QUANTITIES**

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Any quantities shown on the Bid Form are estimated only for bid canvassing purposes, the City has made a good faith effort to estimate the quantity requirements for the Contract term. The City reserves the right to increase or decrease quantities ordered under this contract.

### **4. CONTRACT TERM**

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Bidder must fully complete the work within the period specified herein after award of the contract by the City.

### **5. NOTICE TO PROCEED/ PURCHASE ORDER/ CONTRACT**

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A. The City issued Purchase Order serves as the City official Notice to Proceed. No work will be allowed prior to Contractor receipt of the City issued Purchase Order.

B. Upon approval of the required bonds and insurance documents, the City will issue a Purchase Order to the Contractor for the contract amount. All Applications for Payment must reference the Purchase Order number.

C. When it is necessary to issue a Change Order that increases/decreases the contract amount, a Change Order form will be issued and a modified Purchase Order will be issued reflecting the revised contract amount.

D. When it is necessary to issue a Change Order that only increases/decreases the contract period, only a Change Order form will be issued establishing the revised contract period.

- E. Upon Award the contractor shall execute the Contractor Services Agreement.

## **6. PAYMENT**

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- A. Progress payments will be made in accordance with “Applications for Payment” and “Project Closeout” sections of the specifications, less a 10% retainage for each payment, which will be held until final acceptance of the work by the City. Certification of each Application for Payment will be made by the City’s representative.
- B. All payments will be made in accordance with *Illinois Local Government Prompt Payment Act*.

## **7. DECISIONS TO WITHHOLD CERTIFICATION FOR PAYMENT**

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- A. The City may not certify payment and may withhold payment in whole or in part, to the extent reasonably necessary to protect the City, if the quality of the work is not in accordance with the contract documents. If the City is unable to certify payment in the amount of the invoice, the City will promptly issue payment for the amount of the Work completed in accordance with the contract documents. The City may not certify payment due to any contractor negligence or contract non-compliance.
  - a. Defective work not remedied
  - b. Third party claims filed or reasonable evidence indicating probable filing of such claims
  - c. Failure of Contractor to make payments properly to Sub-contractors for labor, materials or equipment
  - d. Reasonable evidence that the work cannot be completed for the unpaid balance of the Contract Sum
  - e. Damage to the City or another contractor
  - f. Reasonable evidence that the work will not be completed within the Contract period and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay
  - g. Persistent failure to carry out work in accordance with the Contract Documents.

## **8. CHANGES IN WORK**

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- A. The City reserves the right to make changes in the plans and specifications by altering, adding to, or deducting from the work, without invalidating the contract. All such changes shall be executed under the conditions of the original contract, except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.
- B. No change shall be made unless a written Change Order and/or modified Purchase Order is issued by the City stating that the City has authorized the change, and no claim for an addition to the contract shall be valid unless so ordered.
- C. If such changes diminish the quantity of work to be done they shall not constitute a claim for damage or anticipated profits on the work, such increase shall be paid in

one or more of the following ways:

1. by estimate and acceptance in lump sum
2. by unit prices named in the contract's bid form or subsequently agreed upon

#### **9. DEDUCTION FOR UNCORRECTED WORK**

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If the City deems it expedient to correct work damaged or not done in accordance with the contract, the difference in value, together with a fair allowance for damage shall be deducted from the contract amount due. The value of such deduction shall be determined by the City.

#### **10. CITY'S RIGHT TO TERMINATE CONTRACT**

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The City reserves the right, in addition to other rights to termination, to terminate the contracts in accordance with all provisions of the executed contract.

#### **11. LIENS**

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- A. Neither the final payment nor any part of any retained percentages, shall become due until the contractor, if required, delivers to the City, a complete release of all liens arising out of this contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed. If any lien remains unsatisfied after all payments are made the contractor shall refund to the City all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and attorney's fees.

#### **12. SEPARATE CONTRACTS**

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- A. The City reserves the right to let other contracts in connection with this work. The contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his or her work with theirs. If any part of the contractor's work depends on proper execution or results upon the work of any other contractor, the contractor shall inspect and promptly report to the City any defects in such work that render it unsuitable for such proper execution and results. His or her failure to so inspect and report shall constitute an acceptance of other contractor's work as fit and proper.
- B. To insure the proper execution of his or her subsequent work, the contractor shall measure work already in place and shall at once report to the City any discrepancy between the executed work and the drawings which will affect his or her work.

#### **13. PROTECTION & SAFEGUARDS**

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- A. Unless otherwise specified, the contractor, as a part of this contract, shall provide, erect and maintain temporary roads, fences, bracing, lights, warning signs, barricades, etc. necessary for the protection of the construction materials, adjacent property and the public.



- B. The contractor shall contact all utilities which will be affected by its operations and notify the owners of the utilities of its operations and their limits within forty-eight (48) hours prior to beginning construction. The contractor shall be responsible for damage to utilities and shall, at his or her own expense, restore such property to a condition equal to that which existed before its work, as may be directed by the owners.
- C. The contractor shall protect all work and unused materials of this contract from any and all damage and shall be solely responsible for the condition of such work and materials.

#### **14. MATERIAL STORAGE**

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- A. On-site areas may be designated for material/equipment storage. The contractor will assume all risk and liability associated with the storage of material/equipment at on-site locations.

#### **15. CLEANING UP**

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- A. The contractor shall at all time keep the premises free from accumulation of waste material or rubbish caused by its employees or work and at the completion of the work it shall remove all its rubbish, tools, and surplus materials from the premises, leaving the area in a neat and workmanlike condition. In case of dispute, the City may remove the rubbish and charge the cost to the contractor.
- B. Contractor recognizes that proper cleanup and removal of construction debris is an important safety consideration. The Contractor shall be solely responsible for daily construction site/area cleanup and removal of all construction debris in accordance with City-approved disposal practices. Contractor shall be solely responsible for identifying and removing at its expense all hazardous material and waste which it uses and generates.

#### **16. RESTORATION OF SITE**

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- A. Prior to final payment, contractor shall fully restore all property disturbed or damaged during the course of this work. This includes, but is not limited to public property, (walks, curbs, roadways, trees, etc.) private property, and utilities. This shall also include removal of temporary facilities erected during the course of this contract and restoration of these areas.
- B. All restoration work shall be subject to the approval of the City and shall restore the property to a condition at least equal to that existing prior to the start of this contract.
- C. All restoration work of property damaged by contractor shall be accomplished at the sole expense of the contractor.

#### **17. PREVAILING WAGE**

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- A. Prospective Bidders shall thoroughly familiarize themselves with the provisions of the

above-mentioned Act and shall prepare any and all bids/bids in strict compliance therewith.

- B. Effective September 1st - All work performed on new and existing projects must be submitted to Illinois Department of Labor through the certified transcript of payroll portal.** You may access the portal here: [Certified Transcript of Payroll Portal](#)

All contractors and sub-contractors on public works projects **must submit and upload certified payrolls** on a monthly basis to the **IDOL** online portal, provide a pdf copy to the City's project manager and business work force development coordinator, along with a statement affirming that such records are true and accurate, that the wages paid to each worker are not less than the required prevailing rate and that the contractor is aware that filing records her or she knows to be false is a Class B misdemeanor.

- C. The certified payroll record must include for every worker employed on the public works project the name, address, telephone number, social security number, job classification, hourly wages paid in each pay period, number of hours worked each day, and starting and ending time of work each day. These certified payroll records are considered public records and public bodies must make these records available to the public under the Freedom of Information Act, with the exception of the employee's address, telephone number and social security number. Any contractor who fails to submit a certified payroll or knowingly files a false certified payroll is guilty of a Class B misdemeanor.
- D. All certified payrolls shall be submitted in electronic format, preferably a PDF file.
- E. As a condition of receiving payment, Contractor must (i) be in compliance with the Agreement, (ii) pay its employees prevailing wages when required by law (Examples of prevailing wage categories include public works, printing, janitorial, window washing, building and grounds services, site technician services, natural resource services, security guard and food services). Contractor is responsible for contacting the Illinois Dept. of Labor 217-782-1710; <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/prevailing-wage-act.aspx> compliance with prevailing wage requirements), (iii) pay its suppliers and sub-contractors according to the terms of their respective contracts, and (iv) provide lien waivers to the City upon request.

## **18. CONTRACTOR REQUIREMENTS**

- A. The Contractor shall abide by and comply with all local, State and federal laws and regulations relating to contracts involving public funds and the development/construction of public works, buildings, or facilities. The scale of wages to be paid shall be obtained from Illinois Department of Labor and posted by the Contractor in a prominent and accessible place at the project work site.
- B. The Contractor certifies it has not been barred from being awarded a contract with a

unit of State or local government as a result of bid rigging or bid rotating or any similar offense (720 ILCS 5/33 E-3, E-4).

- C. The Contractor certifies, pursuant to the Illinois Human Rights Act (775 ILCS 5/2-105), that it has a written sexual harassment policy that includes, at a minimum, the following information: (1) the illegality of sexual harassment, (2) the definition of sexual harassment under State law, (3) a description of sexual harassment utilizing examples, (4) the Contractor's internal complaint process including penalties, (5) legal recourse, investigation and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and directions on how to contact both; and (6) protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act.
- D. The Contractor shall abide by the "Illinois Preference Act" which stipulates that whenever there is a period of excessive unemployment in Illinois, defined as any month immediately following two (2) consecutive months during which the level of unemployment in Illinois exceeds five percent (5%) as measured by the U.S. Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ only Illinois laborers unless otherwise exempted as so stated in the Act. ("Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident) Other laborers may be used IF Illinois laborers are not available or are incapable of performing the particular type of work involved if so certified by the Contractor and approved by the project engineer.

## **19. SUB-CONTRACTORS**

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- A. The term "sub-contract" means any agreement, arrangement or understanding, written or otherwise between a Contractor and any person (in which the parties do not stand in the relationship of an employer or an employee) for the furnishing of supplies or services or for the use of real or personal property, including lease arrangements, which, in whole or in part, is utilized in the performance of any one or more Contracts under which any portion of the Contractor's obligation under any one or more Contracts is performed, undertaken or assumed.
- B. The Bidder is specifically advised that any person, firm or party, to whom it is proposed to award a sub-contract under this contract must be acceptable to the City. Approval for the proposed sub-contract Award cannot be given by the City until the proposed Sub-contractor has submitted evidence showing that it has fully complied with any reporting requirements to which it is, or was, subject.
- C. The contractor, shall, within ten (10) days after award of the Contract, submit to the City in writing, names and addresses and respective amounts of money for proposed contracts with Sub-contractors/major suppliers. The City will review and may direct the Contractor that they shall not employ any that are not acceptable as provided above.
- D. The sub-contractor shall abide by and comply with all local, State and federal laws

and regulations relating to contracts involving public funds and the development/construction of public works, buildings, or facilities.

## **20. PAYMENTS TO SUB-CONTRACTORS**

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- A. Within seven days after the receipt of amounts paid by the City for work performed by a sub-contractor under this contract, the Contractor shall either:
  - 1. Pay the sub-contractor for the proportionate share of the total payment received from the City attributable to the work performed by the sub-contractor under this contract; or,
  - 2. Notify the City and sub-contractor, in writing, of his intention to withhold all or a part of the sub-contractor's payment and the reason for non-payment.
- B. The Contractor shall pay interest to the sub-contractor on all amounts owed that remain unpaid beyond the seven day period except for amounts withheld as allowed in item 2 above.
- C. Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month.
- D. The Contractor shall include in each of its sub-contracts a provision requiring each Sub-contractor to include or otherwise be subject to the same payment and interest requirements as set forth above with respect to each lower-tier sub-contractor.
- E. The Contractor's obligation to pay an interest charge to a sub-contractor pursuant to this provision may not be construed to be an obligation of the City.

## **21. BOND – PERFORMANCE, MATERIAL, & LABOR**

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- A. When required by the specifications herein, the successful Bidder or Bidders shall, within ten (10) calendar days after acceptance of the Bidder's bid by the City, furnish a performance bond for 100% of the full amount of the contract from insurance companies having not less than A+ Policyholders Rating from the most recent Alfred M. Best and Co., Inc. listing available. Certification of the insurance company's rating shall be provided prior to contract implementation and quarterly thereafter until contract completion. Should such rating fall below the required A+ level during performance of the contract, it will be the contractor's responsibility to notify the City and provide a new bond from an insurance company whose rating meets the City's requirements.
- B. When required by the specifications herein, all Bidders shall submit with the bid a bid bond. A letter of credit may be furnished in lieu of a bid bond only if the following conditions are met: 1) An irrevocable letter of credit must be obtained from an accredited bank which shall include an agreement that the bank will honor a demand by the City for payment due to Plaintiff failure to complete the project. 2) An irrevocable letter of credit must be in writing and signed by an authorized representative of the bank. 3) The irrevocable letter of credit must expressly state

that it is irrevocable until the bid has been awarded. 4) The letter of credit must be for the percentage specified in the bid documents.

- C. The City may reject the use of an irrevocable letter of credit if the financial soundness of the issuing bank is found to be unacceptable.
- D. In the event that the Bidder fails to furnish a performance bond in said period of ten (10) calendar days after acceptance of the Bidder's bid by the City, the City may withdraw its acceptance of the bid and retain the Bidder's deposit as liquidated damages and not as a penalty.
- E. If the contractor has more than one project for which there is a contract with the City of Evanston the contractor shall provide a separate Performance Bond for each project.

## **22. INDEMNITY**

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- A. The Contractor shall defend, indemnify and hold harmless the City and its officers, elected and appointed officials, agents, and employees from any and all liability, losses, or damages as a result of claims, demands, suits, actions, or proceedings of any kind or nature, including but not limited to costs, and fees, including attorney's fees, judgments or settlements, resulting from or arising out of any negligent or willful act or omission on the part of the Contractor or Contractor's sub-contractors, employees, agents or sub-contractors during the performance of this Agreement. Such indemnification shall not be limited by reason of the enumeration of any insurance coverage herein provided. This provision shall survive completion, expiration, or termination of this Agreement.
- B. Nothing contained herein shall be construed as prohibiting the City, or its officers, agents, or employees, from defending through the selection and use of their own agents, attorneys, and experts, any claims, actions or suits brought against them. The Contractor shall be liable for the reasonable costs, fees, and expenses incurred in the defense of any such claims, actions, or suits. Nothing herein shall be construed as a limitation or waiver of defenses available to the City and employees and agents, including but not limited to the Illinois Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10/1-101 *et seq.*
- C. At the City Corporation Counsel's option, Contractor must defend all suits brought upon all such Losses and must pay all costs and expenses incidental to them, but the City has the right, at its option, to participate, at its own cost, in the defense of any suit, without relieving Contractor of any of its obligations under this Agreement. Any settlement of any claim or suit related to this Project by Contractor must be made only with the prior written consent of the City Corporation Counsel, if the settlement requires any action on the part of the City.
- D. To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend, or contribute to any sums due under any Losses, including any claim by any employee of Contractor that may be subject to the

Illinois Workers Compensation Act, 820 ILCS 305/1 et seq. or any other related law or judicial decision, including but not limited to, Kotecki v. Cyclops Welding Corporation, 146 Ill. 2d 155 (1991). The City, however, does not waive any limitations it may have on its liability under the Illinois Worker Compensation Act, the Illinois Pension Code or any other statute.

- E. The Contractor shall be responsible for any losses and costs to repair or remedy work performed under this Agreement resulting from or arising out of any act or omission, neglect, or misconduct in the performance of its Work or its sub-contractors' work. Acceptance of the work by the City will not relieve the Contractor of the responsibility for subsequent correction of any such error, omissions and/or negligent acts or of its liability for loss or damage resulting therefrom .

### **23. CONTRACTOR'S LIABILITY INSURANCE**

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- A. THE CONTRACTOR SHALL NOT COMMENCE WORK UNDER THIS CONTRACT UNTIL THEY HAVE OBTAINED ALL INSURANCE REQUIRED HEREIN AND SUCH INSURANCE HAS BEEN APPROVED BY THE CITY. Nor shall the contractor allow any sub-contractor to commence work until all similar insurance required of the sub-contractor has been so obtained.
- B. The City of Evanston shall be named as an additional insured on the policy of the contractor for whatever the policy limits are for the contractor, but in no event shall the Comprehensive General Liability limits be less than \$3,000,000.00.
- C. If the contractor has more than one project for which he has a contract with the City of Evanston there shall be separate Certificates of Insurance naming the City as an additional insured on each separate policy.
- D. In the event of accidents, injuries, or unusual events, whether or not any injury occurred, the contractor shall promptly furnish the City with copies of all reports of such incidents.
- E. The contractor shall furnish one (1) copy of a certificate, with the City named as an additional insured, showing the following minimum coverage with insurance company acceptable to the City.

### **24. PRE-CONSTRUCTION MEETING**

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- A. A pre-construction meeting will be scheduled for the successful Contractor at a date immediately following awarding of the Contracts.

### **25. LIQUIDATED DAMAGES**

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- A. The Contractor shall, and agrees to pay, per calendar day, the amount listed in the Schedule of Deductions presented in Article 108.09 of the Illinois Department of Transportation's (IDOT) Standard Specifications (based upon the total Contract Price) as liquidated damages for failure to meet the completion deadlines identified below:

Substantial Completion Deadline:                      Friday, September 2, 2022

Final Completion Deadline: Friday, October 28, 2022

- B. This payment is for liquidated damages, in addition to any other damages that may be incurred by the City, and not as a penalty. All such liquidated damages may be set-off against any moneys that may be due the contractor.
- C. Substantial Completion shall be defined as the stage in the progress of the work when the work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the City can occupy or utilize the work for its intended use. Substantial Completion will be certified by the issuance of a Certificate of Substantial Completion, to be issued by the City's representative, when the Contractor has satisfied the above statement and billed the City for a minimum of 90% of the total value of the work.

## **26. EXTENSION OF TIME**

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- A. Delays due to causes beyond the control of the contractor other than such as reasonable would be expected to occur in connection with or during the performance of the work, may entitle the contractor to an extension of time for completing the work sufficient to compensate for such delay. No extension of time shall be granted, however, unless the contractor shall notify the City in writing thereof, within ten (10) days from the initiation of the delay and unless he shall, within ten (10) days after the expiration of the delay, notify the City in writing of the extension of time claimed on account thereof and then only to the extent, if any, allowed by the City.

## **27. DEFAULT**

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- A. The City may, subject to the provisions of this section, by written notice of default to Contractor, terminate the whole or any part of this contract in any one of the following circumstances:
  - 1. if the Contractor fails to perform the services within the time specified herein, or any extension thereof; or
  - 2. if the contractor fails to perform any of the other provisions of this contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure failure within a period of 10 days (or such other extended period as the City may authorize in writing) after receipt of notice from the City specifying such failure
- B. In the event the City terminates this contract in whole or in part as provided in this section, the City may procure, upon such terms and in such manner as the City may deem appropriate, services similar to those so terminated, and the Contractor will be liable to the City for any excess costs for such similar services.
- C. The Contractor will not be liable for any excess of costs if acceptable evidence has been submitted to the City that the failure to perform the contract was due to causes beyond the control and without fault or negligence of the Contractor.

- D. Contractors who default may not be considered for awards of future City contracts.

**28. USE OF PREMISES**

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- A. The contractor shall confine his apparatus, the storage of materials and the operations of his workers, to limits indicated by law, ordinances, permits or directions of the City.

**29. DISCLOSURES AND POTENTIAL CONFLICTS OF INTEREST (30 ILCS 500/50-35)**

---

- A. The City of Evanston's Code of Ethics prohibits public officials or employees from performing or participating in an official act or action with regard to a transaction in which he has or knows he will thereafter acquire an interest for profit, without full public disclosure of such interest. This disclosure requirement extends to the spouse, children and grandchildren, and their spouses, parents and the parents of a spouse, and brothers and sisters and their spouses.

To ensure full and fair consideration of all bids, the City of Evanston requires all Bidders including owners or employees to investigate whether a potential or actual conflict of interest exists between the Bidder and the City of Evanston, its officials, and/or employees. If the Bidder discovers a potential or actual conflict of interest, the Bidder must disclose the conflict of interest in its bid, identifying the name of the City of Evanston official or employee with whom the conflict may exist, the nature of the conflict of interest, and any other relevant information. The existence of a potential or actual conflict of interest does NOT, on its own, disqualify the disclosing Bidder from consideration. Information provided by Bidders in this regard will allow the City of Evanston to take appropriate measures to ensure the fairness of the bidding process.

The City of Evanston requires all bidders to submit a certification, enclosed with this bid packet, that the bidder has conducted the appropriate investigation and disclosed all potential or actual conflicts of interest.

By submitting a bid, all Bidders acknowledge and accept that if the City of Evanston discovers an undisclosed potential or actual conflict of interest, the City of Evanston may disqualify the Bidder and/or refer the matter to the appropriate authorities for investigation and prosecution.



## INSURANCE REQUIREMENTS

<u>TYPE OF INSURANCE</u>	<u>MINIMUM INSURANCE COVERAGE</u>	
	Consequent Death	Bodily Injury and Property Damage
	Each Occurrence	Aggregate
Commercial General Liability including:	\$3,000,000	\$3,000,000
1. Comprehensive form		
2. Premises - Operations		
3. Explosion & Collapse Hazard		
4. Underground Hazard		
5. Products/Completed Operations Hazard		
6. Contractual Insurance – With an endorsement on the face of the certificate that it includes the "Indemnity" paragraph of the specifications.		<b><u>Insurance Certificate Must State: The City Of Evanston is Named as Additional Insured</u></b>
7. Broad Form Property Damage - construction projects only		
8. Independent contractors		
9. Personal Injury		
Automobile Liability Owned, Non-owned or Rented	\$ 1,000,000	\$1,000,000
Workmen's Compensation and Occupational Diseases As required by applicable laws. Employer's Liability		\$ 500,000

Thirty day notice of cancellation required on all certificates.

**EXHIBIT A – BID FORM**  
**For**  
**Parking Garage Structural Repairs**

**(BID #22-14)**

1.01 BID TO:

**THE CITY OF EVANSTON**

2100 Ridge Avenue  
Evanston, Illinois 60201

Hereinafter called "OWNER".

1.02 BID FROM:

\_\_\_\_\_  
(Hereinafter call "BIDDER")

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Fax Number

1.03 BID FOR: **Bid 22-14 Parking Garage Structural Repairs**

1.04 ACKNOWLEDGEMENT:

- A. The Bidder, in compliance with the Invitation for Bids, having carefully examined the Drawings and Project Manual with related documents and having visited the site of the proposed Work, and being familiar with all of the existing conditions and limitations surrounding the construction of the proposed project, including the structure of the ground, subsurface conditions, the obstacles which may be encountered, local restrictions, and all other relevant matters concerning the Work to be performed, hereby PROPOSES to perform everything required to be performed, and to provide all labor, materials, necessary tools and equipment, expendable equipment, all applicable permits and taxes and fees, and provide all utility and transportation services necessary to perform and complete in a workmanlike manner the Project in accordance with all the plans,

specifications and related Contract Documents as prepared by the City of Evanston.

- B. The undersigned hereby acknowledges receipt of Invitation of Bids, Instruction to Bidder, the Project Manual, Drawings, and other Contract Documents and acknowledges receipt of the following Addenda:

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

1.05 GENERAL STATEMENTS

- A. The undersigned has checked all of the figures contained in this proposal and further understands that the Owner will not be responsible for any errors or omissions made therein by the undersigned.
- B. It is understood that the right is reserved by the Owner to reject any or all proposals, to waive all informality in connection therewith and to award a Contract for any part of the work or the Project as a whole.
- C. The undersigned declares that the person(s) signing this proposal is/are fully authorized to sign on behalf of the named firm and to fully bind the named firm to all the conditions and provisions thereof.
- D. It is agreed that no person(s) or company other than the firm listed below or as otherwise indicated hereinafter has any interest whatsoever in this proposal or the Contract that may be entered into as a result thereof, and that in all respects the proposal is legal and fair, submitted in good faith, without collusion or fraud.
- E. It is agreed that the undersigned has complied and/or will comply with all requirements concerning licensing and with all other local, state and national laws, and that no legal requirement has been or will be violated in making or accepting this proposal, in awarding the Contract to him, and/or in the prosecution of the Work required hereunder.
- F. To be considered a bona fide offer, this proposal must be completed in full and accompanied by a bid deposit or a bid bond when required by Contract Documents or Addenda.

1.06 ALTERNATES

- A. When alternate proposals are required by Contract Documents or Addenda thereto, the undersigned proposes to perform alternates for herein stated additions to or deductions from hereinbefore stated Base Bid. Additions and deductions include all modifications of Work or additional Work that the undersigned may be required to perform by reason of the acceptance of alternates.

1.07 ALLOWANCE

- A. The allowance is general and should be used in the event that any unforeseen condition is discovered. After discovering the unforeseen condition, the contractor shall submit a Found Condition Report (FCR) and an Authorization to Use Allowance (AUA) to the Consultant. The Consultant will then notify the Owner and both the Owner and the Consultant will view the unforeseen condition to determine if the work will be authorized. Under no circumstances shall the contractor move forward with the work in question nor shall the contractor expend allowance without an approved AUA. At the end of the project, unspent allowance shall be credited to owner via change order.

1.08 AGREEMENT

- A. In submitting this Bid, the undersigned agrees:
  - 1. To hold this Bid open for sixty (60) days from submittal date.
  - 2. To enter into and execute a Contract with the Owner within ten (10) days after receiving Notice of Award from the Owner.
  - 3. To accomplish the work in accordance with the Contract Documents.
  - 4. To complete the work by the time stipulated in the General Conditions
- B. The Owner reserves the right to reject any and all Bids and to waive any informalities in Bidding.

1.09 SCHEDULE

- A. See General Conditions for required schedule of completion dates.

1.10 PROPOSED PRICES

- A. The Bidder hereby proposes to furnish all labor, materials, equipment, transportation, construction plant and facilities necessary to complete, in a workmanlike manner and in accordance with the contract documents, the contract of work bid upon herein for compensation in accordance with the following prices:

<b>Chicago Avenue Garage</b>		
<b>A-1</b>	<b>General Conditions</b>	<b>\$</b> _____
<b>A-2</b>	<b>Clean existing steel framing and restore spray-on fireproofing for Level 1 steel framing (100 LF estimated quantity) and paint Level 1 guards</b>	<b>\$</b> _____
<b>A-3</b>	<b>Remove and replace two exterior doors and frames on north elevation</b>	<b>\$</b> _____
<b>A-4</b>	<b>Paint exposed steel and install sealant cove joint at sills of steel grillage, all elevations</b>	<b>\$</b> _____
<b>A-5</b>	<b>Install buried opening at east vehicular</b>	<b>\$</b> _____

	entrance, including concrete removal and replacement		
A-6	Install two masonry anchors at front entrance sign	\$	
A-7	Install full membrane system along two designated column lines	\$	
A-8	Install membrane wear course over entire first floor level	\$	
A-9	General Allowance	\$	15,000
A-10 thru A-14	Total cost of units provided in unit pricing listed below	\$	
<b>Chicago Avenue Garage Total (Sum A)</b>		<b>\$</b>	

<b>Church Street Garage</b>			
B-1	General Conditions	\$	
B-2	Floor drain system repairs – allowance	\$	15,000
B-3	General Allowance	\$	15,000
B-4 thru B-10	Total cost of units provided in unit pricing listed below	\$	
<b>Church Street Garage Total (Sum B)</b>		<b>\$</b>	

<b>Maple Avenue Garage</b>			
C-1	General Conditions	\$	
C-2	Sealant replacement at east windows of the southeast stair tower	\$	
C-3	Removal and replacement of expansion joint seal – north end of the ground level	\$	
C-4	Sealant removal and installation of new compression seals at stair and elevator tower perimeters (“Type B” repair)	\$	
C-5	Installation of epoxied dowels at top of column at top level	\$	
C-6	Lift access to the north elevation for one day	\$	
C-7	General Allowance	\$	40,000
C-8 Thru C-18	Total cost of units provided in unit pricing listed below	\$	
<b>Maple Avenue Garage Total (Sum C)</b>		<b>\$</b>	

**Sherman Plaza Garage**

D-1	General Conditions	\$	
D-2	Traffic-bearing membrane at ramps, third floor, and roof	\$	
D-3	Floor drain system repairs – allowance	\$	15,000
D-4	Repair of one failed barrier cable	\$	
D-5	General Allowance	\$	30,000
D-6 Thru D-14	Total cost of units provided in unit pricing listed below	\$	
<b>Sherman Plaza Garage Total (Sum D)</b>		<b>\$</b>	

**TOTAL BASE BID AMOUNT:** \$ \_\_\_\_\_

**ALTERNATE 1** – Clean Existing steel framing and restore spray-on fireproofing for Level 2 steel framing (250 LF estimated quantity at Chicago Avenue Garage).

The ADD LUMP SUM PRICE, if awarded to the undersigned, shall be:

**ALTERNATE 1 AMOUNT:** \$ \_\_\_\_\_

**ALTERNATE 2** – Provide four work days for the removal of loose paint at designated beams at Sherman Plaza Garage, including providing a rolling scaffold or electric lift.

The ADD LUMP SUM PRICE, if awarded to the undersigned, shall be:

**ALTERNATE 2 AMOUNT:** \$ \_\_\_\_\_

**1.11 UNIT PRICING LIST**

The undersigned submits the following UNIT PRICING LIST to be performed as shown on the Plans and/or described in the Specifications, and agrees that items of work not specifically mentioned in the Schedule which are necessary and required to complete the work intended shall be done incidental to and as part of the work for which a unit price is given, and understands that no additional payment will be made for such incidental work from the estimated quantities shown below. Unit prices for individual line items shall be used for the project's schedule of values, pay applications and will also be used to determine the amount to ADD TO or DEDUCT FROM the contract LUMP SUM PRICE for properly authorized additional or deducted work. In the event of a change to the contract the contractor shall be limited to markup percentages as indicated in Section 01028, 1.05, A. Bidders shall examine plans and determine actual work items and quantities for the work involved for bid analysis by the Owner.

Item	Description	Unit	Base Bid Quantity	Add Cost *	Deduct Cost **
A-10	Remove and replace bonded topping concrete on Ground Level	Sq Ft	200	\$	\$

A-11	Repair concrete encasement at base of Ground Level steel columns	Sq Ft	25	\$	\$
A-12	Rout and seal concrete cracks	Lin Ft	400	\$	\$
A-13	Grind and point CMU mortar joints	Lin Ft	300		
A-14	Replace CMU face shell	Each	10	\$	\$
B-4	Partial depth vertical and overhead concrete repair	Sq Ft	200	\$	\$
B-5	Partial depth top surface concrete repair	Sq Ft	200	\$	\$
B-6	Slab-on-ground and curb concrete repair	Sq Ft	50	\$	\$
B-7	Post-tensioning grout pocket repair	Each	10	\$	\$
B-8	Application of full traffic-bearing waterproofing membrane	Sq Ft	200	\$	\$
B-9	Sealant replacement	Lin Ft	600	\$	\$
B-10	Replacement of joint seal at doorway threshold	Each	10	\$	\$
C-8	Partial depth vertical and overhead concrete repair	Sq Ft	250	\$	\$
C-9	Partial depth top surface concrete repair	Sq Ft	300	\$	\$
C-10	Slab-on-ground and curb concrete repairs	Sq Ft	30	\$	\$
C-11	Post-tensioning grout pocket repair	Each	350	\$	\$
C-12	Installation of full traffic-bearing waterproofing membrane system	Sq Ft	100	\$	\$
C-13	Sealant replacement at cove joints ("Type A" sealant)	Lin Ft	7500	\$	\$
C-14	Sealant replacement at wall joints at garage interior ("Type C" sealant)	Lin Ft	1500	\$	\$
C-15	Rout and seal cracks	Lin Ft	1500	\$	\$
C-16	Repair of small spall at stair tread along nosing	Each	220	\$	\$
C-17	Repairs to railing post base pockets	Each	50	\$	\$
C-18	Grinding and pointing of CMU mortar joints	Lin Ft	200	\$	\$
D-6	Partial depth vertical and overhead concrete repair	Sq Ft	25	\$	\$
D-7	Partial depth top surface concrete repairs	Sq Ft	75	\$	\$

D-8	Post-tensioning grout pocket repairs	Each	60	\$	\$
D-9	Installation of full traffic-bearing waterproofing membrane	Sq Ft	1000	\$	\$
D-10	Slab on ground and curb repairs	Sq Ft	20	\$	\$
D-11	Replace sealant in existing cracks and narrow joints	Lin Ft	8000	\$	\$
D-12	Grinding and pointing of CMU mortar joints	Lin Ft	200	\$	\$
D-13	Replace CMU full unit (top course only) or face shell	Each	40	\$	\$
D-14	Façade wall panel gravity connection repair (supplemental shim installation)	Each	5	\$	\$

\* Add costs to be provided by Bidder  
 \*\* Deduct costs to be provided by Bidder

1.12 BID SECURITY

If required by the bid documents, a scanned copy of the bid bond must be included with the bid electronic submission. The City is currently not able to accept a certified check, bank cashier's check or electronic bid bond at this time.

- A. The City of Evanston Civic Center is unable to receive in person drop-off and it is closed to the public. The original bid bond must be mailed within ten (10) days after the due date, to the City of Evanston Purchasing Department, 2100 Ridge Avenue - Room 4200 Evanston, Illinois 60201 Attention Purchasing Manager using the USPS (certified or priority), UPS or FedEx mail options in order to have a tracking number.
- B. Accompanying this electronic submittal is a scanned copy of a bank draft, bid bond, Cashier's check or Certified check as surety in the amount of not less than five percent (5%) of the Total Bid payable to the City of Evanston.

The amount of the check or draft is: \$ \_\_\_\_\_

If this bid is accepted and the undersigned shall fail to execute a contract and contract bond as required it is hereby agreed that the amount of the check or draft or bidder's bond substituted in lieu thereof, shall become the property of the City and shall be considered as payment of damages due to delay and other causes suffered by the City because of the failure to execute said contract and contract bond; otherwise said check or draft shall be returned to the undersigned.

In the event that one check or draft is intended to cover two or more bids, the amount must be equal to the sum of the project proposal guarantees of the individual sections



covered.

If the check or draft is placed on another project proposal, state below where it may be found, as follows: The check or draft will be found in the project proposal for:

\_\_\_\_\_.

1.13 PERFORMANCE/PAYMENT BOND

The undersigned bidder agrees to provide Performance Bond and Payment Bond executed in accordance with Contract Performance Bond form furnished by and acceptable to the Owner written with \_\_\_\_\_

\_\_\_\_\_ in the amount of 100% of the Contract Sum (Total Base Bid and all accepted alternatives and adjustments) the cost of which is included in the Bid.

Cost of bond for change order is \_\_\_\_\_ percent of change order cost.

1.14 LIQUIDATED DAMAGES

The undersigned Bidder understands and agrees to the provisions stated under "LIQUIDATED DAMAGES" in the General Conditions and shall be assessed at the specified daily rate for each calendar day or partial calendar day until completion as defined herein.

1.15 MATERIAL SUBSTITUTION SHEET

The following is a schedule of substitute materials I propose to furnish on this job, with the difference in price being added to or deducted from the Base Bid. The Base Bid is understood to include only those items which are definitely specified by trade names or otherwise.

I understand that if no price difference is indicated, then the selection of materials is optional with the Owner, and approval or rejection of the substitution below will be indicated prior to signing of Contracts.

<u>PRODUCT NAME AND/OR MANUFACTURER</u>	<u>ADD</u>	<u>DEDUCT</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

1.16 PROPOSAL SIGNATURE (REQUIRED)

A. SOLE PROPRIETOR

Signature of Bidder: \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_, 20\_\_

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

Commission Expires: \_\_\_\_\_

B. PARTNERSHIP

Signature of All Partners: \_\_\_\_\_

\_\_\_\_\_  
Name (typed or printed)

\_\_\_\_\_  
Name (typed or printed)

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_, 20\_\_

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

Commission Expires: \_\_\_\_\_

C. CORPORATION

Signature of Authorized Official: \_\_\_\_\_

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

Name above (typed or printed): \_\_\_\_\_

(If other than the president, attach a certified copy of that section of corporate by-laws or other authorization by the Corporation which permits the person to execute the offer for the Corporation.)

(Corporate Seal)

Attest: \_\_\_\_\_  
Secretary

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_, 20\_\_

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

Commission Expires: \_\_\_\_\_

1.17 DISCLOSURE

- A. The undersigned duly sworn deposes and says on oath that the bidder has withheld no disclosures of ownership interest and the information provided herein to the best of its knowledge is current and said undersigned has not entered into any agreement with any other bidder or prospective bidder or with any other person, firm or corporation relating to the price named in said proposal or any other proposal, nor any agreement or arrangement under which any person, firm or corporation is to refrain from bidding, nor any agreement or arrangement for any act or omission in restraint of free competition among bidders and has not disclosed to any person, firm or corporation the terms of this bid or the price named herein.

Bidder: \_\_\_\_\_

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

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

1.18 CONTACTS

- A. In the event the Evanston City Council approves this bid response, list the name, address, telephone, and fax number of the person to be contacted:

Bidder: \_\_\_\_\_

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

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

1.19 REFERENCES

A. Provide three (3) references for which your firm has completed work of a similar scope in the past.

1. Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Contract Value: \_\_\_\_\_  
Contract Dates: \_\_\_\_\_

2. Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Contract Value: \_\_\_\_\_  
Contract Dates: \_\_\_\_\_

3. Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Contract Value: \_\_\_\_\_  
Contract Dates: \_\_\_\_\_

## **EXHIBIT B**

### **City of Evanston M/W/EBE Policy**

A City of Evanston goal is to provide contracting and sub-contracting opportunities to Minority Business Enterprises, Women Business Enterprises, and Evanston Business Enterprises. The goal of the Minority, Women and Evanston Business Enterprise Program (M/W/EBE) is to assist such businesses with opportunities to grow. To assist such growth, the City's goal is to have general contractors utilize M/W/EBEs to perform no less than 25% of the awarded contract.

Firms bidding on projects with the City must work to meet the 25% goal or request a waiver from participation. It is advised that bidders place advertisements requesting sub-contractors and that they email or contact individual firms that would be appropriate to partner in response to the project. For samples of possible advertisements, see the City of Evanston's Business Diversity Section <http://www.cityofevanston.org/business/business-diversity/> ([Sample Advertisement](#)). If you request a paper copy of the additional documents, it will be available free of charge from the Purchasing Office, 2100 Ridge Road Suite 4200, Evanston, IL 60201.

If a bidder is unable to meet the required M/W/EBE goal, the Bidder must seek a waiver or modification of the goal on the attached forms. Bidder must include:

1. A narrative describing the Bidder's efforts to secure M/W/EBE participation prior to the bid opening.
2. Documentation of each of the assist agencies that were contacted, the date and individual who was contacted, and the result of the conversation (see form)
3. A letter attesting to instances where the bidder has not received inquiries/proposals from qualified M/W/EBEs
4. Names of owners, addresses, telephone numbers, date and time and method of contact of qualified M/W/EBE who submitted a proposal but was not found acceptable.
5. Names of owners, addresses, telephone numbers, date and time of contact of at least 15 qualified M/W/EBEs the bidder solicited for proposals for work directly related to the Bid prior to the bid opening (copies must be attached).

If a bidder is selected with a Sub-contractor listed to meet the M/W/EBE goal, a "monthly utilization report" will be due to the City prior to each payment being issued to the Contractor. This report will include documentation of the name of the firm hired, the type of work that firm performed, etc. Should the M/W/EBE not be paid according to the schedule proposed in this document, the City reserves the right to cancel the contract. Examples of this monthly form can be found on the City's website: <http://www.cityofevanston.org/business/business-diversity/> ([M/W/EBE Monthly Utilization Report](#)).

**EXHIBIT C**

**M/W/EBE PARTICIPATION COMPLIANCE FORM**

I do hereby certify that

\_\_\_\_\_ (Name of firm) intends to participate as a Subcontractor or General Contractor on the project referenced above.

This firm is a (check only one):

\_\_\_\_\_ Minority Business Enterprise (MBE), a firm that is at least 51% managed and controlled by a minority, certified by a certifying agency within Illinois.

\_\_\_\_\_ Women's Business Enterprise (WBE), a firm that is at least 51% managed and controlled by a woman, certified by a certifying agency within Illinois.

\_\_\_\_\_ Evanston Based Enterprise (EBE), a firm located in Evanston for a minimum of one year and which performs a "commercially useful function".

Total proposed price of response \$ \_\_\_\_\_

Amount to be performed by a M/W/EBE \$ \_\_\_\_\_

Percentage of work to be performed by a M/W/EBE \_\_\_\_\_%

Information on the M/W/EBE Utilized:

Name \_\_\_\_\_

Address \_\_\_\_\_

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

Signature of firm attesting to participation \_\_\_\_\_

Title and Date \_\_\_\_\_

Type of work to be performed \_\_\_\_\_

Please attach:

1. Proper certification documentation if applying as a M/WBE and check the appropriate box below. This M/WBE will be applying with documentation from:

- |  |  |
|--|--|
| <input type="checkbox"/> Cook County           | <input type="checkbox"/> State Certification                           |
| <input type="checkbox"/> Federal Certification | <input type="checkbox"/> Women's Business Enterprise National Council  |
| <input type="checkbox"/> City of Chicago       | <input type="checkbox"/> Chicago Minority Supplier Development Council |

2. Attach business license if applying as an EBE

**EXHIBIT C**

**M/W/EBE UTILIZATION SUMMARY REPORT**

The following Schedule accurately reflects the value of each MBE/WBE/EBE sub-agreement, the amounts of money paid to each to date, and this Pay Request. The total proposed price of response submitted is \_\_\_\_\_.

<b>MBE/WBE/EBE FIRM NAME</b>	<b>FIRM TYPE (MBE/WBE/EBE)</b>	<b>SERVICES PERFORMED</b>	<b>AMOUNT OF SUB-CONTRACT</b>	<b>PERCENT OF TOTAL CONTRACT AMOUNT</b>
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
<b>TOTAL</b>			\$	

**EXHIBIT D**

**M/W/EBE PARTICIPATION WAIVER REQUEST**

I am \_\_\_\_\_ of \_\_\_\_\_, and I have authority to  
(Title) (Name of Firm)

execute this certification on behalf of the firm. I \_\_\_\_\_ do  
(Name)

hereby certify that this firm seeks to waive all or part of this M/W/EBE participation goal for the following reason(s):

**(CHECK ALL THAT APPLY. SPECIFIC SUPPORTING DOCUMENTATION MUST BE ATTACHED.)**

\_\_\_\_\_ 1. No M/W/EBEs responded to our invitation to bid.

\_\_\_\_\_ 2. An insufficient number of firms responded to our invitation to bid.

**For #1 & 2, please provide a narrative describing the outreach efforts from your firm and proof of contacting at least 15 qualified M/W/EBEs prior to the bid opening. Also, please attach the accompanying form with notes regarding contacting the Assist Agencies.**

\_\_\_\_\_ 3. No sub-contracting opportunities exist.

**Please provide a written explanation of why sub-contracting is not feasible.**

\_\_\_\_\_ 4. M/W/EBE participation is impracticable.

**Please provide a written explanation of why M/W/EBE participation is impracticable.**

Therefore, we request to waive \_\_\_\_\_ of the 25% utilization goal for a revised goal of \_\_\_\_\_%.

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

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

(Signature)



**EXHIBIT E**

**Construction Contractors' Assistance Organizations ("Assist Agencies") Form**

AGENCY	DATE CONTACTED	CONTACT PERSON	RESULT OF CONVERSATION
<b>Association of Asian Construction Enterprises (AACE)</b> 5500 Touhy Ave., Unit K Skokie, IL. 60077 Phone: 847-5259693 Perry Nakachii, President			
<b>Black Contractors United (BCU)</b> 400 W. 76th Street Chicago, IL 60620 Phone: 773-483-4000; Fax: 773-483-4150 Email: <a href="mailto:bcunewera@ameritech.net">bcunewera@ameritech.net</a>			
<b>Chicago Minority Business Development Council</b> 105 West Adams Street Chicago, Illinois 60603 Phone: 312-755-8880; Fax: 312-755-8890 Email: <a href="mailto:info@chicagomsgdc.org">info@chicagomsgdc.org</a> Shelia Hill, President			
<b>Evanston Minority Business Consortium, Inc.</b> P.O. Box 5683 Evanston, Illinois 60204 Phone: 847-492-0177 Email: <a href="mailto:embcinc@aol.com">embcinc@aol.com</a>			
<b>Federation of Women Contractors</b> 5650 S. Archer Avenue Chicago, Illinois 60638 Phone: 312-360-1122; Fax: 312-360-0239 Email: <a href="mailto:FWCChicago@aol.com">FWCChicago@aol.com</a> Contact Person: Beth Doria Maureen Jung, President			
<b>Hispanic American Construction Industry (HACIA)</b> 901 W. Jackson, Suite 205 Chicago, IL 60607 Phone: 312-666-5910; Fax: 312-666-5692 Email: <a href="mailto:info@haciaworks.org">info@haciaworks.org</a>			
<b>Women's Business Development Ctr.</b> 8 S. Michigan Ave, Suite 400 Chicago, Illinois 60603 Phone: 312-853-3477 X220; Fax: 312-853-0145 Email: <a href="mailto:wbdc@wbdc.org">wbdc@wbdc.org</a> Carol Dougal, Director			

**PLEASE NOTE: Use of Construction Contractor's Assistance Organization (Assist Agencies") Form and agencies are for use as a resource only. The agencies and or vendors listed are not referrals or recommendations by the City of Evanston.**

## EXHIBIT F

### CITY OF EVANSTON LOCAL EMPLOYMENT PROGRAM (LEP) COMPLIANCE

Effective Date January 1, 2015

#### City of Evanston Ordinance 60-O-14, Local Employment Program (LEP) New Penalties:

- **Ordinance 60-O-14**, Amendment to the MWEBE/LEP revising the penalty section from a \$100/per day to a 1.0% of total project value penalty can be found at: Ordinance 60-O-14 Amendment MWEBE LEP of the Evanston City Code Section 1-17-1 (C) can be found at Municode Library. The following are excerpts from Ordinance 60-O-14, Amending City Code Section 1-17-1(C) (11): Penalty.

**If the contractor or sub-contractor fails to comply:** The City may impose a fine up to one percent (1.0%) of the approved project price in total. Contractors or sub-contractors that are out of compliance due to a resident termination or resignation shall immediately notify the Business Workforce Compliance Coordinator of this occurrence within two (2) business days. Subsequently, the contractor or sub-contractor shall have five (5) additional business days to replace a terminated or resigned worker with another resident.

**If the contractor or sub-contractor fails to comply:** If the contractor or sub-contractor fails to make the replacement or to notify the Business Workforce Compliance Coordinator of this occurrence, the offending party will also be subject to a penalty up to one percent (1.0%) of the approved project price. If the noncompliant contractor makes a good faith effort to replace the resident, the fine may be waived.

**If the contractor or sub-contractor fails to comply:** At the sole discretion of the City, a contractor or sub-contractor that has violated the terms of the Local Employment Program within a three-year period may be determined a non-responsible bidder and excluded from bidding on future projects for a period of not less than one year.

**If the employee (LEP Evanston resident) fails to comply:** At the sole discretion of the City, an employee that has been hired through the LEP may be removed from the program for a period of not less than one year for failing to adhere to program guidelines or due to termination by the contractor for cause. Such termination process will be reviewed by the Business Workforce Compliance Coordinator.

**\*\*Detailed Local Employment Program Instructions “How to Comply” can be found at: [Local Employment Program Detailed Instructions](#)**

**Local Employment Program or Exhibit F Questions:** City staff is available for assistance to help with compliance. Submit questions in writing to Tammi Nunez, Purchasing Manager at [tnunez@cityofevanston.org](mailto:tnunez@cityofevanston.org).

**EXHIBIT F**

**LOCAL EMPLOYMENT PROGRAM COMPLIANCE**  
**CITY CODE SECTION 1-17-1(C): LOCAL EMPLOYMENT PROGRAM**

I have read and understood the requirements of the City of Evanston Local Employment Program (“LEP”) as set forth in City of Evanston Code Section 1-17-1(C): Local Employment Program. I intend to comply with the program as follows:

Estimated total labor cost = \$ \_\_\_\_\_ 15% of total labor cost = \$ \_\_\_\_\_

\_\_\_\_\_ My total bid, including all alternates, is under \$250,000, and the LEP does not apply.

\_\_\_\_\_ My total bid, including all alternates, is equal to or greater than \$250,000, and I already employ, and will continue to employ for the duration of the contract for which I am submitting this bid, Evanston residents (residing in zip codes 60201 or 60202) for at least 15% of all hours worked at the construction site by construction trade workers.

\_\_\_\_\_ My total bid, including all alternates, is equal to or greater than \$250,000, and I will employ, for the duration of the contract for which I am submitting this bid, through use of the City of Evanston database or otherwise, Evanston residents (residing in zip codes 60201 or 60202) for at least 15% of all hours worked at the construction site by construction trade workers.

\_\_\_\_\_ My total bid, including all alternates, is equal to or greater than \$250,000, and I have been unable to comply with the LEP requirements but am willing to work with the City to achieve compliance.

\_\_\_\_\_ My total bid, including all alternates, is equal to or greater than \$250,000, and after having made sincere attempt to comply as noted below, I seek a waiver on a portion or all of the LEP requirements on this contract. Complete next section “Reasons for Waiver Request” below.

**I UNDERSTAND THAT FAILURE TO COMPLY WITH THE LEP, REGARDLESS OF INTENT, MAY RESULT IN MAXIMUM PENALTY AS SET FORTH IN CITY CODE SECTION 1-17-1(C)(11), AS AMENDED.**

**WAIVER WILL BE GRANTED ONLY AFTER SINCERE ATTEMPT TO COMPLY\***

REASONS FOR WAIVER REQUEST: PLEASE CHECK ALL THAT APPLY AND COMPLETE INFORMATION REQUESTED:

- 1. I have made sincere attempt as otherwise indicated below, but have nonetheless been unable to comply.
  - a. I do or will employ Evanston residents for the project, but such employment amounts to \_\_\_\_% of total labor cost.
- 2. The nature of the job is so technical that after having made sincere attempt as otherwise indicated below, I have been unable to locate any Evanston residents qualified to perform any aspects of the work. Please describe applicable job requirements/qualifications.                      Attach                      separate                      sheet                      if                      necessary:  
\_\_\_\_\_  
\_\_\_\_\_

\*THE FOLLOWING DEMONSTRATE **SINCERE ATTEMPT TO COMPLY**: PLEASE CHECK EACH BOX COMPLETED, AS APPLICABLE:

- 3. I have utilized the local resident database and otherwise worked with the City in attempt to hire Evanston residents in compliance with LEP on this project, and have nonetheless been unable to comply;
- 4. I have placed one or more ads in a local newspaper seeking to hire Evanston residents in compliance with LEP on this project, and have nonetheless been unable to comply; and
- 5. If I am utilizing union labor, I have contacted Chicagoland labor unions to request Evanston residents for employment in compliance with LEP on this project, and have nonetheless been unable to comply.

I have read The City of Evanston, Local Employment Program (LEP) requirements as set forth in City Code Section 1-17-1(C): Local Employment Program. I understand and will comply with the LEP requirements for this project with respect to the job and/or any waiver, as applicable. **I UNDERSTAND THAT IF MY APPLICATION IS NOT COMPLETE, MY BID MUST BE REJECTED.**

SIGNED:

\_\_\_\_\_  
Signature    Printed Name and Title    Date

On behalf of Company: \_\_\_\_\_

**EXHIBIT G**

**CERTIFICATION OF BIDDER REGARDING  
EQUAL EMPLOYMENT OPPORTUNITY  
(Only if Contract Exceeds \$10,000)**

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed sub-contractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or sub-contract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

**CERTIFICATION OF BIDDER**

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Name and Address of Bidder (Include ZIP Code)

IRS EMPLOYER I.D. NUMBER 36- \_\_\_\_\_

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1. Bidder has participated in a previous contract or sub-contract subject to the Equal Opportunity Clause.                      \_\_\_Yes                      \_\_\_No
  
2. Bidder has filed all compliance reports due under applicable instructions.                      \_\_\_Yes                      \_\_\_No
  
3. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended?                      \_\_\_Yes                      \_\_\_No

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

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

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

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

**EXHIBIT H**

**DISCLOSURE OF OWNERSHIP INTERESTS**

City of Evanston Ordinance 15-0-78 requires all persons (APPLICANT) seeking to do business with the City to provide the following information with their bid. Every question must be answered. If the question is not applicable, answer with "NA".

APPLICANT NAME: \_\_\_\_\_

APPLICANT ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

FAX NUMBER: \_\_\_\_\_

APPLICANT is (**Check One**)

- 1. Corporation ( )
- 2. Partnership ( )
- 3. Sole Owner ( )
- 4. Association ( )
- 5. Other ( ) \_\_\_\_\_

Please answer the following questions on a separate attached sheet if necessary.

**SECTION I - CORPORATION**

1a. Names and addresses of all Officers and Directors of Corporation.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1b. (Answer only if corporation has 33 or more shareholders.) Names and addresses of all those shareholders owning shares equal to or in excess of 3% of the proportionate ownership interest and the percentage of shareholder interest. (Note: Corporations which submit S.E.C. form 10K may substitute that statement for the material required herein.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1c. (Answer only if corporation has fewer than 33 shareholders.) Names and addresses of all shareholders and percentage of interest of each herein. (Note: Corporations which submit S.E.C. form 10K may substitute that statement for the material requested herein.)

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**SECTION 2 - PARTNERSHIP/ASSOCIATION/JOINT VENTURE**

2a. The name, address, and percentage of interest of each partner whose interests therein, whether limited or general is equal to or in excess of 3%.

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2b. Associations: The name and address of all officers, directors, and other members with 3% or greater interest.

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**SECTION 3 - TRUSTS**

3a. Trust number and institution.

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3b. Name and address of trustee or estate administrator.

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3c. Trust or estate beneficiaries: Name, address, and percentage of interest in total entity.

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**SECTION 4 - ALL APPLICANTS - ADDITIONAL DISCLOSURE**

4a. Specify which, if any, interests disclosed in Section 1, 2, or 3 are being held by an agent or nominee, and give the name and address of principal.

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4b. If any interest named in Section 1, 2, or 3 is being held by a "holding" corporation or other "holding" entity not an individual, state the names and addresses of all parties holding more than a 3% interest in that "holding" corporation or entity as required in 1(a), 1(b), 1(c), 2(a), and 2(b).

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4c. If "constructive control" of any interest named in Sections 1, 2, 3, or 4 is held by another party, give name and address of party with constructive control. ("Constructive control" refers to control established through voting trusts, proxies, or special terms of venture of partnership agreements.)

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I have not withheld disclosure of any interest known to me. Information provided is accurate and current.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Person Preparing Statement

\_\_\_\_\_  
Title

ATTEST: \_\_\_\_\_  
Notary Public

(Notary Seal)

Commission Expires: \_\_\_\_\_



**EXHIBIT I**

**ADDITIONAL INFORMATION SHEET**

Bid/Proposal Name: \_\_\_\_\_

Bid/Proposal Number #: \_\_\_\_\_

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

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

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

City, State, Zip: \_\_\_\_\_

Telephone/FAX: # \_\_\_\_\_

E-mail: \_\_\_\_\_

**Comments:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**EXHIBIT J**

**CERTIFICATE OF COMPLIANCE  
WITH PREVAILING WAGE RATE ACT**

The undersigned, upon being first duly sworn, hereby certifies to the City of Evanston, Cook, County, Illinois, that all work under this contract shall comply with the Prevailing Wage Rate Act of the State of Illinois, 820 ILCS 130 *et seq*, and as amended by Public Acts 86-799 and 86-693 and current City of Evanston Resolution, with rates to be paid in effect at time work is performed. Contractors shall submit monthly certified payroll records to the city.

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

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

By: State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day

of \_\_\_\_\_, \_\_\_\_\_.

Notary Public

**EXHIBIT K**

**MAJOR SUB-CONTRACTORS LISTING**

The following Tabulation of Major Sub-contractors shall be attached and made a condition of the Bid. The Bidder expressly understands and agrees to the following provisions:

- A. If awarded a Contract as a result of this Bid, the major sub-contractors used in the prosecution of the work will be those listed below.
- B. The following list includes all sub-contractors who will perform work representing 5% (five percent) or more of the total Base Bid.
- C. The sub-contractors listed below are financially responsible and are qualified to perform the work required.
- D. The sub-contractors listed below comply with the requirements of the Contract Documents.
- E. Any substitutions in the sub-contractors listed below shall be requested in writing by the Contractor and must be approved in writing by the Owner. All pertinent financial, performance, insurance and other applicable information shall be submitted with the request for substitutions(s). Owner shall respond to such requests within 14 calendar days following the submission of all necessary information to the full satisfaction of the Owner.

<b><u>Category Number</u></b>	<b><u>Name of Sub-contractor</u></b>	<b><u>Address and Telephone</u></b>

(Attach additional sheets as required)

**END OF SECTION**

**EXHIBIT L**

**CONFLICT OF INTEREST**

\_\_\_\_\_, hereby certifies that it has conducted an investigation into whether an actual or potential conflict of interest exists between the Bidder, its owners and employees and any official or employee of the City of Evanston.

Bidder further certifies that it has disclosed any such actual or potential conflict of interest and acknowledges if Bidder/proposer has not disclosed any actual or potential conflict of interest, the City of Evanston may disqualify the bid/proposal.

\_\_\_\_\_  
(Name of Bidder/proposer if the Bidder/proposer is an Individual)  
(Name of Partner if the Bidder/proposer is a Partnership)  
(Name of Officer if the Bidder/proposer is a Corporation)

The above statements must be subscribed and sworn to before a notary public.  
Subscribed and Sworn to this \_\_\_\_\_ day of \_\_\_\_\_, 20

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

(Notary Seal)

Commission Expires: \_\_\_\_\_

**EXHIBIT M**

**SIGNATURE FORM**

**THE SECTION BELOW MUST BE COMPLETED IN FULL AND SIGNED**

The undersigned hereby certifies that they have read and understand the contents of this solicitation and attached service agreements, and agree to furnish at the prices shown any or all of the items above, subject to all instructions, conditions, specifications and attachments hereto. Failure to have read all the provisions of this solicitation shall not be cause to alter any resulting contract or to accept any request for additional compensation. By signing this document, the proposer hereby certifies that they are not barred from bidding on this contract as a result bid rigging or bid rotating or any similar offense (720 ILCS 5/33 E-3, E-4).

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

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

Typed/Printed Name: \_\_\_\_\_

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

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

Telephone Number: \_\_\_\_\_

E-mail \_\_\_\_\_

Fax Number: \_\_\_\_\_

**Exhibit N**

**Contractor Services Agreement Acknowledgement Page**

The City has attached its standard contractor services agreement as an exhibit to this bid document. Identify all exceptions to the agreement that would prevent your firm from executing it. **The City shall not consider or negotiate regarding exceptions submitted at any time after the submission of the Bidder's response.** *Please check one of the following statements:*

\_\_\_ I have read the contractor services agreement and plan on executing the agreement without any exceptions.

\_\_\_ My firm cannot execute the City's standard contractor service agreement unless the exceptions noted below or in the attached sample contractor services agreement are made. **\*\*\*Please be aware that submitting exceptions to the contract may impact the likelihood of your firm being selected to perform this work.**

List exceptions in the area below:

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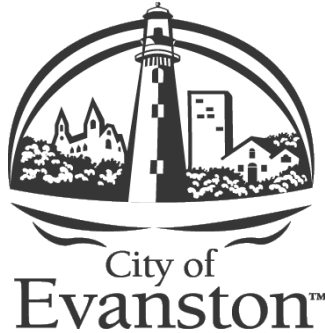
**Authorized Signature:** \_\_\_\_\_

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

**Typed/Printed Name and Title:** \_\_\_\_\_

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

**Exhibit N**



**CONTRACTOR SERVICES AGREEMENT**

The parties referenced herein desire to enter into an agreement for professional services for

*[Insert name of the project]*

**(BID #XX-XX)**

THIS AGREEMENT (hereinafter referred to as the “Agreement”) is entered into between the City of Evanston, an Illinois municipal corporation with offices located at 2100 Ridge Avenue, Evanston Illinois 60201 (hereinafter referred to as the “City”), and *[Insert Contractor name here]*, with offices located at *[Insert Contractor address here]*, (hereinafter referred to as the “Contractor”). Compensation (the “Compensation”) for all basic services provided by the Contractor pursuant to the terms of this Agreement shall not exceed *[\$[Insert fee here]]*.

*Revision March 2020*

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## RECITALS

WHEREAS, the City intends to retain the services of a qualified and experienced contractor for the following:

*[Insert whatever project specific background and language is appropriate]*

WHEREAS, this Agreement shall include the following documents which are attached hereto:

- a) City of Evanston RFQ/RFP/Bid \_\_\_\_\_, attached as Exhibit A.
- b) Contractor's response to RFQ/RFP/Bid \_\_\_\_\_, attached as Exhibit B.
- c) Any sub-contractor sub-contracts related to this Agreement, attached as Exhibit C.
- d) Project Fee Schedule and hourly rates, attached as Exhibit D *(if appropriate)*.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, the parties agree as follows:

### 1 Services and Duties of the Contractor

1.1 The Contractor shall perform professional services and provide equipment (the "Work") in accordance with Exhibits A, B, C and D. The Contractor retains the right to control the manner of performance of the services provided for in this Agreement and is an independent contractor and not agent or an employee of the City. All employees and sub-contractors of the Contractor shall likewise not be considered to be employees of the City. Contractor is solely responsible for the means and methods of all work performed under the terms of this Agreement for this Project ("the Project"). Contractor is an independent Contractor and is solely responsible for all taxes, withholdings, and other statutory or contractual obligations of any sort, including but not limited to, Worker's Compensation Insurance. Nothing in this Agreement accords any third-party beneficiary rights whatsoever to any non-party to this Agreement that any non-party may seek to enforce. Contractor acknowledges and agrees that should Contractor or its sub-contractors provide false information, or fail to be or remain in compliance with this Agreement; the City may void this Agreement.

1.2 The Contractor warrants and states that it has read the Contract Documents, and agrees to be bound thereby, including all performance guarantees as respects Contractor's work and all indemnity and insurance requirements. Contractor further affirms that it has visited the Project site and has become familiar with all special conditions, if any, at the Project site. Contractor shall perform the Work and its obligations under this Agreement in accordance with and subject to the Contract Documents to the full extent that each such provision is applicable to the Work. Contractor shall take necessary precautions to properly protect the Work of others, if any, from damage caused by operations under this Agreement. In addition, Contractor shall protect the work during normal and adverse weather conditions until the Project is complete and accepted by the City, or until the Contractor has fully completed its work under this Agreement. Contractor's obligations include, but are not limited to, placing and adequately maintaining at or about all locations of Project work, sufficient guards, barricades, lights, and enclosures to protect the Work.

EXHIBIT N

1.3 The Contractor shall not have any public or private interest and shall not acquire directly or indirectly any such interest which conflicts in any manner with the performance of its services under this Agreement.

1.4 The Contractor shall designate, in writing, a person to act as its Project Manager for the work to be performed under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define the Contractor's policies and decisions with respect to the work covered by this Agreement.

1.5 The Contractor shall employ only persons duly licensed by the State of Illinois to perform the professional services required under this Agreement for which applicable Illinois law requires a license, subject to prior approval of the City. The Contractor shall employ only well qualified persons to perform any of the remaining services required under this Agreement, also subject to prior approval of the City. The City reserves the right to require replacement of Contractor, sub-contractor, or supplier personnel for any reason. Contractor will replace the unacceptable personnel at no charge to the City. For all solicitations or advertisements placed by or on behalf of Contractor for employees for this Project it will state that the Contractor is an Equal Opportunity Employer.

1.6 Pursuant to the Illinois Freedom of Information Act, 5 ILCS 140/7(2), records in the possession of others whom the City has contracted with to perform a governmental function are covered by the Act and subject to disclosure within limited statutory timeframes (five (5) working days with a possible five (5) working day extension). Upon notification from the City that it has received a Freedom of Information Act request that calls for records within the Contractor's control, the Contractor shall promptly provide all requested records to the City so that the City may comply with the request within the required timeframe. The City and the Contractor shall cooperate to determine what records are subject to such a request and whether or not any exemption to the disclosure of such records, or part thereof, is applicable. Contractor shall indemnify and defend the City from and against all claims arising from the City's exceptions to disclosing certain records which Contractor may designate as proprietary or confidential. Compliance by the City with an opinion or a directive from the Illinois Public Access Counselor or the Attorney General under FOIA, or with a decision or order of Court with jurisdiction over the City, shall not be a violation of this Section.

1.7 The Contractor shall obtain prior approval from the City prior to sub-contracting with any entity or person to perform any of the work required under this Agreement. The Contractor may, upon request of the City, submit to the City a draft sub-contractor agreement for City review and approval prior to the execution of such an agreement. Any previously entered into sub-contractor agreement(s) are attached as Exhibit C. If the Contractor sub-contracts any of the services to be performed under this Agreement, the sub-contractor agreement shall provide that the services to be performed under any such agreement shall not be sublet, sold, transferred, assigned or otherwise disposed of to another entity or person without the City's prior written consent. The Contractor shall be responsible for the accuracy and quality of any sub-contractor's work.

1.8 The Contractor shall cooperate fully with the City, other City contractors, other municipalities and local government officials, public utility companies, and others, as may be directed by

EXHIBIT N

the City. This shall include attendance at meetings, discussions and hearings as requested by the City. This cooperation shall extend to any investigation, hearings or meetings convened or instituted by OSHA relative to this Project, as necessary. Contractor shall cooperate with the City in scheduling and performing its Work to avoid conflict, delay in or interference with the work of others, if any, at the Project.

1.9 The Contractor acknowledges that it shall enforce and comply with all applicable Occupational Safety and Health Administration standards (OSHA) for this Project in effect as of the date of the execution of this Agreement, or as otherwise promulgated by OSHA in the future taking effect during the pendency of this Project. Contractor shall enforce all such standards and ensure compliance thereto as to its own agents and employees, and as to the agents and employees of any sub-contractor throughout the course of this Project. Contractor is solely responsible for enforcing and complying with all applicable safety standards and requirements on this Project, and is solely responsible for correcting any practices or procedures which do not comply with the applicable safety standards and requirements for this Project. Any Project specific safety requirements applicable to this Project must be followed by Contractor and any sub-contractor(s) on the Project. Additionally, all such safety requirements shall be made a part of any sub-contractor agreement.

1.10 The Contractor shall submit to the City a progress report each month this Agreement is in effect. The report shall include the following items:

- a) A summary of the Contractor's project activities, and any sub-contractor project activities that have taken place during the invoice period;
- b) A summary of the Contractor's project activities and any sub-contractor project activities, that shall take place during the next invoice period;
- c) A list of outstanding items due to or from the City; and
- d) A status of the Project schedule.

1.11 The Contractor shall perform the work required under this Agreement pursuant to high quality industry standards expected by the City. The Contractor shall apply for and receive all appropriate permits before performing any work in the City. The Contractor shall also provide the appropriate permit drawings for Building Permits to be issued for the Project, if said permits are obligated by the Project. The City will assist the Contractor with obtaining the appropriate building and right-of-way permits.

1.12 The Contractor shall provide drawings of record, in the following 3 electronic formats for all locations where equipment has been installed and/or work has been performed. The electronic formats required by this Section 1.12 are Auto Cad Version 2007, ArcView and PDF.

1.13 Contractor recognizes that proper cleanup and removal of construction debris is an important safety consideration. The Contractor shall be solely responsible for daily construction site/area cleanup and removal of all construction debris in accordance with City-approved disposal practices. Contractor shall be solely responsible for identifying and removing at its expense all hazardous material and waste which it uses and generates.

EXHIBIT N

1.14 To the extent that there is any conflict between a provision specified in this Agreement, with a provision specified in any of the other Contract Documents, as defined in Section 1.15, this Agreement shall control. The City and the Contractor may amend this Section 1.14 as provided by Section 15 herein.

The Contractor acknowledges and agrees that the City has no retained control over any of the Work done pursuant to this Agreement, and that the City is expressly exempt from the retained control exception as defined in the Restatement of Torts, Second, Section 414. This provision shall survive completion, expiration, or termination of this Agreement.

1.15 The Contract Documents for this Project consist of:

- a) This Agreement;
- b) The City's RFP/RFQ, and the plans, specifications, general conditions, drawings addenda, and modifications thereto;
- c) The Contractor's response to the RFP/RFQ/Bid;
- d) Other exhibits and schedules, if any, listed in this Agreement;
- e) Amendments or Other Contract Documents, if any; and
- f) Amendments/Modifications to this Agreement issued after execution thereof.

1.16 As a condition of receiving payment, Contractor must (i) be in compliance with the Agreement, (ii) pay its employees prevailing wages when required by law (Examples of prevailing wage categories include public works, printing, janitorial, window washing, building and grounds services, site technician services, natural resource services, security guard and food services). Contractor is responsible for contacting the Illinois Dept. of Labor 217-782-6206; <http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx> to ensure compliance with prevailing wage requirements), (iii) pay its suppliers and sub-contractors according to the terms of their respective contracts, and (iv) provide lien waivers to the City upon request.

## 2 Standard Certifications

Contractor acknowledges and agrees that compliance with this section and each subsection for the term of the Agreement is a material requirement and condition of this Agreement. By executing this Agreement, Contractor certifies compliance with this section and each subsection and is under a continuing obligation to remain in compliance and report any non-compliance.

This section, and each subsection, applies to sub-contractors used on this Agreement. Contractor shall include these Standard Certifications in any sub-contract used in the performance of the Agreement.

If this Agreement extends over multiple fiscal years, Contractor and its sub-contractors shall confirm compliance with this section in the manner and format determined by the City by the date specified by the City and in no event later than January 1 of each year that this Agreement remains in effect.

EXHIBIT N

If the City determines that any certification in this section is not applicable to this Agreement, it may be stricken, subject to sole approval by the City, without affecting the remaining subsections.

2.1 As part of each certification, Contractor acknowledges and agrees that should Contractor or its sub-contractors provide false information, or fail to be or remain in compliance with the Standard Certification requirements, one or more of the following sanctions will apply:

- the Agreement may be void by operation of law,
- the City may void the Agreement, and
- Contractor and its sub-contractors may be subject to one or more of the following: suspension, debarment, denial of payment, civil fine, or criminal penalty.

2.2 By signing this Agreement, the Contractor certifies that it has not been barred from being awarded a contract with a unit of State or local Government as a result of bid rigging or bid rotating or similar offense, nor has it made any admission of guilt of such conduct that is a matter of public record. (720 ILCS 5/33 E-3, E-4).

2.3 In the event of the Contractor's noncompliance with any provision of Section 1-12-5 of the Evanston City Code, the Illinois Human Rights Act or any other applicable law, the Consultant may be declared non-responsible and therefore ineligible for future contracts or sub-contracts with the City, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

2.4 During the term of this Agreement, the Contractor agrees as follows:

- a) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, national origin or ancestry, or age or physical or mental disabilities that do not impair ability to work, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization. Consultant shall comply with all requirements of City of Evanston Code Section 1-12-5.
- b) That, in all solicitations or advertisements for employees placed by it on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, national origin, ancestry, or disability.

2.5 The Contractor certifies pursuant to the Illinois Human Rights Act (775 ILCS 5/2105 *et. seq.*), that it has a written sexual harassment policy that includes, at a minimum, the following information:

- a) The illegality of sexual harassment;

- b) The definition of sexual harassment under State law;
- c) A description of sexual harassment utilizing examples;
- d) The Contractor's internal complaint process including penalties;
- e) Legal recourse, investigation and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission, and directions on how to contact both; and
- f) Protection against retaliation as provided to the Department of Human Rights.

2.6 In accordance with the Steel Products Procurement Act (30 ILCS 565), Contractor certifies steel products used or supplied in the performance of a contract for public works shall be manufactured or produced in the U.S. unless the City grants an exemption.

2.7 Contractor certifies that it is properly formed and existing legal entity and as applicable has obtained an assumed name certificate from the appropriate authority, or has registered to conduct business in Illinois and is in good standing with the Illinois Secretary of State.

2.8 If Contractor, or any officer, director, partner, or other managerial agent of Contractor, has been convicted of a felony under the Sarbanes-Oxley Act of 2002, or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953, Contractor certifies at least five years have passed since the date of the conviction.

2.9 Contractor certifies that if more favorable terms are granted by Contractor to any similar governmental entity in any state in a contemporaneous agreement let under the same or similar financial terms and circumstances for comparable supplies or services, the more favorable terms will be applicable under this Agreement.

2.10 Contractor certifies that it is not delinquent in the payment of any fees, fines, damages, or debts to the City of Evanston.

2.11 The Contractor certifies that all Design Professionals performing the Work under this Agreement will ensure that the Project shall be designed in conformance with the Americans with Disabilities Act of 1990, 42 U.S.C. Section 12101, *et seq.*, and all regulations promulgated thereunder. Design Professional means any individual, sole proprietorship, firm, partnership, joint venture, corporation, professional corporation, or other entity that offers services under the Illinois Architecture Practice Act of 1989 (225 ILCS 305/), the Professional Engineering Practice Act of 1989 (225 ILCS 325/), the Structural Engineering Licensing Act of 1989 (225 ILCS 340/), or the Illinois Professional Land Surveyor Act of 1989 (225 ILCS 330/).

2.12 The Contractor shall comply with all federal, state and local laws, statutes, ordinances, rules, regulations, orders or other legal requirements now in force or which may be in force during the term of this Agreement. The Contractor shall comply with the Illinois Human Rights Act, 775 ILCS 5/1-101 *et. seq.*, Title VII of the Civil Rights Act of 1964, and the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 *et. seq.*

### 3 Additional Services/Change Orders

3.1 If the representative of the City responsible for the Project verbally requests the Contractor to perform additional services, the Contractor shall confirm in writing that the services have been requested and that such services are additional services. Failure of the City to respond to the Contractor's confirmation of said services within thirty (30) calendar days of receipt of the notice shall be deemed a rejection of, and refusal to pay for the additional services. Contractor shall not perform any additional services until City has confirmed approval of said additional services in writing. If authorized in writing by the City, the Contractor shall furnish, or obtain from others, additional services of the following types, which shall be paid for by the City as set forth in Section 9 of this Agreement:

- a) Additional Services due to significant changes in scope of the Project or its design, including, but not limited to, changes in size, complexity or character of construction, or time delays for completion of work when such delays are beyond the control of the Contractor;
- b) Revisions of previously approved studies, reports, design documents, drawings or specifications;
- c) Preparation of detailed renderings, exhibits or scale models for the Project;
- d) Investigations involving detailed consideration of operations, maintenance and overhead expenses for the preparation of rate schedules, earnings and expense statements, feasibility studies, appraisals and valuations, detailed quantity surveys of material and labor, and material audits or inventories required for certification of force account construction performed by the City;
- e) Services not otherwise provided for in this Agreement.

3.2 The City may, upon written notice, and without invalidating this Agreement, require changes resulting in the revision or abandonment of work already performed by the Contractor, or require other elements of the work not originally contemplated and for which full compensation is not provided in any portion of this Agreement. Any additional services, abandonment of services which were authorized by the City, or changes in services directed by the City which result in the revision of the scope of services provided for in Exhibits A, B, C, and D that cause the total Compensation due Contractor under this Agreement to exceed \$25,000 or more, or increase or decrease the contract duration by more than 30 days are subject to approval by the Evanston City Council. These actions must be addressed either in a written Change Order or in a written amendment to this Agreement approved by both parties.

3.3 Contractor acknowledges and agrees that the Public Works Construction Change Order Act, 50 ILCS 525/1 et seq. shall apply to all Change Orders for the Project. It is expressly understood and agreed to by Contractor that it shall not be entitled to any damages or Compensation from the City on account of delay or suspension of all or any part of the Work. Contractor acknowledges that delays are inherent in construction projects and Contractor assessed that risk and fully included that risk assessment within its contract sum specified in its Response to the City **RFP/RFQ/Bid** for this Project. The City shall not compensate Contractor for work that is more difficult than the contract sum specified in its Response would reflect. Delays to minor portions of the Work will not be eligible for extensions of time.

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Delays to the Project caused by labor disputes or strikes involving trades not directly related to the Project, or involving trades not affecting the Project as a whole will not be eligible for an extension of time.

The City will not grant an extension of time for a delay by the Contractor's inability to obtain materials unless the Contractor first furnishes to the City documentary proof. The proof must be provided in a timely manner in accordance with the sequence of the Contractor's operations and accepted construction schedule.

In addition to any other changes requested by City (as described in Sections 3.1 and 3.2), the Company shall be entitled to request (and the City may grant) Change Orders with respect to:

- (a) The City-caused delays;
- (b) Change in Law;
- (c) Force Majeure Events.

The foregoing events shall entitle the Contractor to a change in the Compensation for this Project, if the Contractor demonstrates that it will unavoidably incur reasonable costs as a result thereof and the Contractor provides reasonable and detailed documentary support with respect to any such price impact.

The parties agree to reasonably confer regarding any such disputes with respect to the issuance of a Change Order.

Any payment for compensable delay will only be based upon actual costs excluding, without limitation, what damages, if any, the Contractor may have reasonably avoided. The Contractor understands that this is the sole basis for recovering delay damages and explicitly waives any right to calculate daily damages for office overhead, profit, or other purported loss.

All Contractor Change Orders authorized under this Section 3 shall be made in writing. In remitting a Change Order, the Contractor must first show in writing that:

- (a) The work was outside the scope of this Agreement,
- (b) The extra work was not made necessary due to any fault of Contractor;
- (c) The circumstances said to necessitate the change in performance were not reasonably foreseeable at the time the Agreement was signed;
- (d) The change is germane to the original Agreement; and
- (e) The Change Order is in the best interest of the City and authorized by law.

Any person who fails to first obtain the City's written authorization for a Change Order commits a Class 4 felony. The written determination and the written Change Order resulting from that determination shall be preserved in the contract's file which shall be open to the public for inspection.



**The City reserves all rights and causes of action, at law or equity, to seek redress against entities or persons who violate the requirements of this Section 3. By initialing below, Contractor hereby acknowledges that it is bound by this Section 3.**

**Contractor's Initials:** \_\_\_\_\_

3.4 The Contractor is required to include the City of Evanston as a reference whenever and wherever the Contractor provides references for similar projects for a period of one (1) year from the date of Final Acceptance by the City of the Work for this Project.

## 4 Bonds

4.1 Before the Scheduled Construction Commencement Date, the Contractor is required to furnish unconditional performance and payment bonds in the amount of 100% of the Compensation as security for the faithful performance and completion of all the Contractor's obligations under the Contract Documents and covering the payment of all materials used in the performance of this Agreement and for all labor and services performed under this Agreement. All Bonds shall be issued on a form acceptable to the City. The bonds must be for the entire term of the Agreement. Failure to provide these bonds shall constitute a breach of Contractor's obligations under this Agreement. Each surety providing the Bonds must have a Best's rating not less than A/X and be licensed in Illinois and shall be named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 as published in the Federal Register and available on the website of the U.S. Department of the Treasury, Financial Management Service, at [www.fms.treas.gov/c570/c570.html](http://www.fms.treas.gov/c570/c570.html). All Bonds signed by an agent must be accompanied by a certified copy of his or her authority to act. It shall be the duty of the Contractor to advise the surety or sureties of any Change Orders that result in an increase to the Compensation and to ensure that the amounts of the Bonds are updated to reflect and cover any such increases throughout the course of the Project. The cost of such Bonds shall be included within the Compensation.

4.2 If the surety behind any Bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State or it ceases to meet any of the requirements of this Contract, the Contractor shall, within [5] five days thereafter, substitute another Bond of equivalent value and surety, both of which must be acceptable to the City. In addition, no further progress payments under the Agreement will be made by the City until the Contractor complies with the provisions of this Agreement. The Contractor shall furnish to the City proof of any required bonds and proof of required insurance as one of the conditions precedent to payment under the Agreement. Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment or performance of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or authorize a copy to be furnished. All surety Bonds provided for in this Section shall incorporate by reference this Agreement, and any language that may be in any such surety Bond which conflicts with the provisions of this Agreement that define the scope of the surety('s) duty(ies) shall be of no force and effect.

## 5 Liquidated Damages in the Event Contractor Fails to Complete the Work

5.1 The parties agree that failure of Contractor to timely complete the Work required by this Agreement constitutes a default. The parties agree that this default will result in damage and injury to City. The parties further agree, however, that actual damages incurred by City as result of such default is difficult if not impossible to ascertain with any degree of certainty or accuracy. Accordingly, the parties have negotiated and have agreed that for each calendar day after written notice is delivered to Contractor and Contractor fails to cure such default, that Contractor will pay City, as and for liquidated damages, and not as a penalty, **the amount listed in the Schedule of Deductions presented in Article 108.09 of the Illinois Department of Transportation's (IDOT) Standard Specifications (based upon the total Contract Price)**. Contractor shall reimburse the City for all costs, expenses and fees (including, without limitation, attorneys' fees), if any, paid by the City in connection with such written demand by City. Contractor stipulates and agrees that the sums payable by Contractor under this Section are reasonable under the circumstances existing as of the execution of this Agreement. This Section 5.1 is not intended to limit any direct damages that may be recoverable by City related to the Contractor's failure to complete the Work in accordance with this Agreement. There shall be no early completion bonus if the Work is completed before the substantial completion date. The City, at its option, may withhold liquidated damages from progress payments payable to Contractor before the substantial completion date.

## 6 The City's Responsibilities

6.1 The City may evaluate the Contractor's and any sub-contractor's performance (interim and final). Timeliness in meeting the Project schedule and the overall relationship with the Contractor are factors that will be considered in the Contractor's performance rating. An unfavorable performance rating may be a factor when future assignments are being considered.

6.2 The City makes no representation or warranty of any nature whatsoever as to the accuracy of information or documentation provided by the City to the Contractor which were generated or provided by third parties.

## 7 Period of Service

7.1 The Contractor shall commence work on the Project after supplying the City with the Contractor's performance and payment bonds and all required insurance documents before starting its Work on this Project. The City shall determine when the Contractor has completed the Work required pursuant to this Agreement, and shall determine the date of Final Acceptance. Contractor recognizes time is of the essence regarding its performance on this Project. Contractor shall continue to perform its obligations while any dispute concerning the Agreement is being resolved, unless otherwise directed by the City.

7.2 Each phase of the project shall be completed in accordance with the activities outlined in

the City's RFQ/RFP/Bid \_\_\_\_\_, Exhibit A. Project phases include:

7.2.1 Phase X: *[Phase name here.]*

7.2.2 Phase X: *[Phase name here.]*

7.2.3 Phase X: *[Phase name here.]*

## 8 Payment for Services and Reimbursements

8.1 Within the first five (5) business days of each month, the Contractor shall invoice the City for Work completed during the previous month. The Contractor shall provide a detailed invoice that relates invoiced items to the Contractor's response to RFQ/RFP/Bid \_\_\_\_\_ in both quantity and unit cost. Any discrepancies in the monthly invoice shall be promptly brought to the attention of the Contractor by the City Project Manager and efforts shall be made to promptly resolve said discrepancies between the City and Contractor. In the event the City and Contractor cannot resolve invoice discrepancies, items in dispute will be removed from the invoice and the City shall approve the remainder of the invoice. Payment will be made as soon as possible following the City Council meeting in which the item appeared on the bills list, and in accordance with all applicable laws and rules of the City of Evanston and the State of Illinois.

8.2 In the event of termination by the City of this Agreement pursuant to paragraph 9.1 after completion of any phase of the basic services, fees due the Contractor for services rendered through such phase shall constitute final payment for such services, and no further fees shall be due to the Contractor. In the event of such termination by the City during any phase of the basic services, the Contractor shall be paid for services rendered on the basis of the proportion of work completed on the phase to date of termination.

8.3 The City shall have the right to withhold payment to the Contractor due to the quality of a portion or all of the work performed hereunder which is not in accordance with the requirements of this Agreement, or which is unsatisfactory, or is due to the Contractor's failure or refusal to perform any of its obligations hereunder. Compensation in excess of the total contract amount specified in this Agreement will not be allowed unless justified in the City's sole judgment and authorized in advance as provided for in Section 3 of this Agreement. Compensation for improper performance by the Contractor is disallowed.

8.4 Upon completion of the Work performed by the Contractor, prior to the submission of a request for final payment, the City and Contractor shall perform a final acceptance test and review of the Work performed and/or equipment installed pursuant to the Agreement. A punch list of items outstanding will be jointly developed by the City and Contractor. In addition, the Contractor shall submit drawings of record for the Project for the City to approve. The Contractor shall promptly resolve all punch list items to the satisfaction of the City, and shall transmit to the City in writing confirmation that all punch list items have been resolved. The City will review, and the Contractor shall modify, as necessary, any drawings of record to the satisfaction of the City. Punch list items and drawings of record must be approved by the City prior to the Contractor submitting its final invoice for payment.

8.5 The Contractor shall submit an Affidavit and a final waiver of its lien, and all final

waivers of liens of any sub-contractors, suppliers, and sub-sub-contractors, if applicable, with its final invoice, stating that all obligations incurred in performance of the professional services have been paid in full. The Affidavit will also include a statement stating that the professional services were performed in compliance with the terms of the Agreement. The Affidavit and all final lien waivers shall be on a form acceptable to the City.

8.6 All Project invoices shall be sent to:

City of Evanston *[Applicable department]*  
2100 Ridge Avenue  
Evanston, Illinois 60201

with a copy to:

City of Evanston *[Anyone else as applicable]*  
2100 Ridge Avenue  
Evanston, Illinois 60201

## 9 Notice and Cure/Termination

9.1 In furtherance of Contractor's Work on this Project, the City and the Contractor agree that the following Notice and Cure provision in this Section 9.1 shall apply during the duration of Contractor's work on this Project, in addition to the reserved rights of the City enumerated in this Agreement as follows:

- 5.1 Liquidated Damages;
- 8.3 City's right to withhold payment;
- 16.2 Contractor's duty to revise and correct errors; and
- 16.3 Contractor's duty to respond to City's notice of errors and omissions.

The City may notify Contractor of its intent to terminate this Agreement within (7) seven calendar days of issuance by the City of written notice to Contractor's Project Manager regarding defects in the Project or in Contractor's Work. The City shall specify any such nonconforming Work or defects in the Project in its notice to Contractor under this Section 9.1. Contractor will have the opportunity to cure the non-conforming Work within (7) seven calendar days after receipt of the written notice issued by the City. All such curative work done shall be performed and completed to the City's satisfaction. Nothing in this Section 9.1 shall otherwise affect the City's right to exercise its rights in Section 9.2.

9.2 The City shall have the right to terminate this Agreement upon fifteen (15) days written notice for any reason. Mailing of such notice shall be equivalent to personal notice and shall be deemed to have been given at the time of receipt.

Payments made by the City pursuant to this Agreement are subject to sufficient appropriations made by the City of Evanston City Council. In the event of termination resulting from non-appropriation or insufficient appropriation by the City Council, the City's obligations hereunder shall cease and there

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shall be no penalty or further payment required.

9.3 Within thirty (30) days of termination of this Agreement, the Contractor shall turn over to the City any documents, drafts, and materials, including but not limited to, outstanding work product, data, studies, test results, source documents, AutoCAD Version 2007, ArcView, PDF, Word, Excel spreadsheets, technical specifications and calculations, and any other such items specifically identified by the City related to the Work herein. Upon receipt of said items, the Contractor shall be paid for labor and expenses incurred to the date of termination as provided in Section 8.2. This Agreement is subject to termination by either party if either party is restrained by a state or federal court of competent jurisdiction from performing the provisions of this Agreement. Upon such termination, the liabilities of the parties to this Agreement shall cease, but they shall not be relieved of the duty to perform their obligations through the date of termination. No lien shall be filed by the Contractor in the event of a termination of this Agreement by the City.

9.4 If, because of death or any other occurrence, including, but not limited to, Contractor becoming insolvent, it becomes impossible for any principal or principals of the Contractor to render the services set forth in this Agreement, neither the Contractor, nor its surviving principals shall be relieved of their obligations to complete the professional services. However, in the event of such an occurrence, the City at its own option may terminate this Agreement if it is not furnished evidence that competent professional services can still be furnished as scheduled.

9.5 In the event of an emergency or threat to the life, safety or welfare of the citizens of the City, the City shall have the right to terminate this Agreement without prior written notice.

## 10 Insurance

10.1 The Contractor shall, at its own expense, secure and maintain in effect throughout the duration of this contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, its agents, representatives, employees or sub-contractors. Contractor acknowledges and agrees that if it fails to comply with all requirements of this Section 10, the City may void the Agreement.

The Contractor must give to the City Certificates of Insurance identifying the City to be an Additional Insured for all Work done pursuant to this Agreement before City staff recommends award of the contract to City Council. Any limitations or modifications on the Certificate(s) of Insurance issued to the City in compliance with this Section that conflict with the provisions of this Section 10 shall have no force and effect.

After award of the Contract to Contractor (contracts over \$500,000 in value or if the project is deemed high risk) the Contractor **shall** give the City a certified copy (ies) of the insurance policy (ies) evidencing the amounts set forth in Section 10.2, and copies of the Additional Insured endorsement to such policy (ies) which name the City as an Additional Insured for all Work done pursuant to this Agreement before Contractor does any Work pursuant to this Agreement. Contractor's certificate of insurance shall contain a provision that the coverage afforded under the policy(s) will not be canceled or reduced without thirty (30) days prior written notice (hand delivered or registered mail) to the City.

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Contractor shall promptly forward new certificate(s) of insurance evidencing the coverage(s) required herein upon annual renewal of the subject policies.

The policies and the Additional Insured endorsement must be delivered to the City within two (2) weeks of the request. All insurance policies shall be written with insurance companies licensed or authorized to do business in the State of Illinois and having a rating of not less than A-VII according to the A.M. Best Company. Should any of the insurance policies be canceled before the expiration date, the issuing company will mail thirty (30) days written notice to the City. The Contractor shall require and verify that all sub-contractors maintain insurance meeting all of the requirements stated herein.

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

10.2 Contractor shall carry and maintain at its own cost with such companies as are reasonably acceptable to City all necessary liability insurance (which shall include as a minimum the requirements set forth below) during the term of this Agreement, for damages caused or contributed to by Contractor, and insuring Contractor against claims which may arise out of or result from Contractor's performance or failure to perform the Services hereunder:

- a) Worker's compensation in statutory limits and employer's liability insurance in the amount of at least five hundred thousand dollars (\$500,000);
- b) Comprehensive general liability coverage which designates the City as an additional insured for not less than three million dollars (\$3,000,000) combined single limit for bodily injury, death and property damage, per occurrence;
- c) Comprehensive automobile liability insurance covering owned, non-owned, and leased vehicles for not less than one million dollars (\$1,000,000) combined single limit for bodily injury, death, or property damage, per occurrence; and

Contractor understands that the acceptance of Certificates of Insurance, policies, and any other documents by the City in no way releases the Contractor and its sub-contractors from the requirements set forth herein.

Contractor expressly agrees to waive its rights, benefits and entitlements under the "Other Insurance" clause of its commercial general liability insurance policy as respects the City. Contractor expressly agrees that its insurance coverage is required to be primary by this Agreement, that its insurance coverage shall be on a primary and non-contributory basis, and that it and its insurance carrier are estopped from denying such coverage is primary. In the event Contractor fails to purchase or procure insurance as required above, the parties expressly agree that Contractor shall be in default under this Agreement, and that the City may recover all losses, attorney's fees and costs expended in pursuing a remedy, or reimbursement, at law or in equity, against Contractor.

## 11 Indemnification

11.1 The Contractor shall defend, indemnify and hold harmless the City and its officers, elected and appointed officials, agents, and employees from any and all liability, losses, or damages as a result of claims, demands, suits, actions, or proceedings of any kind or nature, including but not limited to costs, and fees, including attorney's fees, judgments or settlements, resulting from or arising out of any negligent or willful act or omission on the part of the Contractor or Contractor's sub-contractors, employees, agents or sub-contractors during the performance of this Agreement. Such indemnification shall not be limited by reason of the enumeration of any insurance coverage herein provided. This provision shall survive completion, expiration, or termination of this Agreement.

11.2 Nothing contained herein shall be construed as prohibiting the City, or its officers, agents, or employees, from defending through the selection and use of their own agents, attorneys, and experts, any claims, actions or suits brought against them. The Contractor shall be liable for the costs, fees, and expenses incurred in the defense of any such claims, actions, or suits. Nothing herein shall be construed as a limitation or waiver of defenses available to the City and employees and agents, including but not limited to the Illinois Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10/1-101 *et seq.*

At the City Corporation Counsel's option, Contractor must defend all suits brought upon all such Losses and must pay all costs and expenses incidental to them, but the City has the right, at its option, to participate, at its own cost, in the defense of any suit, without relieving Contractor of any of its obligations under this Agreement. Any settlement of any claim or suit related to this Project by Contractor must be made only with the prior written consent of the City Corporation Counsel, if the settlement requires any action on the part of the City.

To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend, or contribute to any sums due under any Losses, including any claim by any employee of Contractor that may be subject to the Illinois Workers Compensation Act, 820 ILCS 305/1 *et seq.* or any other related law or judicial decision, including but not limited to, *Kotecki v. Cyclops Welding Corporation*, 146 Ill. 2d 155 (1991). The City, however, does not waive any limitations it may have on its liability under the Illinois Workers Compensation Act, the Illinois Pension Code or any other statute.

11.3 The Contractor shall be responsible for any losses and costs to repair or remedy work performed under this Agreement resulting from or arising out of any act or omission, neglect, or misconduct in the performance of its Work or its sub-contractors' work. Acceptance of the work by the City will not relieve the Contractor of the responsibility for subsequent correction of any such error, omissions and/or negligent acts or of its liability for loss or damage resulting therefrom.

11.4 All provisions of this Section 11 shall survive completion, expiration, or termination of this Agreement.

## 12 Drawings and Documents

12.1 Any drawings, survey data, reports, studies, specifications, estimates, maps, plans, computations, and other documents required to be prepared by the Contractor for the Project shall be considered Works for Hire and the sole property of the City.

12.2 The Contractor and its sub-contractor shall maintain for a minimum of three (3) years after the completion of this Agreement, or for three (3) years after the termination of this Agreement, whichever comes later, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the Agreement. The Agreement and all books, records and supporting documents related to the Agreement shall be available for review and audit by the City and the federal funding entity, if applicable, and the Contractor agrees to cooperate fully with any audit conducted by the City and to provide full access to all materials. Failure to maintain the books, records and supporting documents required by this Subsection shall establish a presumption in favor of the City for recovery of any funds paid by the City under the Agreement for which adequate books, records, and supporting documentation are not available to support their purported disbursement.

## 13 Successors and Assigns

13.1 The City and the Contractor each bind themselves and their partners, successors, executors, administrators, and assigns to the other party of the Agreement and to the partners, successors, executors, administrators, and assigns of such other party in respect to all covenants of this Agreement. Neither the City nor the Contractor shall assign, sublet, or transfer its interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body, which may be a party hereto, nor shall it be construed as giving any right or benefits hereunder to anyone other than the City and the Contractor.

## 14 Force Majeure

14.1 Whenever a period of time is provided for in this Agreement for the Contractor or the City to do or perform any act or obligation, neither party shall be liable for any delays or inability to perform if such delay is due to a cause beyond its control and without its fault or negligence including, without limitation:

- a) Acts of nature;
- b) Acts or failure to act on the part of any governmental authority other than the City or Contractor, including, but not limited to, enactment of laws, rules, regulations, codes or ordinances subsequent to the date of this Agreement;
- c) Acts of war;
- d) Acts of civil or military authority;
- e) Embargoes;
- f) Work stoppages, strikes, lockouts, or labor disputes;
- g) Public disorders, civil violence, or disobedience;
- h) Riots, blockades, sabotage, insurrection, or rebellion;



- i) Epidemics or pandemics;
- j) Terrorist acts;
- k) Fires or explosions;
- l) Nuclear accidents;
- m) Earthquakes, floods, hurricanes, tornadoes, or other similar calamities;
- n) Major environmental disturbances; or
- o) Vandalism.

If a delay is caused by any of the *force majeure* circumstances set forth above, the time period shall be extended for only the actual amount of time said party is so delayed. Further, either party claiming a delay due to an event of *force majeure* shall give the other party written notice of such event within three (3) business days of its occurrence or it shall be deemed to be waived.

## 15 Amendments and Modifications

15.1 Except as otherwise provided herein, the nature and scope of Work specified in this Agreement may only be modified by a written Change Order, or a written amendment to this Agreement, approved by both parties. This Agreement may be modified or amended from time to time provided, however, that no such amendment or modifications shall be effective unless reduced to writing and duly authorized and signed by the authorized representatives of the parties.

## 16 Standard of Care & Warranty

16.1 The Contractor shall perform all of the provisions of this Agreement to the satisfaction of the City. The City shall base its determination of the Contractor's fulfillment of the scope of the work in accordance with generally accepted professional standards applicable to the Work for this Project. The Contractor shall perform all of the provisions of this Agreement with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar conditions.

16.2 The Contractor shall be responsible for the accuracy of its professional services under this Agreement and shall promptly make revisions or corrections resulting from its errors, omissions, or negligent acts without additional compensation. The City's acceptance of any of the Contractor's professional services shall not relieve the Contractor of its responsibility to subsequently correct any such errors or omissions. If a Contractor has provided the City with specifications for this Project which are determined to be incorrect or which require revision during the solicitation process (including but not limited to Requests for Proposals, Requests for Qualifications, or bids), the Contractor shall make such corrections or revisions to the specifications at no cost to the City. Further, upon receipt of an invoice from the City, the Contractor shall promptly reimburse the City for the reasonable costs associated with the preparation and dissemination of said corrections or revisions to appropriate parties, including but not limited to preparation of the corrected or revised documents, and printing and distribution costs.

16.3 During the pendency of its Work on this Project, the Contractor shall respond to the City's notice of any errors or omissions within twenty-four (24) hours. The Contractor shall be required to promptly visit the Project site(s) if directed to by the City.

EXHIBIT N

16.4 The Contractor shall comply with all federal, state, and local statutes, regulations, rules, ordinances, judicial decisions, and administrative rulings applicable to its performance under this Agreement.

16.5 Contractor guarantees and warrants to the City that:

- a) All materials and equipment furnished under this Agreement shall be of good quality and new, unless otherwise required or permitted by the Contract Documents;
- b) The Work of this Agreement shall be free from defects which are not inherent in the quality required; and
- c) The Work shall comply with the requirements set forth in the Contract Documents.

This warranty and guarantee shall be for a period of one (1) year from the date of completion and Final Acceptance of the Work by the City, or as otherwise provided in the Contract Documents.

If, within the one year warranty period, after the Contractor has received a final payment under this Agreement, any of the Work is found to be not be in accordance with the requirements of this Agreement, or where defects in materials or workmanship may appear, or be in need of repair, the Contractor shall correct non-conforming and/or defective work or materials promptly after receipt of written notice from the City. Contractor shall immediately at its own expense repair, replace, restore, or rebuild any such Work. This remedy is in addition to any other legal or equitable remedies the City may have under this Agreement or the law.

This guarantee and warranty shall not relieve Contractor of liability for latent defects, and shall be in addition to the City's rights under the law or other guarantees or warranties, express or implied.

16.6 The provisions of this Section 16 shall survive the completion, expiration or termination of this Agreement.

## 17 Savings Clause

17.1 If any provision of this Agreement, or the application of such provision, shall be rendered or declared invalid by a court of competent jurisdiction, or by reason of its requiring any steps, actions, or results, the remaining parts or portions of this Agreement shall remain in full force and effect.

## 18 Non-Waiver of Rights

18.1 No failure or delay by the City to exercise any power given to it hereunder or to insist upon strict compliance by Contractor with its obligations hereunder, nor any payment made by the City under this Agreement, shall constitute a waiver of the City's right to demand strict compliance with the terms hereof, unless such waiver is in writing and signed by the City.

## 19 Entire Agreement

19.1 This Agreement sets forth all the covenants, conditions and promises between the parties with regard to the subject matter set forth herein. There are no covenants, promises, agreements, conditions or understandings between the parties, either oral or written, other than those contained in this Agreement. This Agreement has been negotiated and entered into by each party with the opportunity to consult with its counsel regarding the terms therein. No portion of the Agreement shall be construed against a party due to the fact that one party drafted that particular portion as the rule of *contra proferentem* shall not apply.

## 20 Governing Law

20.1 This Agreement shall be construed in accordance with and subject to the laws and rules of the City of Evanston and the State of Illinois both as to interpretation and performance. Venue for any action arising out of or due to this Agreement shall be in Cook County, Illinois. The City shall not enter into binding arbitration to resolve any dispute related to this Agreement. The City does not waive tort immunity by entering into this Agreement.

## 21 Ownership of Contract Documents

21.1 Contractor is specifically prohibited from using in any form or medium, the name or logo of the City for public advertisement, unless expressly granted written permission by the City. Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with this Project is not to be construed as publication in derogation of the City's reserved rights.

## 22 Notice

22.1 Any notice required to be given by this Agreement shall be deemed sufficient if made in writing and sent by certified mail, return receipt requested, or by personal service, to the persons and addresses indicated below or to such other addresses as either party hereto shall notify the other party of in writing pursuant to the provisions of this Subsection:

City of Evanston Project Manager, RFQ/RFP/Bid \_\_\_\_\_  
2100 Ridge Avenue  
Evanston, Illinois 60201

if to the Contractor:

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

22.2 Mailing of such notice as and when provided above shall be equivalent to personal notice and shall be deemed to have been given at the time of mailing.

EXHIBIT N

## 23 Severability

23.1 Except as otherwise provided herein, the invalidity or unenforceability of any particular provision, or part thereof, of this Agreement shall not affect the other provisions, and this Agreement shall continue in all respects as if such invalid or unenforceable provision had not been contained herein.

## 24 Execution of Agreement

24.1 This Agreement shall be signed last by the City Manager.

## 25 Counterparts

25.1 For convenience, this Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original.

## 26 Authorizations

26.1 The Contractor's authorized representatives who have executed this Agreement warrant that they have been lawfully authorized by the Contractor's board of directors or its bylaws to execute this Agreement on its behalf. The City Manager affirms that he/she has been lawfully authorized to execute this Agreement. The Contractor and the City shall deliver upon request to each other copies of all articles of incorporation, bylaws, resolutions, ordinances, or other documents which evidence their legal authority to execute this Agreement on behalf of their respective parties.

## 27 Time of Essence

27.1 Time is of the essence with respect to each provision hereof in which time is a factor.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by their duly authorized representatives. The effective date of this Agreement will be the date this Agreement is signed by the City Manager.

**CONTRACTOR**

By:

\_\_\_\_\_

Name:

\_\_\_\_\_

Its:

\_\_\_\_\_

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

**CITY OF EVANSTON**

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

Kelley Gandurski

Its: Interim City Manager

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

Approved as to form:

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

Nicholas E. Cummings

Its: Corporation Counsel

Revision: April 2021

**EXHIBIT O**

**BID BOND SUBMITTAL LABEL**

**CUT AND ATTACH LABEL ON OUTSIDE OF SEALED BID BOND SUBMITTAL**



**BID SUBMITTAL NUMBER:** \_\_\_\_\_

**BID SUBMITTAL NAME:** \_\_\_\_\_  
\_\_\_\_\_

**BID SUBMITTAL DUE DATE/TIME:** \_\_\_\_\_

**COMPANY NAME:** \_\_\_\_\_

**COMPANY ADDRESS:** \_\_\_\_\_

**COMPANY TELEPHONE #:** \_\_\_\_\_



If required by the bid documents, a scanned copy of the bid bond must be included with the bid electronic submission. The City is currently not able to accept a certified check, bank cashier's check or electronic bid bond at this time.

The original bid bond (in the amount of 5% of the original bid amount) must be mailed within ten (10) days after the bid due date, to the City of Evanston Purchasing Department, 2100 Ridge Avenue - Room 4200 Evanston, Illinois 60201 Attention Purchasing Manager using the USPS (certified or priority), UPS or FedEx mail options in order to have a tracking number; which sum shall be forfeited in case the successful bidder fails to enter into a binding contract and provide a properly executed contract and surety bond within 15 days after the date the contract is awarded by the City.

## Cook County Prevailing Wage Rates posted on 12/1/2021

Trade Title	Rg	Type	C	Base	Foreman	Overtime				H/W	Pension	Vac	Trng	Other Ins
						M-F	Sa	Su	Hol					
ASBESTOS ABT-GEN	All	ALL		44.40	45.40	1.5	1.5	2.0	2.0	16.10	14.21	0.00	0.90	
ASBESTOS ABT-MEC	All	BLD		38.85	41.96	1.5	1.5	2.0	2.0	14.42	12.61	0.00	0.82	
BOILERMAKER	All	BLD		52.61	57.34	2.0	2.0	2.0	2.0	6.97	22.34	0.00	1.40	
BRICK MASON	All	BLD		48.56	53.42	1.5	1.5	2.0	2.0	11.70	21.06	0.00	1.03	
CARPENTER	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.76	0.00	0.79	
CEMENT MASON	All	ALL		47.50	49.50	2.0	1.5	2.0	2.0	16.75	20.74	0.00	1.00	
CERAMIC TILE FINISHER	All	BLD		42.80	42.80	1.5	1.5	2.0	2.0	11.45	14.27	0.00	0.94	
COMMUNICATION ELECTRICIAN	All	BLD		46.26	49.06	1.5	1.5	2.0	2.0	11.60	13.83	1.25	1.55	0.50
ELECTRIC PWR EQMT OP	All	ALL		56.55	62.05	1.5	1.5	2.0	2.0	12.94	19.11	0.00	3.17	
ELECTRIC PWR GRNDMAN	All	ALL		44.11	62.05	1.5	1.5	2.0	2.0	10.10	14.91	0.00	2.48	
ELECTRIC PWR LINEMAN	All	ALL		56.55	62.05	1.5	1.5	2.0	2.0	12.94	19.11	0.00	3.17	
ELECTRICIAN	All	ALL		51.00	54.00	1.5	1.5	2.0	2.0	16.49	17.82	1.25	1.87	1.50
ELEVATOR CONSTRUCTOR	All	BLD		60.42	67.97	2.0	2.0	2.0	2.0	15.87	19.31	4.83	0.64	
FENCE ERECTOR	All	ALL		45.67	47.67	1.5	1.5	2.0	2.0	13.68	16.39	0.00	0.65	
GLAZIER	All	BLD		47.73	49.23	1.5	2.0	2.0	2.0	14.99	23.42	0.00	1.43	
HEAT/FROST INSULATOR	All	BLD		51.80	54.91	1.5	1.5	2.0	2.0	14.42	15.36	0.00	0.82	
IRON WORKER	All	ALL		54.51	56.51	2.0	2.0	2.0	2.0	15.40	25.06	0.00	0.44	
LABORER	All	ALL		45.90	46.65	1.5	1.5	2.0	2.0	16.55	14.71	0.00	0.90	
LATHER	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.76	0.00	0.79	
MACHINIST	All	BLD		50.68	53.18	1.5	1.5	2.0	2.0	8.93	8.95	1.85	1.47	
MARBLE FINISHER	All	ALL		37.00	50.10	1.5	1.5	2.0	2.0	11.70	19.10	0.00	0.93	
MARBLE MASON	All	BLD		47.71	52.48	1.5	1.5	2.0	2.0	11.70	20.53	0.00	1.02	
MATERIAL TESTER I	All	ALL		35.90		1.5	1.5	2.0	2.0	16.55	14.71	0.00	0.90	
MATERIALS TESTER II	All	ALL		40.90		1.5	1.5	2.0	2.0	16.55	14.71	0.00	0.90	
MILLWRIGHT	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.76	0.00	0.79	
OPERATING ENGINEER	All	BLD	1	53.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	2	52.30	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	3	49.75	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	4	48.00	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	5	57.35	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	6	54.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	

OPERATING ENGINEER	All	BLD	7	56.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	FLT	1	59.35	59.35	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15
OPERATING ENGINEER	All	FLT	2	57.85	59.35	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15
OPERATING ENGINEER	All	FLT	3	51.50	59.35	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15
OPERATING ENGINEER	All	FLT	4	42.80	59.35	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15
OPERATING ENGINEER	All	FLT	5	60.85	59.35	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15
OPERATING ENGINEER	All	FLT	6	41.00	59.35	1.5	1.5	2.0	2.0	20.90	17.85	2.00	2.15
OPERATING ENGINEER	All	HWY	1	51.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	HWY	2	51.25	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	HWY	3	49.20	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	HWY	4	47.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	HWY	5	46.60	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	HWY	6	54.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40
OPERATING ENGINEER	All	HWY	7	52.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40
ORNAMENTAL IRON WORKER	All	ALL		52.13	54.63	2.0	2.0	2.0	2.0	14.23	23.99	0.00	1.25
PAINTER	All	ALL		49.30	55.46	1.5	1.5	1.5	2.0	13.01	14.74	0.00	1.87
PAINTER - SIGNS	All	BLD		40.74	45.75	1.5	1.5	2.0	2.0	3.04	3.90	0.00	0.00
PILEDRIVER	All	ALL		50.86	52.86	1.5	1.5	2.0	2.0	11.79	24.76	0.00	0.79
PIPEFITTER	All	BLD		52.00	55.00	1.5	1.5	2.0	2.0	11.60	21.85	0.00	2.92
PLASTERER	All	BLD		45.50	48.23	1.5	1.5	2.0	2.0	16.75	19.04	0.00	1.25
PLUMBER	All	BLD		52.80	55.95	1.5	1.5	2.0	2.0	16.45	16.75	0.00	1.47
ROOFER	All	BLD		46.70	50.70	1.5	1.5	2.0	2.0	11.58	14.56	0.00	0.96
SHEETMETAL WORKER	All	BLD		47.50	51.30	1.5	1.5	2.0	2.0	12.90	27.64	0.00	0.95
SIGN HANGER	All	BLD		34.07	36.80	1.5	1.5	2.0	2.0	6.45	4.30	0.00	0.00
SPRINKLER FITTER	All	BLD		51.75	54.50	1.5	1.5	2.0	2.0	13.90	17.00	0.00	0.75
STEEL ERECTOR	All	ALL		54.51	56.51	2.0	2.0	2.0	2.0	15.40	25.06	0.00	0.44
STONE MASON	All	BLD		48.56	53.42	1.5	1.5	2.0	2.0	11.70	21.06	0.00	1.03
TERRAZZO FINISHER	All	BLD		44.54	44.54	1.5	1.5	2.0	2.0	11.45	16.64	0.00	0.97
TERRAZZO MASON	All	BLD		48.38	51.88	1.5	1.5	2.0	2.0	11.45	18.10	0.00	1.00
TILE MASON	All	BLD		49.75	53.75	1.5	1.5	2.0	2.0	11.45	17.98	0.00	1.02
TRAFFIC SAFETY WORKER	All	HWY		38.50	40.10	1.5	1.5	2.0	2.0	8.90	8.90	0.00	0.90
TRUCK DRIVER	E	ALL	1	39.25	39.90	1.5	1.5	2.0	2.0	11.40	14.70	0.00	0.15
TRUCK DRIVER	E	ALL	2	39.50	39.90	1.5	1.5	2.0	2.0	11.40	14.70	0.00	0.15
TRUCK DRIVER	E	ALL	3	39.70	39.90	1.5	1.5	2.0	2.0	11.40	14.70	0.00	0.15
TRUCK DRIVER	E	ALL	4	39.90	39.90	1.5	1.5	2.0	2.0	11.40	14.70	0.00	0.15
TRUCK DRIVER	W	ALL	1	39.88	40.43	1.5	1.5	2.0	2.0	10.20	13.86	0.00	0.15



TRUCK DRIVER	W	ALL	2	40.03	40.43	1.5	1.5	2.0	2.0	10.20	13.86	0.00	0.15	
TRUCK DRIVER	W	ALL	3	40.23	40.43	1.5	1.5	2.0	2.0	10.20	13.86	0.00	0.15	
TRUCK DRIVER	W	ALL	4	40.43	40.43	1.5	1.5	2.0	2.0	10.20	13.86	0.00	0.15	
TUCKPOINTER	All	BLD		48.25	49.25	1.5	1.5	2.0	2.0	8.79	20.47	0.00	1.01	

**Legend**

**Rg** Region

**Type** Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers

**C** Class

**Base** Base Wage Rate

**OT M-F** Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.

**OT Sa** Overtime pay required for every hour worked on Saturdays

**OT Su** Overtime pay required for every hour worked on Sundays

**OT Hol** Overtime pay required for every hour worked on Holidays

**H/W** Health/Welfare benefit

**Vac** Vacation

**Trng** Training

**Other Ins** Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

Explanations COOK COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date. ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all

sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

#### COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

#### MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

#### OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician;

Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

#### OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin

Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

#### OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

Class 6. ROV Pilot, ROV Tender

#### TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

#### TRAFFIC SAFETY

Effective November 30, 2018, the description of the traffic safety worker trade in this County is as follows: Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary, non-temporary or permanent lane, pavement or roadway markings, and the installation and removal of temporary road signs.

#### TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turntrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turntrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

#### Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

#### LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

#### MATERIAL TESTER & MATERIAL TESTER/INSPECTOR I AND II

Notwithstanding the difference in the classification title, the classification entitled "Material Tester I" involves the same job duties as the classification entitled "Material Tester/Inspector I". Likewise, the classification entitled "Material Tester II" involves the same job duties as the classification entitled "Material Tester/Inspector II".

# Registering for DemandStar



We are pleased to announce our membership in the DemandStar network. DemandStar is an online marketplace that connects our suppliers directly to the bids, quotes and RFPs that matter to them.

DemandStar is open and accessible to all businesses and provides instant access to our solicitations. By registering for your complimentary DemandStar account, you will receive:

- **Instant** access to bids, quotes and RFPs
- **Automatic** notifications, right to you inbox, of bids that match the commodity codes you select
- The ability to **quickly view** the contractual terms and scope of work
- All the **forms and documents** you need in one place
- Access to **more government bids** in neighboring cities, counties and states

**It's EASY!** Get started with these 3 easy steps!

## 1 REGISTER

Go to:

<https://www.demandstar.com/registration>

### Create an Account with DemandStar

You are one step away from picking your free government agency

Email Address

Company Name

I accept the DemandStar [Terms of Use](#) and [Privacy Policy](#)

Next



## 2 CHOOSE YOUR FREE AGENCY

Type in the name of the government agency you'd like to add, for example "City of Metropolis" in the Search Box

## 3 CHECK OUT

Check out with your **FREE AGENCY** Registration by clicking "Skip for now" on the page where it gives you options to add additional counties and States

### ← Choose Your Free Agency

Receive full access to the government agency of your choice and receive advance notifications of new opportunities.

City of Metropolis ✕

Narrow down your search by selecting a state and county.

<b>State</b>	<b>County</b>
Select State ▼	Select County ▼

- City of Metropolis – Board of Commisioners
- City of Metropolis Purchasing
- Metropolis Technical College

You have chosen **Metropolis Technical College** as your free agency.  
Add additional government agencies below for \$25 per County,  
Statewide and National subscriptions available.

My Subscriptions  [0]

**Nation (0)**

**States (0)**

**Counties (0)**

		Your Current Rate
<b>Total</b>	(0 subscriptions)	<b>\$0/year</b>

Proceed to Checkout

Skip for Now

**SIGN UP**

Visit [www.demandstar.com](http://www.demandstar.com)





# DEMANDSTAR

**B u i l d i n g C o m m u n i t i e s .**

(E-bidding) Electronic Bidding Instructions



# Introduction

To submit a bid electronically (e-bidding) on DemandStar

- The project **MUST** be setup for e-bidding by the government agency advertising the opportunity

Bid Identifier	Agency Name	Bid Status	Broadcast Date	Date Due ▼	Name	Actions
RFP-2019-01-0-2019/df	Town of Malabar	Active	5/15/2019	5/31/2019	Malabar Parks and Recreation Board Memorial Wall Project	Planholders, Download/Order, Details
EBID-20190077-0-2019/HF	City of Port St. Lucie, Procurement Management Department	Active	4/25/2019	5/31/2019	Purchase Breaching "Backpack Gas Masks and Gas Mask Cartridges for the Police Department JAG Grant Funded	E-Bidding, Planholders, Download/Order, Details



## How to check if it is an e-bidding opportunity

- Not all opportunities posted on DemandStar by government are available for e-bidding
- Those that are available for you to electronically bid will list "e-bidding" as an available "ACTION" when you look at the project details

In order to do  
e-bidding

1. Click on “E-bidding” in  
the actions column

Bid Identifier	Agency Name	Bid Status	Broadcast Date	Date Due ▼	Name	Actions
RFP-2019-01-0-2019/df	Town of Malabar	Active	5/15/2019	5/31/2019	Malabar Parks and Recreation Board Memorial Wall Project	Planholders, Download/Order, Details
EBID-20190077-0-2019/HF	City of Port St. Lucie, Procurement Management Department	Active	4/25/2019	5/31/2019	Purchase Breaching “Backpa Gas Masks and Gas Mask Cartridges for the Police Department JAG Grant Funded	E-Bidding, Planholders, Download/Order, Details



In order to do  
e-bidding

2. Enter your contact information and enter in all required fields

Note: You **MUST** put a number of the “BID AMOUNT” box. However, that number can be 0 so as to allow for a more detailed description of your bid through your uploaded documents.

## Contact Information

*\*indicates required fields*

Company Name \*

Address 1 \*

Address 2

City \*


State \*

Postal Code \*

Phone \*

Fax

Country \*

 Bid Amount \*

Alternate Bid Amount

Notes

# In order to do e-bidding

- In the agency required documents section – check the documents you intend on uploading and fulfilling. By checking these boxes this is **ONLY** an acknowledgement of how you will fulfill the requirement. You still have to upload the documents.

## Required Documents



The following documents are required by the agency for this project. Please select which documents you will be submitting electronically (online) and which ones you will submit directly to the agency (offline).

### Agency Required Documents

Document	None	Online/ Electronic	Offline/ Manual	Not submitting
-	⚠	✓	📄	•
<a href="#">Bid Reply</a>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<a href="#">Checklist</a>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<a href="#">Subcontractor List</a>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<a href="#">Current Workload, List of Projects and Completion Dates</a>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<a href="#">Questionnaire</a>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<a href="#">Drug Free Workplace Form</a>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In order to do e-bidding

Upload your response documents in an accepted file format

Make sure that you have covered and uploaded all the required documents

### E-Bid Response Documents

Agency Name	City of Port St. Lucie, Procurement Management Department
Bid Number	EBID-20190077-0-2019/HF
Bid Name	Purchase Breaching "Backpack" Kits, Gas Masks and Gas Mask Cartridges for the Police Department JAG Grant Funded
Bid Due Date	5/31/2019 3:00:00 PM Eastern time
Bid Opening	14 days, 21 hours, 45 minutes, 5 seconds

*No response documents uploaded*

### Agency Accepted File Formats



Formats

Adobe Acrobat (\*.PDF )  
Microsoft Excel (\*.XLS )  
Microsoft Excel (\*.XLSX)  
Microsoft PowerPoint (\*.PPT )  
Microsoft Word (\*.DOC )  
Microsoft Word (\*.DOCX)

### Upload Electronic Documents

*\* indicates required fields*



Document Title \*

Specify Upload Document \*

No file chosen


(Type the path of the document, or click the Browse button.)

In order to do e-bidding

Once you decide you've uploaded all your documents that you would like to submit, make sure you click the **NEXT** button at the bottom of the screen

### E-Bid Response Documents

Agency Name City of Port St. Lucie, Procurement Management Department  
Bid Number EBID-20180218-0-2018/jer  
Bid Name Sculpture on Lawn at City Hall Temporary Art Installation  
Bid Due Date 1/9/2019 2:00:00 PM Eastern time  
Bid Opening 100 days, 1 hour, 20 minutes, 11 seconds

	Document Title	Format	Size	Uploaded	Status	Action
1	 E-Bidding for Suppliers	Microsoft Word	12 Kb	10/1/2018 9:39:50 AM	Complete	<a href="#">View</a> , <a href="#">Remove</a>

### Agency Accepted File Formats

Formats  
Adobe Acrobat (\*.PDF)  
Microsoft Excel (\*.XLS)  
Microsoft Excel (\*.XLSX)  
Microsoft PowerPoint (\*.PPT)  
Microsoft Word (\*.DOC)  
Microsoft Word (\*.DOCX)

### Upload Electronic Documents

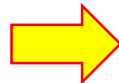
\* indicates required fields

Document Title \*

Specify Upload Document \*

(Type the path of the document, or click the Browse button.)

Your document has successfully uploaded but your response is not yet complete. You must still click 'Submit Response' on Bid Response Details page in order to complete your response and receive a confirmation



# Completing your e-bid submittal

- Please **VERIFY** that you have attached **ALL** the required documents
- Click on the **Submit Response** button to complete your e-bid

## Agency Required Documents

EDIT

1. **Bid Reply** (Electronic/Online) ✓
2. **Checklist** (Electronic/Online) ✓
3. **Subcontractor List** (Electronic/Online) ✓
4. **Current Workload, List of Projects and Completion Dates** (Electronic/Online) ✓
5. **Questionnaire** (Electronic/Online) ✓
6. **Drug Free Workplace Form** (Electronic/Online) ✓
7. **Current Certificate of Insurance** (Electronic/Online) ✓
8. **License/Certification to do Described Work** (Electronic/Online) ✓
9. **Reference Check Form** (Electronic/Online) ✓
10. **E-Bid Reply Excel Spreadsheet** (Electronic/Online) ✓
11. **E-Bid Bond** (Electronic/Online) ✓
12. **Vendor Code of Ethics** (Electronic/Online) ✓
13. **W-9 form** (Electronic/Online) ✓

## Uploaded Documents

EDIT

1. test document upload to ensure e-bidding active

### E-Bid Confirmation

After clicking "Submit Response" the following process will begin:

- We will verify that your response is complete as entered.
- You will see a confirmation page with your confirmation number and date/time stamp of your upload.
- You will receive a confirmation e-mail indicating a successful response submittal.
- You may track your response submission under the View Responses page.

If you do not receive any of the above, please call Supplier Services at (206) 940-0305.

<< Return

Submit Response



## Confirmation of Response

- When you complete you will receive a confirmation
- This is a confirmation that what you uploaded will be visible to the agency when the bid closes, **this is not** a confirmation that all your documents were fill out or submitted correctly

### E-Bid Response Details

Agency Name City of Port St. Lucie, Procurement Management Department

Bid Number EBID-20180218-0-2018/er

Bid Name **Sculpture on Lawn at City Hall Temporary Art Installation**

Bid Due Date 1/9/2019 2:00:00 PM Eastern time

Bid Opening 100 days, 1 hour, 6 minutes, 46 seconds

Response # 15104

**Results** Your bid response is submitted.

<< Return

# Post Submission Edits

If you feel like you missed something or need to make a change you can go back to your submittal response and edit your e-bid. By clicking on “DETAILS” then “EDIT” the section you wish

Bid Identifier	Agency Name	Bid Status	Broadcast	Date Due ▼	Name	Status	Actions
EBID-20190077-0-2019/HF	City of Port St. Lucie, Procurement Management Department	Active	4/25/2019	5/31/2019	Purchase Breaching “Backpack” Kits, Gas Masks and Gas Mask Cartridges for the Police Department JAG Grant Funded	Incomplete	<a href="#">Details, Bid, History</a>

## Contact Information

**EDIT**

**Company Name** Sample DBE Company

**Address 1** 509 Olive Way

**Address 2**

**City** Seattle

**State** Washington

**Postal Code** 98101

**Phone** 2063739233

**Fax** 2063739233

**Country** United States of America

**Bid Amount** \$0.00

**Alternate Bid Amount**

**Notes**



## Agency Required Documents

**EDIT**

1. Bid Reply (Electronic/Online) ✓



## DemandStar E-Bidding: Frequently Asked Questions

- Do suppliers need to be registered with DemandStar to participate in e-bidding?  
Yes. But if they don't already have an account with DemandStar, they can sign up and either
  - Be a subscriber for only your agency, at no charge, and be able to download documents at no charge and then receive notifications that match their commodity codes
  - Be a "basic supplier" for free - who researches on our platform and then pays \$5 to download all documents, thus becoming a plan holder
  - Be a paid subscriber for a county, state, national and receive notifications from all included agencies
- Can suppliers respond with document uploads or do they simply fill in forms?  
Yes, they may respond with document uploads that are available to you via the DemandStar platform.
- What type of E-Bidding Documents can be uploaded?  
Acceptable file formats for sending back documents that the city will accept:

### E-Bidding Documents

<b>Document Types</b>	Bidding Documents - Exhibits Pricing Bid Bond
<b>File Formats</b>	Adobe Acrobat (*.PDF ) Microsoft Excel (*.XLS ) Microsoft Excel (*.XLSX) Microsoft PowerPoint (*.PPTX) Microsoft PowerPoint (*.PPT ) ZIP Compressed Archive (*.ZIP )

- Is there a maximum file size that I can upload?  
Vendors can simply upload a single file or multiple documents as long as it doesn't exceed 100 MBs (single or multiple files)
- After a bid opening, what document(s) are made public by DemandStar?  
None. Only the agency can see the vendor responses so you are the only ones who will determine what you want to download and make public.
- Who do I call if I have questions or problems with the DemandStar?  
The City strongly encourages each respondent to setup their account and to explore the eBidding module at least a couple of days before the bid due date.

If you have questions or issues creating your account, accessing the eBidding module or submitting your bid prior to the bid due date, please contact DemandStar at 866.273.1863 or by email at [hello@demandstar.com](mailto:hello@demandstar.com).

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**SECTION 00 01 10**

**TABLE OF CONTENTS-TECHNICAL SECTIONS**

<b>Section Number</b>	<b>Section Title</b>	<b>Pages</b>
	<b>Division 03 - Concrete</b>	
03 01 01	Shoring	03 01 01-1 to 3
03 01 31	Concrete Removal and Surface Preparation	03 01 31-1 to 7
03 01 34	Concrete Replacements	03 01 34-1 to 15
03 15 11	Expansion Joint Seals	03 15 10-1 to 6
	<b>Division 04 - Masonry</b>	
04 05 01	Masonry Mortar and Repair	04 05 10-1 to 4
	<b>Division 07 - Thermal and Moisture Protection</b>	
07 18 00	Traffic Coating	07 18 00-1 to 9
07 81 00	Applied Fire Protection	07 81 00-1 to 3
07 92 00	Joint Sealants	07 92 00-1 to 8
	<b>Division 08 – Openings</b>	
08 11 13	Hollow Metal Doors and Frames	08 11 13-1 to 4
	<b>Division 09 - Finishes</b>	
09 91 00	Parking Stripe Painting	09 91 00-1 to 3
09 97 13	Steel Coating	09 97 13-1 to 7
09 97 24	Architectural Coating (Non-Elastomeric)	09 97 24-1 to 7

**END OF SECTION**

**SECTION 00 01 15**  
**LIST OF DRAWING SHEETS**

<b>Sheet Number</b>	<b>Title</b>
S-001	COVER SHEET
CHI-S-001	TITLE SHEET
CHI-S-002	GENERAL NOTES
CHI-S-101	GROUND FLOOR PLAN
CHI-S-501	REPAIR DETAILS
CHI-S-502	REPAIR DETAILS
CHU-S-001	TITLE SHEET
CHU-S-002	GENERAL NOTES
CHU-S-101	FIRST LEVEL PLAN (SOUTH END)
CHU-S-102	FIRST LEVEL PLAN (NORTH END)
CHU-S-103	SECOND LEVEL PLAN (SOUTH END)
CHU-S-104	SECOND LEVEL PLAN (NORTH END)
CHU-S-105	THIRD LEVEL PLAN (SOUTH END)
CHU-S-106	THIRD LEVEL PLAN (NORTH END)
CHU-S-107	FOURTH LEVEL PLAN (SOUTH END)
CHU-S-108	FOURTH LEVEL PLAN (NORTH END)
CHU-S-109	FIFTH LEVEL PLAN (SOUTH END)
CHU-S-110	FIFTH LEVEL PLAN (NORTH END)
CHU-S-111	SIXTH LEVEL PLAN
CHU-S-501	REPAIR DETAILS
CHU-S-502	REPAIR DETAILS
MAP-S-001	TITLE SHEET
MAP-S-002	GENERAL NOTES
MAP-S-101	GROUND LEVEL PLAN
MAP-S-102	SECOND LEVEL PLAN
MAP-S-103	THIRD LEVEL PLAN
MAP-S-104	FOURTH LEVEL PLAN
MAP-S-105	FIFTH LEVEL PLAN
MAP-S-106	SIXTH LEVEL PLAN
MAP-S-107	TOP LEVEL CROSSOVER PLAN
MAP-S-501	REPAIR DETAILS
MAP-S-502	REPAIR DETAILS
MAP-S-503	REPAIR DETAILS
MAP-S-504	REPAIR DETAILS
SHE-S-001	TITLE SHEET
SHE-S-002	GENERAL NOTES
SHE-S-101	FIRST LEVEL PLAN
SHE-S-102	SECOND LEVEL PLAN
SHE-S-103	THIRD LEVEL PLAN

SHE-S-104	FOURTH LEVEL PLAN
SHE-S-105	FIFTH LEVEL PLAN
SHE-S-106	SIXTH LEVEL PLAN
SHE-S-107	SEVENTH LEVEL PLAN
SHE-S-108	EIGHTH LEVEL PLAN
SHE-S-109	NINTH LEVEL PLAN
SHE-S-110	TENTH LEVEL PLAN
SHE-S-111	ELEVENTH LEVEL PLAN
SHE-S-112	TWELFTH LEVEL PLAN
SHE-S-113	THIRTEENTH LEVEL PLAN
SHE-S-501	REPAIR DETAILS
SHE-S-502	REPAIR DETAILS
SHE-S-503	REPAIR DETAILS

**END OF SECTION**

**SECTION 01 00 00****PROJECT REQUIREMENTS****PART 1 – GENERAL****1.01 GENERAL NOTE**

- A. The following requirements are a component part of all contract divisions and form a part of each specification section in so far as they may be in any way applicable thereto.

**1.02 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this section.

**1.03 SCHEDULE OF DRAWINGS**

- A. The following drawings form a component part of all contract documents for this project.

Title of the Drawings:

<u>Sheet No.</u>	<u>Drawing Title</u>
S-001	COVER SHEET
CHI-S-001	TITLE SHEET
CHI-S-002	GENERAL NOTES
CHI-S-101	GROUND FLOOR PLAN
CHI-S-501	REPAIR DETAILS
CHI-S-502	REPAIR DETAILS
CHU-S-001	TITLE SHEET
CHU-S-002	GENERAL NOTES
CHU-S-101	FIRST LEVEL PLAN (SOUTH END)
CHU-S-102	FIRST LEVEL PLAN (NORTH END)
CHU-S-103	SECOND LEVEL PLAN (SOUTH END)
CHU-S-104	SECOND LEVEL PLAN (NORTH END)
CHU-S-105	THIRD LEVEL PLAN (SOUTH END)
CHU-S-106	THIRD LEVEL PLAN (NORTH END)
CHU-S-107	FOURTH LEVEL PLAN (SOUTH END)
CHU-S-108	FOURTH LEVEL PLAN (NORTH END)
CHU-S-109	FIFTH LEVEL PLAN (SOUTH END)
CHU-S-110	FIFTH LEVEL PLAN (NORTH END)
CHU-S-111	SIXTH LEVEL PLAN
CHU-S-501	REPAIR DETAILS
CHU-S-502	REPAIR DETAILS
MAP-S-001	TITLE SHEET
MAP-S-002	GENERAL NOTES
MAP-S-101	GROUND LEVEL PLAN
MAP-S-102	SECOND LEVEL PLAN
MAP-S-103	THIRD LEVEL PLAN
MAP-S-104	FOURTH LEVEL PLAN
MAP-S-105	FIFTH LEVEL PLAN
MAP-S-106	SIXTH LEVEL PLAN

MAP-S-107	TOP LEVEL CROSSOVER PLAN
MAP-S-501	REPAIR DETAILS
MAP-S-502	REPAIR DETAILS
MAP-S-503	REPAIR DETAILS
MAP-S-504	REPAIR DETAILS
SHE-S-001	TITLE SHEET
SHE-S-002	GENERAL NOTES
SHE-S-101	FIRST LEVEL PLAN
SHE-S-102	SECOND LEVEL PLAN
SHE-S-103	THIRD LEVEL PLAN
SHE-S-104	FOURTH LEVEL PLAN
SHE-S-105	FIFTH LEVEL PLAN
SHE-S-106	SIXTH LEVEL PLAN
SHE-S-107	SEVENTH LEVEL PLAN
SHE-S-108	EIGHTH LEVEL PLAN
SHE-S-109	NINTH LEVEL PLAN
SHE-S-110	TENTH LEVEL PLAN
SHE-S-111	ELEVENTH LEVEL PLAN
SHE-S-112	TWELFTH LEVEL PLAN
SHE-S-113	THIRTEENTH LEVEL PLAN
SHE-S-501	REPAIR DETAILS
SHE-S-502	REPAIR DETAILS
SHE-S-503	REPAIR DETAILS

#### 1.04 PROJECT SUMMARY

- A. The repair items for the Base Bid of this project occur in four garages: 1. the Chicago Avenue Garage (above and below the ground floor supported level); 2. Church Street Garage (public levels); Maple Avenue Garage; and 4. Sherman Plaza Garage. The repair locations are as designated in the Drawings and as designated by the Engineer during construction.

#### 1.05 SPECIAL PROCEDURES AND REQUIREMENTS

- A. Fire Protection
1. Regulations: The Contractor shall comply with all federal, state and local fire regulations.
  2. Fires: The Contractor shall prohibit the lighting of fires about the premises and use due diligence to see that such prohibition is enforced. Debris and waste materials shall not be burned at the construction site but shall be promptly removed to prevent the accumulation of combustibles on the site.
  3. Smoking: Smoking shall be restricted to designated exterior locations. The Contractor shall furnish and post "NO SMOKING" signs at appropriate locations throughout the site where operations are conducted.
  4. Flammables: Gasoline and other fuels shall be kept and handled from National Board of Fire underwriter's approved safety cans and shall be stored away from hazardous work areas.
- B. Limit of Contractor's Operations
1. Work Areas: Work areas shall be confined to the limits of the construction site. The allotment of work areas within the site to Subcontractors shall be made by



- the Contractor. The general scheme of operations, work area assignments and use of the job site shall be subject to the Owner's approval.
2. Site Access: Uncontrolled or unrestricted site access will not be permitted for materials, debris or equipment. All access routes and methods shall be controlled by the Contractor so as to minimize the disruption of the Owner's operations and shall be subject to approval by the Owner. Walks, roads and other existing site features used in moving materials shall be properly protected to prevent damage thereto.
- C. Hoists, Scaffolds and Ladders
1. Hoists: The Contractor shall furnish, erect, operate and maintain suitable hoisting equipment as may be necessary for constructing the work. Material hoists shall be constructed and maintained in accordance with all applicable federal, state and local laws, regulations and ordinances. Location of hoists shall be subject to approval by the Owner's representative.
  2. Scaffolds and Ladders: The Contractor shall furnish, erect, maintain and move all scaffold and ladders required for his work. Scaffolds shall be constructed and maintained in accordance with all applicable federal, state and local laws, regulations and ordinances. Scaffolds and ladders shall be promptly removed after their purpose has been served.
- D. Documentation of Existing Conditions
1. Before starting any work, the Contractor shall examine the site to be worked on and the grounds in the staging area and areas adjacent to the site that will be worked on for any existing damage. The Contractor should notify the City's representative of any damage found immediately. The City will photograph and note any existing damage that has been brought to his attention by the Contractor. After the Work has been completed the City will inspect the area used by the Contractor. If any damage is found that was not reported previously, this damage would be considered to have been done by the Contractor. The cost to repair said damage shall be solely borne by the Contractor.

#### 1.06 TEMPORARY CONSTRUCTION FACILITIES

- A. The following temporary utilities and facilities on the construction site shall be provided by the party indicated below:

ITEM	PROVIDER
Telephone	General Contractor
Electricity	Owner
Water	Owner
Toilets	General Contractor
Parking spaces for Contractor vehicles	Within job site only, no street parking
Parking spaces for workmen	Within job site only, no street parking
Storage areas & facilities	Limited unsecured space within job site
Temporary heat	General Contractor
Job-site trailers & offices	General Contractor

#### PART 2 – PRODUCTS (NOT APPLICABLE)

#### PART 3 – EXECUTION (NOT APPLICABLE)

**END OF SECTION 01 00 00**

**SECTION 01 01 00**  
**SUMMARY OF WORK**

**PART 1 – GENERAL**

**1.01 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The Project Manual and accompanying drawings are intended to cover the work necessary to construct the various headings of work as described in detail herein.
- B. The work to be performed under this contract shall consist of the furnishing of all materials, equipment, supplies, labor and transportation, and performing all work as required to strictly conform to the provisions of the specifications, schedules and drawings, all of which are made a part herein, together with such detail drawings as may be furnished by the Owner from time to time during the prosecution of the work in amplification of said drawings and specifications.
- C. The repair items for the Project occur in four garages: 1. the Chicago Avenue Garage (above and below the ground floor supported level); 2. Church Street Garage (public levels); Maple Avenue Garage; and 4. Sherman Plaza Garage. The repair locations are as designated in the Drawings and as designated by the Engineer during construction. Work items include the following:

Chicago Avenue Parking Garage:

- 1. Concrete repairs including bonded topping slab repairs to the Ground Level floor
- 2. Routing and sealing of concrete cracks on the Ground Level floor
- 3. Concrete encasement repairs at the base of columns on the Ground Level floor
- 4. Cleaning and coating of existing steel floor framing and installation of new spray-applied fireproofing (select locations) to Ground Level steel framing and miscellaneous columns in the basement
- 5. Application of traffic-bearing membrane (full system) over steel beam lines and new wear course to entire Ground Level plan area
- 6. Installation of buried waterproofing at east vehicular entrance, including concrete removal and replacement
- 7. Masonry work including joint repointing and repair of CMU face shells
- 8. Removal and replacement of two doors and door frames on the north elevation
- 9. Installation of new anchors at front entrance sign
- 10. Painting and sealant cove installation along sills of steel façade grillage on all four garage elevations
- 11. Cleaning and painting of steel bumpers at pipe locations, Level 1
- 12. Alternate: Cleaning and coating of existing steel floor framing and installation of new spray-applied fireproofing (select locations) to Level 2 steel framing

Church Street Parking Garage

- 1. Concrete repairs including partial depth top-side, vertical, and overhead repairs at the public levels
- 2. Slab-on-ground and curb concrete repairs at Ground Level
- 3. Post-tensioning grout pocket repairs
- 4. Application of traffic-bearing waterproofing membrane in select areas
- 5. Sealant replacement in select areas
- 6. Replacement of failed stair joint seals at stairway entrance thresholds

7. Floor drain and piping system repairs (allowance)

Maple Avenue Parking Garage

1. Concrete repairs including partial depth top-side, vertical, and overhead repairs throughout all levels
2. Slab-on-ground and curb concrete repairs at Ground Level
3. Post-tensioning grout pocket repairs
4. Routing and sealing of concrete cracks throughout the garage
5. Expansion joint seal replacement on Ground Level at north entrance
6. Application of traffic-bearing waterproofing membrane in select areas
7. Concrete repairs to small spalls on stair treads along nosing in three primary stairwells
8. Sealant replacement in select areas as directed by the engineer. Multiple types of sealant replacement include:
  - a. Type A – Cove Joint (elastomeric sealant)
  - b. Type B – Wider joint around stairwell and elevator towers. Joint replacement to include compression seal installation
  - c. Type C – Vertical Joints at façade elements, parapet elements, etc. (limited to work on the interior of the garage)
9. Replacement of all exterior window sealants at the east windows of the southeast stairwell (Levels 2 through 6)
10. Masonry grinding and pointing of cracks in masonry infill walls (interior side only)
11. Installation of epoxied dowels to reinforce the top of one column at top level
12. Repair of grout pockets at select railing post bases in the southeast and northwest stair towers
13. Provide the Engineer with access for a one-day inspection of north exterior façade. The Work will require a manlift and operator to reach to the top of the north wall.

Sherman Plaza Parking Garage

1. Concrete repairs including partial depth top-side, vertical, and overhead repairs throughout all levels
2. Slab-on-ground and curb concrete repairs at Ground Level
3. Post-tensioning grout pocket repairs
4. Application of traffic-bearing waterproofing membrane in select areas
5. Sealant replacement in select areas
6. CMU wall repairs near Davis Street exit ramp and in other miscellaneous locations (all qt interior locations)
7. Replacement of failed barrier cable
8. Façade gravity connection repairs consisting of installation of supplemental shims
9. Floor drain and piping system repairs (allowance)
10. Alternate: Removal of loose paint from beams in select areas

**1.02 DESCRIPTION OF LUMP SUM WORK ITEMS**

- A. Prices for lump sum work items shall include all necessary material, plus cost for delivery, installation, insurance, bonding, overhead, and profit.
- B. See Section 01 27 00 – Unit Prices for description of unit price work items.

C. A general description for each lump sum work item is given in the following table:

<b>Bid Item</b>	<b>Type of Work</b>
A-2	<p><b>Application of fireproofing to and painting of steel elements</b> Reference Detail 2/CHI-S-502 and Sections 07 81 00 - Applied Fire Protection and 09 97 13- Steel Coating The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Restoration of the applied fireproofing will be performed on the steel framing supporting the Level 1 slab. Access to the lower level will ne needed for this work.</li> <li>b) Painting of the steel bumpers/guards around the drain pipes at concrete columns will be performed on Level 1.</li> <li>c) Sandblast to clean the steel</li> <li>d) Apply fireproofing to the steel beams to match the existing thickness</li> <li>e) Apply full steel paint coating system to the steel bumpers to match the existing color</li> </ul>
A-3	<p><b>Removal and replacement of two steel exterior doors and frames</b> Reference Detail 1/CHI-S-101 and Section 08 11 13 – Hollow Metal Doors and Frames The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal and disposal of two existing doors and frames at the north wall of the garage</li> <li>b) Repair of the concrete and masonry surfaces around the door opening. Notify Engineer if unsound materials go beyond a depth of 2 inches.</li> <li>c) Providing and installing new frames, doors, and hardware.</li> </ul>
A-4	<p><b>Repairs at sills of exterior wall openings with steel grillages</b> Reference Detail 7/CHI-S-502 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) At the interior side of the steel grillages, grind exposed steel that is present at the top of the CMU sill.</li> <li>b) Coat steel with 2 coats of zinc-rich primer</li> <li>c) Install a cove silicone sealant joint on the sill along the edge of the steel grillage base plate</li> </ul>

<b>Bid Item</b>	<b>Type of Work</b>
A-5	<p><b>Waterproofing repair at entrance to the garage (one column bay)</b> Reference Detail 6/CHI-S-501 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal of a strip of the sidewalk slab and excavation of the base material</li> <li>b) Sounding of the topping (repairs to the topping, if needed, would be paid under the appropriate unit price item)</li> <li>c) Cleaning of the vertical concrete surface</li> <li>d) Installation of sealant in the horizontal joint between the topping slab and the foundation wall</li> <li>e) Installation of a strip of waterproofing membrane on the vertical surface</li> <li>f) Recasting of the concrete sidewalk slab with ready-mix concrete or mixed on-site concrete, with a tooled edge for sealant installation along the existing slab and curing of the concrete</li> <li>g) Installation of sealant in the joint</li> <li>h) Application of a full membrane system in a strip on the topping, including preparation and tie-in of the existing membrane and routing and sealing of cracks and joints under the new membrane.</li> </ul> <p>Note: actual conditions may vary from detail shown. Coordinate with Engineer to review the existing conditions after excavation is complete.</p>
A-6	<p><b>Install two new masonry anchors at the front sign</b> Reference Detail 6/CHI-S-502 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Drilling holes through the sign at the new anchor locations and into the brick masonry</li> <li>b) Installation of new anchors and plate washers</li> </ul>
A-7	<p><b>Application of full traffic-bearing waterproofing membrane in two 2-foot strips along designated beam lines</b> Reference Details 1/CHI-S-101 and 3, 4,5, AND 7 on CHI-S-501 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Preparation of the existing coating, including removal of debonded areas</li> <li>b) Preparation of adjacent existing waterproofing membrane to remain at edges of work area for tie-in</li> <li>c) Removal and replacement of all existing joint or crack sealants in the new membrane area</li> <li>d) Solvent cleaning or abrasive cleaning of existing surfaces to be coated</li> <li>e) Air-blast cleaning of all surfaces</li> <li>f) Protection of prepared surfaces from contamination until membrane installation</li> <li>g) Detail strip of base coat at cracks, joints, changes in plane, and tie-ins</li> <li>h) Heavy-duty waterproofing membrane system</li> <li>i) Upturning membrane at vertical surfaces</li> </ul>

<b>Bid Item</b>	<b>Type of Work</b>
A-8	<p><b>Application of wear course over entire Ground Floor slab</b> Reference Details 1/CHI-S-101 and 3 and 4 on CHI-S-501 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Preparation of the existing coating, including solvent cleaning</li> <li>b) Notify Engineer of any areas of unbonded coating</li> </ul> <p>Note: routing and sealing of designated cracks and joints will be paid on a unit price basis for this area, outside of the A-7 membrane.</p> <ul style="list-style-type: none"> <li>c) Air-blast cleaning of all surfaces</li> <li>d) Protection of prepared surfaces from contamination until membrane installation</li> <li>e) Detail strip of base coat at cracks, joints, changes in plane, and tie-ins</li> <li>f) Wear course, sand and lock coat installation based on heavy-duty system thicknesses</li> <li>g) Painting of striping to match the existing (record prior to membrane work).</li> </ul>
C-2	<p><b>Sealant replacement at east windows, southwest stair tower</b> Reference Details 3/MAP-S-503 and 3/MAP-S-504 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal and replacement of all sealants at the five windows located at Levels 2 through 5</li> <li>b) Clean surfaces to receive sealants</li> <li>c) Apply primer per manufacturer's guidelines</li> <li>d) All new sealants to be non-staining silicone</li> <li>e) At perimeter joint, provide new backer rods</li> <li>f) At glazing joints, remove existing sealant. If gasket is present, cut flush with mullion surface</li> <li>g) At metal-to-metal joints, provide "band-aid" sealant strip or cove sealant to match existing.</li> </ul>
C-3	<p><b>Replacement of winged expansion joint seal at one joint</b> Reference Detail 2/MAP-S-503 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Measure joint width for ordering seal</li> <li>b) Remove existing seal and nosings from curb to far edge of column (across a drive aisle)</li> <li>c) Prepare concrete surfaces to accept new seal</li> <li>d) Install new seal and nosings</li> <li>e) Repair 1/2 sq ft nosing on elevated surface to the north of this joist to smooth out surface (by grinding or replacement of nosing material)</li> </ul>

<b>Bid Item</b>	<b>Type of Work</b>
C-4	<p><b>Installation of new seal at joints around stair towers and at west face of elevator tower</b> Reference Detail 5/MAP-S-503 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Measure multiple locations (at least three) along each joint for ordering seal</li> <li>b) Remove and save threshold cover</li> <li>c) Remove existing sealant and other materials in and across the joint</li> <li>d) Clean and prepare concrete surfaces</li> <li>e) Install new seal</li> <li>f) Reinstall threshold cover with new stainless steel fasteners</li> </ul>
C-5	<p><b>Installation of epoxied dowels at top end of column at top level</b> Reference Detail 7/MAP-S-503 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Drilling and cleaning holes into the concrete</li> <li>b) Installing four new threaded rods, set in epoxy into the holes</li> </ul>
C-6	<p><b>Lift access to the north elevation for one day</b> The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Provide an articulating boom lift to reach to the top of the north wall from the adjacent parking lot. The inspection will generally exclude the east third of the wall.</li> <li>b) Provide an operator</li> <li>c) Provide traffic barriers, tape, or other control</li> <li>d) Coordinate inspection of the north wall with the Engineer</li> </ul>
D-2	<p><b>Application of full traffic-bearing waterproofing membrane in lump sum designated areas</b> Reference Details 1/SHE-S-101, 102, 103 and 113; and Details 6/SHE-S-501, 1 through 6 on SHE-S-502 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Preparation of the existing coating, including removal of debonded areas</li> <li>b) Preparation of adjacent existing waterproofing membrane to remain at edges of work area for tie-in</li> <li>c) Removal and replacement of all existing joint or crack sealants in the new membrane area</li> <li>d) Solvent cleaning or abrasive cleaning of existing surfaces to be coated</li> <li>e) Air-blast cleaning of all surfaces</li> <li>f) Protection of prepared surfaces from contamination until membrane installation</li> <li>g) Detail strip of base coat at cracks, joints, changes in plane, and tie-ins</li> <li>h) Heavy-duty waterproofing membrane system</li> <li>i) Upturning membrane at vertical surfaces</li> <li>h) Painting of striping to match the existing (record prior to membrane work).</li> </ul>

<b>Bid Item</b>	<b>Type of Work</b>
D-4	<p><b>Removal and replacement of barrier cable</b> Reference Details 4A and 4B/SHE-S-503 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Work around existing fence or temporarily detach and then reinstall adjacent fence as needed for access.</li> <li>b) Remove the existing cable across four column bays and through five columns</li> <li>c) Remove hardware within the column sleeves or drill through</li> <li>d) Install new cable continuous across the four bays and through the end columns</li> <li>e) Install new hardware</li> <li>f) Prestress the cable, taking precautions to block pedestrian and vehicle traffic in the area during the stressing operation</li> </ul>

**1.03 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this section.

**1.04 CONTRACT ORGANIZATION**

- A. This Construction Project is organized under a single contract between the Owner and the Contractor. The Contractor is responsible for all plans and specification sections as presented in this project manual.

**1.05 WORK SEQUENCE**

- A. Final completion of the construction project will be attained when all items from the final inspection report, prepared in conjunction with the designing engineer and the City of Evanston, are completed to the satisfaction of the City of Evanston.
- B. All work and sequence of operations shall be as scheduled in conjunction with all subcontractors, and the Owner in such a manner as not to hinder or delay any other contractors in the progress of their work, and to an end that will expedite the work to completion at the earliest possible date.
- C. Both Contractor and Subcontractor shall cooperate to execute their work as scheduled to minimize the delays to each other and to cause the least inconvenience to the Owner and the public.

**1.06 CONTRACTORS' USE OF PREMISES**

- A. The Contract shall limit his use of the premises for work and for storage to allow for:
  - 1. Work by other contractors
  - 2. Owner occupancy
  - 3. Public use
- B. Coordinate the use of the premises under direction of the Owner. Stage work so as to avoid disruption to Owner's operation.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract, which are stored at the project site or on the Contractor's property.
- D. Move any stored products, under Contractor's control, which interfere with operation of the Owner or separate contractor.
- E. Obtain and pay for the use of additional storage or work areas needed for operations.



**1.07 OWNER OCCUPANCY**

- A. The ground level of the Chicago Avenue garage will be closed for one month for the work. The other levels will remain open. The Contractor may coordinate with the Owner and Engineer to perform limited concrete deck repairs in advance of the one-month shutdown to facilitate curing time and membrane installation.
- B. The remaining three garages will be occupied for the full duration of the repair project. The Contractor shall phase work in coordination with the City of Evanston representative to provide access to the garages. Some off-hour work may be performed to accomplish selected work items if needed to accommodate garage usage.
- C. The City and the public will maintain 24 hour access to all areas of the property outside of construction fencing at all times.
- D. Contractor shall not utilize or prevent access to existing utility easement areas during the entire construction period.

**1.08 LINES, LEVELS AND LAYOUT OF WORK**

- A. The Contractor shall establish and guarantee all lines, levels, etc. called for on the drawings, including the lines, levels, etc. of all Subcontractors.

**1.09 DESCRIPTION OF STRUCTURE**

- A. The work will occur in four garages:
  - 1. The Chicago Avenue Garage (above and below the ground floor supported level)
  - 2. Church Street Garage (public levels)
  - 3. Maple Avenue Garage
  - 4. Sherman Plaza Garage

**1.10 WORK HOURS**

- A. Allowed work hours are 7:00 am to 7:00 pm, Monday through Friday and 8:00 am to 5:00 pm on Saturday. No noise-producing work is allowed prior to 8:00 a.m. No work is allowed on Sundays. Access to the site will outside of normal work hours shall be at the discretion of and coordinated with the Owner.

**1.11 CONTRACTOR'S DUTIES**

- A. Except as specifically noted, provide and pay for:
  - 1. Labor, materials and equipment.
  - 2. Tools, construction equipment and machinery
  - 3. Water, heat, and utilities required for construction or the Contractor's operations.
  - 4. Other facilities and services necessary for proper execution and completion of work, including traffic control and temporary work.
- B. Promptly submit written notice to the Architect of any observed variance of the Contract Documents from legal requirements. It is not the Contractor's responsibility to make certain that the Drawings and Specifications comply with codes and regulations.
  - 1. Appropriate modifications to the Contract Documents will adjust the necessary changes.
  - 2. The Contractor shall assume responsibility for work known to be contrary to such requirements, and performed without such notice.
- C. Enforce strict discipline and good order among employees. Do not employ on work:
  - 1. Unfit persons
  - 2. Persons not skilled in assigned task
- D. Existing Conditions
  - 1. The Contractor shall be responsible for obtaining and verifying all dimensions. Any dimension give in the Drawings referring to existing construction were

taken from the original construction documents and are provided for information only.

2. Where conditions are uncovered that are not anticipated by the Drawings and Specifications, the Contractor shall notify the Engineer and Owner's Representative immediately, before any modification or other work is initiated.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 01 00**

## SECTION 01 02 70

### APPLICATIONS FOR PAYMENT

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Contractor shall comply with procedures described in this Section when applying for progress payments and final payment under the Contract.

##### 1.02 RELATED WORK

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.
- B. Payments upon Substantial Completion and Completion of the Work are described in Section 01 70 00 – PROJECT CLOSEOUT.
- C. The Owner's approval of applications for progress payment and final payment may be contingent upon the Owner's approval of status of Project Record Documents as described in Section 01 72 00 – PROJECT RECORD DOCUMENTS of these Specifications.

##### 1.03 QUALITY ASSURANCE

- A. Prior to start of construction, secure the Owner's approval of the schedule of values required to be submitted as specified below.
- B. During progress of the Work, modify the schedule of values as approved by the Owner to reflect changes in the Contract Sum due to Change Orders or other modifications of the Contract.
- C. All requests for payment shall be based on the approved Schedule of Values for the project.
- D. All modifications to the contract shall be based on the approved Schedule of Values for the project.

##### 1.04 SCHEDULE OF VALUES

- A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
  - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
    - a. Contractor's construction schedule.
    - b. Application for Payment forms.
    - c. List of subcontractors.
    - d. Schedule of alternates.
    - e. List of products.
    - f. List of principal suppliers and fabricators.
    - g. Schedule of submittals.
  - 2. Submit the Schedule of Values to the Owner at the earliest feasible date, but in no case later than seven (7) days before the date scheduled for submittal of the initial Application for Payment.
- B. If applicable, the format and content of the Schedule of Values shall match the project's unit pricing. The Contractor is strongly encouraged to utilize spreadsheet software for preparation of all pay applications.
  - 1. Include the following Project identification on the Schedule of Values:

- a. Project name and location.
  - b. Purchase order number.
  - c. Contractor's name and address.
  - d. Date of submittal.
2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
    - a. Itemized description.
    - b. Related Specification Section
    - c. Name of subcontractor.
    - d. Name of manufacturer or fabricator.
    - e. Name of supplier.
    - f. Change Orders (numbers) that have affected value.
    - g. Dollar value.
    - h. Percentage of Contract Sum to the nearest one-hundredth percent, adjusted to total 100 percent.
  3. For each part of the Work where an Application for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
  4. Show line items for indirect costs and margins on actual costs, only to the extent that such items will be listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete including its total cost and proportionate share of general overhead and profit margin.
  5. Update and resubmit the Schedule of Values when Change Orders result in a change in the Contract Sum.

## 1.05 PROCEDURES

- A. Informal submittal
  1. Make informal submittal of request for payment by filling in, with erasable pencil, pertinent portions of AIA Document G702, "Application and Certification for Payment," plus continuation sheet or sheets of AIA Document G703.
  2. Make this preliminary submittal to the Architect and Owner in accordance with the Owner's payment schedule.
  3. Revise the informal submittal of the request for payment as directed by the Owner, initialing all copies.
- B. Formal submittal
  1. Make formal submittal of request for payment by filling in the agreed data, by typewriter or neat lettering in ink, on AIA Document G702, "Application and Certification for Payment," plus continuation sheet(s) of AIA Document G703.
  2. Sign and notarize the Application and Certificate for Payment.
  3. Reference Purchase Order number on Application for Payment
  4. Secure and file with submittal progress waivers for all materials incorporated into and labor and equipment employed on the work before payment requests are processed.
    - a. Initial payment will be processed without progress waivers. Subsequent requests will require progress waivers for previous payment.

5. Submit the request for payment via email to the owner's project manager with a copy to the project manager from the Architect if applicable.
6. The Architect and Owner will compare the formal submittal with the approved informal submittal and, when approved, will sign the Application and Certificate for Payment, will make and distribute required copies. The Owner will disburse directly to the Contractor the amount certified less 10% retainage.
7. Approved formal submittals must be received by the Owner in accordance with the Owner's payment schedule.
8. Certified payroll records must be submitted along with the formal submittal as described in the General Conditions.
9. Certified payroll records must be concurrently submitted to the Illinois Department of Labor using the Certified Transcript of Payroll Portal.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 02 70**

**SECTION 01 02 80**  
**CHANGE ORDER PROCEDURE**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Make such changes in the Work, in the Contract Sum, in the Contract Time of Completion, or any combination thereof, as are described in written Change Orders and/or modified Purchase Orders issued by the Owner after execution of the Contract, in accordance with the provisions of this Section.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.
- B. Changes in the Work are described further in the General Conditions.
- C. Bulletins
  1. From time to time during progress of the Work, the Owner may issue a bulletin or sketch, which interprets the Contract Documents or order minor changes in the Work without change in Contract Sum or Contract Time.
  2. Should the Contractor consider that a change in Contract Sum or Contract Time is required, he shall submit an itemized Proposal to the Owner immediately and before proceeding with the Work. All proposals shall be submitted on the attached forms and shall conform to the requirements, breakdowns and markups identified. If the proposal is found to be satisfactory and in proper order, the Owner will issue a Change Order and/or a modified Purchase Order.
  3. Issuance of a bulletin or sketch is not to be considered a Change Order and is not authorization to proceed with the changes described therein.

**1.3 QUALITY ASSURANCE**

- A. The Owner will supply the Contractor with the standard City of Evanston Change Order form as attached.
- B. Include within the Contractor's quality assurance program such measures as are needed to assure familiarity of the Contractor's staff and employees with these procedures for processing Change Order data.
- C. During progress of the Work, modify the Schedule of Values as approved by the Owner to reflect changes in the Contract Sum due to Change Orders.

**1.4 DELIVERY, STORAGE AND HANDLING**

- A. Maintain a "Register of bulletins, sketches, supplemental instructions, proposals and change orders" at the job site, accurately reflecting current status of all pertinent data.
- B. Make the Register available to the Owner for review at their request.

## **1.5 PROCESSING BULLETINS AND PROPOSALS**

- A. Make written reply to the Owner in response to each Bulletin using the standard City of Evanston Change Order Form as attached.
  - 1. The contractor shall break down and describe all work and costs by subcontractors and general contractor in terms of trade, raw costs, markup, subtotal and total.
  - 2. The contractor shall include full backup data such as subcontractor's letter of proposal or similar information.
  - 3. The contractor shall be limited to the following markup percentages
    - a. Item I – subcontractor's markup on own work: 5%
    - b. Item IB – general contractor's overhead on subcontractor's work: 5%
    - c. Item II – general contractors markup on own work: 10%
  - 4. The contractor shall identify any extension of time required to perform the work associated with the proposal on the proposal form. No extension of time will be granted for proposal items after change orders are accepted.
  - 5. The contractor shall sign, date and submit proposal and accompanying backup data to the Owner for review.
  
- B. When the Owner and the Contractor have agreed upon cost or credit for the change, the Owner will issue a Change Order and/or a modified Purchase Order to the Contractor.

## **1.6 PROCESSING CHANGE ORDERS**

- A. Change orders will be numbered in sequence and dated.
  - 1. The Change Order will describe the change or changes, will refer to the proposal(s) and bulletin(s) involved and will be signed by the Owner and the Contractor.
  - 2. The Owner will issue two copies of each Change Order to the contractor.
    - a. The Contractor shall promptly sign both copies and return one copy to the Owner.
  
- B. A modified Purchase Order will be issued with a Change Order, when necessary, in accordance with the General Conditions.

## **PART 2 PRODUCTS (NOT APPLICABLE)**

## **PART 3 EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 02 80**

**SECTION 01 04 50**  
**CUTTING AND PATCHING**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. This Section establishes general requirements pertaining to cutting (including excavation), fitting and patching of the Work required.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.
- B. Execute cutting (including excavation), filling or patching of work, required to:
  - 1. Make several parts fit properly.
  - 2. Uncover work to provide for installation of ill-timed work.
  - 3. Remove and replace defective work.
  - 4. Remove and replace work not conforming to the Contract requirements.
  - 5. Remove samples of installed work as specified for testing.
  - 6. Install specified work in existing construction.
- C. In addition to Contract requirements, upon written instruction of the Owner:
  - 1. Uncover work to provide for observation of covered work.
  - 2. Remove samples of installed materials for testing.
  - 3. Remove work to provide for alteration of existing work.
- D. Do not cut or alter work of another contractor without written consent of the Owner.

**1.3 SUBMITTALS**

- A. Prior to cutting which affects structural safety of Project, or work of another contractor, submit written notice to the Owner requesting consent to proceed with cutting.
- B. Include the following:
  - 1. Project identification.
  - 2. Description of affected work.
  - 3. Necessity for cutting.
  - 4. Effect on other work and on structural integrity of Project.
  - 5. Description of proposed work. Designate:
    - a. Scope of cutting and patching.
    - b. Contractor and trades to execute the work.
    - c. Products proposed to be used.
    - d. Extent of refinishing.
  - 6. Alternatives to cutting and patching.
  - 7. Designation of party responsible for cost of cutting and patching.
- C. Prior to cutting and patching done by instruction of Owner, submit cost estimate.



- D. Should conditions of work or schedule indicate change of materials or methods, submit recommendations to the Owner, including:
  - 1. Conditions indicating change.
  - 2. Recommendation for alternative materials or methods.
  - 3. Submittals as required for substitutions.
- E. Submit written notice to the Owner, designating time the work will be uncovered to provide for observation.

#### **1.4 PAYMENT FOR COSTS**

- A. Costs caused by ill-timed or defective work, or work not conforming to Contract Documents: Party responsible for ill-timed, rejected or non-conforming work.
- B. Work done on instruction of the Owner (by Change Order), other than defective or non-conforming work shall be paid for by the Owner.

#### **1.5 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
  - 1. Structural Elements: When cutting and patching structural elements, notify Architect/Engineer of locations and details of cutting. Shore, brace, and support structural element, as necessary, during cutting and patching. Do not cut and patch structural elements in manner that could change their load-carrying capacity or load-deflection ratio.
  - 2. Other Construction Elements: Do not cut and patch other construction elements or components in manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety. Other construction elements might include following:
    - a. Water, moisture, or vapor barriers.
    - b. Membranes and flashings.
    - c. Exterior curtain-wall construction.
    - d. Equipment supports.
  - 3. Visible Elements: Do not cut and patch exposed construction in manner that results in visible evidence of cutting and patching or in manner that would, in Architect/Engineer's opinion, reduce building's aesthetic qualities.

### **PART 2 PRODUCTS**

#### **2.1 MATERIALS**

- A. For replacement of work removed, comply with Specifications for type of work to be performed.

## **PART 3 EXECUTION**

### **3.1 INSPECTION**

- A. Inspect existing conditions of work, including elements subject to movement or damage during:
  - 1. Cutting and patching.
  - 2. Excavating and backfilling
- B. After uncovering work, inspect conditions affecting installation of new products.

### **3.2 PREPARATION**

- A. Prior to cutting:
  - 1. Provide shoring, bracing and support as required to maintain structural integrity of project.
  - 2. Provide protection for other portions of the project.
  - 3. Provide protection from the elements.

### **3.3 PERFORMANCE**

- A. Execute fitting and adjustment or provide finished installation to comply with specified tolerances and finishes.
- B. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs and new work.
- C. Execute excavating and backfilling by methods which will prevent damage to other work, and will prevent settlement.
- D. Restore work which has been cut or removed; install new products to provide complete work in accordance with contract requirements.
- E. Refinish entire surfaces as necessary to provide an even finish.
  - 1. Continuous surfaces: to nearest intersection (s).
  - 2. Assembly: entire refinishing.

**END OF SECTION**

## SECTION 01 06 00

### REGULATORY REQUIREMENTS

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Contractors shall comply with all laws, rules and regulations governing the Work.
  - 1. When Contractor observes that Contract Documents are in variance with specified codes, notify the Owner in writing immediately. The Owner will issue all changes in accord with the General Conditions.
  - 2. When Contractor performs any Work knowing or having reason to know that the Work is contrary to such laws, rules and regulations and fails to so notify the Owner, the Contractor shall pay all costs arising therefrom. However, it will not be the Contractor's primary responsibility to make certain that the Contract Documents are in accord with such laws, rules and regulations.

##### 1.02 RELATED WORK

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

##### 1.03 DEFINITIONS AND ABBREVIATIONS

- A. Definitions
  - 1. "Codes" means rules, regulations or statutory requirements of government agencies.
  - 2. "Standards" means requirements set by authorities, custom or general consent and establish accepted criteria.
- B. Abbreviations
  - 1. ADA Americans with Disabilities Act
  - 2. AGCI Associated General Contractors in Illinois
  - 3. ANSI American National Standards Institute
  - 4. ASHRAE American Society of Heating, Refrigeration and Air Conditioning Engineers
  - 5. ASTM American Society of Testing and Materials
  - 7. COE City of Evanston
  - 8. CPSC Consumer Product Safety Commission (Federal)
  - 9. FM Factory Mutual Engineering Corp.
  - 9. IBC Internation Building Code
  - 10. IDOL Illinois Department of Labor
  - 11. IDOT Illinois Department of Transportation
  - 12. IDPH Illinois Department of Public Health
  - 13. IEPA Illinois Environmental Protection Agency
  - 14. IECC Internation Energy Conservation Code
  - 14. ISPE Illinois Society of Professional Engineers
  - 15. NFPA National Fire Protection Association
  - 16. SFM Office of State Fire Marshall
  - 17. UL Underwriters Laboratories, Inc.

##### 1.04 QUALITY ASSURANCE

- A. Contractor shall:
1. Ensure that copies of specified codes and standards are readily available to Contractor's personnel. Copies are available at Contractor's expense from source or publisher.
  2. Ensure that Contractor's personnel are familiar with workmanship and installation requirements of specified codes and standards.

#### **1.05 REFERENCE SPECIFICATIONS**

- A. The Specifications referred to herein shall be interpreted to mean the following and shall include all addenda, changes to, etc. Reference to Engineer shall mean Owner.
1. "Standard Specifications" – The Illinois Department of Transportation's (IDOT's) "Standard Specifications for Road and Bridge Construction", latest edition.
  2. "Supplemental Specifications" – IDOT's "Supplemental Specifications and Recurring Special Provisions", latest edition.
  3. "Traffic Specifications" – IDOT's "Standard Specifications for Traffic Control Items", latest edition.
  4. "Standard Sewer Specifications" – The "Standard Specifications for Water and Sewer Main Construction in Illinois", latest edition.

#### **1.06 REGULATORY REQUIREMENTS**

- A. Source and requirements:
1. EBA: "Environmental Barriers Act" Illinois Accessibility Code
  2. ADA: Americans with Disabilities Act
  3. ISPC: Illinois State Plumbing Code, current edition
  4. IEPA: (current editions at date of bidding documents)
    - a. Air Pollution Standards
    - b. Noise Pollution Standards
    - c. Water Pollution Standards
    - d. Public Water Supplies
    - e. Solid Waste Standards
    - f. Illinois Recommended Standards for Sewage Work
  5. Illinois Purchasing Act, as amended (Illinois Compiled Statutes, 30 ILCS 505/1 et seq)
  6. OSFM:
    - a. Gasoline and Volatile Oils (Illinois Compiled Statutes, 430 ILCS 15/0.01 et seq)
    - b. Liquefied Petroleum Gases (Illinois Compiled Statutes, 430 ILCS 5/0.01 et seq)
    - c. Liquefied Petroleum Gas Containers (Illinois Compiled Statutes, 430 ILCS 10/0.01 et seq)
    - d. Boiler and Pressure Vessel Safety Act and Rules and Regulations (Illinois Compiled Statutes, 430 ILCS 75/1 et seq)
    - e. Illinois Rules and Regulations for Fire Prevention and Safety, as amended 24 December 1973.
  7. CODES:
    - a. City of Evanston "City Ordinances" and "Building Code", current editions.
    - b. Work not covered by above codes: Use NFPA National Fire Codes, current edition.

- B. The Owner may reference other codes or standards throughout the Project Manual when deemed appropriate for proper compliance with regulatory requirements.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 06 00**

**SECTION 01 09 50****REFERENCE STANDARDS AND DEFINITIONS****PART 1 – GENERAL****1.01 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.02 DEFINITIONS**

- A. General: basic contract definitions are included in the General Conditions.
- B. Indicated: the term “indicated” refers to graphic representations, notes or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as “shown,” “noted,” “scheduled” and “specified” are used, it is to help the reader locate the reference; no limitation on location is intended.
- C. Directed: terms such as “directed,” requested,” “authorized,” “selected,” “approved,” “required” and “permitted” mean “directed by the Owner,” “requested by the Owner” and similar phrases.
- D. Approve: the term “approved,” where used in conjunction with the Owner action on the Contractor’s submittals, applications and requests, is limited to the Owner’s duties and responsibilities as stated in the General Conditions.
- E. Regulation: the term “regulations” includes laws, ordinances, statutes and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the Work.
- F. Furnish: the term “furnish” is used to mean “supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation and similar operations.”
- G. Install: the term “install” is used to describe operations at project site including the actual “unloading, unpacking, assembly, installation, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations.”
- H. Provide: the term “provide” means “to furnish and install, complete and ready for the intended use.
- I. Installer: an “installer” is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

**1.03 INDUSTRY STANDARDS**

- A. Applicability of Standards: except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: where the date of issue of a referenced standard is not specified, comply with the standard in effect as of date of Contract Documents.
- C. Conflicting Requirements: where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the Owner for a decision before proceeding.
  - 1. Minimum Quality or Quantity Levels: the quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation

Referenced Standards

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may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum, as appropriate for the context of the requirements. Refer uncertainties to the Owner for a decision before proceeding.

- D. Copies of Standards: each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity’s construction activity. Copies of applicable standards are not bound with the Contract Documents.
1. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.
  2. Although copies of standards needed for enforcement of requirements may be included as part of required submittals, the Owner reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.
- E. Abbreviations and Names: trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable to the context of the text provision. Refer to the “Encyclopedia of Associations,” published by Gale Research Co., available in most libraries. The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Names and addresses are subject to change and are believed to be but are not assured to be accurate and up to date as of date of Contract Documents.

AA	Aluminum Assoc. 900 19 <sup>th</sup> St, NW, Suite 300 Washington, DC 20006 (202) 862-5100	AAM A	American Architectural Manufacturer’s Assoc. 1540 E. Dundee Rd, Suite 310 Palatine, IL 60067 (708) 202-1350	AAN	American Assoc. of Nurserymen 1250 Eye St, NW, Suite 500 Washington, DC 20005 (202) 789-2900
AASH TO	American Assoc. of State Highway and Transportation Officials 444 N. Capitol St, Suite 225 Washington, DC 20001 (202) 624-5800	ACI	American Concrete Institute PO Box 19150 Detroit, MI 48219- 0150 (313) 532-2600	ACIL	American Council of Independent Laboratories 1725 K St, NW Washington, DC 20006 (202) 887-5872
ACPA	American Concrete Pipe Assoc. 8320 Old Courthouse Rd. Vienna, VA 22180 (703) 821-1990	AGA	American Gas Assoc. 1515 Wilson Blvd. Arlington, VA 22209 (703) 841-8400	AHA	American Hardboard Assoc. 520 N. Hicks Rd. Palatine, IL 60067-3609 (708) 934-8800
AI	Asphalt Institute Research Park Drive PO Box 14052 Lexington, KY 40512- 4052 (606) 288-4960	AIA	American Institute of Architects 1735 New York Ave, NW Washington, DC 20006 (202) 626-7300	A.I.A.	American Insurance Assoc. 1130 Connecticut Ave, NW Washington, DC 20036 (202) 828-7100

Referenced Standards

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AISC	American Institute of Steel Construction 1 E. Wacker Dr, Suite 3100 Chicago, IL 60601-2001 (312) 670-2400	AISI	American Iron and Steel Institute 1101 17 <sup>th</sup> St. NW, Suite 1300 Washington, DC 20005-2701 (202) 452-7100	AITC	American Institute of Timber Construction 11818 SE Mill Plain Blvd, Ste.415 Vancouver, WA 98684-5092 (206) 254-9132
ALI	Associated Laboratories 641 S. Vermont St. Palatine, IL 60067 (708) 358-7400	ALSC	American Lumber Standards Committee PO Box 210 Germantown, MD 20874 (301) 972-1700	ANSI	American National Standards Institute 11 W. 42 <sup>nd</sup> Street New York, NY 10036 (212) 354-3300
AOSA	Assoc. of Official Seed Analysts C/o Jim Lair Illinois Dept. of Agriculture Seed Lab Box 19281 Springfield, IL 62794 (217) 782-7655	APA	American Plywood Assoc. PO Box 11700 Tacoma, WA 98411 (206) 565-6600	API	American Petroleum Institute 1220 L St, NW Washington, DC 20005 (202) 682-8000
ASC	Adhesive and Sealant Council 1627 K Street, NW, Suite 1000 Washington, DC 20006 (202) 452-1500	ASHRAE	American Society of Heating, Refrigerating and Air-conditioning Engineers, Inc. 1791 Tullie Circle, NE Atlanta GA 30329-2305	ASME	American Society of Mechanical Engineers 345 East 47 <sup>th</sup> Street New York, NY 10017
ASPE	American Society of Plumbing Engineers 3617 Thousand Oaks Blvd, Suite 210 Westlake, CA 91362 (805) 495-7120	ASSE	American Society of Sanitary Engineers PO Box 40362 Bay Village, OH 44140 (216) 835-3040	ASTM	American Society for Testing and Materials 1916 Race St Philadelphia, PA 19103 (215) 299-5400
AWI	Architectural Woodwork Institute 2310 S. Walter Reed Dr. Arlington, VA 22206 (703) 671-9100	AWPA	American Wood Preservers Assoc. PO Box 286 Woodstock, MD 21163 (410) 465-3169	AWPB	American Wood Preservers Bureau PO Box 5283 Springfield, VA 22150 (703) 339-6660
AWS	American Welding Society PO Box 351040 550 LeJeune Road, NW Miami, FL 33135 (305) 443-9353	AWWA	American Water Works Assoc. 6666 W Quincy Ave Denver, CO 80235 (303) 794-7711	BANC	Brick Assoc. of North Carolina PO Box 13290 Greensboro, NC 27415 (919) 273-5566
BHMA	Builders Hardware Manufacturers Assoc. 355 Lexington Ave, 17 <sup>th</sup> Floor New York, NY 10017 (212) 661-4261	BIA	Brick Institute of America 11490 Commerce Park Dr. Suite 300 Reston, VA 22091 (703) 620-0010	CISPI	Cast Iron Soil Pipe Institute 5959 Shallowford Rd, Ste 419 Chattanooga, TN 37421 (615) 892-0137



Referenced Standards

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CRSI	Concrete Reinforcing Steel Institute 933 Plumb Grove Rd. Schaumburg, IL 60195 (708) 517-1200	EJMA	Expansion Joint Manufacturers Assoc. 25 N. Broadway Tarrytown, NY 10591 (914) 332-0040	ETL	ETL Testing Laboratories Inc. PO Box 2040 Route 11, Industrial Park Cortland, NY 13045 (607) 753-6711
HMA	Hardwood Manufacturers Assoc. 2831 Airways Blvd., Ste 205, Bldg. B Memphis, TN 38132 (901) 346-2222	HPMA	Hardwood Plywood Manufacturers Assoc. 1825 Michael Farraday Dr PO Box 2789 Reston, VA 22090-2789 (703) 435-2900	ICEA	Insulated Cable Engineers Assoc. Inc. PO Box 440 South Yarmouth, MA 02664 (617) 394-4424
IEEE	Institute of Electrical and Electronic Engineers 345 E. 47 <sup>th</sup> Street New York, NY 10017 (212) 705-7900	IESNA	Illuminating Engineering Society of North America 345 E 47 <sup>th</sup> Street New York, NY 10017 (212) 705-7926	ILI	Indiana Limestone Institute of America Stone City Bank Bldg, Ste 400 Bedford, IN 47421 (812) 275-4426
IMSA	International Municipal Signal Assoc. PO Box 539 1115 N. Main Street Newark, NY 14513 (315) 331-2182	IRI	Industrial Risk Insurers 85 Woodland St Hartford, CT 06102 (203) 520-7300	LPI	Lightning Protection Institute PO Box 1029 Woodstock, IL 60098 (815) 337-0277
MBMA	Metal Building Manufacturers Assoc. 1230 Keith Building Cleveland, OH 44115-2180	MCAA	Mechanical Contractors Assoc. of America 5410 Grosvenor Lane, Ste 120 Bethesda, MD 20814 (301) 897-0770	NAAMM	National Assoc. of Architectural Metal Manufacturers 600 S. Federal St, Ste 400 Chicago, IL 60605 (312) 922-6222
NAPA	National Asphalt Pavement Assoc. Calvert Building, Suite 620 6811 Kenilworth Ave. Riverdale, MD 20737 (301) 779-4880	NAPF	National Assoc. of Plastic Fabricators (Now DLPA)	NBGQA	National Building Granite Quarries Assoc. PO Box 482 Barre, VT 05641 (802) 476-3115
NBHA	National Builders hardware Assoc. (Now DHI)	NCMA	National Concrete Masonry Assoc. 2302 Horse Pen Rd PO Box 781 Herndon, VA 22070-3406 (703) 435-4900	NEC	National Electric Code (Now NfiPA)

Referenced Standards

01 09 50 - 5

NECA	National Electrical Contractors Assoc. 7315 Wisconsin Ave Bethesda, MD 20814 (301) 657-3110	NEMA	National Electrical Manufacturers Assoc. 2101 L St, NW, Ste 300 Washington, DC 20037 (202) 457-8400	NFiPA	National Fire Protection Assoc. 1 Batterymarch Park Quincy, MA 02269 (617) 770-3000
NFoPA	National Forest Products Assoc. 1250 Connecticut Ave, NW, Suite 200 Washington DC 20036 (202) 463-2700	NHLA	National Hardwood Lumber Assoc. PO Box 34518 Memphis, TN 38184 (901) 377-1818	NLGA	National Lumber Grades Authority 1055 W Hastings St. Ste 260 Vancouver, British Columbia Canada V6E 2H1 (604) 687-2171
NPA	National Particleboard Assoc. 18928 Premiere Court Gaithersburg, MD 20879-1569 (301) 670-0604	NPCA	National Paint and Coatings Assoc. 1500 Rhode Island Ave, NW Washington, DC 20005 (202) 462-6272	NSF	National Sanitation Foundation PO Box 1468 3475 Plymouth Rd Ann Arbor, MI 48106 (313) 769-8010
NWMA	National Woodwork Manufacturers Assoc. (Now NWWDA)	PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077-4321 (847) 966-6200	PCI	Prestressed Concrete Institute 175 W Jackson Blvd Chicago, IL 60604-9773 (312) 786-0300
PDI	Plumbing and Drainage Institute C/o Saul Baker 1106 W. 77 <sup>th</sup> Street, South Dr. Indianapolis, IN 4626 (317) 251-6970	RIS	Redwood Inspection Service 405 Enfrente Dr, Suite 300 Novato, CA 94949 (415) 382-0662	RMA	Rubber Manufacturers Assoc. 1400 K St, NW Washington, DC 20005 (202) 682-4800
SHLMA	Southern Hardwood Lumber Manufacturers Assoc. (Now HMA)	SJI	Steel Joist Institute Suite A 1205 48 <sup>th</sup> Ave North Myrtle Beach, SC 29577	SPIB	Southern Pine Inspection Bureau 4709 Scenic Highway Pensacola, FL 32504 (904) 434-2611
SSPC	Steel Structures Painting Council 4400 Fifth Ave. Pittsburgh, PA 15213 (412) 268-3327	SSPM A	Sump and Sewage Pump Manufacturers Assoc. 560 W Washington St, Ste 301 Chicago IL, 60606 (312) 332-4146	TPI	Truss Plate Institute 583 D'Onofrio Drive Suite 200 Madison, WI 53719
UL	Underwriters Laboratories 333 Pfingsten Rd. Northbrook, IL 60062 (847) 272-8800	WCLIB	West Coast Lumber Inspection Bureau PO Box 23145 Portland, OR 97223 (503) 639-0651	WIC	Woodwork Institute of California PO Box 11428 Fresno, CA 93773 (209) 233-9035

Referenced Standards

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WRI	Wire Reinforcement Institute 1101 Connecticut Ave, NW Washington, DC 20036-4303 (703) 790-9790	WWP A	Western Wood Products Assoc. 522 SW 5 <sup>th</sup> Ave, Yeon Bldg. Portland, OR 97204-2122 (503) 224-3930	W.W.P. A.	Woven Wire Products Assoc. 2515 N. Nordica Ave. Chicago, IL 60635 (312) 637-1359
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F. Federal Government Agencies: names and titles of federal government standard or specification producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard or specification producing agencies of the federal government. Names and addresses are subject to change; they are believed to be but are not assured to be accurate and up to date as of the date of the Contract Documents.

CE	Corps of Engineers (US Dept of the Army) Chief of Engineers – Referral Washington, DC 20314 (202) 272-0660	CFR	Code of Federal Regulations Available from the Government Printing Office N. Capitol St between G and H St, NW Washington, DC 20402 (202) 783-3238 (Material is usually first published in the Federal Register)	CPSC	Consumer Product Safety Commission 5401 Westbard Ave, Room 700 Washington, DC 20816 (800) 638-2772
CS	Commercial Standard (US Dept of Commerce) Government Printing Office Washington, DC 20402 (202) 377-2000	DOC	Department of Commerce 14 <sup>th</sup> St and Constitution Ave, NW Washington, DC 20230 (202) 377-2000	DOT	Department of Transportation 400 7 <sup>th</sup> St, SW Washington, DC 20590 (202) 366-4000
EPA	Environmental Protection Agency 401 M St, SW Washington, DC 20460 (202) 382-2090	FAA	Federal Aviation Administration (US Dept of Transportation) 800 Independence Ave, SW Washington, DC 20590 (202) 366-4000	FCC	Federal Communications Commission 1919 M St, NW Washington, DC 20554 (202) 632-7000
FHA	Federal Housing Administration (US Dept of Housing and Urban Development) Director Manufactured Housing and Construction Standards Division	FS	Federal Specification (from GSA) Supt. Of Documents, Government Printing Office 7 <sup>th</sup> and D St, SW Washington, DC 20234 (202) 472-2205 or	GSA	General Services Administration F St and 18 <sup>th</sup> St, NW Washington, DC 20405 (202) 472-1082

	451 7 <sup>th</sup> St, SW, Room 9158 Washington, DC 20201 (202) 755-5210		472-2140		
MIL	Military Standardization Documents (US Dept of Defense) Naval Publications and Forms Center 5801 Tabor Ave Philadelphia, PA 19120	NIST	National Institute of Standards and Technology (US Dept of Commerce) Gaithersburg, MD 20899 (301) 975-2000	OSHA	Occupational Safety and Health Administration (US Dept of Labor) Government Printing Office Washington, DC 20402 (202) 523-6091
PS	Product Standard of NBS National Institute of Standards and (DOC) Technology Standards Management Program A 625 Administration Gaithersburg, MD 20899 (202) 783-3238	USDA	US Dept of Agriculture Independence Ave btwn. 12 <sup>th</sup> and 14 <sup>th</sup> St, SW Washington, DC 20250 (202) 447-8732	USPS	US Postal Service 475 L'Enfant Plaza, SW Washington, DC 20260 (202) 268-2000

**1.04 GOVERNING REGULATIONS/AUTHORITIES**

- A. The Owner has contacted authorities having jurisdiction where necessary to obtain information necessary for preparation of Contract Documents; that information may or may not be of significance to the Contractor. Contact authorities having jurisdiction directly for information and decisions having a bearing on the Work.
- B. Copies of Regulations: Obtain copies of the applicable regulations and retain at the Project site, available for reference by parties who have a reasonable need for such reference.

**1.05 SUBMITTALS**

- A. Permits, Licenses and Certificates: for the Owner’s records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional, settlements, notices, receipts for fee payments, judgements and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 09 50**

**SECTION 01 10 50**

**EXISTING UTILITY PROCEDURES**

**PART 1 – GENERAL**

**1.01 SUMMARY**

- A. Perform the work associated with existing utilities, including removal, relocation, interruption and protection, meeting requirements of this section.

**1.02 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this section.

**1.03 GENERAL**

- A. Notification: before beginning any work, the Contractor shall notify all utility companies, public and private as applicable and any other party owning, operating or maintaining utility facilities on or in vicinity of project site in accordance with notification procedures of each utility company or any other party.
- B. Protection:
  - 1. Before beginning any work, the Contractor shall investigate and inform himself of locations and extent of all utilities on and in vicinity of project site which may be encountered in performing the work and shall take suitable care to protect and prevent damage and cessation of operation to such utilities from his operations.
  - 2. When performing adjacent to existing sewers, drains, water and gas lines; electric, telephone or telegraph conduit or cable; pole lines or poles, or other utility facilities, equipment or structures, which are to remain in operation, contractor shall maintain such utility facilities, equipment and structures in place and protect from damage and cessation of operation and shall cooperate with applicable utility company and any other party owning, operating or maintaining such utility facilities, equipment or structures.
  - 3. Methods of protection shall be subject to approval of utility company and any other party owning, operating or maintaining such utility, equipment or structure.
- C. Damages:
  - 1. Should existing utilities which are to remain in operation be damaged during construction operations, the Contractor shall immediately notify utility company, Owner and any other party owning, operating or maintaining such utility.
  - 2. The Contractor shall be responsible for and shall repair or replace at the Contractor's expense, as applicable, damages to any such utility facilities, equipment or structures caused by his acts, whether negligent or otherwise, or his omission to act, whether negligent or otherwise, and shall leave such utility facilities, equipment or structures in as good condition as existed prior to commencement of his operations as approved by utility company and any other party owning, operating or maintaining such utility. In addition, the Contractor shall be responsible for any damages or liability which the Owner may be held liable. Materials and methods of repair or replacement shall be subject to approval of utility company and other party owning, operating or maintaining such utility.
  - 3. However, any such utility equipment or structures damaged as a result of any act, or omission to act, of the Contractor, may, at option of applicable utility company and any other party owning, operating or maintaining such utility facilities,

equipment or structures damaged, be repaired or replaced by such applicable utility company or other party. In such event cost of repairs or replacement shall be the responsibility of the Contractor at no addition to the Contract Sum.

#### 1.04 PROCEDURES

##### A. Locations:

1. Request all utility companies and any other party owning, operating or maintaining utility facilities on or in vicinity of project site as applicable, to locate or stakeout locations, extent, alignment and elevation of such utility facilities.
2. Approximate locations and extent of known existing utility facilities, equipment and structures may be determined by examining documents of utility companies and any other party owning, operating or maintaining such utility facilities, and available information documents and Drawings for the work.
3. Should uncharted or incorrectly charted existing utility facilities, equipment and structures be encountered during performance of the Work, consult utility companies and other party owning, operating or maintaining such utility facilities for directions.
4. After such utilities have been uncovered and their actual locations and extent determined, the Owner will furnish additional Drawings, if relocation is required, subject to approval of utility companies and any other parties owning, operating or maintaining such utility facilities.
5. Submit record drawings showing locations and extent discrepancies of utilities those indicated in available reference documents or Drawings for the Work, regardless of cause of location or extent discrepancy, meeting requirements of the general conditions.

##### B. Scheduling:

1. General: existing utilities shall not be disturbed until utility companies and any other party owning, operating or maintaining such utility facilities and users of such utilities have been notified in accordance with notification procedure of such utility companies or any other parties. Contractor shall conduct work so that utility may be removed, relocated or supported during construction operations and maintained in service until the work to be provided under Contract is completed.
2. Any existing utility should be relocated only as approved by utility companies and any other parties owning, operating or maintaining such utility facilities. Contractor shall cooperate with utility companies and any other parties in performance of this work.
3. Interruptions: when Contractor desires to take an existing utility service out of operation, notify Owner at least 72 hours in advance of such time and obtain written permission of utility company or other parties owning, operating or maintaining such utility facilities prior to interrupting service. Interruption of service shall be kept to an absolute minimum.
  - a. Utility company and any or other parties owning, operating or maintaining such utility facilities shall have right to require Contractor to perform work which requires such interruptions in stages and during non-standard working hours to reduce time of each interruption, at no addition to Contract Sum.
  - b. When necessary, provide acceptable temporary utility services during such interruptions, before taking utility service out of operation, at no addition to Contract Sum.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 011050**

**SECTION 01 20 00**  
**PROJECT MEETINGS**

**PART 1 – GENERAL**

**1.01 SUMMARY**

- A. This section specifies administrative and procedural requirements for project meetings including but not limited to:
  - 1. Pre-construction Conference
  - 2. Pre-installation Conferences
  - 3. Coordination Meetings
  - 4. Progress Meetings
- B. Construction schedules are specified in Section 01 30 00 – SUBMITTALS.

**1.02 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.03 PRE-CONSTRUCTION CONFERENCE**

- A. The Owner shall schedule a pre-construction conference and organizational meeting at the Project site or other convenient location no later than 15 days after execution of the Agreement and prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: The Owner, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conduct matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress including such topics as:
  - 1. Tentative construction schedule
  - 2. Critical Work sequencing
  - 3. Designation of responsible personnel
  - 4. Procedures for processing field decisions and Change Orders
  - 5. Procedures for processing Applications for Payment
  - 6. Distribution of Contract Documents
  - 7. Submittal of Shop Drawings, Product Data and Samples
  - 8. Preparation of record documents
  - 9. Use of the premises
  - 10. Office, Work and storage areas
  - 11. Equipment deliveries and priorities
  - 12. Safety procedures
  - 13. First aid
  - 14. Security
  - 15. Housekeeping
  - 16. Construction activity policies and working hours
  - 17. MBE/WBE/EBE and LEP requirements
  - 18. Coordination with affected utilities and governing jurisdictions

**1.04 PRE-INSTALLATION CONFERENCE**

- A. Conduct a pre-installation conference at the site before each construction activity that requires coordination with other construction. The installer and representatives of



manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the Owner of scheduled meeting dates.

- B. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for:
1. Contract Documents
  2. Options
  3. Related Change Orders
  4. Purchases
  5. Deliveries
  6. Shop Drawings, Product Data and quality control samples
  7. Possible conflicts
  8. Compatibility problems
  9. Time schedules
  10. Weather limitations
  11. Manufacturer's recommendations
  12. Compatibility of materials
  13. Acceptability of substrates
  14. Temporary facilities
  15. Space and access limitations
  16. Governing regulations
  17. Safety
  18. Inspection and testing requirements
  19. Required performance results
  20. Recording requirements
  21. Protection
- C. Record significant discussions and agreements and disagreements of each conference, along with the approved schedule. Distribute the record of the meeting to everyone concerned, promptly, including the Owner.
- D. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

#### **1.05 PROGRESS MEETINGS**

- A. Conduct progress meetings at the Project site at regularly scheduled intervals. Notify the Owner of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment requests.
- B. Attendees: in addition to the Owner, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress.
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the Project.
- D. Contractor's Construction Schedule: review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time, ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Period.

- E. Review the present and future needs of each entity present, including such items as:
  - 1. Interface requirements
  - 2. Time
  - 3. Sequences
  - 4. Deliveries
  - 5. Off-site fabrication problems
  - 6. Access
  - 7. Site utilization
  - 8. Temporary facilities and services
  - 9. Hours of Work
  - 10. Hazards and risks
  - 11. Housekeeping
  - 12. Quality and Work standards
  - 13. Change Orders
  - 14. Documentation of information for payment requests.
- F. Reporting: no later than three (3) days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
- G. Schedule Updating: revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 20 00**

## SECTION 01 21 00

### ALLOWANCES

#### PART 1 – GENERAL

##### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Other provisions concerning Allowances also may be stated in other Sections of these Specifications.

##### 1.2 SUMMARY

- A. The allowance is general and is to be used to provide adequate budget and bonding to cover items not able to be precisely determined by the Owner prior to bidding including any unforeseen conditions that are discovered. Allow within the proposed Total Base Bid Amount the amounts described in this Section.
- B. Allowance work shall be pre-approved prior to the start of and during the Construction with Proposals documenting the work to be performed, with clearly stated not-to-exceed costs and step by step method of procedures for the proposed work stated. Proposals must be submitted and accepted by the Owner prior to starting any allowance work. After discovering an unforeseen condition, the contractor shall submit a Proposal that includes a report summarizing the found condition. The Consultant and Owner will view the unforeseen condition to determine if the work will be authorized. Allowance work shall only be authorized by written Allowance Authorization. Under no circumstances shall the Contractor move forward with the work in question nor shall the contractor expend allowance without an approved Allowance Authorization.

##### 1.3 ALLOWANCE RESPONSIBILITIES

- A. Consultant Responsibilities:
  - 1. Consult with Contractor in consideration and selection of products, suppliers and installers.
  - 2. Select products or services in consultation with Owner.
  - 3. Review method of procedure and costs documented on Proposals submitted by the Contractor and transmit Owner's decision to Contractor. Owner approved Allowance Authorizations are required prior to proceeding with Allowance Work.
  - 4. Review, recommend and transmit Allowance Authorization to Owner for approval.
  - 5. Transmit Owner's decision to the Contractor.
- B. Contractor's Responsibilities:
  - 1. Assist Consultant in selection of products, suppliers and installers.
  - 2. Obtain proposals from suppliers and installers and offer recommendations and review of proposals submitted. Transmit to Consultant on Proposal forms, attaching all supporting documentation. Include any bond cost adjustments with the proposal. Include scheduling information and assessment of impact of other work.
  - 3. On notification of selection by Consultant, execute purchase agreement with designated supplier and installer.

4. Arrange for and process shop drawings, product data and samples. Arrange for delivery.
5. Promptly inspect products upon delivery for completeness, damage and defects. Submit claims for transportation damage.
6. Document thoroughly all costs related to the work.
7. Provide the Consultant with fully documented Proposals detailing all allowance work to be performed.

#### **1.4 ALLOWANCE DOCUMENTATION**

- A. All work covered by Allowances must be thoroughly documented as follows:
  1. Upon encountering any field conditions which is not as shown in Construction Documents, the Contractor shall immediately notify the Consultant and develop a written Proposal detailing any additional work required. Proposals shall include a report summarizing the found condition to the Consultant. Contractor work initiated without submitting a completed Proposal and obtaining the Owner's written approval by Allowance Authorization is performed entirely at Contractor's own risk and cost, regardless of any prior verbal approval.
  2. The Consultant shall review the Proposal and provide the Owner with a written recommendation regarding the proposed work.
  3. The Owner shall review the Contractor's Proposal and the Consultant's recommendation and, if appropriate, provide written approval via Allowance Authorization for use of the Allowance.

#### **1.5 SCHEDULE OF ALLOWANCES**

- A. Chicago, A-9, Contingency allowance to be allocated by the Owner, \$15,000
- B. Church, B-2, Floor drain system repairs – allowance, \$15,000
- C. Church, B-3, Contingency allowance to be allocated by the Owner, \$15,000
- D. Maple, C-7, Contingency allowance to be allocated by the Owner, \$40,000
- E. Sherman, D-3, Floor drain system repairs – allowance, \$15,000
- F. Sherman, D-5, Contingency allowance to be allocated by the Owner, \$30,000

#### **1.6 ALLOWANCE EXCLUSIONS**

- G. General
  1. Additional costs related to improper scheduling, sequencing or coordination will not be covered within the Allowance, as determined solely by the Owner.
- H. Existing Building Component Exclusions
  1. All work required to protect existing building surfaces and components is included in the Base Bid and will not be covered within the Allowance.

#### **PART 2 – PRODUCTS (Not Used)**

#### **PART 3 – EXECUTION (Not Used)**

**END OF SECTION 01 21 00**

**SECTION 01 23 00****ALTERNATES****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes: Administrative and procedural requirements for alternates.

**1.2 DESCRIPTION OF ALTERNATES**

- A. Chicago, 1. Clean existing steel framing and restore spray-on fireproofing on selected areas of the Level 2 steel framing (250 LF estimated quantity). See Detail 2/CHI-S-502 and Section 07 81 00 Applied Fire Protection. Clean and paint steel bumper guards around the drain pipes at Level 1, per Section 09 97 13 Steel Coating.
- B. Sherman, 2. Provide a crew for a total of 32 hours (four work days) to remove loose paint on the soffits of beams designated by the Engineer with hand tool cleaning (wire brushes and scrapers with vacuuming). Also, provide rolling scaffolding or an electric lift to access the beams. Cover cars in the Work area with tarps. See Detail 5/SHE-S-503.

**1.3 PROCEDURES**

- A. Immediately following award of Contract, notify each party involved, in writing, of status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration.
- B. Execute accepted alternates under same conditions as other work of Contract.
- C. Modify or adjust affected adjacent Work as necessary to completely integrate Work of the alternate into Project.

**PART 2 PRODUCTS Not Used****PART 3 EXECUTION Not Used****END OF SECTION**

**SECTION 01 27 00**

**UNIT PRICES**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes administrative and procedural requirements for unit prices.

**1.3 DEFINITIONS**

- A. Unit price is a price per unit of measurement for materials or services provided in the Contract. The unit prices shall be added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

**1.4 PROCEDURES**

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, bonding, overhead, and profit.
- B. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- C. List of Unit Prices: A list of unit prices is included at the end of this Section. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.
- D. Designation of repair area: The Engineer will designate repair areas. Sounding of the concrete to identify repair areas will be performed in conjunction with the Contractor.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION**

**3.1 LIST OF UNIT PRICES**

<b>Bid Item</b>	<b>Type of Work</b>	<b>Unit</b>
A-10	<p><b>Remove and replace bonded topping concrete on Ground Level</b> Reference Detail 1/CHI-S-501. The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal and disposal of sound and unsound concrete to the bonded topping slab</li> <li>b) Sawcutting edges of removal area</li> <li>c) Sandblasting clean exposed concrete</li> <li>d) Installation of epoxied s.s. dowels</li> <li>e) Casting ready-mix concrete or proprietary repair concrete, curing</li> <li>f) Tooling or routing perimeter joint</li> <li>g) Sealant</li> </ul> <p>Payment based on surface area (square foot) of concrete repaired, 1 sf min. area for payment, 3-inch average depth.</p>	\$/sq ft
A-11	<p><b>Repair concrete encasement at bases of Ground Level steel columns</b> Reference Detail 2/CHI-S-501. The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal and disposal of sound and unsound concrete around embedded steel column</li> <li>b) Sawcutting, grinding, or chipping edges square</li> <li>c) Sandblasting clean exposed concrete and steel surfaces</li> <li>d) Coating exposed steel with corrosion-inhibiting coating</li> <li>e) Formwork</li> <li>f) Installing dowels and WWR</li> <li>g) Casting repair with ready-mix or proprietary concrete, curing</li> <li>h) Paint in kind after concrete has cured</li> </ul> <p>Payment based on surface area (square foot) of concrete repaired. 1/2 sf min. area for payment, 4-inch average thickness</p>	\$/sq ft
A-12, C-15, D-11	<p><b>Rout and seal cracks and joints</b> Reference Detail 7/CHI-S-501, 5/MAP-S-502, and 5/SHE-S-502 The cost of this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Existing sealant removal, if present</li> <li>b) Routing crack or joint</li> <li>c) Primer</li> <li>d) Bond breaker</li> <li>e) Sealant</li> </ul> <p>Payment based on length (lineal feet) of sealing cracks and joints.</p>	\$/lin ft

<b>Bid Item</b>	<b>Type of Work</b>	<b>Unit</b>
A-13, C-18, D-12	<p><b>Grind and point CMU mortar joints</b> Reference Details 4 and 5/CHI-S-502, 7 and 8/MAP-S-502, and 8 and 9/SHE-S-502</p> <p>The cost of this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Raking out joints</li> <li>b) Placing mortar in 1/4 inch layers</li> <li>c) Fully compacting each layer</li> <li>d) Tool joints to match original appearance</li> <li>e) Removal of excess mortar</li> <li>f) Curing</li> </ul> <p>Payment based on length (linear foot) of masonry repointed</p>	\$/lin ft
A-14, D-13	<p><b>Replace CMU face shell in wall or full unit at top course</b> Reference Details 3/CHI-S-502 and 1/SHE-S-503</p> <p>The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Remove damaged face shell or unit</li> <li>b) Replace face shell or unit in kind</li> <li>c) Repoint per Details 4 and 5/CHI-S-502</li> <li>d) Apply acrylic paint to match existing</li> </ul> <p>Payment based on each CMU face shell replaced.</p>	\$/each
B-4, C-8, D-6	<p><b>Partial depth vertical and overhead concrete repair</b> Reference Details 2 and 3/CHU-S-501, 2 and 3/MAP-S-501, and 2 and 3/SHE-S-501</p> <p>The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Shoring (if required)</li> <li>b) Removal and disposal of sound and unsound concrete to a minimum depth of 2 in. or 3/4 in. behind existing conventional steel reinforcement</li> <li>c) Sawcutting, grinding, or chipping edges square</li> <li>d) Sandblasting clean exposed concrete and steel reinforcing bar surfaces</li> <li>e) Coating exposed steel with corrosion-inhibiting coating</li> <li>f) Supplemental dowels</li> <li>g) Casting repair with ready-mix or proprietary repair concrete</li> <li>h) Curing repair</li> <li>i) Application of acrylic paint to match existing finish</li> </ul> <p>Payment based on surface area (square foot) of concrete repaired, 1/4 sq ft min. area for payment, 3-inch average depth.</p>	\$/sq ft



<b>Bid Item</b>	<b>Type of Work</b>	<b>Unit</b>
B-5, C-9, D-7	<p><b>Partial-depth top surface concrete repair</b> Reference Detail 1/CHU-S-501, 1/MAP-S-501, and 1/SHE-S-501 The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal and disposal of sound and unsound concrete to a minimum depth of 2 in. or 3/4 in. below bottom of existing conventional steel reinforcement</li> <li>b) Shoring (if required)</li> <li>c) Sawcutting edges of removal area</li> <li>d) Sandblasting clean exposed concrete and steel reinforcing bar surfaces</li> <li>e) Coating exposed steel with corrosion-inhibiting coating</li> <li>f) Supplemental dowels</li> <li>g) Recasting repair with ready-mix or proprietary repair concrete</li> <li>h) Tooling or routing perimeter joint</li> <li>i) Curing</li> <li>j) Sealant</li> <li>k) Apply full membrane system if present on the existing concrete and restripe to match existing</li> </ul> <p>Payment based on surface area (square foot) of concrete repaired, 1/2 sq ft min. area for payment, 4-inch average depth.</p>	\$/sq ft
B-6, C-10, D-10	<p><b>Slab-on-ground and curb concrete repair</b> Reference Detail 4/CHU-S-501, 4/MAP-S-501, and 4 and 5/SHE-S-501 The cost of this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal and disposal of sound and unsound concrete for the full thickness of the slab-on-grade or curb to an average depth of 6 inches.</li> <li>b) Sawcutting edges of removal area</li> <li>c) Sandblasting clean exposed concrete and steel reinforcing bar surfaces</li> <li>d) Coating exposed steel with corrosion-inhibiting coating</li> <li>e) Installation of additional subbase material as required. Compaction of subbase.</li> <li>f) Installation of vapor barrier</li> <li>g) Forming and recasting repair with ready-mix or proprietary repair concrete.</li> <li>h) Curing</li> </ul> <p>Payment based on surface area (square foot) of concrete repair, 1/2 sq ft min. area for payment</p>	\$/sq ft
B-7, C-11, D-8	<p><b>Post-tensioning grout pocket repair</b> Reference Detail 7/CHU-S-502, 1/MAP-S-503, and 2/SHE-S-503 The cost of this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal of grout in existing grout pockets</li> <li>b) Sandblasting clean all concrete and steel surfaces in stressing pocket</li> <li>c) Applying corrosion-inhibiting coating to exposed steel surfaces</li> <li>d) Filling pocket with repair mortar</li> </ul> <p>Payment based on each grout pocket repaired.</p>	\$/each

<b>Bid Item</b>	<b>Type of Work</b>	<b>Unit</b>
B-8, C-12, D-9	<p><b>Application of full traffic-bearing waterproofing membrane</b> Reference Details 5 thru 8/CHU-S-501, 1 thru 4/MAP-S-502, and 1 thru 4/SHE-S-502</p> <p>The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Removal of existing coating</li> <li>b) Preparation of existing waterproofing membrane to remain at perimeter of work area for tie-in</li> <li>c) Shotblasting or sandblasting existing concrete surfaces to be coated</li> <li>d) Air-blast cleaning of all surfaces</li> <li>e) Protection of prepared surfaces from contamination until membrane installation</li> <li>f) Cove sealant at interfaces between vertical and horizontal surfaces and sealant replacement in cracks and joints in new membrane area</li> <li>g) Detail strip of base coat at cracks, joints, changes in plane, and tie-ins</li> <li>h) Heavy-duty waterproofing membrane system</li> <li>i) Upturning membrane at vertical surfaces</li> <li>j) Parking stall striping and pavement markings to match existing</li> </ul> <p>Payment based on surface area (square foot) of membrane installed, 1 sq ft min. area for payment.</p>	\$/sq ft
B-9	<p><b>Sealant Replacement</b> Reference Details 2 and 3/CHU-S-502</p> <p>The cost for this work includes providing and installing:</p> <ul style="list-style-type: none"> <li>a) Existing sealant removal, if present</li> <li>b) Routing crack or joint</li> <li>c) Primer</li> <li>d) Bond breaker</li> <li>e) Sealant</li> </ul> <p>Payment based on lineal footage of sealant replaced.</p>	\$/lin ft
B-10	<p><b>Replacement of stair joint seal at doorway threshold</b> Reference Detail 6/CHU-S-502</p> <p>The cost of this work includes:</p> <ul style="list-style-type: none"> <li>a) Measure each threshold location for ordering of material</li> <li>b) Remove existing nosing and premolded seal</li> <li>c) Clean metal plate to remain</li> <li>d) Install bond breaker over the metal plate</li> <li>e) Provide and install new premolded polyurethane seal and nosings</li> </ul> <p>Payment based on each stair joint seal replaced.</p>	\$/each
C-13	<p><b>Sealant replacement at cove joints (Type A)</b> Reference Details 4/MAP-S-503 and 6/MAP-S-502</p> <p>The cost of this work includes:</p> <ul style="list-style-type: none"> <li>a) Existing sealant removal, if present, and cleaning of concrete surfaces</li> <li>b) Primer</li> <li>c) Bond breaker</li> <li>d) Sealant</li> </ul> <p>Payment based per lineal foot of sealant installed.</p>	\$/lin ft

<b>Bid Item</b>	<b>Type of Work</b>	<b>Unit</b>
C14	<p><b>Sealant replacement at wall joints at garage interior (Type C)</b> Reference Details 6/MAP-S-503 and 9/MAP-S-502 The cost of this work includes:</p> <ul style="list-style-type: none"> <li>a) Existing sealant removal and cleaning of concrete surfaces</li> <li>b) Primer</li> <li>c) Bond breaker</li> <li>d) Sealant</li> </ul> <p>Payment based per lineal foot of sealant installed.</p>	\$/lin ft
C-16	<p><b>Repair of small spall at stair tread along nosing</b> Reference Detail 1/MAP-S-504 The cost of this work includes:</p> <ul style="list-style-type: none"> <li>a) Sawcutting perimeter of repair area around the spall to a depth of 1/2 inch</li> <li>b) Removal and disposal of sound and unsound concrete to a depth of approximately 1 inch</li> <li>c) Sandblasting or grinding clean exposed concrete and edge of steel nosing</li> <li>d) Coating exposed edge of steel nosing with corrosion-inhibiting coating</li> <li>e) Supplemental dowels</li> <li>f) Recasting repair with repair mortar and curing</li> </ul> <p>Payment based on each spall repaired.</p>	\$/each
C-17	<p><b>Repair of railing post bases in southeast and northwest stairwells</b> Reference Detail 2/MAP-S-504 The cost of this work includes:</p> <ul style="list-style-type: none"> <li>a) Removal of all loose grout and sound grout as needed to reach a depth of 3/4 inch below the tread surface</li> <li>b) Cleaning and painting the steel post base with a zinc-rich primer (2 coats)</li> <li>c) Filling pocket flush with a repair mortar</li> <li>d) Installing a silicone cove sealant joint, after the mortar has cured.</li> </ul> <p>Payment based on each grout pocket repaired.</p>	\$/each
D-14	<p><b>Façade wall panel gravity connection repair (supplemental shim installation)</b> Reference Detail 3/SHE-S-503 The cost of this work includes:</p> <ul style="list-style-type: none"> <li>a) Install new A36 welded steel shims to supplement the existing</li> <li>b) Move the existing shims in conjunction with new shim installation as needed to achieve specified bearing area</li> <li>c) If minimum specified bearing for temporary support of the panel cannot be achieved, provide shoring by shimming between adjacent panels. Remove the temporary panel-to-panel shims when gravity shim installation is complete.</li> <li>d) Paint shims and existing angle support per Section 09 97 13 – Steel Coating</li> </ul> <p>Payment based on each connection repaired.</p>	\$/each

Unit Prices  
01 27 00 - 7

**END OF SECTION 01 27 00**

## SECTION 01 30 00

### SUBMITTALS

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. This section specifies administrative and procedural requirements for submittals required for performance of the Work, including:
  - 1. Contractor's construction schedule
  - 2. Submittal schedule
  - 3. Daily construction reports
  - 4. Shop Drawings
  - 5. Product Data
  - 6. Samples
- B. Administrative Submittals: refer to other Division 0 and 1 sections and other Contract Documents for requirements for administrative submittals. Such submittals include but are not limited to:
  - 1. Permits
  - 2. Applications for payment
  - 3. Performance and payment bonds
  - 4. Insurance certificates
  - 5. List of subcontractors
- C. The Schedule of Values submittal is included in Section 01 02 70 – APPLICATIONS FOR PAYMENT.

##### 1.02 RELATED WORK

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

##### 1.03 SUBMITTAL PROCEDURES

- A. Coordination: coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
    - a. The Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
  - 3. Processing: allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for re-submittals.
    - a. Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Owner will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
    - b. If an intermediate submittal is necessary, process the same as the initial submittal.

- c. Allow two weeks for re-processing each submittal.
  - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Owner sufficiently in advance of the Work to permit processing.
- B. Submittal Preparation: place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
  - 1. Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
  - 2. Include the following information on the label for processing and recording 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 reference, as appropriate
- C. Submittal Transmittal: package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Owner using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.
  - 1. On the transmittal record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
  - 2. Transmittal Form: use AIA Document G 810.

#### **1.04 CONTRACTOR'S CONSTRUCTION SCHEDULE**

- A. Bar-Chart Schedule: prepare a fully developed, horizontal bar-chart type Contractor's construction schedule. Submit within 30 days of the date established for "Commencement of the Work".
  - 1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values".
  - 2. Within each time bar indicate estimated completion percentage in 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
  - 3. Prepare a schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
  - 4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.

5. Coordinate the Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress report, payment requests and other schedules.
  6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for Owner's procedures necessary for certification of Substantial Completion.
- B. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit Work by separate Contractors and partial occupancy by the Owner prior to Substantial Completion.
- C. Work Stages: Indicate important stages of construction for each major portion of the Work, including testing and installation.
- D. Area Separations: Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.
- E. Cost Correlation: At the head of the schedule, provide a two item cost correlation line, indicating "pre-calculated" and "actual" costs. On the line show dollar-volume of Work performed as of the dates used for preparation of payment requests.
1. Refer to Section 01 02 70 - APPLICATIONS FOR PAYMENT for cost reporting and payment procedures.
- F. Distribution: Following response to the initial submittal, print and distribute copies to the Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- G. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

#### **1.05 SUBMITTAL SCHEDULE**

- A. After development and acceptance of the Contractor's construction schedule, prepare a complete schedule of submittals. Submit the schedule within 10 days of the date required for establishment of the Contractor's construction schedule.
1. Coordinate submittal schedule with the list of subcontracts, schedule of values and the list of products as well as the Contractor's construction schedule.
  2. Prepare the schedule in chronological order; include submittals required during the first 90 days of construction. Provide the following information:
    1. Scheduled date for the first submittal.
    2. Related Section number.
    3. Submittal category.
    4. Name of subcontractor.
    5. Description of the part of the Work covered.
    6. Scheduled date for resubmittal.
    7. Scheduled date of the Owner's final release or approval.
- B. Distribution: Following response to initial submittal, print and distribute copies to the Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their

assigned portion of the Work and are no longer involved in construction activities.

- C. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

#### **1.06 DAILY CONSTRUCTION REPORTS**

- A. Prepare a daily construction report, recording the following information concerning events at the site; and submit duplicate copies to the Owner at weekly intervals:
  - 1. List of subcontractors at the site.
  - 2. Approximate count of personnel at the site.
  - 3. High and low temperatures, general weather conditions.
  - 4. Accidents and unusual events.
  - 5. Meetings and significant decisions.
  - 6. Stoppages, delays, shortages, losses.
  - 7. Meter readings and similar recordings.
  - 8. Emergency procedures.
  - 9. Orders and requests of governing authorities.
  - 10. Change Orders received, implemented.
  - 11. Services connected, disconnected.
  - 12. Equipment or system tests and start-ups.
  - 13. Partial Completions, occupancies.
  - 14. Substantial Completions authorized.

#### **1.07 SHOP DRAWINGS**

- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
  - 1. Dimensions.
  - 2. Identification of products and materials included.
  - 3. Compliance with specified standards.
  - 4. Notation of coordination requirements.
  - 5. Notation of dimensions established by field measurement.
  - 6. Sheet Size: Except for templates, patterns and similar full- size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 36" x 48".
  - 7. Submit one correctable translucent reproducible print and three blue- or black-line print for the Owner's review; the reproducible print will be returned.
- C. One of the prints returned shall be marked-up and maintained as a "Record Document".
- D. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.
- E. Coordination drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended.
  - 1. Submit coordination Drawings for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.



## 1.08 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."
1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
    - a. Manufacturer's printed recommendations.
    - b. Compliance with recognized trade association standards.
    - c. Compliance with recognized testing agency standards.
    - d. Application of testing agency labels and seals.
    - e. Notation of dimensions verified by field measurement.
    - f. Notation of coordination requirements.
  2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
  3. Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.
  4. Submittals: Submit 2 copies of each required submittal; submit 4 copies where required for maintenance manuals. The Owner will retain one, and will return the other marked with action taken and corrections or modifications required.
    - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
  5. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
    - a. Do not proceed with installation until an applicable copy of Product Data applicable is in the installer's possession.
    - b. Do not permit use of unmarked copies of Product Data in connection with construction.

## 1.09 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.
1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Owner's Sample. Include the following:
    - a. Generic description of the Sample.
    - b. Sample source.
    - c. Product name or name of manufacturer.
    - d. Compliance with recognized standards.
    - e. Availability and delivery time.
  2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these

- characteristics between the final submittal and the actual component as delivered and installed.
- a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3), that show approximate limits of the variations.
  - b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.
  - c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
3. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
    - a. Preliminary submittals will be reviewed and returned with the Owner's mark indicating selection and other action.
  4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 3 sets; one will be returned marked with the action taken.
  5. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.
    - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
    - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.
- C. Mock ups specified in individual Sections are special types of Samples. Mock ups are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be judged.
- D. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

#### **1.10 CONTRACTOR'S RESPONSIBILITIES**

- A. Review shop drawings, product data and samples prior to submission.
- B. Verify:
  1. Field dimensions
  2. Field construction criteria
  3. Catalog numbers and similar data
- C. Coordinate each submittal with requirements of Work and of Contract Documents.
- D. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.
- E. Contractor's responsibility for deviations in submittals from Contract Document requirements is not relieved by Owner's review of submittals.
- F. Notify Owner in writing at time of submission, of deviations in submittals from contract requirements.
- G. Do not begin any work which requires submittals without having Owner's stamp and initials or signature indicating review.

H. After Owner's review, make response required by Owner, stamp and distribute copies.

### **1.11 SUBMISSION REQUIREMENTS**

- A. Make all submissions within 35 business days after date of Notice to Proceed.
- B. Submit number of copies of shop drawings, project data and samples which Contractor requires for distribution plus 3 copies which will be retained by the Owner.
- C. Submit number of samples specified in each of specification sections.
- D. Accompany submittals with transmittal letter, in duplicate, containing:
  - 1. Date
  - 2. Project title and number
  - 3. Contractor's name and address
  - 4. The number of each shop drawing, product datum and sample submitted
  - 5. Notification of deviations from contract
  - 6. Other pertinent data
- E. Submittals shall include:
  - 1. Date and revision dates
  - 2. Project title and number
  - 3. Names of:
    - a. Contractor
    - b. Subcontractor
    - c. Supplier
    - d. Manufacturer
    - e. Separate detailer when pertinent
  - 4. Identification of product or material
  - 5. Relation to adjacent structure or material
  - 6. Field dimensions, clearly identified as such
  - 7. Specification Section and page number
  - 8. Applicable standards, such as ASTM number or federal specification
  - 9. Identification of deviation(s) from Contract Documents
  - 10. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements, and compliance with Contract.

### **1.12 RESUBMISSION REQUIREMENTS**

- A. Shop drawings:  
Revise initial drawings as required and resubmit as specified for initial submittal. Indicate on drawings all changes which have been made other than those requested by Owner.
- B. Product Data and Samples:  
Submit new datum and samples as required for initial submittal.
- C. Make all resubmittals within 10 business days after date on Owner's stamp.

### **1.13 DISTRIBUTION OF SUBMITTALS AFTER REVIEW**

- A. Distribute copies of shop drawings and project datum which carry Owner's stamp:
  - 1. Contractor's file
  - 2. Job site file
  - 3. Record documents file
  - 4. Subcontractors
  - 5. Supplier
  - 6. Fabricator
- B. Distribute samples as directed.

**1.14 OWNER'S ACTION**

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Owner will review each submittal, mark to indicate action taken, and return promptly.
  - 1. Compliance with specified characteristics is the Contractor's responsibility.
- B. Action Stamp: The Owner will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
  - 1. Final Unrestricted Release: Where submittals are marked "Furnish as Submitted," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
  - 2. Final-But-Restricted Release: When submittals are marked "Furnish as Corrected," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
  - 3. Returned for Resubmittal: When submittal is marked "Revise and Resubmit", do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
  - 4. Returned, Improper Submittal: When submittal is marked "Rejected" do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication delivery or other activity. The submittal does not conform with project requirements. Prepare a new submittal without delay.
  - 5. Do not permit submittals marked "Rejected, Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.
  - 6. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 30 00**

**SECTION 01 40 00**

**QUALITY CONTROL**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. This Section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by the Owner.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
  - 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
  - 2. Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
  - 3. Requirements for the Contractor to provide quality control services required by the Owner, or authorities having jurisdiction are not limited by provisions of this Section.

**1.02 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.03 RESPONSIBILITIES**

- A. The Contractor shall provide inspections, tests and similar quality control services, specified in individual Specification Sections and required by governing authorities, except where they are specifically indicated to be the Owner's responsibility, or are provided by another identified entity; these services include those specified to be performed by an independent agency and not by the Contractor. Costs for these services shall be included in the Contract Sum.
  - 1. The Owner will select and the Contractor shall employ and pay an independent agency, to perform specified quality control services.
    - a. Where the Owner has engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the Contractor shall not employ the entity engaged by the Owner, unless otherwise agreed in writing with the Owner.
  - 2. Re-testing: The Contractor is responsible for re-testing where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.

- a. Cost of re-testing construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
3. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:
  - a. Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
  - b. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.
  - c. Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
  - d. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
  - e. Security and protection of samples and test equipment at the Project site.
- B. Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling and testing of materials and construction specified in individual Specification Sections shall cooperate with the Owner and Contractor in performance of its duties and shall provide qualified personnel to perform required inspections and tests.
  1. The agency shall notify the Owner and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. The agency is not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
  3. The agency shall not perform any duties of the Contractor.
- C. Coordination: The Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition, the Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
  1. The Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

#### **1.04 SUBMITTALS**

- A. The independent testing agency shall submit a certified written report of each inspection, test or similar service, to the Owner, in duplicate, and a copy to the Contractor.
  1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
  2. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
    - a. Date of issue.
    - b. Project title and number.
    - c. Name, address and telephone number of testing agency.
    - d. Dates and locations of samples and tests or inspections.
    - e. Names of individuals making the inspection or test.
    - f. Designation of the Work and test method.
    - g. Identification of product and Specification Section.
    - h. Complete inspection or test data.
    - i. Test results and an interpretations of test results.
    - j. Ambient conditions at the time of sample-taking and testing.

- k. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
- l. Name and signature of laboratory inspector.
- m. Recommendations on re-testing.

#### **1.05 QUALITY ASSURANCE**

- A. Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.
  - 1. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State of Illinois.
- B. Meet basic requirements of ASTM E329 Standard of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel Used in Construction."
- C. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during most recent tour of inspection; with memorandum of remedies of all deficiencies reported by inspection.
- D. Testing Equipment:
  - 1. Calibrated at maximum 12-month intervals by devices of accuracy traceable to either:
    - a. National Bureau of Standards
    - b. Accepted values of natural physical constants.
  - 2. Submit copy of certificate of calibration, made by accredited calibration agency.

#### **1.06 LABORATORY DUTIES: LIMITS OF AUTHORITY**

- A. Cooperate with Owner and Contractor; provide qualified personnel promptly on notice.
- B. Perform specified inspections, sampling and testing of materials and construction methods.
  - 1. Comply with specified Standards: ASTM, other recognized authorities, and as specified.
  - 2. Ascertain compliance with Contract requirements.
- C. Promptly notify Owner and Contractor of irregularities or deficiencies of work which are observed during performance of services.
- D. Promptly submit 5 copies of reports of inspections and tests to Owner including:
  - 1. Date issued
  - 2. Project title and number
  - 3. Testing Laboratory name and address
  - 4. Name and signature of Inspector
  - 5. Date of inspection and sampling
  - 6. Record of temperature and weather
  - 7. Date of test
  - 8. Identification of product and Specification Section
  - 9. Location in project
  - 10. Type of inspection or test
  - 11. Observations regarding compliance with Contract Documents
- E. Perform additional services as required by Owner.
- F. Laboratory is not authorized to:
  - 1. Release, revoke, alter or enlarge on, Contract requirements.
  - 2. Approve or accept any portion of work.
  - 3. Perform any duties of the Contractor.

### **1.07 CONTRACTOR'S RESPONSIBILITIES**

- A. Cooperate with Laboratory personnel, provide access to work, to manufacturer's operations.
- B. Provide Laboratory, preliminary representative samples of materials for testing, in required quantities.
- C. Furnish copies of mill test reports.
- D. Furnish casual labor and facilities:
  - 1. To provide access to work to be tested.
  - 2. To obtain and handle samples at site.
  - 3. To facilitate inspections and tests.
  - 4. For Laboratory's exclusive use for storage and curing of test samples.
- E. Notify Laboratory sufficiently in advance of operations to allow for personnel assignment of test scheduling.
- F. Employ, and pay for, services of a separate, equally qualified, Independent Testing Laboratory to perform additional inspections, sampling and testing required.
  - 1. For Contractor's convenience.
  - 2. When initial tests indicate work does not comply with Contract.

### **1.08 MOCK-UPS**

- A. Mockups (full-size physical assemblies constructed on-site) are used to verify selections made under sample submittals; to demonstrate surface preparation, joint and crack treatment, texture, color and standard of workmanship.
- B. Do not construct mockups until corresponding product data, shop drawings, samples, and other submittals have been approved.
- C. The following mock-ups are required on this Project:
  - 1. Chicago Avenue Garage: Top wear course of the liquid-applied membrane system. Minimum 10 foot by 10 foot area in any location in the garage.
    - a. The mock-up in this garage may be installed ahead of the 1-month shutdown of the garage. The area and schedule for the mock-up are to be coordinated with the Owner and Engineer.
  - 2. Sherman Plaza: Full membrane system in a minimum 10 foot by 10 foot area of the roof level.
  - 3. Maple Avenue Garage: Air-pressurized joint seal at one stair tower.
- D. Construct mockups for each form of construction and finish required, in accordance with applicable Specification section or as shown on Drawings, using materials indicated for completed Work.
- E. Use equipment, materials, and procedures proposed for use on Project.
- F. Engineer will observe mockup construction. Notify Architect/Engineer seven days in advance of dates and times when mockups will be constructed.
- G. If Engineer or Owner's Representative determines mockup does not comply with requirements, modify mockup or construct new mockup until mockup is approved. Remove and replace mockups that are not approved.
- H. Maintain approved mockups during construction in undisturbed condition as standard for judging completed Work. The approved mock-up may be incorporated into the Work.

### **PART 2 - PRODUCTS (Not Applicable)**



**PART 3 - EXECUTION**

**3.01 REPAIR AND PROTECTION**

- A. General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
- B. Protect construction exposed by or for quality control services and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

**END OF SECTION 01 40 00**

**SECTION 01 50 00**  
**TEMPORARY FACILITIES**

**PART 1 - GENERAL**

**1.01 SUMMARY**

- A. This section specifies administrative and procedural requirements for temporary services and facilities, including utilities, construction and support facilities, and security and protection.
  - 1. Contractor shall be solely responsible for adequacy of temporary facilities, including design and engineering thereof.
- B. Construction and support facilities required include but are not limited to:
  - 1. Temporary roadway paving and/or steel plates.
  - 2. Field offices and/or storage sheds.
  - 3. Sanitary facilities, including toilets and drinking water.
  - 4. Dewatering facilities and drains.
  - 5. Temporary enclosures.
  - 6. Waste disposal services.
  - 7. Rodent and pest control.
  - 8. Construction aids and miscellaneous general services and facilities.
- C. Security and protection facilities and services required include but are not limited to:
  - 1. Barricades, warning signs and lights.
  - 2. Enclosure fences.
  - 3. Environmental protection.

**1.02 RELATED WORK**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.03 QUALITY ASSURANCE**

- A. Regulations: comply with local codes and ordinances of governing authorities having jurisdiction.
- B. Standards: contractor determines and complies with applicable standards for temporary and construction facilities.
- C. Inspections: arrange for authorities having jurisdiction to inspect and test each utility before use. Obtain required certification and permits.

**1.04 PROJECT CONDITIONS**

- A. Conditions of use: keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Do not overload temporary services or facilities, or permit them to interfere with construction progress. Do not allow hazardous, dangerous or unsanitary conditions or public nuisances to develop or persist on the site.
- B. Easements: obtain necessary easements for temporary facilities when required.

**PART 2 - PRODUCTS**

**2.01 MATERIALS AND EQUIPMENT**

- A. General: provide new materials and equipment or undamaged previously used materials and equipment in serviceable condition. Provide materials and equipment suitable for the use intended.

- B. Water: provide potable water approved by local health authorities.
- C. First aid supplies: comply with governing regulations.
- D. Fire extinguishers: provide hand-carried, portable UL-rated, class “A” fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable UL-rated, class “ABC” dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.
  - 1. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.
- E. Work zone traffic control: comply with IDOT 701 and 702.

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. Locate facilities where they will best serve the Project and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

### **3.02 TEMPORARY INSTALLATION**

- A. Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

### **3.03 TEMPORARY CONSTRUCTION AND SUPPORT FACILITY INSTALLATION**

- A. Storage and fabrication sheds (optional): install storage and fabrication sheds, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces on the site.
- B. Sanitary facilities: comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project’s needs.
  - 1. Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.
  - 2. Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.
- C. Temporary enclosures: provide temporary enclosure for protection of construction in progress and completed from exposure, foul weather, other construction operations and similar activities.
  - 1. Where heat is needed, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and materials drying or curing requirements to avoid dangerous conditions and effects.
- D. Temporary signs: prepare and install signs to inform the public and persons seeking entrance to the Project. Support on the posts or framing of preservative treated wood or steel. Do not permit installation of unauthorized signs.
- E. Collection of disposal of waste: collect waste from project site daily. Comply with requirements of NFPA 241 for removal of combustible waste materials and debris. Enforce requirements strictly. Do not hold materials more than seven days during normal weather and three days when the temperature is expected to rise above 80 degrees

Fahrenheit. Handle hazardous, dangerous or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.

### **3.04 SHORING, BRACING AND UNDERPINNING (as required)**

- A. Provide shoring and bracing necessary to protect existing buildings, streets, walkways, utilities and other improvements and excavation against loss of ground or caving embankments. Maintain shoring and bracing. Remove temporary shoring and bracing when no longer required.
- B. Whenever shoring is required, locate the system to clear permanent construction and to permit forming and finishing of concrete surfaces. Provide shoring system, adequately anchored and braced to resist earth and hydrostatic pressures.
- C. Shoring systems retaining earth on which the support or stability of existing structure is dependent must be left in place at completion of work.
- D. Maintain bracing until structural elements are rebraced by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.
- E. Remove sheeting, shoring and bracing in stages to avoid disturbance to underlying soils and damage to structures, pavements, facilities and utilities.
- F. Repair or replace as acceptable by Owner, adjacent work damaged or displaced through the installation or removal of shoring and bracing work.

### **3.05 SECURITY AND PROTECTION FACILITIES**

- A. Barricades, warning signs and lights: Comply with IDOT 701,702 and local code requirements. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
- B. Environmental protection: provide environmental protection as outlined in Section 01 56 00 – TEMPORARY ENVIRONMENTAL CONTROLS.
- C. Site security to be provided by the Contractor as required.

### **3.06 OPERATION, TERMINATION AND REMOVAL**

- A. Supervision: enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: maintain facilities in good operating condition until removal.
  - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour a day basis where required to achieve indicated results and to avoid the possibility of damage.
- C. Termination and removal: remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
- D. Materials and facilities that constitute temporary facilities are the property of the Contractor.

**END OF SECTION 01 50 00**

**SECTION 01 56 00**

**TEMPORARY ENVIRONMENTAL CONTROLS**

**PART 1 - GENERAL**

**1.01 WORK INCLUDES**

- A. Contractors shall:
  - 1. Provide controls over environmental conditions at the construction site and related areas under the Contractor's control.
  - 2. Remove physical evidence of temporary controls at completion of work or as directed.

**1.02 RELATED WORK**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.03 QUALITY CONTROL**

- A. Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control - "Green Book"

**1.04 DUST CONTROL**

- A. Provide dust control materials to minimize dust from construction operations. Prevent air-borne dust from dispersing into the atmosphere.
- B. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Include the following:
  - 1. Locations of dust-control partitions at each phase of work.
  - 2. HVAC system isolation schematic drawing.
  - 3. Location of proposed air-filtration system discharge.
  - 4. Waste-handling procedures.
  - 5. Other dust-control measures.

**1.05 WATER CONTROL**

- A. Control surface water to prevent damage to the project, the site or adjoining properties.
  - 1. Control fill, grading and ditching to direct surface drainage away from excavations, pits, tunnels, and other construction areas; direct drainage to proper runoff.
- B. Provide, operate and maintain hydraulic equipment of adequate capacity to control surface water.
- C. Dispose of drainage water in a manner to prevent flooding, erosion sitting or runoff of silt or sediment or other damage to all portions of the site or to adjoining areas.

**1.06 RODENT CONTROL**

- A. Provide rodent control to prevent infestation of construction or storage areas.
  - 1. Use methods and materials, which will not adversely affect conditions at the site or on adjoining properties.
  - 2. Maintain site in clean condition.
    - a. Dispose of garbage and debris.
    - b. Do not keep items on site which attract rodents.

3. When the use of rodenticides is deemed necessary, submit a copy of proposed program to the Owner. Clearly indicate:
  - a. Areas to be treated.
  - b. Rodenticides to be used, with copy of manufacturer's current printed instructions.
  - c. Pollution preventative measures to be employed.
  - d. Illinois licensed pesticides applicator.

**1.06 DEBRIS CONTROL**

- A. Maintain all areas under Contractor's control free of extraneous debris.
- B. Initiate and maintain a specific program to prevent accumulation of debris at construction site, storage and parking areas or along access roads and haul routes.
  1. Provide containers specified in SECTION 01 71 00 - CLEANING for deposit of debris.
  2. Prohibit overloading of trucks to prevent spillages on access and haul routes.
    - a. Provide daily inspection of traffic areas to enforce requirements.
- C. Schedule collection and disposal of debris is specified in SECTION 01 71 00 - CLEANING.
  1. Provide additional collections and disposals of debris whenever regular schedule is inadequate to prevent accumulation.

**1.07 POLLUTION CONTROL**

- A. Prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. Provide equipment and personnel, perform emergency measures to contain all spillages, and to remove contaminated soils or liquids. Excavate and dispose of all contaminated earth off-site. Replace with suitable compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters or spilling onto the ground. Prevent disposal of wastes, effluents, chemicals or other such substances adjacent to streams, or in sanitary or storm sewers, including waste from portable toilets.
- D. Provide systems for control of atmospheric pollutants.
  1. Prevent toxic concentrations of chemicals.
  2. Prevent harmful dispersal of pollutants into the atmosphere.

**1.08 EROSION CONTROL**

- A. Plan and execute construction and earthwork in a manner to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
  1. Minimize the areas of bare soil exposed at one time.
  2. Provide temporary control measures such as berms, dikes and drains.
  3. Provide temporary control measures to prevent silting or runoff of silt or sediment from site.
- B. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
- C. Periodically inspect earthwork to detect evidence of the start of erosion. Apply corrective measures to control erosion.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 56 00**

## SECTION 01 60 00

### MATERIALS AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. The Contractor's Construction Schedule and the Schedule of Submittals are included under Section 01 30 00 - SUBMITTALS.

##### 1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

##### 1.03 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.
  - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 2. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.

##### 1.04 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
  - 1. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete project requirements in a timely manner, consult with the Owner for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities, to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
  - 1. The Contractor is responsible for providing products and construction methods that are compatible with products and construction methods of subcontractors.
  - 2. If a dispute arises between the general Contractor and subcontractors over concurrently selectable, but incompatible products, the Owner will determine which products shall be retained and which are incompatible and must be replaced.



- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view.
  - 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
- D. Manufacturer's Instructions
  - 1. When contract documents specify that installation shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to all parties involved in the installation, including the Owner.
  - 2. Maintain one set of complete instructions with the Project Record Documents at the job site during installation and until completion.

### **1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
  - 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, or theft.
  - 3. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
  - 4. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.
  - 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
  - 6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
  - 7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
- B. Arrange for transportation and deliveries of materials and equipment in accord with approved current construction schedules and in ample time to facilitate inspection prior to installation.
- C. Coordinate deliveries to avoid conflict with work and conditions at site:
  - 1. Work of other contractors or Owner, or their use of premises.
  - 2. Limitations of storage space.
  - 3. Availability of equipment and personnel for handling products.

## **PART 2 - PRODUCTS**

### **2.01 PRODUCT SELECTION**

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.

1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
  2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Comply with size, make, type and quality specified.
  4. Manufactured and fabricated products:
    - a. Design, fabricate and assemble in accord with best engineering and shop practices.
    - b. Manufacture like parts of duplicate units to standard interchangeable sizes.
    - c. Two or more items of the same kind shall be identical from the same manufacturer.
    - d. All system parts shall be from the same manufacturer to the greatest extent practical.
    - e. Adhere to equipment capacities, sizes and dimensions shown or specified unless variations are specifically approved by Change Order.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
1. Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.
  2. Semi-proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
    - a. Where products or manufacturers are specified by name, accompanied by the term "or equal," or "or approved equal" comply with the Contract's provisions concerning "substitutions" to obtain approval for use of an unnamed product.
  3. Non-Proprietary Specifications: When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
  4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
  5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
    - a. Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.
  6. Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.

7. Visual Matching: Where Specifications require matching an established Sample, the Owner's decision will be final on whether a proposed product matches satisfactorily.
  - a. Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.
8. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Owner will select the color, pattern and texture from the product line selected.
- C. Deliver products in undamaged condition in original containers or packaging, with identifying labels intact and legible.
- D. Clearly mark partial deliveries of component parts or assemblies or equipment to permit easy identification of parts and to facilitate assembly.
- E. Immediately on delivery, inspect shipment to assure:
  1. Product complies with contract documents and Owner
  2. Quantities are correct.
  3. Containers and packages are intact and labels are legible.
  4. Products are properly protected and undamaged.

### **PART 3 - EXECUTION**

#### **3.01 INSTALLATION OF PRODUCTS:**

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
  1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- B. Provide equipment and personnel to handle products and equipment, including those furnished by the Owner. Prevent damage to products or packaging.
- C. Provide additional protection during handling to prevent scraping, marring or otherwise damaging products, equipment or surrounding surfaces.
- D. Handle products and equipment in manner to prevent bending or overstressing.
- E. Lift packages, equipment or components only at designated lift points.

**END OF SECTION 01 60 00**

**SECTION 01 63 00**

**SUBSTITUTIONS AND PRODUCT OPTIONS**

**PART 1 - GENERAL**

**1.01 WORK INCLUDES**

- A. Base all bids on providing all products exactly as specified.
- B. For products specified only by reference or performance standards, select any product which meets or exceeds standards, by any manufacturer, subject to the Owner's approval.
- C. For products specified by naming several products or manufacturers, select any product and manufacturer named.

**1.02 RELATED WORK**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, Special Provisions and all other Divisions of the Project Manual, apply to this Section.

**1.03 SUBSTITUTIONS, BIDDER/CONTRACTOR OPTIONS**

- A. Prior to Bid Opening: The Owner will consider requests submitted by e-mail to amend the bidding documents to add products not specified provided such requests are received at least 10 calendar days prior to bid opening date. Requests received after that time will not be considered. When a request is approved, the Owner will issue an appropriate addendum not less than three (3) calendar days prior to bid opening date.
- B. With Bid: A bidder may propose substitutions with his bid by completing the Product Substitution List in the Bid Form, subject to the provisions stated thereon. The Owner will review Proposed Product Substitution List of low bidder and recommend approval or rejection by the Owner prior to award of contract.
- C. After Award of Contract: No substitutions will be considered after Notice of Award except under one or more of the following conditions:
  - 1. Substitution required for compliance with final interpretations of code requirement or insurance regulations.
  - 2. Unavailability of specified products, through no fault of the Contractor.
  - 3. Subsequent information discloses inability of specified product to perform properly or to fit in designated space.
  - 4. Manufacturer/fabricator refusal to certify or guarantee performance of specified product as specified.
  - 5. When a substitution would be substantially to Owner's best interest.

**1.04 SUBSTITUTION REQUIREMENTS**

- A. Include in the request:
  - 1. Complete data substantiating compliance of proposed substitution with contract documents.
  - 2. For products:
    - a. Product identification, including manufacturer's name and address.
    - b. Manufacturer's literature:
      - 1) Product description
      - 2) Performance and test data
      - 3) Reference standards
    - c. Samples

## Substitutions and Product Options

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- d. Name and address of similar projects on which product was used and dates of installation.
  3. For construction methods:
    - a. Detailed description of proposed method.
    - b. Drawings illustrating methods.
  4. Itemized comparison of proposed substitution with product or method specified.
  5. Data relating to changes in construction schedule.
  6. Identify:
    - a. Changes or coordination required.
    - b. Other contracts affected.
  7. Accurate cost data on proposed substitution in comparison with product or method specified.
- B. In making request for substitution, bidder/contractor represents:
1. He has personally investigated proposed product or method and determined that it is equal or superior in all respects to that specified.
  2. He will provide the same guarantee for substitution as for product or method specified.
  3. He will coordinate installation of accepted substitutions into the work, making all changes for work to be complete in all respects.
  4. Cost data is complete and includes all related costs under his contract, but excludes:
    - a. Owner's redesign.
    - b. Administrative costs of Owner.
    - c. Costs under separate contracts.
  5. He will pay all additional costs and expenses for Owner and other contractors.
- C. Substitutions will not be considered when:
1. They are indicated or implied on shop drawings or product data submittals without formal request submitted in accordance with this Section.
  2. Acceptance will require substantial revision of contract documents.

### **PART 2 – PRODUCTS (NOT APPLICABLE)**

### **PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 63 00**

**SECTION 01 70 00**

**PROJECT CLOSEOUT**

**PART 1 - GENERAL**

**1.01 WORK INCLUDES**

- A. Substantial completion, final completion, closeout submittals, and application for final payment.
- B. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
  - 1. Inspection procedures.
  - 2. Project record document submittal.
  - 3. Operating and maintenance manual submittal.
  - 4. Submittal of warranties.
  - 5. Final cleaning.
  - 6. Final payment.

**1.02 RELATED WORK**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.03 SUBSTANTIAL COMPLETION**

- A. When the Contractor considers the work substantially complete, Contractor shall submit written declaration to the Owner that the work, or designated portion thereof, is substantially complete. Include list of items to be completed or corrected.
- B. Owner and Contractor will make an inspection within seven days after receipt of certification.
- C. Should the Owner consider that the work is substantially complete:
  - 1. The Owner will prepare and issue a Certificate of Substantial Completion, containing:
    - a. Date of Substantial Completion.
    - b. Punch list of items to be completed or corrected.
    - c. The time within which Contractor shall complete or correct work of listed items. All punch list items must be completed within 30 days of substantial completion.
    - d. Date and time Owner will assume possession of work or designated portion thereof.
    - e. Responsibilities of Owner and Contractor for:
      - (1.) Insurance
      - (2.) Utilities
      - (3.) Operation of mechanical, electrical and other systems.
      - (4.) Maintenance and cleaning.
      - (5.) Security
    - f. Signatures of Owner and Contractor
- D. Should the Owner consider that work is not substantially completed:
  - 1. The Owner shall immediately notify Contractor, in writing, stating reasons.
  - 2. The Contractor shall complete work and send a second written notice to Owner, certifying that project, or designated portion of project, is substantially complete.
  - 3. The Owner will re-inspect work.

**1.04 FINAL INSPECTION**

- A. When the Contractor considers the work complete, the Contractor shall submit written declaration to the Owner that the work is complete. Contractor shall submit written certification that:
  - 1. Contract documents have been reviewed.
  - 2. Project has been inspected for compliance with contract.
  - 3. Work has been completed in accord with contract.
  - 4. Equipment and systems have been tested in the Owner's presence and are operational.
  - 5. Project is completed, ready for final inspection.
- B. The Owner will make final inspection within seven days after receipt of certification.
- C. Should the Owner consider that work is finally complete in accord with Contract Document requirements, he shall request contractor to make project closeout submittals.
- D. Should the Owner consider that work is not finally complete:
  - 1. The Owner shall notify the Contractor, in writing, stating reasons.
  - 2. The Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to the Owner certifying that the work is complete.
  - 3. The Owner will re-inspect work.

**1.06 CLOSEOUT SUBMITTALS**

- A. Project Record Documents: In accordance with requirements of SECTION 01 72 00 - PROJECT RECORD DOCUMENTS.
- B. Deliver evidence of compliance with requirements of governing authorities.
- C. Deliver Certificate of Insurance for products and completed operations. Certificate shall include a evidence that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days prior notice has been given to the Contractor. Contractor shall include a written statement that Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents.
- D. Evidence of payments, release of liens
  - 1. Consent of Surety to Final Payment.
  - 2. Other data establishing payment or satisfaction of obligations including receipts, Contractor's releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and form as required by the City.
  - 3. Separate releases of waivers of liens for subcontractors, suppliers and others with lien rights against property of Owner together with list of those parties.
  - 4. Paid utility bills, if any.
  - 5. An affidavit that payrolls, bills for materials and equipment and other indebtedness connected to the work for which the City or the City's property might be responsible or encumbered (less any amounts withheld by City) have been paid or otherwise satisfied.

**1.07 INSTRUCTION**

- A. Instruct Owner's personnel in operation of all systems, mechanical, electrical and other equipment.

**1.08 FINAL ADJUSTMENT OF ACCOUNTS**

- A. Submit final statement of accounting to Owner.
- B. Statement shall reflect all adjustments.
  - 1. Original contract sum.

2. Additions and deductions resulting from:
    - a. Previous change orders.
    - b. Cash allowances.
    - c. Unit prices.
    - d. Other adjustments.
    - e. Deductions for uncorrected work.
    - f. Deductions for re-inspection payments.
  3. Total contract sum, as adjusted.
  4. Previous payments.
  5. Sum remaining due.
- C. The Owner will prepare final change order, reflecting approved adjustments to contract sum not previously made by change orders.

**1.09 FINAL APPLICATION FOR PAYMENT**

- A. Contractor shall submit final application in accord with requirements of Conditions of Contract.

**1.10 FINAL CERTIFICATE FOR PAYMENT**

- A. The Owner will issue final certificate in accord with provisions of Conditions of contract.
- B. Should final completion be materially delayed through no fault of the Contractor, the Owner may issue a Semi-Final Certificate of Payment, in accord with provisions of Conditions of Contract.

**PART 2 – PRODUCTS (NOT APPLICABLE)**

**PART 3 – EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 70 00**



## SECTION 01 71 00

### CLEANING

#### PART 1 - GENERAL

##### 1.01 WORK INCLUDES

- A. Contractor shall maintain premises and public properties free from accumulations of waste, debris, and rubbish, caused by construction operations.
- B. At completion of work, Contractor shall remove waste materials, rubbish, tools, equipment, machinery and surplus materials, clean all sight-exposed surfaces and leave project clean and ready for occupancy.

##### 1.02 RELATED WORK

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

##### 1.03 SAFETY REQUIREMENTS

- A. Standards: Maintain project in accord with following safety and insurance standards.
  - 1. Occupational Safety and Health Administration (OSHA).
- B. Hazards Control:
  - 1. Store volatile wastes in covered metal containers and remove from premises daily.
  - 2. Prevent accumulation of wastes which create hazardous conditions.
  - 3. Provide adequate ventilation during use of volatile or noxious substances.
- C. Conduct cleaning and disposal operations to comply with Federal, State and local ordinances and anti-pollution laws.
  - 1. Do not burn or bury debris, rubbish or other waste materials on project site.
  - 2. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.
  - 3. Do not dispose of wastes into streams or waterways.

#### PART 2 - PRODUCTS

##### 2.01 MATERIALS

- A. Select and use all cleaning materials and equipment with care to avoid scratching, marring, defacing, staining or discoloring surfaces cleaned.
- B. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

#### PART 3 - EXECUTION

##### 3.01 DURING CONSTRUCTION

- A. Execute cleaning to ensure that grounds and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Wet down materials and rubbish to lay dust and to prevent blowing dust.
- C. At reasonable intervals during progress of work, clean site and public properties, and dispose of waste materials, debris and rubbish.
- D. Provide on-site metal containers for collection of waste materials, debris and rubbish.

- E. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.
- F. Handle waste materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
- G. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

### **3.02 FINAL CLEANING**

- A. General: Provide final cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- B. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of concealed spaces.
- C. Clean the Project site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste materials, litter and foreign substances. Sweep paved areas broom clean. Remove petro-chemical spills, stains and other foreign deposits. Rake grounds that are neither planted nor paved, to a smooth even-textured surface.
  - 1. Remove tools, construction equipment, machinery and surplus material from the site.
  - 2. Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  - 3. Remove debris and surface dust from limited access spaces.
  - 4. Remove labels that are not permanent labels.
  - 5. Touch-up and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that can not be satisfactorily repaired or restored, or that show evidence of repair or restoration. Do not paint over "UL" and similar labels, including mechanical and electrical name plates.
  - 6. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - 7. Leave the Project clean and ready for occupancy.
- E. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.
- F. Broom clean paved surfaces; rake clean other surfaces on grounds.
- G. Maintain cleaning until project, or designated portion thereof, is occupied by Owner.

**END OF SECTION 01 71 00**

**SECTION 01 72 00**

**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

**1.01 WORK INCLUDES**

- A. Maintenance of Documents
- B. Contractor shall:
  - 1. At project site, maintain one (1) copy of:
    - (a.) Contract drawings.
    - (b.) Project Manual.
    - (c.) Interpretations and supplemental instructions.
    - (d.) Addenda.
    - (e.) Reviewed, approved shop drawings and product data.
    - (f.) Other modifications to contract.
    - (g.) Field test records.
    - (h.) All schedules.
    - (i.) Correspondence file.
    - (j.) Change Orders
  - 2. Provide files and racks for document storage.
  - 3. File documents in format in accord with Project Manual Table of Contents.
  - 4. Maintain documents in clean, dry, legible condition.
  - 5. Do not use record documents for field construction purposes.
  - 6. Make documents available at all times for inspection by Owner.
  - 7. Furnish one (1) additional as-built record set of contract documents at the completion of the project. This set is not to be the set kept and updated periodically at the job site, but a clean set free of extraneous markings, notations, and erasures showing on a record of final conditions. Provide as-built record set in both PDF and AutoCAD formats.

**1.02 RELATED REQUIREMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.03 MARKING DEVICES**

- A. Provide ballpoint pens, red color.

**1.04 RECORDING**

- A. Label each document "PROJECT RECORD DOCUMENTS" in 2" high printed letters.
- B. Keep record documents current, updated not less often than monthly.
- C. Do not permanently conceal any work until specified information has been recorded.
- D. Contract drawings: Legibly mark to record actual construction:
  - 1. Depths of various elements of foundation in relation to adjacent ground elevations.
  - 2. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
  - 3. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
  - 4. Field changes of dimension and detail.

5. Changes made by change order.
6. Details not on original contract drawings.
- E. Specifications and addenda: 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 matters not originally specified.
- F. Shop drawings: Maintain as record documents; legibly annotate drawings to record changes made after review.
- G. Provide one hard copy binder of the project record documents for each garage and provide an electronic copy of the documents, divided by garage.

**1.05 SUBMITTAL**

- A. At completion of project, deliver record documents to Owner in hard copy and pdf format.
- B. Accompany submittal with transmittal letter, in duplicate, 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 submitted is complete and accurate.
  6. Signature of contractor, or his authorized representative.

**PART 2 - PRODUCTS (Not Applicable)**

**PART 3 - EXECUTION (Not Applicable)**

**END OF SECTION 01 72 00**

**SECTION 01 73 00**

**OPERATING AND MAINTENANCE DATA**

**PART 1 - GENERAL**

**1.01 WORK INCLUDES**

- A. Contractor shall:
  - 1. Compile product data and related information appropriate for Owner's maintenance and operation of products and equipment provided under the Contract.
  - 2. Instruct Owner's personnel in operation and maintenance of products, equipment and systems.

**1.02 RELATED REQUIREMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.03 QUALITY ASSURANCE**

- A. Maintenance Manual Preparation: In preparation of Maintenance Manuals, use personnel thoroughly trained and experienced in operation and maintenance of the equipment or system involved.
  - 1. Where written instructions are required, use personnel skilled in technical writing to the extent necessary for communication of essential data.
  - 2. Where Drawings or diagrams are required, use draftsmen capable of preparing Drawings clearly in an understandable format.
- B. Instructions for the Owner's Personnel: For instruction of the Owner's operating and maintenance personnel, use experienced instructors thoroughly trained and experienced in the operation and maintenance of the equipment or system involved.

**1.04 SUBMITTALS**

- A. Form: Manufacturer's standard product or equipment data of same type and form furnished to manufacturer's maintenance personnel.
- B. Provide sturdy manila or kraft envelope, properly labelled, of sufficient size to contain all submittals.
- C. Submit one copy of data in final form at least fifteen days before final inspection. This copy will be returned within fifteen days after final inspection, with comments.
  - 1. After final inspection make corrections or modifications to comply with the Owner's comments. Submit the specified number of copies of each approved manual to the Owner within fifteen days of receipt of the Owner's comments.
- D. Form of Submittal: Prepare operating and maintenance manuals in the form of an instructional manual for use by the Owner's operating personnel. Organize into suitable sets of manageable size. Where possible, assemble instructions for similar equipment into a single binder. Include both hard copies and bookmarked PDF file.
- E. Binders: For each manual, provide heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, in thickness necessary to accommodate contents, sized to receive 8-1/2" by 11" paper. Provide a clear plastic sleeve on the spine, to hold labels describing the contents. Provide pockets in the covers to receive folded sheets.

- F. Text Material: Where written material is required as part of the manual use the manufacturer's standard printed material, or if it is not available, specially prepared data, neatly typewritten, on 8-1/2" by 11", 20 pound white bond paper.
- G. Drawings: Where drawings or diagrams are required as part of the manual, provide reinforced punched binder tabs on the drawings and bind in with the text.

#### **1.05 MANUAL CONTENT**

- A. Neatly typewritten table of contents for each volume, arranged in systematic order. Follow Project Manual format.
- B. In each manual include information specified in the individual Specification Section, and the following information for each major component of equipment and its controls:
  - 1. General system or equipment description.
  - 2. Design factors and assumptions.
  - 3. Copies of applicable Shop Drawings and Product Data.
  - 4. System or equipment identification, including:
    - a. Name of manufacturer.
    - b. Model number.
    - c. Serial number of each component.
  - 5. Operating instructions.
  - 6. Emergency instructions.
  - 7. Wiring diagrams.
  - 8. Inspection and test procedures.
  - 9. Maintenance procedures and schedules.
  - 10. Precautions against improper use and maintenance.
  - 11. Copies of warranties.
  - 12. Repair instructions including spare parts listing.
  - 13. Sources of required maintenance materials and related services.
  - 14. Manual Index.
  - 15. Contractor, name of responsible principal, address and telephone number
  - 16. List with each product, the name, address and telephone number of:
    - a. Subcontractor
    - b. Maintenance contractor, as appropriate.
    - c. Identify area of responsibility of each
    - d. Local supply source for parts and replacement.
- C. Organize each manual into separate Sections for each piece of related equipment. As a minimum each manual shall contain a title page, a table of contents, copies of Product Data, supplemented by drawings and written text, and copies of each warranty, bond and service Contract issued.
- D. General Information: Provide a general information Section immediately following the Table of Contents, listing each product included in the manual, identified by product name. Under each product, list the name, address, and telephone number of the Subcontractor or installer, and the maintenance contractor. Clearly delineate the extent of responsibility of each of these entities. In addition, list a local source for replacement parts and equipment.
- E. Product Data: Where manufacturer's standard printed data is included in the manuals, include only sheets that are pertinent to the part or product installed. Mark each sheet to identify each part or product included in the installation. Where more than one item in a tabular format is included, identify each item, using appropriate references from the Contract Documents. Identify data that is applicable to the installation and delete references to information that is not applicable.

- F. Written Text: Where manufacturer's standard printed data is not available, and information is necessary for proper operation and maintenance of equipment or systems, or it is necessary to provide additional information to supplement data included in the manual, prepare written text to provide necessary information. Organize the text in a consistent format under separate headings for different procedures. Where necessary, provide a logical sequence of instruction for each operating or maintenance procedure.
- G. Drawings: Provide specially prepared drawings where necessary to supplement manufacturer's printed data to illustrate the relationship of component parts of equipment or systems, or to provide control or flow diagrams. Coordinate these drawings with information contained in Project Record Drawings to assure correct illustration of the completed installation.
- H. Do not use original Project Record Documents as part of the Operating and Maintenance Manuals.
- I. Warranties, Bonds and Service Contracts: Provide a copy of each warranty, bond or service contract in the appropriate manual for the information of the Owner's operating personnel. Provide written data outlining procedures to be followed in the event of product failure. List circumstances and conditions that would affect validity of the warranty or bond.
  - 1. Contractor, name of responsible principal, address and telephone number.
  - 2. List of each product specified to be included, indexed to volume content.
  - 3. List with each product, the name, address and telephone number of:
    - a. Subcontractor.
    - b. Maintenance contractor, as appropriate.
    - c. Identify area of responsibility of each.
    - d. Local supply source for parts and replacement.
- J. Product Data:
  - 1. Include only sheets pertinent to specific product.
  - 2. Annotate each sheet to:
    - a. Clearly identify specific product or part installed.
    - b. Clearly identify data applicable to installation.
    - c. Delete references to inapplicable installation.
- K. Drawings:
  - 1. Supplement product data with drawings to clearly illustrate relationship of component parts of equipment and systems and control and flow diagrams.
  - 2. Coordinate drawings with information in Product Record Documents to assure correct illustration of completed installation.
  - 3. Do not use Project Record Documents as maintenance drawings.
- L. Written text to supplement product data for particular installation:
  - 1. Organize in consistent format under separate headings for different procedures.
  - 2. Provide logical sequence of instructions for each procedure.
- M. Copy of each warranty, bond and service contract issued.
  - 1. Provide information sheet for Owner personnel. Give:
    - a. Proper procedures in event of failure.
    - b. Instances which might affect validity of warranties or bonds.

#### **1.06 MANUAL FOR MATERIALS AND FINISHES**

- A. Submit two (2) copies of complete manual in final form and one electronic form in a bookmarked PDF.
- B. Refer to individual Specification Sections for additional requirements on care and maintenance of materials and finishes.

- C. Content for products, applied materials and finishes:
  - 1. Manufacturer's data, giving full information on products.
    - a. Catalog number, size, composition.
    - b. Color and texture designations.
    - c. Information for re-ordering special-manufactured products.
  - 2. Instructions for care and maintenance.
    - a. Manufacturer's recommendations for types of cleaning agents and methods.
    - b. Cautions against cleaning agents and methods detrimental to product.
    - c. Recommended cleaning and maintenance schedule.
- D. Moisture-Protection and Weather-Exposed Products: Provide complete manufacturer's data with instructions on inspection, maintenance and repair of products exposed to the weather or designed for moisture-protection purposes.
- E. Manufacturer's Data: Provide manufacturer's data giving detailed information, including the following, as applicable:
  - 1. Applicable standards.
  - 2. Chemical composition.
  - 3. Installation details.
  - 4. Inspection procedures.
  - 5. Maintenance information.
  - 6. Repair procedures.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 73 00**



## SECTION 01 74 00

### WARRANTIES AND BONDS

#### PART 1 - GENERAL

##### 1.01 SUMMARY

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.
  - 1. Warranties for the Work and products and installations of each Contractor shall be one (1) year unless specified otherwise on the Drawings or in the individual Sections of Divisions 2 through 16.
- B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and Contractors required to countersign special warranties with the Contractor.

##### 1.02 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

##### 1.03 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requires of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights or remedies.
  - 1. Rejection of Warranties: The Owner reserves the rights to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the Work, until evidence is presented that entities required to countersign such commitments are willing to do so.
- F. For specific warranty requirements related to landscape materials, refer to the applicable Section.

##### 1.04 SUBMITTALS

- A. Submit written warranties to the Owner prior to the date certified for Substantial Completion. If the Owner's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.
  - 1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within fifteen days of completion of that designated portion of the Work.
- B. Form of Submittal: At Final Completion, compile two copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, Subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual. Also provide a compiled, bookmarked PDF file.
- C. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.
  - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
  - 2. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the project title or name, and the name of the Contractor.
  - 3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

**PART 2 - PRODUCTS (NOT APPLICABLE)**

**PART 3 - EXECUTION (NOT APPLICABLE)**

**END OF SECTION 01 74 00**

**DIVISION 03**  
**CONCRETE**  
**SECTION 03 01 01**  
**SHORING**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section Includes: Supply, installation, and removal of temporary shoring to support structural elements vertically and to support formwork where needed.
- B. Related Sections:
  - 1. Section 03 01 31 - Concrete Removal and Surface Preparation

**1.2 PAYMENT**

- A. The cost of shoring is incidental to the repair work.

**1.3 COORDINATION**

- A. Coordinate with Owner's Representative and with other trades to ensure that shoring does not interfere with Owner use of Site or work of other trades.

**1.4 SUBMITTALS**

- A. Product Data: Manufacturer's literature and technical data indicating type of shoring proposed for use and safe load-carrying capacity of shoring for heights and lengths of shoring components to be used.
- B. Shop Drawings: Shop drawings showing locations, distribution, and quantity of shoring. Include connection and bearing details. Shop drawings shall be prepared by or under supervision of qualified, licensed Professional Engineer and shall be sealed by engineer.
- C. Design Calculations: Calculations prepared by or under supervision of qualified, licensed Professional Engineer, and sealed by engineer, indicating that shoring meets design criteria.

**1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Store shoring materials in approved storage area at Site, such that materials do not interfere with Owner's continued use of facility.
- B. Limit stored materials on structure to safe loading capacity of structure at time materials are stored, and to avoid permanent slab deflection.

**1.6 PROJECT CONDITIONS**

- A. Comply with Owner's limitations and restrictions for Site use and accessibility.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURED ASSEMBLIES**

- A. Design Criteria:
  - 1. Design for self-weight of structure, superimposed dead loads, and 20 psf live load in area restricted to construction traffic, or 40 psf live load in areas open to vehicular traffic, using a minimum safety factor of 2.0.
  - 2. Consider removal of loads from member and transfer of loads into structure below, without overloading structural members.
  - 3. Detail shoring to avoid interference with Owner operations.
  - 4. Consider shoring stiffness relative to stiffness of members being shored.
- B. Shoring: Steel posts, steel frames, or other steel assemblies with sufficient capacity to support calculated shoring loads at spacing and positioning shown on shop drawings.
  - 1. Adjustable through positive means, such as screw jacks, to achieve tight fit to structure above and below and to compensate for elastic shortening of shores during loading and service.
  - 2. Use undamaged components, including bracing, supplied by shoring manufacturer.

### **2.2 ACCESSORIES**

- A. Spreaders:
  - 1. At bottom of shores: 4x4 timber cribbing, 2x wood bearing pads, or other material; with sufficient bearing area and length to distribute shoring reactions into supporting structural element below.
  - 2. At top of shores: Timber or steel spreader beams or wood bearing pads; to fully support member being shored without damage to member surface.
- B. Shims: Wood or steel; at bearing points above shores to ensure tight contact with shored member.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates and conditions for compliance with requirements and other conditions affecting installation or performance of shoring Work.
  - 1. Ensure that work done by other trades is complete and ready for shoring Work.
  - 2. Notify Engineer in writing of conditions which may adversely affect installation or performance of shoring Work and recommend corrections.
  - 3. Do not proceed with shoring Work until adverse conditions have been corrected and reviewed by Engineer.
  - 4. Commencing shoring Work constitutes acceptance of Work surfaces and conditions.

### **3.2 INSTALLATION**

- A. Install shoring at locations designated by Engineer before repair work begins, and at locations where existing shoring interferes with work.
  - 1. Notify Engineer of locations where extent of deterioration or suspect existing construction indicates that shoring may be necessary.

- B. Install shoring in accordance with manufacturer's recommendations and approved shop drawings. Installed assembly shall be of such quality that assembly will support imposed loads without excessive settlement or deflection.
  - 1. Position to avoid interference with Owner operations.
  - 2. Install snug, plumb, and square. Install cross-bracing recommended by shoring manufacturer and shoring designer to prevent buckling failure of individual members and overall shoring stability failure. Extend shoring above and below level of repair work as required by shoring design.
  - 3. Install spreader beams or bearing pads and shims as necessary, and adjust shores to ensure tight, uniform fit against structural element to be supported. Minimize differential loading of vertical shoring members.
  - 4. Install timber cribbing wood or wood bearing pads as necessary to distribute loads into supporting elements. If more than 1 layer of cribbing is required, install each successive layer perpendicular to preceding layer.
  - 5. If shoring is to be placed on coated or finished surface, protect surface from damage with plywood, plastic sheets, or other means.
- C. Preload shores with screw jacks to bring shoring into a uniform, snug-tight condition.
- D. Protect shores from damage from construction activities, Owner use of facility, and other causes.
- E. Check shores daily and adjust as necessary to maintain snug condition, plumbness, and full effectiveness.
- F. Modify and adjust shoring as required to meet conditions of work and to ensure Project safety.

### **3.3 REMOVAL OF SHORES**

- A. Remove shores when compressive strength of repair concrete reaches 75 percent of its specified 28-day strength. Contractor may elect to have additional concrete strength tests performed at his own expense, to confirm when repair concrete meets removal requirements.
- B. Store shoring materials in approved storage area at Site, such that materials do not interfere with Owner's continued use of facility. Promptly remove shoring materials from Site when no longer needed for work.

**END OF SECTION**

## SECTION 03 01 31

### CONCRETE REMOVAL AND SURFACE PREPARATION

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes: Concrete removal and surface preparation prior to patching, including:
  - 1. Removal of unsound and sound concrete.
  - 2. Preparation of concrete and reinforcing steel surfaces.
  
- B. Related Sections
  - 1. Section 03 01 01 – Shoring
  - 2. Section 03 01 34 – Concrete Replacements
  - 3. Section 07 18 00 - Traffic Coating
  - 4. Section 07 92 00 - Joint Sealants

##### 1.2 REFERENCES

- A. Reference Standards: Latest edition as of Specification date.
  - 1. ASTM International:
    - a. D4258: Standard Practice for Surface Cleaning Concrete for Coatings.
    - b. D4259: Standard Practice for Abrading Concrete.
  - 2. International Concrete Repair Institute (ICRI):
    - a. No. 310.1R-2008 Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion (formerly No. 03730)
    - b. No. 310.2R-2013 Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair
  - 3. SSPC: The Society of Protective Coatings:
    - a. SSPC-SP 6/NACE No. 3: Commercial Blast Cleaning.

##### 1.3 COORDINATION

- A. Coordinate with Owner's Representative and with other trades to ensure that adjacent areas are not adversely affected by concrete removal Work.

##### 1.4 SUBMITTALS

- A. Product Data: Manufacturer's literature and technical data for corrosion-inhibiting coating material, and epoxy for epoxy-grouted dowels, indicating applicability of product for proposed use.
  - 1. Include Safety Data Sheets (SDS) or, if not yet available, Material Safety Data Sheets for information only.
  
- B. Field Quality Control: Manufacturer approval of discrete galvanic anode installation.
  
- C. Confinement, Collection, and Disposal Plan: Written plan for confining, collecting, and disposing of broken concrete, sandblast grit, dust, debris, existing reinforcing, and other waste material resulting from removal operations and surface preparation.

## **1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, and handle materials according to manufacturer's recommendations and in such manner as to prevent damage to materials and structure.
- B. Deliver materials to Site in original containers and packaging with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.
- C. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, handling, and installation. Reject and remove from Site new materials which exhibit evidence of moisture during application or have been exposed to moisture.
- D. Store materials in original, undamaged containers in clean, dry, protected location on raised platforms with weather-protective coverings, within temperature and humidity range required by material manufacturer.
- E. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.
- F. Conspicuously mark damaged or opened containers or containers with contaminated materials and remove from Site as soon as possible.
- G. Remove and replace materials that cannot be applied within stated shelf life.

## **1.6 PROJECT CONDITIONS**

- A. Verify existing dimensions and details prior to start of concrete removal Work. Notify Engineer of conditions found to be different than those indicated in Contract Documents. Engineer will review situation and inform Contractor and Installer of changes.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Dust, Fume, and Noise Controls:
  - 1. Confine dust and debris to Work area and prevent from entering portions of facility that remain in use.
  - 2. Direct equipment exhaust away from occupied spaces. Vent equipment operating within structure to outside or condition exhaust gases with catalytic converter.
  - 3. Operate equipment at noise levels conforming to requirements of city, state, and federal laws and codes, and Owner limitations.
- D. Handle and install materials in strict accordance with safety requirements required by material manufacturer; SDS or Material Safety Data Sheets; and local, state, and federal rules and regulations. Maintain SDS or Material Safety Data Sheets with materials in storage area and available for ready reference on Site.
- E. Maintain adequate ventilation during preparation and application of materials.

## **1.7 QUALITY REVIEW**

- A. Prior to placing concrete in a repair area, contact Engineer to perform a review of the prepared area. Schedule inspections at least 48 hours in advance of scheduled concrete placements.

## 1.8 CHANGES IN WORK

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with Contract Documents. Such conditions may interfere with Work and may consist of damage or deterioration of substrate or surrounding materials or mislocation of embedded elements such as reinforcing steel, which may interfere with proper execution of Work.
  - 1. Notify Engineer of conditions that may interfere with proper execution of Work prior to proceeding with Work.

## PART 2 PRODUCTS

- A. Corrosion-Inhibiting Coating Materials: Use material specifically intended for reinforcing steel embedded in concrete.
  - 1. Cementitious Coating: Sika Armatec 110 EpoCem by Sika Corporation, or approved equal.
  - 2. Epoxy: Sikadur 32 Hi-Mod by Sika Corporation, or approved equal.
  - 3. Zinc-rich Steel Primer: MasterProtect P 8100 AP by BASF Construction Chemicals, LLC, or approved equal.
- B. Epoxy-Coated Reinforcing Bars: Deformed bars with 60,000 psi minimum yield strength conforming to ASTM A615/A615M, Grade 60. Sizes as directed by Architect/Engineer. Epoxy coating per ASTM A775/A775M.
- C. Steel Wire and Welded Wire Reinforcement, Plain and Deformed: Steel wire and welded wire reinforcement shall conform with 65,000 pounds per square inch minimum yield strength conforming to ASTM A1064.
  - 1. Epoxy coated wire and welded wire reinforcement shall conform to the requirements of ASTM A884. Size as specified on the Drawings.
  - 2. Welded Wire Reinforcement shall be epoxy coated.
- D. Grouted Dowels:
  - 1. Dowels: ASTM F593, Group 2 (Type 316) stainless steel; 1/4-inch-diameter, threaded rods.
  - 2. Grout for Dowels: Use one of the following or approved equal:
    - a. HIT-HY 200-R hybrid adhesive by Hilti, Inc.
    - b. HIT-RE 500-SD epoxy adhesive by Hilti, Inc.
    - c. AC100+ Gold vinylester by Powers Fasteners.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions for compliance with requirements and other conditions affecting concrete removal Work.
  - 1. Ensure that work done by other trades is complete and ready for concrete removal Work.
  - 2. Verify that areas and conditions under which concrete removal Work is to be performed permit proper and timely completion of Work.
  - 3. Notify Engineer in writing of conditions which may adversely affect concrete removal Work and recommend corrections.
  - 4. Do not proceed with concrete removal Work until adverse conditions have been corrected and reviewed by Engineer.



5. Commencing concrete removal Work constitutes acceptance of Work surfaces and conditions.

### **3.2 PROTECTION**

- A. Take precautions to ensure safety of people, including building users, passers-by, and workmen, and animals, and protection of property, including adjacent building elements, landscaping, and motor vehicles.
- B. Prevent construction debris and other materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
- C. Protect paving, membrane to remain, sidewalk, and adjacent building areas from mechanical damage due to scaffolding and other equipment.
- D. Limit access to Work areas.
- E. Erect temporary protective canopies, as necessary, over walkways and at points of pedestrian and vehicular access that must remain in service during Work.
- F. Assume responsibility for injury to persons or damage to property due to Work, and remedy at no cost to Owner.

### **3.3 EQUIPMENT**

- A. Pneumatic Chipping Hammers:
  1. Nominal 30-lb class or less for removal of concrete at repair areas.
  2. Nominal 15-lb class or less for detail work adjacent to and beneath reinforcing steel.
- B. Saws capable of sawcutting concrete to specified depth.
- C. Shotblasting and sandblasting equipment capable of removing laitance, dirt, loose pieces of concrete, and surface contaminants from exposed concrete surfaces and rust, concrete, and surface contaminants from exposed steel surfaces.
- D. High-pressure, oil-free compressed air equipment capable of removing dust and dirt from exposed concrete removal areas.
- E. Percussive or rotary drilling equipment for making holes in concrete substrate for dowel installation.

### **3.4 CONCRETE REMOVAL AND SURFACE PREPARATION**

- A. Sound concrete surfaces and mark with paint areas of unsound concrete. Engineer will review markings before concrete removal Work begins.
- B. Prior to concrete removal Work:
  1. Remove or temporarily shore plumbing and electrical lines and associated fixtures that interfere with Work. Reattach at completion of Work.
  2. Install shoring as specified or directed by Engineer.
  3. Develop plan for confining and disposing of broken concrete and other debris from removal Work.

- C. Concrete Removal Areas:
  - 1. Where possible, make rectangular in shape in plan.
  - 2. Avoid re-entrant corners.
  - 3. Extend at least 4 inches beyond edge of unsound concrete.
  - 4. Extend full-depth areas at least 2 inches over nearby supports such as beams, girders, joists, and drop panels, as directed by Engineer.
- D. Create square edges of removal areas.
  - 1. Sawcut 3/4 inch at top surface removal areas. Do not saw through reinforcing steel, embedded electrical conduits, or other embedments.
  - 2. Chip or sawcut square edges of overhead and vertical removal areas at least 1/2 inch deep. For areas to be repaired with shotcrete, taper remainder of edges at 1:1 slope into cavity to eliminate square edges.
- E. Remove unsound concrete and, as necessary, sound concrete to create minimum removal depth of 2 inches and gaps around partially exposed reinforcing bars of at least 3/4 inches.
  - 1. Exercise care to avoid cracking underlying sound concrete, punching through member, or damaging embedments such as electrical conduit.
  - 2. Limit chipping hammer size and impact angle to minimize damage to sound concrete. Impact angle shall be no more than 60 degrees to surface.
  - 3. Avoid abrupt changes in depth of removal.
- F. Prepare concrete surfaces in repair areas to have a minimum peak-to-valley surface roughness of approximately 1/4 inch, meeting the requirements of ICRI CSP 7. Achieve preparation using chipping hammers.
- G. Notify Engineer and Owner's Representative of embedded electrical conduit encountered in removal areas. Proceed as directed by Engineer and Owner's Representative. Unless otherwise directed, remove abandoned conduit and wires in removal area.
- H. Inspect and sound concrete surfaces in and around removal areas. Remove additional unsound concrete. Sawcut or chip square new removal area perimeter as necessary.
- I. Sandblast clean surfaces of removal area, including vertical edges, to remove surface contaminants, loose pieces of concrete, and concrete that is bruised or micro-fractured and to roughen surfaces. Clean removal area surfaces with dry, oil-free compressed-air jet.
- J. Inspect prepared concrete surfaces and remedy defects. Allow Engineer at least 48 hours to observe prepared surfaces prior to concrete placement.

### **3.5 REINFORCEMENT PREPARATION**

- A. Leave existing reinforcing in place unless otherwise directed by Engineer.
- B. Notify Engineer of reinforcing bars that are incorrectly located or have less than 1/2 inch of concrete cover; damaged; fractured; or have lost more than 10 percent of their original cross-sectional area at any point. Engineer will determine remedial action.
- C. Notify Engineer if post-tensioning strands are exposed in the slab repair areas.

- D. Sandblast clean exposed steel surfaces, including existing reinforcement and embedments, to SSPC-SP 6/NACE No. 3 finish, with minimal rust or concrete debris. Clean steel surfaces with dry, oil-free compressed-air jet. Exercise care to clean undersides of reinforcing bars.
- E. Inspect prepared steel surfaces and clean remaining contaminants. Allow Engineer at least 24 hours to observe prepared surfaces prior to coating steel.
- F. Apply two coats of corrosion-inhibiting material on exposed steel surfaces in accordance with Section 03 60 30.

### **3.6 SURFACE PREPARATION FOR WATERPROOFING MEMBRANE INSTALLATION**

- A. At locations without an existing membrane, remove all existing surface coatings, paint, grease, oil, asphalt solids, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete to receive waterproofing membrane.
- B. Well-bonded waterproofing membrane designated to be recoated are to remain. The existing membrane shall be cleaned and prepared in accordance with the recommendations of the new coating manufacturer.
  - 1. For the wear course installation in the Chicago Avenue Garage, the existing surface is to be cleaned with a solvent, as approved by the membrane manufacturer.
  - 2. Where the full membrane system is to be installed over an existing membrane (Sherman Plaza Floors 1 and 2), grease, oil, paints, and other contaminants must be removed, and the surface must be shotblasted clean followed by high-pressure washing or solvent cleaning, as approved by the membrane manufacturer.
- C. Uniformly clean concrete surfaces by abrasive blast, according to ASTM D4259, to expose top surface of fine aggregate and provide sound surface, free of laitance, dirt, and other loose or foreign material. Use self-contained, recirculating, blast-cleaning apparatus. Remove remaining loose material and clean surfaces according to ASTM D4258. Produce surface texture equal to CSP 3 from ICRI 310.2.
  - 1. Verify that concrete has cured and aged for minimum time period recommended by waterproofing manufacturer.
  - 2. Verify that substrate is sound and is visibly dry and free of moisture.
    - a. Test for moisture vapor emission by plastic sheet method according to ASTM D4263.
  - 3. Verify that concrete curbs, expansion joints, and transitions from one surface plane to another (inside and outside corners) are cleanly formed and free of broken edges and excess concrete.
  - 4. Surfaces to receive a membrane shall be even. Grind flat protrusions and bumps to achieve a texture similar to the surrounding area concrete. Fill pits, scaled areas, depressions or traction grooves in the concrete surface which will inhibit a uniform membrane application in accordance with the membrane manufacturer's recommendations. Remove concrete fins and projections, concrete splatter, and other irregularities which would prevent monolithic, continuous application of waterproofing. Level areas of surface scaling or rough, uneven areas where surface roughness is unacceptable for traffic-bearing membrane application with skim coat of epoxy or other material compatible with traffic-bearing membrane and recommended by traffic-bearing membrane manufacturer.
  - 5. Remove grease, oil, asphalt solids, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
  - 6. Sandblast vertical and other concrete and steel surfaces where shotblast does not reach.

7. Follow shotblast and sandblast activities by cleaning with a compressed air jet. Concentrate the air jet at cracks, control and construction joints, and repair perimeter interfaces to ensure that shot and sand particles and other contaminants are removed from these crevices.
- D. If prepared surfaces become contaminated after first cleaning, they shall be cleaned again at the Contractor's expense prior to applying the membrane.
- E. All concrete and existing membrane surfaces to receive a protective membrane shall be dry and satisfy the surface requirements of the membrane manufacturer.

### **3.7 CLEANING**

- A. Remove and legally dispose of concrete and steel debris, sandblast materials, and excess materials.

**END OF SECTION**

**SECTION 03 01 34**  
**CONCRETE REPLACEMENTS**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Section Includes: Supply and placement of cast-in-place concrete for replacement applications, including formwork, reinforcement, concrete materials, mix design, batching procedures, placement procedures, finishes, and curing. Proprietary cementitious replacement materials are also included.
- B. Related Sections:
  - 1. Section 03 01 31 – Concrete Removal and Surface Preparation: Preparation work for concrete replacements.
  - 2. Section 03 11 13 - Concrete Shoring: Supply and installation of shoring for beam repair and formwork support.
  - 3. Section 03 15 11 - Expansion Joint Seals: Supply and installation of expansion joint seals.
  - 4. Section 07 18 00 - Traffic Coating: Membrane installation.

**1.2 UNIT PRICES**

- A. Perform the following Work on unit price basis:
  - 1. Partial-depth, top-surface replacements. Payment based on surface area of removal area (3-inch average depth).
  - 2. Full-depth, top-surface replacements. Payment based on surface area of removal area (4-inch average depth).
  - 3. Vertical-surface replacements. Payment based on surface area of removal area (2-inch average depth).
  - 4. Overhead-surface replacements. Payment based on surface area of removal area (2-inch average depth).
  - 5. Slab-on-grade full-depth replacements. Payment based on surface area of removal area (5-inch average depth).

**1.3 REFERENCES**

- A. Definitions:
  - 1. Cementitious Materials: Portland cement alone or in combination with one or more of fly ash, silica fume, and other pozzolans, or slag cement.
- B. Reference Standards: Latest edition as of Specification date.
  - 1. American Concrete Institute (ACI):
    - a. 117: Specification for Tolerances for Concrete Construction and Materials and Commentary.
    - b. 301: Specifications for Structural Concrete.
    - c. 305R: Guide to Hot Weather Concreting.
    - d. 306R: Guide to Cold Weather Concreting.
    - e. 347: Guide to Formwork for Concrete.
  - 2. ASTM International:

- a. A615/A615M: Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
  - b. A1064/A1064M: Standard Specification for Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
  - c. C31/C31M: Standard Practice for Making and Curing Concrete Test Specimens in the Field.
  - d. C33/C33M: Standard Specification for Concrete Aggregates.
  - e. C39/C39M: Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
  - f. C42/C42M: Standard Test Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
  - g. C94/C94M: Standard Specification for Ready-Mixed Concrete.
  - h. C150/C150M: Standard Specification for Portland Cement.
  - i. C171: Standard Specification for Sheet Materials for Curing Concrete.
  - j. C172: Standard Practice for Sampling Freshly Mixed Concrete.
  - k. C231/C231M: Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
  - l. C260/C260M: Standard Specification for Air-Entraining Admixtures for Concrete.
  - m. C309: Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
  - n. C494/C494M: Standard Specification for Chemical Admixtures for Concrete.
  - o. C1064/C1064M: Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
  - p. C1077: Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
  - q. C1152/C1152M: Standard Test Method for Acid-Soluble Chloride in Mortar and Concrete.
  - r. C1218/C1218M: Standard Test Method for Water-Soluble Chloride in Mortar and Concrete.
  - s. C1260: Standard Test Method for Potential Alkali Reactivity of Aggregates (Mortar-Bar Method).
  - t. C1524: Standard Test Method for Water-Extractable Chloride in Aggregate (Soxhlet Method).
  - u. C1583/C1583M: Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method).
3. Concrete Reinforcing Steel Institute (CRSI):
    - a. Manual of Standard Practice.
  4. International Concrete Repair Institute (ICRI):
    - a. Guide for Using In-Situ Tensile Pull-off Tests to Evaluate Bond of Concrete Surface Materials.

#### **1.4 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate Work to ensure that adjacent areas are not adversely affected.
- B. Pre-placement Meeting:
  1. Conduct meeting at Site.
  2. Review requirements for concrete replacement Work, including:
    - a. Construction schedule.

- b. Availability of materials, personnel, equipment, and facilities needed to make progress and avoid delays.
  - c. Site use, access, staging, and set-up location limitations.
  - d. Forecast weather conditions.
  - e. Concrete removal, surface preparation, and substrate condition.
  - f. Placement procedures.
  - g. Minimum cure period.
  - h. Testing and inspection requirements.
  - i. Temporary protection and repair of damaged concrete replacements.
  - j. Structural loading limitations of deck.
3. Contractor's Site superintendent and Architect/Engineer shall attend.

## 1.5 SUBMITTALS

- A. Product Data:
  1. Manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; and mixing and application or placement instructions.
  2. Include temperature ranges for storage and application of materials, and special cold-weather application requirements or limitations. Include Safety Data Sheets (SDS) for information only; safety restrictions are sole responsibility of Contractor.
- B. Design Mixes: For each concrete mix, including required test reports.
  1. Proportions of materials.
  2. Mill tests and certification for cement, fly ash, and slag cement. Certification for silica fume.
  3. Sieve analysis for fine and coarse aggregate.
  4. Test results for deleterious substances in aggregates and potential aggregate reactivity.
  5. Slump during laboratory tests.
  6. Air content during laboratory tests.
  7. Three-, seven-, and 28-day laboratory compression test results. Minimum three cylinders at each test age.
  8. Indicate:
    - a. Amount of mix water to be withheld for later addition at Site.
    - b. Range of high-range, water-reducing admixture dosage that may be added at Site without adversely affecting hardened concrete.
- C. Field Quality Control: Batch tickets for ready-mix concrete.

## 1.6 QUALITY ASSURANCE

- A. Contractor Qualifications: Experienced firm that has successfully completed concrete replacement work similar in material, design, and extent to that indicated for the Project. Must have successful construction with specified materials in local area in use for minimum of five years.
  1. Employ foreman with minimum five years of experience as foreman on similar projects, who is fluent in English, to be on Site at all times during the Work. Do not change foremen during the course of the Project except for reasons beyond the control of Contractor; inform Architect/Engineer in advance of any changes.
- B. Ready-Mix Supplier Qualifications: ASTM C94/C94M; Certification of Production Facilities and Delivery Vehicles by National Ready Mixed Concrete Association.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle materials according to manufacturer's recommendations and in such manner as to prevent damage to materials or structure.
- B. Deliver, store, and handle reinforcing steel to prevent bending and damage.
  - 1. Avoid damaging reinforcement coating.
  - 2. Repair damaged reinforcement coating according to ASTM D3963/D3963M.
- C. If concrete is to be site-batched:
  - 1. Store materials in dry condition and protect from dirt, dust, and other contaminants.
  - 2. Store cement bags on pallets.
  - 3. Store aggregate stockpiles in manner to avoid segregation or contamination with foreign matter or other aggregates. Store away from normal drainage paths and cover with canvas or plastic if necessary to keep dry.
- D. For proprietary materials:
  - 1. Deliver materials to Site in original bags and containers with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.
  - 2. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, handling, or installation. Reject and remove from Site new materials which exhibit evidence of moisture during application, or have been exposed to moisture.
  - 3. Store materials in original, undamaged bags or containers in a clean, dry, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Manufacturer's standard packaging and covering is not considered adequate weather protection.
- E. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.
- F. Conspicuously mark damaged or opened bags or containers or bags or containers with contaminated materials, and remove from Site as soon as possible.
- G. Remove materials that cannot be applied within stated shelf life from Site and replace with new materials.

## 1.8 PROJECT CONDITIONS

- A. Verify existing dimensions and details prior to the start of concrete replacement Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor of changes.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Handle and place materials in strict accordance with safety requirements required by material manufacturers; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.



## 1.9 CHANGES IN WORK

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.
  - 1. Notify Architect/Engineer of conditions that may interfere with proper execution of the Work or jeopardize performance of the Work, prior to proceeding with the Work.

## PART 2 PRODUCTS

### 2.1 FORM MATERIALS

- A. Forms: Plywood, lumber, metal, plastic, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.
  - 1. Use panels that will provide continuous, true, and smooth concrete surfaces.
  - 2. Furnish panels in largest practicable sizes to minimize number of joints.
  - 3. Do not use rust-stained, steel, form-facing material.
  - 4. For Smooth-Form Finish: Use form-facing material capable of producing smooth, uniform texture on concrete. Do not use form-facing materials with raised grain, torn surfaces, worn edges, dents, or other defects that will impair texture of concrete surface.
- B. Accessories:
  - 1. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 inch by 3/4 inch minimum.
  - 2. Form Ties: Factory-fabricated; removable or snap-off metal or glass-fiber-reinforced plastic form ties; designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
    - a. Furnish units that will leave no corrodible metal closer than 1 inch to the plane of the exposed concrete surface.
    - b. Furnish ties that, when removed, will leave holes not larger than 1 inch in diameter in the concrete surface.
    - c. Furnish ties with integral water-barrier plates for walls indicated to receive dampproofing or waterproofing.
  - 3. Form-Release Agent: Commercially-formulated form-release agent that will not bond with, stain, or adversely affect the concrete surface and will not impair subsequent treatments of the concrete surface.
    - a. Formulate form-release agent with rust inhibitor for steel, form-facing materials.

### 2.2 CONCRETE MATERIALS

- A. Source Limitations: Obtain each type or class of cementitious material of same brand from same manufacturer's plant, each aggregate from one source, and admixtures through one source from single manufacturer.
- B. Portland Cement: ASTM C150/C150M, Type I or II.
- C. Fly Ash: ASTM C618, Class F or C.
- D. Ground-Granulated Blast-Furnace Slag (GGBFS): ASTM C595.
- E. Silica Fume: ASTM C1240, amorphous silica.

- F. Aggregates: ASTM C33/C33M; from single source with documented record of at least ten years of satisfactory service using similar aggregates and cementitious materials in similar applications and service conditions.
1. Coarse Aggregates: Uniformly graded; 3/8-inch nominal maximum size; Class 4S.
  2. Alkali Reactivity: Coarse and fine aggregates shall have expansion indicative of innocuous behavior; that is, less than 0.10 percent expansion after 16 days when tested according to ASTM C1260; or mitigating measures shall be included in concrete mix.
    - a. Provide ASTM C1260 test results for aggregates proposed for use, performed within last year.
    - b. If reported expansion is 0.10% or more at 16 days after casting, use mitigation measures shown to render innocuous results when tested according to ASTM C1260 or provide coarse and fine aggregates from a remote source, with expansion indicative of innocuous behavior when tested according to ASTM C1260. ASTM C1293 procedure may be substituted for ASTM C1260.
- G. Water: Potable.

### **2.3 ADMIXTURES:**

- A. General: Admixtures certified by manufacturer to contain no more than 0.1 percent chloride ions and to be compatible with other admixtures and cementitious materials. Do not use admixtures containing calcium chloride.
1. Air-Entraining Admixture: ASTM C260/C260M.
  2. Water-Reducing Admixture: ASTM C494/C494M, Type A.
  3. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
  4. Water-Reducing and Accelerating Admixture: ASTM C494/C494M, Type E.
  5. Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type D

### **2.4 PROPRIETARY REPLACEMENT MATERIALS**

- A. For Formed Vertical and Overhead Replacements: Cementitious mortar with 3/8-inch aggregate added, per manufacturer's recommendations; polymer-modified or silica-fume additive. Use one of the following or approved equal:
1. MasterEmaco S 466 CI manufactured by BASF Construction Chemicals, LLC.
  2. SikaTop 111 Plus manufactured by Sika Corporation.
  3. FormFlo P-38 by JE Tomes.
- B. For Trowel-Applied Replacements on Vertical and Overhead Surfaces: Polymer- or silica-fume-modified, cementitious, non-sag mortar that is specifically intended for this application. Use one of the following or approved equal:
1. MasterEmaco N 400 manufactured by BASF Construction Chemicals, LLC.
  2. SikaTop 123 Plus manufactured by Sika Corporation.
- C. For Top Surface Replacements: Rapid-strength repair mortar with 3/8-inch aggregate added, per manufacturer's recommendations. Use one of the following or approved equal:
1. MasterEmaco T 430 or T 415 manufactured by BASF Construction Chemicals, LLC.
  2. SikaQuick 1000 or 2500 manufactured by Sika Corporation.
  3. FormFlo P-38 Turbo by JE Tomes.
- D. Do not use proprietary replacement materials that contain added gypsum.

## 2.5 CURING MATERIALS

- A. Moisture-Retaining Cover: ASTM C171, white burlap-polyethylene sheet.
- B. Water: Potable.
- C. Membrane-Forming Curing Compound: ASTM C309, Type 1, 1-D, or 2; Solvent-borne; VOCs less than legal limits. Silicate materials shall not be used.

## 2.6 CONCRETE MIXES

- A. Prepare design mixes for each type and strength of concrete determined by either laboratory trial mixes or field-test data, according to ACI 301.
  - 1. Use qualified independent testing agency conforming to requirements of ASTM C1077 for preparing, testing, and reporting proposed mix designs for laboratory trial mix basis.
- B. Partial and Full Depth Replacements: Proportion normal-weight concrete mix as follows:
  - 1. 28-day Compressive Strength: 4,500 pounds per square inch.
  - 2. Maximum Water-Cementitious Materials Ratio, by weight: 0.45.
  - 3. Slump: 4 inches maximum.
    - a. With High-Range, Water-Reducing Admixture:
      - 1) 2- to 4-inch slump prior to adding admixture.
      - 2) 8 inches maximum slump after admixture is added.
  - 4. Air Content: Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having air content of 6 to 9 percent, unless otherwise indicated.
  - 5. Admixtures: Use admixtures according to manufacturer's written instructions.
    - a. Use water-reducing admixture. Alternately use high-range, water-reducing admixture (superplasticizer), as required, for placement and workability.
    - b. Use retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
  - 6. No chlorides shall be intentionally introduced into concrete mix.
    - a. In hardened concrete, limit acid-soluble chloride ion content to 0.10 percent by weight of cement when tested according to ASTM C1152/C1152M, or water-soluble chloride ion content to 0.08 percent by weight of cement when tested according to ASTM C1218/C1218M.
    - b. If hardened concrete exceeds chloride ion limits above, limit water-extractable chloride ion content to 0.08 percent by weight of cement when tested according to ASTM C1524.
    - c. Provide test results necessary to demonstrate concrete and aggregates do not exceed chloride ion limits, unless waived by Architect/Engineer.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates and conditions for compliance with requirements and other conditions affecting installation or performance of concrete replacements.
  - 1. Ensure that work done by other trades is complete and ready for concrete replacement Work.

2. Verify that areas and conditions under which concrete replacement Work is to be performed permit proper and timely completion of the Work.
3. Notify Architect/Engineer in writing of conditions which may adversely affect installation or performance of concrete replacements and recommend corrections.
4. Do not proceed with concrete replacement Work until adverse conditions have been corrected and reviewed by Architect/Engineer.
5. Commencing concrete replacement Work constitutes acceptance of Work surfaces and conditions.

### **3.2 PROTECTION**

- A. Take precautions to ensure the safety of people, including building users, passers-by, and workmen, and animals, and protection of property, including adjacent building elements, landscaping, and motor vehicles.
- B. Prevent construction debris and other materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
- C. Protect paving and sidewalks, and adjacent building areas from mechanical damage due to scaffolding and other equipment.
- D. Limit access to Work areas.
- E. Erect temporary protective canopies, as necessary, over walkways and at points of pedestrian and vehicular access that must remain in service during Work.
- F. Assume responsibility for injury to persons or damage to property due to Work, and remedy at no cost to Owner.

### **3.3 FORMWORK**

- A. Design, erect, shore, brace, and maintain formwork according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until concrete structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
  1. Limit abrupt or gradual concrete surface irregularities to ACI 347R Class C, 1/2 inch.
  2. Form openings, chases, offsets, keyways, reglets, blocking, screeds, and bulkheads required in Work. Determine sizes and locations from trades providing such items.
  3. Chamfer exterior corners and edges to match existing components.
  4. Construct forms tight enough to prevent loss of concrete mortar.
- C. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical. Kerf wood inserts for forming keyways, reglets, and recesses, for easy removal.
- D. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

- E. Provide temporary openings for cleanouts and inspection ports where the interior area of the formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- F. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris immediately before placing concrete.
- G. Retighten forms and bracing before placing concrete to prevent mortar leaks and maintain proper alignment.

### **3.4 REMOVING AND REUSING FORMS**

- A. General: Formwork, for sides of beams, walls, columns, and similar parts of the Work, that does not support the weight of concrete, may be removed after cumulatively curing at not less than 50 degrees F for 24 hours after placing concrete, provided concrete is hard enough not to be damaged by form-removal operations and provided curing and protection operations are maintained.
- B. Leave formwork for beam soffits, joists, slabs, and other structural elements that support the weight of concrete in place until concrete has achieved at least 70 percent of its 28-day design compressive strength.
- C. Clean and repair surfaces of forms to be reused in the Work. Do not use split, frayed, delaminated, or otherwise damaged form-facing material, or patched forms, for exposed surfaces.

### **3.5 CONCRETE MIXING**

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C94/C94M, and furnish batch ticket information.
  - 1. Deliver concrete to Site and discharge within 90 minutes or before 300 revolutions of mixer drum, whichever comes first, after introduction of mix water. When air temperature is between 85 and 90 degrees F, reduce mixing and delivery time to 75 minutes; when air temperature is above 90 degrees F, reduce mixing and delivery time to 60 minutes. Due to the nature of the Work, trucks with short loads may be required. Concrete that exceeds the specified time limits shall be rejected.
  - 2. Do not add water-reducing or high-range, water-reducing admixture indiscriminately to increase slump.
  - 3. Introduce high-range, water-reducing admixture at the Site with additional mixing per the manufacturer's recommendations.
  - 4. Reject concrete that arrives at the Site with a slump exceeding the maximum specified slump.
- B. Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C94/C94M.
  - 1. Develop batching and mixing operations so that quality control is assured.
  - 2. Designate one or two individuals to batch and mix concrete. Fully instruct these individuals on batching and mixing procedures. No other persons shall batch or mix concrete without prior notification to Architect/Engineer.
  - 3. Maintain accurate mix proportions. Batch materials by weight on the basis of whole bags of cement. Maintain a calibrated scale at the Site during concrete placement operations.

Batching by volume is permitted if the weight-volume relationship for each material is verified on a daily basis, and aggregate moisture content is measured at least once daily and aggregate volume is adjusted for bulking.

4. Incorporate admixtures into the mix in the manner recommended by the manufacturer and approved by Architect/Engineer. Measure with accuracy of +/-3 percent. Add each admixture separately.
5. Combine and mix ingredients to uniform consistency.
6. Mix concrete materials in appropriate drum-type batch machine mixer.
  - a. For a mixer capacity of 1 cubic yard or smaller, mix at least 1 1/2 minutes, but not more than five minutes after ingredients are in mixer.
  - b. For a mixer capacity larger than 1 cubic yard, increase mixing time by 15 seconds for each additional cubic yard.
  - c. Provide a sufficient number of mixers, including reserve mixers, so that concrete placement operations will proceed uninterrupted and each replacement is completely cast before replacement concrete achieves initial set.

### **3.6 CONCRETE PLACEMENT**

- A. Before placing concrete, verify the following:
  1. Installation of formwork, reinforcement, and embedded items is complete.
  2. Concrete surfaces and forms are clean of frost, ice, mud, debris, and water.
  3. Forms are thoroughly wetted or oiled.
  4. Reinforcement is securely tied in place and thoroughly cleaned of ice and other coatings that may reduce or destroy bond with concrete.
  5. Required inspections have been performed.
  6. Equipment for mixing and transporting concrete is clean.
  7. Vibrators are operational.
- B. Before sampling for testing and placing concrete, water may be added at Site, up to the amount allowed in the design mix.
  1. Do not add water after adding high-range, water-reducing admixture.
- C. Where new concrete will be cast against existing concrete surfaces, place concrete against clean, dry substrate.
- D. For top surface and full depth repair areas where new concrete will be cast against existing concrete surfaces, immediately prior to placing concrete work paste portion of repair concrete mix into clean, dry concrete surface with broom, brush, or other tool. Do not allow paste to puddle. Remove and dispose of coarse aggregate. If paste dries before concrete is placed, remove and apply new paste.
- E. For proprietary repair materials, cast new concrete against existing concrete surfaces prepared according to recommendations of repair material manufacturer.
- F. Convey concrete from the mixer to the place of deposit in a manner such that no segregation or loss of materials occurs.
- G. Deposit concrete:
  1. Place concrete as near as possible to its final position to avoid segregation due to re-handling or flowing.
  2. Do not allow concrete to fall a vertical distance greater than 4 feet from the point of discharge to the point of deposit.

3. Do not allow concrete to disturb or displace reinforcing bars, floor drains, or other embedments.
  4. Place concrete at a rate so that the concrete is plastic and flows readily into corners of forms and into spaces around reinforcing bars.
  5. Place concrete continuously until the replacement volume or section is completed, with no cold joints.
  6. Dispose of concrete that has partially set prior to placement or that has been contaminated by foreign material.
- H. Consolidate concrete with mechanical vibrating equipment, so that the concrete is thoroughly worked around reinforcement and other embedded items and into corners.
1. Use internal vibrators with minimum speed of 7,000 vibrations per minute and that are sufficiently narrow to fit into spaces between reinforcing bars, formwork, and existing concrete. Have extra vibrators at the Site in case a vibrator does not work.
  2. Do not use vibrators to transport concrete.
  3. Insert and withdraw vibrators vertically at uniformly spaced locations no farther apart than the visible effectiveness of the vibrator.
  4. At each insertion, limit the duration of the vibration to the time necessary to consolidate the concrete without causing mix constituents to segregate.
- I. Cold-Weather Placement: Protect concrete Work from physical damage or reduced strength due to frost, freezing, or low temperatures. Comply with ACI 306R and as follows.
1. When the air temperature has fallen or is expected to fall below 40 degrees F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F and not more than 80 degrees F at the point of placement. Mix water and aggregates together before adding cement. Do not add cement if the temperature of the water/aggregate mixture exceeds 70 degrees F.
  2. Do not use frozen materials or materials containing ice or snow.
  3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix design.
- J. Hot-Weather Placement: Protect concrete Work from physical damage or reduced strength due to rapid evaporation or overheating of concrete. Refer to Fig. B1 in ACI 305R for hot-weather conditions that may adversely affect concrete placement, finishing, and curing. Do not allow the temperature of the concrete at the time of placement to exceed 90 degrees F. When hot-weather conditions exist, use one or more of the following procedures:
1. Place concrete at night or early in morning.
  2. Cool ingredients before mixing to maintain the concrete temperature below 90 degrees F at the time of placement. Chilled mixing water or chopped ice may be used to control the temperature; include the water equivalent of the ice in the mixing water quantity. Use liquid nitrogen to cool the concrete at Contractor's option.
  3. Cover steel reinforcement with water-soaked burlap so the steel temperature will not exceed the ambient air temperature immediately before embedding in concrete.
  4. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep the subgrade moisture uniform without standing water, soft spots, or dry areas.
  5. Provide windbreaks or sunshades, or both.

### **3.7 FINISHING TOP SURFACES**

- A. Float and broom finish top surfaces.

1. Float finish: Consolidate the surface with a power-driven float or by hand floating if the area is small or inaccessible to a power driven float. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until the surface is left with uniform, smooth, granular texture.
  2. Medium-Broom Finish: Apply medium-broom finish, perpendicular to traffic flow, on top surfaces subjected to vehicular or pedestrian traffic.
  3. Do not wet concrete surfaces or add cement.
- B. Finish and measure the surface so that the gap at any point between the concrete surface and an unleveled, freestanding, 10-foot-long straightedge, resting on two high spots and placed anywhere on the surface, does not exceed 1/4 inch.
- C. At the tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.
- D. Hot-Weather Conditions: Fog the surface with water if hot, dry, or windy conditions cause moisture loss approaching 0.2 pounds per square foot per hour before or during finishing operations.

### **3.8 FINISHING FORMED SURFACES**

- A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and fill tie holes and defective areas with mortar or concrete. Remove fins and other projections exceeding 1/8 inch in height.
1. Applicable to concrete surfaces exposed to public view or to be covered with a coating or covering material applied directly to the concrete, such as waterproofing, dampproofing, stucco, or painting.
  2. Do not apply rubbed finish to smooth-formed finish.

### **3.9 CONCRETE CURING**

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Maintain concrete above 55 degrees F and in a moist condition for at least seven days after placing.
- B. Unformed Top Surfaces: Begin curing immediately after finishing concrete. Use moisture-retaining cover.
1. Place cover in widest practicable width, with sides and ends lapped at least 12 inches.
  2. Seal sides and ends of cover by holding down with soil, concrete pieces, or some other weight, or by using waterproof tape or adhesive.
  3. Immediately repair holes or tears in cover during curing period, using cover material and waterproof tape.
  4. Re-wet concrete surface at least twice daily as necessary.
- C. Unformed Vertical and Overhead Surfaces: Apply a curing compound uniformly in a continuous operation by power spray or roller according to manufacturer's written instructions and recommended coverage rate. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.



- D. Protect concrete from falling below 55 degrees F with insulating blankets or heated enclosures vented to the outside.

### **3.10 PROPRIETARY REPLACEMENT MATERIALS**

- A. Measure, batch, mix, place, finish, and cure per manufacturer's recommendations.
- B. Do not install concrete in lifts.

### **3.11 CONCRETE SURFACE REPAIRS**

- A. Defective Concrete: Repair defective areas designated by Architect/Engineer. Remove and replace concrete that cannot be repaired to Architect/Engineer's satisfaction.
- B. Surface defects on exposed surfaces include
  - 1. Voids, such as spalls, air bubbles, honeycomb, rock pockets, and form-tie voids, more than 1/2 inch in any dimension in solid concrete but not less than 1 inch deep.
  - 2. Cracks at least 1/8 inch wide. Notify Architect/Engineer of cracks that penetrate through section.
  - 3. Fins and other projections exceeding 1/2 inch.
  - 4. High or low spots in repaired areas that create areas of standing water that are at least 1/2 inch deep and at least 9 square feet in area.
- C. Repair defects on concealed surfaces that affect concrete's durability and structural performance as determined by Architect/Engineer.
- D. As soon as possible, cut out spalls, air bubbles, honeycombs, rock pockets, and voids. Make edges of cuts perpendicular to concrete surface. Clean voids and fill with repair mortar according to the manufacturer's recommendations. Use polymer- or silica fume-modified, cementitious, non-sag mortar that is specifically intended for this application. Use one of the following or approved equal:
  - 1. MasterEmaco N 425 manufactured by BASF Construction Chemicals, LLC.
  - 2. SikaTop 123 Plus manufactured by Sika Corporation.
- E. Fill cracks with high-molecular-weight methacrylate, or low-viscosity methyl methacrylate or epoxy. Use one of the following or approved equal:
  - 1. Concrete Protector & Restorer CP&R 5741 Hi Mod Low Odor or 5742LO Low Mod manufactured by 3M.
  - 2. MasterSeal 630 manufactured by BASF Construction Chemicals, LLC.
  - 3. SikaPronto 19 TF manufactured by Sika Corporation.
- F. After concrete has gained sufficient strength to be unaffected by grinding, grind off fins, other projections, and high areas.
- G. Repair materials and installation not specified above may be used if approved by Architect/Engineer.

### **3.12 FIELD QUALITY CONTROL**

- A. Submit batch tickets for ready-mix concrete.
- B. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to sample materials and perform tests during concrete placement.

- C. Provide:
1. Access to Work.
  2. Materials for sampling.
  3. Site facilities for sampling, testing, and storage of materials.
  4. Incidental labor.
- D. Testing Services: Sampling and testing of composite samples of fresh concrete shall be performed according to the following requirements:
1. Testing Frequency: Obtain one composite sample of each concrete mix for each day's pour exceeding 500 square feet.
  2. Take samples from transport vehicle or mixer during discharge according to ASTM C172. Take samples at other locations if directed by Architect/Engineer.
  3. Slump: ASTM C143/C143M; one test for each composite sample, but not less than one test for each day's pour of each concrete mix. Perform additional tests when concrete consistency appears to change. If high-range, water-reducing admixture is used, perform one test prior to adding admixture.
  4. Air Content: ASTM C231/C231M; one test for each composite sample, but not less than one test for each day's pour of each concrete mix.
  5. Concrete Temperature: ASTM C1064/C1064M; one test for each composite sample; and one test hourly when air temperature is 40 degrees F and below or 80 degrees F and above.
  6. Compression Test Specimens: ASTM C31/C31M.
    - a. Cast four standard cylinder specimens for each composite sample, immediately after sample is taken. Store specimens at the Site for at least 16 hours at a temperature of 60 to 80 degrees F. Provide a temperature-controlled box or other enclosure if necessary. After at least 16 hours, but not more than 30 hours, transport the specimens to the laboratory and air cure at 73 degrees F and 50 percent relative humidity.
    - b. If requested by Architect/Engineer, take three additional cylinder specimens and field cure in the vicinity of the area that they represent and in the same manner as that portion of the structure.
  7. Compressive-Strength Tests: ASTM C39/C39M.
    - a. Test one laboratory-cured specimen at seven days and two at 28 days. Hold the fourth specimen in reserve in case additional testing is required.
    - b. Test one field-cured specimen at seven days and two at 28 days.
  8. Test results shall be reported in writing to Owner's Representative, Architect/Engineer, concrete supplier, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain:
    - a. Name of concrete testing and inspecting agency.
    - b. Project identification name.
    - c. Date of concrete placement.
    - d. Specific location of concrete batch in Work.
    - e. Concrete mix number, design compressive strength at 28 days, design slump range, and design air content range.
    - f. Specimen number, cylinder size, dates of compression tests, compressive breaking strengths and types of break for seven- and 28-day tests, and measured slump, air content, and air and concrete temperatures.
    - g. Statement that indicates whether test results are in conformance with Specifications.
  9. Concrete strength is satisfactory if the average of two 28-day compressive-strength tests in each set of specimens equals or exceeds the specified 28-day compressive strength and neither test value is more than 500 pounds per square inch less than the specified 28-day strength.

10. If any seven-day compressive-strength test result is less than 75 percent of the specified 28-day compressive strength, submit revised mix design data for concrete that will conform to Specifications.
  11. When the compressive strength of field-cured specimens is less than 85 percent of the companion laboratory-cured cylinders, evaluate operations and provide corrective procedures for protecting and curing the in-place concrete. Pay the cost of sampling and testing non-conforming field-cured specimens. Owner will pay the cost of sampling and testing conforming field-cured specimens.
  12. Non-Conforming Concrete:
    - a. If tests indicate that concrete is not in conformance with the Specification, remove and replace non-conforming concrete or perform additional testing, acceptable to Architect/Engineer, to verify conformance with the Specification, at no cost to Owner.
    - b. Procure core samples in accordance with ASTM C42/C42M.
    - c. If tests indicate that the slump, air entrainment, or other requirements have not been met, examine core samples petrographically, according to ASTM C856, to evaluate hardened concrete characteristics.
    - d. If compressive-strength tests do not meet the acceptance requirements, procure three core samples from each portion of the structure represented by the unsatisfactory tests, and test in compression. The strength of concrete in the area represented by core tests is satisfactory if the average of three compressive strength tests equals or exceeds 85 percent of the specified 28-day compressive strength and no compressive-strength test value is less than 75 percent of the specified 28-day compressive strength. If strength acceptance criteria are not met, remove and replace non-conforming concrete areas at no cost to Owner.
    - e. Perform additional inspection and testing, at no cost to the Owner, to determine the compliance of replaced or additional work with the specified requirements.
  13. Construction is acceptable if average of pull-off strengths meets requirements and no individual test value is less than 150 pounds per square inch.
    - a. If tests on prepared surface do not meet criteria, adjust surface preparation procedures and retest. Pay for retesting.
    - b. If tests on installed overlay do not meet criteria, remove and replace non-conforming areas of overlay, determined by Architect/Engineer, at no cost to Owner.
- E. Chain drag or hammer tap concrete replacements to locate delaminations. Remove and recast delaminated replacements at no cost to Owner.

### **3.13 CLEANING**

- A. At the end of each workday, clean the Site and Work areas and place rubbish, empty cans, rags, and other discarded materials in appropriate containers.
- B. After completing the concrete replacement Work:
  1. Clean soiling from adjacent surfaces. Exercise care to avoid scratching or damage to surfaces.
  2. Repair surfaces stained, marred, or otherwise damaged during concrete replacement Work.
  3. Clean up debris and surplus materials and remove from Site.

**END OF SECTION**

**SECTION 03 15 11**  
**EXPANSION JOINT SEALS**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Section Includes: Surface preparation, supply, and installation of expansion joint seals in concrete structures.
- B. Related Sections:
  - 1. Section 03 01 34 - Concrete Replacements.

**1.2 COORDINATION**

- A. Coordinate Work to ensure that adjacent areas are not adversely affected. Coordinate:
  - 1. With Owner's Representative.
  - 2. With other trades:
    - a. To ensure that work done by other trades is complete and ready for joint seal installation.
    - b. To avoid or minimize work on, or in immediate vicinity of, joint seal Work in progress.
    - c. To ensure that subsequent work will not adversely affect completed joint seal installation.

**1.3 SUBMITTALS**

- A. Product Data: Joint-seal manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including material descriptions and dimensions of individual components; and installation instructions and construction details.
  - 1. Include Safety Data Sheets (SDS) for information only; safety restrictions are sole responsibility of Contractor.
- B. Shop Drawings: For each joint system specified.
  - 1. Fabrication drawings showing steel retainer rail lengths and stud spacing and attachment.
  - 2. Placement drawings showing steel retainer rail splice and installation details.
- C. Template Drawings: Showing typical expansion joint cross-sections indicating dimensions and relationship to adjacent construction.
- D. Certification: Signed by joint-seal manufacturer, certifying that Installer has been trained and approved by manufacturer to install joint seal.
- E. Field Quality Control: Written report with joint locations, joint width measurements, date and time of measurements, high and low daily temperatures for week preceding measurements, and recommended joint-seal size.
- F. Installer Qualifications: Evidence that Installer's *existing company* has minimum five years of continuous experience in application of specified materials; list of at least five representative, successfully-completed projects of similar scope and size, including:

1. Project name.
2. Owner's name.
3. Owner's Representative name, address, and telephone number.
4. Description of work.
5. Expansion joint seals used.
6. Project supervisor.
7. Total cost of expansion joint seal work and total cost of project.
8. Completion date.

G. Following completion of the Work, submit completed joint-seal warranty.

#### **1.4 QUALITY ASSURANCE**

- A. Installer Qualifications: Qualified firm that is approved, authorized, or licensed by joint-seal manufacturer to install joint seal. Must have successful installations of specified materials in local area in use for minimum of five years.
  1. Employ foreman with minimum five years of experience as foreman on similar projects, who is fluent in English, to be on Site at all times during the Work. Do not change foremen during the course of the Project except for reasons beyond the control of Installer; inform Architect/Engineer in advance of any changes.
- B. Mockup: Install air-pressurized joint seal at one stair tower to demonstrate installation procedures and quality of installation.
  1. Architect/Engineer will observe installation and completed joint seal. Notify Architect/Engineer and Owner's Representative seven days in advance of mockup installation.
  2. If Architect/Engineer determines mockup does not comply with requirements, modify mockup or construct new mockup until mockup is approved.
  3. Approved mockup will be standard for judging completed Work.
  4. Approved mockups may become part of completed Work if undisturbed at time of Substantial Completion.

#### **1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, and handle materials according to manufacturer's recommendations and in such a manner as to prevent damage to materials or structure.
- B. Deliver materials to Site in original packages with seals unbroken, labeled with joint-seal manufacturer's name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.
- C. Store materials in original, undamaged containers in clean, dry, protected location on raised platforms with weather-protective coverings, within temperature range required by joint-seal manufacturer.
- D. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.
- E. Conspicuously mark damaged or opened containers, containers with contaminated materials, or damaged materials, and remove from Site as soon as possible.

- F. Remove materials that cannot be applied within stated shelf life from Site and replace with new materials..

## **1.6 PROJECT CONDITIONS**

- A. Verify existing dimensions and details prior to start of joint seal Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor and Installer of changes.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Environmental Limitations: Install joint seals when existing and forecast weather conditions permit joint seal system to be installed according to joint-seal manufacturer's written instructions and warranty requirements.
  - 1. Verify joint gap at installation will permit proper functioning of joint seal.
- D. Handle and install materials in strict accordance with safety requirements required by joint-seal manufacturer; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.

## **1.7 CHANGES IN WORK**

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.
  - 1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work, prior to proceeding with Work.

## **1.8 WARRANTY**

- A. Contractor's Warranty:
  - 1. Written warranty, signed by Contractor, including:
    - a. Repair or replace joint-seal components that do not comply with requirements; that do not remain watertight; that fail in adhesion, cohesion, or general durability; or that deteriorate in a manner not clearly specified by submitted joint-seal manufacturer's data as an inherent quality of the material for the application indicated.
    - b. Labor and materials to perform warranty work.
    - c. Replace entire joint seal lengths unless high-quality, durable field splices can be installed.
  - 2. Warranty Period: Five years from date of Substantial Completion.

## **PART 2 PRODUCTS**

### **2.1 JOINT SEALS**

- A. Premolded Urethane or Polyurethane Seal: Set on existing aluminum, traffic-support plate and adhered with polymeric nosing material; seal sizes to be determined by Contractor based on

joint locations and actual joint widths, and approved by Architect/Engineer. Use one of the following or approved equal.

1. Iso-Flex Factory Molded Expansion Joint manufactured by LymTal International, Inc.
2. Wabo UreFlex manufactured by Watson Bowman Acme Corporation.

B. Adhered Elastomeric Seal: Neoprene seal adhered with epoxy-based adhesive; seal sizes to be determined by Contractor based on joint locations and actual joint widths, and approved by Architect/Engineer. Use one of the following or approved equal.

1. JP-Series Seal manufactured by D. S. Brown.
2. Iso-Flex Pressure Lok manufactured by LymTal International, Inc.
3. Jeene manufactured by Watson Bowman Acme Corporation.

C. Elastomeric Seal with Elastomeric Nosing: Neoprene or thermoplastic-rubber seal, cast in elastomeric-concrete nosings; seal sizes to be determined by Contractor based on joint locations and actual joint widths, and approved by Architect/Engineer. Use one of the following or approved equal.

1. Delcrete Elastomeric Concrete/Strip Seal Expansion Joint System manufactured by D. S. Brown.
2. Iso-Flex Winged Expansion Joint manufactured by LymTal International, Inc.
3. WaboCrete Membrane System manufactured by Watson Bowman Acme Corporation.

D. Joint Seal Size:

1. Measure average, maximum, and minimum joint widths at every joint.
2. Submit in writing joint locations, joint width measurements, date and time of measurements, high and low daily temperatures for week preceding measurements, and recommended joint seal size to Architect/Engineer for approval. Assume 160-degree thermal change, from -20 to 140 degrees, in sizing seal.

E. Accessories: Primers, bedding materials, bonding agents, lubricants, adhesives, sealants, and other accessories supplied or approved by joint-seal manufacturer.

## **2.2 FABRICATION**

A. Prior to fabrication, field measure existing conditions to ensure proper fit.

B. Provide continuous joint seals in longest practical lengths, with minimum number of end joints.

1. For straight sections, provide continuous lengths.
2. Fabricate directional changes in shop whenever possible; use mitered and adhered or heat-welded corners.
3. Fabricate with end closures, transitions, and intersections to provide continuous assembly.

C. Provide continuous steel retainer rails in longest practical lengths, with minimum number of end joints.

1. For straight sections, provide continuous lengths.
2. Weld anchors to steel retainer rails.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates and conditions with Installer and joint-seal manufacturer's representative for compliance with requirements and for other conditions affecting installation or performance of joint seals.
  - 1. Ensure that work done by other trades is complete and ready for joint seal Work, including concrete construction and replacement.
  - 2. Verify that areas and conditions under which joint seal Work is to be performed permit proper and timely completion of Work.
  - 3. Notify Architect/Engineer in writing of conditions which may adversely affect installation or performance of joint seals and recommend corrections.
  - 4. Do not proceed with joint seal Work until adverse conditions have been corrected and reviewed by Architect/Engineer.
  - 5. Commencing joint seal Work constitutes acceptance of Work surfaces and conditions.

### **3.2 PROTECTION**

- A. Take precautions to ensure the safety of people, including building users, passers-by, and workmen, and animals, and protection of property, including adjacent building elements, landscaping, and motor vehicles.
- B. Prevent construction debris and other materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
- C. Limit access to Work areas.
- D. Erect temporary protective canopies, as necessary, over walkways and at points of pedestrian and vehicular access that must remain in service during Work.
- E. Assume responsibility for injury to persons or damage to property due to Work, and remedy at no cost to Owner.

### **3.3 SURFACE PREPARATION**

- A. Prepare substrates according to joint-seal manufacturer's written instructions.
- B. Provide clean, sound, dry concrete surfaces.
  - 1. Remove existing joint seals.
  - 2. Repair unsound concrete along joints to provide solid surface of clean, sound concrete, free of voids and honeycombing.
  - 3. Install grout bed or other leveling device to accurately position joint seal.
  - 4. Clean concrete surfaces by sandblast or other means recommended by joint-seal manufacturer, to remove contaminants including form release agents, laitance, surface dirt and rust, and old sealant. Remove dust and other contaminants with compressed air.
  - 5. Allow concrete and concrete replacement materials to fully cure prior to joint seal installation.



### **3.4 INSTALLATION**

- A. Install joint seal according to joint-seal manufacturer's written instructions. Field splices to be coordinated with and approved by joint-seal manufacturer.
- B. Verify that joint widths are suitable for seal size and movement capability.
  - 1. .

### **3.5 FIELD QUALITY CONTROL**

- A. Water Test:
  - 1. Construct water-retention barriers along sides of joints.
  - 2. Pond water on top of joint seal for 24 hours, and observe underside of deck for leakage.
  - 3. Repair leaking portions of joint seal and re-test.

### **3.6 CLEANING**

- A. Clean excess primer, adhesive, sealant, other products, and soiling from components and adjacent surfaces.
- B. Repair surfaces stained, marred, or otherwise damaged during concrete replacement work.
- C. Clean up debris and surplus materials and remove from Site.

### **3.7 PROTECTION**

- A. Protect joint seals from:
  - 1. Traffic until materials have cured.
  - 2. Damage by construction activities.

**END OF SECTION**

**DIVISION 04**

**MASONRY**

**SECTION 04 05 01**

**MASONRY MORTAR AND CONCRETE MASONRY**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Section Includes: Supply and preparation of mortar and concrete masonry for concrete unit masonry (CMU) repairs and restoration.

**1.2 REFERENCES**

- A. Definitions:
1. Original Mortar: Mortar used in existing construction.
  2. Repointing: Process of raking out mortar joint to specified depth and placing new mortar. Also called tuckpointing.
- B. Reference Standards: Latest edition as of Specification date.
1. ASTM International
    - a. C144: Standard Specification for Aggregate for Masonry Mortar.
    - b. C150/C150M: Standard Specification for Portland Cement.
    - c. C270: Standard Specification for Mortar for Unit Masonry.
  2. The Masonry Society (TMS)/American Concrete Institute (ACI)/Structural Engineering Institute of American Society of Civil Engineers (ASCE).
    - a. TMS 402/ACI 530/ASCE 5: Building Code Requirements for Masonry Structures.

**1.3 SUBMITTALS**

- A. Product Data: Supplier's literature indicating compliance with specified requirements.
1. Color admixtures: Product name and type, and name of manufacturer
  2. Dry, preblended mortar mix: Types and proportions of ingredients.
  3. Include Safety Data Sheets (SDS) for information only.
- B. Certificates: Indicating compliance with specified requirements.
1. Portland Cement: Product name and type, and name of manufacturer.
  2. Hydrated Lime: Product name and type, and name of manufacturer
  3. CMU: Signed by CMU manufacturer indicating conformance of CMU with ASTM C90.
- C. Test Reports: For aggregates, indicating type, gradation, impurities, and source.

**1.4 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials to Site in original containers and packaging with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, directions for storing, and complete manufacturer's written instructions.

- B. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, handling, or installation. Reject and remove from Site new materials which have been exposed to moisture to their detriment.
- C. Store and handle materials in accordance with manufacturer's written instructions, safety requirements, and all applicable laws and regulations. Remove from Site, and replace at no cost to Owner, any materials that are damaged or otherwise negatively affected by not being stored or handled in accordance with manufacturer's written instructions.
- D. Store materials in original, undamaged containers and packaging in clean, dry, location on raised platforms and protected from weather, within temperature range required by manufacturer. Protect stored materials from direct sunlight and sources of ignition. Manufacturer's standard packaging and covering alone is **not** considered adequate weather protection.
- E. Locate materials in a secure location approved by Owner's Representative
- F. Conspicuously mark damaged or opened containers, containers with contaminated materials, damaged materials, and materials that cannot be used within stated shelf life and remove from Site as soon as possible. Replace discarded materials in a timely manner at no cost to Owner.
- G. Limit stored materials on structures so as to preclude damage to materials and structures.
- H. Maintain copies of all applicable SDS (Safety Data Sheets) with materials in storage area, such that they are available for ready reference on Site.

## **PART 2 PRODUCTS**

### **2.1 MATERIALS**

- A. Cementitious Materials:
  - 1. Portland Cement: ASTM C150/C150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
  - 2. Hydrated Lime: ASTM C207, Type S.
  - 3. Do not use masonry cement.
  - 4. Use one of the following or approved equal:
    - a. Mortamix Rainbow Custom Color Cement-Lime Type [N] [S] [M] by Holcim Inc.
    - b. Eaglebond Portland and Lime Type [N] [S] [M] by Lafarge North America Inc.
    - c. Custom Color Portland/Lime Cement Type [N] [S] by Lehigh Cement Company.
- B. Aggregate:
  - 1. Mortar: ASTM C144: washed aggregate consisting of natural sand or crushed stone.
    - a. White-Mortar Aggregate: Natural white sand or crushed white stone.”
    - b. Colored-Mortar Aggregate: Natural sand or crushed stone of color necessary to produce required mortar color.
  - 2. Aggregate shall contain no more than 50 parts per million of chloride ions and shall be free of organic contaminants.
- C. Water: Clean and potable; free from deleterious amounts of acids, alkalis, or organic materials.

- D. Admixtures: Do not use admixtures without written approval, unless otherwise specified, including:
  - 1. Calcium chloride or admixtures containing calcium chloride.
  - 2. Air-entraining admixtures or material containing air-entraining admixtures.
  - 3. Antifreeze compounds.
- E. Mortar Pigment: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes. Use only pigments with record of satisfactory performance in masonry mortar.
  - 1. Use one of the following or approved equal:
    - a. Bayferrox iron oxide pigments by Lanxess Corporation.
    - b. True Tone Sweet 16 Mortar Colors by Davis Colors, Inc.
    - c. SGS Mortar Colors by Solomon Colors, Inc.
- F. Concrete Masonry Units: ASTM C90; normal-weight, hollow units; face nominal 8 inches by 16 inches.

## **2.2 MORTAR MIX**

- A. Mortar: ASTM C270; proportioned by volume as follows:
  - 1. Portland Cement: One part.
  - 2. Hydrated Lime:
    - a. Type S: Over 1/4 to 1/2 parts.
    - b. Type N: Over 1/2 to 1 1/4 parts.
  - 3. Aggregate: Not less than 2 1/4 and not more than 3 times sum of volumes of portland cement and hydrated lime.
  - 4. Water: Maximum amount consistent with optimum workability.
  - 5. Color: Match color of mortar to existing adjacent mortar joints, unless specified otherwise.
- B. Dry, Preblended Mortar Mix: Furnish dry mortar ingredients in preblended mix. Measure quantities by weight to ensure accurate proportions and thoroughly blend ingredients before delivering to Site.

## **PART 3 EXECUTION**

### **3.1 SITE MIXING**

- A. Develop batching and mixing operations so that quality control is assured.
- B. Maintain accurate mix proportions. Batch materials by volume with containers of known volume. Do not measure materials by shovel.
  - 1. Incorporate admixtures into mix in manner recommended by manufacturer and approved by Architect/Engineer. Measure with accuracy of +/-3 percent. Add each admixture separately.
- C. Combine and mix materials in appropriate drum-type batch machine mixer to uniform consistency.
  - 1. Mix mortar for three to five minutes after materials are in mixer.

### **3.2 REPOINTING MORTAR MIXING**

- A. Pre-hydrate mortar:

1. Thoroughly mix ingredients except water.
  2. Continue mixing, adding only enough water to produce damp workable mix which will retain its form when pressed into ball.
  3. Maintain mortar in dampened condition for 1 to 1 1/2 hours.
- B. Add sufficient water to bring mortar to proper consistency; that is, somewhat drier than conventional masonry mortars.

### **3.3 LIMITATIONS**

- A. Mortar, including repointing mortar:
1. If mortar begins to stiffen, it may be retempered.
  2. Discard mortar not placed within 2 1/2 hours after initial mixing.

### **3.4 CONCRETE MASONRY UNITS AND FACE SHELLS**

- A. Use face shells or whole units as specified in the Drawings.
- B. Place CMU in alignment with the existing adjacent units and to create mortar joint widths to match the existing.
- C. Fully bed face shell or whole unit in mortar.

**END OF SECTION**

**DIVISION 07**  
**THERMAL AND MOISTURE PROTECTION**  
**SECTION 07 18 00**  
**TRAFFIC COATING**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section Includes: Surface preparation, supply, and application of traffic coating at top surface repair areas and at areas designated by the Engineer to address wear of the membrane. Provide paint markings at new membrane areas.
- B. Related Sections:
  - 1. Section 03 01 34 - Concrete Replacements.
  - 2. Section 07 92 00 - Joint Sealants.
  - 3. Section 09 91 00 – Parking Stripe Painting.
  - 4. Section 01 40 00 – Quality Control.

**1.2 REFERENCES**

- A. Reference Standards: Latest edition as of Specification date.
  - 1. ASTM International:
    - a. D4258: Standard Practice for Surface Cleaning Concrete for Coatings.
    - b. D4259: Standard Practice for Abrading Concrete.
    - c. D4263: Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
  - 2. International Concrete Repair Institute (ICRI):
    - a. Guide for Selecting and Specifying Concrete Surface Preparation

**1.3 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate Work to ensure that adjacent areas are not adversely affected.
- B. Pre-application Meeting:
  - 1. Conduct meeting at Site.
  - 2. Review requirements for traffic coating, including:
    - a. Construction schedule.
    - b. Availability of materials, Applicator’s personnel, equipment, and facilities needed to make progress and avoid delays.
    - c. Site use, access, staging, and set-up location limitations.
    - d. Impact of forecast weather conditions.
    - e. Surface preparation and substrate condition.
    - f. Application procedures.
    - g. Minimum curing period.
    - h. Testing and inspection requirements.
    - i. Governing regulations.

3. Contractor's Site superintendent, traffic-coating manufacturer's technical representative, Applicator's foreman, Owner's Representative, and Architect/Engineer shall attend.

#### **1.4 SUBMITTALS**

- A. Product Data: Traffic-coating manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; and application instructions. Include VOC content of components.
- B. Samples: For each type of traffic coating required, stepped samples on rigid backing large enough to illustrate build-up of traffic coatings, of same thickness and material indicated for Work.
- C. Applicator Qualifications:
  1. Certification signed by traffic-coating manufacturer, certifying that Applicator complies with manufacturer's requirements to install specified, warranted, traffic coating.
- D. Manufacturer's Representative Report:
  1. Provide a written report(s) from the manufacturer's representative that includes a review of the existing membrane, results of adhesion tests of the existing membrane to the concrete deck, observations of the mock-up installation, and recommendations for preparation and installation of the new membrane.
  2. Following installation of the new membrane, provide a written report from the manufacturer's representative regarding the results of adhesion tests of the new membrane and wear course to existing membrane or concrete.
- E. Following completion of the Work:
  1. Traffic-coating manufacturer's warranty inspection reports.
  2. Completed warranty from traffic-coating manufacturer.
  3. Completed warranty from Applicator.
- F. Maintenance Program:
  1. Identify substrates and traffic-coating systems applied.
  2. Include recommendations for periodic inspections, cleaning, care, maintenance, and repair of traffic coating.

#### **1.5 QUALITY ASSURANCE**

- A. Applicator Qualifications: Experienced firm that has successfully completed traffic-coating work similar in material, design, and extent to that indicated for Project; that is approved, authorized, or licensed by traffic-coating manufacturer to apply traffic coating; and that is eligible to receive traffic-coating manufacturer's warranty. Must have successful installations of specified materials in local area in use for minimum of five years.
  1. Employ foreman trained by traffic-coating manufacturer and with minimum five years of experience as foreman on similar projects to be on Site during Work. Do not change foremen during course of Project except for reasons beyond control of Installer; inform Architect/Engineer in advance of any changes.
- B. Install mock-ups in accordance with Section 01 40 00.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Site in original containers and packaging with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, directions for storing, and complete manufacturer's written instructions.
- B. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, handling, or installation. Reject and remove from Site new materials which have been exposed to moisture to their detriment.
- C. Store and handle materials in accordance with manufacturer's written instructions, safety requirements, and all applicable laws and regulations. Remove from Site, and replace at no cost to Owner, any materials that are damaged or otherwise negatively affected by not being stored or handled in accordance with manufacturer's written instructions.
- D. Store materials in original, undamaged containers and packaging in clean, dry, location on raised platforms and protected from weather, within temperature range required by manufacturer. Protect stored materials from direct sunlight and sources of ignition. Manufacturer's standard packaging and covering alone is **not** considered adequate weather protection.
- E. Locate materials in a secure location approved by Owner's Representative
- F. Conspicuously mark damaged or opened containers, containers with contaminated materials, damaged materials, and materials that cannot be used within stated shelf life and remove from Site as soon as possible. Replace discarded materials in a timely manner at no cost to Owner.
- G. Limit stored materials on structures so as to preclude damage to materials and structures.
- H. Maintain copies of all applicable Safety Data Sheets (SDS) with materials in storage area, such that they are available for ready reference on Site.

## 1.7 PROJECT CONDITIONS

- A. Verify existing dimensions and details prior to start of traffic-coating Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor and Applicator how to proceed.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Ensure that drains are operational at the end of each workday or if precipitation is forecast.
- D. Environmental Limitations: Apply traffic coating when existing and forecast weather conditions permit traffic coating to be installed according to traffic-coating manufacturer's written instructions and warranty requirements. Do not apply traffic coating under the following conditions, unless otherwise recommended by traffic-coating manufacturer and approved by Architect/Engineer.
  - 1. Apply only when substrate temperature is above 50 degrees F or more than 5 degrees F above dew point, or within range recommended by traffic-coating manufacturer.
  - 2. Apply only when ambient temperature is above 40 degrees F or within range recommended by traffic-coating manufacturer.



3. Do not apply to damp or wet substrate; when relative humidity exceeds 85 percent; in snow, rain, fog, or mist; or when snow, rain, fog, or mist is forecast during application or curing period. Apply only to frost-free substrate.
- E. Handle and install materials in strict accordance with safety requirements required by traffic-coating manufacturer; Safety Data Sheets; and local, state, and federal rules and regulations.
- F. Maintain adequate ventilation during preparation and application of traffic-coating materials. Notify Owner's Representative at least one week in advance of Work with materials with noxious vapors. Review application schedule and venting precautions with Owner's Representative prior to beginning application.

## 1.8 CHANGES IN WORK

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.
  1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work prior to proceeding with the Work.

## 1.9 WARRANTIES

- A. Manufacturer's Warranty:
  1. Written warranty, signed by traffic-coating manufacturer, including:
    - a. Repair or replace traffic coating that does not comply with requirements; that does not remain watertight; that fails in adhesion, cohesion, or general durability; that experiences abrasion or tearing failure not due to misuse; that experiences surface crazing, fading or chalking; or that deteriorates in a manner not clearly specified by submitted traffic-coating manufacturer's data as an inherent quality of the material for the application indicated. Warranty does not include deterioration or failure of traffic coating due to failure of substrate prepared according to requirements, formation of new substrate cracks exceeding 1/16 inch in width, fire, vandalism, or snowplow abuse.
    - b. Provide access to warranty repair and replacement areas.
  2. Warranty Period: Five years after Substantial Completion date.
- B. Applicator's Warranty:
  1. Written warranty, signed by Applicator, including:
    - a. Repair or replace traffic coating that does not comply with requirements; that does not remain watertight; that fails in adhesion, cohesion, or general durability; that experiences abrasion or tearing failure not due to misuse; that experiences surface crazing, fading, or chalking; or that deteriorates in a manner not clearly specified by submitted traffic-coating manufacturer's data as an inherent quality of the material for the application indicated. Warranty does not include deterioration or failure of traffic coating due to failure of substrate prepared according to requirements, formation of new substrate cracks exceeding 1/16 inch in width, fire, vandalism, or snowplow damage.
    - b. Provide access to warranty repair and replacement areas.
    - c. Repair or replacement, to satisfaction of Owner, of other work or items which may have been displaced or damaged as consequence of defective Work.
    - d. Make immediate emergency repairs within 48 hours of notice of leakage.

2. Warranty Period: Five years after Substantial Completion date.

## **PART 2 - PRODUCTS**

### **2.1 TRAFFIC COATING**

- A. Source Limitations: Obtain materials through one source from single traffic-coating manufacturer. Provide materials not available from traffic-coating manufacturer from sources approved by traffic-coating manufacturer. Provide new materials.
- B. VOC Content: Provide materials that comply with local VOC limits.
- C. Use one of the following traffic coatings, or approved equal:
  1. Heavy-duty vehicular system:
    - a. Iso-Flex 750U-HL HVT Deck Coating System by LymTal International, Inc., consisting 25 dry mils of base coat, 15 dry mils of wear course, 3/4 pound of sand per square feet, and 12 dry mils of lock coat.
    - b. Iso-Flex 750EU HVT Deck Coating System by LymTal International, Inc., consisting 25 dry mils of base coat, 20 dry mils of wear course, 3/4 pound of sand per square foot, and 16 dry mils of lock coat.
    - c. MasterSeal Traffic 1500 Extra-Heavy-Duty System by BASF Construction Chemicals, LLC, consisting of 20 dry mils of base coat, 20 dry mils of mid-coat, 15 dry mils of finish coat, and 50 to 70 pounds of aggregate per 100 square feet.
  2. Alternative: Heavy-duty vehicular system (two-component):
    - a. Iso-Flex 750U-HL HVT Deck Coating System by LymTal International, Inc., consisting 25 dry mils of base coat, 15 dry mils of wear course, 3/4 pound of sand per square feet, and 12 dry mils of lock coat.
    - b. Iso-Flex 750EU HVT Deck Coating System by LymTal International, Inc., consisting 25 dry mils of base coat, 20 dry mils of wear course, 3/4 pound of sand per square foot, and 16 dry mils of lock coat.
    - c. Auto-Gard FC T Vehicular Traffic-Bearing Waterproofing with double-texturing, by Neogard, consisting of 20 dry mils of base coat, 32 dry mils of wearing surface coat, and 20 to 30 pounds of aggregate per 100 square feet.
    - d. MasterSeal Traffic 2500 Extra-Heavy-Duty System by BASF Construction Chemicals, LLC, consisting of 20 dry mils of base coat, 20 dry mils of mid-coat, 15 dry mils of finish coat, and 50 to 70 pounds of aggregate per 100 square feet.
  3. Where a top/wear course only is to be applied, this shall consist of the wear course, sand, and lock coat. A primer shall be used if recommended by the membrane manufacturer's representative.
- D. Primer: Traffic-coating manufacturer's standard, factory-formulated primer recommended for substrate under conditions of service and application.
- E. Aggregate: Clean silica sand, uniform in gradation, and approved by traffic-coating manufacturer.
- F. Top Coat Color: To match the existing.

## **PART 3 - EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates and conditions with Applicator and traffic-coating manufacturer's representative for compliance with requirements and other conditions affecting performance of traffic coating.
  - 1. Ensure that work done by other trades is complete and ready for traffic-coating Work.
  - 2. Verify compatibility with and suitability of substrates.
  - 3. Verify that areas and conditions under which traffic-coating Work is to be performed permit proper and timely completion of Work.
  - 4. Notify Architect/Engineer in writing of conditions which may adversely affect application or performance of traffic coating and recommend corrections.
  - 5. Do not proceed with traffic-coating Work until adverse conditions have been corrected and reviewed by Architect/Engineer.
  - 6. Commencing traffic-coating Work constitutes acceptance of Work surfaces and conditions.

### **3.2 PROTECTION**

- A. Comply with traffic coating manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products.
- B. Cover adjacent surfaces with materials that are proven to resist traffic coating.
- C. Take precautions to ensure safety of people (including building users, passers-by, and workers) and protection of property (including adjacent building elements, landscaping, and motor vehicles).
- D. Erect temporary protective canopies and walls, as necessary, at walkways and at points of pedestrian and vehicular access that must remain in service during Work.
- E. Take precautions to protect against air-borne materials and run-off.
- F. Protect paving, sidewalk, and adjacent building areas from mechanical damage due to equipment.
- G. Prevent dust, debris, coating overspray/spatter, and other construction materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
- H. Limit access to Work areas.
- I. Assume responsibility for injury to persons or damage to property due to Work, and remedy at no cost to Owner.
- J. Protect from damage, all elements of completed work and original construction to remain.

### **3.3 SURFACE PREPARATION**

- A. Equipment:
  - 1. Concrete cleaning equipment such as Blastrac Concrete Cleaning System manufactured by Wheelabrator-Frye, Inc., or equal.

2. Abrasive blasting equipment capable of removing contaminants and laitance from concrete surface.
  3. Compressed air equipment capable of removing dust and dirt from concrete surface.
- B. Where existing polyurethane membrane is present, remove loose and deteriorated existing traffic coating and other materials to expose substrate.
1. Clean and prepare the existing membrane surface according to traffic-coating manufacturer's written instructions. Provide clean, dust-free, and dry substrate.
  2. Where the Drawings specify only a wear course, prepare the surface with solvent cleaning, as approved by the manufacturer's representative.
  3. Where the Drawings specify a full membrane system over existing membrane, prepare the surface with abrasive cleaning and solvent cleaning, removing any debonded materials.
  4. Perform adhesion tests with the membrane manufacturer's representative as specified in the Drawings.
- C. Clean and prepare concrete substrate according to traffic-coating manufacturer's written instructions. Provide clean, dust-free, and dry substrate.
1. Verify that concrete has cured and aged for minimum time period recommended by traffic-coating manufacturer.
  2. Verify that substrate is sound and is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D4263 or test for moisture vapor emission by applying the base coat of traffic coating on one-foot-square test areas and monitoring for pinholes, blisters, and bubbles until the traffic coating has set; the number and locations of test areas shall be determined by Architect/Engineer based on project conditions. If pin-holing, blistering, or bubbling occurs, delay Work until later test areas are free of pinholes, blisters, and bubbles.
  3. Verify that concrete curbs, expansion joints, and transitions from one surface plane to another (inside and outside corners) are cleanly formed and free of broken edges and excess concrete.
  4. Remove concrete fins and projections, concrete splatter, and other irregularities which would prevent monolithic, continuous application of traffic coating.
  5. Properly repair substrate defects such as delaminations, spalls, voids, form tie holes, honeycombing, and cracks, with latex-modified concrete or another material acceptable to traffic-coating manufacturer and Architect/Engineer.
  6. Remove grease, oil, asphalt solids, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
  7. Shotblast or scarify concrete to provide clean surface, free of laitance, dirt, and other loose or foreign material. Use care to avoid pockmarking concrete surface.
  8. Remove grease, oil, asphalt solids, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
  9. Uniformly clean concrete surfaces by abrasive blast, according to ASTM D4259, to expose top surface of fine aggregate and provide sound surface, free of laitance, dirt, and other loose or foreign material. Use self-contained, recirculating, blast-cleaning apparatus. Remove remaining loose material and clean surfaces according to ASTM D4258. Produce surface texture equal to CSP 3 or 4 from ICRI Guide for Selecting and Specifying Concrete Surface Preparation.
  10. Level areas of surface scaling or rough, uneven areas where surface roughness is unacceptable for traffic-coating application, as determined by Architect/Engineer, with skim coat of epoxy or other material compatible with traffic coating and recommended by traffic-coating manufacturer.

11. Rout cracks and joints designated by traffic-coating manufacturer's representative and verified by Architect/Engineer, remove existing sealant, and install new sealant.
  12. Abrasive blast clean curb, column, and wall surfaces that will receive traffic coating.
  13. Thoroughly sweep substrate and clean with oil-free compressed air.
- D. Mask adjoining surfaces not receiving traffic coating to prevent spillage and overspray affecting other construction.
- E. Close off deck drains and other deck penetrations to prevent spillage and migration of traffic-coating fluids.
- F. Applicator and traffic-coating manufacturer's representative shall examine substrate to ensure that it is properly prepared and ready to receive traffic coating. Traffic-coating manufacturer's representative shall report in writing to Applicator and Architect/Engineer conditions which will adversely affect traffic-coating system application or performance. Do not proceed with traffic-coating application until these conditions have been corrected and reviewed by Architect/Engineer.
- G. Proceed with application only after unsatisfactory conditions have been corrected. Commencing application constitutes acceptance of Work surface preparation and conditions.

### **3.4 APPLICATION**

- A. Provide and maintain barricades for vehicular and pedestrian traffic at traffic-coating areas during application and curing period.
- B. Allow sealant, concrete replacement materials, and skim coats to fully cure prior to installing traffic coating.
- C. Apply traffic coating material according to traffic-coating manufacturer's written recommendations.
1. Start traffic-coating application in presence of traffic-coating manufacturer's representative.
  2. Install joint reinforcement, centered on joints and horizontal edges of sheet-metal flashing and pans, in detail coat.
  3. Install sealant cant at intersections of horizontal and vertical surfaces.
  4. Batch and thoroughly mix components as recommended by the traffic-coating manufacturer.
  5. Apply detail coat at intersections of horizontal and vertical surfaces, at drains and other deck penetrations, and at cracks and joints.
  6. Apply traffic-coating system.
    - a. Wipe detail coat to remove dust and contamination.
    - b. Apply each coat in one uniform application, broadcast aggregate if required, and backroll for even coverage. Allow each coat to cure before apply next coat. Sweep or vacuum off excess aggregate.
    - c. Apply at least 4 inches up sides of columns, walls, and other vertical surfaces, and up curb faces and across top curb surfaces.
    - d. Omit aggregate on vertical surfaces.
    - e. If pinholes occur in base coat, apply additional base coat material using flat squeegee or other tool approved by traffic-coating manufacturer, to fill holes before proceeding with subsequent coats.
    - f. Prevent contamination or damage during application and curing.

- g. Verify that wet film thickness of each component coat complies with requirements every 100 square feet.
- 7. After membrane has cured, apply paint marking to match existing.

### **3.5 FIELD QUALITY CONTROL**

- A. Architect/Engineer will take a minimum of one sample (one-square inch) of new traffic-coating system for every 4,000 square feet of traffic-coating installed. Dry film thickness will be measured.
  - 1. Dry film thickness is satisfactory if not less than minimum thickness specified by traffic-coating manufacture or this Section, whichever is greater.
  - 2. If dry film thickness is too thin, apply additional material at no cost to Owner, or perform other remedial action recommended by traffic-coating manufacturer or Architect/Engineer.
  - 3. Patch sample areas with traffic-coating system.
- B. Chain drag traffic-coating areas at conclusion of Work to locate debonded areas. Remove and replace debonded areas.

### **3.6 CLEANING**

- A. At the end of each workday, clean Site and Work areas and place and place all items to be discarded in appropriate containers.
- B. After completing traffic coating Work:
  - 1. Clean all materials resulting from Work that are not intended to be part of the finished Work using appropriate cleaning agents and procedures. Exercise care to avoid damaging surfaces.
  - 2. Repair at no cost to Owner all items damaged during the Work.
  - 3. Remove and legally dispose of debris and surplus materials from Site.

**END OF SECTION**

**SECTION 07 81 00**  
**APPLIED FIRE PROTECTION**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Sprayed fire-resistive materials.

**1.2 DEFINITIONS**

- A. SFRM: Sprayed fire-resistive materials.

**1.3 PREINSTALLATION MEETINGS**

- A. Preinstallation Conference: Conduct conference at Project site.

**1.4 ACTION SUBMITTALS**

- A. Product Data: For the following:
  - 1. Sprayed fire-resistive material.
  - 2. Substrate primers.
  - 3. Bonding agent.
  - 4. Topcoat.

**1.5 INFORMATIONAL SUBMITTALS**

- A. Product certificates.
- B. Evaluation reports.
- C. Field quality-control reports.

**1.6 QUALITY ASSURANCE**

- A. Installer Qualifications: A firm or individual certified, licensed, or otherwise qualified by sprayed fire-resistive material manufacturer as experienced and with sufficient trained staff to install manufacturer's products according to specified requirements.

**PART 2 PRODUCTS**

**2.1 PERFORMANCE REQUIREMENTS**

- A. Assemblies: Provide fire protection, including auxiliary materials, according to requirements of each fire-resistance design and manufacturer's written instructions.
- B. Fire-Resistance Design: match thickness of the existing fireproofing.
  - 1. Steel members are to be considered unrestrained unless specifically noted otherwise.

- C. Asbestos: Provide products containing no detectable asbestos.

## **2.2 SPRAYED FIRE-RESISTIVE MATERIALS**

- A. Sprayed Fire-Resistive Material: Manufacturer's standard, factory-mixed, lightweight, dry formulation, complying with indicated fire-resistance design, and mixed with water at Project site to form a slurry or mortar before conveyance and application or conveyed in a dry state and mixed with atomized water at place of application.
  1. Bond Strength: Minimum 150-lbf/sq. ft. cohesive and adhesive strength based on field testing according to ASTM E736.
  2. Thickness: Match existing, but not less than 0.375 inch.
  3. Combustion Characteristics: ASTM E136.
  4. Surface-Burning Characteristics: Comply with ASTM E84.
    - a. Flame-Spread Index: 10 or less.
    - b. Smoke-Developed Index: 10 or less.
  5. Corrosion Resistance: No evidence of corrosion according to ASTM E937.
  6. Deflection: No cracking, spalling, or delamination according to ASTM E759.
  7. Effect of Impact on Bonding: No cracking, spalling, or delamination according to ASTM E760.
  8. Air Erosion: Maximum weight loss of 0.025 g/sq. ft. in 24 hours according to ASTM E859.

## **2.3 AUXILIARY MATERIALS**

- A. Provide auxiliary materials that are compatible with sprayed fire-resistive material and substrates and are approved by UL or another testing and inspecting agency acceptable to authorities having jurisdiction for use in fire-resistance designs indicated.
- B. Substrate Primers: Primers approved by sprayed fire-resistive material manufacturer for the required fire-resistance design.
- C. Bonding Agent: Product approved by sprayed fire-resistive material manufacturer.
- D. Topcoat: Suitable for application over sprayed fire-resistive material; of type recommended in writing by sprayed fire-resistive material manufacturer for each fire-resistance design.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for substrates and other conditions affecting performance of the Work and according to each fire-resistance design.

### **3.2 PREPARATION**

- A. Cover other work subject to damage from fallout or overspray of fire protection materials during application.
- B. Prime substrates where included in fire-resistance design and where recommended in writing by sprayed fire-resistive material manufacturer unless compatible shop primer has been applied and is in satisfactory condition to receive fire protection.



### **3.3 APPLICATION**

- A. Construct fire protection assemblies that are identical to fire-resistance design indicated and products as specified, tested, and substantiated by test reports; for thickness, primers, sealers, topcoats, finishing, and other materials and procedures affecting fire protection Work.
- B. Comply with sprayed fire-resistive material manufacturer's written instructions for mixing materials, application procedures, and types of equipment used to mix, convey, and apply fire protection; as applicable to particular conditions of installation and as required to achieve fire-resistance ratings indicated.
- C. Spray apply fire protection to maximum extent possible. After the spraying operation in each area, complete the coverage by trowel application or other placement method recommended in writing by sprayed fire-resistive material manufacturer.
- D. Do not install enclosing or concealing construction until after sprayed fire-resistive material has been applied, inspected, and tested and corrections have been made to deficient applications.

### **3.4 FIELD QUALITY CONTROL**

- A. Fire protection will be considered defective if it does not pass tests and inspections.
  - 1. Remove and replace fire protection that does not pass tests and inspections, and retest.
  - 2. Apply additional fire protection, per manufacturer's written instructions, where test results indicate insufficient thickness, and retest.

### **3.5 CLEANING**

- A. Cleaning: Immediately after completing spraying operations in each containable area of Project, remove material overspray and fallout from surfaces of other construction and clean exposed surfaces to remove evidence of soiling.

### **3.6 REPAIRS**

- A. Repair fire protection damaged by other work before concealing it with other construction.
- B. Repair fire protection by reapplying it using same method as original installation or using manufacturer's recommended trowel-applied product.

**END OF SECTION 078100**

## **SECTION 07 92 00**

### **JOINT SEALANTS**

#### **PART 1 GENERAL**

##### **1.1 SUMMARY**

- A. Section Includes: Surface preparation and installation of sealant:
  - 1. In narrow joints and cracks in concrete members, primarily concrete decks – polyurethane sealant
  - 2. In wider joints between wall elements – polyurethane sealant
  - 3. At cove and flush joints and cracks under liquid-applied traffic membrane – polyurethane sealant
  - 4. At window perimeter, framing, and glazing joints – silicone
- B. Related Sections:
  - 1. Section 03 01 34 - Concrete Replacements
  - 2. Section 07 18 00 – Traffic Coating

##### **1.2 UNIT PRICES**

- A. Perform the following Work on unit price basis:
  - 1. Removal and replacement of sealant at double tee beam joints designated by the Engineer. Payment based on lineal footage of sealant removal and replacement.

##### **1.3 REFERENCES**

- A. Reference Standards: Latest edition as of Specification date.
  - 1. ASTM International:
    - a. C920: Standard Specification for Elastomeric Joint Sealants.
    - b. C1193: Standard Guide for Use of Joint Sealants
    - c. C1521: Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints.

##### **1.4 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate Work to ensure that adjacent areas are not adversely affected; that new materials and building interior are kept continuously dry; and that continuous, watertight, new sealant installation is provided.

##### **1.5 SUBMITTALS**

- A. Product Data: Sealant manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; and installation instructions.
  - 1. Include temperature ranges for storage and application of materials, and special cold-weather application requirements or limitations.
  - 2. SpecData sheet for substrate cleaner and substrate primer recommended by sealant manufacturer for specific substrate surface and conditions.

3. Include Safety Data Sheets (SDS) for information only; safety restrictions are sole responsibility of Contractor.
- B. Samples: Sealant manufacturer's color sample card, either printed or with thin sealant beads, showing range of colors available for each product exposed to view.
- C. Manufacturer's Reports and Certifications:
1. Prior to sealant installation, report from sealant manufacturer with results of sealant compatibility, sealant and substrate staining, and mockup adhesion tests. Report shall:
    - a. State that materials which come into contact with or in close proximity to sealant have been tested.
    - b. Include sealant manufacturer's interpretation of test results relative to material performance, potential staining of sealant and substrates, dirt accumulation of sealant, and dirt runoff from sealant.
    - c. Include sealant manufacturer's recommendations for substrate preparation and primer needed to obtain durable adhesion[; **required cure time before penetrating sealer or elastomeric coating can be applied;**] and installation procedures successfully used in mockups and field tests.
  2. Product Certificates: For each sealant product, accessory, related products, joint type, and substrate, sealant manufacturers' written approval of their products' use for specified conditions; based on mockups and field tests.
- D. Installer Qualifications:
1. Certificate signed by sealant manufacturer, certifying that Installer complies with requirements.
- E. Following completion of the Work:
1. Sealant manufacturer's inspection report of completed sealant installation.
  2. Completed warranty from sealant manufacturer.
  3. Completed warranty from Installer.

## 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Experienced firm that has successfully completed sealant work similar in material, design, and extent to that indicated for Project; that is approved, authorized, or licensed by sealant manufacturer to install sealant; and that is eligible to receive sealant manufacturer's warranty. Must have successful installations of specified materials in local area in use for minimum of five years.
1. Employ foreman with minimum five years of experience as foreman on similar projects, to be on Site at all times during Work. Do not change foremen during the course of the Project except for reasons beyond the control of the Installer; inform Architect/Engineer in advance of any changes.
- B. Compatibility Tests: Include sealant and sealers or coatings that may come into contact with sealant following sealant installation.
1. Field-Adhesion Testing: After sealants have cured, perform field-adhesion tests according to ASTM C1521.
    - a. Conduct tests for each type of sealant and joint substrate, with and without primer.
    - b. Arrange for tests to take place with sealant manufacturer's technical representative present.
    - c. Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Use alternate

materials or modify installation procedure, or both, for sealants that fail to adhere to substrates.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle materials according to manufacturer's recommendations and in such a manner as to prevent damage to materials or structure.
- B. Deliver materials to Site in original packages with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, lot number, and directions for storing and mixing with other components.
- C. Keep materials dry and do not allow materials to be exposed to moisture during transportation, storage, handling, or installation. Reject and remove from Site new materials which exhibit evidence of moisture during application or which have been exposed to moisture.
- D. Store materials in original, undamaged containers and packaging in clean, dry, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Protect stored materials from direct sunlight. Manufacturer's standard packaging and covering is *not* considered adequate weather protection.
- E. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.
- F. Conspicuously mark wet or damaged materials and remove from Site as soon as possible.
- G. Remove and replace materials that cannot be applied within stated shelf life.

## 1.8 PROJECT CONDITIONS

- A. Verify existing dimensions and details prior to start of sealant Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor and Installer of changes.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Environmental Limitations: Install sealant when existing and forecast weather conditions permit sealant to be installed according to sealant manufacturer's written instructions and warranty requirements.
  - 1. Do not install sealant when ambient or substrate temperatures are below 40 degrees F or are expected to fall below 40 degrees F in next 12 hours.
  - 2. Do not proceed with installation during inclement weather except for temporary work necessary to protect building interior and installed materials. Remove temporary work and Work that becomes moisture damaged.
- D. Handle and install materials in strict accordance with safety requirements required by sealant manufacturer; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.

## 1.9 CHANGES IN WORK

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.
  - 1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work prior to proceeding with the Work.

## 1.10 WARRANTY

- A. Manufacturer's Warranty:
  - 1. Written warranty, signed by sealant manufacturer, including:
    - a. Repair or replace sealant that does not comply with requirements; that does not remain watertight; that fails in adhesion, cohesion, or general durability; or that deteriorates in a manner not clearly specified by submitted sealant manufacturer's data as an inherent quality of the material for the application indicated.
    - b. Removal and replacement with new bond breaker materials.
    - c. Labor and materials to perform warranty Work.
    - d. Warranty does not include sealant deterioration or failure due to the following.
      - 1) Excessive joint movement caused by structural settlement or errors attributable to design or construction, resulting in stresses in sealant exceeding sealant manufacturer's written specifications for sealant elongation or compression.
      - 2) Deterioration or failure of sealant due to failure of substrate prepared according to requirements.
      - 3) Mechanical damage caused by individuals, tools, or other outside agents.
      - 4) Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.
  - 2. Warranty Period: 5 years from date of Substantial Completion.
- B. Installer's Warranty:
  - 1. Completed warranty form at the end of the Section, signed by sealant Installer, including:
    - a. Repair or replace sealant that does not comply with requirements; that does not remain watertight; that fails in adhesion, cohesion, or general durability; or that deteriorates in a manner not clearly specified by submitted sealant manufacturer's data as an inherent quality of the material for the application indicated.
    - b. Removal and replacement with new bond breaker materials.
    - c. Labor and materials to perform warranty Work.
    - d. Warranty does not include sealant deterioration or failure due to the following.
      - 1) Excessive joint movement caused by structural settlement or errors attributable to design or construction, resulting in stresses in sealant exceeding sealant manufacturer's written specifications for sealant elongation or compression.
      - 2) Deterioration or failure of sealant due to failure of substrate prepared according to requirements.
      - 3) Mechanical damage caused by individuals, tools, or other outside agents.
      - 4) Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.
  - 2. Warranty Period: 5 years from date of Substantial Completion.

## **PART 2 PRODUCTS**

### **2.1 ELASTOMERIC JOINT SEALANTS**

- A. General:
  - 1. Comply with ASTM C920 and other requirements indicated.
  - 2. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing on similar projects, mockups and preconstruction testing for Project, and field experience.
  - 3. Select products based on mockups, preconstruction testing, and sealant manufacturer's previous testing and experience.
  - 4. Source Limitations: Obtain each type of joint sealant through one source from single manufacturer.
  - 5. Colors of Exposed Joint Sealants: Selected and approved in writing by Owner's Representative, from sealant manufacturer's full range.
  - 6. No pourable sealants will be permitted on the Project.
  
- B. Multi-Component, Non-sag, Polyurethane Sealants:
  - 1. DynaTred or DynaTrol II manufactured by Pecora Corporation.
  - 2. Iso-Flex 881 manufactured by LymTal International, Inc.
  - 3. MasterSeal NP 2 manufactured by BASF Building Systems.
  - 4. SikaFlex-2c NS manufactured by Sika Corporation.
  - 5. Vulkem 227 manufactured by Tremco Commercial Sealants & Waterproofing.
  
- C. Single-component, Non-sag, Silicone Sealants:
  - 1. 756 SMS Building Sealant manufactured by Dow Corning Corporation.
  - 2. SCS9000 SilPruf NB manufactured by Momentive Performance Materials Inc.
  - 3. Spectrem 3 manufactured by Tremco Commercial Sealants & Waterproofing.

### **2.2 AUXILIARY MATERIALS**

- A. General: Sealant-backer materials, primers, surface cleaners, masking tape, and other materials recommended by sealant manufacturer, that are non-staining and compatible with substrates; based on mockups, preconstruction testing, and sealant manufacturer's previous testing and experience.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates and conditions with Installer and sealant manufacturer's representative for compliance with requirements and for other conditions affecting installation or performance of sealant.
  - 1. Verify dimensions of sealant joints at Site by field measurement so that proper sealant profiles will be accurately maintained.
  - 2. Ensure that work done by other trades is complete and ready for sealant Work.
  - 3. Verify that areas and conditions under which sealant Work is to be performed permit proper and timely completion of Work.

4. Notify Architect/Engineer in writing of conditions which may adversely affect installation or performance of sealant, including joints with widths less than those allowed by sealant manufacturer for applications indicated, and recommend corrections.
5. Do not proceed with sealant Work until adverse conditions have been corrected and reviewed by Architect/Engineer.
6. Commencing sealant Work constitutes acceptance of Work surfaces and conditions.

### **3.2 PROTECTION**

- A. Take precautions to ensure safety of people, including building users, passers-by, and workmen, and animals, and protection of property, including adjacent building elements, landscaping, and motor vehicles.
- B. Prevent construction debris and other materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
- C. Protect paving and sidewalks, and adjacent building areas from mechanical damage due to scaffolding and other equipment.
- D. Limit access to Work areas.
- E. Erect temporary protective canopies, as necessary, over walkways and at points of pedestrian and vehicular access that must remain in service during Work.
- F. Comply with sealant manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products.
- G. Cover adjacent surfaces with materials that are proven to resist sealant.
- H. Assume responsibility for injury to persons or damage to property due to Work, and remedy at no cost to Owner.

### **3.3 SURFACE PREPARATION**

- A. Remove existing sealant and other foreign material from joints.
- B. Repair damaged or deteriorated substrate surfaces according to sealant manufacturer's written instructions and as approved by Architect/Engineer.
- C. Clean joint substrates immediately before installing sealant, to comply with sealant manufacturer's written instructions based on mockups and preconstruction testing.
  1. Remove from substrate foreign material that could interfere with adhesion of sealant, including dirt, dust, existing sealant, oil, grease, and surface coatings.
  2. Provide dry substrate; prevent wetting of substrate prior to sealant installation.
  3. Clean porous substrates, such as concrete, masonry, stone, wood, by brushing, grinding, blast-cleaning, mechanical-abrading, or combination of methods to produce clean, sound substrate capable of developing optimum bond with sealant. Remove laitance and form-release agents from concrete. Remove loose particles remaining after cleaning operations by vacuuming or blowing out joints with oil-free, compressed air.
  4. Clean nonporous surfaces, such as metal, with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of sealant.

5. Joints with silicone sealant and preformed sealant seals should generally be masked as subsequent cleanup of spillage and smears may be very difficult.

### **3.4 INSTALLATION OF SEALANT**

- A. General: Comply with sealant manufacturer's written installation instructions for products and applications indicated, based on mockups and preconstruction testing.
- B. Joint Priming: Prime joint substrates where recommended in writing by sealant manufacturer, based on mockups and preconstruction testing. Apply primer to comply with sealant manufacturer's written instructions.
  1. Confine primer to areas of sealant bond; do not allow spillage or migration onto adjoining surfaces.
  2. Limit priming to areas that will be covered with sealant in same day. Unless recommended otherwise by sealant manufacturer, reprime areas exposed for more than 24 hours.
- C. Install sealant backer and position to produce cross-sectional shape and proper depth of installed sealant.
  1. Use properly-sized backer. Do not use multiple-backer units or braided-backer units to accommodate wide joints.
  2. Install backer with device that will provide consistent depth between substrate surface and outer surface of backer.
  3. Do not leave gaps between ends of sealant backers.
  4. Do not stretch, twist, puncture, or tear sealant backers.
  5. Remove wet backers and replace with dry materials.
- D. Install wax crayon in routed joints.
- E. Install sealant immediately after installing backer material; to produce uniform, cross-sectional shape and depth; to directly contact and fully wet joint sides and backer material; and to completely fill recesses in joint configuration.
  1. Install sealant flush with surface.
  2. Immediately after sealant application and before skinning or curing begins, tool joint with slightly concave surface, compressing sealant into joint to form smooth, uniform sealant bead; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint. Do not use tooling agent.

### **3.5 FIELD QUALITY CONTROL**

- A. At completion of Project, observe installed sealant for damage or deterioration. If damage or deterioration occurs, neatly cut out and remove damaged or deteriorated sealant, prepare and prime surfaces, and install new sealant. Replace sealant immediately so new sealant is indistinguishable from original Work.
- B. Field-Adhesion Testing: Architect/Engineer will perform non-destructive and destructive field adhesion tests on sealant in accordance with ASTM C1521.
  1. Non-destructive testing:
    - a. Depress center of sealant bead with probing tool to depth of 50 percent of bead width, or depress sealant bead near substrate bond-line until it appears visually that sealant is about to fail in cohesion.
    - b. Record if sealant failed and, if so, if failure was adhesive or cohesive and maximum surface depression as percent of joint width.



- c. Perform test every 12 inches for first 10 linear feet of joint; if no test failure is observed, test every 24 inches thereafter.
2. Destructive testing:
  - a. Cut 6-inch-long tail of sealant loose from substrate.
  - b. Mark tail 1 inch from adhesive bond.
  - c. Grasp tail 1 inch from adhesive bond and pull until tail extends to 2x the published movement capability of sealant. If sealant has not failed, continue pulling to failure.
  - d. Record elongation at failure and if failure was adhesive or cohesive.
  - e. Observe sealant for complete filling of joint with absence of voids, and for joint configuration in compliance with requirements. Record observations and sealant dimensions
  - f. Perform test every 100 feet for first 1,000 linear feet of joint; if no test failure at 2x the movement capability occurs, test every 1,000 feet thereafter or approximately once per floor per elevation, whichever is more frequent.
3. Test reports shall include date when sealant was installed, name of person who installed sealant, test date, test location, and whether primer was used.
4. Immediately after testing, Contractor shall replace failed sealant in test areas. Neatly cut out and remove failed sealant, prepare and prime surfaces, and install new sealant. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.
5. Sealant not evidencing adhesive failure from testing or noncompliance with requirements will be considered satisfactory.
6. Where Architect/Engineer determines that sealant has failed adhesively from testing or does not comply with requirements, additional testing will be performed to determine extent of non-conforming sealant. Neatly cut out and remove non-conforming sealant, prepare and prime surfaces, and install new sealant. Perform field adhesion tests on new sealant. Additional testing and replacement of non-conforming sealant shall be at Contractor's expense.

### **3.6 CLEANING**

- A. As sealant Work progresses, clean off excess sealant or sealant smears by methods and with cleaning materials approved in writing by sealant manufacturer and manufacturers of products in which joints occur. Exercise care to avoid scratching or damage to surfaces.
- B. At the end of each workday, clean Site and Work areas and place rubbish, empty cans, rags, and other discarded materials in appropriate containers.
- C. After completing sealant Work:
  1. Repair surfaces stained, marred, or otherwise damaged during sealant Work.
  2. Clean up debris and surplus materials and remove from Site.

### **3.7 PROTECTION**

- A. Protect sealant during and after curing period from contact with contaminating substances and from damage, so sealants are without deterioration or damage at time of Substantial Completion.

**END OF SECTION**

**DIVISION 08**

**OPENINGS**

**SECTION 08 11 13**

**HOLLOW METAL DOORS AND FRAMES**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. Section includes:
  - 1. Exterior standard steel doors and frames.

**1.2 ACTION SUBMITTALS**

- A. Product Data: For each type of product.
- B. Shop Drawings or manufacturer's published details: Include the following:
  - 1. Elevations of each door type.
  - 2. Details of doors, including vertical- and horizontal-edge details and metal thicknesses.
  - 3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.

**1.3 INFORMATIONAL SUBMITTALS**

- A. Product test reports.
- B. Field quality control reports.
  - 1. Door and Hardware Institute Fire and Egress Door Assembly Inspector (FDAI) certification.

**PART 2 PRODUCTS**

**2.1 EXTERIOR STANDARD STEEL DOORS AND FRAMES**

- A. Construct hollow-metal doors and frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified.
- B. Heavy-Duty Doors and Frames: ANSI/SDI A250.8, Level 2; ANSI/SDI A250.4, Level B.
  - 1. Doors:
    - a. Type: As indicated in the Door and Frame Schedule.
    - b. Thickness: 1-3/4 inches.
    - c. Edge Construction: Model 1, Full Flush or Model 2, Seamless.
    - d. Top Edge Closures: Close top edges of doors with flush closures of same material as face sheets. Seal joints against water penetration.
    - e. Bottom Edges: Close bottom edges of doors with end closures or channels of same material as face sheets. Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape.

- f. Fire-rated Core: Manufacturer's standard.
- 2. Frames:
  - a. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch, with minimum A40 (ZF120) coating.

## 2.2 HARDWARE

- A. LCN closer
- B. 5-knuckle hinge
- C. Best Lock Set
- D. 7-pin lock
- E. Von Duprin panic hardware

## 2.3 FRAME ANCHORS

- A. Jamb Anchors:
  - 1. Type: Anchors of minimum size and type required by applicable door and frame standard, and suitable for performance level indicated.
  - 2. Quantity: Minimum of three anchors per jamb, with one additional anchor for frames with no floor anchor. Provide one additional anchor for each 24 inches of frame height above 7 feet.
  - 3. Postinstalled Expansion Anchor: Minimum 3/8-inch-diameter bolts with expansion shields or inserts, with manufacturer's standard pipe spacer.
- B. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor.
- C. Material: ASTM A879/A879M, Commercial Steel (CS), 04Z (12G) coating designation; mill phosphatized.
  - 1. For anchors built into exterior walls, steel sheet complying with ASTM A1008/A1008M or ASTM A1011/A1011M; hot-dip galvanized in accordance with ASTM A153/A153M, Class B.

## 2.4 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A1008/A1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A1011/A1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Metallic-Coated Steel Sheet: ASTM A653/A653M, Commercial Steel (CS), Type B.
- D. Inserts, Bolts, and Fasteners: Hot-dip galvanized in accordance with ASTM A153/A153M.
- E. Power-Actuated Fasteners in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow-metal frames of type indicated.

- F. Mineral-Fiber Insulation: ASTM C665, Type I (blankets without membrane facing); consisting of fibers manufactured from slag or rock wool; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E136 for combustion characteristics.
- G. Glazing: Comply with requirements in Section 088000 "Glazing."

## **2.5 FABRICATION**

- A. Hollow-Metal Frames: Fabricate in one piece except where handling and shipping limitations require multiple sections. Where frames are fabricated in sections, provide alignment plates or angles at each joint, fabricated of metal of same or greater thickness as frames.
  - 1. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
  - 2. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers as follows. Keep holes clear during construction.
    - a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
- B. Hardware Preparation: Factory prepare hollow-metal doors and frames to receive templated mortised hardware, and electrical wiring; include cutouts, reinforcement, mortising, drilling, and tapping in accordance with ANSI/SDI A250.6, the Door Hardware Schedule, and templates.
  - 1. Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.
  - 2. Comply with BHMA A156.115 for preparing hollow-metal doors and frames for hardware.

## **2.6 STEEL FINISHES**

- A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.
  - 1. Shop Primer: Manufacturer's standard, fast-curing, lead- and chromate-free primer complying with ANSI/SDI A250.10; recommended by primer manufacturer for substrate; compatible with substrate and field-applied coatings despite prolonged exposure.

## **PART 3 EXECUTION**

### **3.1 PREPARATION**

- A. Remove welded-in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces. Touch up factory-applied finishes where spreaders are removed.
- B. Drill and tap doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.

### **3.2 INSTALLATION**

- A. Hollow-Metal Frames: Comply with ANSI/SDI A250.11.
  - 1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces without damage to completed Work.

- a. Where frames are fabricated in sections, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces. Touch-up finishes.
  - b. Install frames with removable stops located on secure side of opening.
  2. Fire-Rated Openings: Install frames in accordance with NFPA 80.
  3. Floor Anchors: Secure with postinstalled expansion anchors.
  4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout or mortar.
  5. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
  6. Installation Tolerances: Adjust hollow-metal frames to the following tolerances:
    - a. Squareness: Plus or minus 1/16 inch, measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
    - b. Alignment: Plus or minus 1/16 inch, measured at jambs on a horizontal line parallel to plane of wall.
    - c. Twist: Plus or minus 1/16 inch, measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
    - d. Plumbness: Plus or minus 1/16 inch, measured at jambs at floor.
- B. Hollow-Metal Doors: Fit and adjust hollow-metal doors accurately in frames, within clearances specified below.
1. Fire-Rated Doors: Install doors with clearances in accordance with NFPA 80.
  2. Smoke-Control Doors: Install doors in accordance with NFPA 105.

### 3.3 FIELD QUALITY CONTROL

- A. Inspection Agency: Engage a qualified inspector to perform inspections and to furnish reports to Architect.
- B. Inspections:
1. Fire-Rated Door Inspections: Inspect each fire-rated door in accordance with NFPA 80, Section 5.2.
  2. Egress Door Inspections: Inspect each door equipped with panic hardware, each door equipped with fire exit hardware, each door located in an exit enclosure, each electrically controlled egress door, and each door equipped with special locking arrangements in accordance with NFPA 101, Section 7.2.1.15.
- C. Repair or remove and replace installations where inspections indicate that they do not comply with specified requirements.
- D. Reinspect repaired or replaced installations to determine if replaced or repaired door assembly installations comply with specified requirements.
- E. Prepare and submit separate inspection report for each fire-rated door assembly indicating compliance with each item listed in NFPA 80 and NFPA 101.

### 3.4 REPAIR

- A. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

- B. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.
- C. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

**END OF SECTION 081113**

**DIVISION 09**  
**PAINTING**  
**SECTION 09 91 00**  
**PARKING STRIPE PAINTING**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This Section includes the following: parking stripe painting on areas where liquid-applied traffic membrane is being installed.
- B. Related work specified elsewhere:
  - 1. Section 07 18 00 - Traffic Bearing Membrane

**1.2 SUBMITTALS**

- A. The Contractor shall submit the paint manufacturer's product data for all materials proposed for use. The data shall include a description of the system, mixing and application instructions, and verification of compatibility with waterproofing or membrane system.

**1.3 DELIVERY, HANDLING, AND STORAGE**

- A. Materials shall be delivered in their original, unopened containers bearing the manufacturer's name, product identification and batch number.
- B. Coatings, thinners and cleaners shall be stored in tightly closed containers in a covered, well-ventilated area where they will be protected from exposure to extreme cold or heat, sparks, flame, direct sunlight, or weather.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- A. General: Chlorinated-rubber pavement-marking paint conforming to requirements of TT-P-115; Oil/alkyd pavement-marking paint conforming to requirements of A-A-2886 and TT-P-115; or Acrylic-latex pavement-marking paint conforming to requirements of TT-P-1952; 30-minute-maximum no-pick-up time with a wet film thickness of 15 mils. Paint shall be manufactured by one of the following, or an approved equal:
  - 1. Pro-Park Waterborne Traffic Marking Paint, by Sherwin Williams
  - 2. ProMar or SetFast by Sherwin Williams
  - 3. Bonsal American pavement marking paints
  - 4. An approved equal
- B. Color to match existing.

## **PART 3 - EXECUTION**

### **3.1 PREPARATION**

- A. Prior to removal of existing parking striping in preparation for other work, including concrete repairs and traffic-bearing membrane installation, record existing striping location, pattern, and orientation on both levels of garage. Also record directional arrows and other painted signage to be replaced.

### **3.2 SURFACE PREPARATION**

- A. Before commencing work, the Contractor shall check that surfaces to be painted are in proper condition to receive painting materials and that surfaces are clean, dry, smooth and at proper temperature as recommended by the paint manufacturer.
- B. No painting shall be done on any surface which is wet or damp. The Contractor shall clean all surfaces free of adhering foreign matter, dirt and dust.
- C. Application of any paint to a concrete or membrane surface implies acceptance of the substrate surface.
- D. Areas surrounding the painting activities shall be protected or masked to prevent overspray, splattering, etc.

### **3.3 APPLICATION**

- A. Apply paint after completion of concrete repairs and membrane installation in the area of work.
- B. New striping shall match the existing striping in the area of work.
- C. The paint shall be applied in accordance with the manufacturer's recommendations. No materials of different character or different manufacturer shall be intermixed. No materials shall be thinned, except as recommended by the manufacturer.
- D. The Contractor shall paint arrows at intersections and corners, and at locations and in the same orientation as existing. New arrows shall conform to the U.S. Department of Transportation's Manual on Uniform Traffic Control Devices.
- E. Use appropriate masking, stencils and application equipment as required and as recommended by the manufacturer.
- F. The Contractor shall provide and maintain a hand-held all-purpose fire extinguisher near the paint storage and mixing area.
- G. Provide the necessary traffic cones, barricades and other devices to protect the paint until it is sufficiently dry to withstand traffic.
- H. Touch-up markings to provide clean, straight lines and surfaces throughout. Paint shall be removed or blocked out with an opaque paint matching the background color at all locations where the paint inadvertently splashed or tracked onto unintended locations.



**3.4 CLEAN-UP**

- A. Upon completion of each day's work, the Contractor shall remove all discarded and surplus material and secure all equipment and materials in a protected and orderly manner.
- B. Upon completion of the work, the equipment, surplus materials, and rubbish shall be removed, and the site left in a clean condition.

**END OF SECTION**

## **SECTION 09 97 13**

### **STEEL COATING**

#### **PART 1 GENERAL**

##### **1.1 SUMMARY**

- A. Section Includes: Surface preparation and application of coating system on steel surfaces.

##### **1.2 REFERENCES**

- A. Reference Standards: Latest edition as of Specification date.
  - 1. ASTM International:
    - a. D3359: Standard Test Methods for Measuring Adhesion by Tape Test.
    - b. D4541: Standard Test Method for Pull-off Strength of Coatings Using Portable Adhesion Testers.
  - 2. SSPC: The Society for Protective Coatings:
    - a. SSPC-SP 3: Power Tool Cleaning.

##### **1.3 ADMINISTRATIVE REQUIREMENTS**

- A. Coordinate Work to ensure that adjacent areas are not adversely affected.
- B. Review repair and surface treatment materials and primers specified in other sections to ensure compatibility with steel coating to be used. Notify Architect/Engineer in writing of concerns with materials or primers installed by others and recommended remedies.
- C. Sequence surface preparation and coating application Work so that dust and other contaminants from surface preparation Work will not adversely affect wet, newly coated surfaces.

##### **1.4 SUBMITTALS**

- A. Product Data: Coating manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; mixing and application instructions; safety precautions for handling, storing, applying, and disposing of materials; and instructions for protecting surrounding areas from overspray. Include:
  - 1. Surfaces to which materials will be applied.
  - 2. VOC content of components.
  - 3. Decoding information to verify shelf life of materials.
  - 4. Include Safety Data Sheets (SDS) for information only; safety restrictions are sole responsibility of Contractor.

##### **1.5 QUALITY ASSURANCE**

- A. Applicator Qualifications: Experienced firm that has successfully completed coating work similar in material, design, and extent to that indicated for Project; and that is approved by coating manufacturer to apply coating. Must have successful applications of specified materials in local area in use for minimum of five years.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle materials according to manufacturer's recommendations and in such a manner as to prevent damage to materials or structure.
- B. Deliver materials to Site in original containers and packaging with seals unbroken, labeled with:
  - 1. Manufacturer's name.
  - 2. Product brand name, type, and color.
  - 3. VOC content.
  - 4. Color name and number.
  - 5. Date of manufacture and batch number.
  - 6. Directions for storing, handling, mixing with other components, and application, including precautions.
  - 7. Thinning instructions if applicable.
- C. Store materials in original, undamaged containers and, if permitted, partially-used materials in tightly-covered containers in clean, dry, well-ventilated, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Protect stored materials from direct sunlight, heat, sparks, and flames.
- D. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.
- E. Conspicuously mark damaged or opened containers or containers with contaminated materials, and remove from Site as soon as possible.
- F. Remove and replace materials that cannot be applied within stated shelf life.

## 1.7 PROJECT CONDITIONS

- A. Verify existing dimensions and details prior to start of coating Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor and Applicator of changes.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Environmental Limitations: Apply coating when existing and forecast weather conditions permit coating to be applied according to coating manufacturer's written instructions.
  - 1. Do not apply when substrate and ambient temperatures are less than 50 degrees F or more than 95 degrees F, or outside of range recommended by coating manufacturer. Maintain minimum substrate and ambient temperatures for at least 24 hours before and after coating application.
  - 2. Do not apply to damp or wet substrates; in snow, rain, fog, or mist; when relative humidity exceeds 80 percent or maximum value recommended by coating manufacturer; or when substrate temperature is less than 5 degrees F above dew point.
- D. Handle and install materials in strict accordance with safety requirements required by coating manufacturer; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.
- E. Maintain adequate ventilation during preparation and application of coating materials.

## 1.8 CHANGES IN WORK

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.
  - 1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work prior to proceeding with the Work.

## 1.9 WARRANTY

- A. Contractor Warranty:
  - 1. Written warranty, signed by Contractor, including:
    - a. Repair or remove and replace coating that does not comply with requirements; that fails in adhesion, cohesion, or general durability; that cracks, checks, fades, or chalks; where visible rust occurs; or that deteriorates in a manner not clearly specified by submitted coating manufacturer's data as an inherent quality of the material for the application indicated.
  - 2. New coating shall closely match color of existing coating. Extend new coating to reveals, surface edges, or other natural termination points to minimize differences in appearance between new and existing coating.
  - 3. Warranty includes:
    - a. Adhesive or cohesive failure of existing coating that remains in place.
    - b. Providing access to warranty Work.
    - c. Necessary surface preparation work.
  - 4. Warranty Period: Two years after Substantial Completion date.

## PART 2 PRODUCTS

### 2.1 STEEL COATING MATERIALS

- A. Source Limitations: Obtain materials through one source from single coating manufacturer, or from sources approved by coating manufacturer.
- B. Material Compatibility: Provide primers, intermediate coats, finish coats, and related materials that are compatible with one another and substrates indicated under conditions of application and service, as demonstrated by manufacturer based on testing and field experience.
- C. Material Quality: Provide manufacturer's best-quality coating materials that are factory formulated and are recommended by manufacturer for application indicated. Material containers not displaying manufacturer's product identification are not acceptable.
- D. Use one of the following systems or approved equal:
  - 1. Carboline Company:
    - a. Primer: Carbocrylic 3358.
    - b. Finish Coat: Carbocrylic 3359.
  - 2. Pittsburgh Paints, PPG Architectural Finishes, Inc.:
    - a. Primer: Speedhide 6-212.
    - b. Finish Coat: Pitt-Tech 90-374.
  - 3. Rust-Oleum Corporation:
    - a. Primer: Heavy-Duty Rust-Inhibitive Primer, gray 1060402.

- b. Finish Coat: 7400 System DTM 340 or 450 VOC Alkyd Enamel, semi-gloss.
4. Sherwin Williams:
  - a. Primer: Kem Bond HS Universal Metal Primer.
  - b. Finish Coat: Sher-Cryl HPA High Performance Acrylic, semi-gloss.
5. Tnemec Co., Inc.:
  - a. Primer: Chembuild Series 135.
  - b. Finish Coat: Endura-Shield Series 73.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates and conditions with Applicator and coating manufacturer's representative for compliance with requirements and other conditions affecting application or performance of coating.
  1. Ensure that work done by other trades is complete and ready for coating Work.
  2. Verify that areas and conditions under which coating Work is to be performed permit proper and timely completion of Work.
  3. Verify compatibility with and suitability of substrates, including existing coatings.
  4. Verify adhesion of existing coatings.
  5. Notify Architect/Engineer in writing of conditions which may adversely affect application or performance of coating and recommend corrections.
  6. Do not proceed with coating Work until adverse conditions have been corrected and reviewed by Architect/Engineer.
  7. Commencing coating Work constitutes acceptance of Work surfaces and conditions.

### **3.2 PROTECTION**

- A. Take precautions to ensure safety of people, including building users, passers-by, and workmen, and animals, and protection of property, including adjacent building elements, landscaping, and motor vehicles.
- B. Prevent construction debris, coatings, and other materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
- C. Protect paving and sidewalks, and adjacent building areas from mechanical damage due to scaffolding and other equipment.
- D. Limit access to Work areas. Provide "Wet Paint" signs to protect newly coated surfaces.
- E. Erect temporary protective canopies, as necessary, over walkways and at points of pedestrian and vehicular access that must remain in service during Work.
- F. Take precautions to protect against air-borne materials and runoff.
- G. Masking and Preparation:
  1. Comply with coating manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products.
  2. Cover adjacent surfaces with materials that are proven to resist coating system.

3. Mask off or protect from spatter, overspray, or other damage surfaces not scheduled to receive coating.
  4. Remove masking and other protective measures at completion of coating Work.
- H. Assume responsibility for injury to persons or damage to property due to Work, and remedy at no cost to Owner.

### **3.3 SURFACE PREPARATION**

- A. Substrate: Clean and prepare substrate according to coating manufacturer's written instructions. Provide clean, dust-free, dry, and sound substrate for coating application.
1. Remove loose rust, loose or deteriorated paint, and other loose foreign matter in accordance with SSPC-SP 2 or SSPC-SP 3.
  2. Lightly sand existing coating to remove sheen and slightly roughen.
  3. Feather edges of existing coating by sanding, grinding, or as recommended by coating manufacturer.
  4. Remove grease, oil, dirt, and other contaminants that might impair bond of coating. Use cleaner/degreaser or chemical removal as necessary; rinse thoroughly with copious amounts of clean water.
- B. Applicator and coating manufacturer's representative shall examine substrate to ensure that it is properly prepared and ready to receive coating.
1. Coating manufacturer's representative shall report in writing to Applicator and Architect/Engineer conditions which may adversely affect coating system application or performance and recommend corrections.
  2. Do not proceed with coating application until unsatisfactory conditions have been corrected and reviewed by Architect/Engineer.
  3. Commencing coating application constitutes acceptance of Work surfaces and conditions.

### **3.4 APPLICATION**

- A. General: Prepare and apply materials according to coating manufacturer's written instructions, at recommended rates and coverages.
- B. Test prepared surfaces for moisture and other conditions as recommended by coating manufacturer. Verify that ambient air and substrate surface temperatures, relative humidity, and dew point are within ranges recommended by coating manufacturer and are forecast to remain within these ranges during coating curing period.
- C. Mix materials thoroughly to uniform, smooth consistency. Do not thin or dilute unless permitted by coating manufacturer; use recommended thinners within recommended limits.
1. Stir as required during application.
  2. If surface film forms, do not stir film into material. Remove film and strain coating material before using.
  3. Maintain containers used for mixing and applying coating in clean condition, free of foreign materials and residue.
- D. Apply coating by roller, spray, or brush. Use applicator and technique best suited for substrate and type of material being applied.
1. Apply materials as soon as practicable after completion of surface preparation or full curing of previous material application.

2. Do not coat over conditions detrimental to formation of durable coating film, such as dirt, rust, scale, grease, or moist or scuffed surfaces.
3. Spot prime exposed steel surfaces to provide thickness of 2 to 3 dry mils or as recommended by coating manufacturer, whichever is greater.
4. Apply finish coat in one or two coats to provide thickness of 2 to 3 dry mils or as recommended by coating manufacturer, whichever is greater, and to provide total thickness including primer of 4 to 6 dry mils or as recommended by coating manufacturer, whichever is greater. Do not apply second coat until first coat has fully cured. Select application method to avoid excessive coating thickness.
  - a. If undercoats or other conditions show through final coat, apply additional coats until coating film is of uniform finish, color, and appearance, if approved by Architect/Engineer.
  - b. Ensure that edges, corners, and crevices receive minimum dry film thickness.
  - c. Brush Application: Work material into surface in even film. Eliminate cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Neatly draw lines at edges and color breaks.
  - d. Roller Application: Keep cover wet; do not dry roll. Apply material in sections. Lay on required amount of material, working material into grooves and rough areas. Then level material, working it into surface.
  - e. Spray Application: Use spray application only when permitted by manufacturer's written instructions and authorities having jurisdiction. Apply material to provide equivalent hiding of brush-applied coat. Do not double back, building up film thickness of two coats in one application.
5. Do not coat over UL, FMG, or other labels.

### **3.5 FIELD QUALITY CONTROL**

- A. Material Coverage Rates.
  1. At beginning of application, calibrate material coverage rate with wet-mil thickness equivalent to minimum specified dry-mil thickness. Measure wet-mil thickness with thickness gauge.
  2. Measure wet-mil thickness at least once for every 10 square feet of surface coated. Adjust coverage rate to maintain minimum thickness.
- B. Owner may, at its expense, perform the following tests. Contractor shall provide access to test locations determined by Architect/Engineer.
  1. Measure dry-film thickness of coating. Coating thickness is acceptable if within specified range.
  2. Perform adhesion tests per ASTM C3359, Test Method A, after coating has cured. Coating adhesion is acceptable if no peeling or coating removal occurs (Rating 5A).
  3. Perform pull-off tests per ASTM D4541, after coating has cured. Coating application is acceptable if test results are at least 100 pounds per square inch.
  4. If coating application is acceptable, Owner will pay Contractor to repair substrate and coating as necessary at test locations.
  5. If coating application is unacceptable, Architect/Engineer will determine remedy. Contractor shall remove and replace unacceptable coating or perform other remedial actions at no cost to Owner. Contractor shall also repair substrate and coating at test locations with unacceptable results at no cost to Owner. Contractor may, at own expense, perform additional measurements and testing to determine limits of areas with unacceptable coating.

- C. Completed Work shall match approved mockup for color, texture, and coverage, in opinion of Architect/Engineer, and shall be free from flow-lines, streaks, blisters, and other surface imperfections. Remove, refinish, or recoat Work not complying with specified requirements.

### **3.6 CLEANING**

- A. At the end of each workday, clean Site and Work areas and place rubbish, empty cans, rags, and other discarded materials in appropriate containers.
- B. After completing coating Work:
  - 1. Clean spillage, overspray, and spatter from adjacent surfaces using cleaning agents and procedures recommended by manufacturer of affected surface. Exercise care to avoid scratching or damage to surfaces.
  - 2. Repair surfaces stained, marred, or otherwise damaged during coating Work.
  - 3. Clean up debris and surplus materials and remove from Site.
- C. Waste Management:
  - 1. Collect surplus coating materials that cannot be reused and deliver to recycling or disposal facility.
  - 2. Treat materials that cannot be reused as hazardous waste and dispose of in an appropriate manner.

**END OF SECTION**



## SECTION 09 97 24

### ARCHITECTURAL COATING (NON-ELASTOMERIC)

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes: Surface preparation and application of non-elastomeric, architectural coating on concrete or concrete masonry surfaces.
- B. Related Sections:
  - 1. Section 03 01 34 - Concrete Replacements: Concrete replacement in removal areas.
  - 2. Section 04 05 01 – Masonry Mortar and Concrete Masonry

##### 1.2 REFERENCES

- A. Reference Standards: Latest edition as of Specification date.
  - 1. ASTM International.
    - a. D3359: Standard Test Methods for Measuring Adhesion by Tape Test.
    - b. D4541: Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.

##### 1.3 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate Work to ensure that adjacent areas are not adversely affected. Coordinate:
  - 1. With Owner's Representative.
  - 2. With other trades:
    - a. To ensure that work done by other trades is complete and ready for coating Work.
    - b. To avoid or minimize work on, or in immediate vicinity of, coating Work in progress.
    - c. To ensure that subsequent work will not adversely affect completed coating.
- B. Review repair and surface treatment materials and primers specified in other sections to ensure compatibility with architectural coating to be used. Notify Architect/Engineer in writing of concerns with materials or primers installed by others and recommended remedies.
- C. Schedule surface preparation and coating application Work so that dust and other contaminants from surface preparation Work will not adversely affect wet, newly-coated surfaces.

##### 1.4 SUBMITTALS

- A. Product Data: Coating manufacturer's literature including written instructions for evaluating, preparing, and treating substrate; technical data including tested physical and performance properties; mixing and application instructions; safety precautions for handling, storing, applying, and disposing of materials; and instructions for protecting surrounding areas from overspray. Include:
  - 1. Surfaces to which materials will be applied.
  - 2. Crack fillers, block fillers, and primers.
  - 3. VOC content of components.
  - 4. Include material Safety Data Sheets for information only.

## **1.5 QUALITY ASSURANCE**

- A. Applicator Qualifications: Experienced firm that has successfully completed coating work with similar materials, design, and extent to that indicated for Project.

## **1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store, and handle materials according to manufacturer's recommendations and in such a manner as to prevent damage to materials or structure.
- B. Deliver materials to Site in original containers and packaging with seals unbroken, labeled with:
  - 1. Manufacturer's name.
  - 2. Product brand name and type.
  - 3. VOC content.
  - 4. Color name and number.
  - 5. Date of manufacture and batch number.
  - 6. Directions for storing, handling, mixing with other components, and application, including precautions.
  - 7. Thinning instructions (if permitted).
- C. Store materials in original, undamaged containers and, if permitted, partially-used materials in tightly-covered containers in clean, dry, well-ventilated, protected location on raised platforms with weather-protective coverings, within temperature range required by manufacturer. Protect stored materials from direct sunlight, heat, sparks, and flames.
- D. Limit stored materials on structures to safe loading capacity of structure at time materials are stored, and to avoid permanent deck deflection.
- E. Conspicuously mark damaged or opened containers or containers with contaminated materials and remove from Site as soon as possible.
- F. Remove and replace materials that cannot be applied within stated shelf life.

## **1.7 PROJECT CONDITIONS**

- A. Verify existing dimensions and details prior to start of coating Work. Notify Architect/Engineer of conditions found to be different than those indicated in the Contract Documents. Architect/Engineer will review situation and inform Contractor and Applicator of changes.
- B. Comply with Owner's limitations and restrictions for Site use and accessibility.
- C. Environmental Limitations: Apply coating when existing and forecast weather conditions permit coating to be installed according to coating manufacturer's written instructions.
  - 1. Apply only when substrate and ambient temperatures are between 50 and 90 degrees F, or within range recommended by coating manufacturer.
  - 2. Do not apply in snow, rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 degrees F above dew point; or when such conditions are imminent during the drying period.
  - 3. Do not apply to damp or wet substrate.
  - 4. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before starting or continuing coating operation.

- D. Handle and install materials in strict accordance with safety requirements required by coating manufacturer; Safety Data Sheets (SDS); and local, state, and federal rules and regulations. Maintain Safety Data Sheets (SDS) with materials in storage area and available for ready reference on Site.
- E. Maintain adequate ventilation during preparation and application of coating materials.

## 1.8 CHANGES IN WORK

- A. During rehabilitation work, existing conditions may be encountered which are not known or are at variance with the Contract Documents. Such conditions may interfere with the Work and may consist of damage or deterioration of the substrate or surrounding materials that could jeopardize the integrity or performance of the Work.
  - 1. Notify Architect/Engineer of conditions that may interfere with the proper execution of the Work or jeopardize the performance of the Work prior to proceeding with the Work.

## 1.9 WARRANTY

- A. Manufacturer's Warranty:
  - 1. Written warranty, signed by coating manufacturer, including:
    - a. Materials to replace coating that does not comply with requirements; that fails in adhesion, cohesion, or general durability; that cracks, checks, fades, or chalks; or that deteriorates in a manner not clearly specified by submitted coating manufacturer's data as an inherent quality of the material for the application indicated.
    - b. New coating shall closely match color of existing coating. Extend new coating to reveals, surface edges, or other natural termination points to minimize differences in appearance between new and existing coating.
  - 2. Warranty Period: Five years after Substantial Completion date.
- B. Contractor's Warranty:
  - 1. Written warranty, signed by Contractor, including:
    - a. Repair or remove and replace coating that does not comply with requirements; that fails in adhesion, cohesion, or general durability; that does cracks, checks, fades, or chalks; or that deteriorates in a manner not clearly specified by submitted coating manufacturer's data as an inherent quality of the material for the application indicated.
  - 2. New coating shall closely match color of existing coating. Extend new coating to reveals, surface edges, or other natural termination points to minimize differences in appearance between new and existing coating.
  - 3. Warranty includes:
    - a. Providing access to Work area.
    - b. Necessary surface preparation work.
  - 4. Warranty Period: Five years after Substantial Completion date.

## PART 2 PRODUCTS

### 2.1 ARCHITECTURAL COATING

- A. Source Limitations: Obtain materials through one source from single coating manufacturer, or from sources approved by coating manufacturer.
- B. Use one of the following or approved equal.

1. Tammscoat, manufactured by Euclid Chemical Company.
2. Modac F, manufactured by The Sherwin Williams Company.

## **2.2 AUXILIARY MATERIALS**

- A. Use block fillers, crack fillers and sealants, detail materials, and primers recommended by architectural coating manufacturer.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates and conditions with Applicator and coating manufacturer's representative for compliance with requirements and other conditions affecting application or performance of coating.
  1. Ensure that work done by other trades is complete and ready for coating Work.
  2. Verify that areas and conditions under which coating Work is to be performed permit proper and timely completion of Work.
  3. Verify compatibility with and suitability of substrates, including existing coatings.
  4. Verify adhesion of existing coatings.
  5. Notify Architect/Engineer in writing of conditions which may adversely affect application or performance of coating and recommend corrections.
  6. Do not proceed with coating Work until adverse conditions have been corrected and reviewed by Architect/Engineer.
  7. Commencing coating Work constitutes acceptance of Work surfaces and conditions.

### **3.2 PROTECTION**

- A. Take precautions to ensure safety of people, including building users, passers-by, and workmen, and animals, and protection of property, including adjacent building elements, landscaping, and motor vehicles.
- B. Prevent construction debris, coatings, and other materials from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
- C. Protect paving and sidewalks, and adjacent building areas from mechanical damage due to scaffolding and other equipment.
- D. Limit access to Work areas. Provide "Wet Paint" signs to protect newly coated surfaces.
- E. Erect temporary protective canopies, as necessary, over walkways and at points of pedestrian and vehicular access that must remain in service during Work.
- F. Take precautions to protect against air-borne materials and runoff.
- G. Masking and Preparation:
  1. Comply with coating manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products.
  2. Cover adjacent surfaces with materials that are proven to resist coating system.
  3. Mask off or protect from spillage and overspray surfaces not scheduled to receive coating.
  4. Remove masking and other protective measures at completion coating Work.

- H. Assume responsibility for injury to persons or damage to property due to Work, and remedy at no cost to Owner.

### **3.3 SURFACE PREPARATION**

- A. Existing Coating:
  - 1. Remove unbonded or deteriorated coating.
  - 2. Feather edges by sanding, grinding, or as recommended by coating manufacturer.
  - 3. At concrete repair areas, lap new coating onto adjacent coating a minimum of 1 inch and provide sharp edges for the new coating. The coating on new CMU and mortar may be limited to the newly installed materials.
- B. Substrate: Clean and prepare substrate according to coating manufacturer's written instructions. Provide clean, dust-free, dry, and sound substrate for coating application.
  - 1. Verify that substrate has cured and aged for minimum time period recommended by coating manufacturer.
  - 2. Remove fins and projections, splatter, and other irregularities which would prevent monolithic, continuous application of coating.
  - 3. Properly patch substrate defects (such as voids, form tie holes, honeycombing, and cracks) with latex-modified concrete or another material acceptable to coating manufacturer and Architect/Engineer.
  - 4. Remove grease, oil, asphalt solids, form-release agents, curing compounds, and other contaminants or film-forming coatings that might impair bond of architectural coating. If chemical removal is necessary, rinse with clean water.
  - 5. Pressure wash concrete or masonry to provide clean surface, free of laitance, dirt, and other loose or foreign material, and to slightly roughen surface.
  - 6. Treat cracks, joints, changes in surface direction, and through-member penetrations with patching compound or sealant as recommended by coating manufacturer. Remove deteriorated existing sealant and other materials and replace with materials recommended by coating manufacturer.
  - 7. Fill pores, crevices, and voids in concrete masonry with block filler and allow filler to dry.
- C. Applicator and coating manufacturer's representative shall examine substrate to ensure that it is properly prepared and ready to receive coating.
  - 1. Coating manufacturer's representative shall report in writing to Applicator and Architect/Engineer conditions which will adversely affect coating system installation or performance.
  - 2. Do not proceed with coating application until these conditions have been corrected and reviewed by Architect/Engineer.
- D. Commencing application constitutes acceptance of Work surfaces and conditions.

### **3.4 APPLICATION**

- A. General: Prepare and apply materials according to coating manufacturer's written instructions, at recommended rates and coverages.
  - 1. Test prepared surfaces for alkalinity, moisture, and other conditions as recommended by coating manufacturer.
- B. Mix materials thoroughly to uniform, smooth consistency. Do not thin or dilute unless permitted by coating manufacturer; use recommended thinners within recommended limits.
  - 1. Stir as required during application.

2. If surface film forms, do not stir film into material. Remove film and strain coating material before using.
  3. Maintain containers used for mixing and applying coating in clean condition, free of foreign materials and residue.
- C. Apply coating by roller, spray, or brush. Use applicator and technique best suited for substrate and type of material being applied.
1. Apply materials as soon as practicable after completion of surface preparation or full curing of previous material application.
  2. Do not coat over conditions detrimental to formation of durable coating film, such as dirt, rust, scale, grease, or moist or scuffed surfaces.
  3. Apply barrier coat over incompatible primers or remove and reprime.
  4. Prime surfaces as necessary.
  5. Apply architectural coating in one or two coats to minimum thickness of 8 mils dry-film-thickness or as recommended by coating manufacturer, whichever is greater. Do not apply second coat until first coat has fully cured.
    - a. If undercoats or other conditions show through final coat, apply additional coats until coating film is of uniform finish, color, and appearance.
    - b. Ensure that edges, corners, and crevices receive minimum dry film thickness.
    - c. Brush Application: Work material into surface in even film. Eliminate cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Neatly draw lines at edges and color breaks.
    - d. Roller Application: Keep cover wet; do not dry roll. Apply material in sections. Lay on required amount of material, working material into grooves and rough areas. Then level material, working it into surface.
    - e. Spray Application: Use spray application only when permitted by manufacturer's written instructions and authorities having jurisdiction. Apply material to provide equivalent hiding of brush-applied coat. Do not double back, building up film thickness of two coats in one application.
  6. Do not coat over UL, FMG, or other labels.

### 3.5 FIELD QUALITY CONTROL

- A. Material Coverage Rates.
1. At beginning of application, calibrate material coverage rate with wet-mil thickness equivalent to minimum specified dry-mil thickness. Measure wet-mil thickness with thickness gauge.
  2. Measure wet-mil thickness at least once for every 200 square feet of surface coated. Adjust coverage rate to maintain minimum thickness.
- B. Owner may, at its expense, perform the following tests. Contractor shall provide access to test locations determined by Architect/Engineer.
1. Measure dry-film thickness of coating. Coating thickness is acceptable if within specified range.
  2. Perform adhesion tests per ASTM D3359, Test Method A, after coating has cured. Coating adhesion is acceptable if no peeling or coating removal occurs (Rating 5A).
  3. Perform pull-off tests per ASTM D4541, after coating has cured. Coating application is acceptable if test results are at least 100 pounds per square inch.
  4. If coating application is acceptable, Owner will pay Contractor to repair substrate and coating as necessary at test locations.

5. If coating application is unacceptable, Architect/Engineer will determine remedy. Contractor shall remove and replace unacceptable coating or perform other remedial actions at no cost to Owner. Contractor shall also repair substrate and coating at test locations with unacceptable results at no cost to Owner. Contractor may, at own expense, perform additional measurements and testing to determine limits of areas with unacceptable coating.
- C. Completed Work shall match approved mockup for color, texture, and coverage, in opinion of Architect/Engineer, and shall be free from flow-lines, streaks, blisters, and other surface imperfections. Remove, refinish, or recoat Work not complying with specified requirements.

### **3.6 CLEANING**

- A. At the end of each workday, clean Site and Work areas and place rubbish, empty cans, rags, and other discarded materials in appropriate containers.
- B. After completing coating Work:
1. Clean spillage, overspray, and spatter from surfaces. Exercise care to avoid scratching or damage to surfaces.
  2. Repair surfaces stained, marred, or otherwise damaged during coating Work.
  3. Clean up debris and surplus materials and remove from Site.
- C. Waste Management:
1. Collect surplus coating materials that cannot be reused and deliver to recycling or disposal facility.
  2. Treat materials that cannot be reused as hazardous waste and dispose of in an appropriate manner.

**END OF SECTION**



# CITY OF EVANSTON BID 22-14 PARKING GARAGE STRUCTURAL REPAIRS

**WJE** ENGINEERS  
ARCHITECTS  
MATERIALS SCIENTISTS

**Wiss, Janney, Elstner Associates, Inc.**  
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Northbrook, Illinois 60062  
847.272.7400 tel | 847.291.9599 fax  
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San Diego | San Francisco | Seattle | South Florida | Washington, DC

PROJECT: **CITY OF EVANSTON BID 22-14 PARKING GARAGE STRUCTURAL REPAIRS**  
EVANSTON, ILLINOIS

CLIENT: **CITY OF EVANSTON PUBLIC WORKS AGENCY**  
2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201

ENGINEER: **WISS, JANNEY, ELSTNER ASSOCIATES, INC.**  
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NORTHBROOK, ILLINOIS 60062  
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**FOR BID**

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- CHI-S-002 GENERAL NOTES
- CHI-S-101 GROUND FLOOR PLAN
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THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE SPECIFICATIONS FOR THIS PROJECT, TITLED: "PROJECT MANUAL FOR CITY OF EVANSTON BID 22-14 PARKING GARAGE STRUCTURAL REPAIRS", DATED JANUARY 26, 2022.

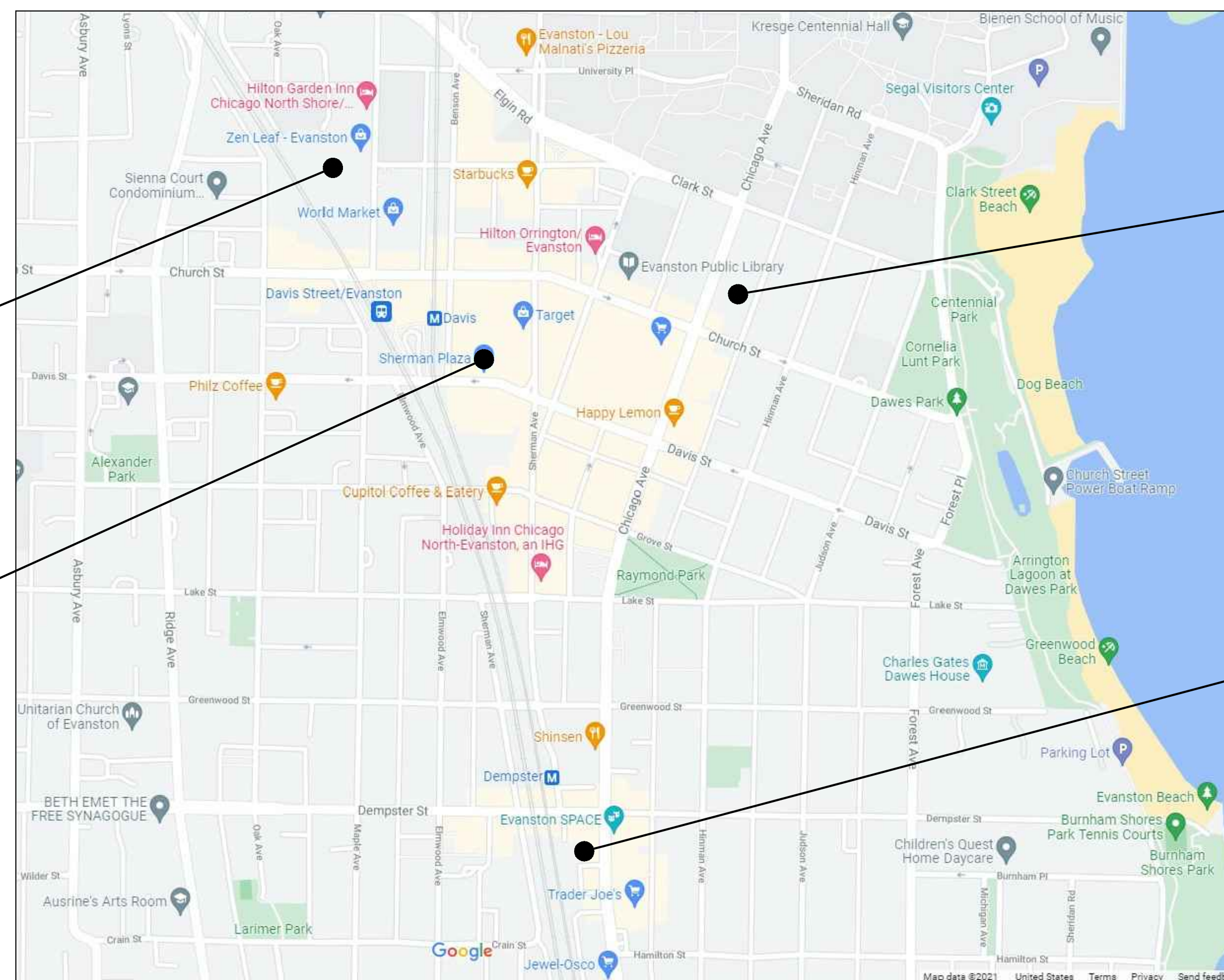
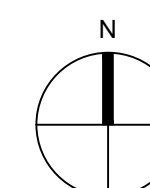


IMAGE ACCESSED FROM GOOGLE 11/17/2021. ANNOTATIONS BY WJE.

**LOCATION MAP**  
NOT TO SCALE



Project  
**CITY OF EVANSTON  
BID 22-14 PARKING GARAGE  
STRUCTURAL REPAIRS**  
EVANSTON, ILLINOIS

Client  
**CITY OF EVANSTON PUBLIC  
WORKS AGENCY**  
2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201

Mark	Date	Description
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Project No.	2020.1793.1
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Scale	AS NOTED

**COVER SHEET**

Sheet Title  
**S-001**  
Sheet No.



# CHICAGO AVENUE PARKING GARAGE REPAIRS

**WJE** ENGINEERS  
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MATERIALS SCIENTISTS

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Philadelphia | Pittsburgh | Portland | Princeton | Raleigh | San Antonio  
San Diego | San Francisco | Seattle | South Florida | Washington, DC

PROJECT: **CHICAGO AVENUE PARKING GARAGE REPAIRS**  
1236 CHICAGO AVENUE  
EVANSTON, ILLINOIS

CLIENT: **CITY OF EVANSTON PUBLIC WORKS AGENCY**  
2100 RIDGE AVENUE  
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## INDEX OF DRAWINGS

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CHI-S-002	GENERAL NOTES
CHI-S-101	GROUND FLOOR PLAN
CHI-S-501	REPAIR DETAILS
CHI-S-502	REPAIR DETAILS

## SCOPE OF WORK

1. CONCRETE REPAIRS INCLUDING BONDED CONCRETE TOPPING REPAIR AND ROUTING AND SEALING OF CONCRETE CRACKS.
2. CONCRETE ENCASEMENT REPAIRS AT COLUMN BASES.
3. CLEANING AND COATING OF EXISTING STEEL FRAMING AND INSTALLATION OF NEW FIREPROOFING AT SELECT LOCATIONS UNDER GROUND LEVEL SLAB.
4. APPLICATION OF TRAFFIC-BEARING MEMBRANE OVER STEEL BEAM LINES AND NEW WEAR COURSE TO ENTIRE GROUND LEVEL PLAN AREA.
5. INSTALLATION OF WATERPROOFING AT EAST VEHICULAR ENTRANCE.
6. MISCELLANEOUS MASONRY WORK INCLUDING JOINT REPOINTING AND REPAIR OF CMU FACE SHELLS.
7. REMOVE AND REPLACE TWO DOORS AND FRAMES ON NORTH ELEVATION.
8. PAINTING AND SEALANT INSTALLATION AT SILLS OF EXTERIOR WALL OPENINGS.
9. INSTALLATION OF NEW ANCHORS AT FRONT ENTRANCE SIGN.
10. CLEAN AND PAINT STEEL BUMPERS AT PIPE LOCATIONS.
11. ALTERNATE: CLEANING AND COATING OF EXISTING STEEL FRAMING AND INSTALLATION OF NEW FIREPROOFING AT SELECT LOCATIONS UNDER SECOND LEVEL SLAB.

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE SPECIFICATIONS FOR THIS PROJECT, TITLED: "PROJECT MANUAL FOR CITY OF EVANSTON BID 22-14 PARKING GARAGE STRUCTURAL REPAIRS", DATED JANUARY 26, 2022.

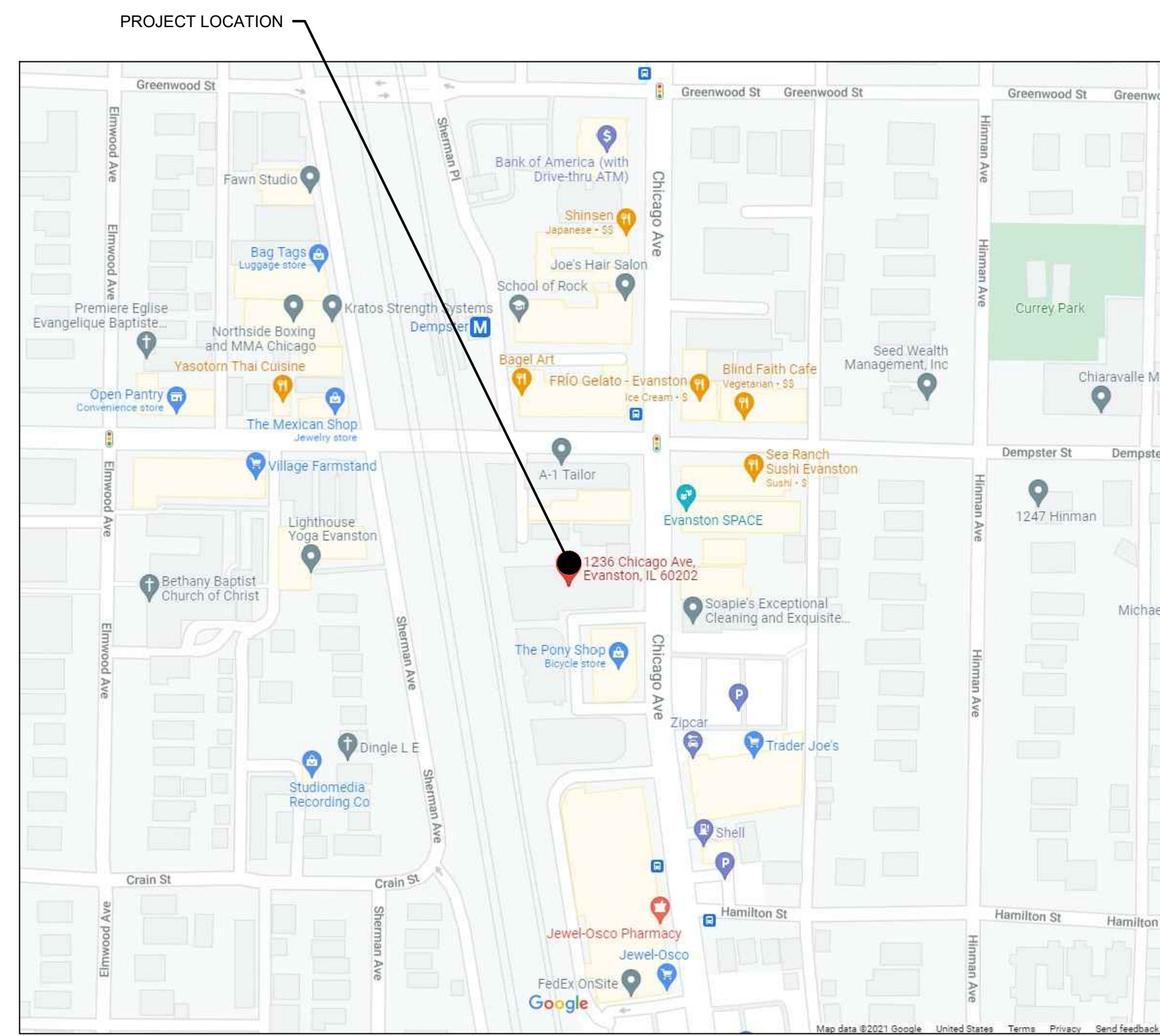


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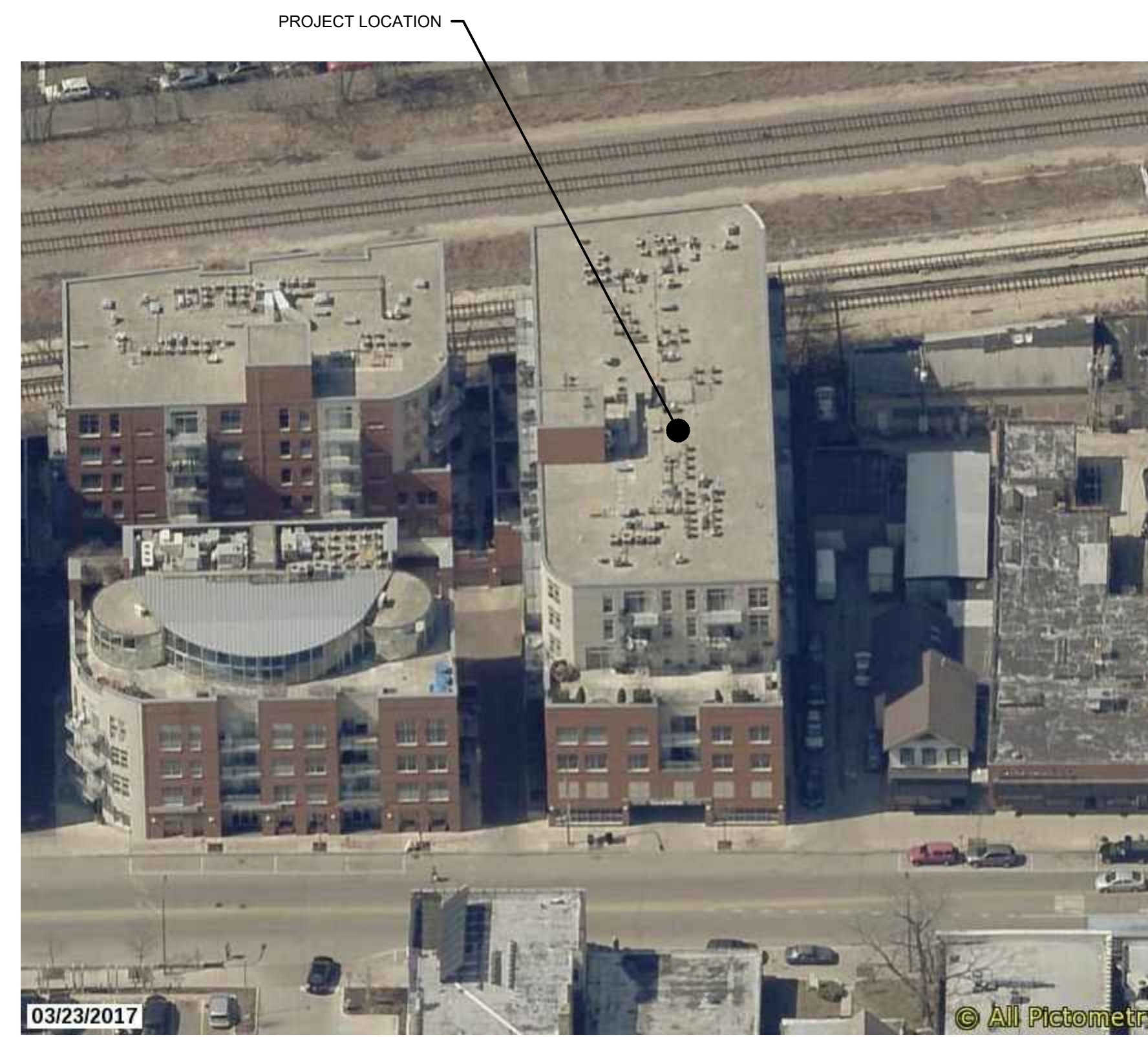
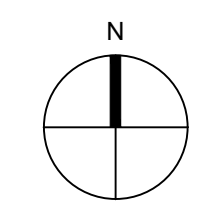
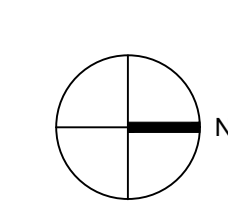


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**CHICAGO AVENUE  
PARKING GARAGE REPAIRS**  
  
1236 CHICAGO AVENUE  
EVANSTON, ILLINOIS

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EVANSTON, ILLINOIS 60201

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Scale	AS NOTED

**TITLE SHEET**

Sheet Title  
**CHI-S-001**

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## GENERAL NOTES

### DRAWINGS AND EXISTING CONDITIONS

- THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED FOR THE REPAIR OF THE CITY OF EVANSTON'S CHICAGO AVENUE PARKING GARAGE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF ARCHITECT/ENGINEER.
- THE STANDARD SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO STARTING THE WORK, AND SHALL IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES, OMISSIONS, OR OTHER CONDITIONS THAT MAY AFFECT THE SCOPE OF WORK PRIOR TO BEGINNING REPAIRS IMPACTED BY THE NOTED CONDITIONS.

### CODES, PERMITS, AND INSURANCE

- ALL CONSTRUCTION, DEMOLITION AND REMOVAL OF MATERIALS SHALL BE IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES, ORDINANCES AND WORK RULES. REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS AND DEBRIS SHALL BE PERFORMED IN ACCORDANCE WITH EPA REQUIREMENTS AND APPLICABLE STATE REGULATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND ASSOCIATED FEES FOR WORK DESCRIBED WITHIN THESE DOCUMENTS.
- CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE INSURED (INCLUDING WORKERS COMP, LIABILITY, AND AUTO INSURANCE COVERAGE ACCEPTABLE TO THE OWNER) AND LICENSED AS REQUIRED BY THE LOCAL BUILDING AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND PROVIDE ALL MATERIALS, LABOR, SCAFFOLD, EQUIPMENT, AND DISPOSAL REQUIRED TO PERFORM THE WORK DESCRIBED HEREIN.

### USE OF SITE, SAFETY AND PROTECTION

- WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND SAFETY PROGRAMS IN CONNECTION WITH THE PROJECT, SINCE THESE ARE THE RESPONSIBILITY OF OTHERS. WJE SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE PROJECT IN ACCORDANCE WITH CONTRACT DOCUMENTS. WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER NON-WJE PERSONS PERFORMING PORTIONS OF THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF CONSTRUCTION ACTIVITIES TO THE OWNER AND ARCHITECT/ENGINEER.

- THE GROUND LEVEL OF THE GARAGE WILL BE CLOSED FOR THE DURATION OF THE REPAIR WORK (ONE MONTH). OTHER AREAS OF THE GARAGE WILL REMAIN OPEN DURING THE REPAIR PROJECT. CONSTRUCTION-RELATED ACTIVITIES SHALL NOT BLOCK EXISTING MEANS OF EGRESS TO OTHER LEVELS. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ANY REPAIRS AT THE LOWER LEVEL OF THE GARAGE.
- ACCESS TO THE SITE AND CONSTRUCTION TRAFFIC SHALL BE IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS.
- ANY REQUIRED STORAGE AREAS WITHIN THE PROPERTY MUST BE COORDINATED WITH THE OWNER. ALL NEW CONSTRUCTION MATERIALS SHALL BE CAREFULLY DELIVERED TO SITE. ANY DAMAGED ITEMS DELIVERED TO SITE SHALL BE REJECTED AND REPLACED AT CONTRACTOR'S EXPENSE. ALL STORED MATERIALS ON SITE SHALL BE PROTECTED AND STORED ABOVE GROUND IN A CLEAN AND DRY ENVIRONMENT AND IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- THE CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER SITE WITH MATERIALS OR EQUIPMENT. THE MATERIALS AND EQUIPMENT SHALL BE CONFINED TO THE AREAS INDICATED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE OWNER. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND SAFEKEEPING OF PRODUCTS STORED ON PREMISES. MOVE ANY STORED MATERIAL OR PRODUCTS THAT INTERFERE WITH OPERATIONS OF THE OWNER. STORE MATERIAL ONLY IN AREAS PROVIDED BY THE OWNER.
- CONTRACTOR SHALL PROVIDE PROTECTIVE BARRIERS, FENCES, SIDEWALK BRIDGING, ETC. TO ENSURE THE SAFETY OF PEDESTRIANS, BUILDING OCCUPANTS, VEHICULAR TRAFFIC, SITE FEATURES, ETC. AS APPROVED BY THE OWNER AND ARCHITECT/ENGINEER AND IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AND FEDERAL AUTHORITIES, INCLUDING OSHA.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL JOB SAFETY DURING THE REPAIR WORK.
- CONTRACTOR SHALL KNOW AND FOLLOW ALL PRECAUTIONS AND SAFETY PROCEDURES AS NORMALLY USED IN THE INDUSTRY, AND THOSE PROCEDURES AS INSTRUCTED BY THE MATERIAL MANUFACTURER, AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS, SAFETY STANDARDS AND CODES. WHEN A CONFLICT EXISTS, COMPLY WITH THE STRICTER REQUIREMENT. THE APPLICATION REQUIREMENTS OF THE U.S. DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), CONSTRUCTION INDUSTRY STANDARDS (29 CFR 1926/1910, CURRENT EDITION), WASHINGTON, D.C. SHALL BE USED AS A STANDARD GUIDELINE.
- CONTRACTOR SHALL PROVIDE A CERTIFICATE OF INSURANCE AND REQUIRED PRODUCT SUBMITTALS PRIOR TO THE START OF THE WORK.
- HOURS OF OPERATION: THE CONTRACTOR SHALL CONFINE HIS HOURS OF OPERATION BETWEEN 7AM AND 6PM LOCAL TIME, OR AS APPROVED BY THE OWNER.



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Consultants

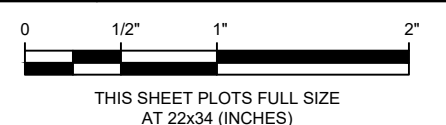
Project

**CHICAGO AVENUE  
 PARKING GARAGE REPAIRS**  
  
**1236 CHICAGO AVENUE  
 EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY**  
**2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201**

Mark	Date	Description



Project No. 2020.1793.1

Date 1/26/2022

Drawn AHD

Checked MJF

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## GENERAL NOTES

Sheet Title

Sheet No. **CHI-S-002**

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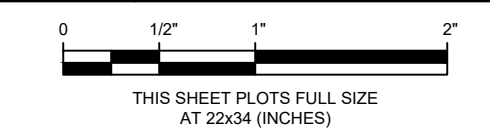
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**CHICAGO AVENUE  
 PARKING GARAGE REPAIRS**  
 1236 CHICAGO AVENUE  
 EVANSTON, ILLINOIS

Client  
**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

Mark	Date	Description

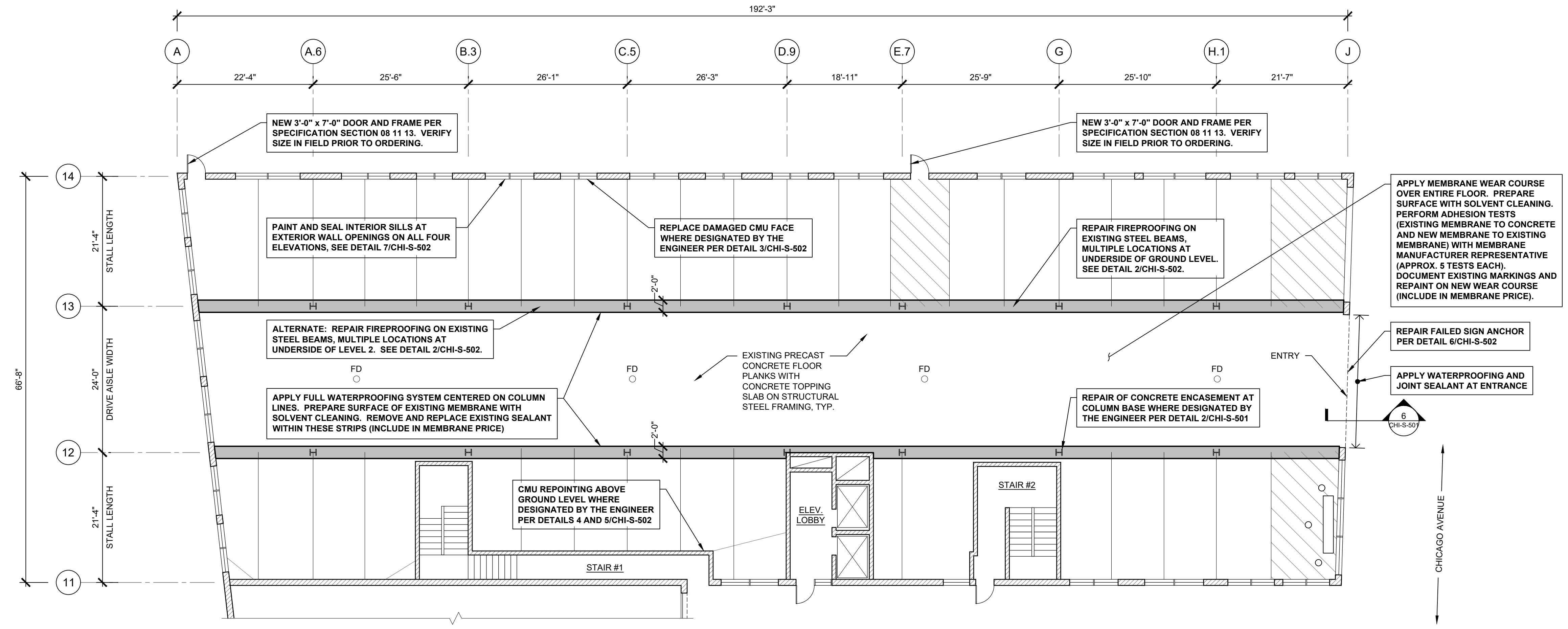


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**GROUND FLOOR PLAN**

Sheet Title

Sheet No. **CHI-S-101**

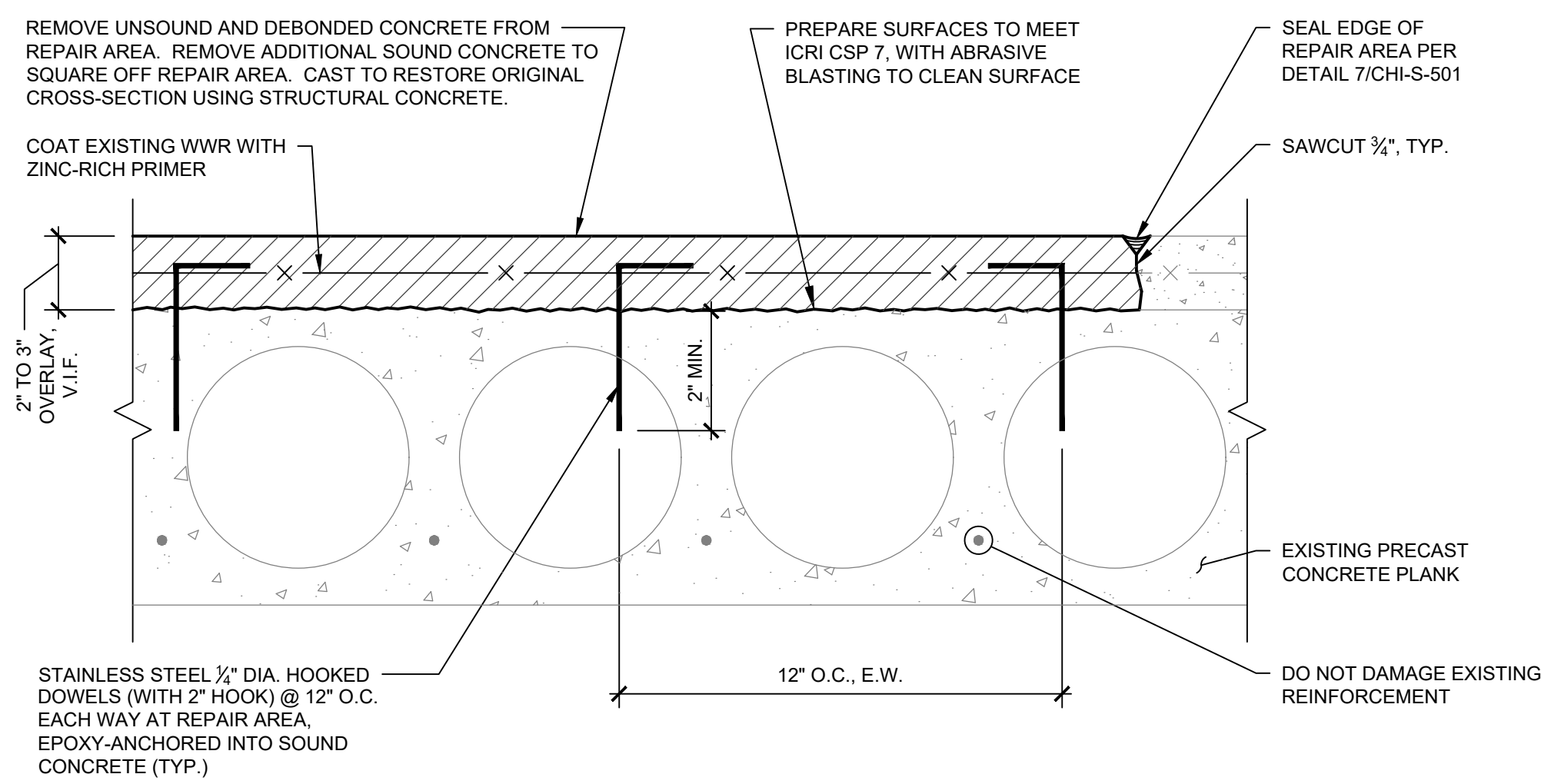


**1 GROUND FLOOR PLAN**  
 SCALE: 3/32" = 1'-0"  
 NOTE:  
 CITY OF EVANSTON IS ONLY RESPONSIBLE FOR THE GROUND LEVEL. REMAINDER OF GARAGE IS PRIVATELY OWNED.

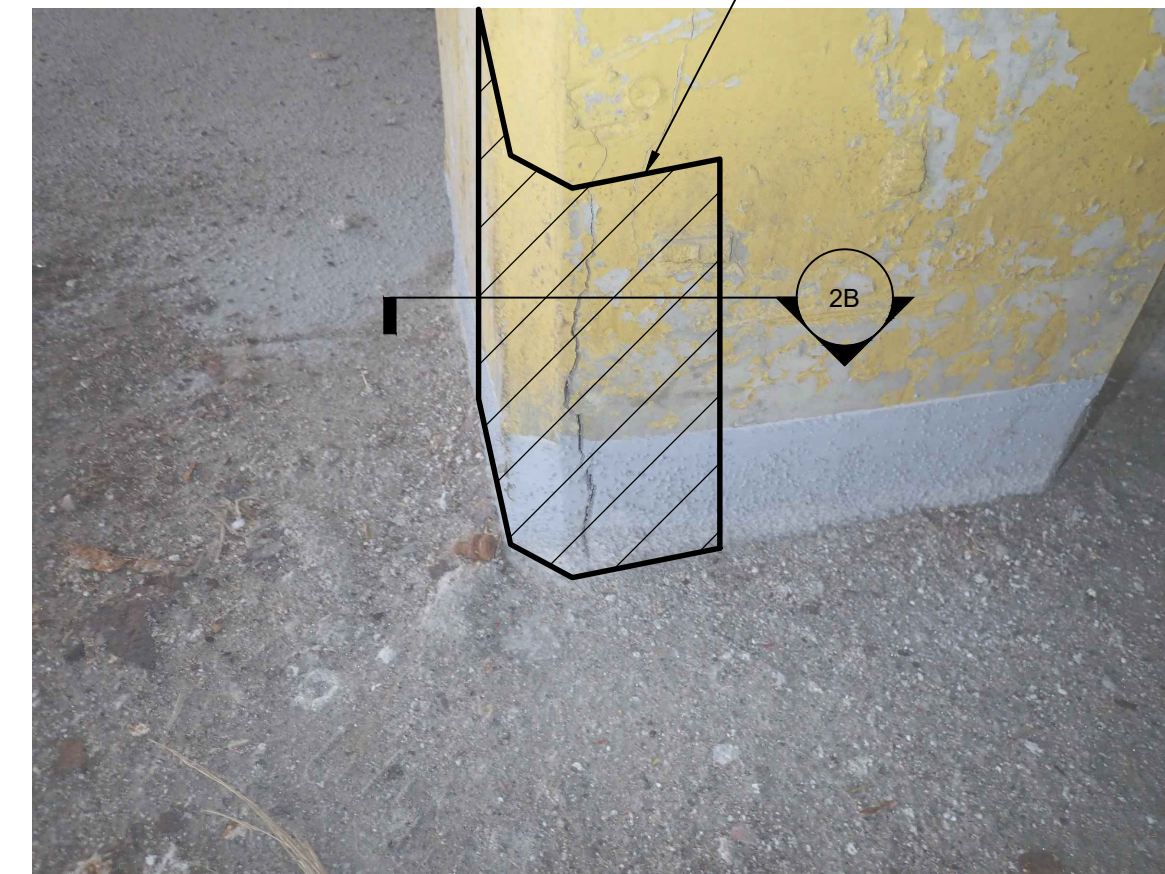


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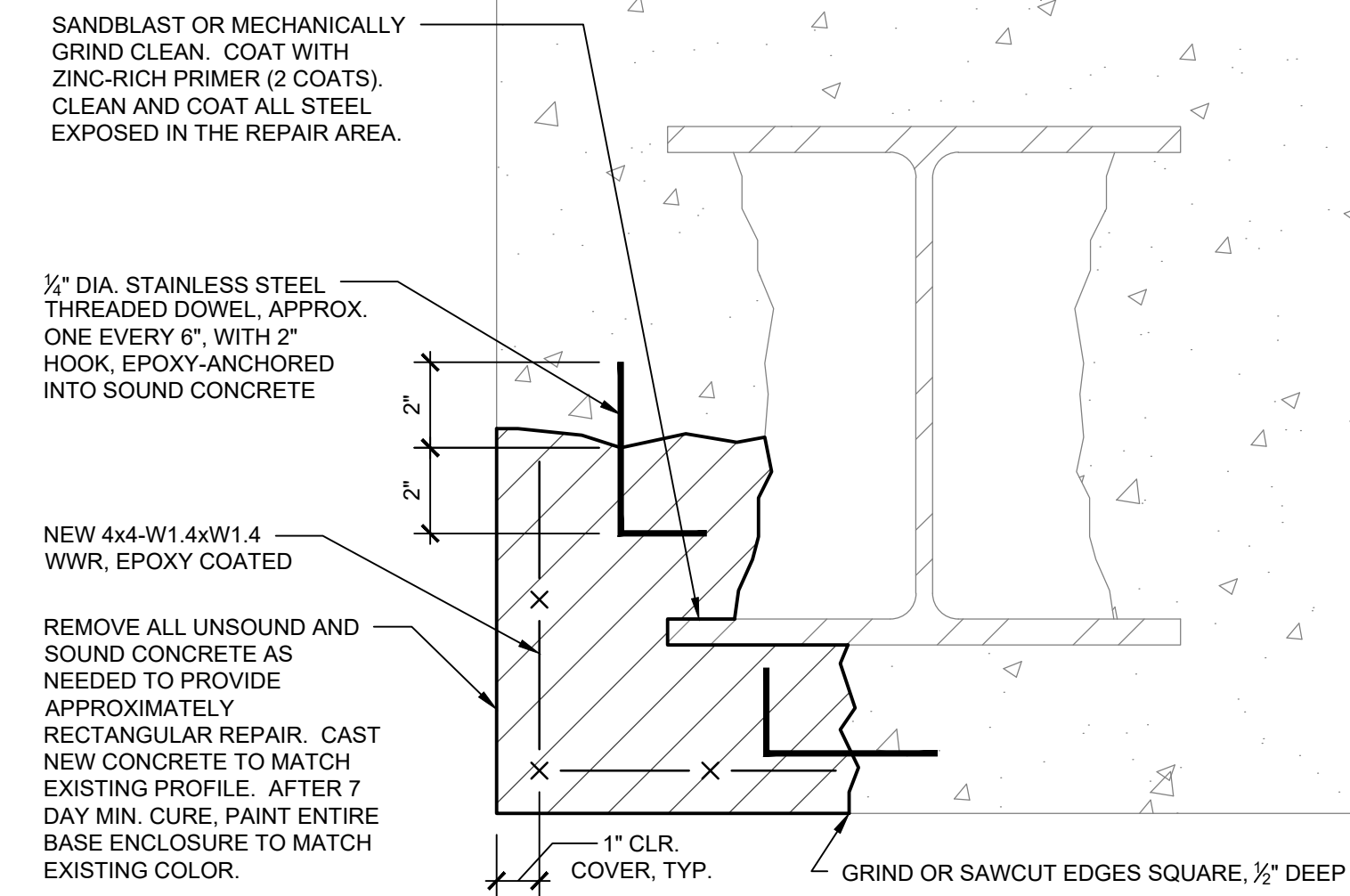
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**1 BONDED CONCRETE OVERLAY REPAIR**  
SCALE: 3" = 1'-0"

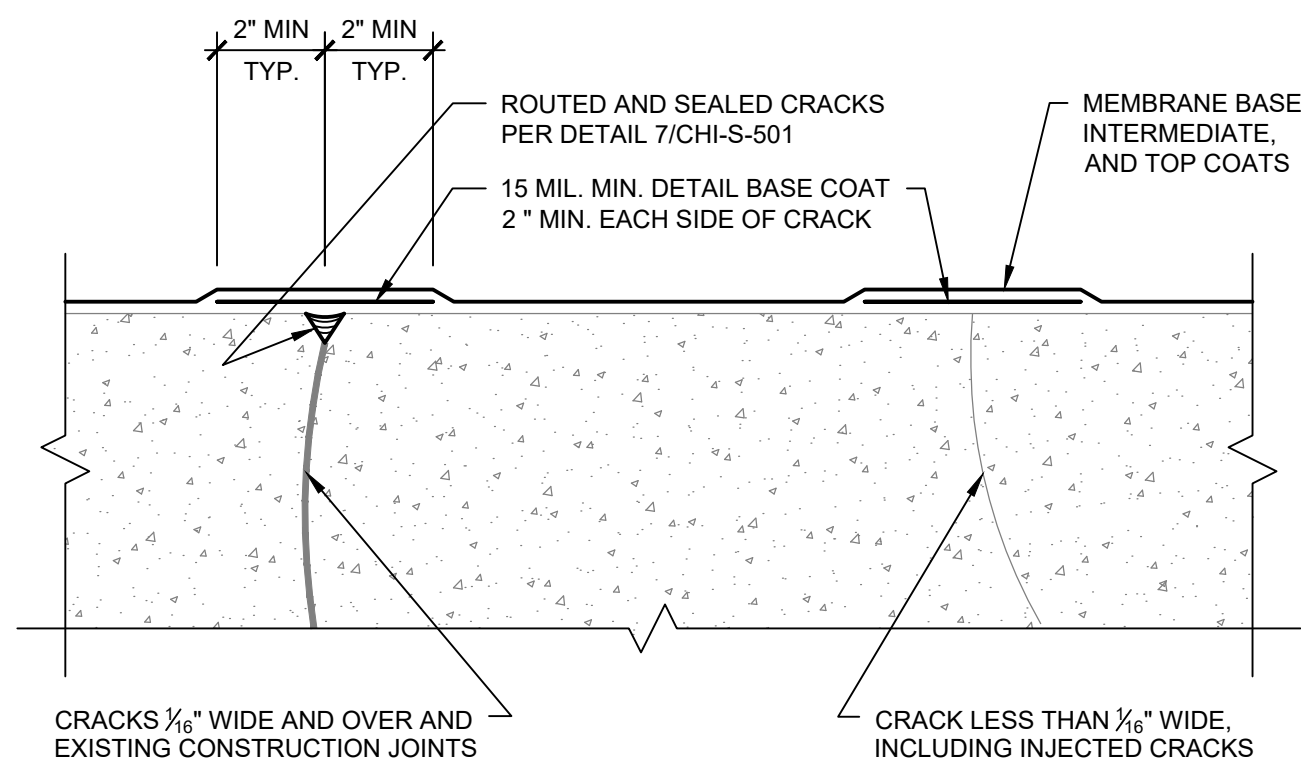


2A. PHOTO



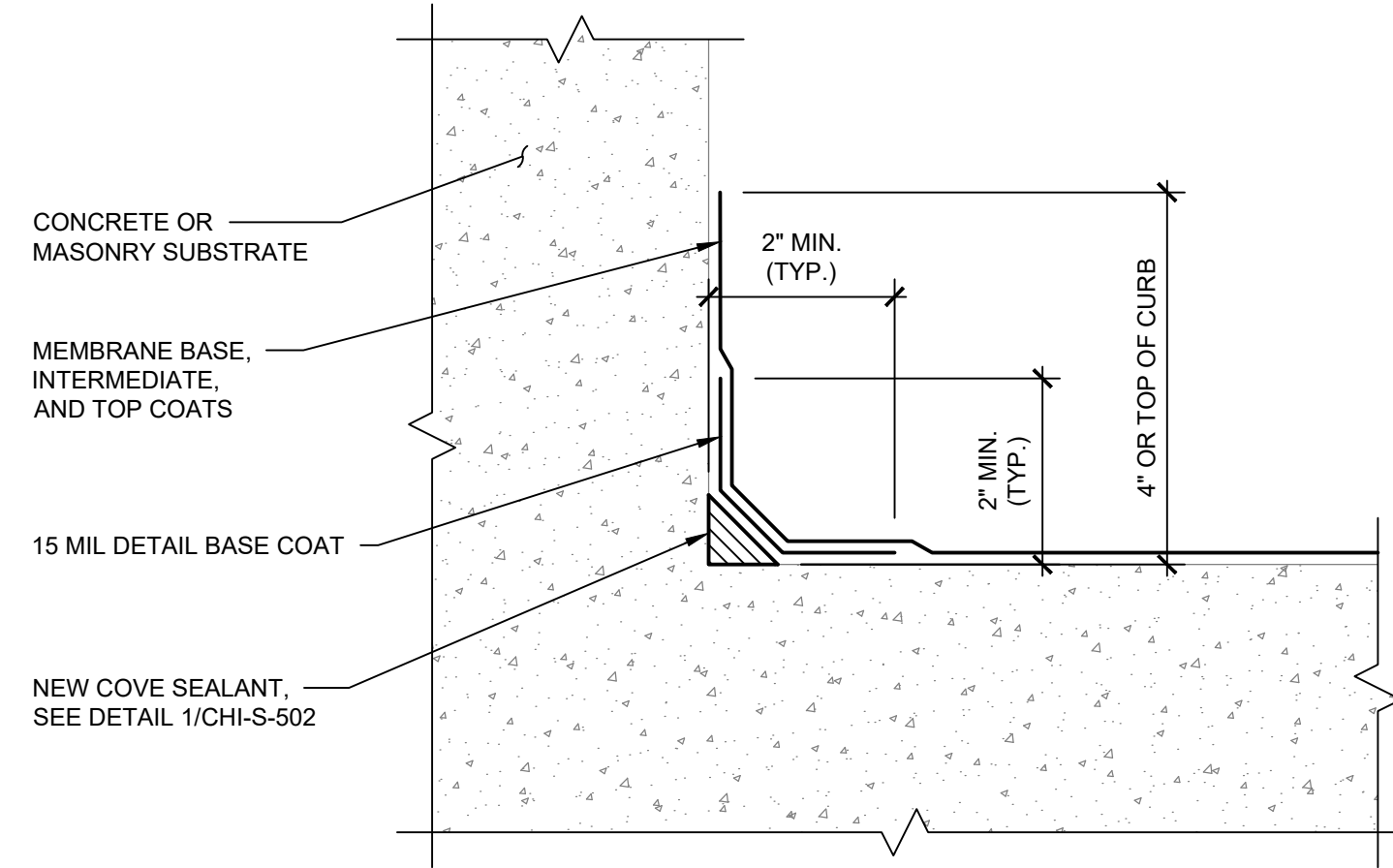
2B. SECTION

**2 CONCRETE ENCASEMENT REPAIR**  
NOT TO SCALE



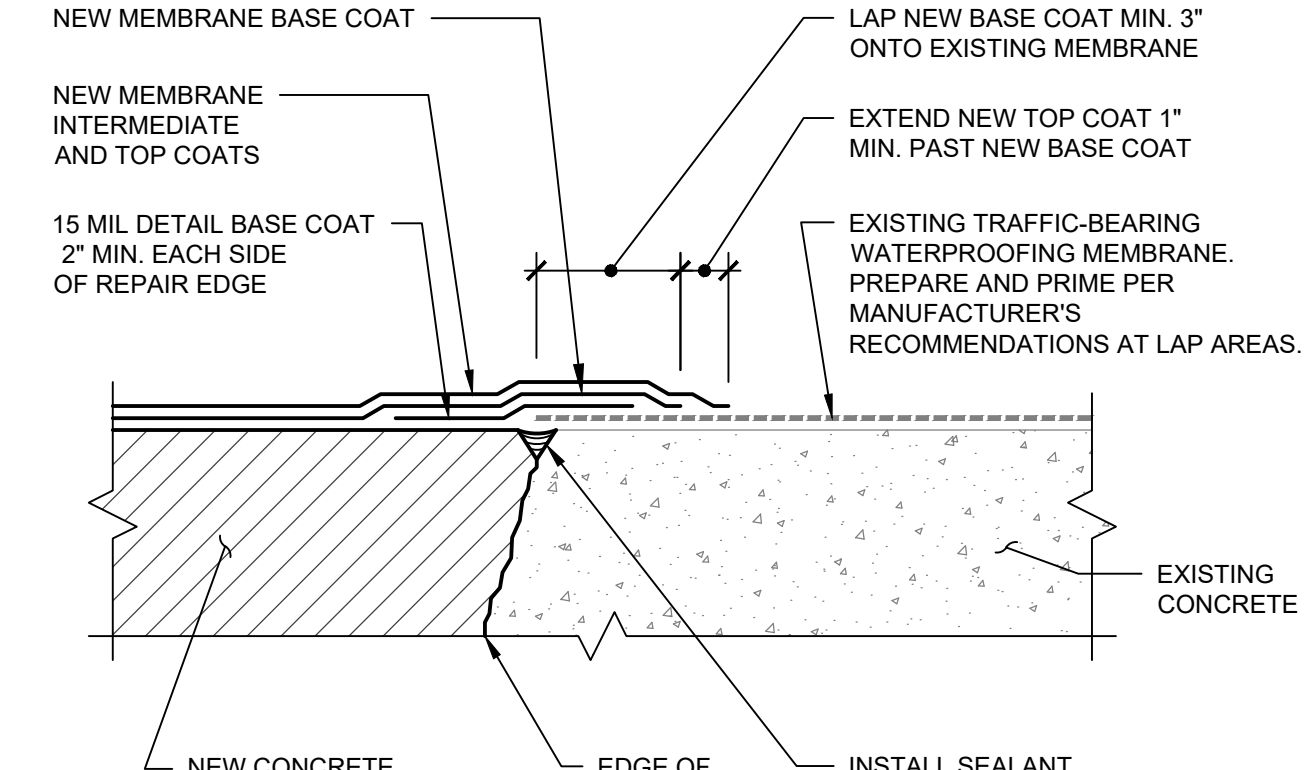
- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE.
  3. FOR AREAS DESIGNATED TO RECEIVE A TOP WEAR COURSE ONLY, CRACKS TO BE ROUTED AND SEALED WILL BE PAID UNDER A SEPARATE UNIT PRICE ITEM.
  4. RECORD AND REPLICATE EXISTING FLOOR MARKINGS. INCLUDE PRICE FOR PAINT STRIPING IN MEMBRANE PRICE.

**3 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT CRACKS AND CONSTRUCTION JOINTS**  
NOT TO SCALE



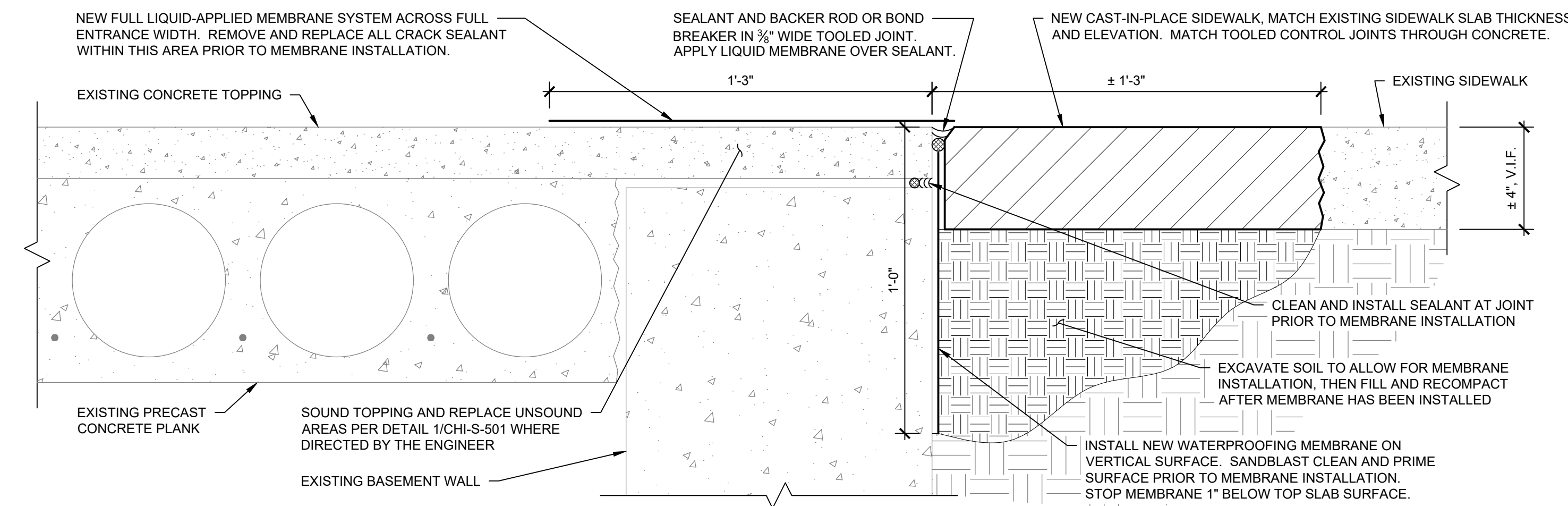
- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE COVE SEALANT IN MEMBRANE PRICE.

**4 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT UPTURN**  
NOT TO SCALE

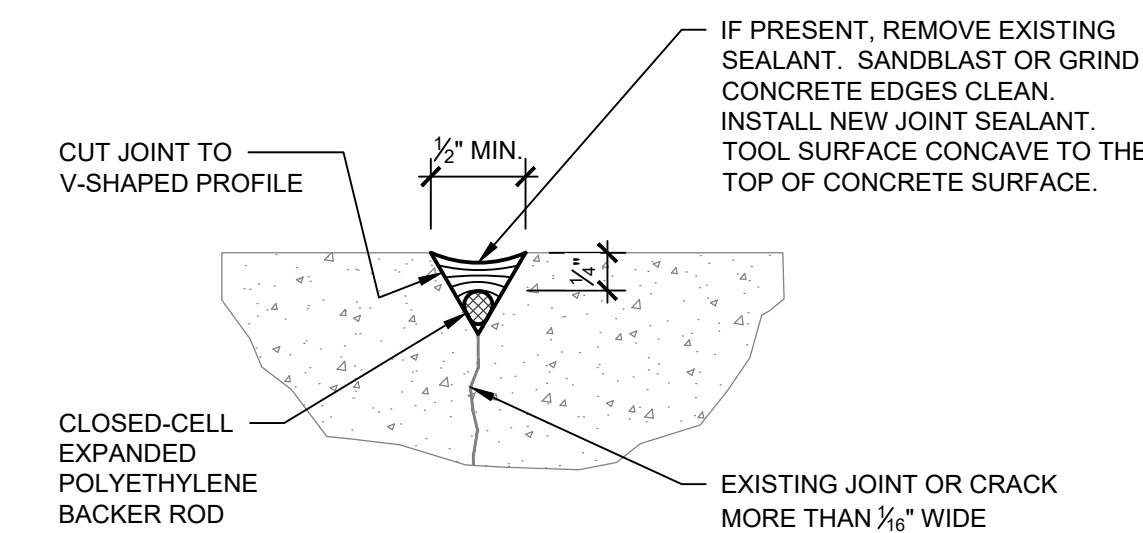


- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE.

**5 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT EDGE OF REPAIR**  
NOT TO SCALE



**6 WATERPROOFING REPAIR AT MAIN VEHICULAR ENTRANCE**  
SCALE: 3" = 1'-0"



**7 SEALANT AT CRACK OR CONSTRUCTION JOINT**  
SCALE: 1'-0" = 1'-0"

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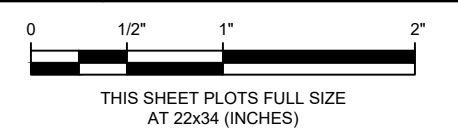
**CHICAGO AVENUE  
PARKING GARAGE REPAIRS**

**1236 CHICAGO AVENUE  
EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
WORKS AGENCY**  
2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201

Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

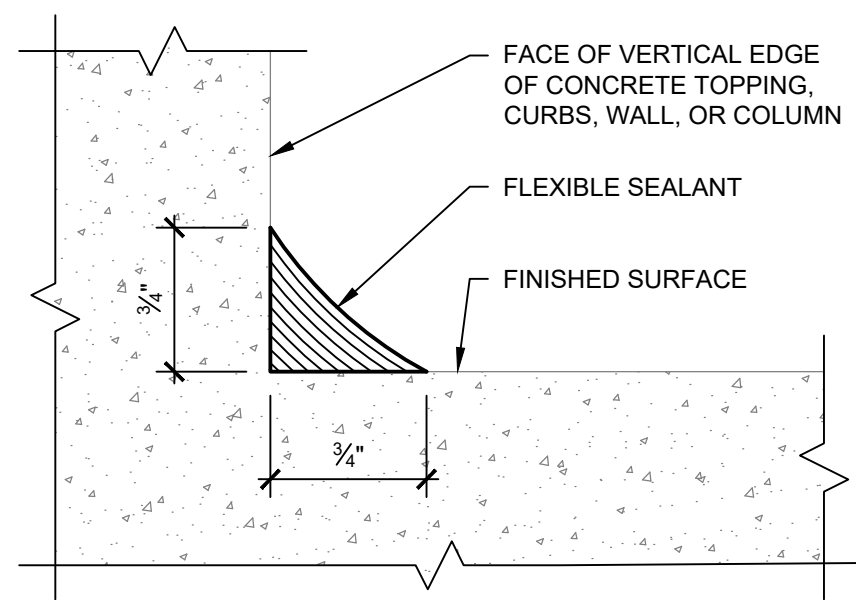
**REPAIR DETAILS**

Sheet Title

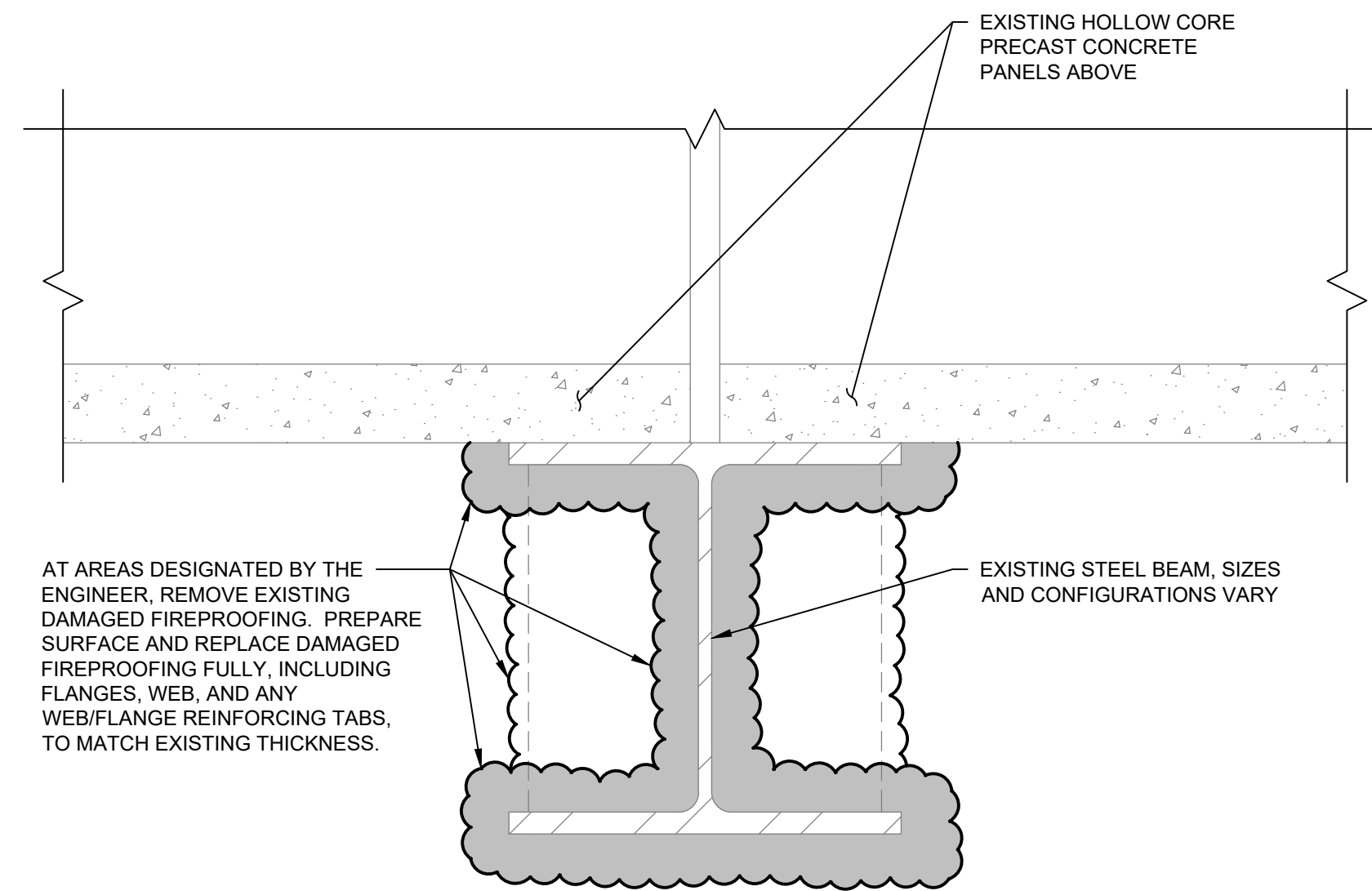
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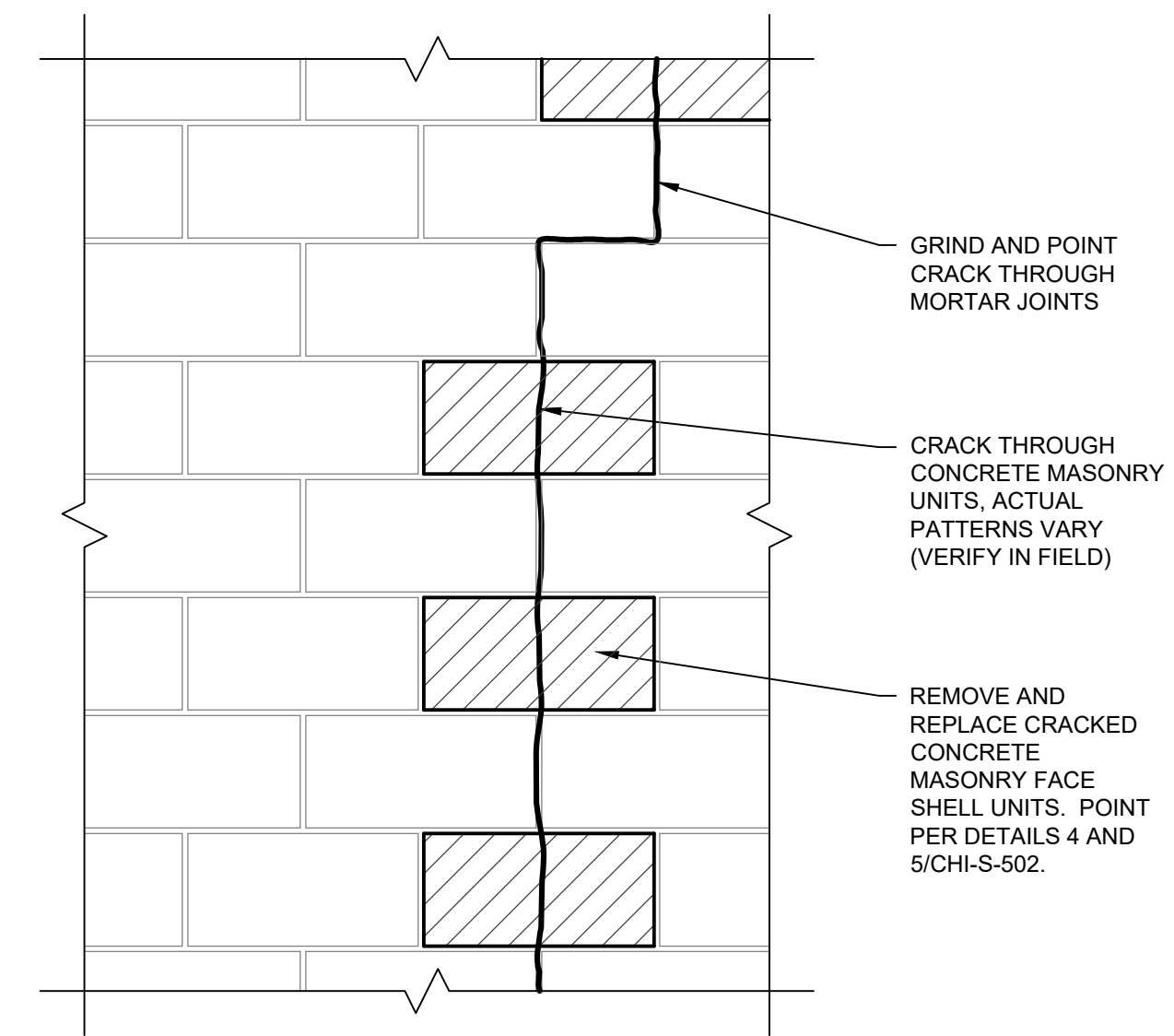
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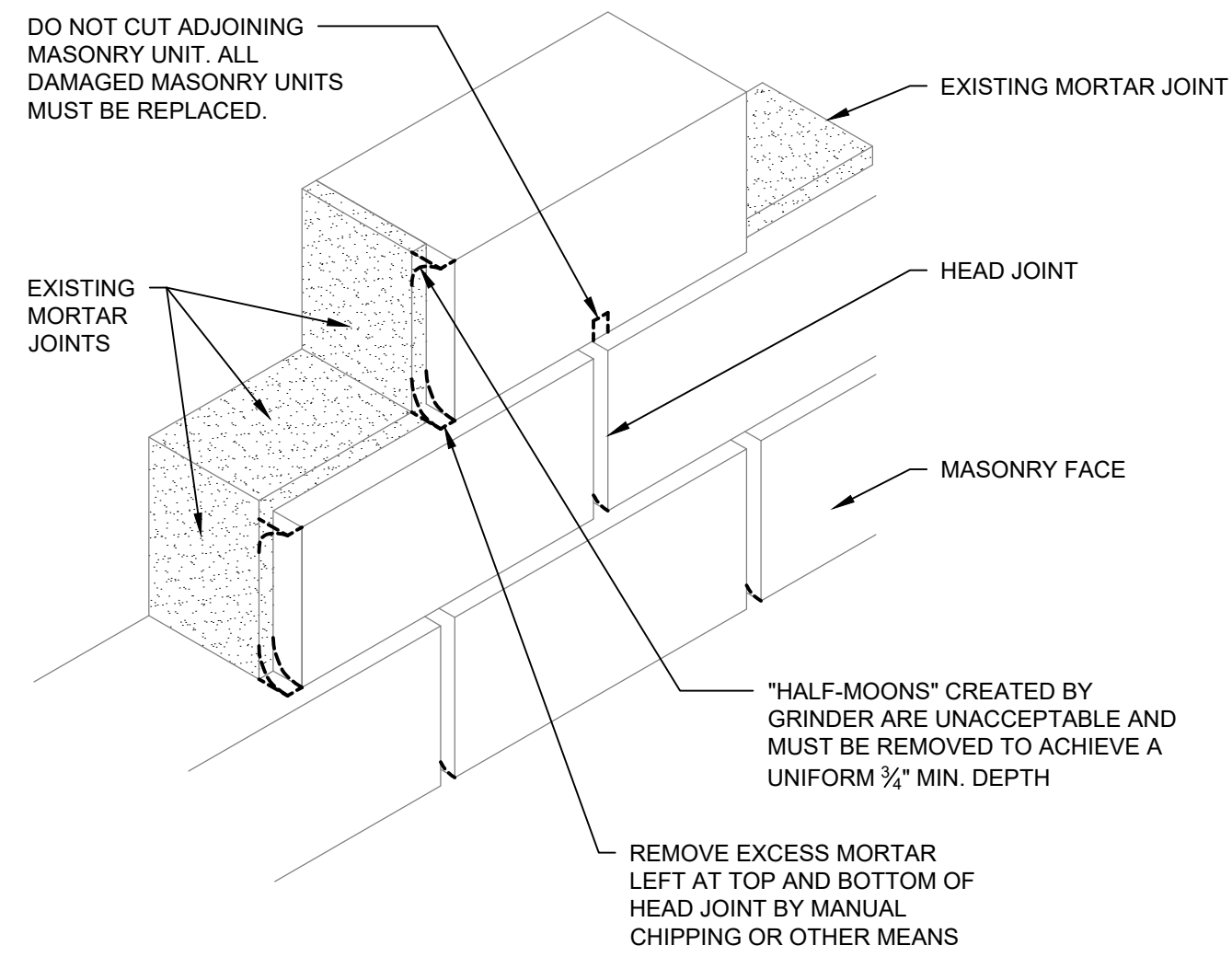
**1 COVE SEALANT AT JOINT**  
SCALE: 1'-0" = 1'-0"



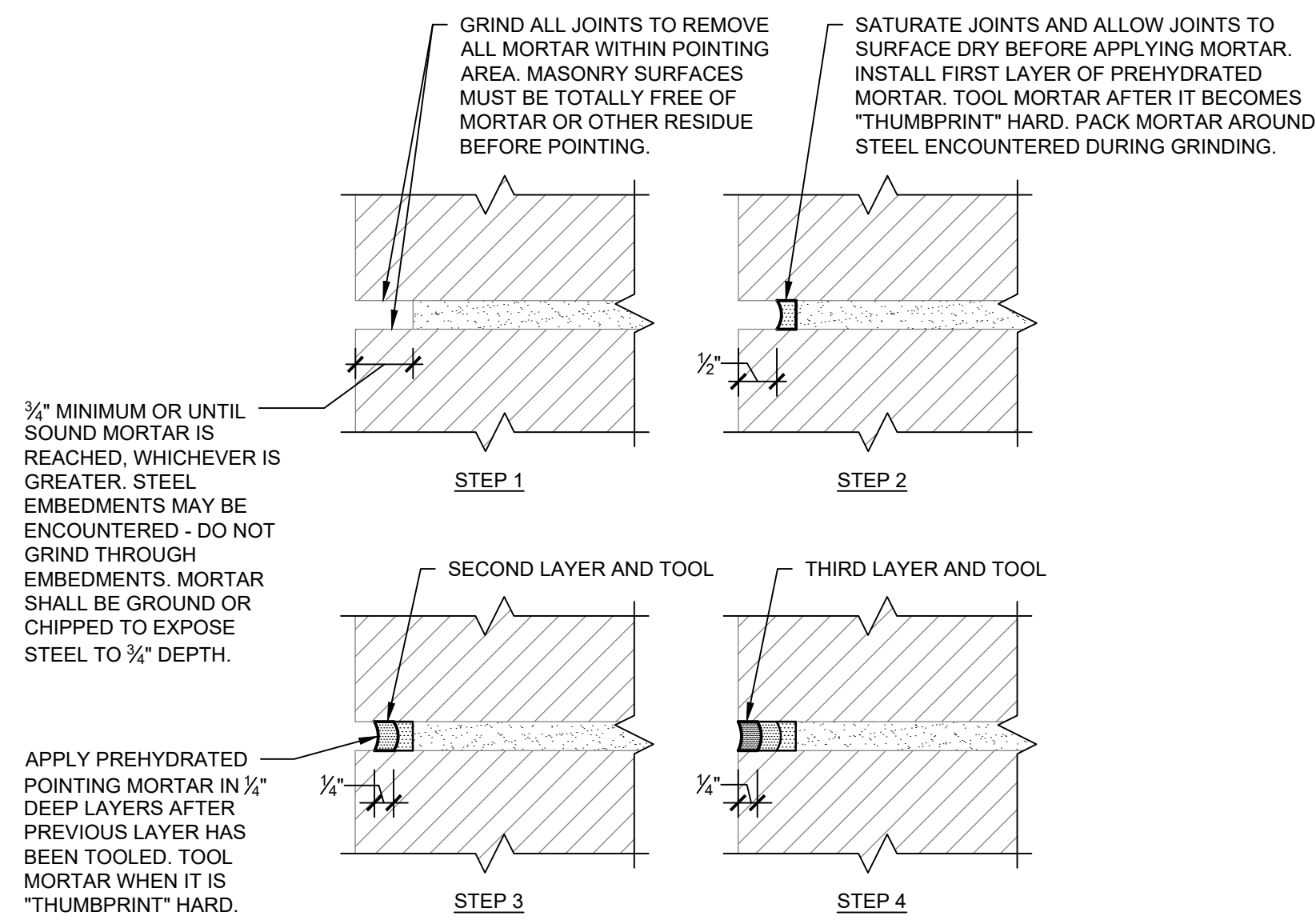
**2 FIREPROOFING REPAIR**  
SCALE: 3" = 1'-0"



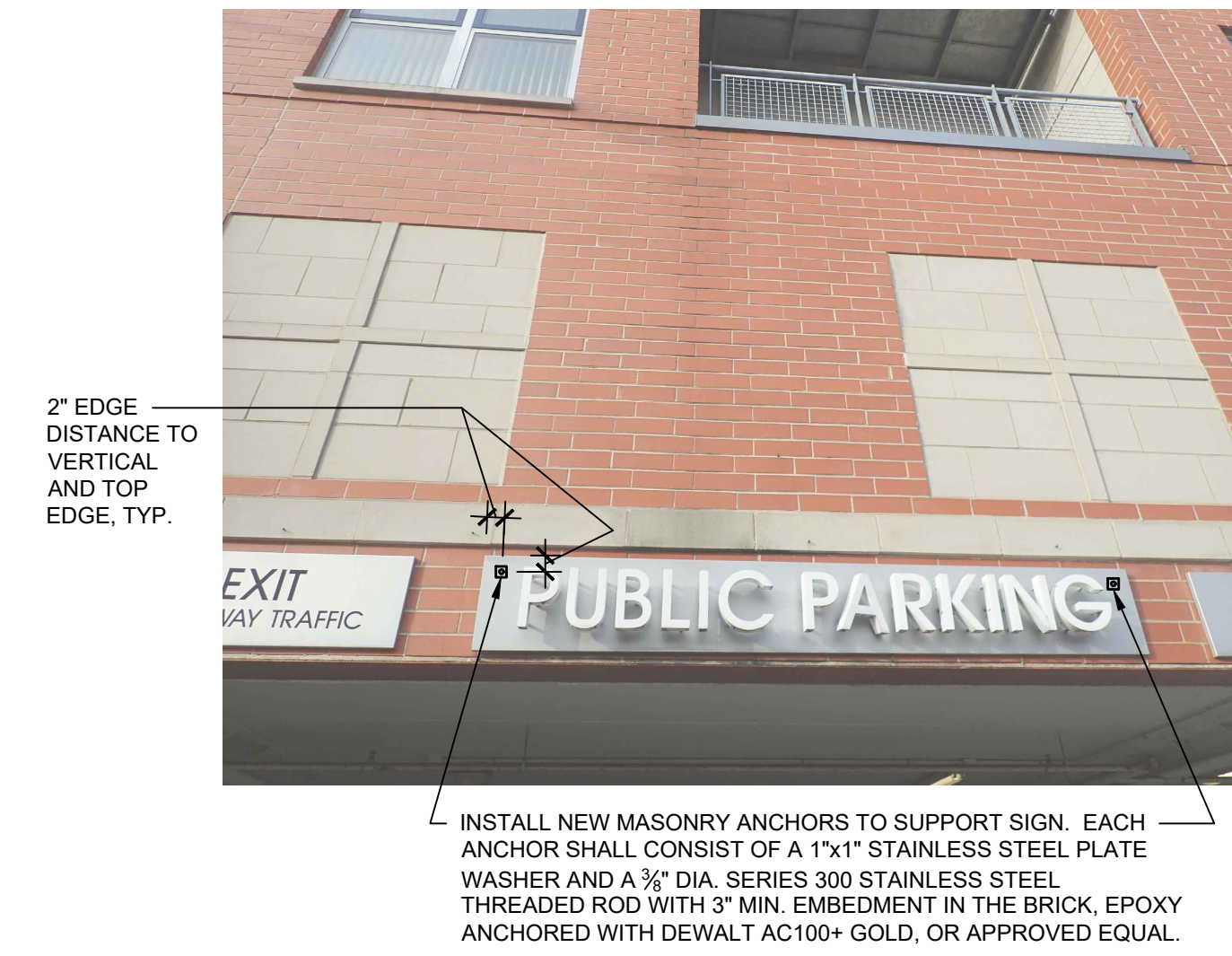
**3 CRACKED CONCRETE MASONRY UNIT REPAIR**  
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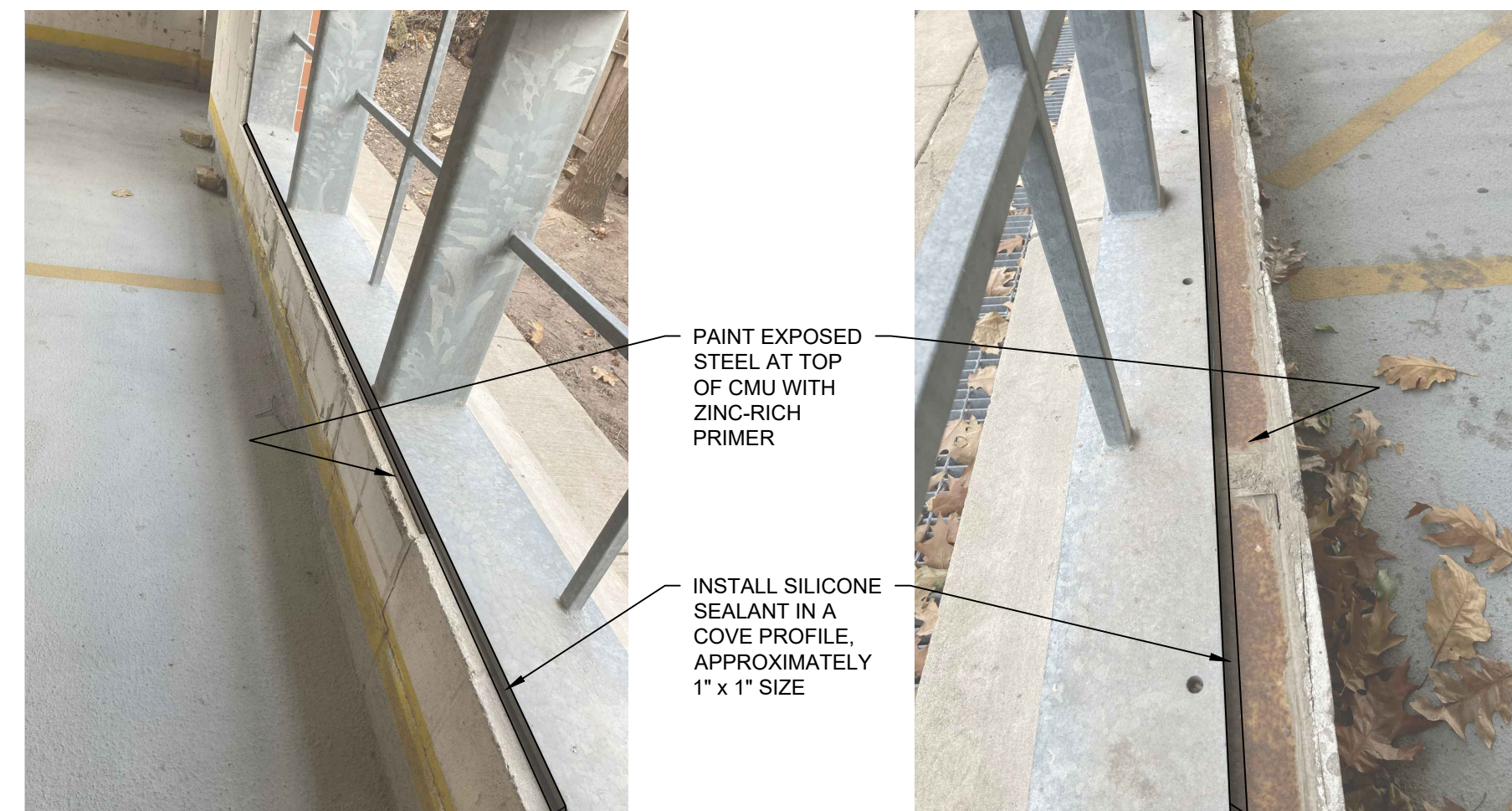
**4 GRINDING AND POINTING DETAIL**  
NOT TO SCALE



**5 REPOINTING DETAIL**  
NOT TO SCALE



**6 FAILED SIGN ANCHOR REPAIR**  
NOT TO SCALE



**7 STEEL PAINTING DETAIL**  
NOT TO SCALE

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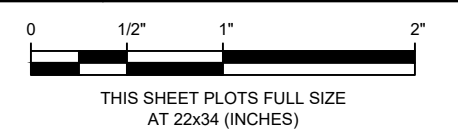
**CHICAGO AVENUE  
PARKING GARAGE REPAIRS**

1236 CHICAGO AVENUE  
EVANSTON, ILLINOIS

Client

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WORKS AGENCY**  
2100 RIDGE AVENUE  
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**REPAIR DETAILS**

Sheet Title

Sheet No. **CHI-S-502**

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# CHURCH STREET PARKING GARAGE REPAIRS

PROJECT: **CHURCH STREET PARKING GARAGE REPAIRS**  
**525 CHURCH STREET**  
**EVANSTON, ILLINOIS**

CLIENT: **CITY OF EVANSTON PUBLIC WORKS AGENCY**  
**2100 RIDGE AVENUE**  
**EVANSTON, ILLINOIS 60201**

ENGINEER: **WISS, JANNEY, ELSTNER ASSOCIATES, INC.**  
**330 PFINGSTEN ROAD**  
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**847.272.7400 tel | 847.291.9599 fax**  
**www.wje.com**

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 San Diego | San Francisco | Seattle | South Florida | Washington, DC

**FOR BID**

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- CHU-S-001 TITLE SHEET
- CHU-S-002 GENERAL NOTES
- CHU-S-101 FIRST LEVEL PLAN (SOUTH END)
- CHU-S-102 FIRST LEVEL PLAN (NORTH END)
- CHU-S-103 SECOND LEVEL PLAN (SOUTH END)
- CHU-S-104 SECOND LEVEL PLAN (NORTH END)
- CHU-S-105 THIRD LEVEL PLAN (SOUTH END)
- CHU-S-106 THIRD LEVEL PLAN (NORTH END)
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- CHU-S-109 FIFTH LEVEL PLAN (SOUTH END)
- CHU-S-110 FIFTH LEVEL PLAN (NORTH END)
- CHU-S-111 SIXTH LEVEL PLAN
- CHU-S-501 REPAIR DETAILS
- CHU-S-502 REPAIR DETAILS

## SCOPE OF WORK

1. CONCRETE REPAIRS INCLUDING PARTIAL DEPTH TOP-SIDE, VERTICAL, AND OVERHEAD REPAIRS.
2. SLAB-ON-GROUND AND CURB CONCRETE REPAIRS.
3. POST-TENSIONING GROUT POCKET REPAIRS.
4. APPLICATION OF TRAFFIC-BEARING WATERPROOFING MEMBRANE IN SELECT AREAS.
5. SEALANT REPLACEMENT IN SELECT AREAS.
6. REPLACE FAILED JOINT SEALS AT SELECT THRESHOLDS OF THE STAIR TOWERS.
7. FLOOR DRAIN AND PIPING SYSTEM REPAIRS (ALLOWANCE).

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE SPECIFICATIONS FOR THIS PROJECT, TITLED: "PROJECT MANUAL FOR CITY OF EVANSTON BID 22-14 PARKING GARAGE STRUCTURAL REPAIRS", DATED JANUARY 26, 2022.

PROJECT LOCATION

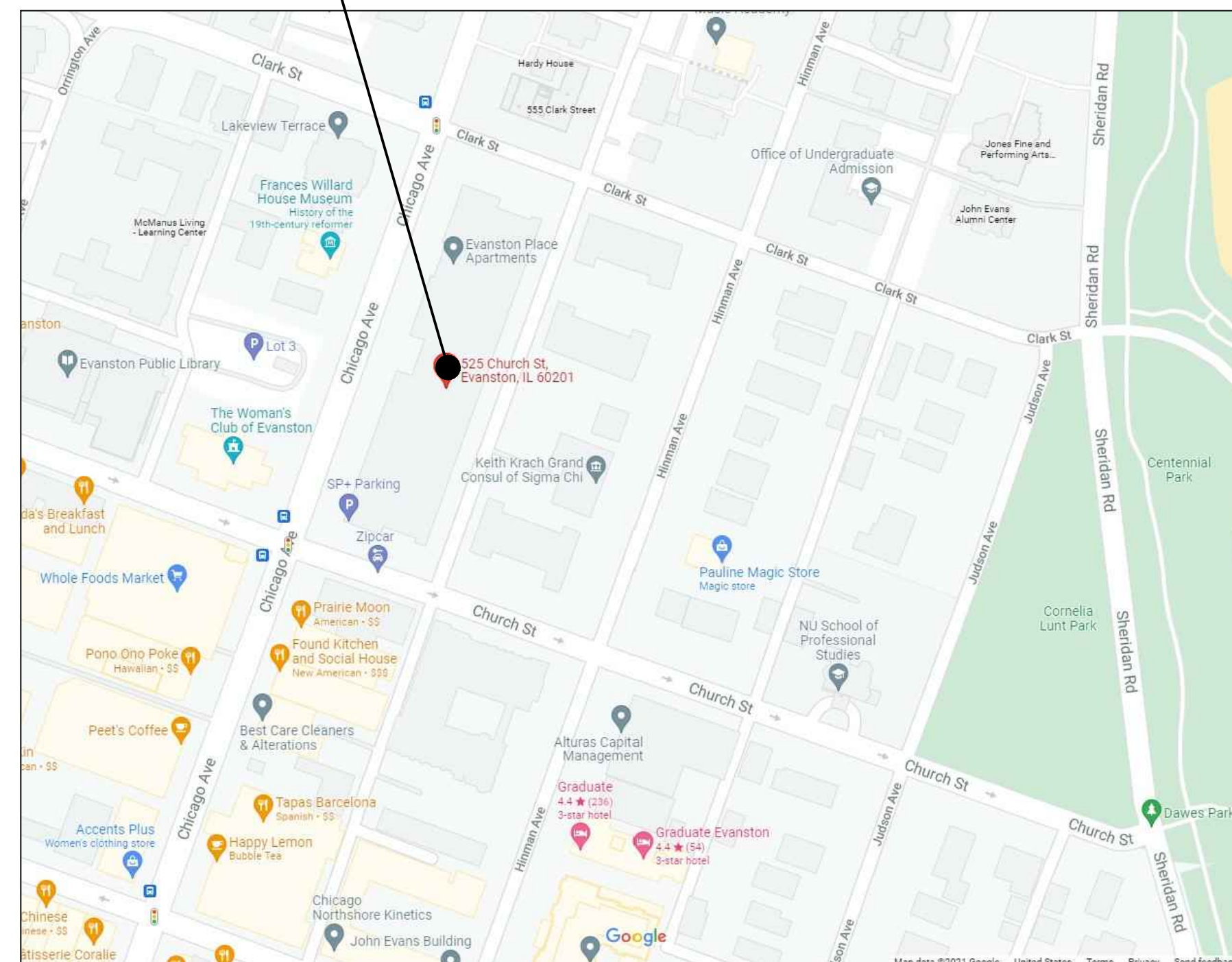
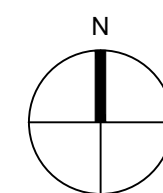


IMAGE ACCESSED FROM GOOGLE 11/17/2021. ANNOTATIONS BY WJE.

**LOCATION MAP**  
 NOT TO SCALE



PROJECT LOCATION

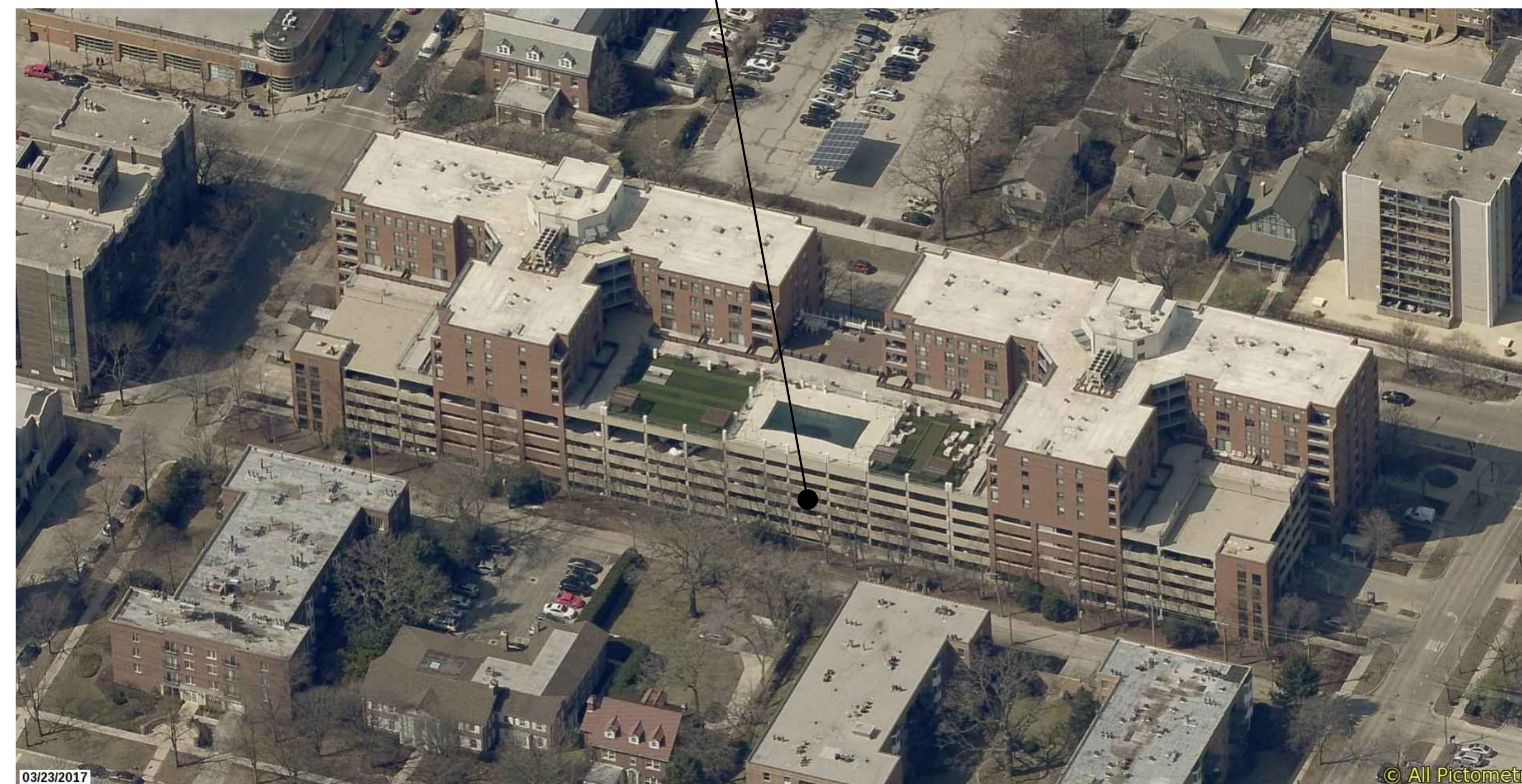
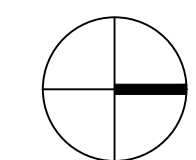


IMAGE DATED 3/23/2017 PROVIDED THROUGH PICTOMETRY SUBSCRIPTION. ANNOTATIONS BY WJE.

**AERIAL PHOTO**  
 NOT TO SCALE



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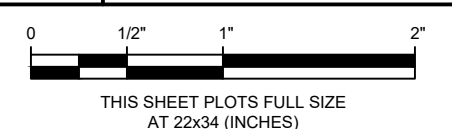
Project

**CHURCH STREET  
 PARKING GARAGE REPAIRS**  
  
**525 CHURCH STREET  
 EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY**  
**2100 RIDGE AVENUE**  
**EVANSTON, ILLINOIS 60201**

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Date 1/26/2022

Drawn AHD

Checked MJF

Scale AS NOTED

**TITLE SHEET**

Sheet Title

Sheet No. **CHU-S-001**



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### GENERAL NOTES

#### DRAWINGS AND EXISTING CONDITIONS

- THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED FOR THE REPAIR OF THE CITY OF EVANSTON'S CHURCH STREET PARKING GARAGE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF ARCHITECT/ENGINEER.
- THE STANDARD SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO STARTING THE WORK, AND SHALL IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES, OMISSIONS, OR OTHER CONDITIONS THAT MAY AFFECT THE SCOPE OF WORK PRIOR TO BEGINNING REPAIRS IMPACTED BY THE NOTED CONDITIONS.

#### CODES, PERMITS, AND INSURANCE

- ALL CONSTRUCTION, DEMOLITION AND REMOVAL OF MATERIALS SHALL BE IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES, ORDINANCES AND WORK RULES. REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS AND DEBRIS SHALL BE PERFORMED IN ACCORDANCE WITH EPA REQUIREMENTS AND APPLICABLE STATE REGULATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND ASSOCIATED FEES FOR WORK DESCRIBED WITHIN THESE DOCUMENTS.
- CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE INSURED (INCLUDING WORKERS COMP, LIABILITY, AND AUTO INSURANCE COVERAGE ACCEPTABLE TO THE OWNER) AND LICENSED AS REQUIRED BY THE LOCAL BUILDING AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND PROVIDE ALL MATERIALS, LABOR, SCAFFOLD, EQUIPMENT, AND DISPOSAL REQUIRED TO PERFORM THE WORK DESCRIBED HEREIN.

#### USE OF SITE, SAFETY AND PROTECTION

- WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND SAFETY PROGRAMS IN CONNECTION WITH THE PROJECT, SINCE THESE ARE THE RESPONSIBILITY OF OTHERS. WJE SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE PROJECT IN ACCORDANCE WITH CONTRACT DOCUMENTS. WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER NON-WJE PERSONS PERFORMING PORTIONS OF THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF CONSTRUCTION ACTIVITIES TO THE OWNER AND ARCHITECT/ENGINEER.

- THE GARAGE WILL BE IN OPERATION DURING THE REPAIR PROJECT. CONSTRUCTION-RELATED ACTIVITIES SHALL NOT BLOCK EXISTING MEANS OF EGRESS OUTSIDE OF THE GARAGE. CONTRACTOR SHALL COORDINATE WITH OWNER TO MAINTAIN ACCESS TO OPEN AREAS OF THE GARAGE AT ALL TIMES. DUE TO THE RELATIVELY LIMITED AND ISOLATED REPAIR AREAS, IT IS ANTICIPATED THAT THE CONTRACTOR WILL HAVE ACCESS TO ALL REPAIR AREAS CONCURRENTLY, BUT WITH PHASING AS NEEDED TO MAINTAIN A DRIVE AISLE.
- ACCESS TO THE SITE AND CONSTRUCTION TRAFFIC SHALL BE IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS.
- ANY REQUIRED STORAGE AREAS WITHIN THE PROPERTY MUST BE COORDINATED WITH THE OWNER. ALL NEW CONSTRUCTION MATERIALS SHALL BE CAREFULLY DELIVERED TO SITE. ANY DAMAGED ITEMS DELIVERED TO SITE SHALL BE REJECTED AND REPLACED AT CONTRACTOR'S EXPENSE. ALL STORED MATERIALS ON SITE SHALL BE PROTECTED AND STORED ABOVE GROUND IN A CLEAN AND DRY ENVIRONMENT AND IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- THE CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER SITE WITH MATERIALS OR EQUIPMENT. THE MATERIALS AND EQUIPMENT SHALL BE CONFINED TO THE AREAS INDICATED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE OWNER. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND SAFEKEEPING OF PRODUCTS STORED ON PREMISES. MOVE ANY STORED MATERIAL OR PRODUCTS THAT INTERFERE WITH OPERATIONS OF THE OWNER. STORE MATERIAL ONLY IN AREAS PROVIDED BY THE OWNER.
- CONTRACTOR SHALL PROVIDE PROTECTIVE BARRIERS, FENCES, SIDEWALK BRIDGING, ETC. TO ENSURE THE SAFETY OF PEDESTRIANS, BUILDING OCCUPANTS, VEHICULAR TRAFFIC, SITE FEATURES, ETC. AS APPROVED BY THE OWNER AND ARCHITECT/ENGINEER AND IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AND FEDERAL AUTHORITIES, INCLUDING OSHA.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL JOB SAFETY DURING THE REPAIR WORK.
- CONTRACTOR SHALL KNOW AND FOLLOW ALL PRECAUTIONS AND SAFETY PROCEDURES AS NORMALLY USED IN THE INDUSTRY, AND THOSE PROCEDURES AS INSTRUCTED BY THE MATERIAL MANUFACTURER, AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS, SAFETY STANDARDS AND CODES. WHEN A CONFLICT EXISTS, COMPLY WITH THE STRICTER REQUIREMENT. THE APPLICATION REQUIREMENTS OF THE U.S. DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), CONSTRUCTION INDUSTRY STANDARDS (29 CFR 1926/1910, CURRENT EDITION), WASHINGTON, D.C. SHALL BE USED AS A STANDARD GUIDELINE.
- CONTRACTOR SHALL PROVIDE A CERTIFICATE OF INSURANCE AND REQUIRED PRODUCT SUBMITTALS PRIOR TO THE START OF THE WORK.
- HOURS OF OPERATION: THE CONTRACTOR SHALL CONFINE HIS HOURS OF OPERATION BETWEEN 7AM AND 6PM LOCAL TIME, OR AS APPROVED BY THE OWNER.



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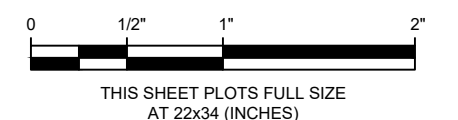
Project

**CHURCH STREET  
PARKING GARAGE REPAIRS**  
  
1236 CHICAGO AVENUE  
EVANSTON, ILLINOIS

Client

**CITY OF EVANSTON PUBLIC  
WORKS AGENCY**  
2100 RIDGE AVENUE  
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Mark	Date	Description
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Project No.	2020.1793.1
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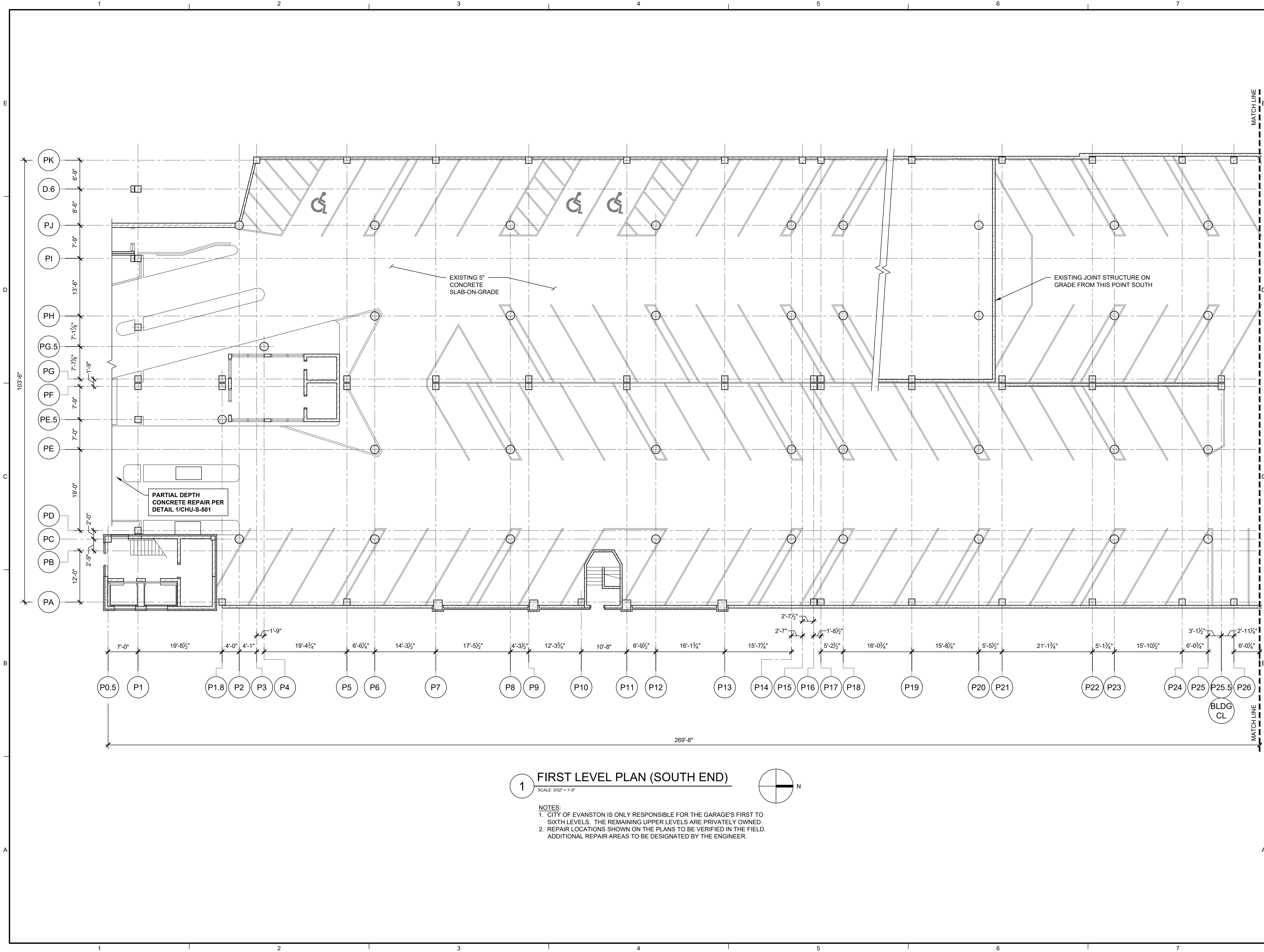
### GENERAL NOTES

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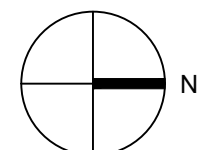
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**1 FIRST LEVEL PLAN (SOUTH END)**  
SCALE: 3/32" = 1'-0"



- NOTES:**
1. CITY OF EVANSTON IS ONLY RESPONSIBLE FOR THE GARAGE'S FIRST TO SIXTH LEVELS. THE REMAINING UPPER LEVELS ARE PRIVATELY OWNED.
  2. REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.

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Project
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<b>525 CHURCH STREET EVANSTON, ILLINOIS</b>
Client
<b>CITY OF EVANSTON PUBLIC WORKS AGENCY</b> 2100 RIDGE AVENUE EVANSTON, ILLINOIS 60201

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THIS SHEET PLOTS FULL SIZE AT 22x34 (INCHES)

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Date	1/26/2022
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Checked	MJF
Scale	AS NOTED

**FIRST LEVEL PLAN  
(SOUTH END)**

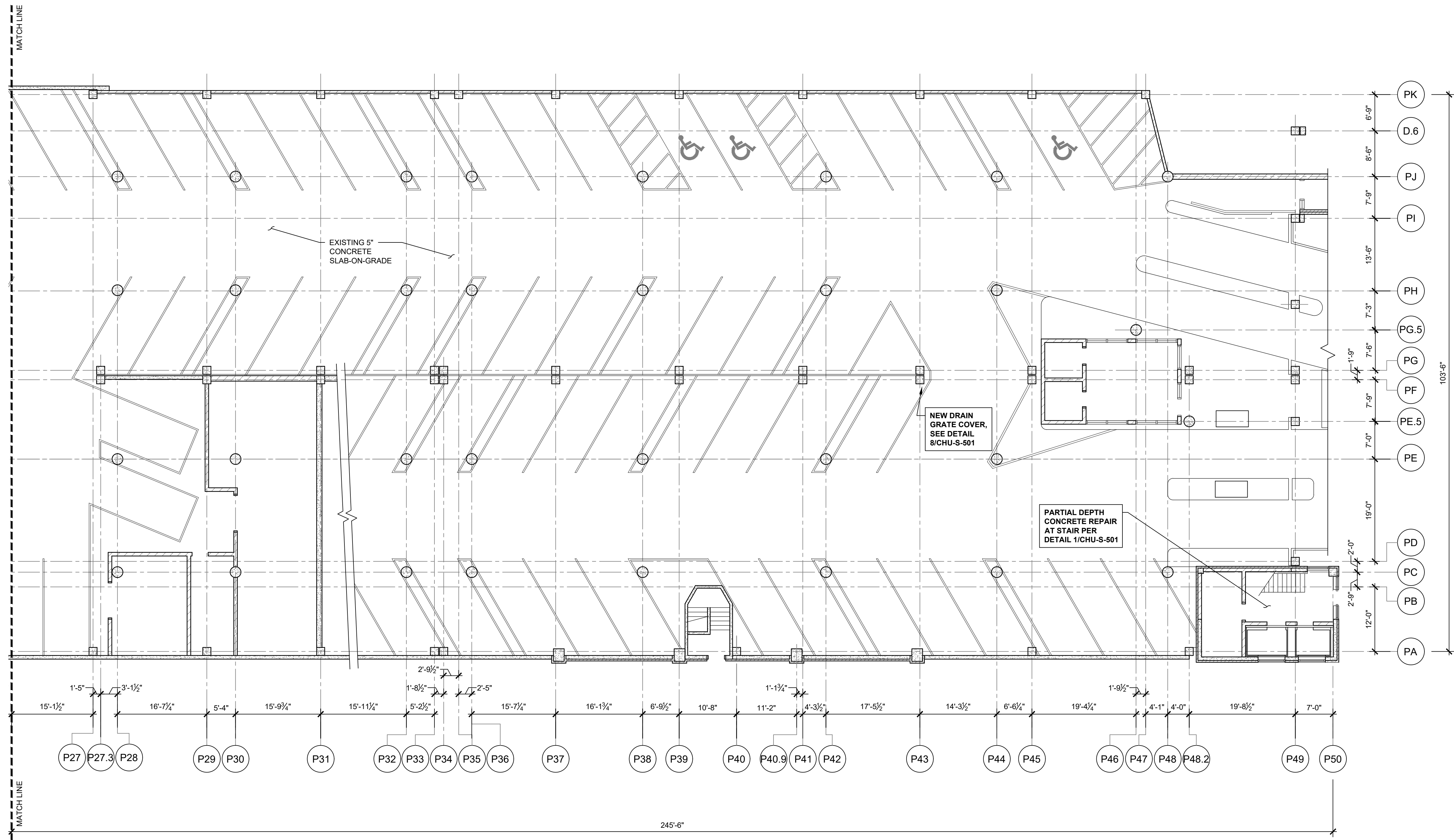
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**1 FIRST LEVEL PLAN (NORTH END)**  
SCALE: 3/32" = 1'-0"

- NOTES:**
1. CITY OF EVANSTON IS ONLY RESPONSIBLE FOR THE GARAGE'S FIRST TO SIXTH LEVELS. THE REMAINING UPPER LEVELS ARE PRIVATELY OWNED.
  2. REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.

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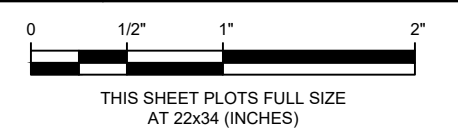
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**CHURCH STREET  
PARKING GARAGE REPAIRS**  
  
**525 CHURCH STREET  
EVANSTON, ILLINOIS**

Client  
**CITY OF EVANSTON PUBLIC  
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Project No.	2020.1793.1
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Scale	AS NOTED

**FIRST LEVEL PLAN  
(NORTH END)**

Sheet Title  
**CHU-S-102**

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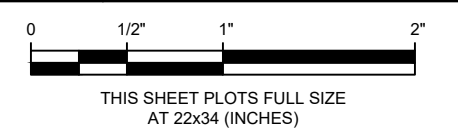
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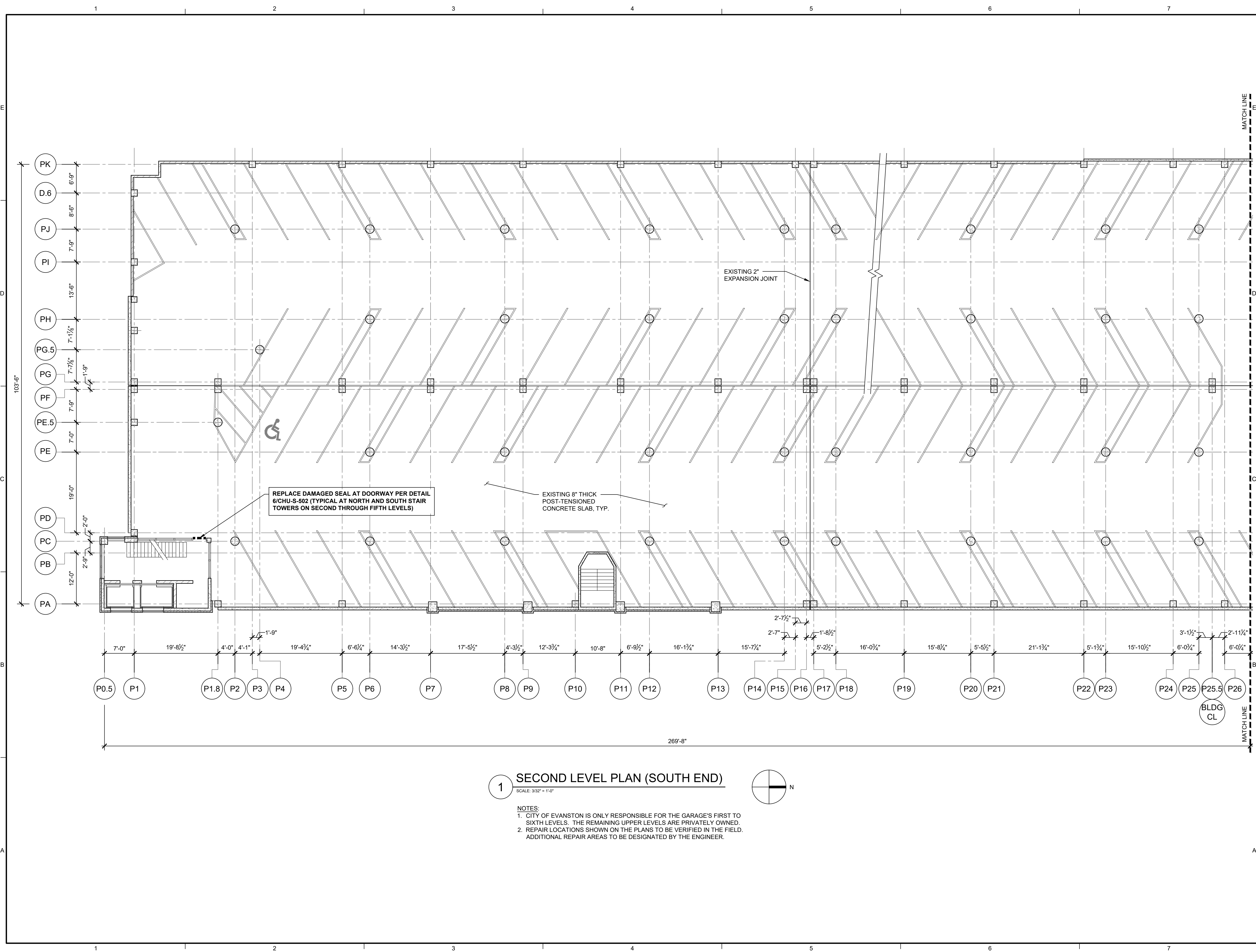
Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
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Checked	MJF
Scale	AS NOTED

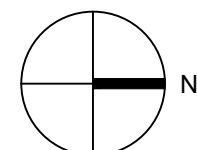
**SECOND LEVEL PLAN  
 (SOUTH END)**

Sheet Title  
**CHU-S-103**  
 Sheet No.



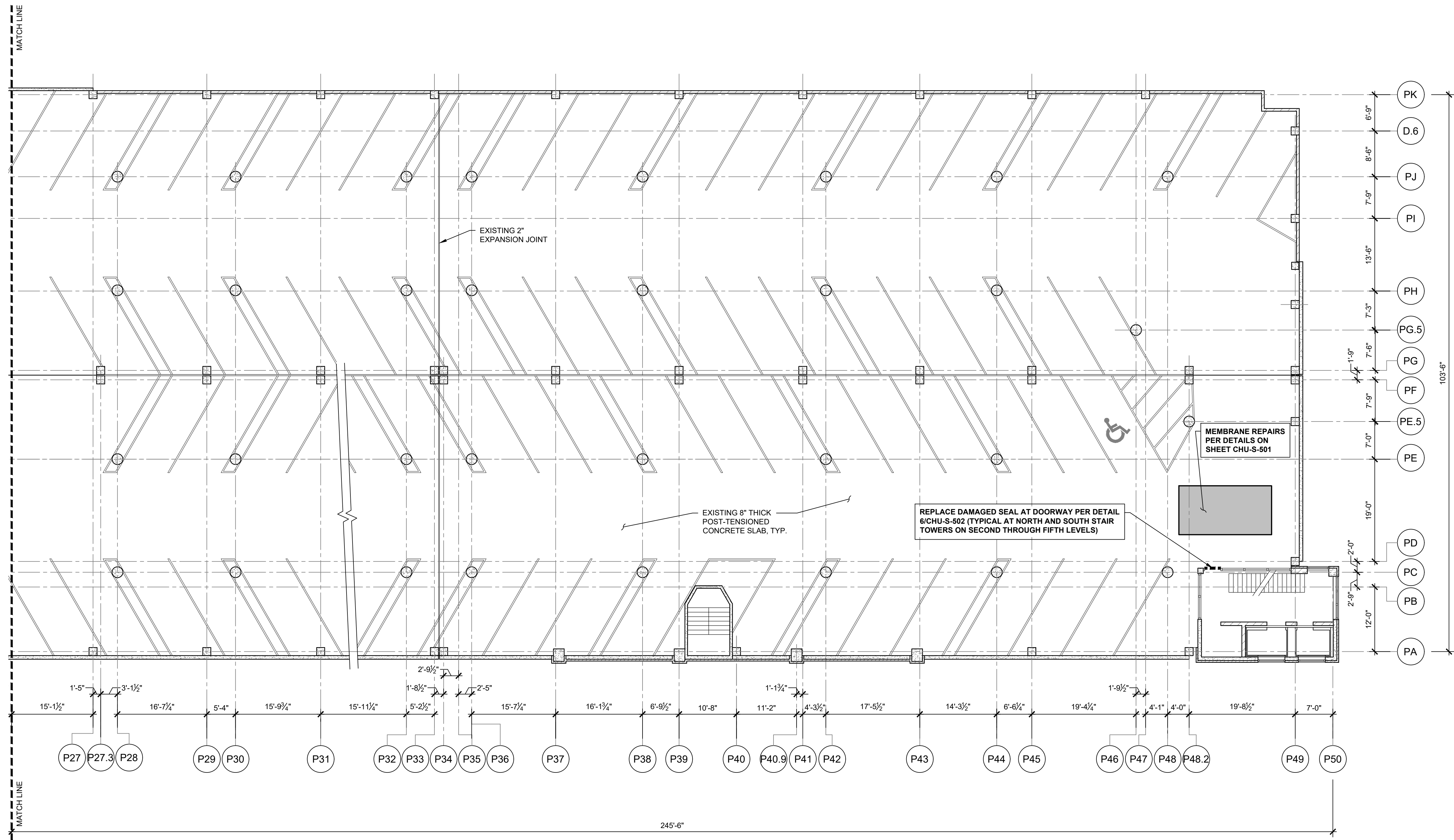
**1 SECOND LEVEL PLAN (SOUTH END)**  
 SCALE: 3/32" = 1'-0"

- NOTES:
- CITY OF EVANSTON IS ONLY RESPONSIBLE FOR THE GARAGE'S FIRST TO SIXTH LEVELS. THE REMAINING UPPER LEVELS ARE PRIVATELY OWNED.
  - REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.

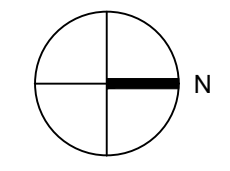


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**1 SECOND LEVEL PLAN (NORTH END)**  
 SCALE: 3/32" = 1'-0"



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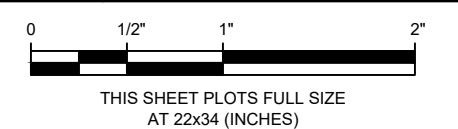
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Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
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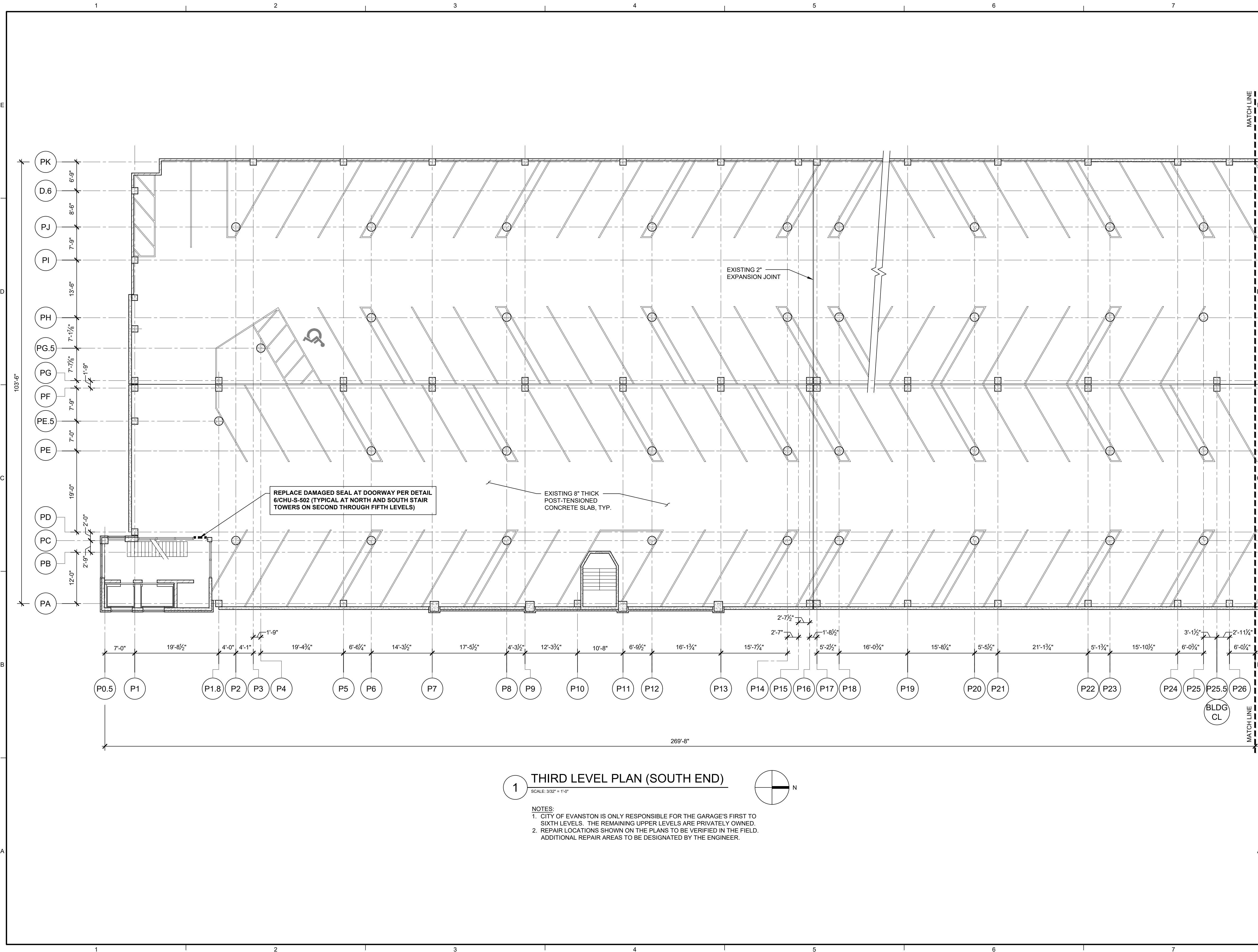
**SECOND LEVEL PLAN  
 (NORTH END)**

Sheet Title

Sheet No. **CHU-S-104**

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**1 THIRD LEVEL PLAN (SOUTH END)**  
 SCALE: 3/32" = 1'-0"

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THIS SHEET PLOTS FULL SIZE AT 22x34 (INCHES)

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Scale	AS NOTED

**THIRD LEVEL PLAN  
 (SOUTH END)**

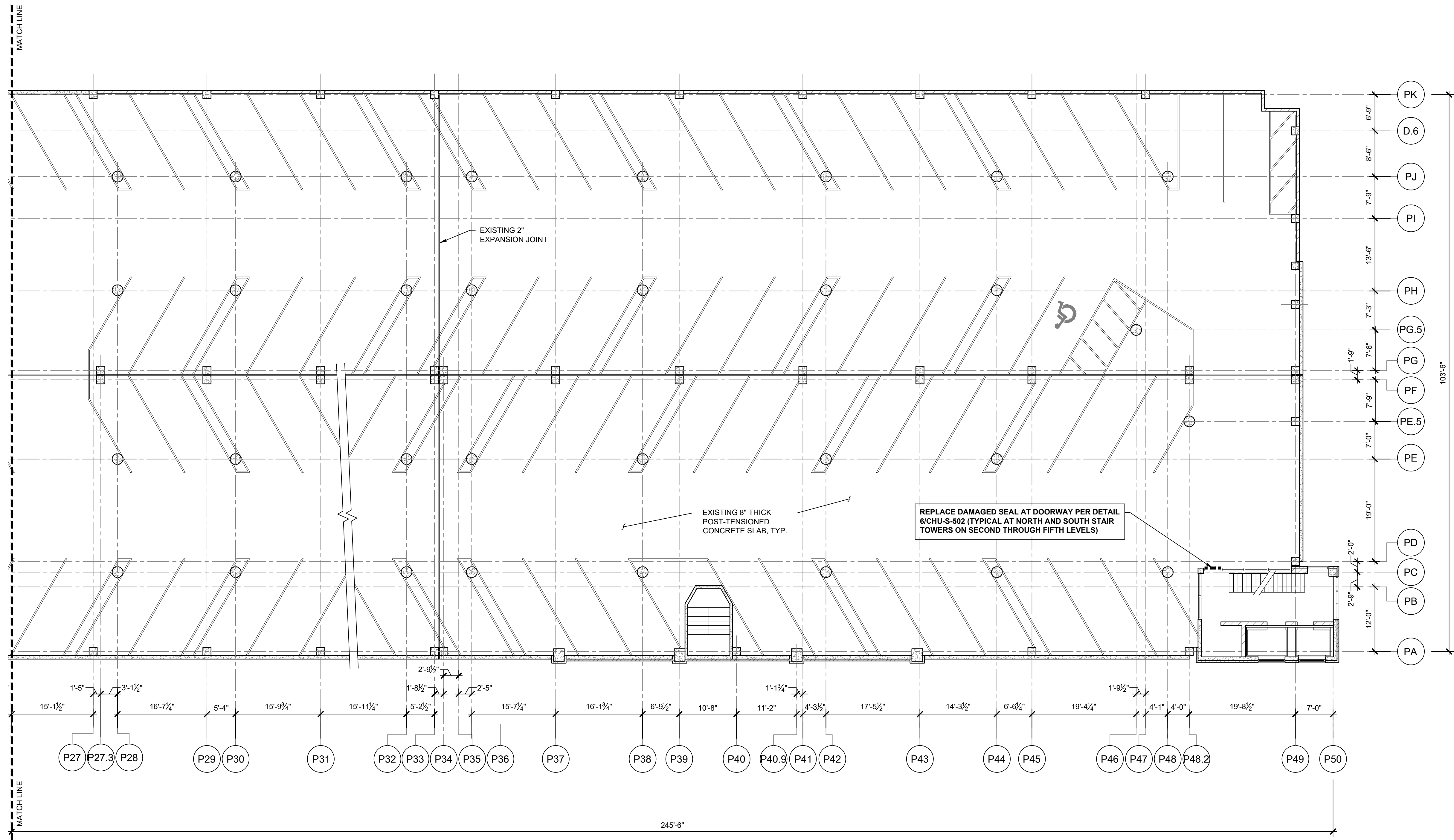
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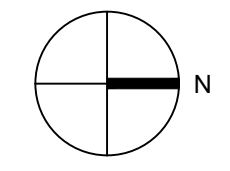


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**1 THIRD LEVEL PLAN (NORTH END)**  
 SCALE: 3/32" = 1'-0"



- NOTES:**
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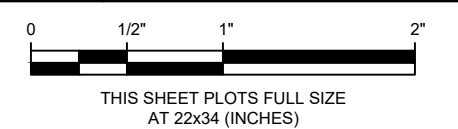
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Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

**THIRD LEVEL PLAN  
(NORTH END)**

Sheet Title

Sheet No. **CHU-S-106**

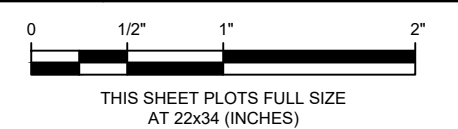
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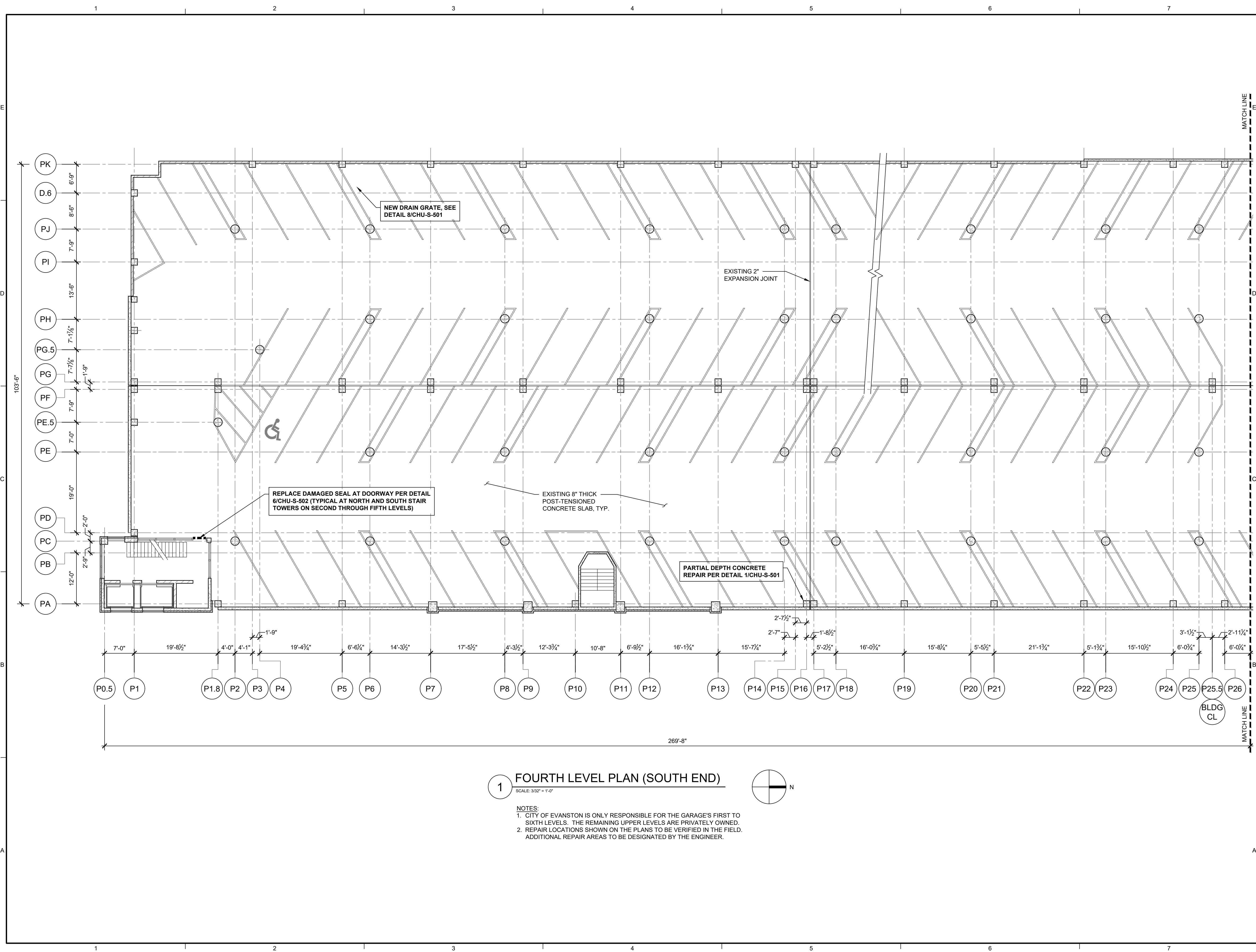
Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
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Scale	AS NOTED

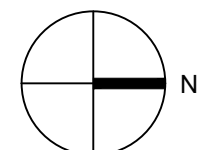
**FOURTH LEVEL PLAN  
 (SOUTH END)**

Sheet Title  
**CHU-S-107**  
 Sheet No.



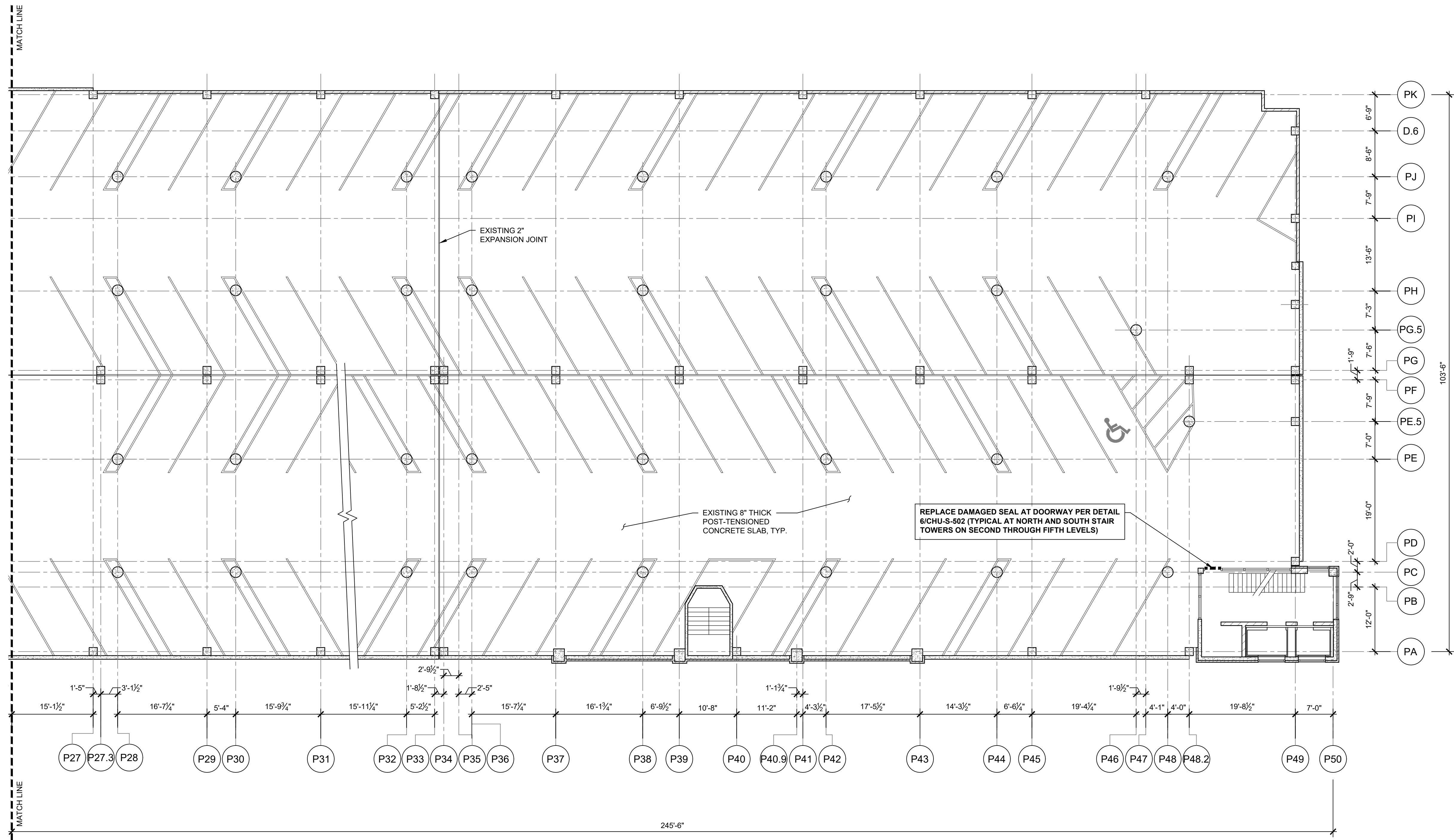
**1 FOURTH LEVEL PLAN (SOUTH END)**  
 SCALE: 3/32" = 1'-0"

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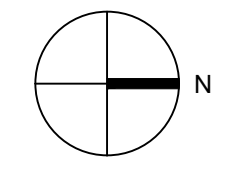


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**1 FOURTH LEVEL PLAN (NORTH END)**  
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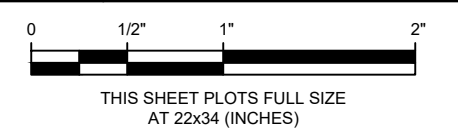
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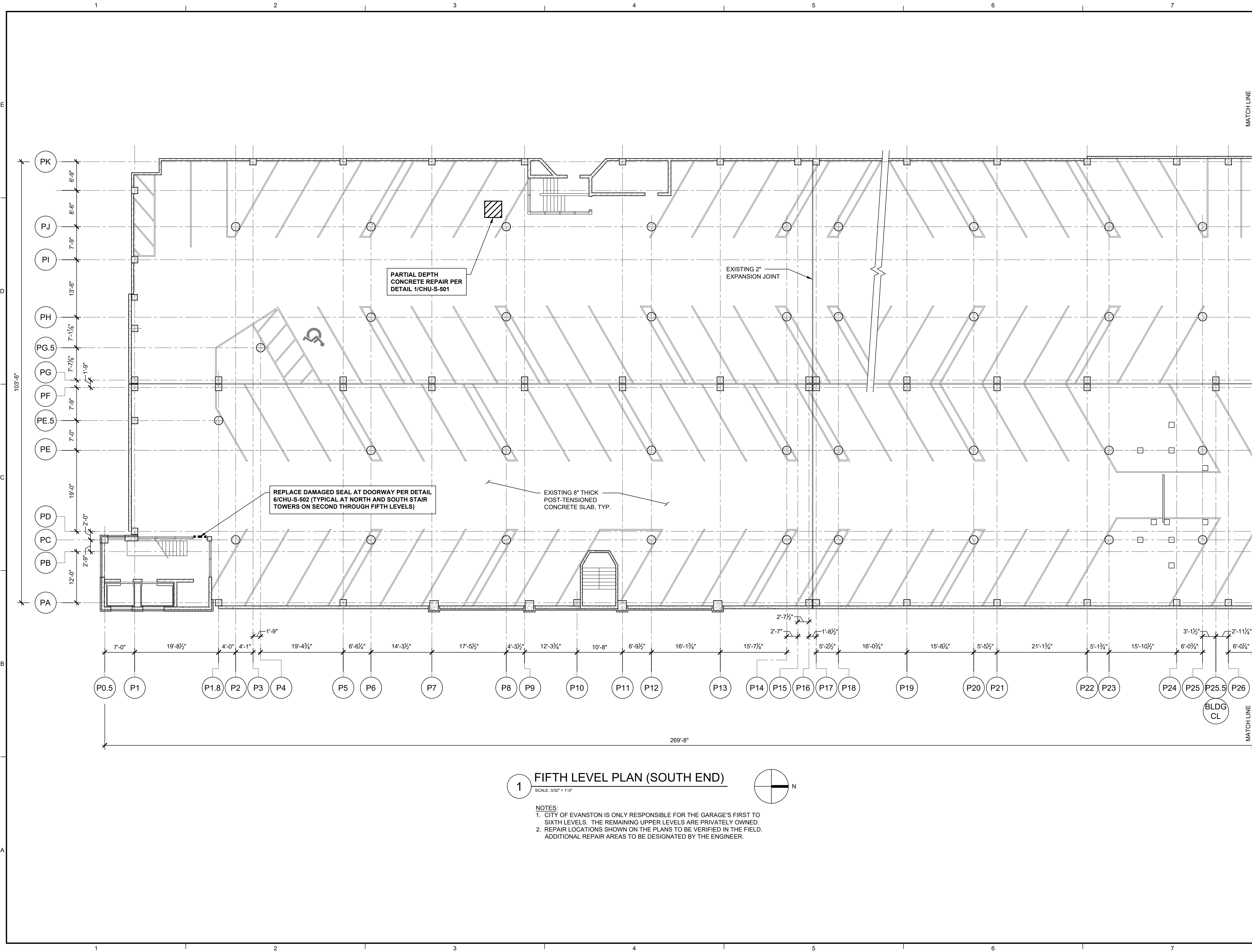
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Date	1/26/2022
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Checked	MJF
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**FOURTH LEVEL PLAN  
(NORTH END)**

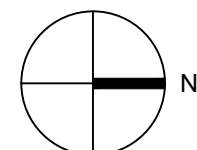
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**1 FIFTH LEVEL PLAN (SOUTH END)**  
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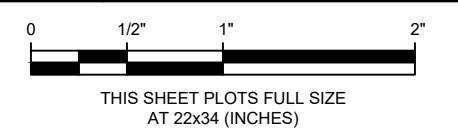
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Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

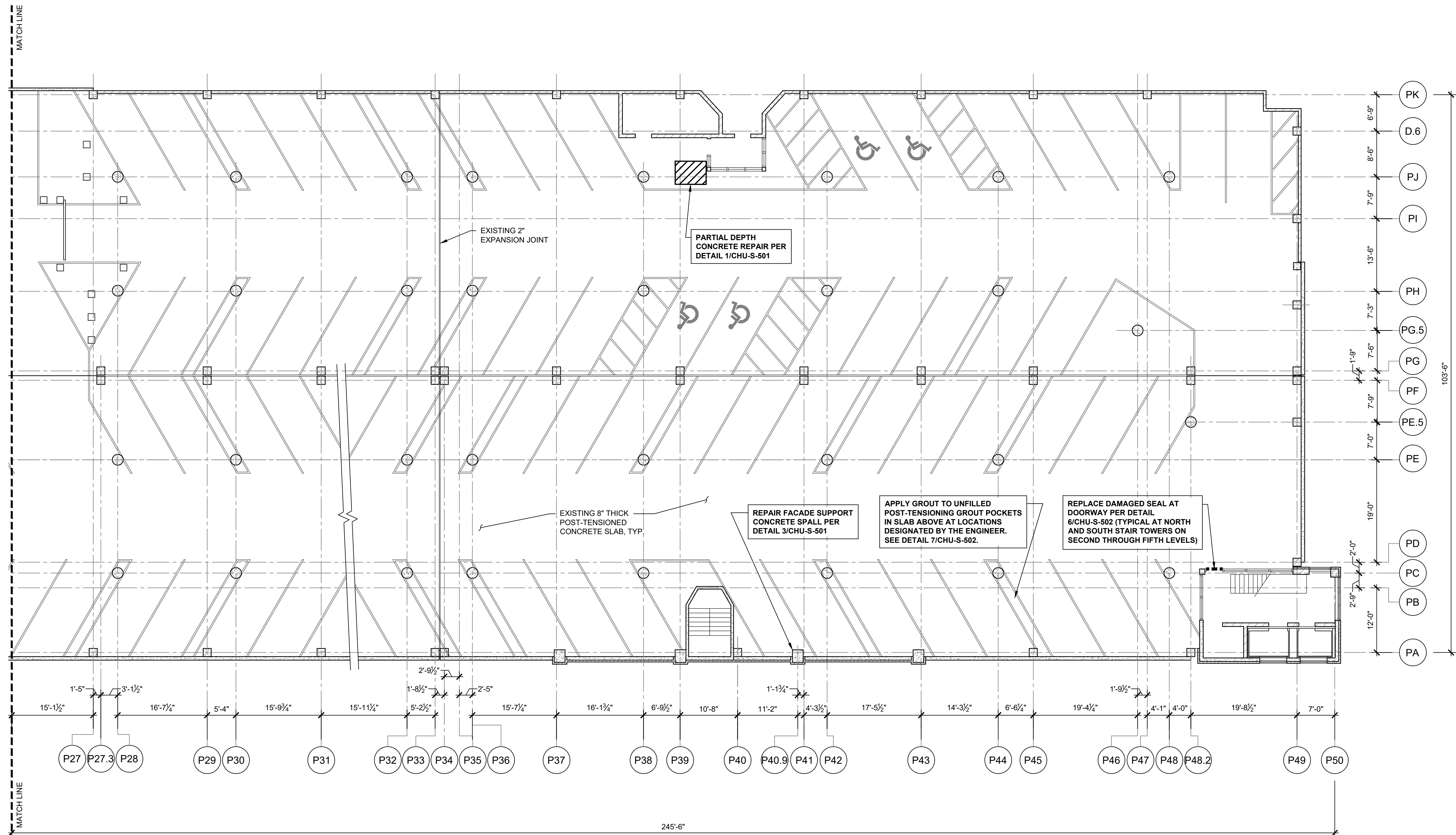
FIFTH LEVEL PLAN (SOUTH END)

Sheet No. **CHU-S-109**



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**1 FIFTH LEVEL PLAN (NORTH END)**  
SCALE: 3/32" = 1'-0"

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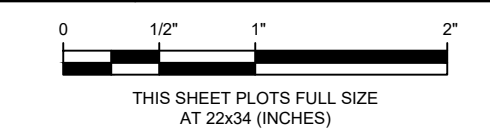
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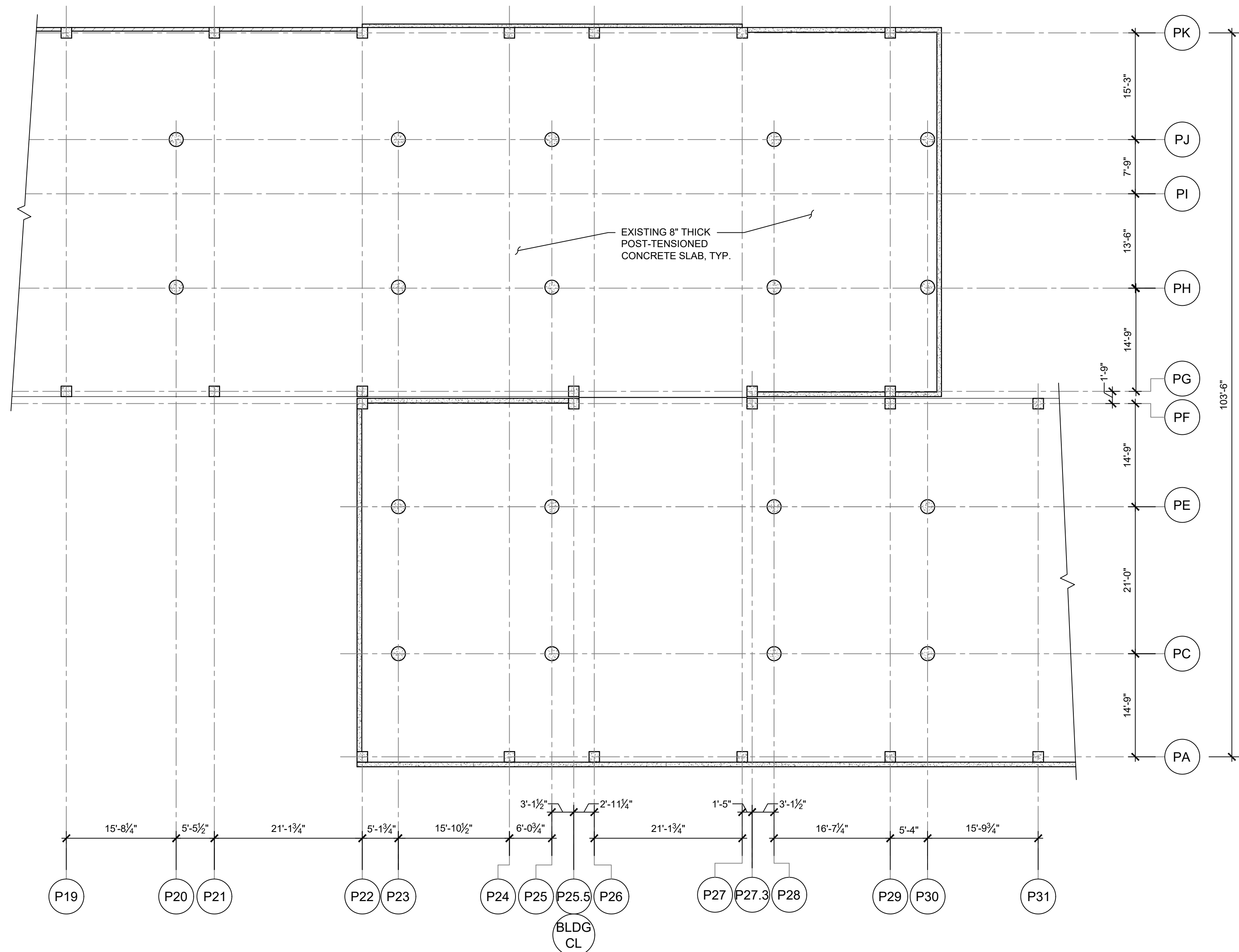


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Date	1/26/2022
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Scale	AS NOTED

**FIFTH LEVEL PLAN  
(NORTH END)**

Sheet Title  
**CHU-S-110**

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**1 SIXTH LEVEL PLAN**  
SCALE: 3/32" = 1'-0"

- NOTES:**
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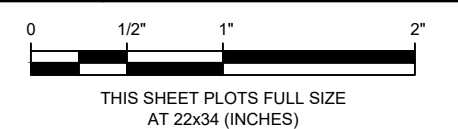
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Mark	Date	Description

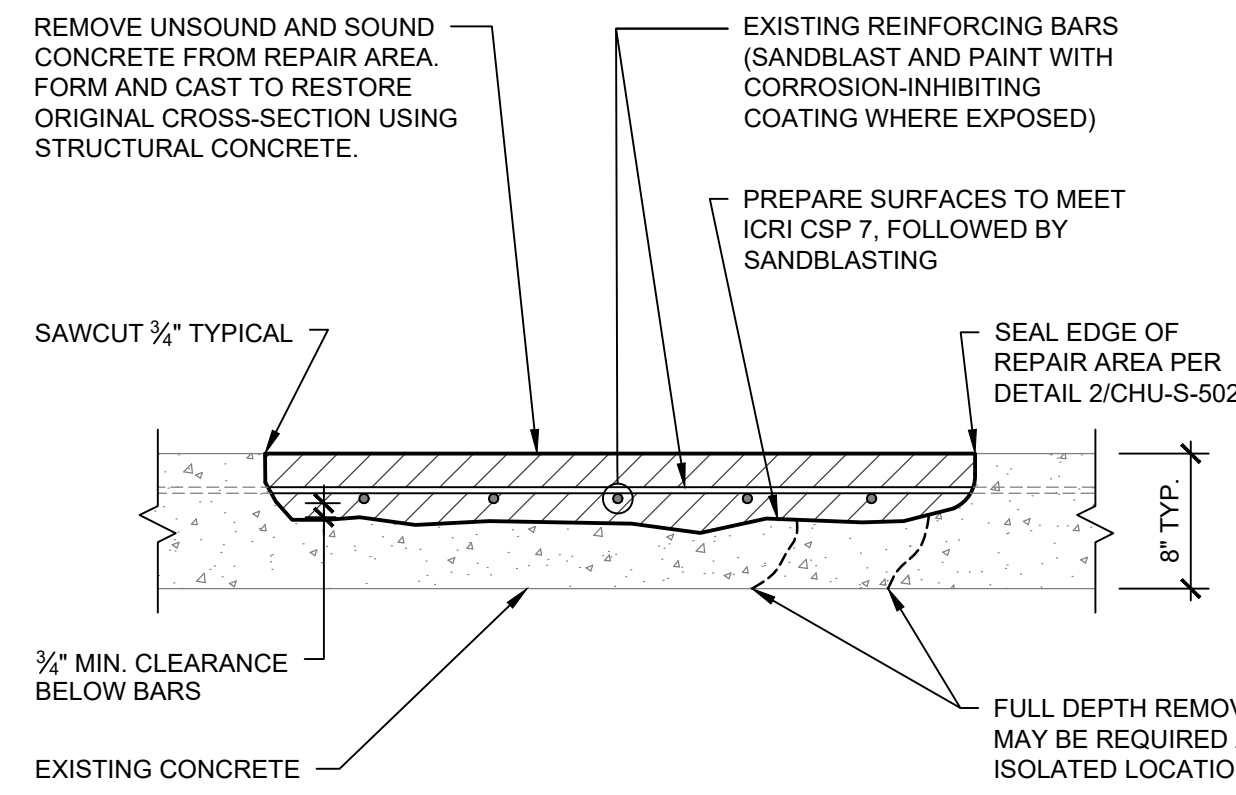


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Checked	MJF
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**SIXTH LEVEL PLAN**  
Sheet Title  
Sheet No. **CHU-S-111**

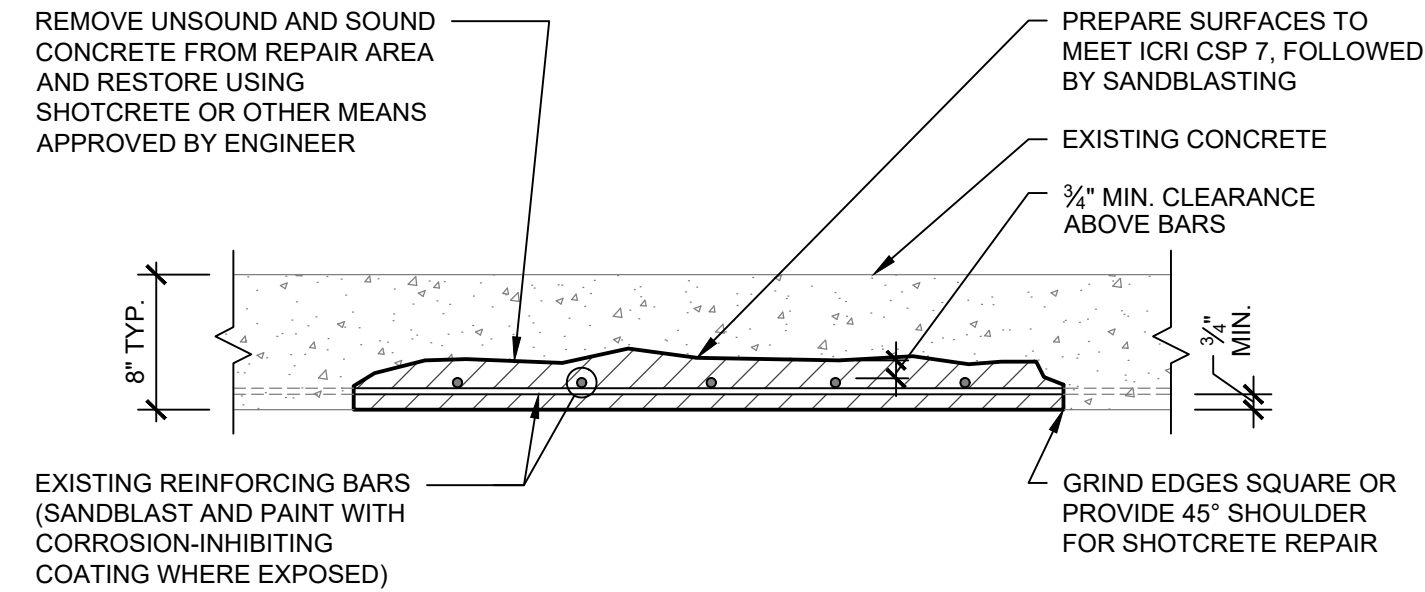
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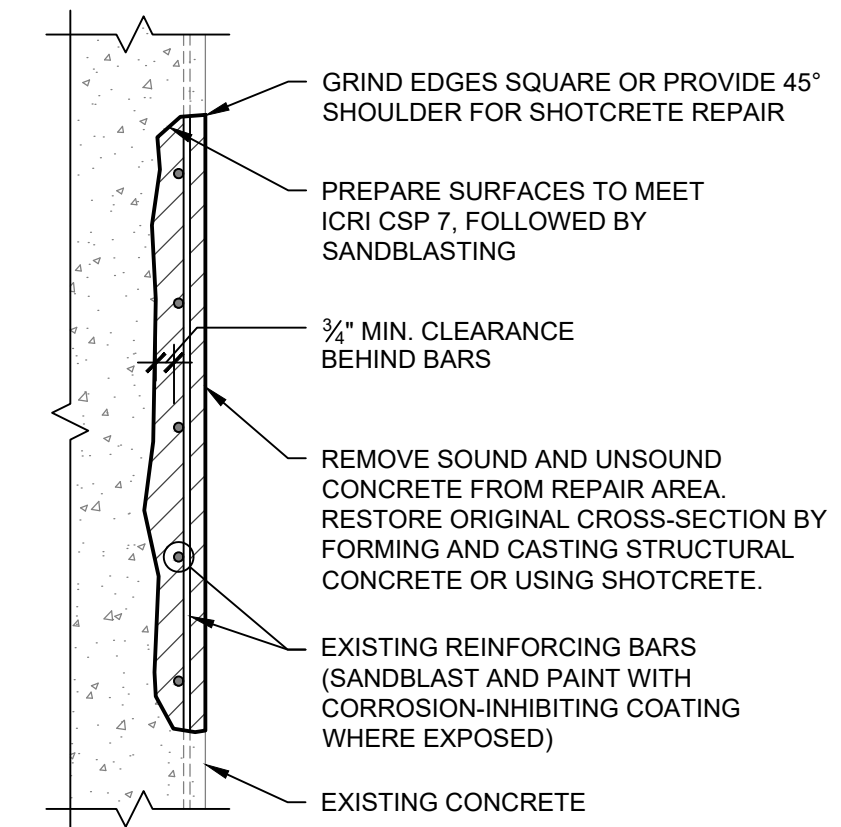
- NOTES:**
1. LARGE AREAS OF REMOVAL REQUIRE SHORING.
  2. POST-TENSIONING NOT SHOWN FOR CLARITY. CARE SHOULD BE TAKEN TO NOT DAMAGE POST-TENSIONING DURING CONCRETE REPAIRS.
  3. IF AN EXISTING WATERPROOFING MEMBRANE IS PRESENT AT THE REPAIR AREA, APPLY NEW MEMBRANE SYSTEM PER DETAILS 5 AND 7/CHU-S-501 AFTER THE CONCRETE HAS CURED. INCLUDE MEMBRANE IN CONCRETE REPAIR PRICE.

**1 PARTIAL DEPTH CONCRETE REPAIR**  
NOT TO SCALE



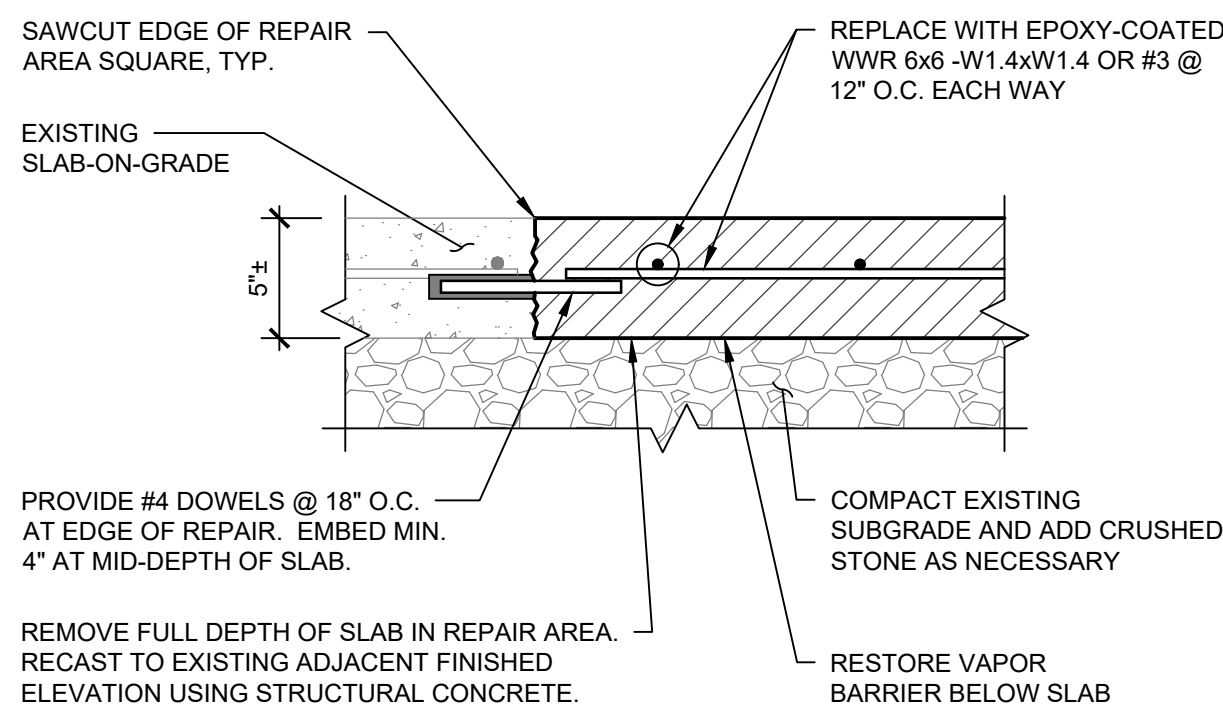
- NOTES:**
1. USE FULL DEPTH REPAIR IF LESS THAN 2 IN. OF EXISTING CONCRETE REMAINS ABOVE REPAIR OPENING.
  2. POST-TENSIONING NOT SHOWN FOR CLARITY. CARE SHOULD BE TAKEN TO NOT DAMAGE POST-TENSIONING DURING CONCRETE REPAIRS.
  3. PAINT CURED CONCRETE TO MATCH EXISTING. INCLUDE PAINT IN CONCRETE REPAIR PRICE.

**2 OVERHEAD CONCRETE REPAIR**  
NOT TO SCALE



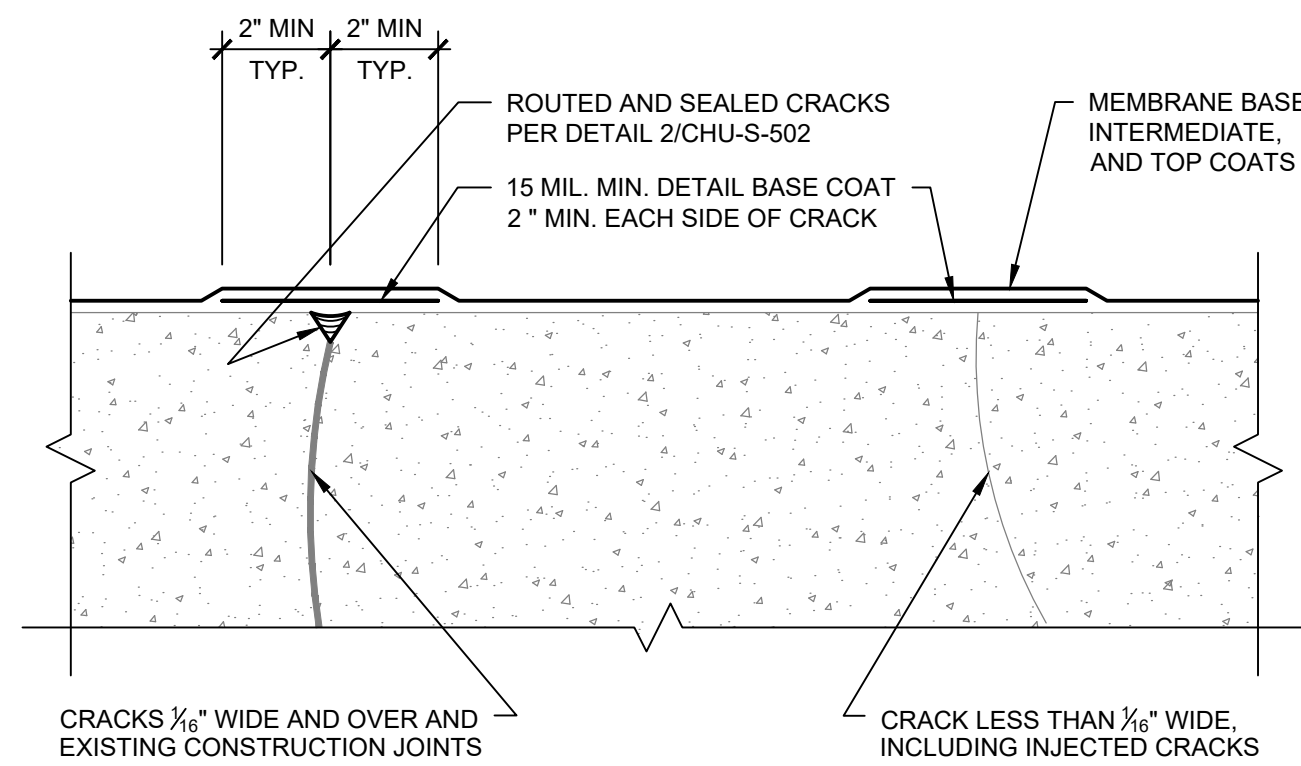
- NOTE:** PAINT CURED CONCRETE TO MATCH EXISTING. INCLUDE PAINT IN CONCRETE REPAIR PRICE.

**3 CONCRETE REPAIR AT VERTICAL SURFACE**  
NOT TO SCALE



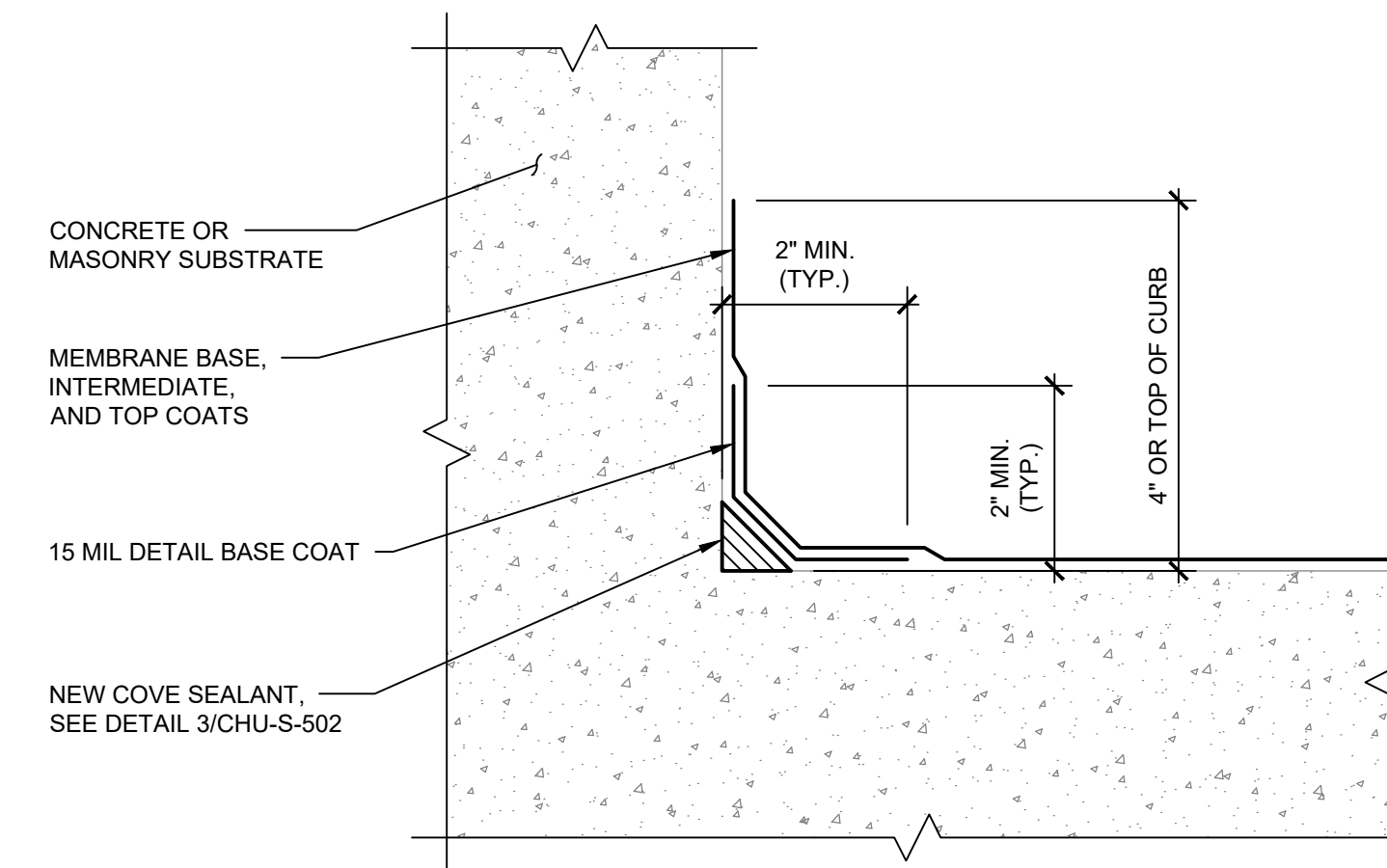
- PROVIDE #4 DOWELS @ 18" O.C. AT EDGE OF REPAIR. EMBED MIN. 4" AT MID-DEPTH OF SLAB.
- COMPACT EXISTING SUBGRADE AND ADD CRUSHED STONE AS NECESSARY
- RESTORE VAPOR BARRIER BELOW SLAB
- REMOVE FULL DEPTH OF SLAB IN REPAIR AREA. RECAST TO EXISTING ADJACENT FINISHED ELEVATION USING STRUCTURAL CONCRETE.

**4 CONCRETE SLAB-ON-GROUND REPAIR**  
SCALE: 1/12" = 1'-0"



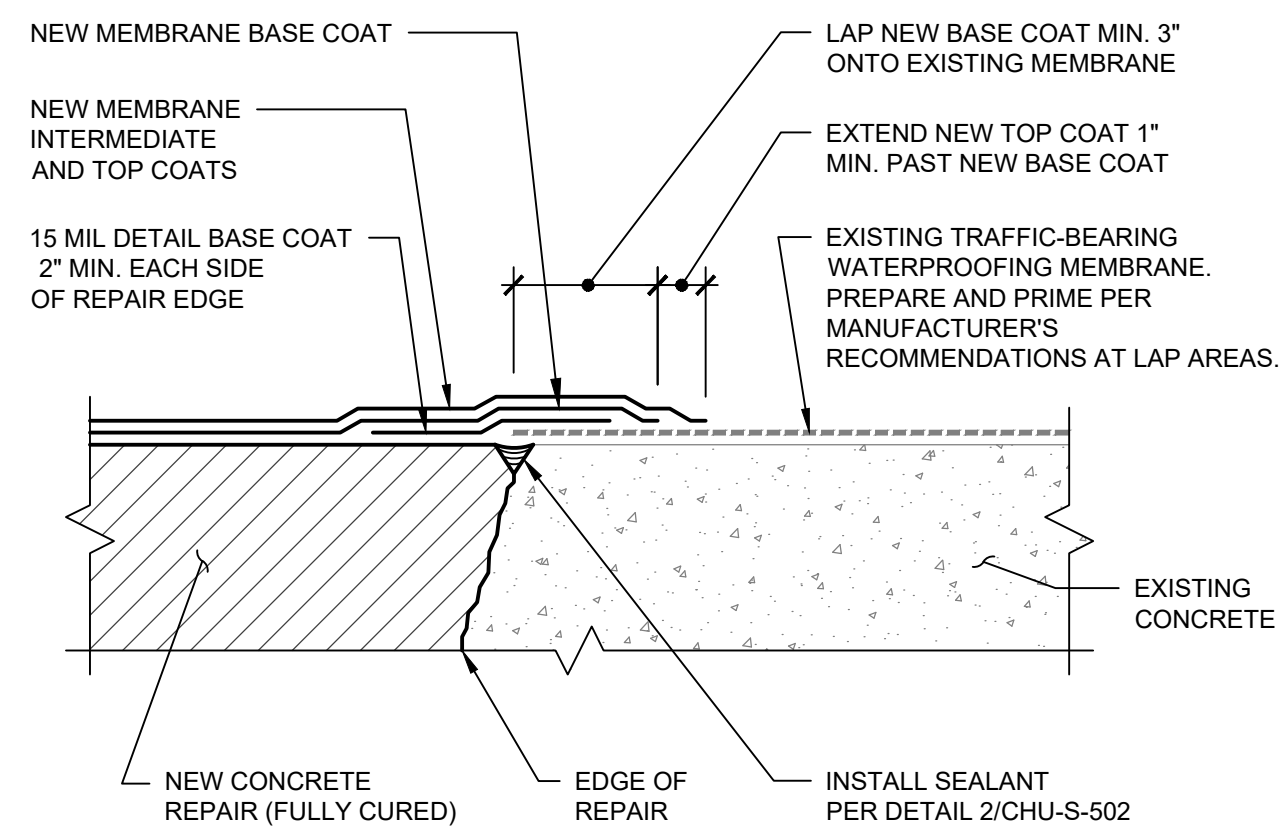
- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE. ALSO, RECORD STRIPING AND REPAINT ON NEW MEMBRANE (INCLUDE IN MEMBRANE PRICE).

**5 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT CRACKS AND CONSTRUCTION JOINTS**  
NOT TO SCALE



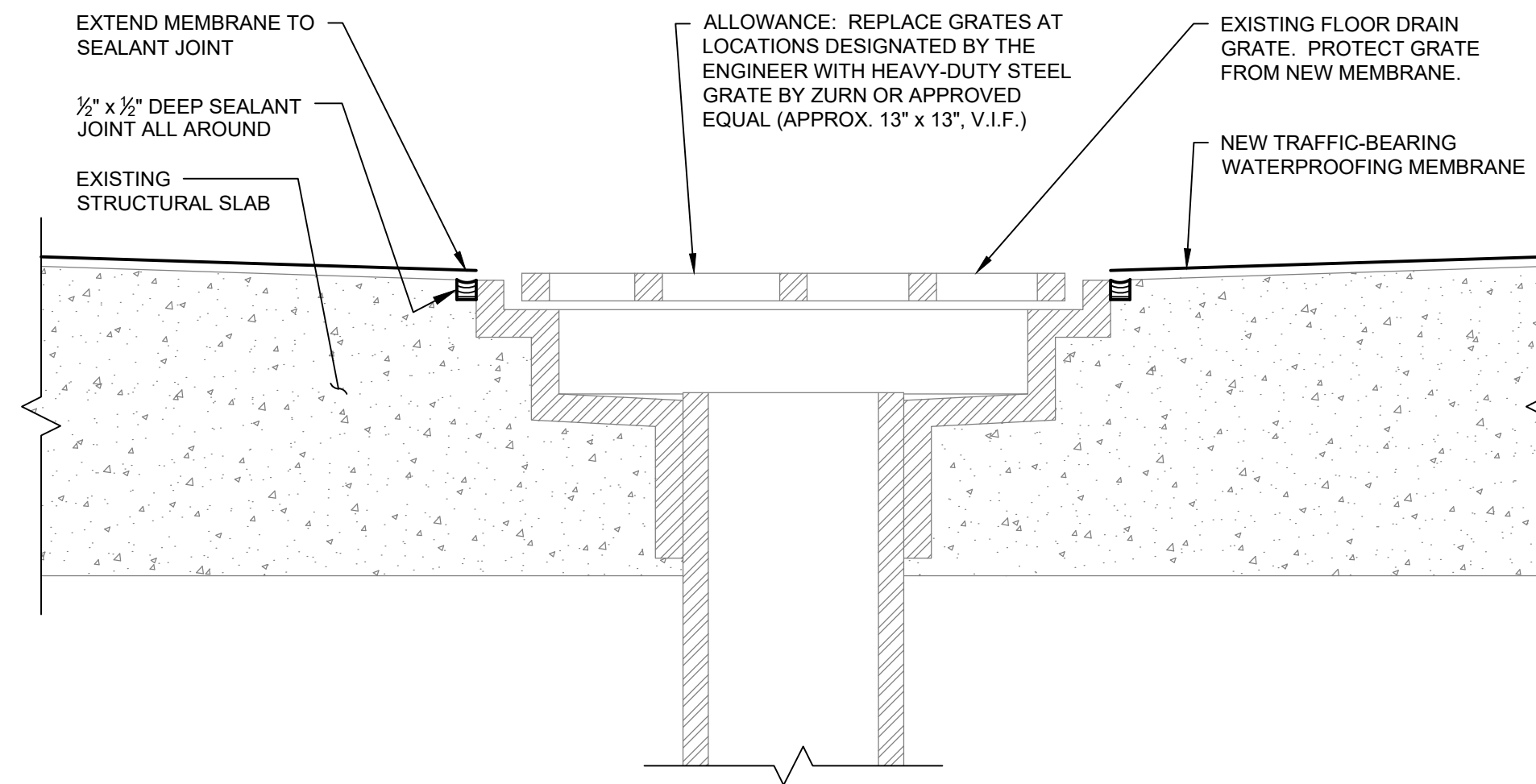
- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE COVE SEALANT IN MEMBRANE PRICE.

**6 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT UPTURN**  
NOT TO SCALE



- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE.

**7 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT EDGE OF REPAIR**  
NOT TO SCALE



- NOTE:** ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3.

**8 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT FLOOR DRAIN**  
NOT TO SCALE

**WJE** ENGINEERS  
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**FOR BID**

Consultants

Project

**CHURCH STREET  
PARKING GARAGE REPAIRS**  
  
**525 CHURCH STREET  
EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
WORKS AGENCY**  
2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201

Mark	Date	Description
0		
1/2"		
1"		
2"		

THIS SHEET PLOTS FULL SIZE AT 22x34 (INCHES)

Project No. 2020.1793.1

Date 1/26/2022

Drawn AHD

Checked MJF

Scale AS NOTED

**REPAIR DETAILS**

Sheet Title

Sheet No. **CHU-S-501**



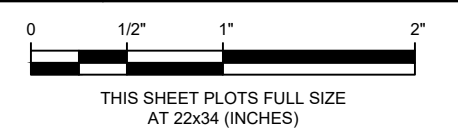
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 Project  
**CHURCH STREET  
 PARKING GARAGE REPAIRS**  
 525 CHURCH STREET  
 EVANSTON, ILLINOIS  
 Client  
**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

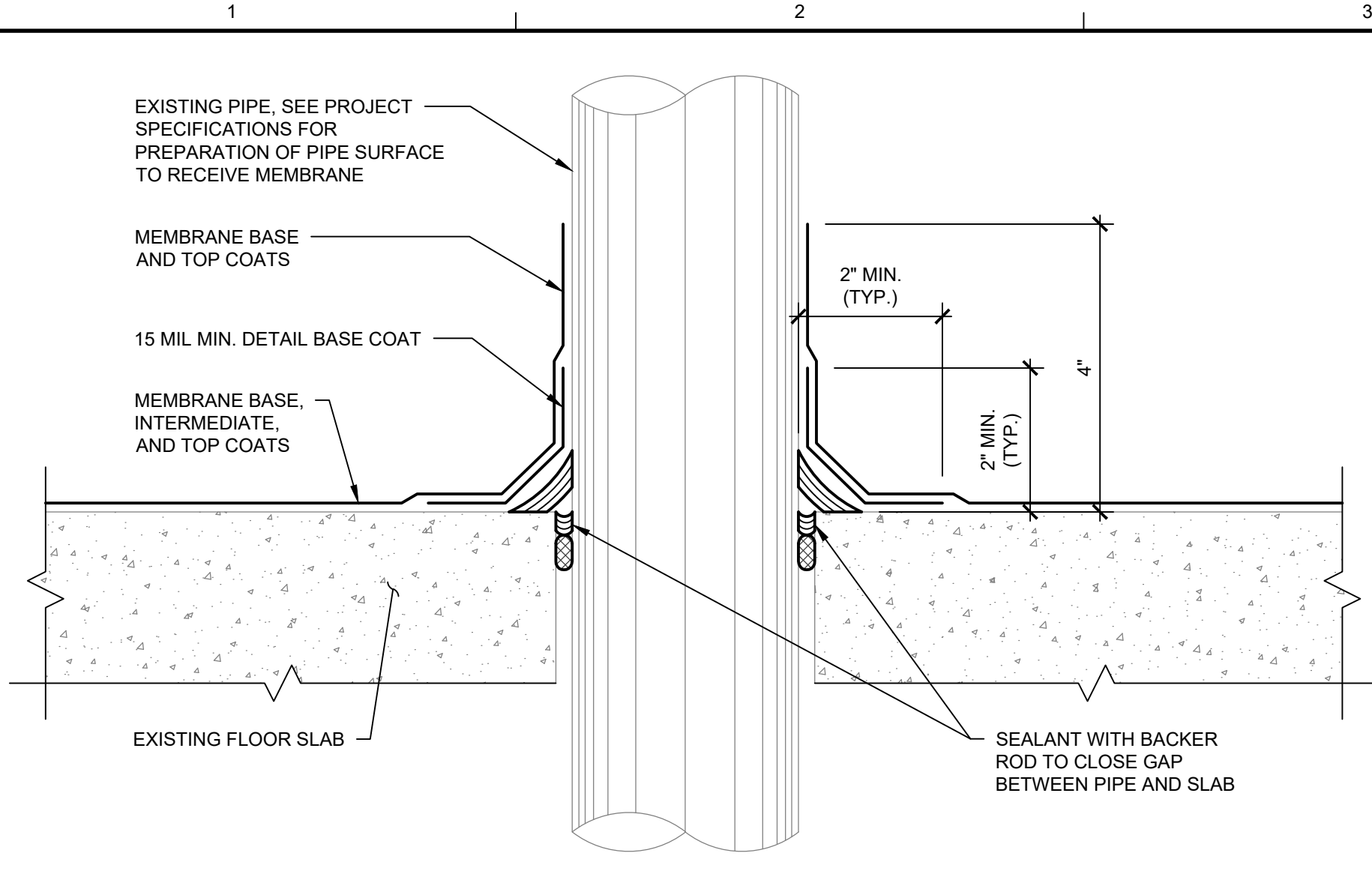
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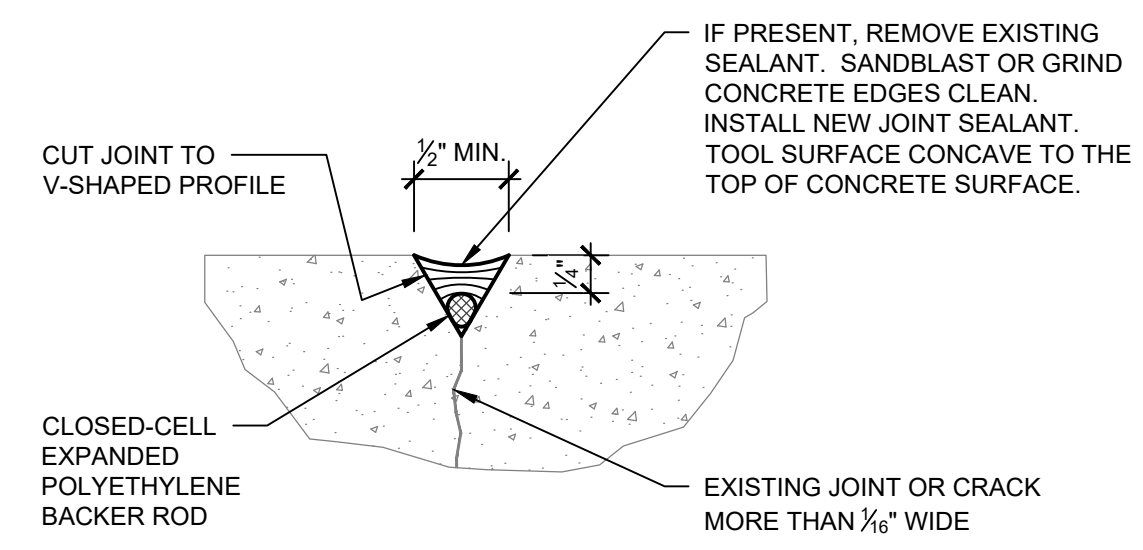
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Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

**REPAIR DETAILS**

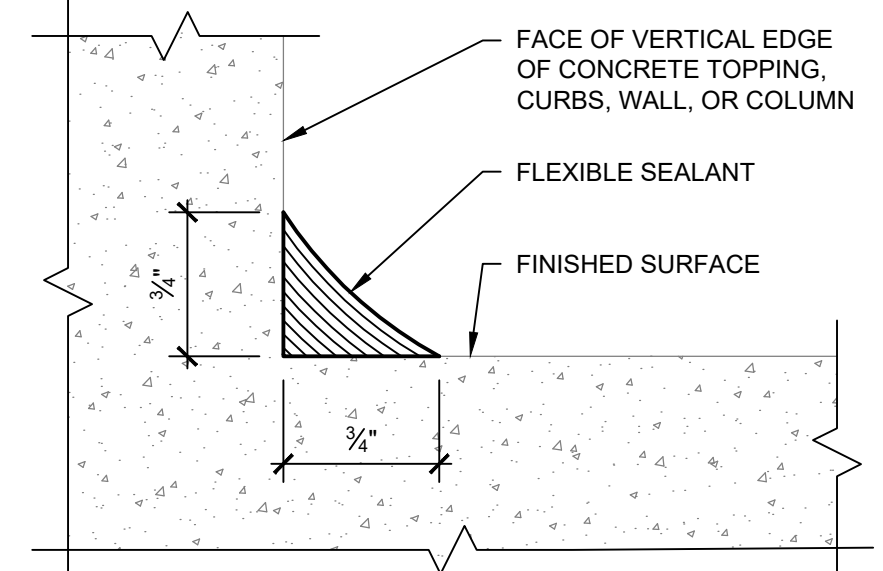
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 Sheet No.



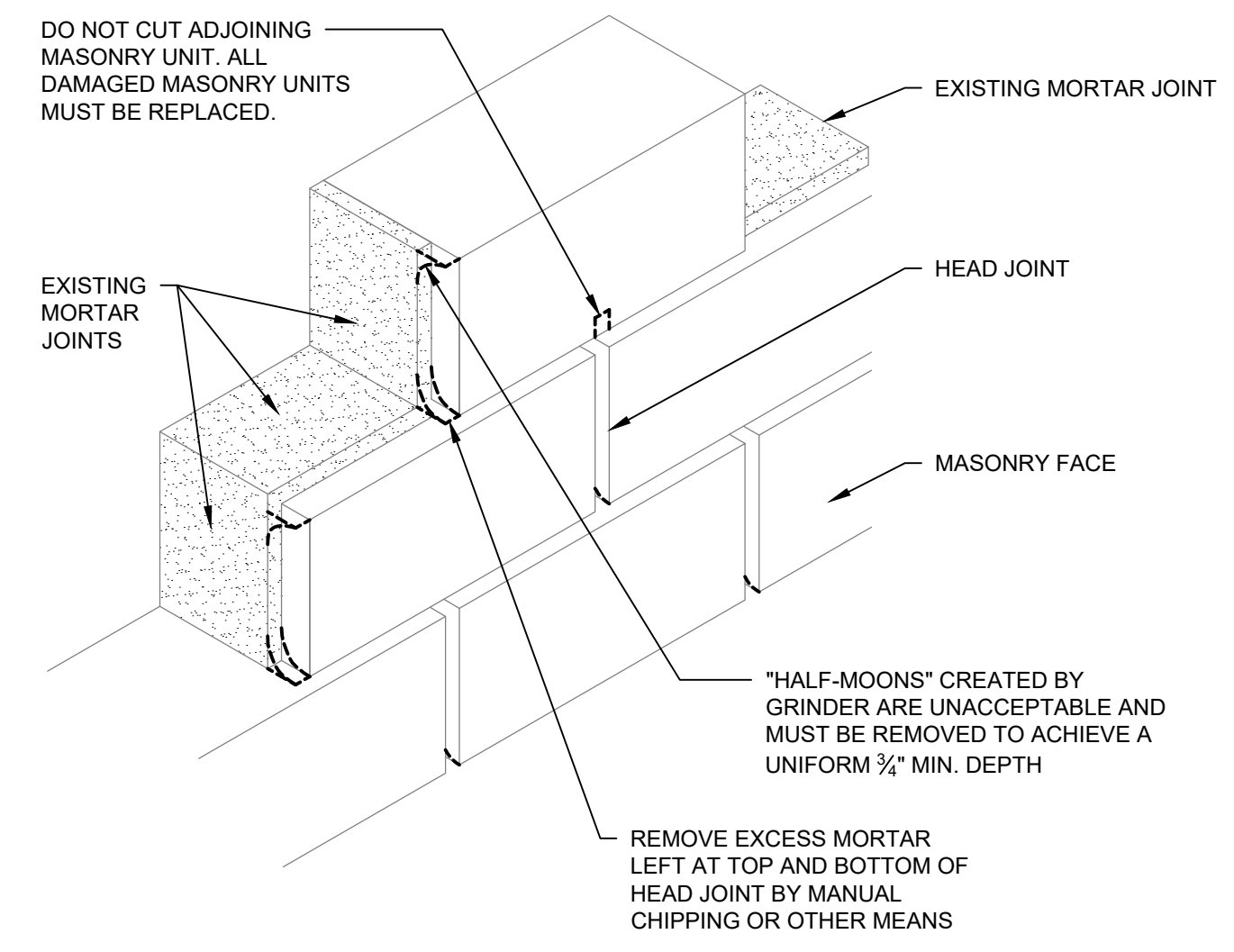
**1** TRAFFIC-BEARING WATERPROOFING MEMBRANE AT PENETRATION  
NOT TO SCALE



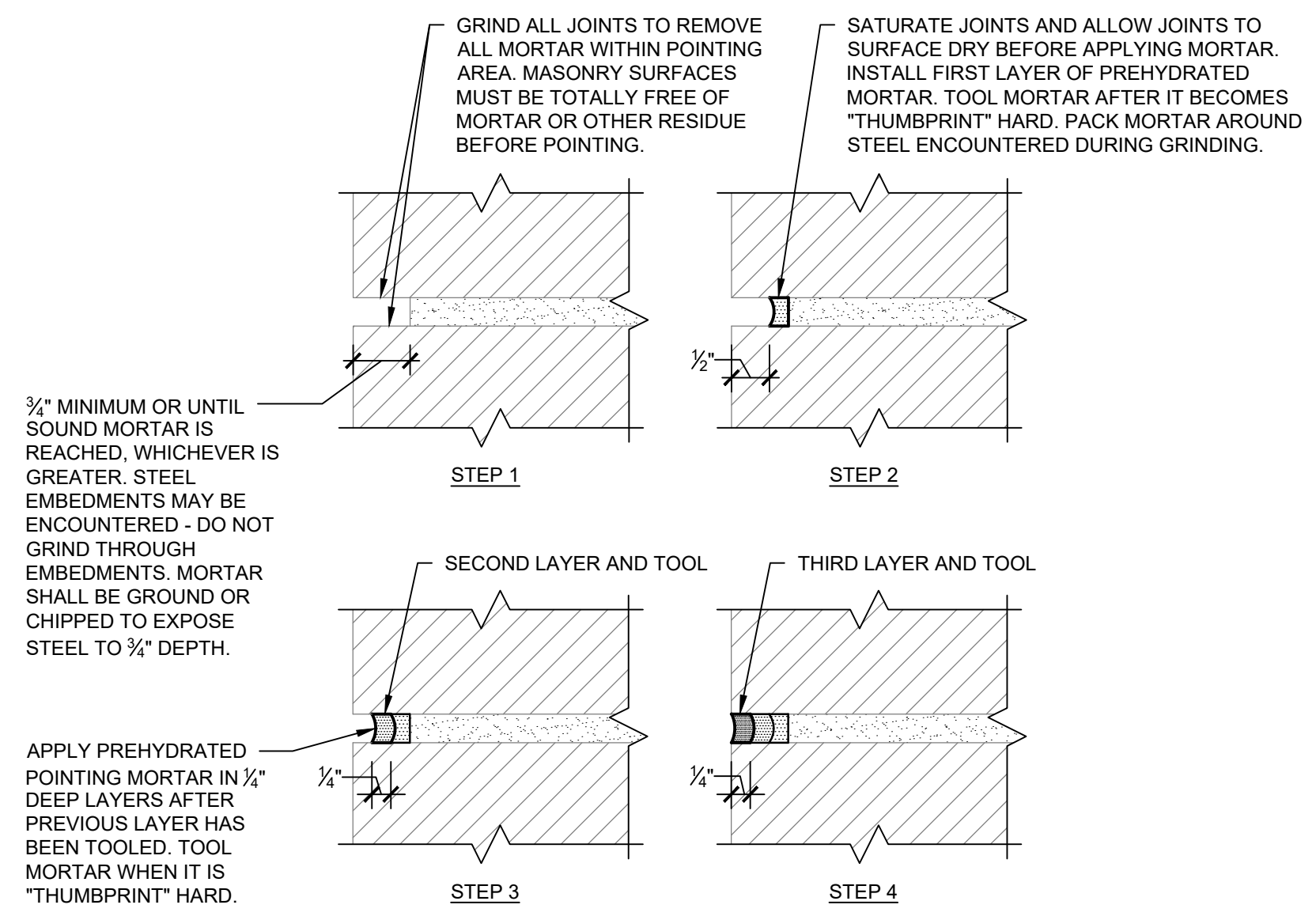
**2** SEALANT AT CRACK OR CONSTRUCTION JOINT  
SCALE: 1'-0" = 1'-0"



**3** COVE SEALANT AT JOINT  
SCALE: 1'-0" = 1'-0"



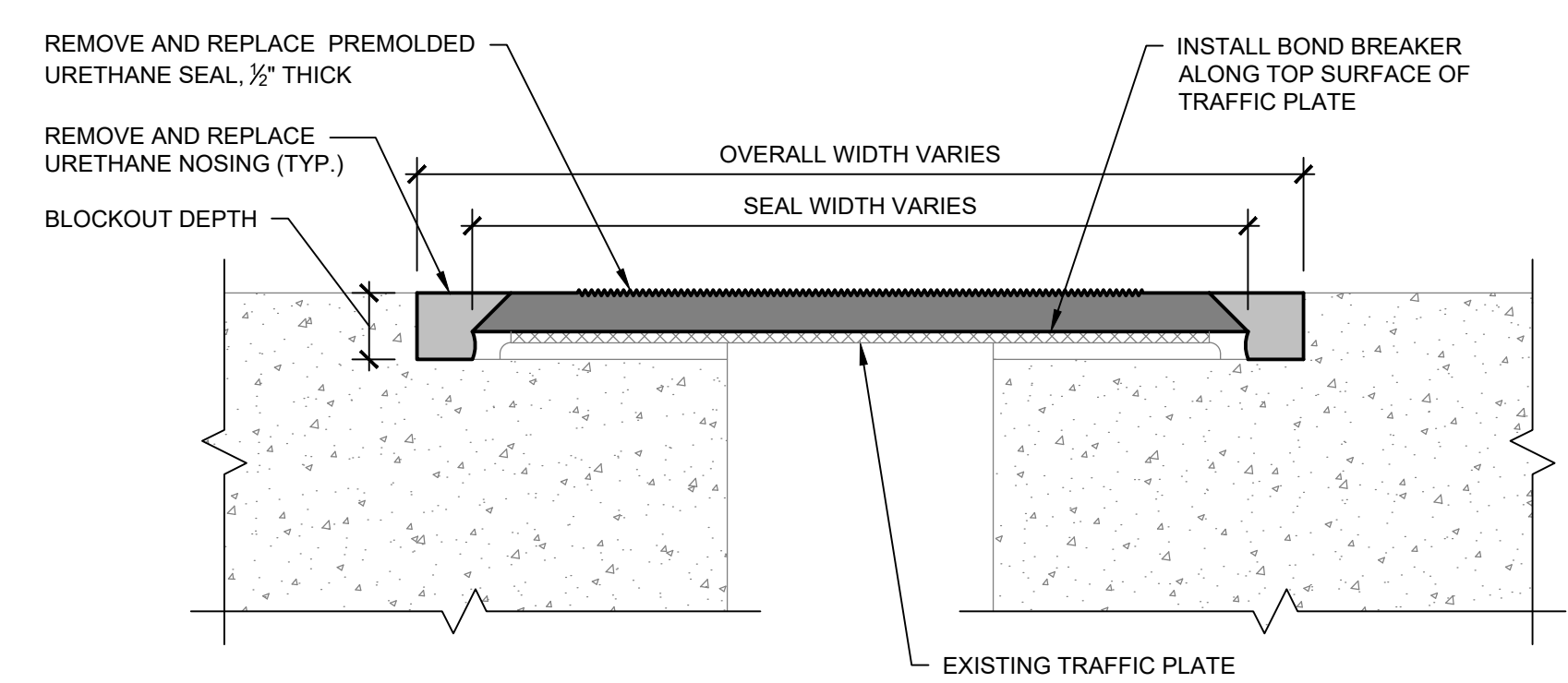
**4** GRINDING AND POINTING DETAIL (AT CMU OR BRICK)  
NOT TO SCALE



**5** REPOINTING DETAIL (AT CMU OR BRICK)  
NOT TO SCALE



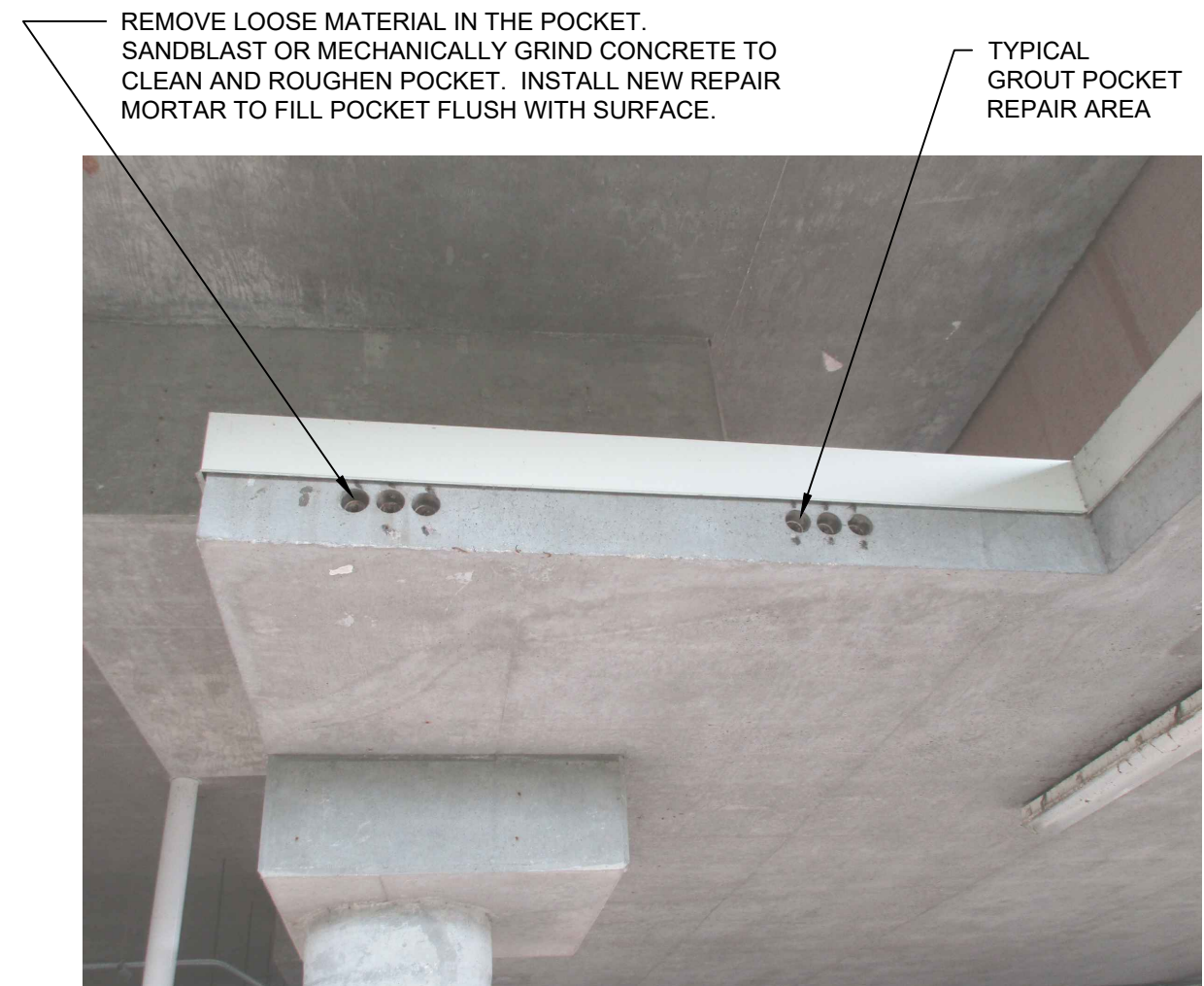
6A. PHOTO



6B. SECTION

NOTE: REFER TO THE MANUFACTURER'S INSTALLATION GUIDE FOR INFORMATION ON SPLICES, TERMINATIONS, TRANSITIONS, AND ADDITIONAL DETAILS CONCERNING ADJACENT CONSTRUCTION.

**6** FAILED STAIR JOINT SEAL REPAIR  
NOT TO SCALE



**7** POST-TENSIONED GROUT POCKET REPAIR  
NOT TO SCALE



# MAPLE AVENUE PARKING GARAGE REPAIRS

PROJECT: **MAPLE AVENUE PARKING GARAGE REPAIRS**  
 1800 MAPLE AVENUE  
 EVANSTON, ILLINOIS

CLIENT: **CITY OF EVANSTON PUBLIC WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

ENGINEER: **WISS, JANNEY, ELSTNER ASSOCIATES, INC.**  
 330 PFINGSTEN ROAD  
 NORTHBROOK, ILLINOIS 60062  
 847.272.7400 tel | 847.291.9599 fax  
**www.wje.com**

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 San Diego | San Francisco | Seattle | South Florida | Washington, DC

**FOR BID**

## INDEX OF DRAWINGS

- MAP-S-001 TITLE SHEET
- MAP-S-002 GENERAL NOTES
- MAP-S-101 GROUND LEVEL PLAN
- MAP-S-102 SECOND LEVEL PLAN
- MAP-S-103 THIRD LEVEL PLAN
- MAP-S-104 FOURTH LEVEL PLAN
- MAP-S-105 FIFTH LEVEL PLAN
- MAP-S-106 SIXTH LEVEL PLAN
- MAP-S-107 TOP LEVEL CROSSOVER PLAN
- MAP-S-501 REPAIR DETAILS
- MAP-S-502 REPAIR DETAILS
- MAP-S-503 REPAIR DETAILS
- MAP-S-504 REPAIR DETAILS

## SCOPE OF WORK

1. CONCRETE REPAIRS INCLUDING PARTIAL DEPTH TOP-SIDE, VERTICAL, AND OVERHEAD REPAIRS.
2. SLAB-ON-GROUND AND CURB CONCRETE REPAIRS.
3. POST-TENSIONING GROUT POCKET REPAIRS.
4. EXPANSION JOINT SEAL REPLACEMENT.
5. ROUTING AND SEALING OF CONCRETE CRACKS.
6. APPLICATION OF TRAFFIC-BEARING WATERPROOFING MEMBRANE.
7. REPAIR OF SMALL CONCRETE SPALLS ON TREADS ALONG NOSINGS IN STAIRWELLS.
8. SEALANT REPLACEMENT IN SELECT AREAS AS DIRECTED BY ENGINEER.
  - TYPE A - COVE JOINT WITH ELASTOMERIC SEALANT
  - TYPE B - WIDE JOINT WITH COMPRESSION SEAL DETAIL
  - TYPE C - VERTICAL JOINT (LIMITED TO WORK ON THE INTERIOR OF THE GARAGE)
9. REPLACEMENT OF ALL EXTERIOR WINDOW FRAME SEALANT AT SOUTHEAST STAIRWELL (EAST ELEVATION AT SECOND THROUGH SIXTH LEVELS).
10. MASONRY REPOINTING AT INTERIOR WALL SURFACES.
11. INSTALLATION OF EPOXIED DOWELS TO REINFORCE THE TOP OF ONE COLUMN AT TOP GARAGE LEVEL.
12. REPAIR OF GROUT POCKETS AT SELECT RAILING POST BASES IN THE SOUTHEAST AND NORTHWEST STAIR TOWERS.
13. LIFT AND OPERATOR FOR ENGINEER INSPECTION OF NORTH EXTERIOR FACADE (ONE DAY).

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE SPECIFICATIONS FOR THIS PROJECT, TITLED: "PROJECT MANUAL FOR CITY OF EVANSTON BID 22-14 PARKING GARAGE STRUCTURAL REPAIRS", DATED JANUARY 26, 2022.

PROJECT LOCATION

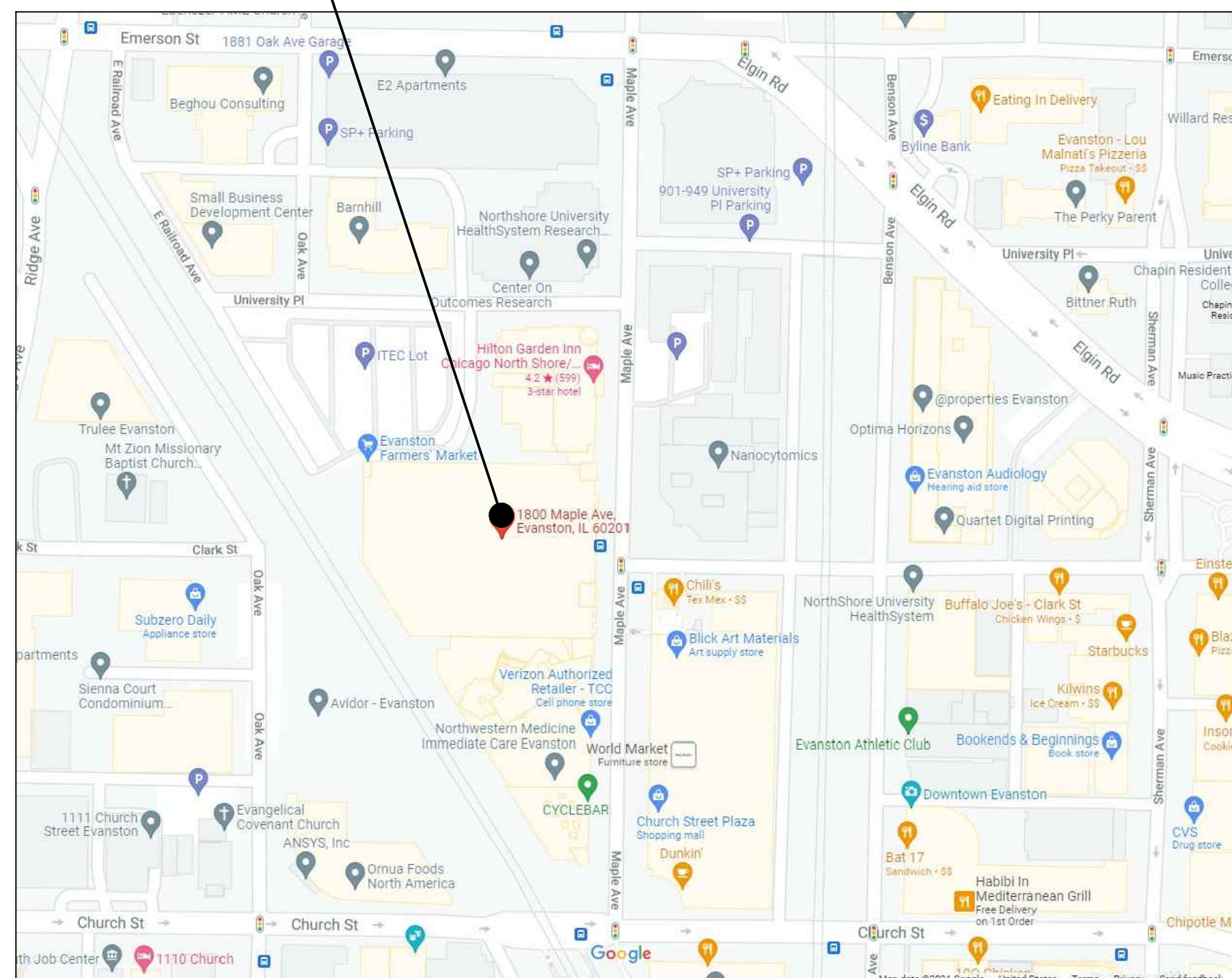
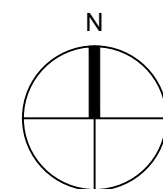


IMAGE ACCESSED FROM GOOGLE 11/17/2021. ANNOTATIONS BY WJE.

**LOCATION MAP**  
 NOT TO SCALE



PROJECT LOCATION

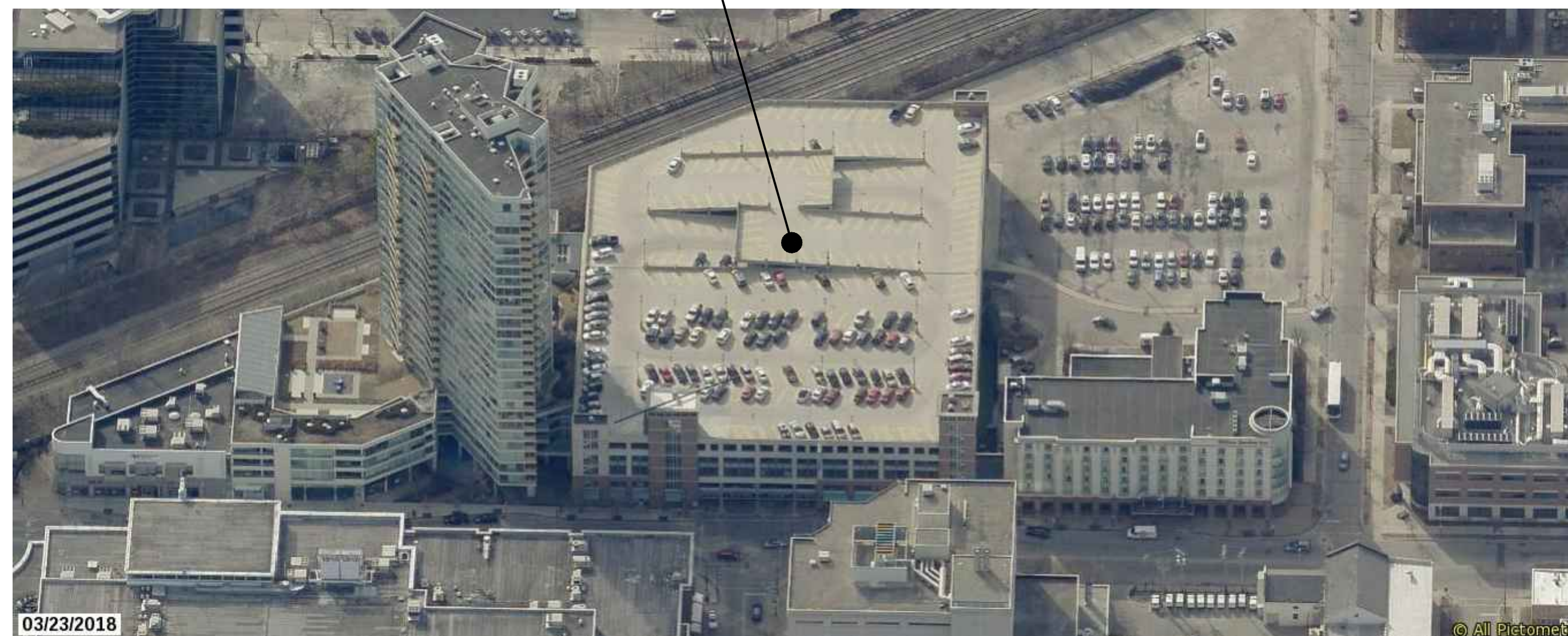
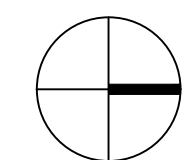


IMAGE DATED 3/23/2018 PROVIDED THROUGH PICTOMETRY SUBSCRIPTION. ANNOTATIONS BY WJE.

**AERIAL PHOTO**  
 NOT TO SCALE



Consultants

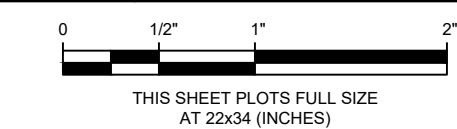
Project

**MAPLE AVENUE  
 PARKING GARAGE REPAIRS**  
 1800 MAPLE AVENUE  
 EVANSTON, ILLINOIS

Client

**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

Mark	Date	Description



Project No. 2020.1793.1

Date 1/26/2022

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Checked MJF

Scale AS NOTED

**TITLE SHEET**

Sheet Title

Sheet No. **MAP-S-001**

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## GENERAL NOTES

### DRAWINGS AND EXISTING CONDITIONS

- THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED FOR THE REPAIR OF THE CITY OF EVANSTON'S MAPLE AVENUE PARKING GARAGE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF ARCHITECT/ENGINEER.
- THE STANDARD SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO STARTING THE WORK, AND SHALL IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES, OMISSIONS, OR OTHER CONDITIONS THAT MAY AFFECT THE SCOPE OF WORK PRIOR TO BEGINNING REPAIRS IMPACTED BY THE NOTED CONDITIONS.

### CODES, PERMITS, AND INSURANCE

- ALL CONSTRUCTION, DEMOLITION AND REMOVAL OF MATERIALS SHALL BE IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES, ORDINANCES AND WORK RULES. REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS AND DEBRIS SHALL BE PERFORMED IN ACCORDANCE WITH EPA REQUIREMENTS AND APPLICABLE STATE REGULATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND ASSOCIATED FEES FOR WORK DESCRIBED WITHIN THESE DOCUMENTS.
- CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE INSURED (INCLUDING WORKERS COMP, LIABILITY, AND AUTO INSURANCE COVERAGE ACCEPTABLE TO THE OWNER) AND LICENSED AS REQUIRED BY THE LOCAL BUILDING AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND PROVIDE ALL MATERIALS, LABOR, SCAFFOLD, EQUIPMENT, AND DISPOSAL REQUIRED TO PERFORM THE WORK DESCRIBED HEREIN.

### USE OF SITE, SAFETY AND PROTECTION

- WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND SAFETY PROGRAMS IN CONNECTION WITH THE PROJECT, SINCE THESE ARE THE RESPONSIBILITY OF OTHERS. WJE SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE PROJECT IN ACCORDANCE WITH CONTRACT DOCUMENTS. WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER NON-WJE PERSONS PERFORMING PORTIONS OF THE PROJECT.
- THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF CONSTRUCTION ACTIVITIES TO THE OWNER AND ARCHITECT/ENGINEER.

- THE GARAGE WILL BE IN OPERATION DURING THE REPAIR PROJECT. CONSTRUCTION-RELATED ACTIVITIES SHALL NOT BLOCK EXISTING MEANS OF EGRESS OUTSIDE OF THE GARAGE. CONTRACTOR SHALL COORDINATE WITH OWNER TO MAINTAIN ACCESS TO OPEN AREAS OF THE GARAGE AT ALL TIMES. DUE TO THE RELATIVELY LIMITED AND ISOLATED REPAIR AREAS, IT IS ANTICIPATED THAT THE CONTRACTOR WILL HAVE ACCESS TO ALL REPAIR AREAS CONCURRENTLY, BUT WITH PHASING AS NEEDED TO MAINTAIN A DRIVE AISLE.
- ACCESS TO THE SITE AND CONSTRUCTION TRAFFIC SHALL BE IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS.
- ANY REQUIRED STORAGE AREAS WITHIN THE PROPERTY MUST BE COORDINATED WITH THE OWNER. ALL NEW CONSTRUCTION MATERIALS SHALL BE CAREFULLY DELIVERED TO SITE. ANY DAMAGED ITEMS DELIVERED TO SITE SHALL BE REJECTED AND REPLACED AT CONTRACTOR'S EXPENSE. ALL STORED MATERIALS ON SITE SHALL BE PROTECTED AND STORED ABOVE GROUND IN A CLEAN AND DRY ENVIRONMENT AND IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- THE CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER SITE WITH MATERIALS OR EQUIPMENT. THE MATERIALS AND EQUIPMENT SHALL BE CONFINED TO THE AREAS INDICATED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE OWNER. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND SAFEKEEPING OF PRODUCTS STORED ON PREMISES. MOVE ANY STORED MATERIAL OR PRODUCTS THAT INTERFERE WITH OPERATIONS OF THE OWNER. STORE MATERIAL ONLY IN AREAS PROVIDED BY THE OWNER.
- CONTRACTOR SHALL PROVIDE PROTECTIVE BARRIERS, FENCES, SIDEWALK BRIDGING, ETC. TO ENSURE THE SAFETY OF PEDESTRIANS, BUILDING OCCUPANTS, VEHICULAR TRAFFIC, SITE FEATURES, ETC. AS APPROVED BY THE OWNER AND ARCHITECT/ENGINEER AND IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AND FEDERAL AUTHORITIES, INCLUDING OSHA.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL JOB SAFETY DURING THE REPAIR WORK.
- CONTRACTOR SHALL KNOW AND FOLLOW ALL PRECAUTIONS AND SAFETY PROCEDURES AS NORMALLY USED IN THE INDUSTRY, AND THOSE PROCEDURES AS INSTRUCTED BY THE MATERIAL MANUFACTURER, AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS, SAFETY STANDARDS AND CODES. WHEN A CONFLICT EXISTS, COMPLY WITH THE STRICTER REQUIREMENT. THE APPLICATION REQUIREMENTS OF THE U.S. DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), CONSTRUCTION INDUSTRY STANDARDS (29 CFR 1926/1910, CURRENT EDITION), WASHINGTON, D.C. SHALL BE USED AS A STANDARD GUIDELINE.
- CONTRACTOR SHALL PROVIDE A CERTIFICATE OF INSURANCE AND REQUIRED PRODUCT SUBMITTALS PRIOR TO THE START OF THE WORK.
- HOURS OF OPERATION: THE CONTRACTOR SHALL CONFINE HIS HOURS OF OPERATION BETWEEN 7AM AND 6PM LOCAL TIME, OR AS APPROVED BY THE OWNER.

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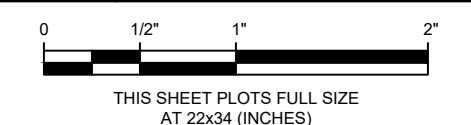
Project

**MAPLE AVENUE  
 PARKING GARAGE REPAIRS**  
  
**1236 CHICAGO AVENUE  
 EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY**  
**2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201**

Mark	Date	Description



Project No. 2020.1793.1

Date 1/26/2022

Drawn AHD

Checked MJF

Scale AS NOTED

GENERAL NOTES

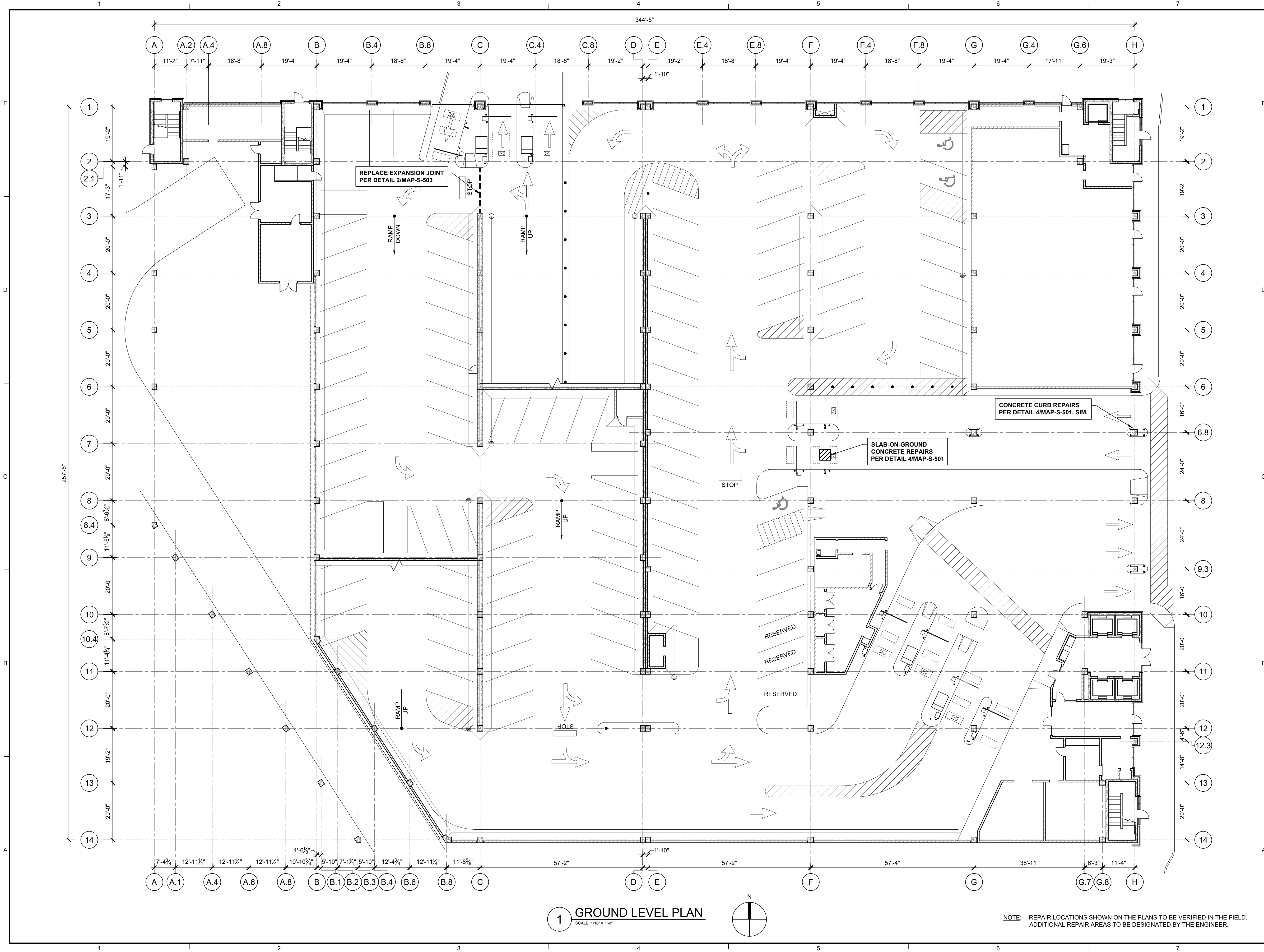
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MAP-S-002

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**1 GROUND LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"

NOTE: REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.

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 San Diego | San Francisco | Seattle | South Florida | Washington, DC

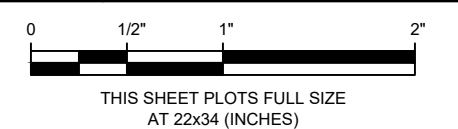
**FOR BID**

Consultants

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**MAPLE AVENUE  
 PARKING GARAGE REPAIRS**  
 1800 MAPLE AVENUE  
 EVANSTON, ILLINOIS

Client  
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 WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

Mark	Date	Description



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Drawn	AHD
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Scale	AS NOTED

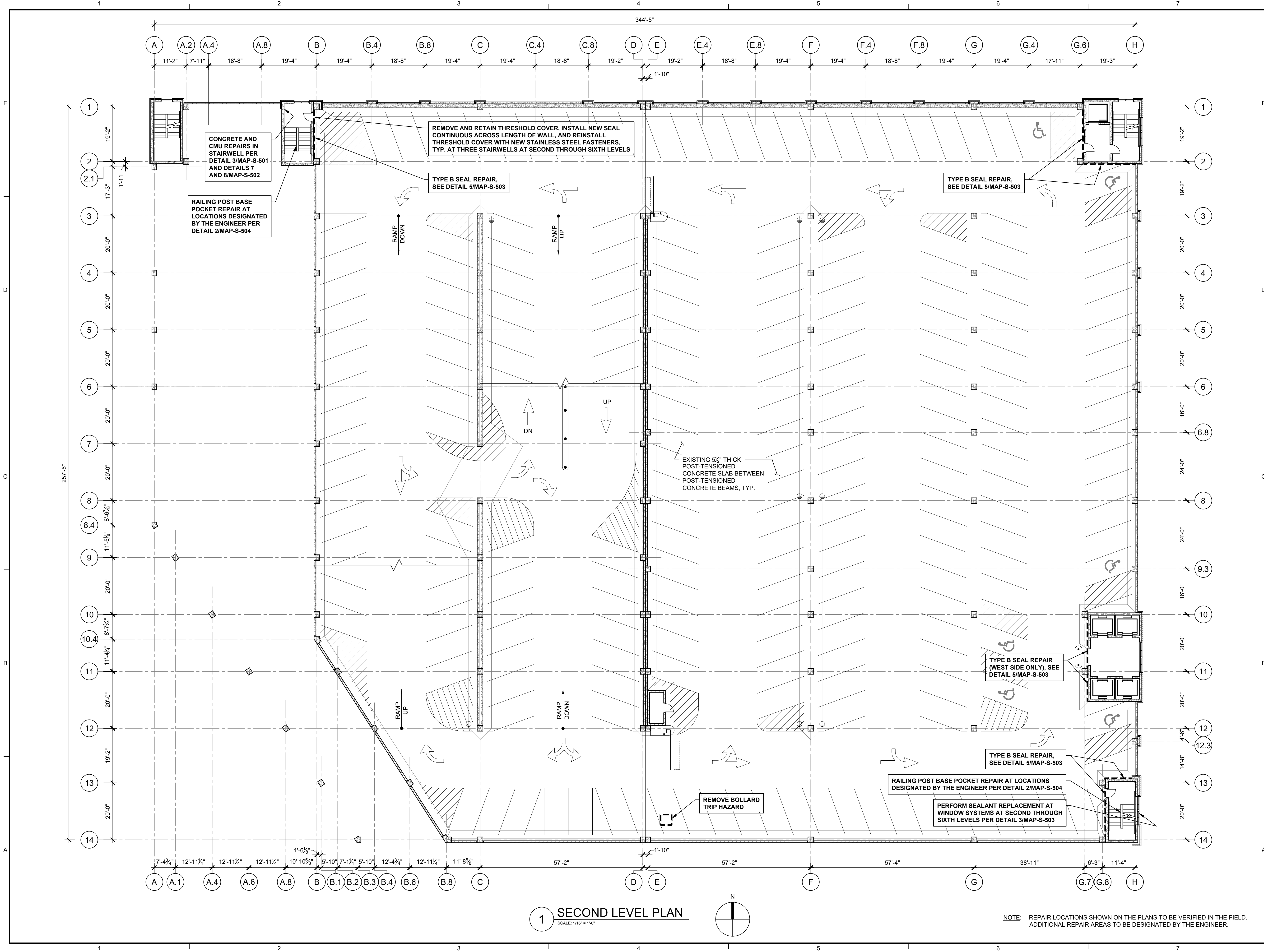
**GROUND LEVEL PLAN**

Sheet Title

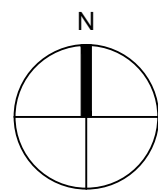
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**1 SECOND LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"



NOTE: REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.

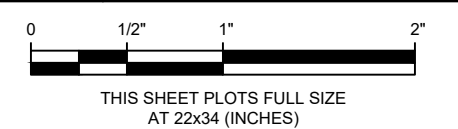
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Client
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Date	1/26/2022
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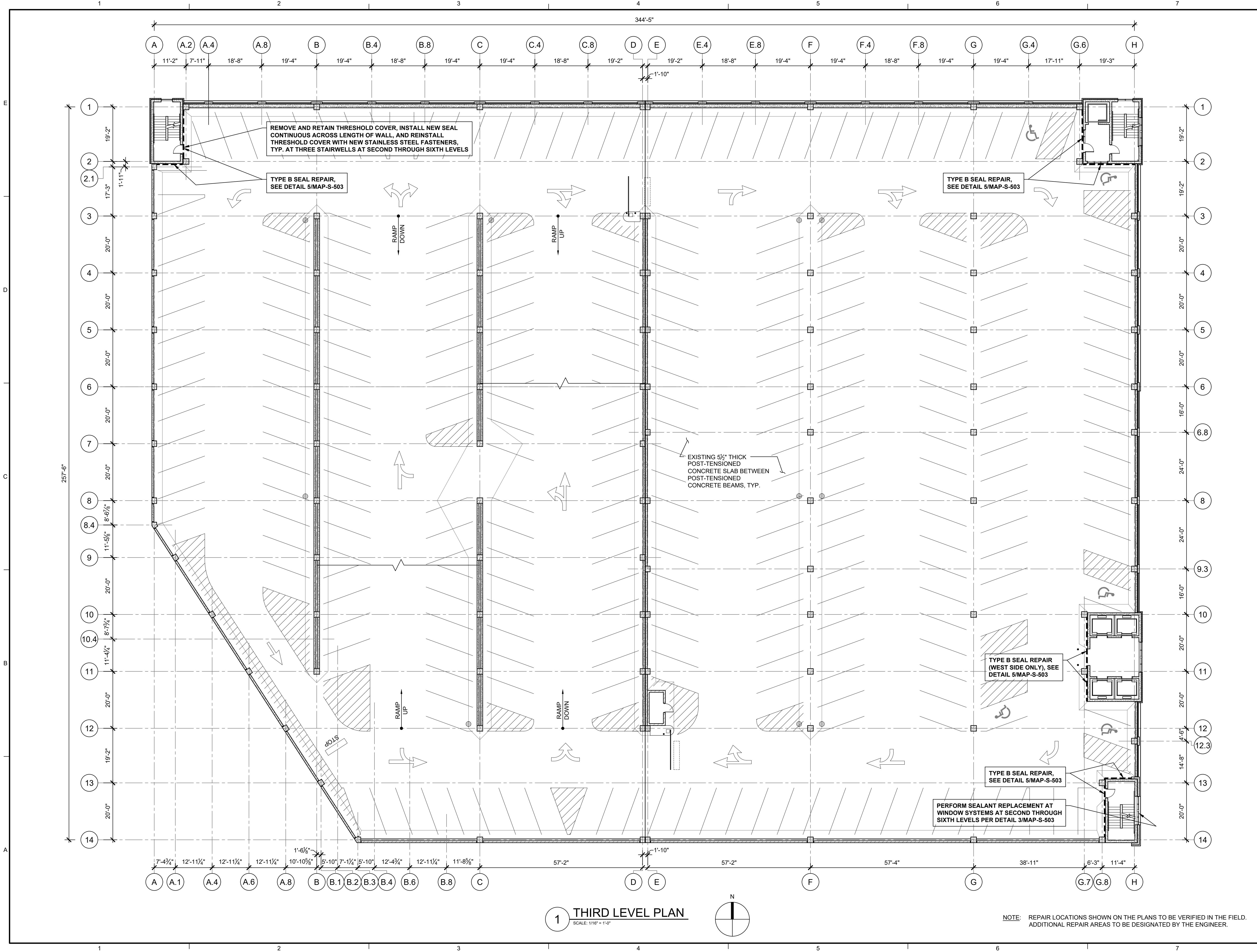
**SECOND LEVEL PLAN**

Sheet Title  
**MAP-S-102**  
 Sheet No.

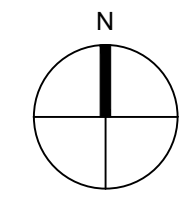


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**1 THIRD LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"



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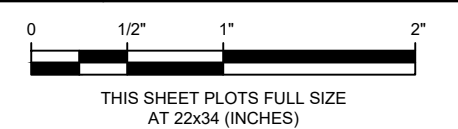
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Mark	Date	Description



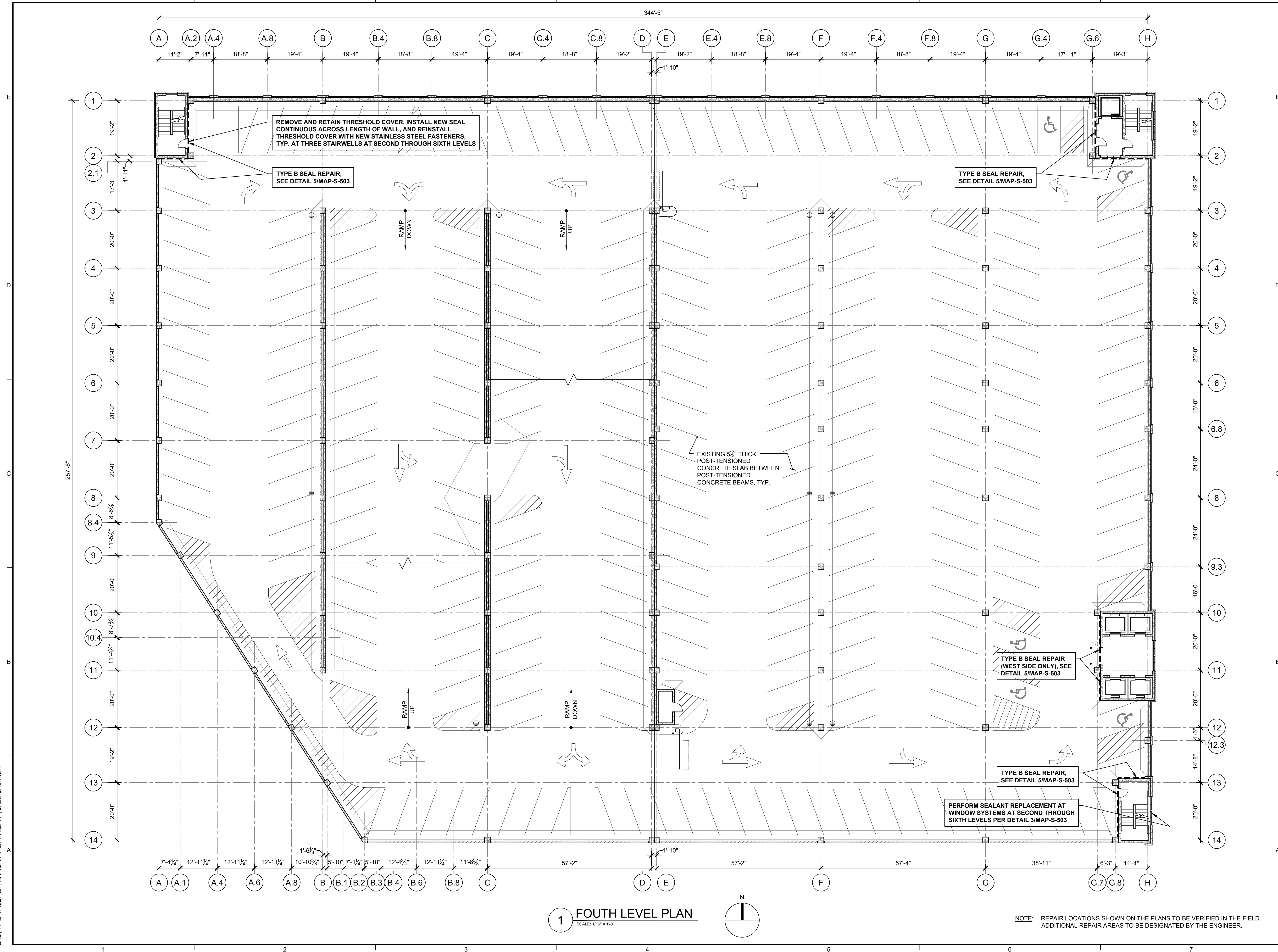
Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

**THIRD LEVEL PLAN**

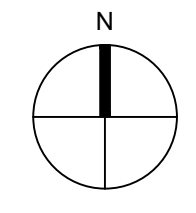
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**1 FOURTH LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"



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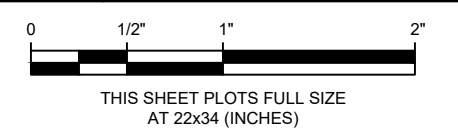
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Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
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Scale	AS NOTED

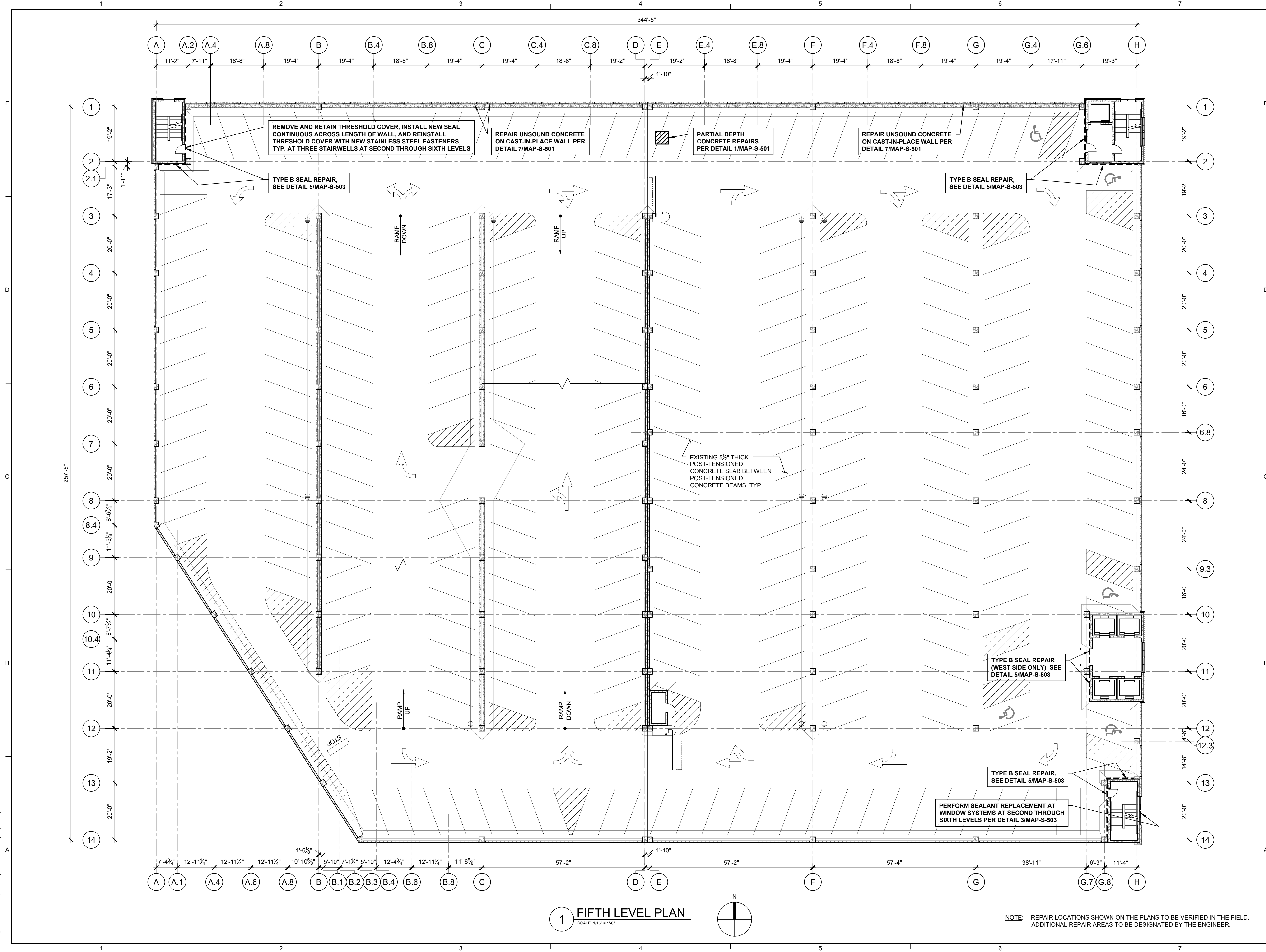
**FOURTH LEVEL PLAN**

Sheet Title

Sheet No. **MAP-S-104**

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**1 FIFTH LEVEL PLAN**  
SCALE: 1/16" = 1'-0"

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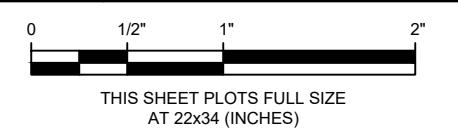
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Client  
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Scale	AS NOTED

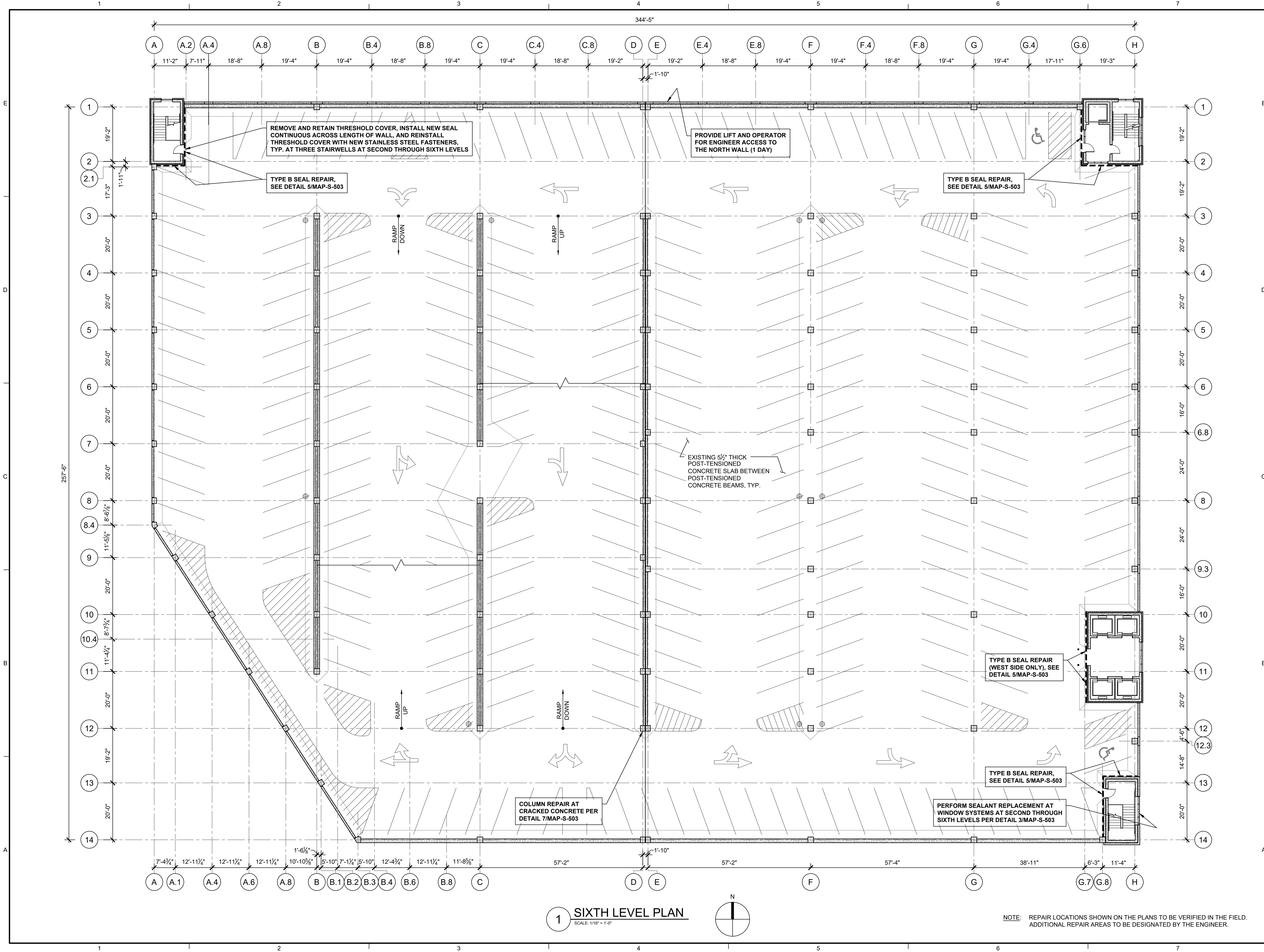
**FIFTH LEVEL PLAN**

Sheet Title  
**MAP-S-105**



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**1 SIXTH LEVEL PLAN**  
SCALE: 1/16" = 1'-0"

NOTE: REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.

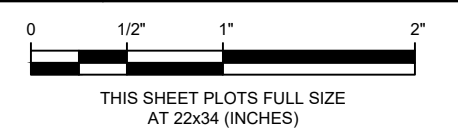
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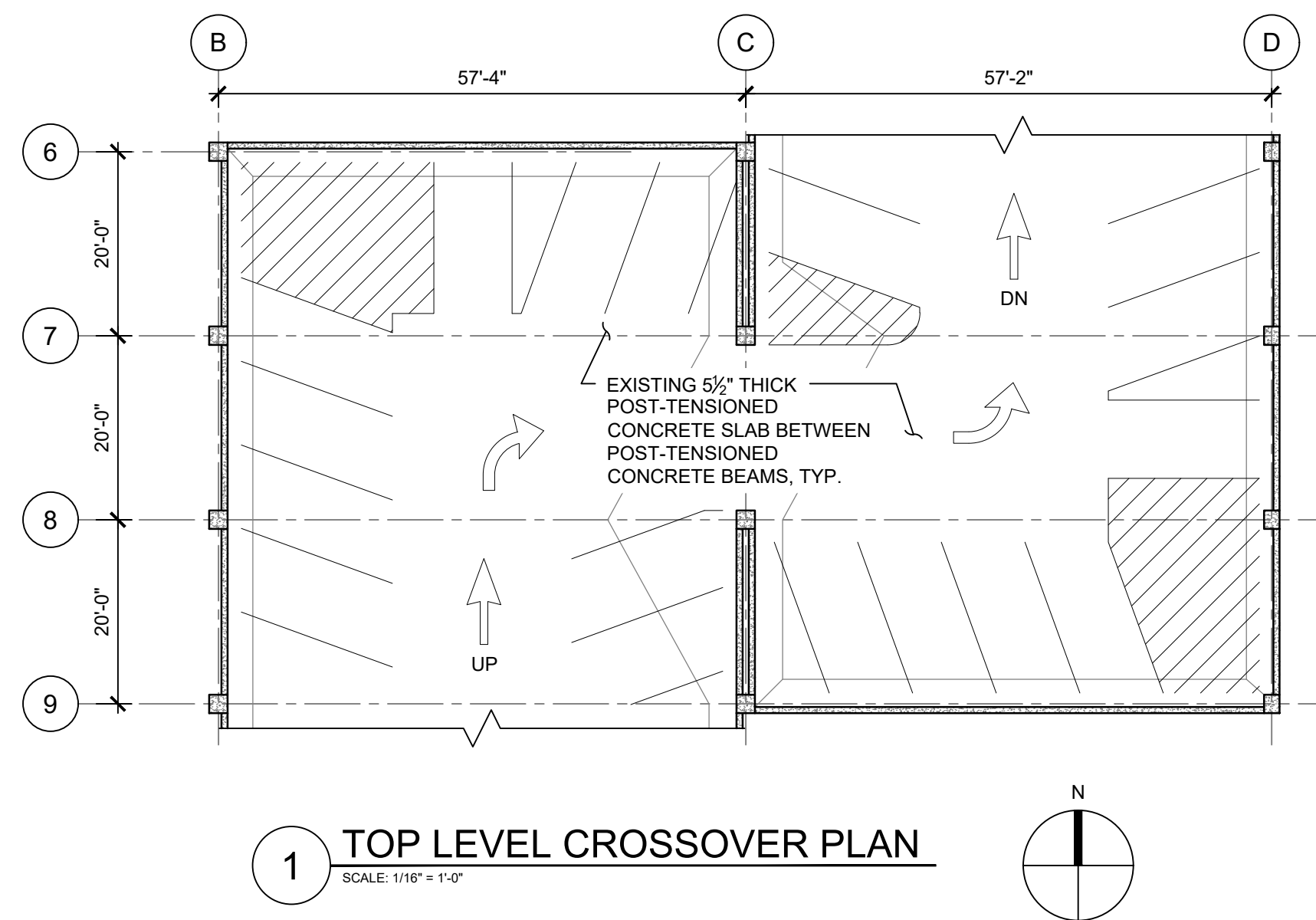
**SIXTH LEVEL PLAN**

Sheet Title  
**MAP-S-106**

Sheet No.

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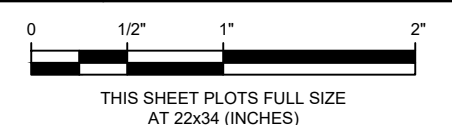
**MAPLE AVENUE  
 PARKING GARAGE REPAIRS**

**1800 MAPLE AVENUE  
 EVANSTON, ILLINOIS**

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Date 1/26/2022

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Scale AS NOTED

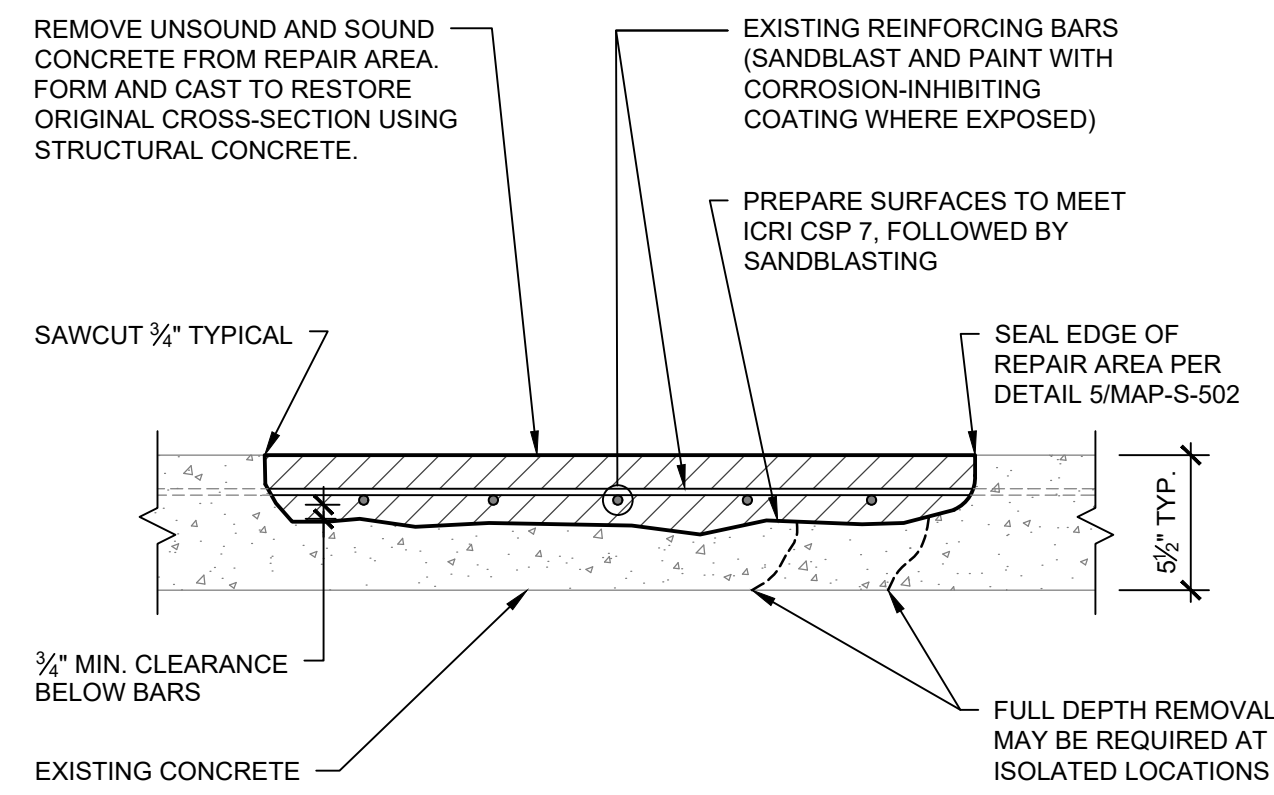
TOP LEVEL  
CROSSOVER PLAN

Sheet Title

Sheet No. **MAP-S-107**

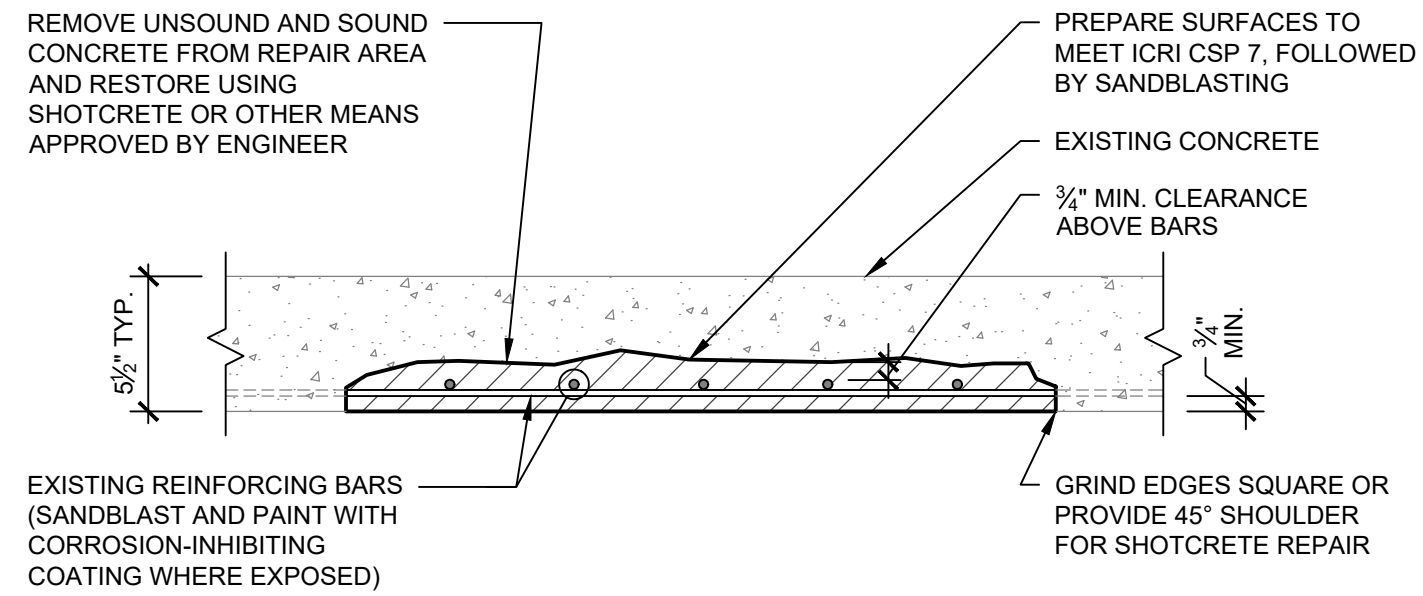


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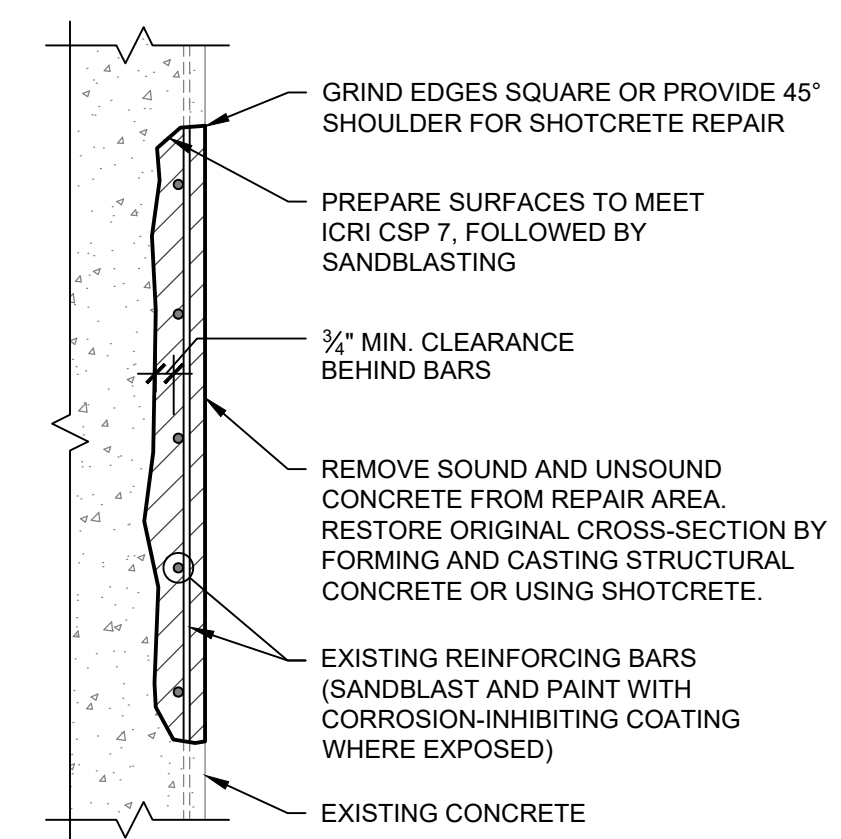
- NOTES:**
1. LARGE AREAS OF REMOVAL REQUIRE SHORING.
  2. POST-TENSIONING NOT SHOWN FOR CLARITY. CARE SHOULD BE TAKEN TO NOT DAMAGE POST-TENSIONING DURING CONCRETE REPAIRS.
  3. IF AN EXISTING WATERPROOFING MEMBRANE IS PRESENT AT THE REPAIR AREA, APPLY NEW MEMBRANE SYSTEM PER DETAILS 5 AND 7/CHU-S-501 AFTER THE CONCRETE HAS CURED. INCLUDE MEMBRANE IN CONCRETE REPAIR PRICE.

**1 PARTIAL DEPTH CONCRETE REPAIR**  
NOT TO SCALE



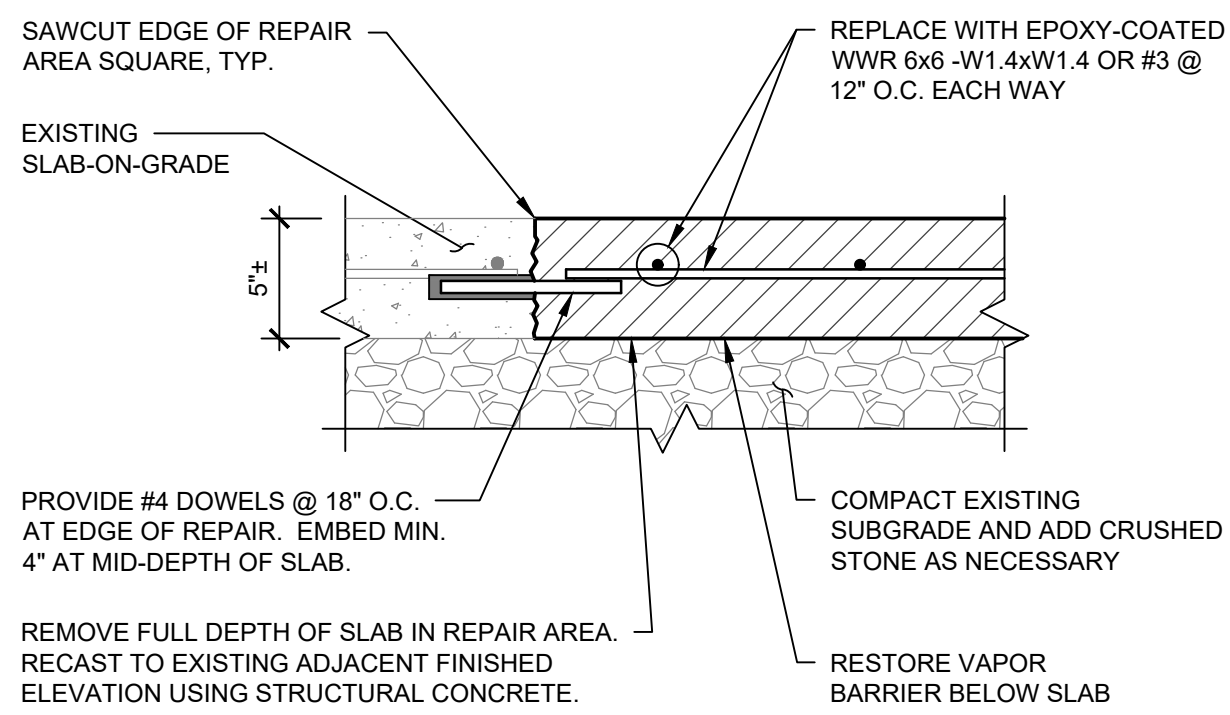
- NOTES:**
1. USE FULL DEPTH REPAIR IF LESS THAN 2 IN. OF EXISTING CONCRETE REMAINS ABOVE REPAIR OPENING.
  2. POST-TENSIONING NOT SHOWN FOR CLARITY. CARE SHOULD BE TAKEN TO NOT DAMAGE POST-TENSIONING DURING CONCRETE REPAIRS.
  3. PAINT CURED CONCRETE TO MATCH EXISTING. INCLUDE PAINT IN CONCRETE REPAIR PRICE.

**2 OVERHEAD CONCRETE REPAIR**  
NOT TO SCALE



- NOTE:** PAINT CURED CONCRETE TO MATCH EXISTING. INCLUDE PAINT IN CONCRETE REPAIR PRICE.

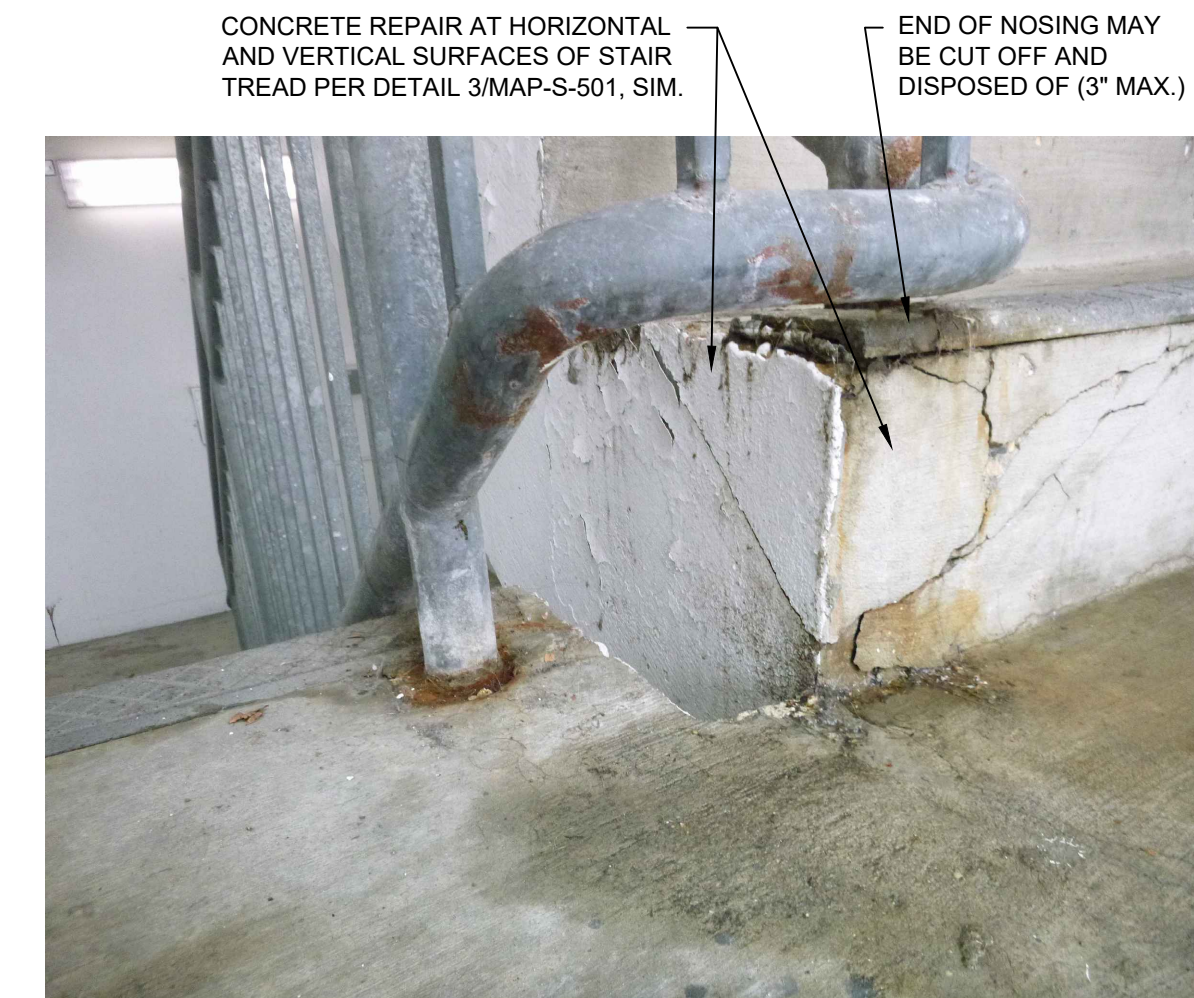
**3 CONCRETE REPAIR AT VERTICAL SURFACE**  
NOT TO SCALE



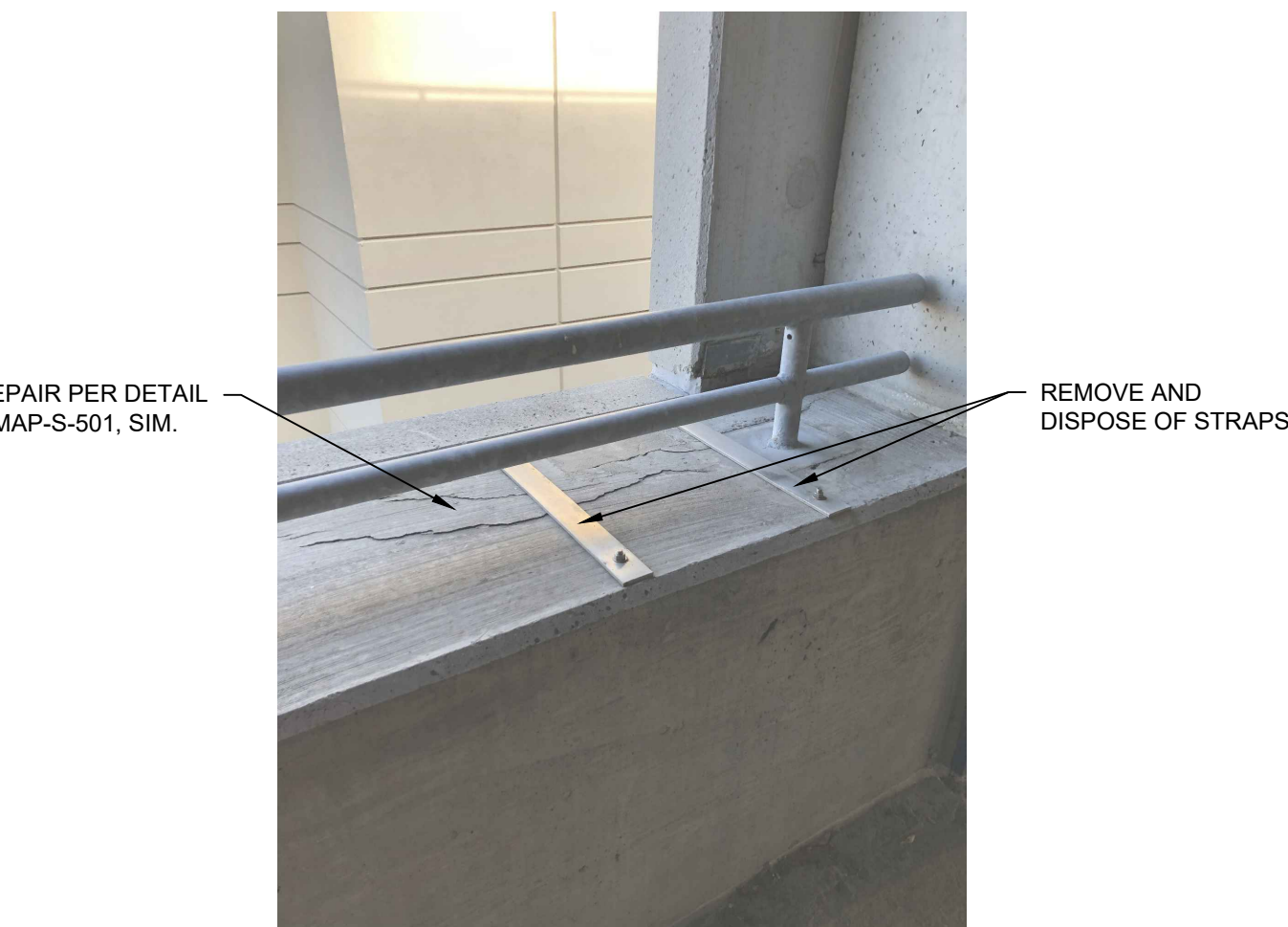
**4 CONCRETE SLAB-ON-GROUND REPAIR**  
SCALE: 1/16" = 1'-0"



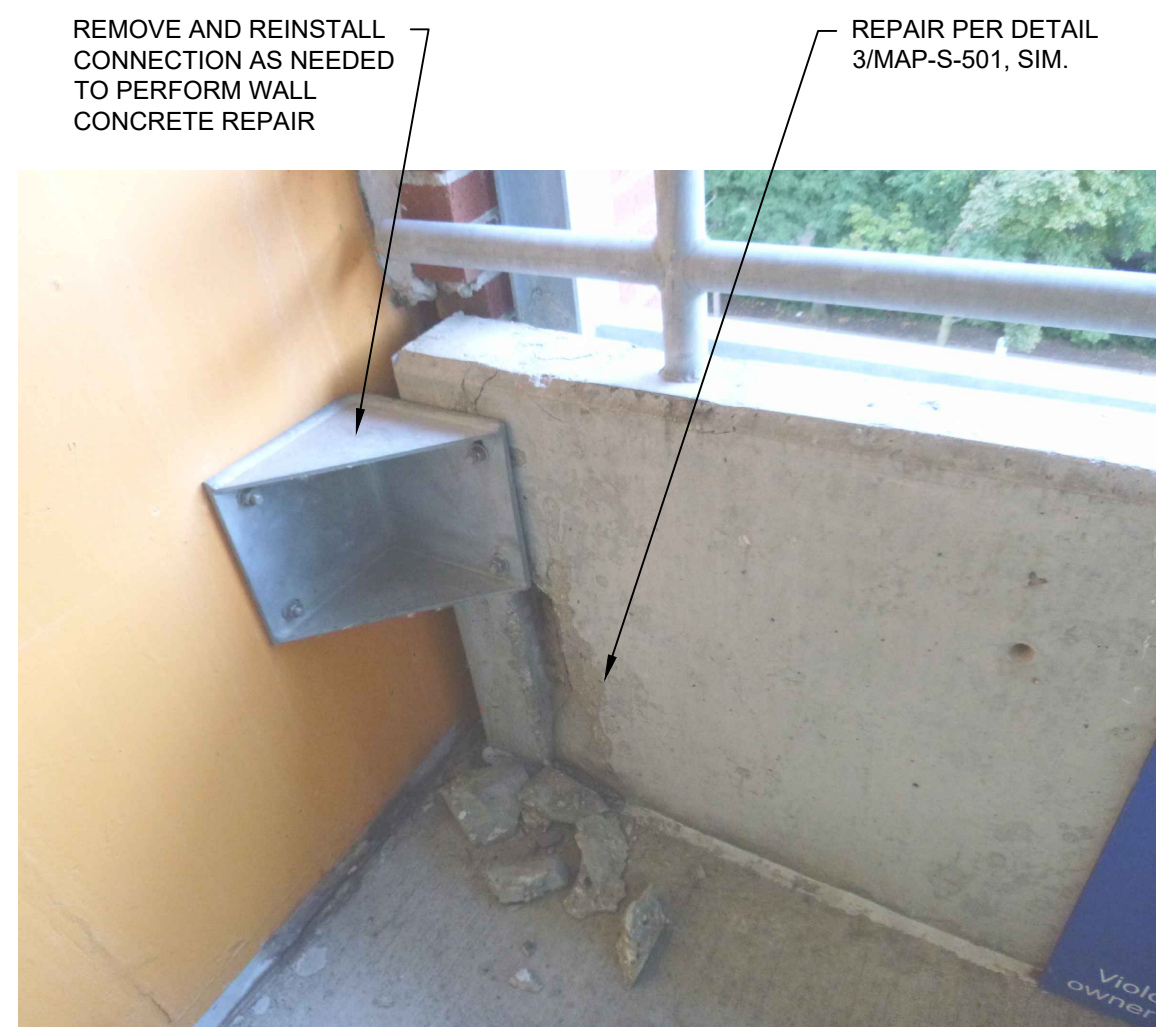
**5 CONCRETE STAIRWELL BEAM REPAIR**  
NOT TO SCALE



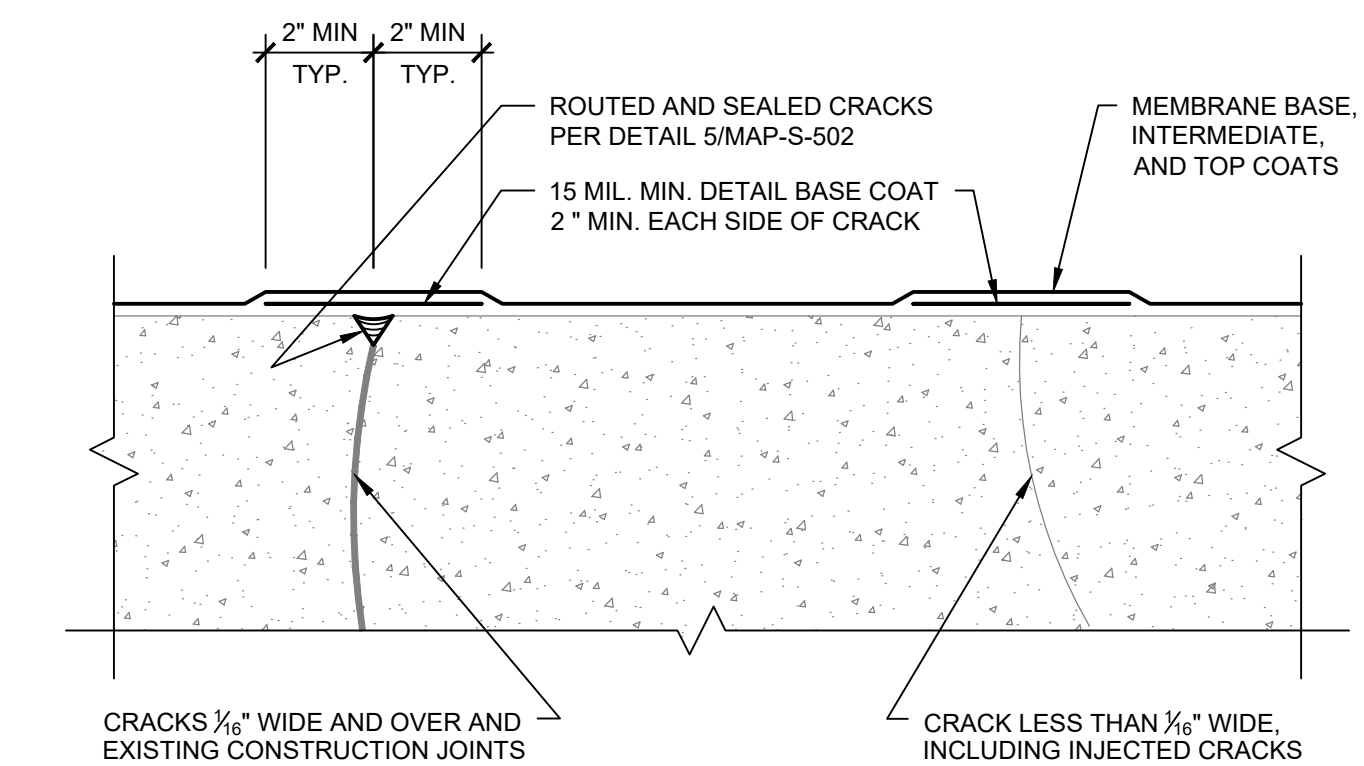
**6 CONCRETE STAIR TREAD REPAIR**  
NOT TO SCALE



**7 CONCRETE REPAIR AT WALL**  
NOT TO SCALE



**8 PARTIAL DEPTH CONCRETE WALL REPAIR AT FACADE CONNECTION**  
NOT TO SCALE



- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE. ALSO, RECORD STRIPING AND REPAINT ON NEW MEMBRANE (INCLUDE IN MEMBRANE PRICE).

**9 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT CRACKS AND CONSTRUCTION JOINTS**  
NOT TO SCALE

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**1800 MAPLE AVENUE  
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Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
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Scale	AS NOTED

**REPAIR DETAILS**

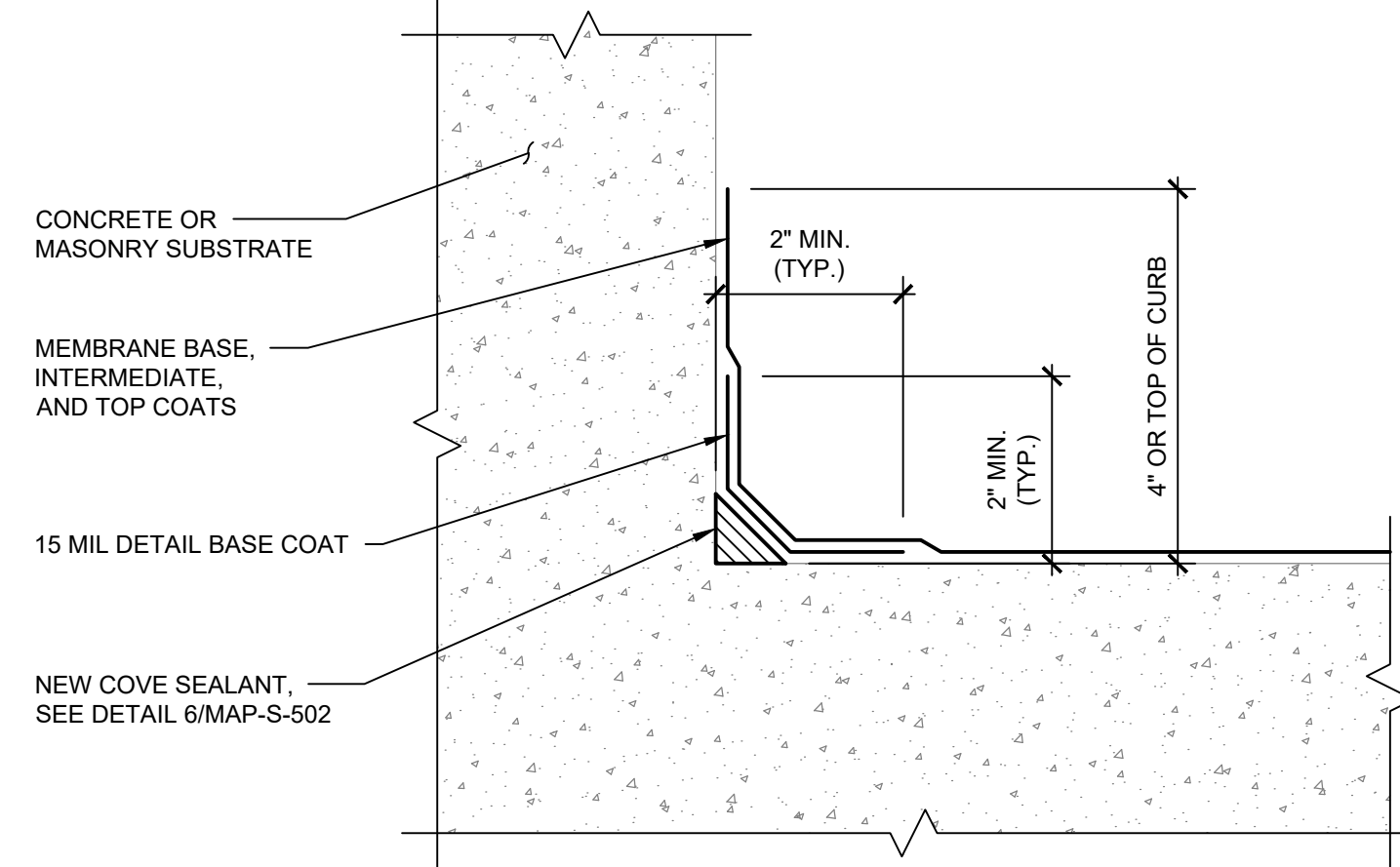
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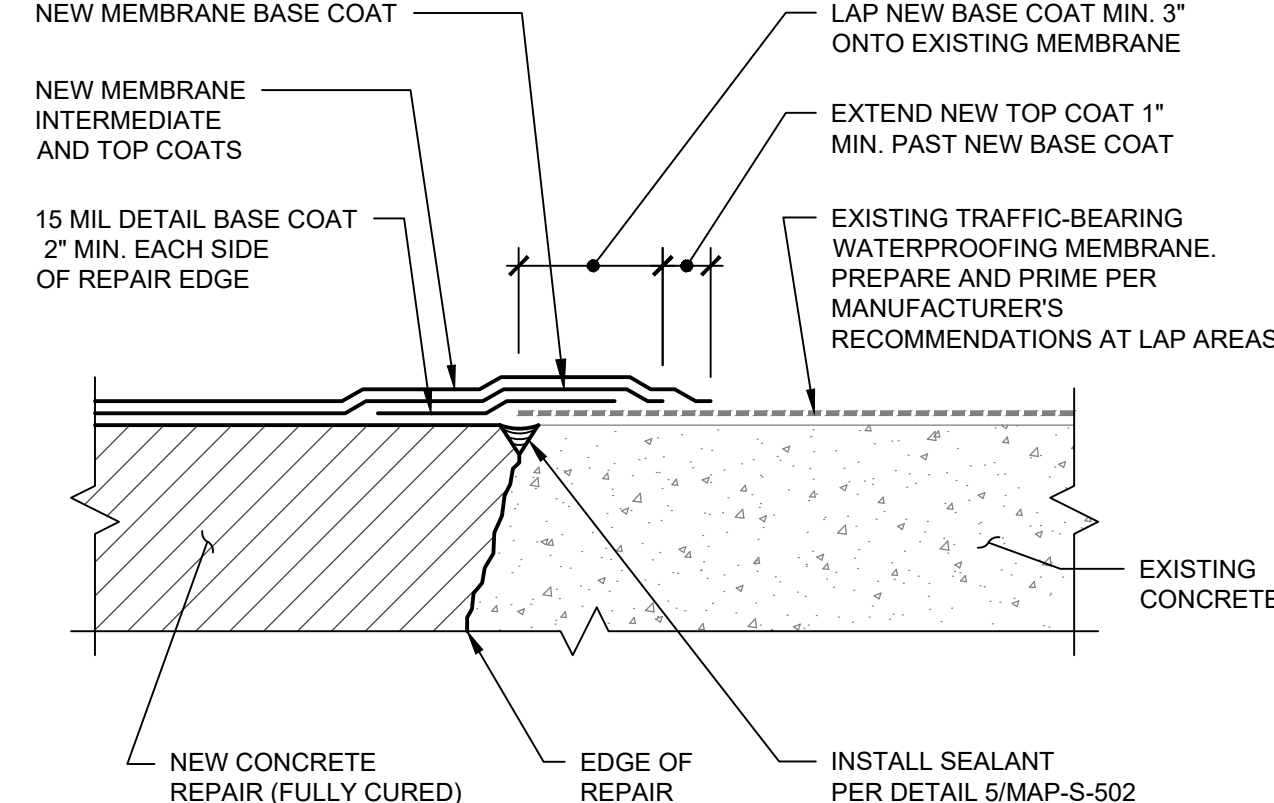


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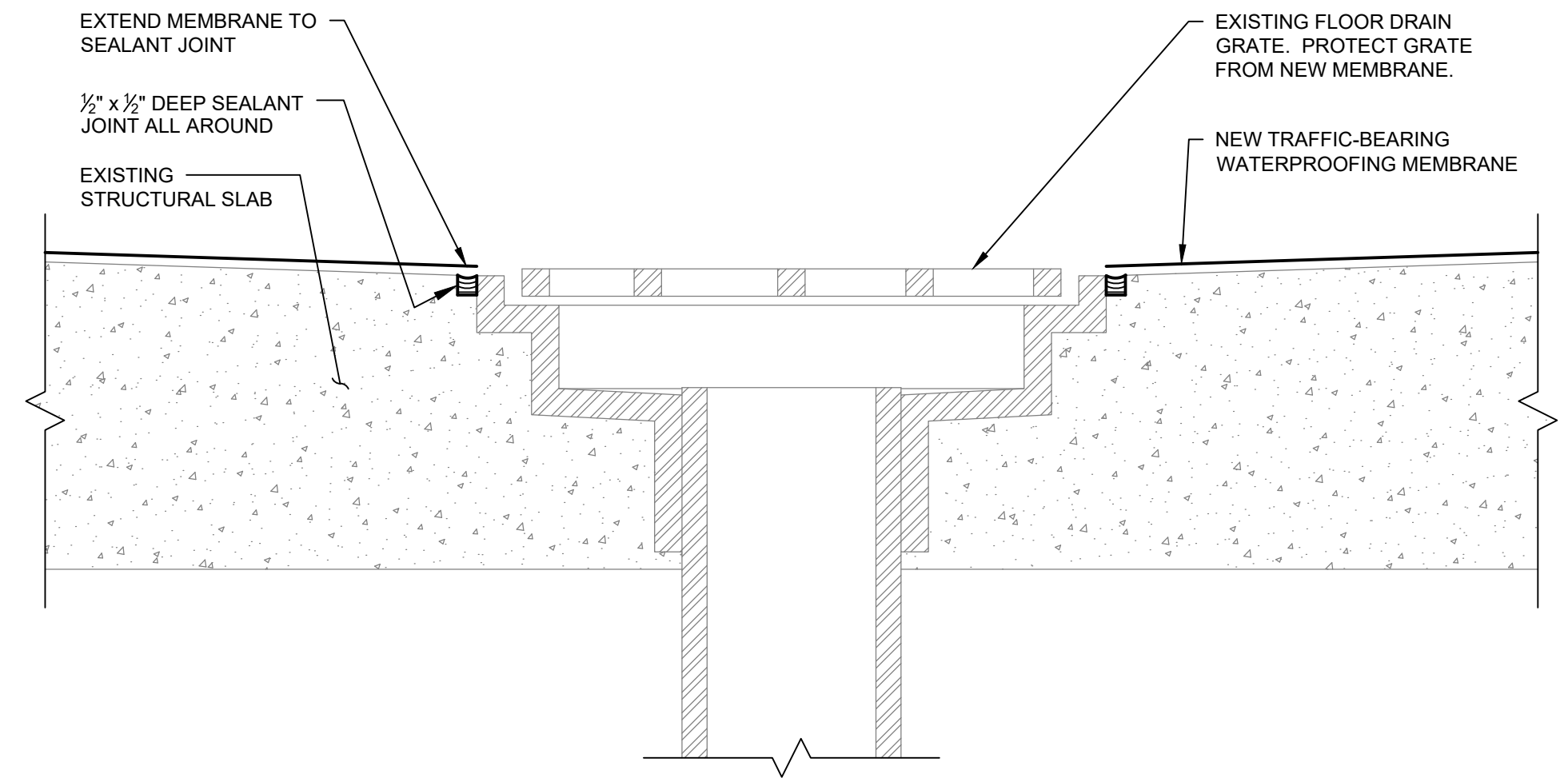
**NOTES:**  
 1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.  
 2. AT NEW MEMBRANE AREAS, INCLUDE COVE SEALANT IN MEMBRANE PRICE.

**1 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT UPTURN**  
NOT TO SCALE



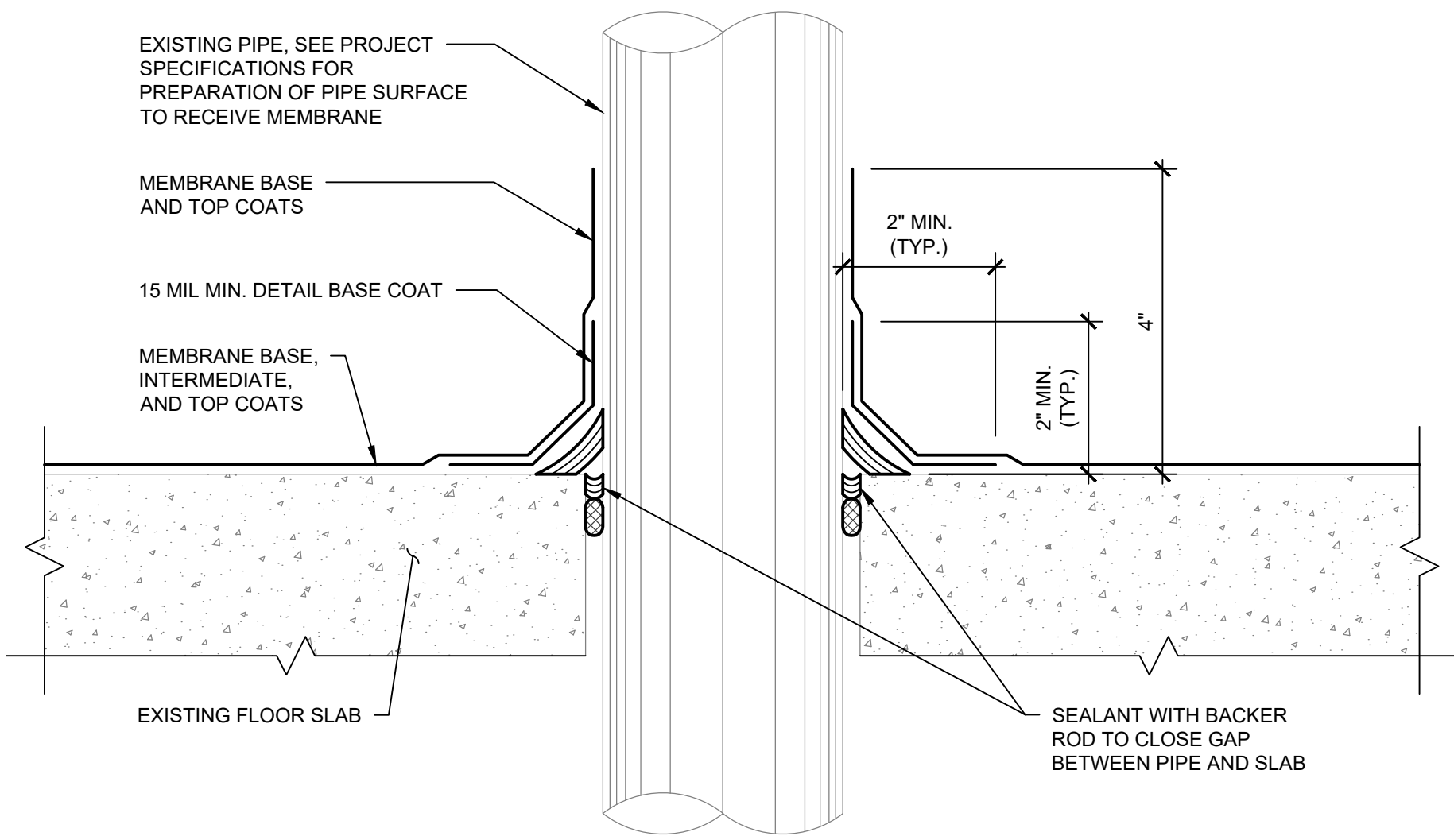
**NOTES:**  
 1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.  
 2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE.

**2 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT EDGE OF REPAIR**  
NOT TO SCALE

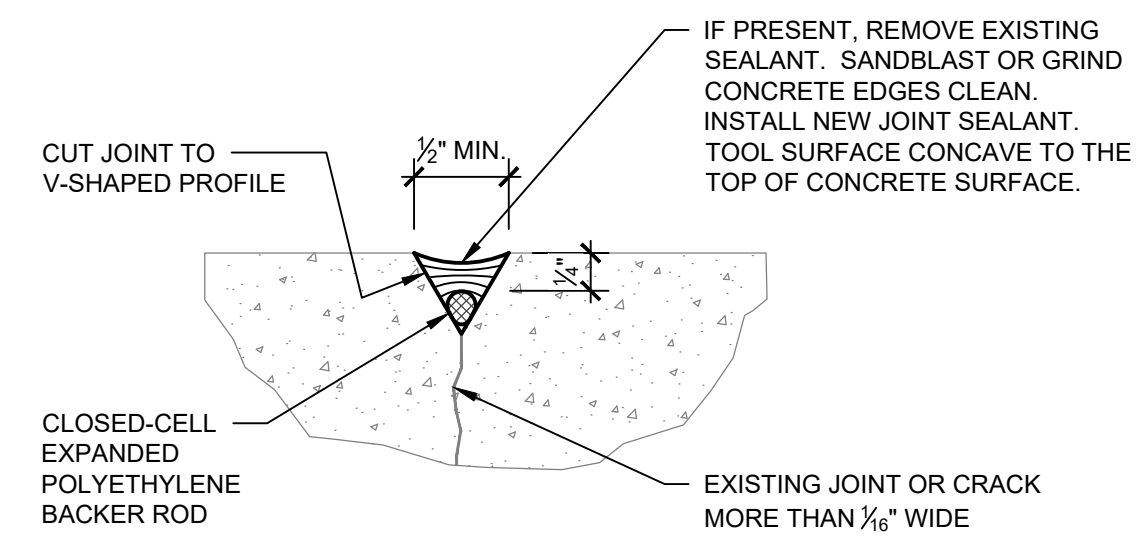


**NOTE:** ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3.

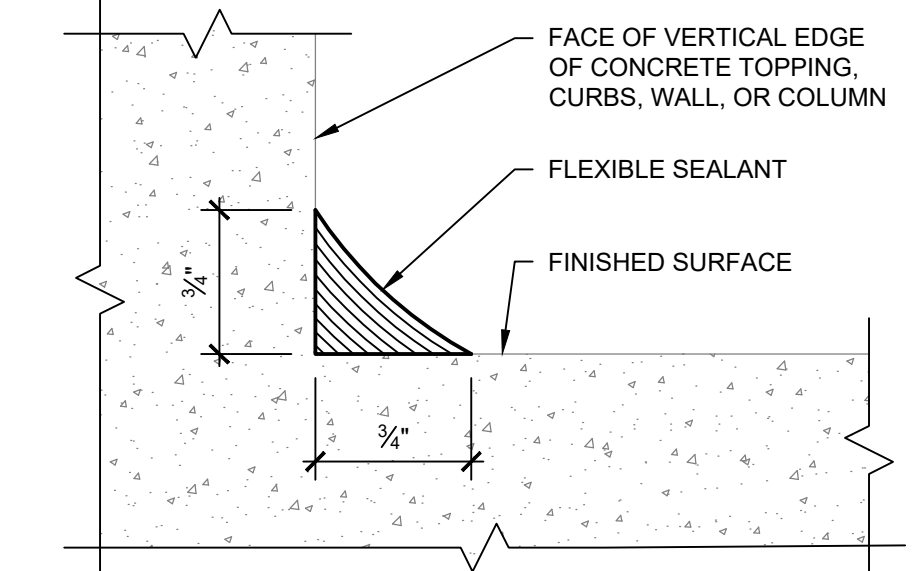
**3 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT FLOOR DRAIN**  
NOT TO SCALE



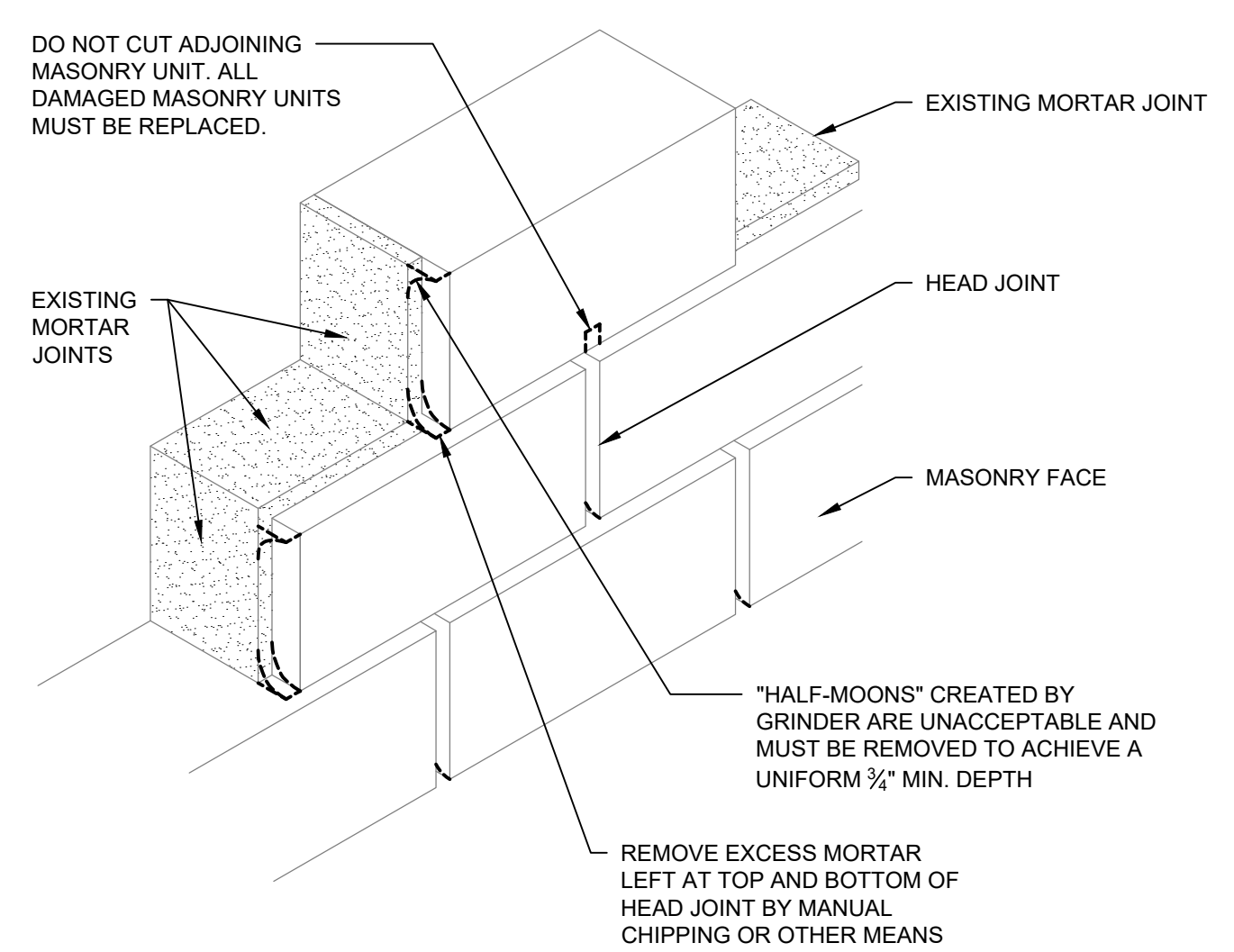
**4 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT PENETRATION**  
NOT TO SCALE



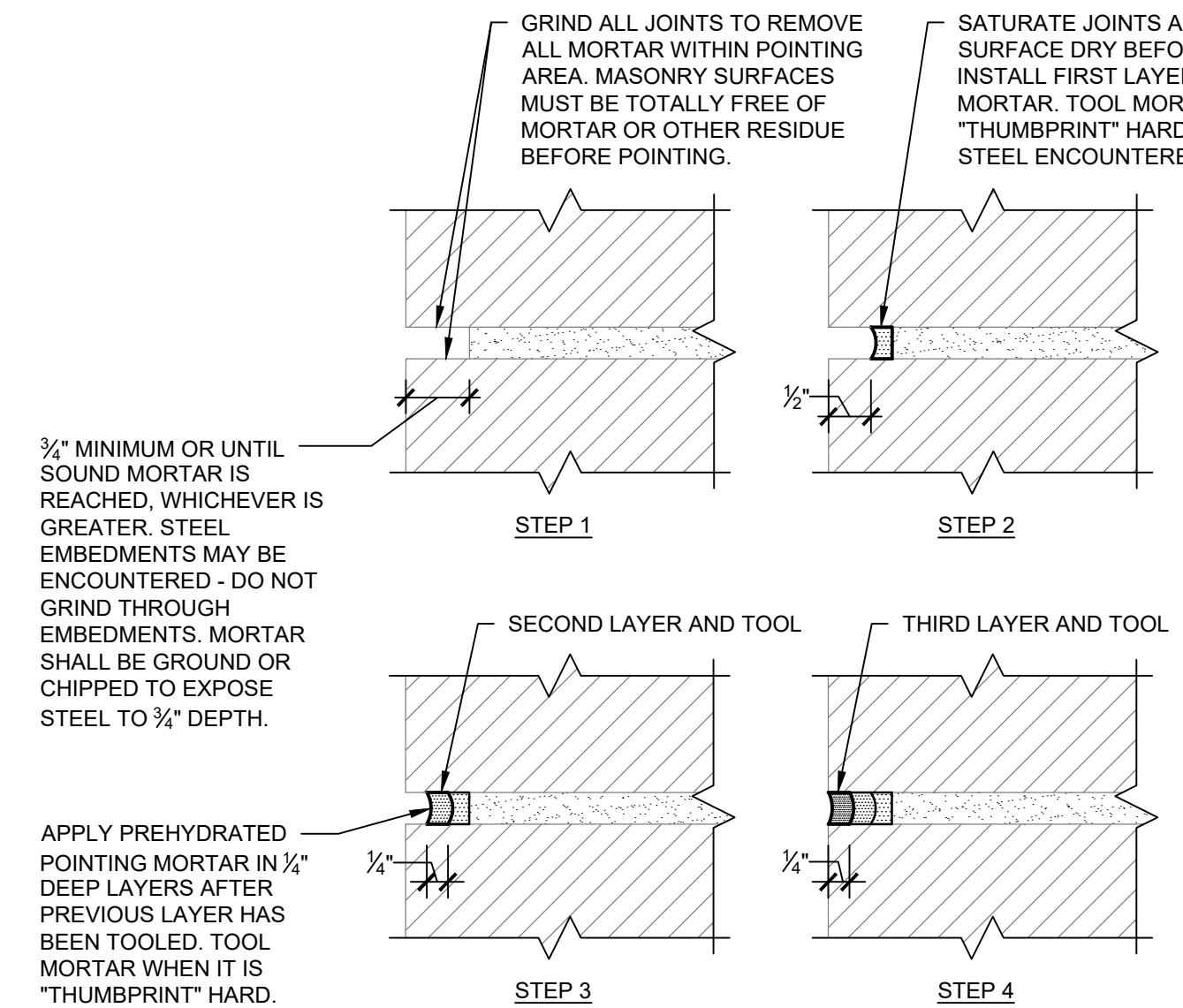
**5 SEALANT AT CRACK OR CONSTRUCTION JOINT**  
SCALE: 1'-0" = 1'-0"



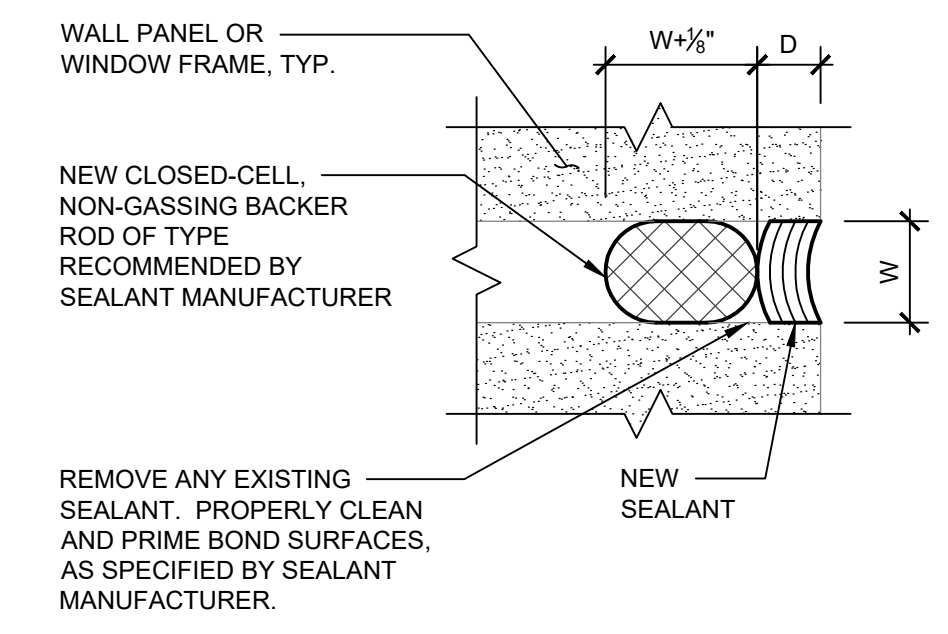
**6 COVE SEALANT AT JOINT**  
SCALE: 1'-0" = 1'-0"



**7 GRINDING AND POINTING DETAIL**  
NOT TO SCALE



**8 REPOINTING DETAIL**  
NOT TO SCALE



**9 TYPICAL SEALANT AT JOINT**  
NOT TO SCALE

SEALANT CHART GUIDELINE	
W	D*
1/4 IN. MIN.	1/4 IN.
1/4 IN. TO 1/2 IN.	1/4 IN.
1/2 IN. TO 1 IN.	W/2
GREATER THAN 1 IN.	1/2 IN. MAX.

\* VERIFY WITH SEALANT MANUFACTURER

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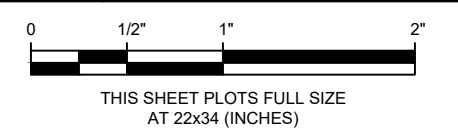
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 Project  
**MAPLE AVENUE PARKING GARAGE REPAIRS**  
 1800 MAPLE AVENUE  
 EVANSTON, ILLINOIS  
 Client  
**CITY OF EVANSTON PUBLIC WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

Mark	Date	Description



Project No. 2020.1793.1  
 Date 1/26/2022  
 Drawn AHD  
 Checked MJF  
 Scale AS NOTED

**REPAIR DETAILS**

Sheet Title  
**MAP-S-502**  
 Sheet No.



Plotted: 1/26/2022 6:28 PM by Doane, Andrew H. File Name: P:\2020\2020.1793.1 - city of evanston - phase 1 repair design (bco) drawings\chicago avenue, church street, maple avenue, and sherman plaza parking garage repairs\Sheets\MAP-S-503 REPAIR DETAILS.dwg

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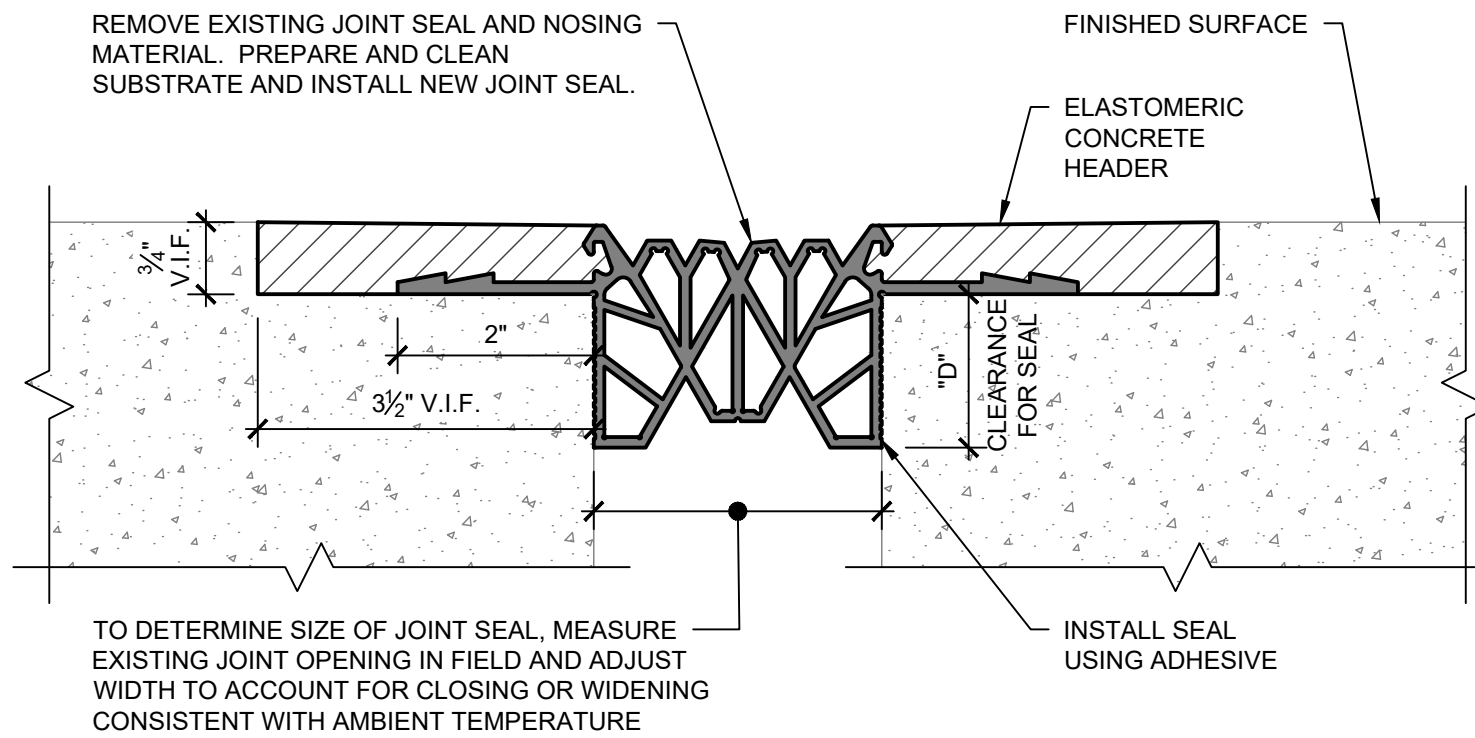


TYPICAL GROUT POCKET REPAIR AREA

REMOVE LOOSE MATERIAL IN THE POCKET. SANDBLAST OR MECHANICALLY GRIND CONCRETE TO CLEAN AND ROUGHEN POCKET. INSTALL NEW REPAIR MORTAR TO FILL POCKET FLUSH WITH SURFACE.

**1 POST-TENSIONED GROUT POCKET REPAIR**

NOT TO SCALE



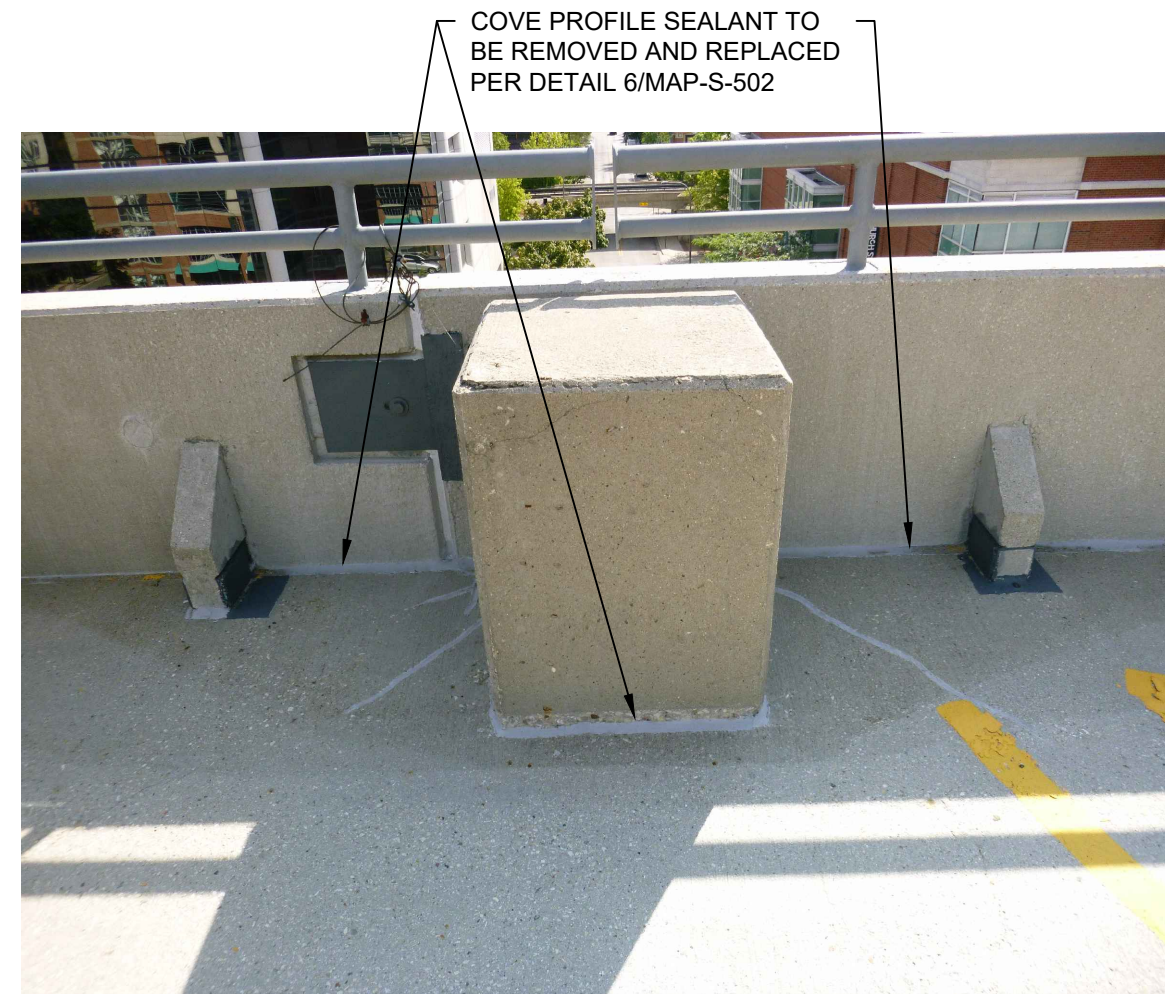
REMOVE EXISTING JOINT SEAL AND NOSING MATERIAL. PREPARE AND CLEAN SUBSTRATE AND INSTALL NEW JOINT SEAL.

FINISHED SURFACE  
ELASTOMERIC CONCRETE HEADER  
TO DETERMINE SIZE OF JOINT SEAL, MEASURE EXISTING JOINT OPENING IN FIELD AND ADJUST WIDTH TO ACCOUNT FOR CLOSING OR WIDENING CONSISTENT WITH AMBIENT TEMPERATURE

NOTE: REFER TO THE MANUFACTURER'S INSTALLATION GUIDE FOR INFORMATION ON SPLICES, TERMINATIONS, TRANSITIONS, AND ADDITIONAL DETAILS CONCERNING ADJACENT CONSTRUCTION.

**2 WINGED EXPANSION JOINT SEAL REPAIR**

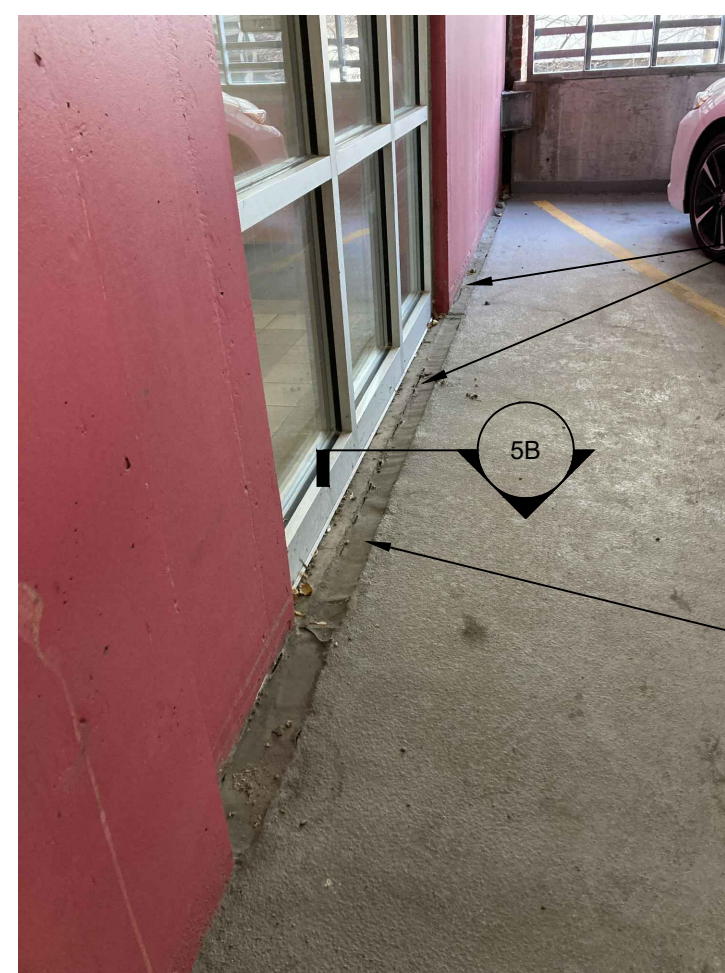
SCALE: 6" = 1'-0"



COVE PROFILE SEALANT TO BE REMOVED AND REPLACED PER DETAIL 6/MAP-S-502

**4 TYPE A SEALANT REPAIR**

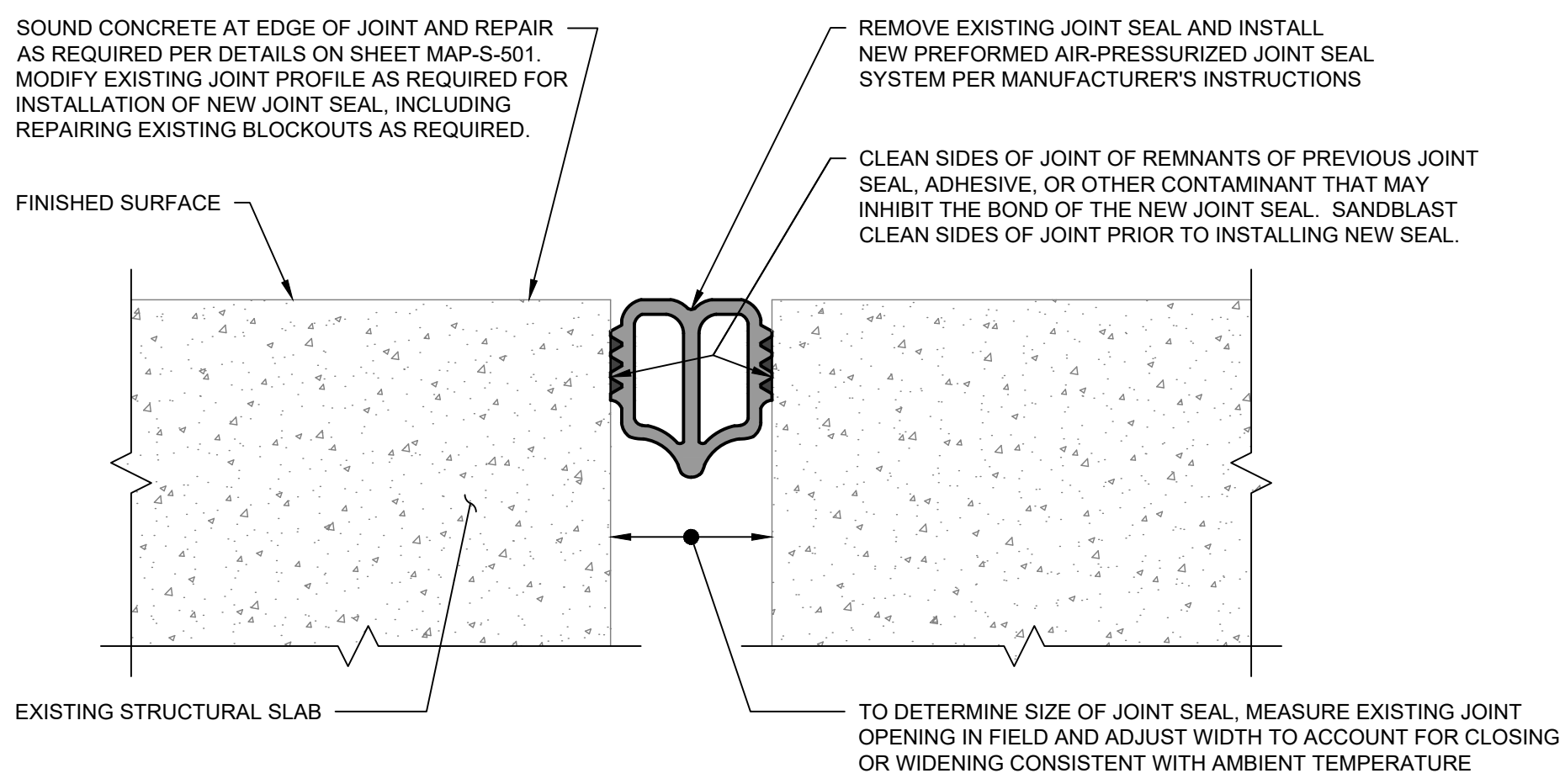
NOT TO SCALE



5A. PHOTO

JOINT WIDTHS VARY ALONG LENGTH AT SOME LOCATIONS

SEALANT TO BE REMOVED AND REPLACED



SOUND CONCRETE AT EDGE OF JOINT AND REPAIR AS REQUIRED PER DETAILS ON SHEET MAP-S-501. MODIFY EXISTING JOINT PROFILE AS REQUIRED FOR INSTALLATION OF NEW JOINT SEAL, INCLUDING REPAIRING EXISTING BLOCKOUTS AS REQUIRED.

REMOVE EXISTING JOINT SEAL AND INSTALL NEW PREFORMED AIR-PRESSURIZED JOINT SEAL SYSTEM PER MANUFACTURER'S INSTRUCTIONS

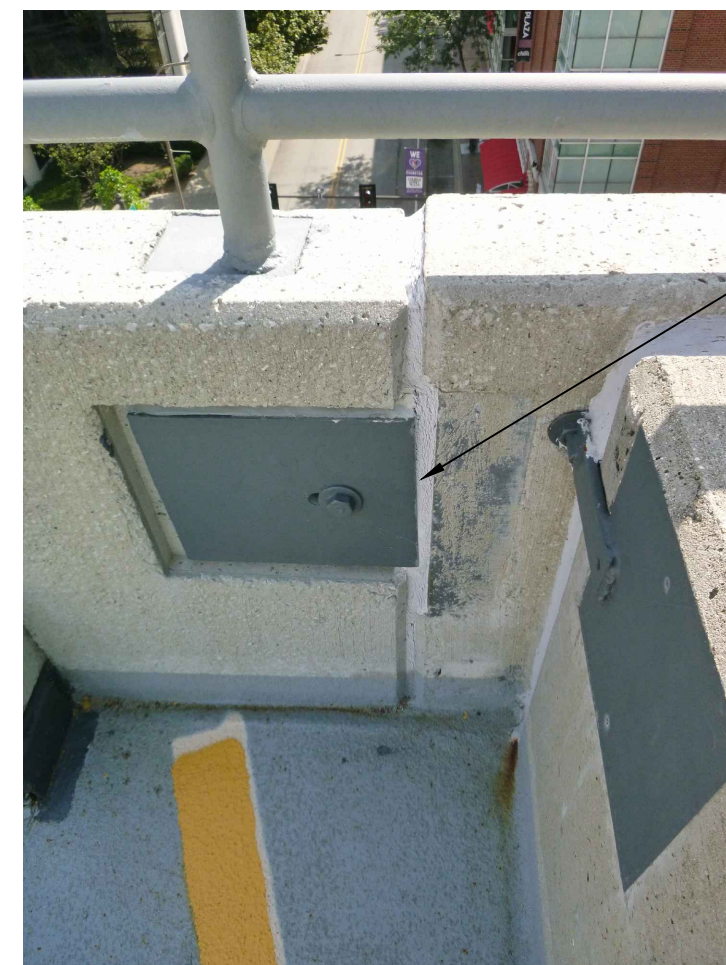
CLEAN SIDES OF JOINT OF REMNANTS OF PREVIOUS JOINT SEAL, ADHESIVE, OR OTHER CONTAMINANT THAT MAY INHIBIT THE BOND OF THE NEW JOINT SEAL. SANDBLAST CLEAN SIDES OF JOINT PRIOR TO INSTALLING NEW SEAL.

TO DETERMINE SIZE OF JOINT SEAL, MEASURE EXISTING JOINT OPENING IN FIELD AND ADJUST WIDTH TO ACCOUNT FOR CLOSING OR WIDENING CONSISTENT WITH AMBIENT TEMPERATURE

NOTE: REFER TO THE MANUFACTURER'S INSTALLATION GUIDE FOR INFORMATION ON SPLICES, TERMINATIONS, TRANSITIONS, AND ADDITIONAL DETAILS CONCERNING ADJACENT CONSTRUCTION.

**5 TYPE B SEAL REPAIR**

NOT TO SCALE



SEALANT TO BE REMOVED AND REPLACED PER DETAIL 9/MAP-S-502

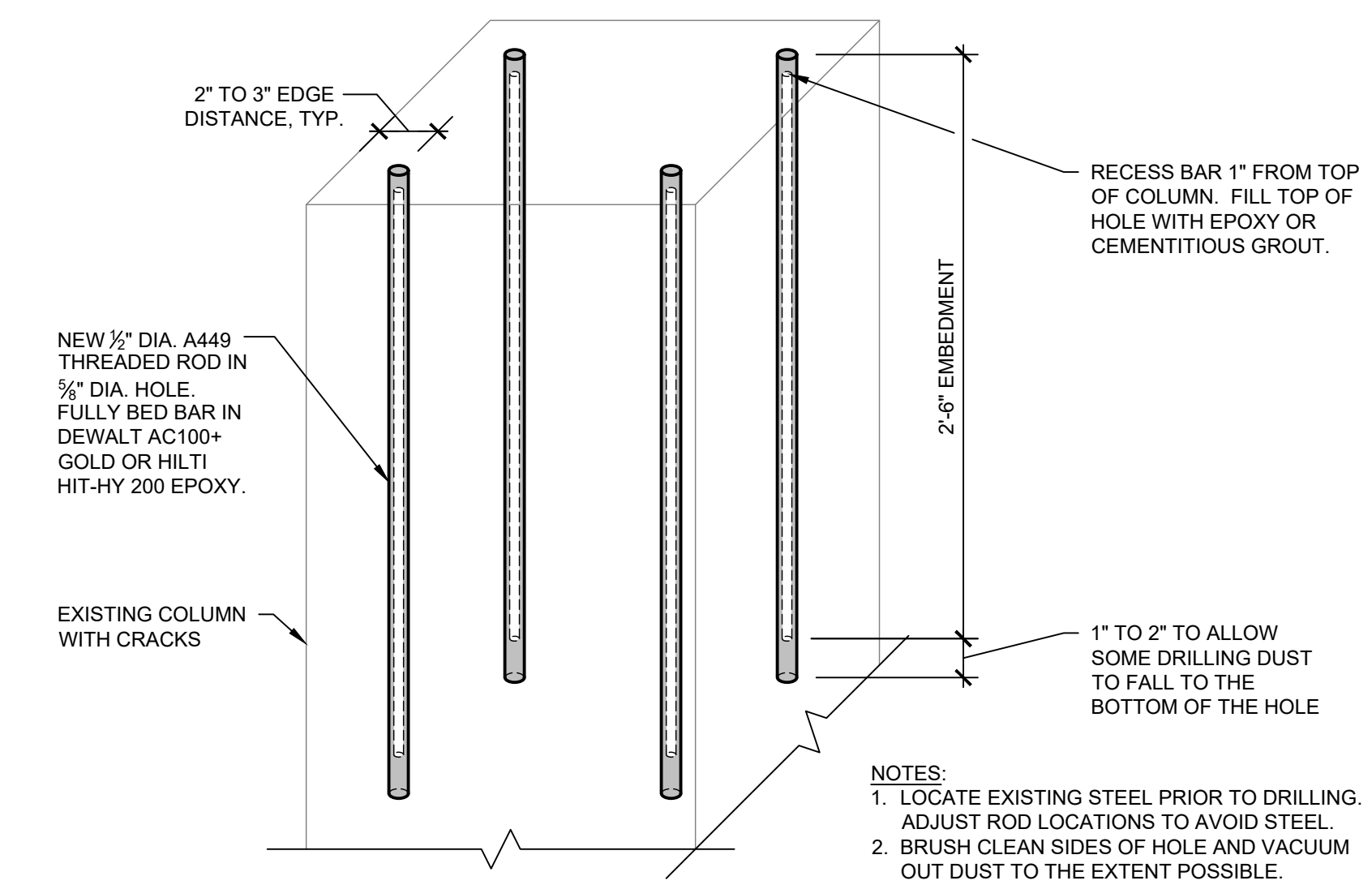
**6 TYPE C SEALANT REPAIR**

NOT TO SCALE



TOP OF CRACKED COLUMN TO BE STRENGTHENED

7A. PHOTO



NEW 1/2" DIA. A449 THREADED ROD IN 5/8" DIA. HOLE. FULLY BED BAR IN DEWALT AC100+ GOLD OR HILTI HIT-HY 200 EPOXY.

EXISTING COLUMN WITH CRACKS

2" TO 3" EDGE DISTANCE, TYP.

RECESS BAR 1" FROM TOP OF COLUMN. FILL TOP OF HOLE WITH EPOXY OR CEMENTITIOUS GROUT.

NOTES:  
1. LOCATE EXISTING STEEL PRIOR TO DRILLING. ADJUST ROD LOCATIONS TO AVOID STEEL.  
2. BRUSH CLEAN SIDES OF HOLE AND VACUUM OUT DUST TO THE EXTENT POSSIBLE.

**7 SHEAR STRENGTHENING AT CRACKED COLUMN**

NOT TO SCALE



**3 WINDOW SEALANT REPLACEMENT AT SOUTHEAST STAIRWELL (EAST ELEVATION)**

NOT TO SCALE

REPLACE SEALANT AT ALL GLASS-TO-METAL, METAL-TO-METAL, AND METAL-TO-MASONRY OR CONCRETE JOINTS (FIVE LEVELS) WITH SILICONE SEALANT (SEE DETAIL 3/MAP-S-504):

- GLASS-TO-METAL (GLAZING) JOINT - SEE DETAIL 6/MAP-S-502, SIM. WITH 1/2" x 1/4" COVE
- METAL-TO-METAL JOINT - INSTALL SEALANT IN 1" WIDE "BAND-AID" CONFIGURATION
- METAL-TO-MASONRY OR CONCRETE JOINT - SEE DETAIL 9/MAP-S-502

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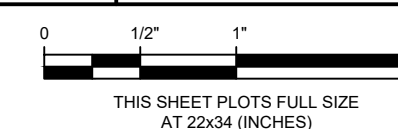
**MAPLE AVENUE  
PARKING GARAGE REPAIRS**

**1800 MAPLE AVENUE  
EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
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2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201**

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Scale AS NOTED

**REPAIR DETAILS**

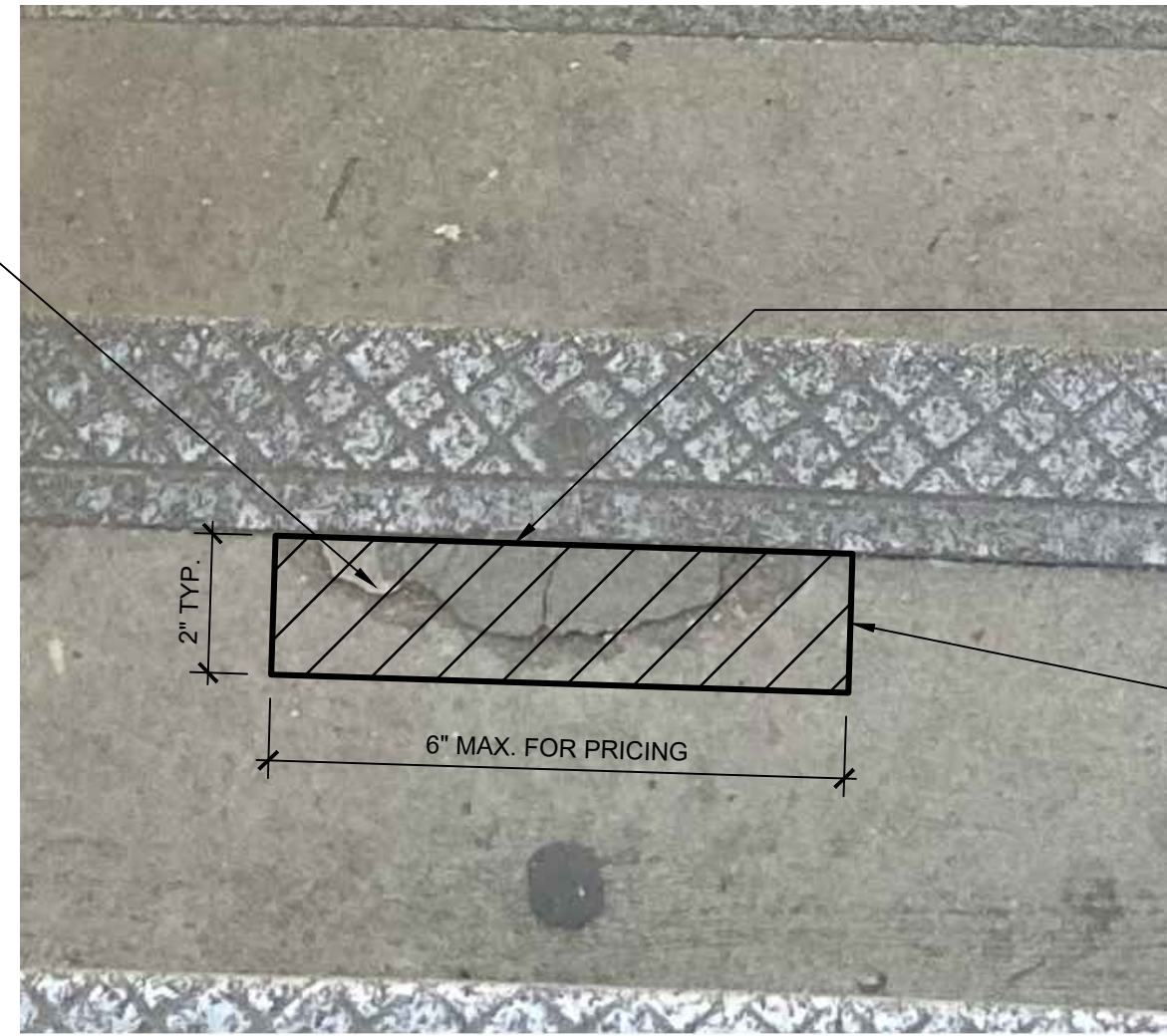
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Sheet No. **MAP-S-503**



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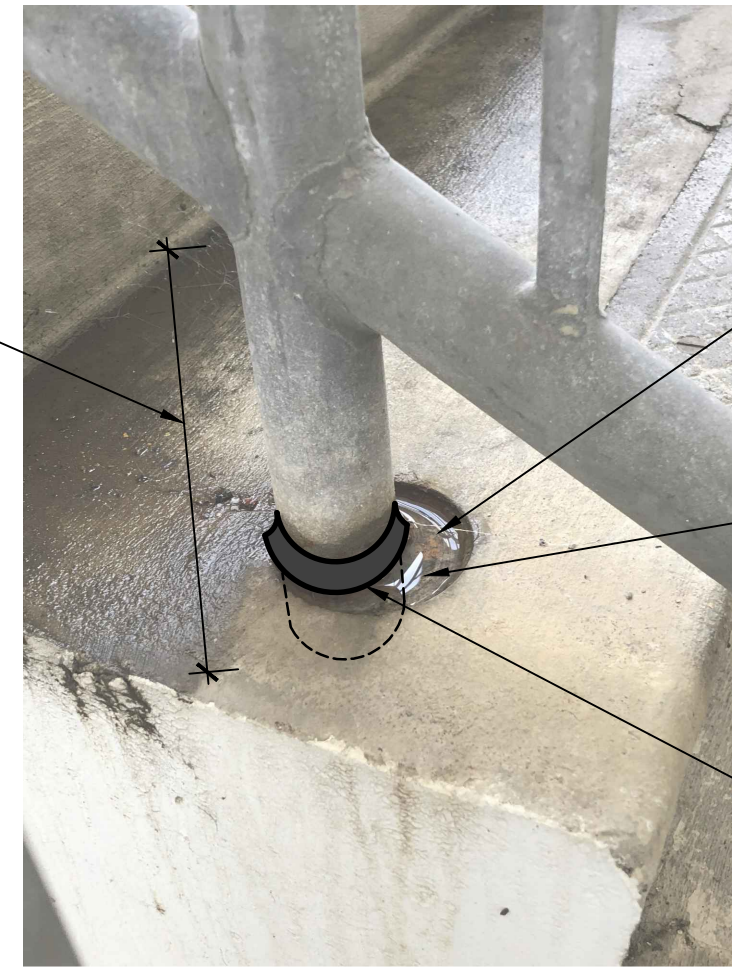


RESTORE SECTION WITH REPAIR MORTAR

GRIND CLEAN EXPOSED EDGE OF NOSING, COAT WITH ZINC-RICH PRIMER (2 COATS).

GRIND PERIMETER OF REPAIR AREA SQUARE TO A DEPTH OF 1/2". CHIP TO UNIFORM DEPTH (APPROX. 1/2").

**1** SMALL SPALL REPAIR ON STAIR TREAD ALONG NOSING  
NOT TO SCALE



CLEAN AND PAINT POST BASE WITH ZINC-RICH PRIMER (2 COATS)

CLEAN OUT LOOSE GROUT AND REMOVE GROUT AS NEEDED TO ACHIEVE MIN. POCKET DEPTH OF 3/4"

FILL POCKET FLUSH WITH REPAIR MORTAR

INSTALL 3/8" COVE SILICONE SEALANT JOINT AROUND PERIMETER

**2** STAIR RAILING POCKET REPAIR  
NOT TO SCALE



REPLACE ALL GLAZING SEALANTS WITH 1/2" x 1/2" COVE PER DETAIL 6/MAP-S-502. SIM. IF NEEDED, CUT EXISTING GASKETS FLUSH WITH FRAME, TYP.

REPLACE TYPICAL METAL-TO-METAL "BAND-AID" OR COVE JOINT SEALANTS

TYPICAL METAL-TO-MASONRY OR CONCRETE PERIMETER JOINT, REPLACE SEALANT PER DETAIL 9/MAP-S-502

**3** WINDOW SILICONE SEALANT JOINTS  
NOT TO SCALE

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**MAPLE AVENUE  
PARKING GARAGE REPAIRS**  
  
**1236 CHICAGO AVENUE  
EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
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**2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201**

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Date 1/26/2022

Drawn AHD

Checked MJF

Scale AS NOTED

**REPAIR DETAILS**

Sheet Title

Sheet No. **MAP-S-504**



# SHERMAN PLAZA PARKING GARAGE REPAIRS

PROJECT: **SHERMAN PLAZA PARKING GARAGE REPAIRS**  
 821 DAVIS STREET  
 EVANSTON, ILLINOIS

CLIENT: **CITY OF EVANSTON PUBLIC WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

ENGINEER: **WISS, JANNEY, ELSTNER ASSOCIATES, INC.**  
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SHE-S-106	SIXTH LEVEL PLAN	SHE-S-502	REPAIR DETAILS
SHE-S-107	SEVENTH LEVEL PLAN	SHE-S-503	REPAIR DETAILS

## SCOPE OF WORK

- CONCRETE REPAIRS INCLUDING PARTIAL DEPTH TOP-SIDE, VERTICAL, AND OVERHEAD REPAIRS.
- SLAB-ON-GROUND AND CURB CONCRETE REPAIRS.
- POST-TENSIONING GROUT POCKET REPAIRS.
- APPLICATION OF TRAFFIC-BEARING WATERPROOFING MEMBRANE.
- SEALANT REPLACEMENT AS DIRECTED BY ENGINEER.
- CMU REPAIRS NEAR DAVIS STREET EXIT AND MISCELLANEOUS LOCATIONS (ALL AT INTERIOR LOCATIONS).
- INSTALLATION OF SUPPLEMENTAL SHIMS AT SELECT FACADE GRAVITY CONNECTIONS.
- REPLACEMENT OF ONE FAILED BARRIER CABLE.
- ALLOWANCE FOR FLOOR DRAIN AND PIPING REPAIRS.
- ALTERNATE: REMOVAL OF LOOSE PAINT FROM BEAMS IN SELECT AREAS (PRICED BASED ON SPECIFIED HOURS).

THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE SPECIFICATIONS FOR THIS PROJECT, TITLED: "PROJECT MANUAL FOR CITY OF EVANSTON BID 22-14 PARKING GARAGE STRUCTURAL REPAIRS", DATED JANUARY 26, 2022.

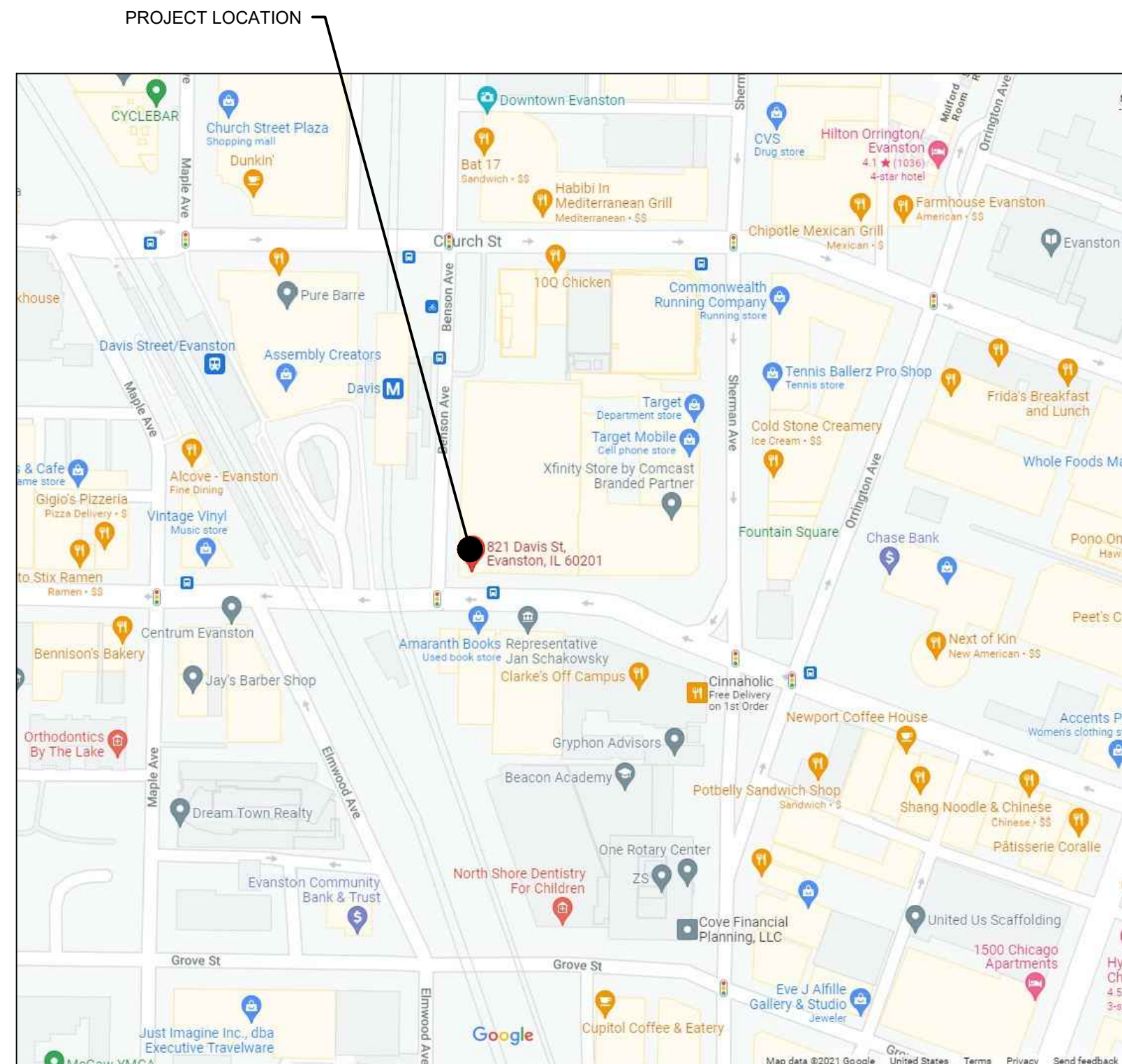


IMAGE ACCESSED FROM GOOGLE 11/17/2021. ANNOTATIONS BY WJE.

**LOCATION MAP**  
NOT TO SCALE

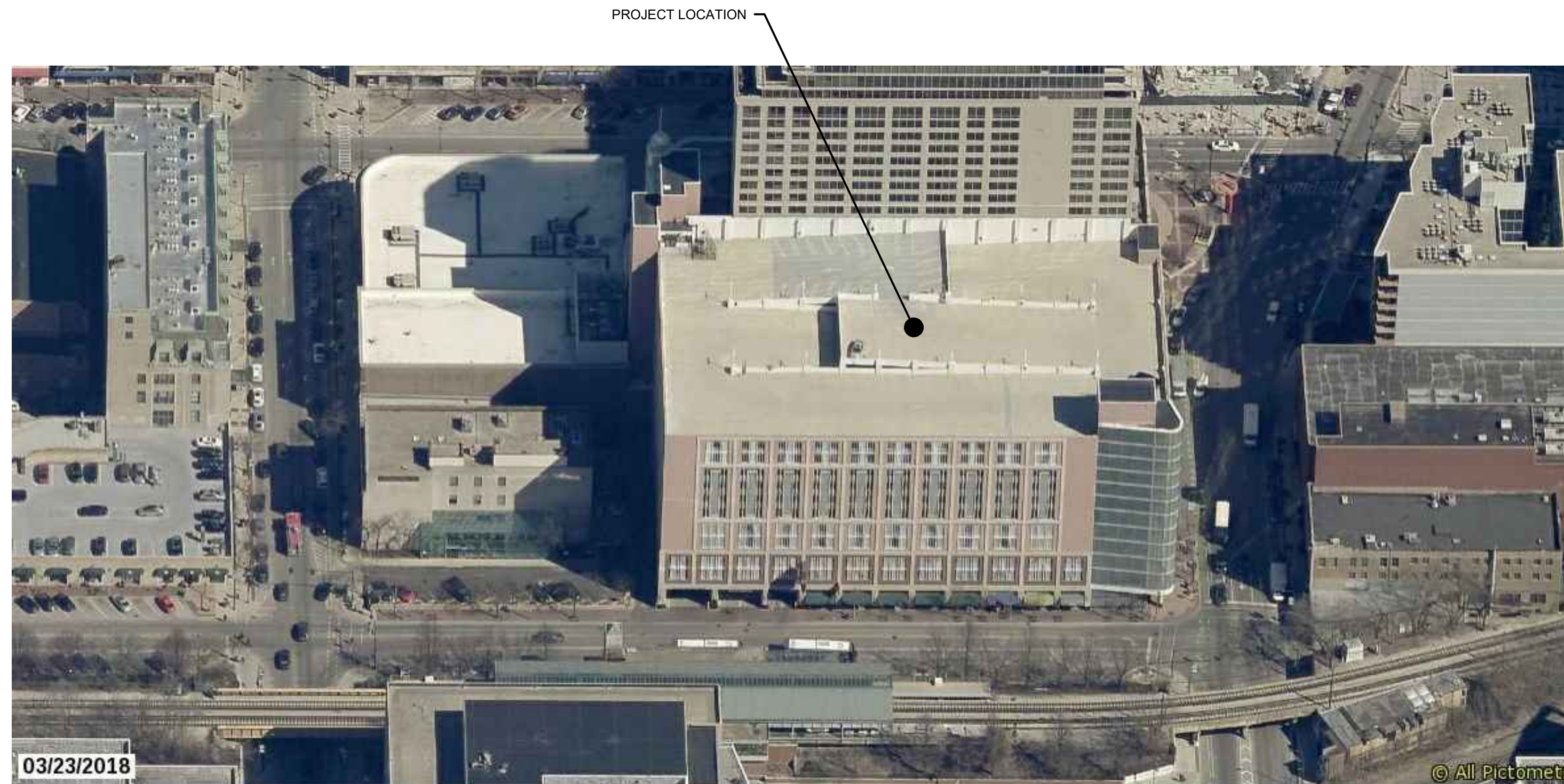
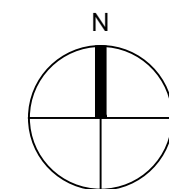
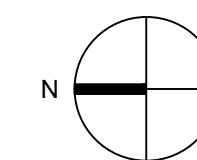


IMAGE DATED 3/23/2018 PROVIDED THROUGH PICTOMETRY SUBSCRIPTION. ANNOTATIONS BY WJE.

**AERIAL PHOTO**  
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**SHERMAN PLAZA  
 PARKING GARAGE REPAIRS**

**821 DAVIS STREET  
 EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
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 2100 RIDGE AVENUE  
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Mark	Date	Description
<p>THIS SHEET PLOTS FULL SIZE AT 22x34 (INCHES)</p>		
Project No.	2020.1793.1	
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**TITLE SHEET**

Sheet Title

**SHE-S-001**

Sheet No.



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### GENERAL NOTES

#### DRAWINGS AND EXISTING CONDITIONS

1. THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED FOR THE REPAIR OF THE CITY OF EVANSTON'S SHERMAN PLAZA PARKING GARAGE AND SHALL NOT BE USED FOR ANY OTHER PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF ARCHITECT/ENGINEER.
2. THE STANDARD SPECIFICATIONS, CONSTRUCTION PLANS AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AT THE JOB SITE PRIOR TO STARTING THE WORK, AND SHALL IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES, OMISSIONS, OR OTHER CONDITIONS THAT MAY AFFECT THE SCOPE OF WORK PRIOR TO BEGINNING REPAIRS IMPACTED BY THE NOTED CONDITIONS.

#### CODES, PERMITS, AND INSURANCE

1. ALL CONSTRUCTION, DEMOLITION AND REMOVAL OF MATERIALS SHALL BE IN ACCORDANCE WITH 2018 INTERNATIONAL BUILDING CODE AND ALL OTHER APPLICABLE LOCAL, STATE AND FEDERAL CODES, ORDINANCES AND WORK RULES. REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS AND DEBRIS SHALL BE PERFORMED IN ACCORDANCE WITH EPA REQUIREMENTS AND APPLICABLE STATE REGULATIONS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND ASSOCIATED FEES FOR WORK DESCRIBED WITHIN THESE DOCUMENTS.
3. CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE INSURED (INCLUDING WORKERS COMP, LIABILITY, AND AUTO INSURANCE COVERAGE ACCEPTABLE TO THE OWNER) AND LICENSED AS REQUIRED BY THE LOCAL BUILDING AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND PROVIDE ALL MATERIALS, LABOR, SCAFFOLD, EQUIPMENT, AND DISPOSAL REQUIRED TO PERFORM THE WORK DESCRIBED HEREIN.

#### USE OF SITE, SAFETY AND PROTECTION

1. WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND SAFETY PROGRAMS IN CONNECTION WITH THE PROJECT, SINCE THESE ARE THE RESPONSIBILITY OF OTHERS. WJE SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULES OR FAILURE TO CARRY OUT THE PROJECT IN ACCORDANCE WITH CONTRACT DOCUMENTS. WJE SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER NON-WJE PERSONS PERFORMING PORTIONS OF THE PROJECT.
2. THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF CONSTRUCTION ACTIVITIES TO THE OWNER AND ARCHITECT/ENGINEER.

3. THE GARAGE WILL BE IN OPERATION DURING THE REPAIR PROJECT. CONSTRUCTION-RELATED ACTIVITIES SHALL NOT BLOCK EXISTING MEANS OF PEDESTRIAN EGRESS OUTSIDE OF THE GARAGE. CONTRACTOR SHALL COORDINATE WITH OWNER TO MAINTAIN ACCESS TO OPEN AREAS OF THE GARAGE AT ALL TIMES. AT LEAST ONE ENTRANCE AND ONE EXIT ARE TO REMAIN OPEN AT ALL TIMES. DRIVE AISLE WORK SHALL BE COORDINATED AND PHASED TO MAINTAIN DRIVE AISLE ACCESS AT ALL TIMES. UP TO 30 PARKING SPACES MAY BE BLOCKED AT ANY ONE TIME, AS COORDINATED WITH OWNER.
4. ACCESS TO THE SITE AND CONSTRUCTION TRAFFIC SHALL BE IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS.
5. ANY REQUIRED STORAGE AREAS WITHIN THE PROPERTY MUST BE COORDINATED WITH THE OWNER. ALL NEW CONSTRUCTION MATERIALS SHALL BE CAREFULLY DELIVERED TO SITE. ANY DAMAGED ITEMS DELIVERED TO SITE SHALL BE REJECTED AND REPLACED AT CONTRACTOR'S EXPENSE. ALL STORED MATERIALS ON SITE SHALL BE PROTECTED AND STORED ABOVE GROUND IN A CLEAN AND DRY ENVIRONMENT AND IN ACCORDANCE WITH THE MATERIAL MANUFACTURER'S WRITTEN RECOMMENDATIONS.
6. THE CONTRACTOR SHALL NOT UNREASONABLY ENCUMBER SITE WITH MATERIALS OR EQUIPMENT. THE MATERIALS AND EQUIPMENT SHALL BE CONFINED TO THE AREAS INDICATED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE OWNER. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND SAFEKEEPING OF PRODUCTS STORED ON PREMISES. MOVE ANY STORED MATERIAL OR PRODUCTS THAT INTERFERE WITH OPERATIONS OF THE OWNER. STORE MATERIAL ONLY IN AREAS PROVIDED BY THE OWNER.
7. CONTRACTOR SHALL PROVIDE PROTECTIVE BARRIERS, FENCES, SIDEWALK BRIDGING, ETC. TO ENSURE THE SAFETY OF PEDESTRIANS, BUILDING OCCUPANTS, VEHICULAR TRAFFIC, SITE FEATURES, ETC. AS APPROVED BY THE OWNER AND ARCHITECT/ENGINEER AND IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AND FEDERAL AUTHORITIES, INCLUDING OSHA.
8. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL JOB SAFETY DURING THE REPAIR WORK.
9. CONTRACTOR SHALL KNOW AND FOLLOW ALL PRECAUTIONS AND SAFETY PROCEDURES AS NORMALLY USED IN THE INDUSTRY, AND THOSE PROCEDURES AS INSTRUCTED BY THE MATERIAL MANUFACTURER, AND ALL LOCAL, STATE, AND FEDERAL REGULATIONS, SAFETY STANDARDS AND CODES. WHEN A CONFLICT EXISTS, COMPLY WITH THE STRICTER REQUIREMENT. THE APPLICATION REQUIREMENTS OF THE U.S. DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), CONSTRUCTION INDUSTRY STANDARDS (29 CFR 1926/1910, CURRENT EDITION), WASHINGTON, D.C. SHALL BE USED AS A STANDARD GUIDELINE.
10. CONTRACTOR SHALL PROVIDE A CERTIFICATE OF INSURANCE AND REQUIRED PRODUCT SUBMITTALS PRIOR TO THE START OF THE WORK.
11. HOURS OF OPERATION: THE CONTRACTOR SHALL CONFINE HIS HOURS OF OPERATION BETWEEN 7AM AND 6PM LOCAL TIME, OR AS APPROVED BY THE OWNER.



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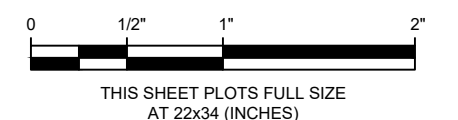
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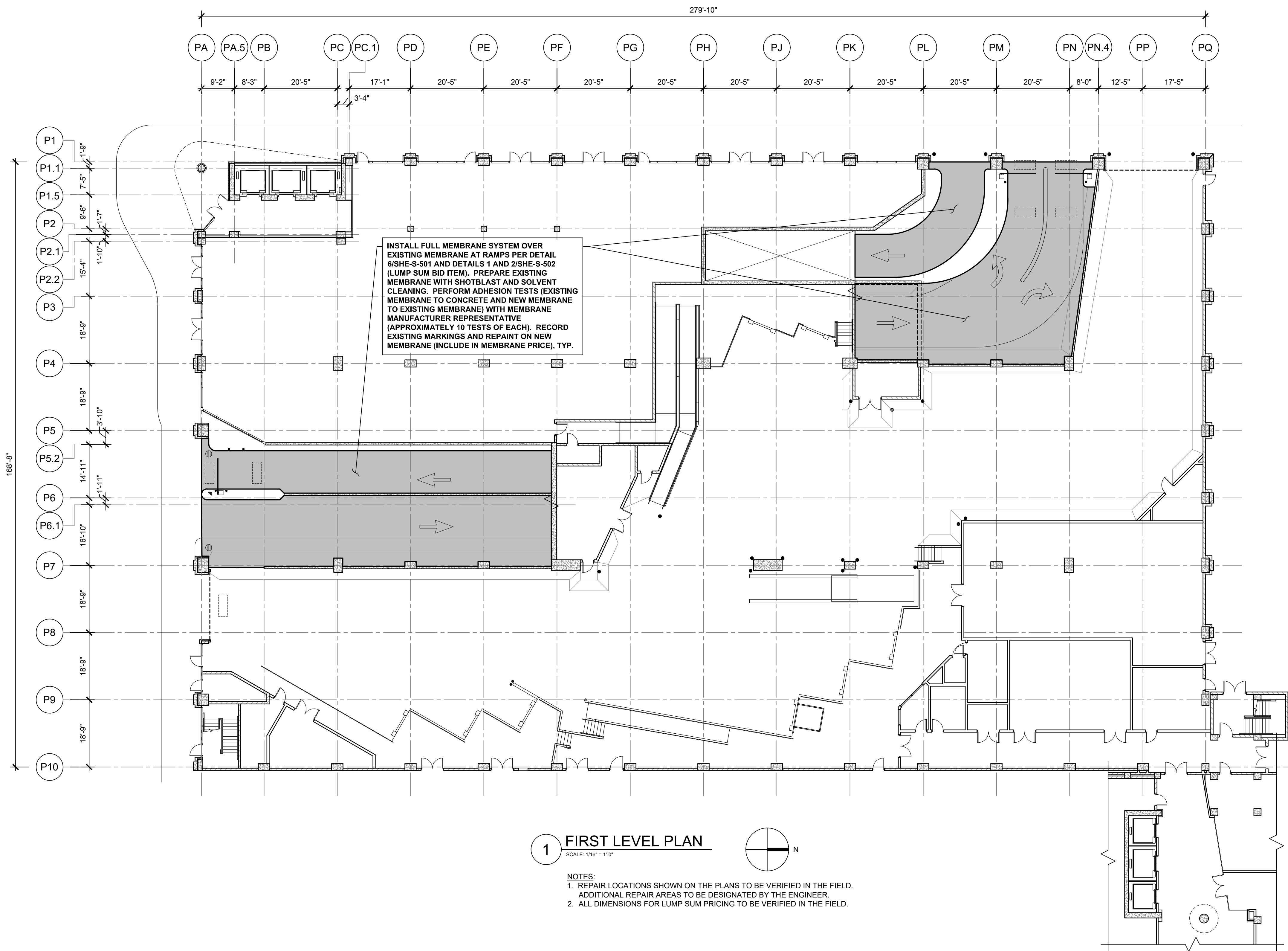
### GENERAL NOTES

Sheet Title

Sheet No. **SHE-S-002**

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**1 FIRST LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"

**NOTES:**  
 1. REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.  
 2. ALL DIMENSIONS FOR LUMP SUM PRICING TO BE VERIFIED IN THE FIELD.

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Consultants

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**821 DAVIS STREET  
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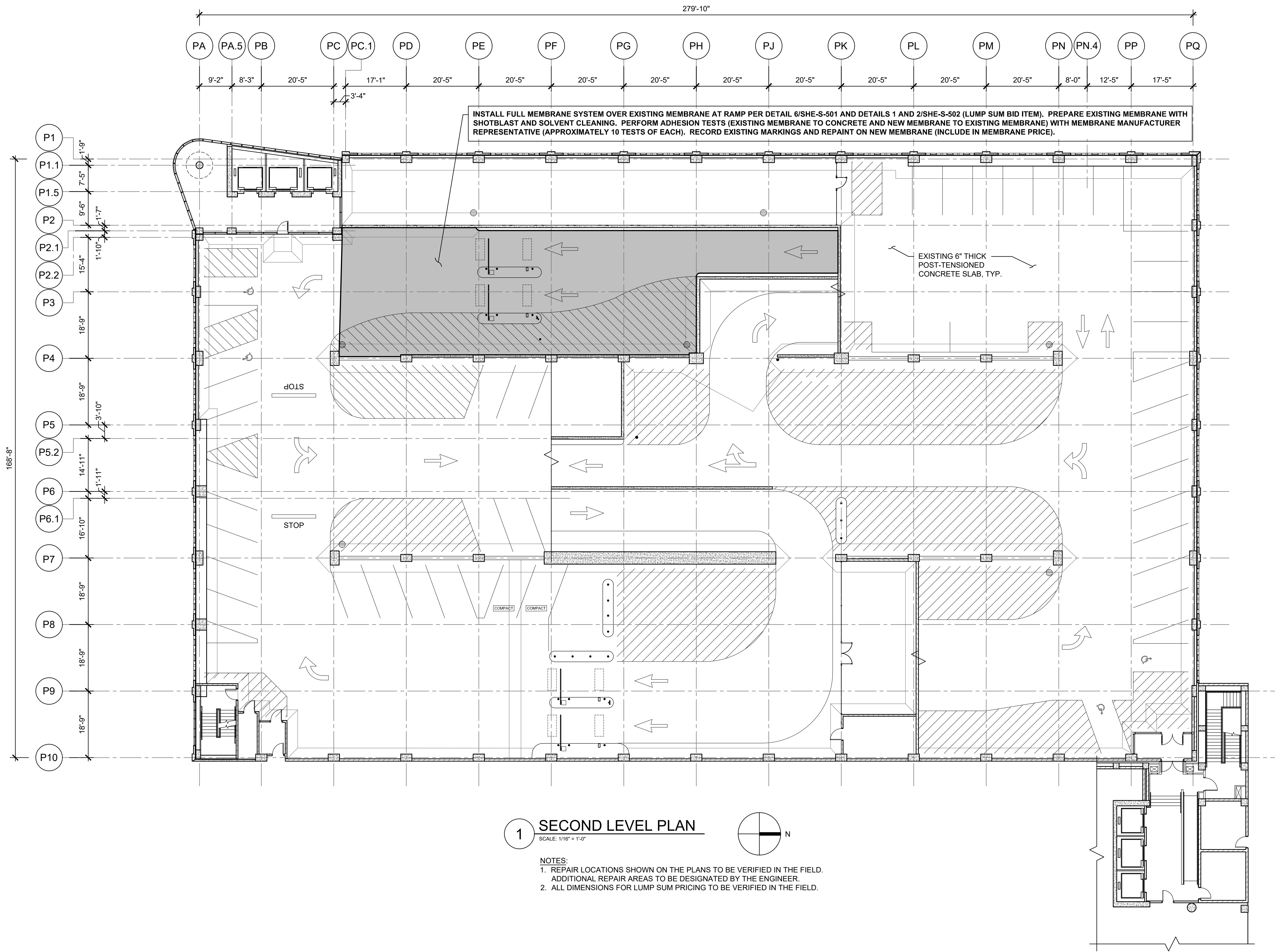
**FIRST LEVEL PLAN**

Sheet Title

Sheet No. **SHE-S-101**

Plotted: 1/26/2022 5:08 PM by Doane, Andrew H. File Name: p:\2020\2020.1793.1 - city of evanston - phase 1 repair design (fac)06 drawings\chicago avenue, church street, maple avenue, and sherman plaza parking garage repairs\SHE-S-102 SECOND LEVEL PLAN.dwg

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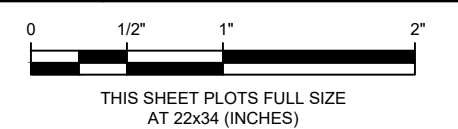
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Consultants

Project  
**SHERMAN PLAZA  
PARKING GARAGE REPAIRS**  
  
**821 DAVIS STREET  
EVANSTON, ILLINOIS**

Client  
**CITY OF EVANSTON PUBLIC  
WORKS AGENCY**  
**2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201**

Mark	Date	Description



Project No.	2020.1793.1
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Checked	MJF
Scale	AS NOTED

SECOND LEVEL PLAN

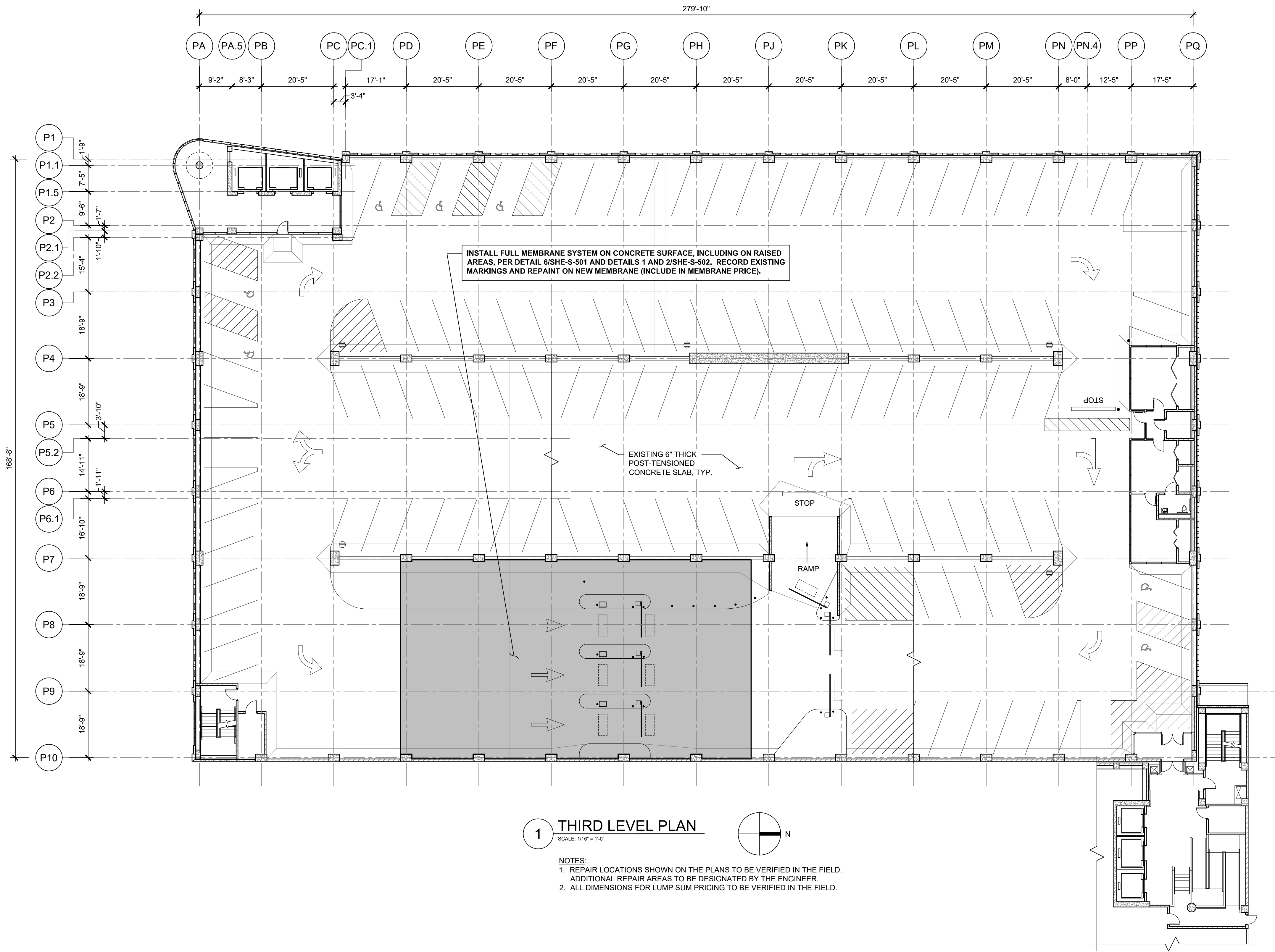
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Sheet No.

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**1 THIRD LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"

- NOTES:**
1. REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.
  2. ALL DIMENSIONS FOR LUMP SUM PRICING TO BE VERIFIED IN THE FIELD.

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**2100 RIDGE AVENUE  
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Mark	Date	Description

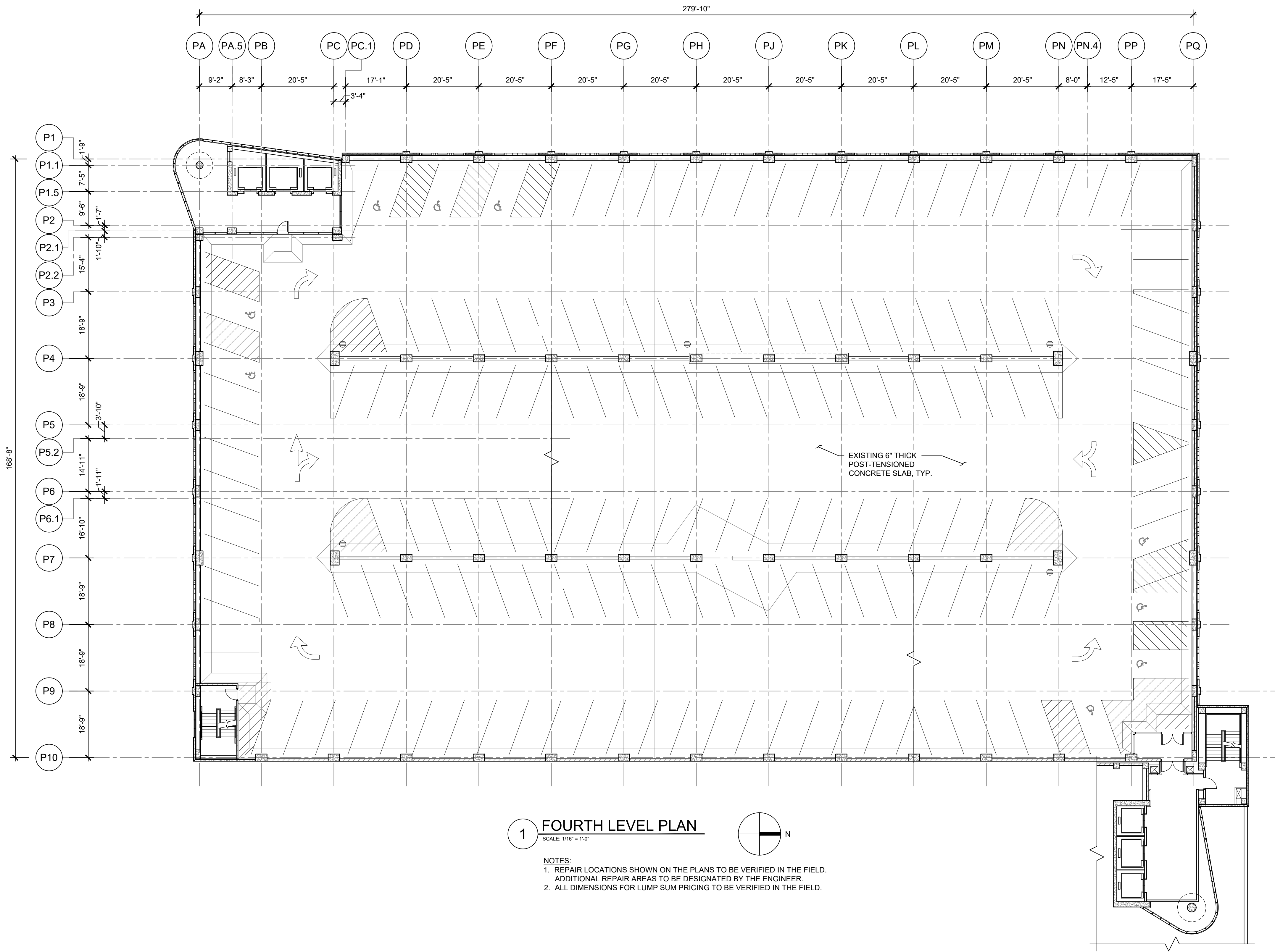
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Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

**THIRD LEVEL PLAN**

Sheet Title  
**SHE-S-103**  
 Sheet No.

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**1 FOURTH LEVEL PLAN**  
SCALE: 1/16" = 1'-0"

- NOTES:**  
 1. REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.  
 2. ALL DIMENSIONS FOR LUMP SUM PRICING TO BE VERIFIED IN THE FIELD.

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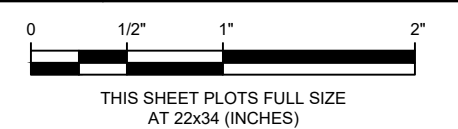
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Project No.	2020.1793.1
Date	1/26/2022
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Checked	MJF
Scale	AS NOTED

**FOURTH LEVEL PLAN**

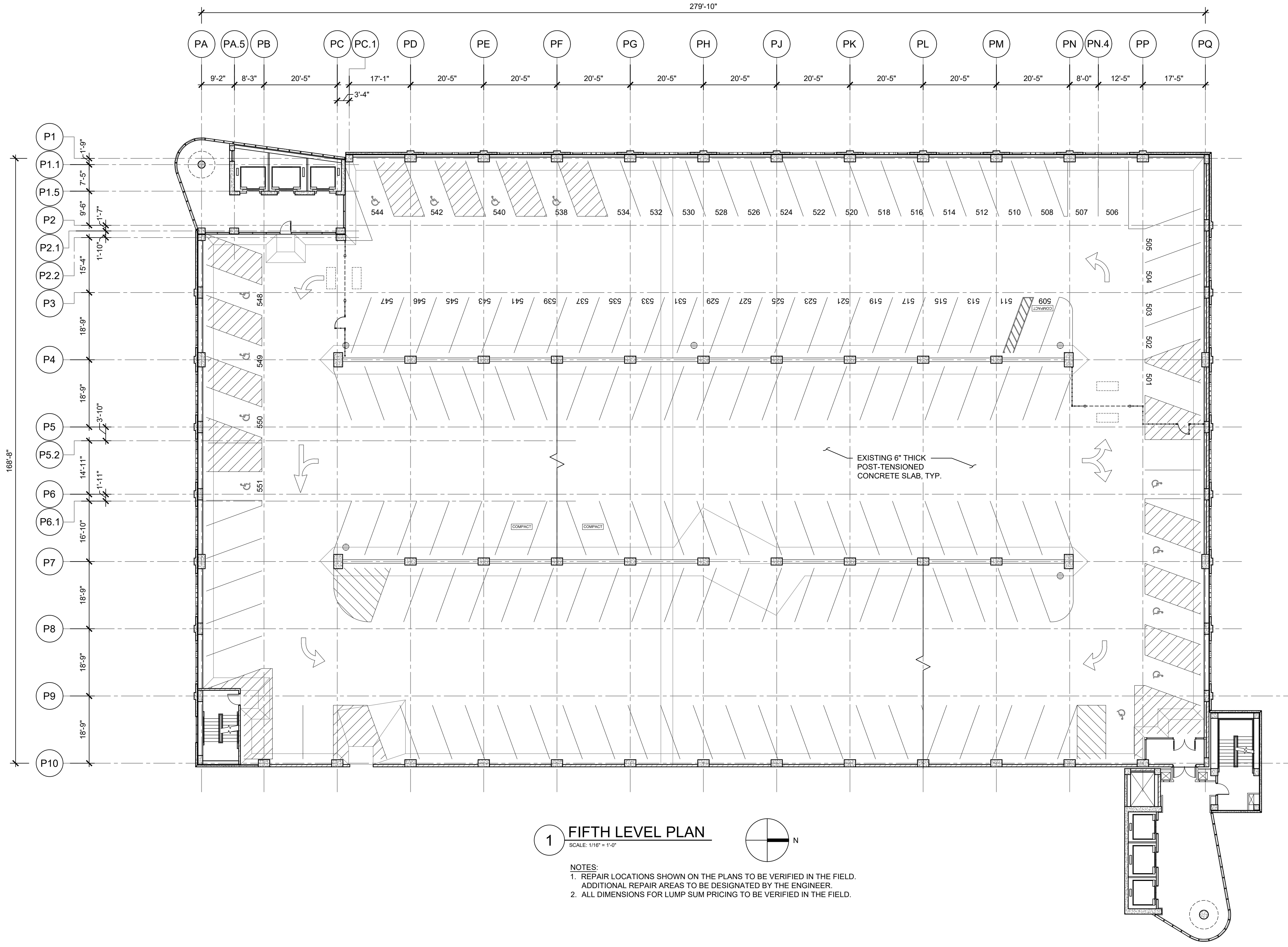
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**1 FIFTH LEVEL PLAN**  
SCALE: 1/16" = 1'-0"

- NOTES:**
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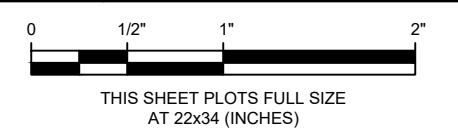
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Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

**FIFTH LEVEL PLAN**

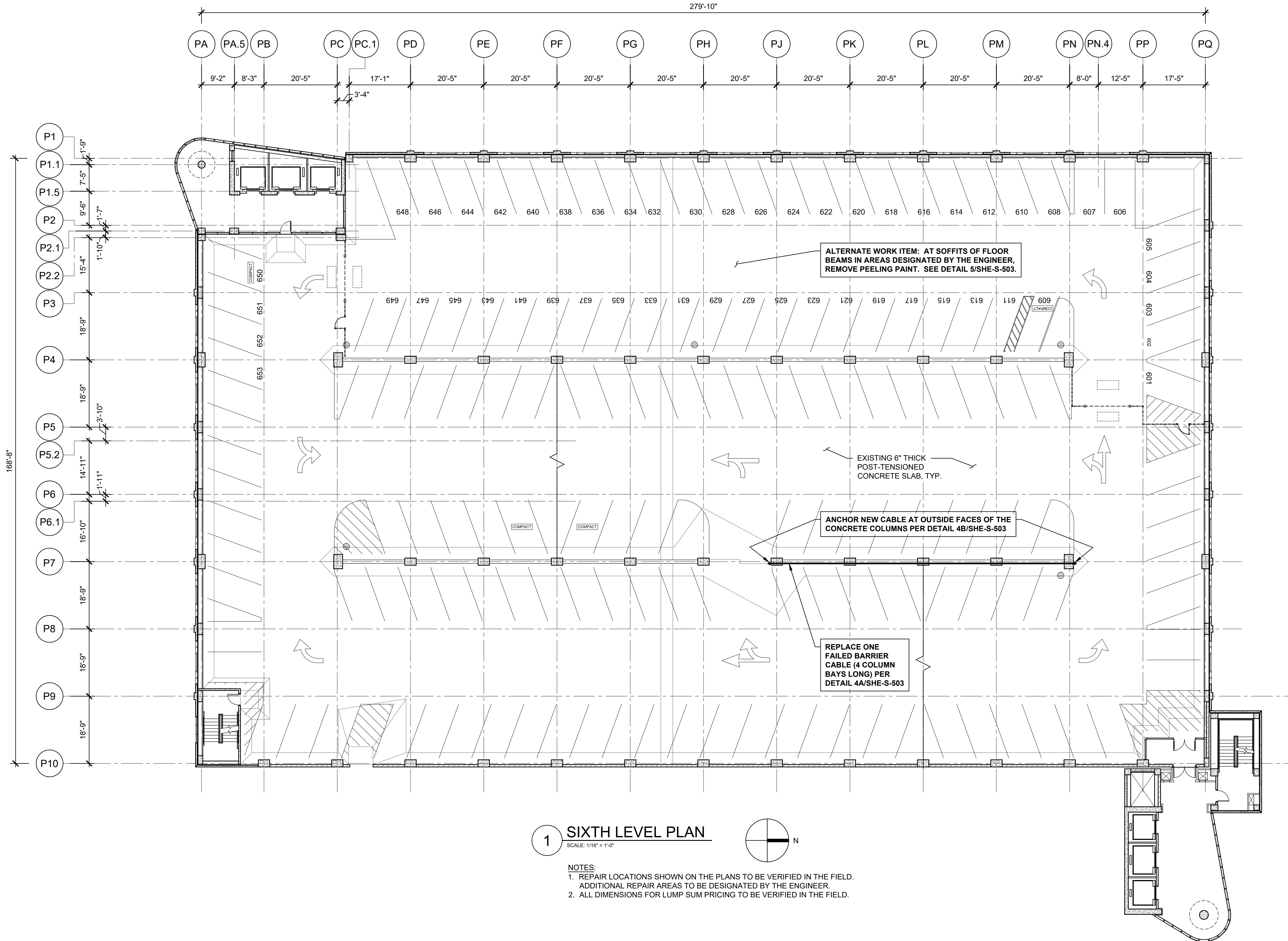
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Sheet No.



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**1 SIXTH LEVEL PLAN**  
SCALE: 1/16" = 1'-0"

**NOTES:**  
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2. ALL DIMENSIONS FOR LUMP SUM PRICING TO BE VERIFIED IN THE FIELD.

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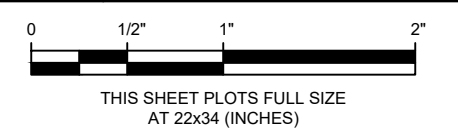
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Project No.	2020.1793.1
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Drawn	AHD
Checked	MJF
Scale	AS NOTED

**SIXTH LEVEL PLAN**

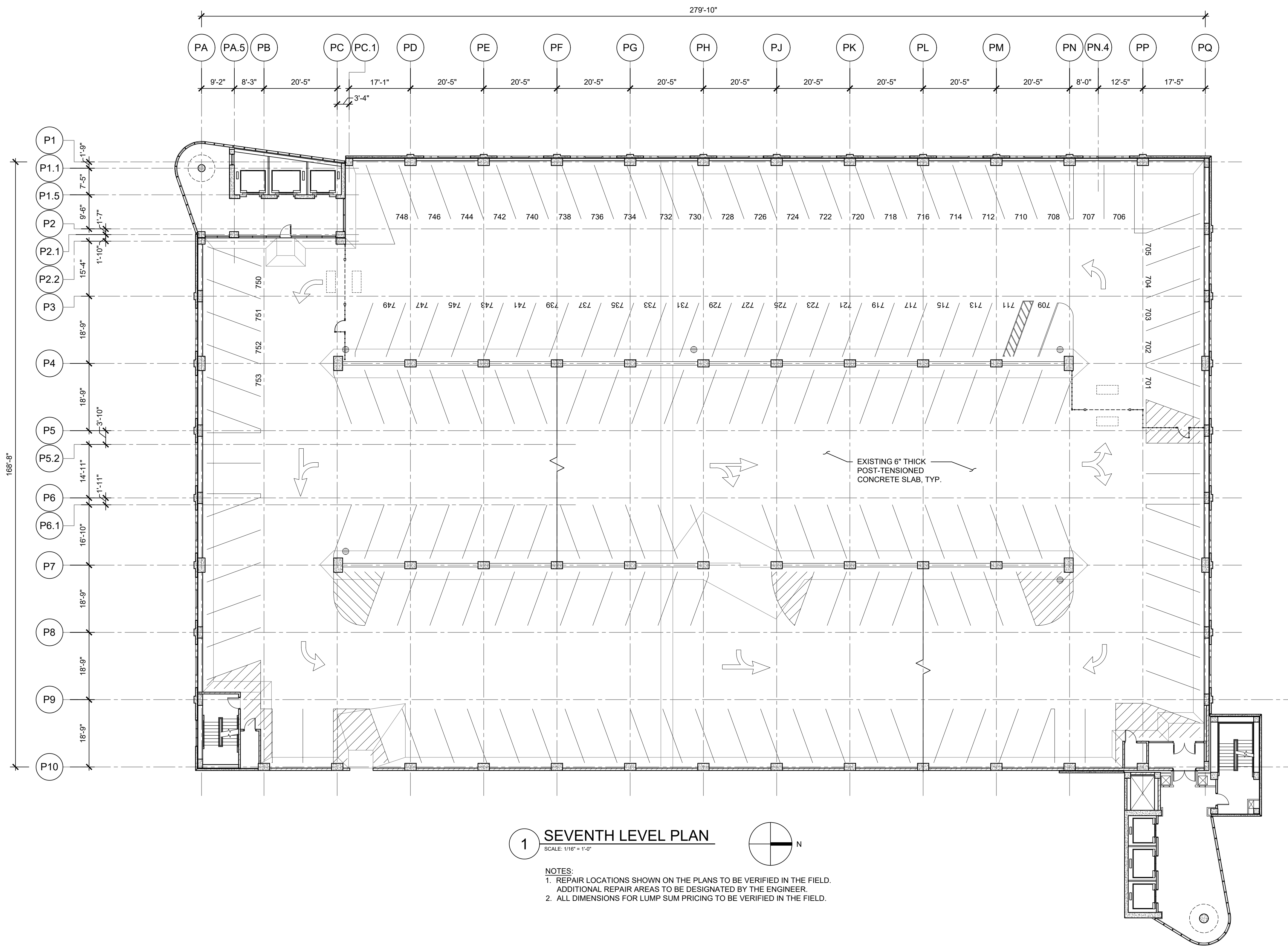
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**SHE-S-106**

Sheet No.

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**1 SEVENTH LEVEL PLAN**  
SCALE: 1/16" = 1'-0"

- NOTES:**
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  - ALL DIMENSIONS FOR LUMP SUM PRICING TO BE VERIFIED IN THE FIELD.

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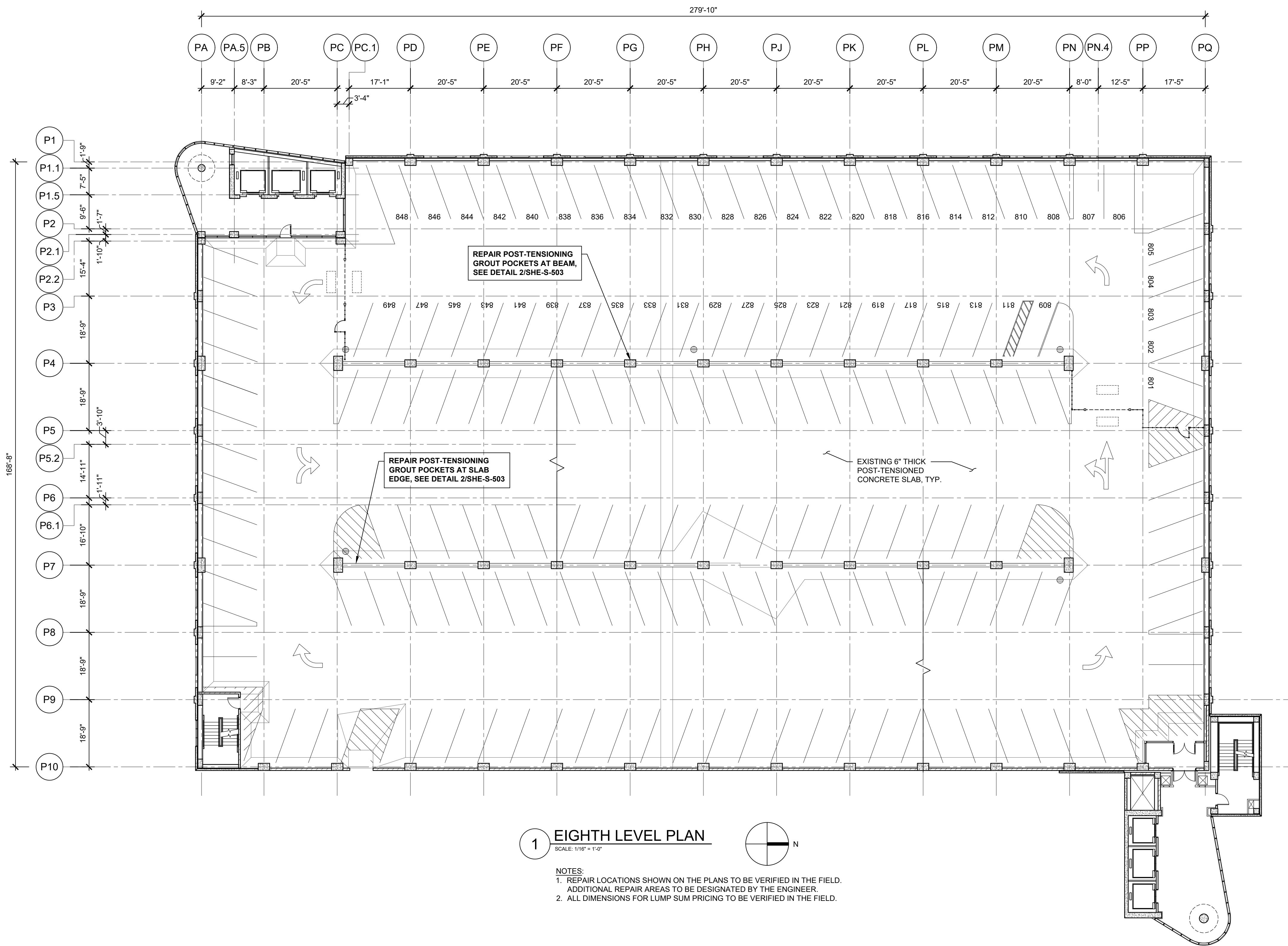
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Sheet Title

Sheet No. **SHE-S-107**

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**1 EIGHTH LEVEL PLAN**  
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- NOTES:**
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  - ALL DIMENSIONS FOR LUMP SUM PRICING TO BE VERIFIED IN THE FIELD.

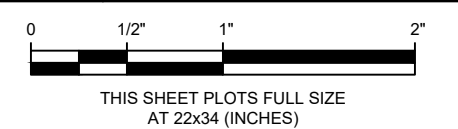
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Project	<b>SHERMAN PLAZA          PARKING GARAGE REPAIRS</b>  <b>821 DAVIS STREET          EVANSTON, ILLINOIS</b>
Client	<b>CITY OF EVANSTON PUBLIC          WORKS AGENCY</b> 2100 RIDGE AVENUE EVANSTON, ILLINOIS 60201

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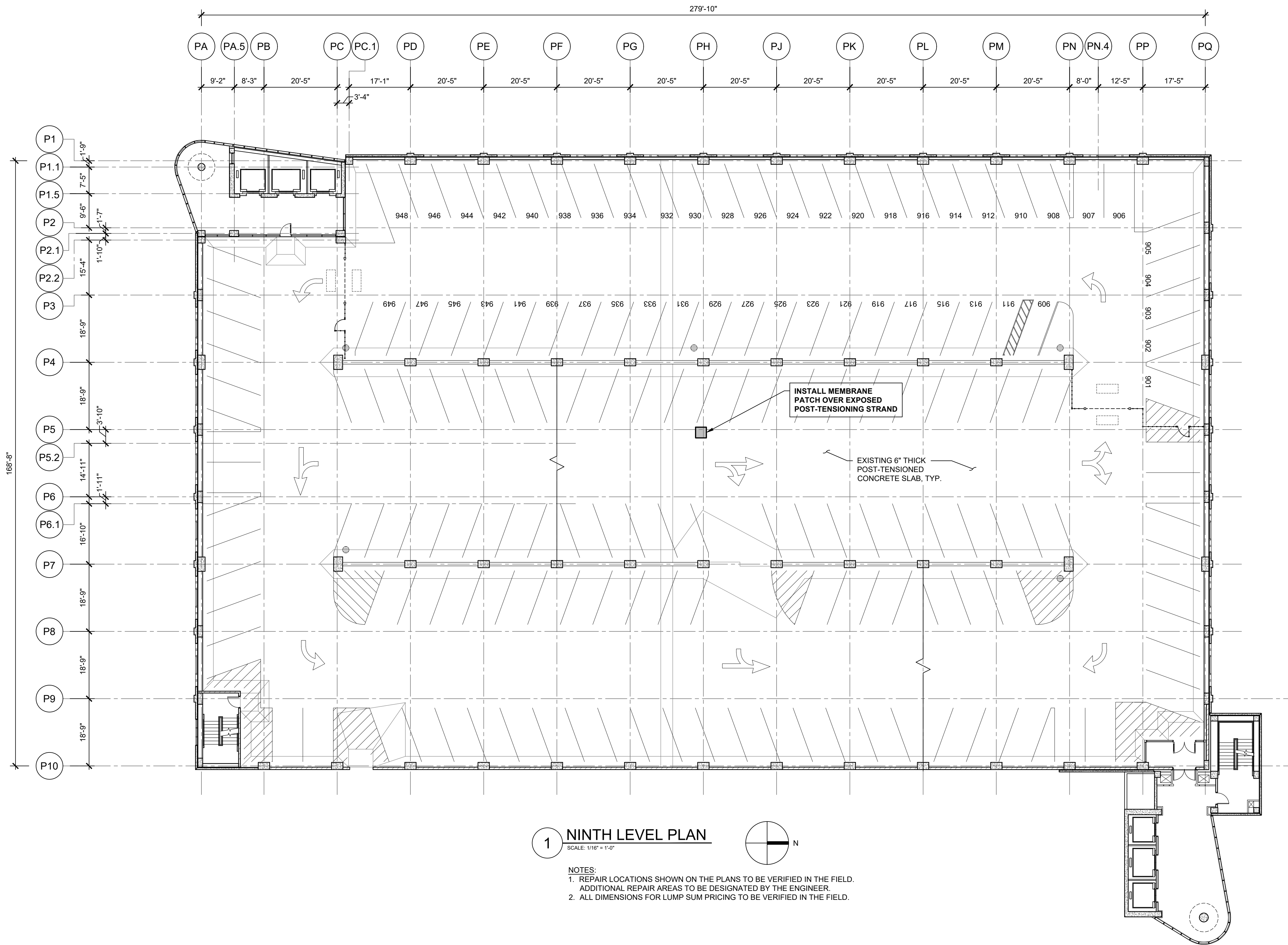
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EIGHTH LEVEL PLAN

Sheet Title  
SHE-S-108

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**1 NINTH LEVEL PLAN**  
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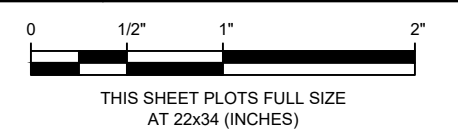
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PARKING GARAGE REPAIRS**  
  
**821 DAVIS STREET  
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Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
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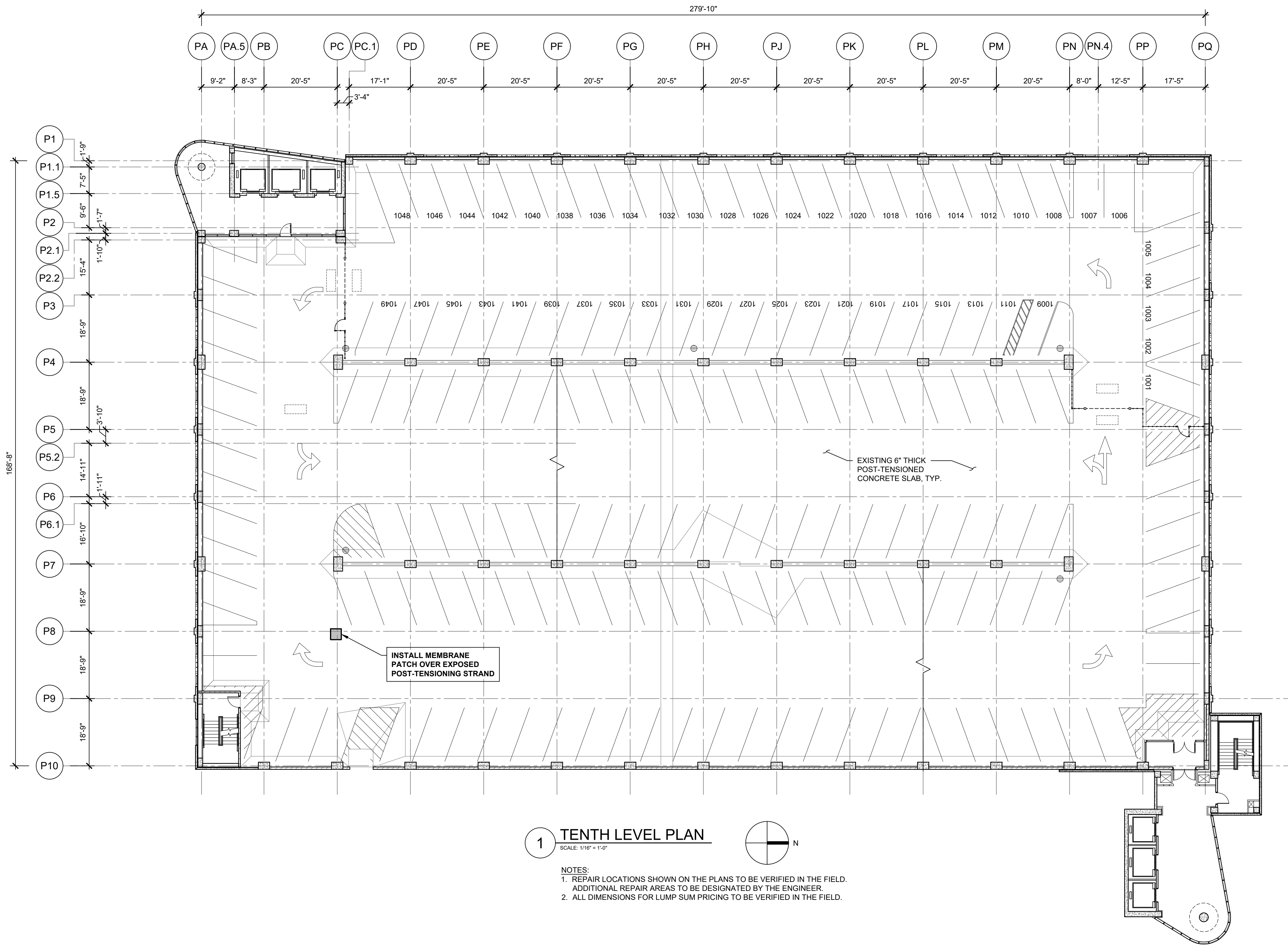
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Sheet Title  
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**1 TENTH LEVEL PLAN**  
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**NOTES:**  
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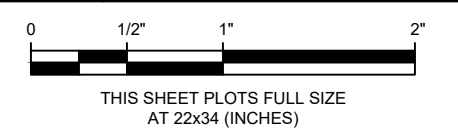
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Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

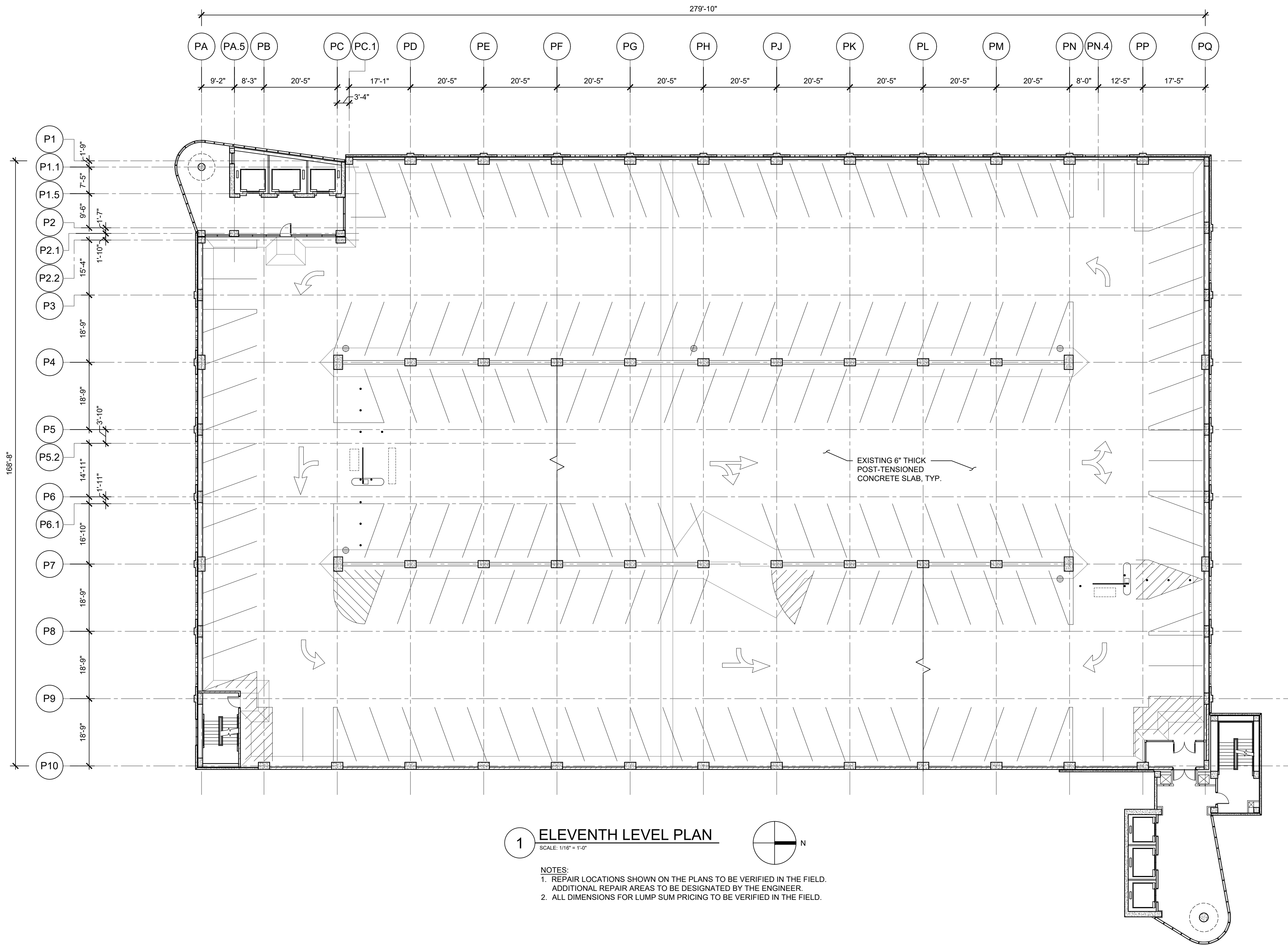
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Sheet Title  
**SHE-S-110**  
 Sheet No.



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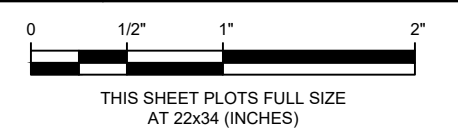
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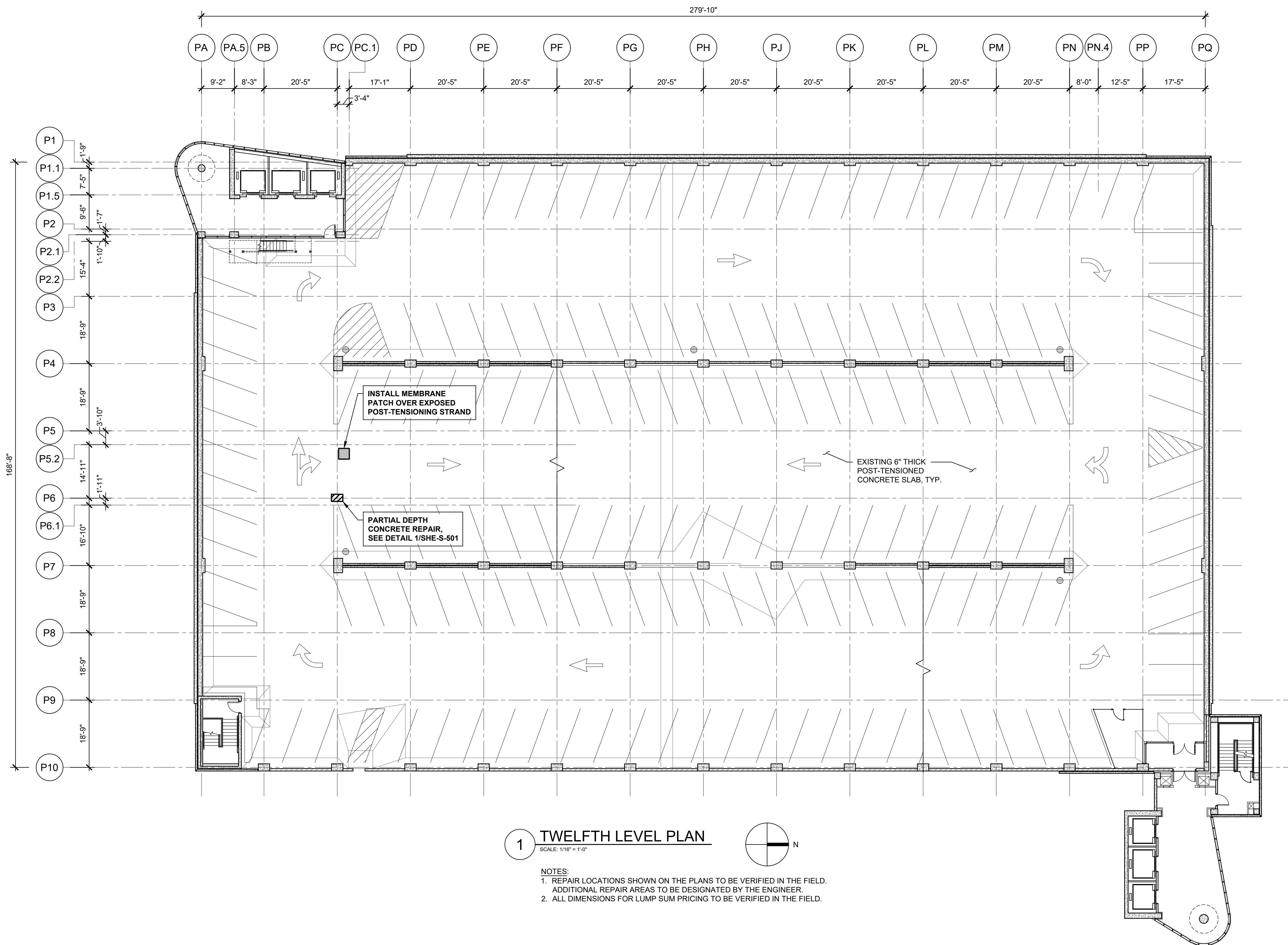
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Date	1/26/2022
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**ELEVENTH  
LEVEL PLAN**

Sheet Title  
**SHE-S-111**

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**1 TWELFTH LEVEL PLAN**  
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Mark	Date	Description

Project No.	2020.1793.1
Date	1/26/2022
Drawn	AHD
Checked	MJF
Scale	AS NOTED

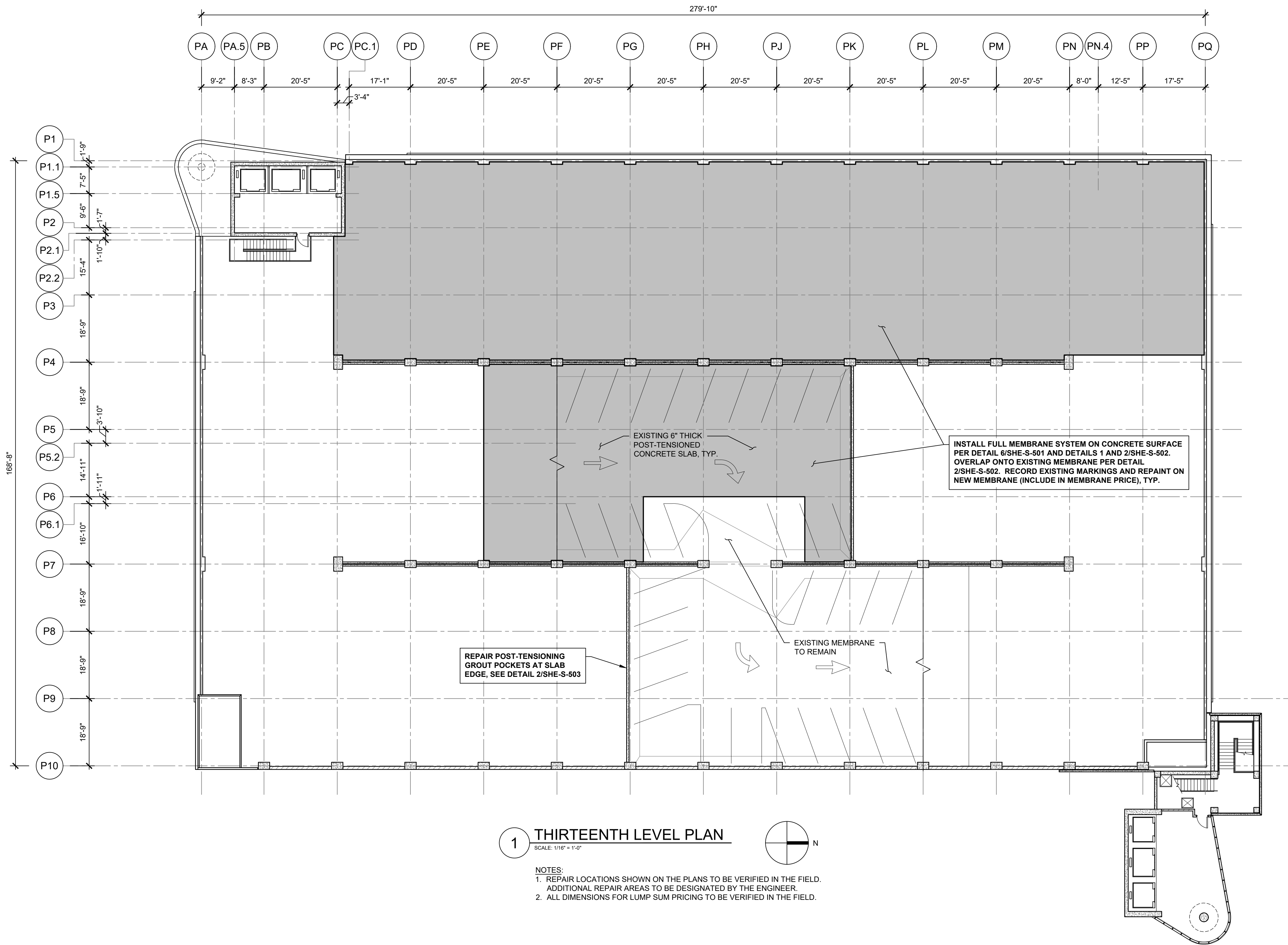
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Sheet Title

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Plotted: 1/26/2022 5:09 PM by Doane, Andrew H. File Name: p:\2020\2020.1793.1 - city of evanston - phase 1 repair design (fac)06 drawings\chicago avenue, church street, maple avenue, and sherman plaza parking garage repairs\SHE-S-113 THIRTEENTH LEVEL PLAN.dwg

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**1 THIRTEENTH LEVEL PLAN**  
 SCALE: 1/16" = 1'-0"

- NOTES:**
- REPAIR LOCATIONS SHOWN ON THE PLANS TO BE VERIFIED IN THE FIELD. ADDITIONAL REPAIR AREAS TO BE DESIGNATED BY THE ENGINEER.
  - ALL DIMENSIONS FOR LUMP SUM PRICING TO BE VERIFIED IN THE FIELD.

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Consultants

Project

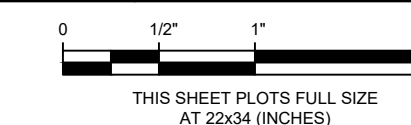
**SHERMAN PLAZA  
 PARKING GARAGE REPAIRS**

**821 DAVIS STREET  
 EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201**

Mark	Date	Description



Project No. 2020.1793.1

Date 1/26/2022

Drawn AHD

Checked MJF

Scale AS NOTED

**THIRTEENTH  
 LEVEL PLAN**

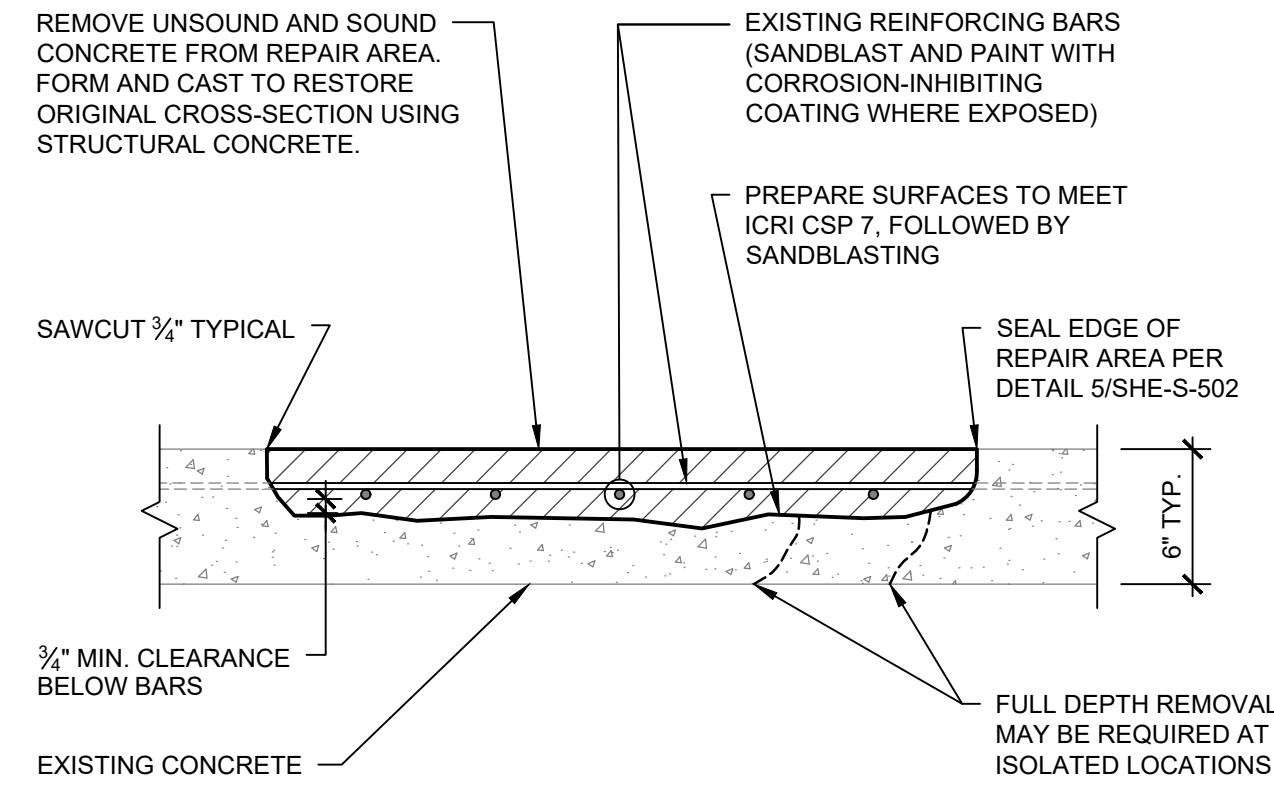
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Sheet No. **SHE-S-113**



Plotted: 1/26/2022 5:10 PM by Doane, Andrew H. File Name: p:\2020\2020\_1793.1 - city of evanston - phase 1 repair design (fac) drawings\chicago avenue, church street, maple avenue, and sherman plaza parking garage repairs\SHE-S-501 REPAIR DETAILS.dwg

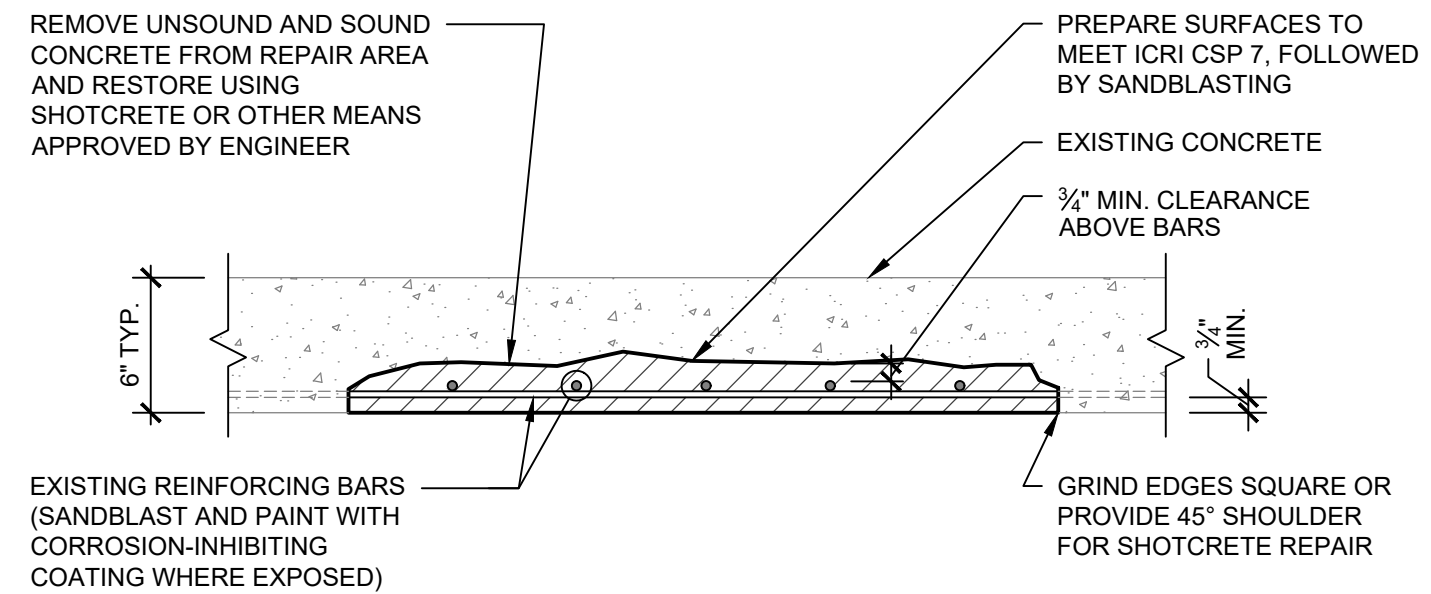
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- NOTES:**
1. LARGE AREAS OF REMOVAL REQUIRE SHORING.
  2. POST-TENSIONING NOT SHOWN FOR CLARITY. CARE SHOULD BE TAKEN TO NOT DAMAGE POST-TENSIONING DURING CONCRETE REPAIRS.
  3. IF AN EXISTING WATERPROOFING MEMBRANE IS PRESENT AT THE REPAIR AREA, APPLY NEW MEMBRANE SYSTEM PER DETAILS 6/SHE-S-501 AND 2/SHE-S-502 AFTER THE CONCRETE HAS CURED. INCLUDE MEMBRANE IN CONCRETE REPAIR PRICE.

**1 PARTIAL DEPTH CONCRETE REPAIR**

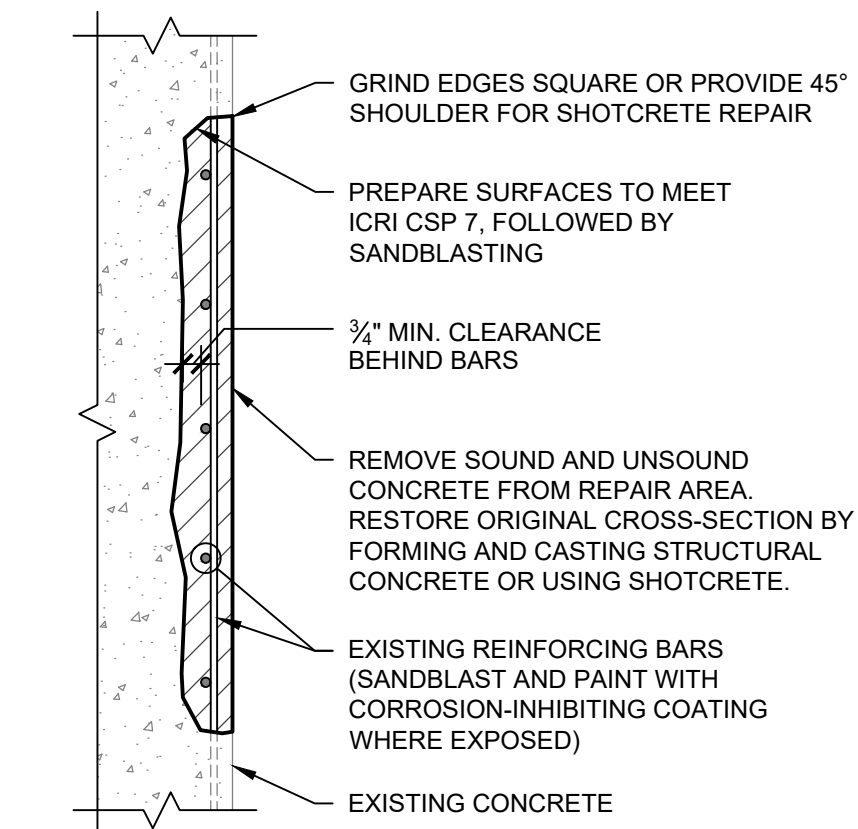
NOT TO SCALE



- NOTES:**
1. USE FULL DEPTH REPAIR IF LESS THAN 2 IN. OF EXISTING CONCRETE REMAINS ABOVE REPAIR OPENING.
  2. POST-TENSIONING NOT SHOWN FOR CLARITY. CARE SHOULD BE TAKEN TO NOT DAMAGE POST-TENSIONING DURING CONCRETE REPAIRS.
  3. PAINT CURED CONCRETE TO MATCH EXISTING. INCLUDE PAINT IN CONCRETE REPAIR PRICE.

**2 OVERHEAD CONCRETE REPAIR**

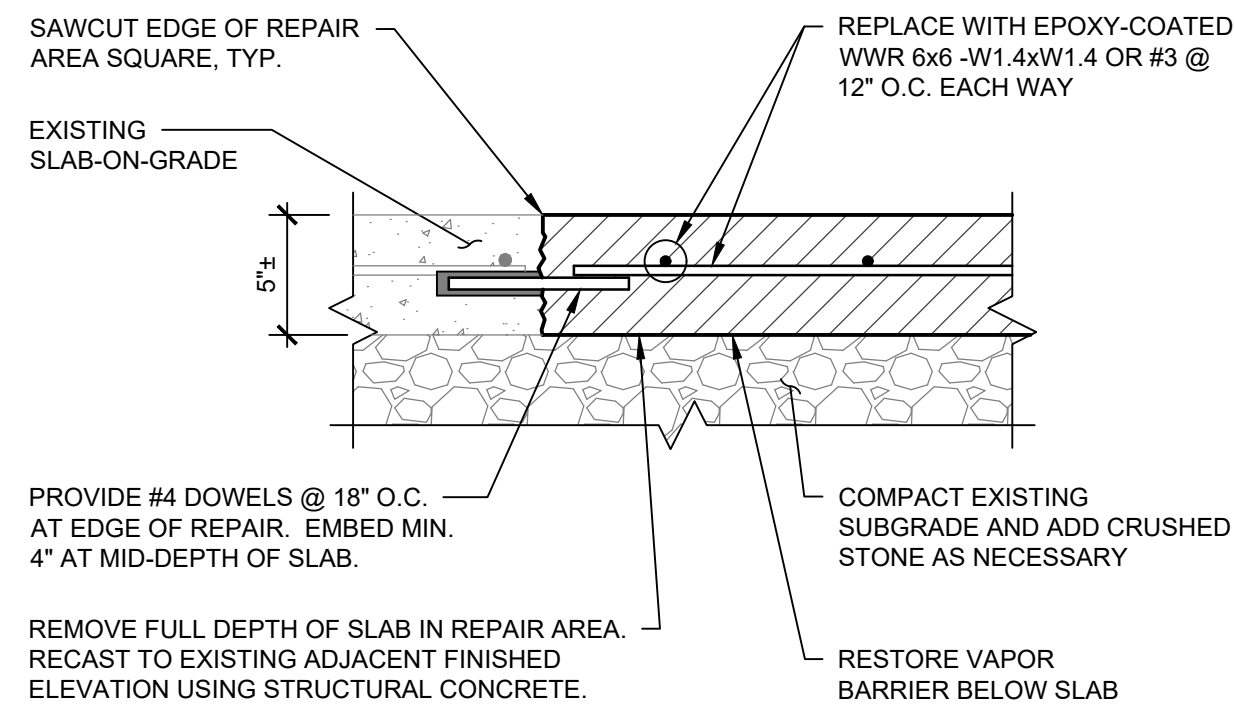
NOT TO SCALE



- NOTE:** PAINT CURED CONCRETE TO MATCH EXISTING. INCLUDE PAINT IN CONCRETE REPAIR PRICE.

**3 CONCRETE REPAIR AT VERTICAL SURFACE**

NOT TO SCALE



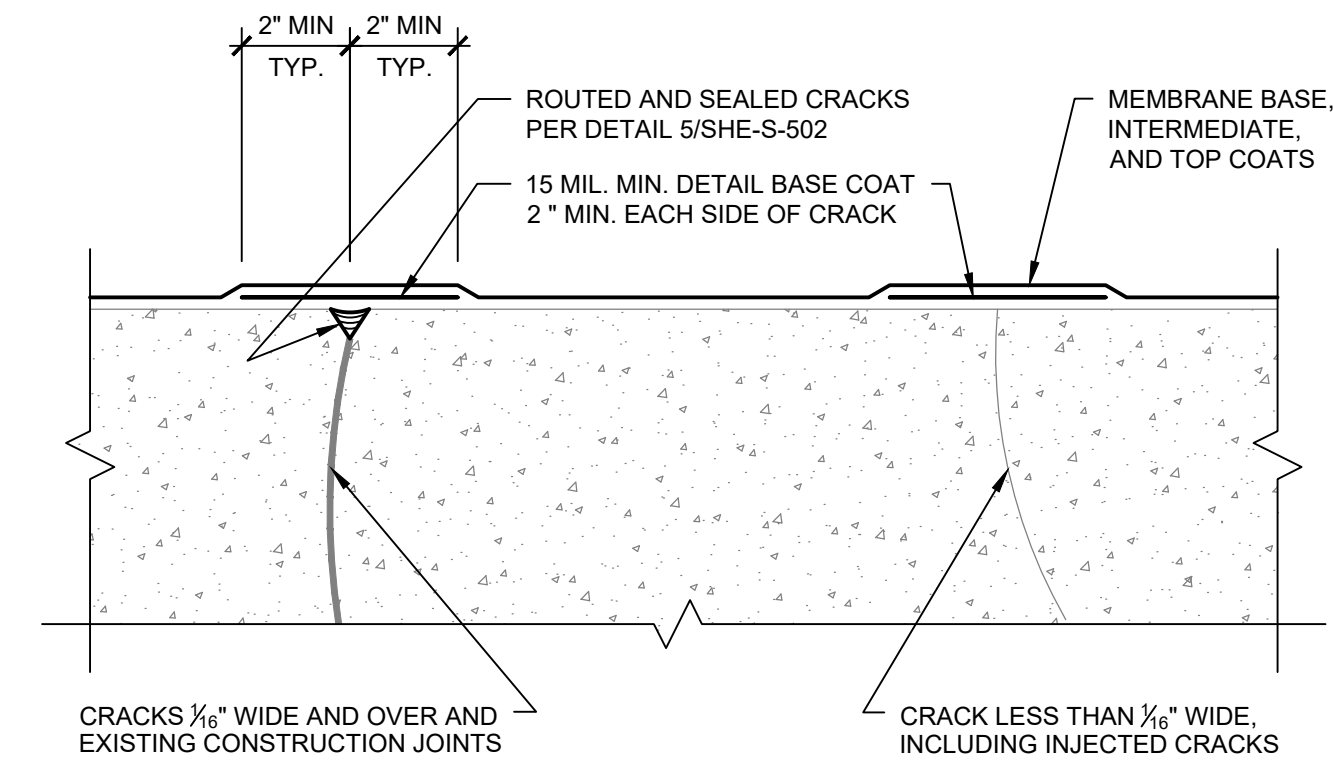
**4 CONCRETE SLAB-ON-GROUND REPAIR**

SCALE: 1 1/2" = 1'-0"



**5 CONCRETE CURB REPAIR**

NOT TO SCALE



- NOTES:**
1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.
  2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE. ALSO, RECORD STRIPING AND REPAINT ON NEW MEMBRANE (INCLUDE IN MEMBRANE PRICE).

**6 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT CRACKS AND CONSTRUCTION JOINTS**

NOT TO SCALE

**WJE** ENGINEERS  
ARCHITECTS  
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Philadelphia | Pittsburgh | Portland | Princeton | Raleigh | San Antonio  
San Diego | San Francisco | Seattle | South Florida | Washington, DC

**FOR BID**

Consultants

Project

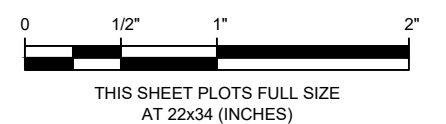
**SHERMAN PLAZA  
PARKING GARAGE REPAIRS**

**821 DAVIS STREET  
EVANSTON, ILLINOIS**

Client

**CITY OF EVANSTON PUBLIC  
WORKS AGENCY  
2100 RIDGE AVENUE  
EVANSTON, ILLINOIS 60201**

Mark	Date	Description



Project No. 2020.1793.1

Date 1/26/2022

Drawn AHD

Checked MJF

Scale AS NOTED

**REPAIR DETAILS**

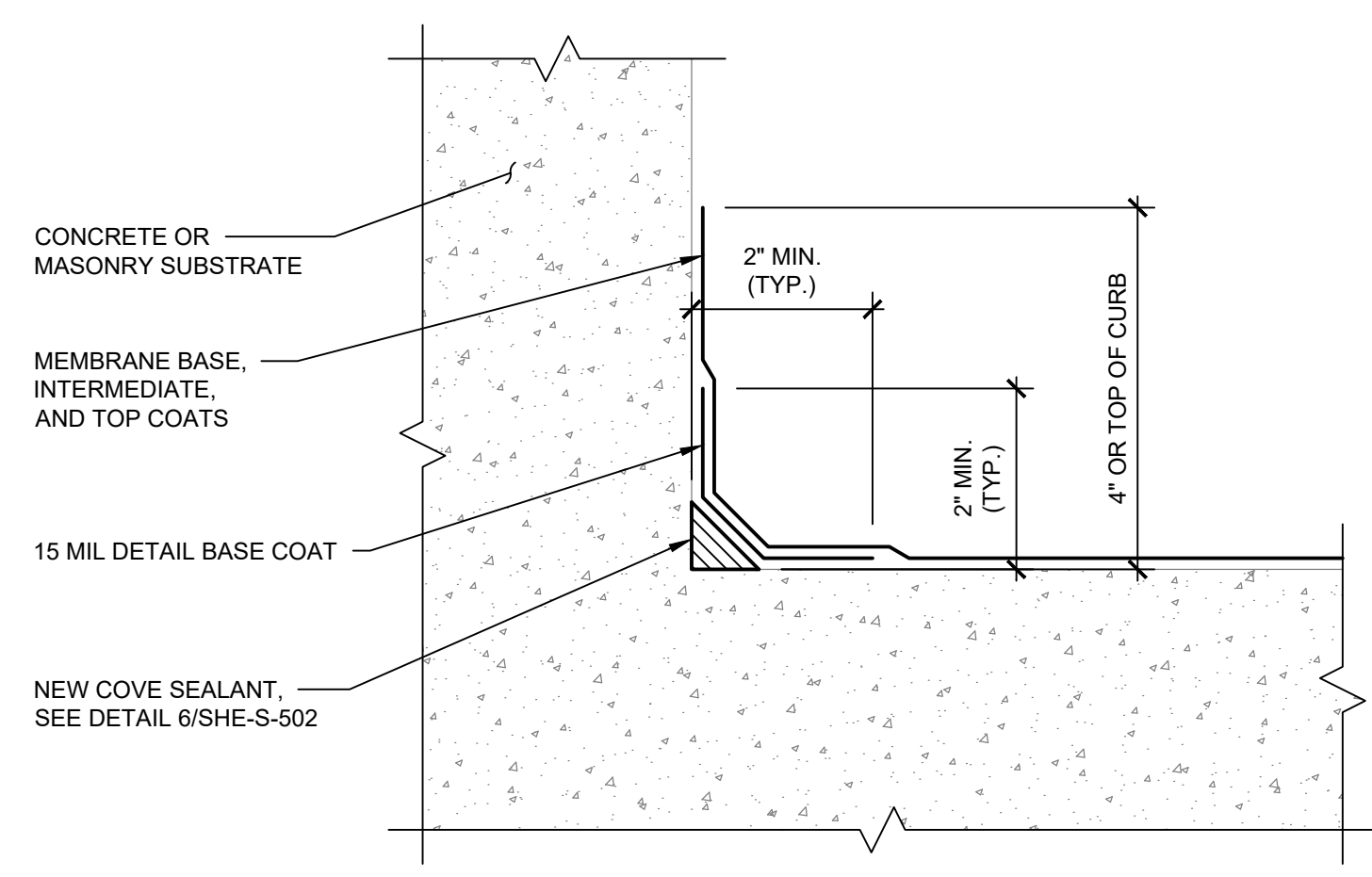
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**SHE-S-501**

Sheet No.

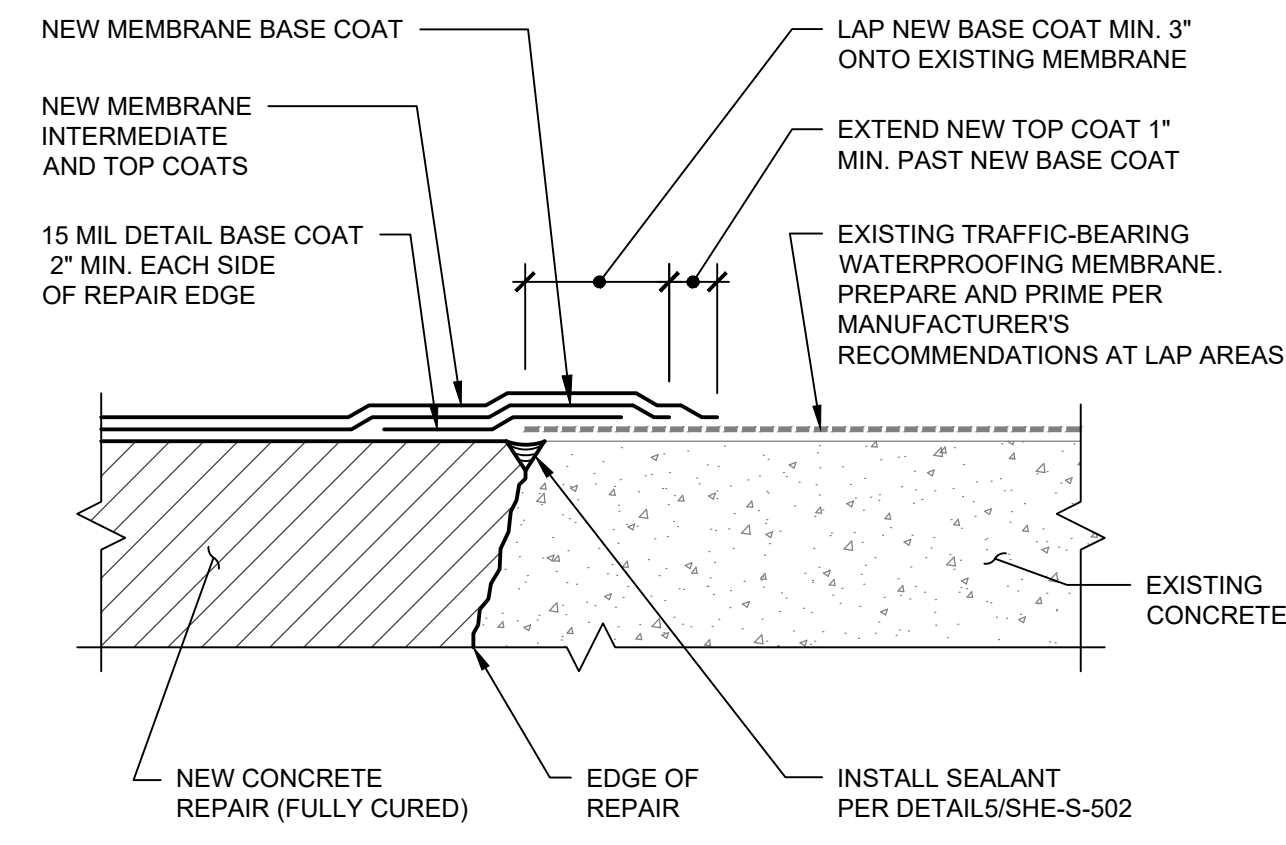
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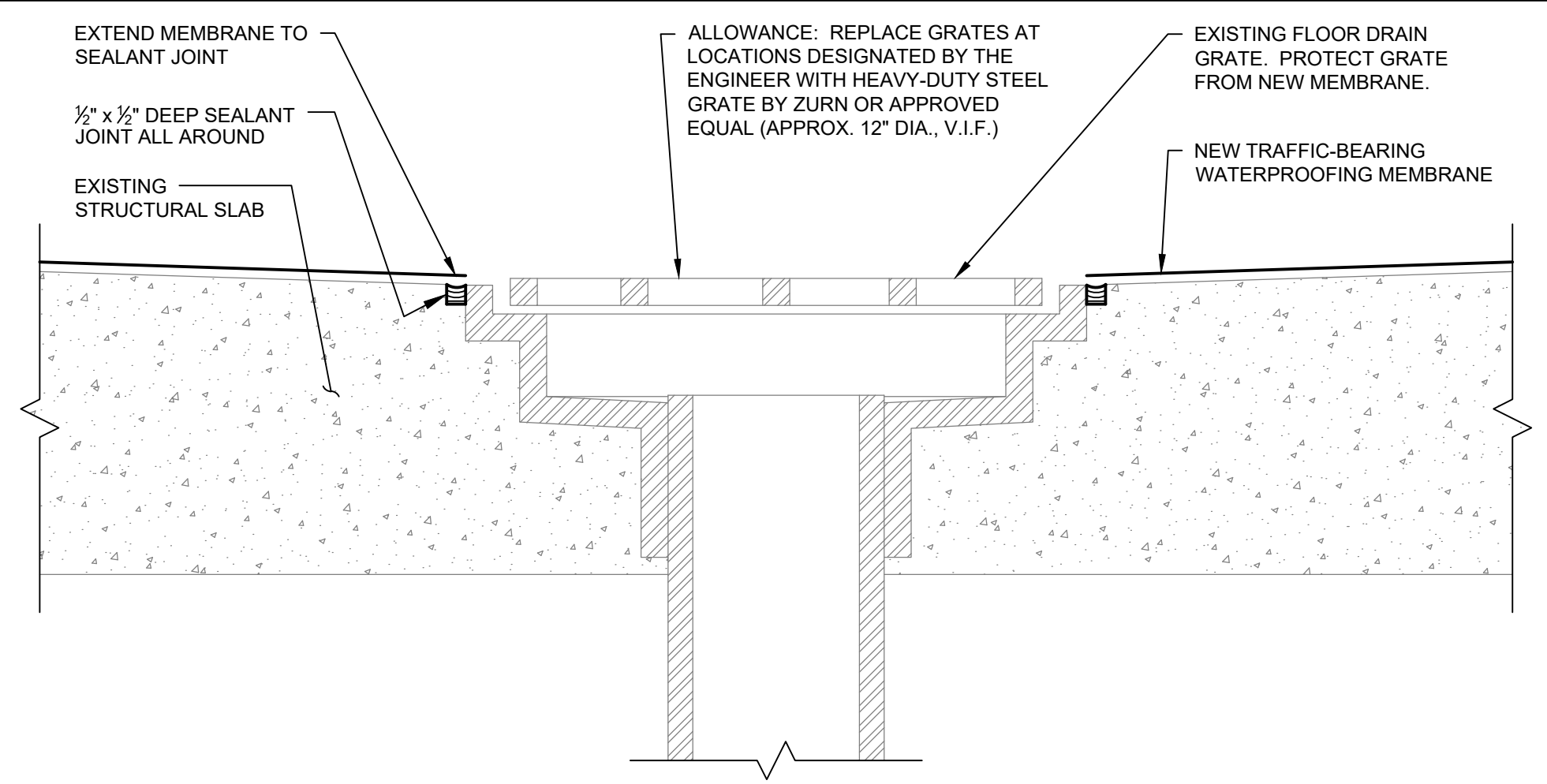
**NOTES:**  
 1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.  
 2. AT NEW MEMBRANE AREAS, INCLUDE COVE SEALANT IN MEMBRANE PRICE.

**1 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT UPTURN**  
 NOT TO SCALE



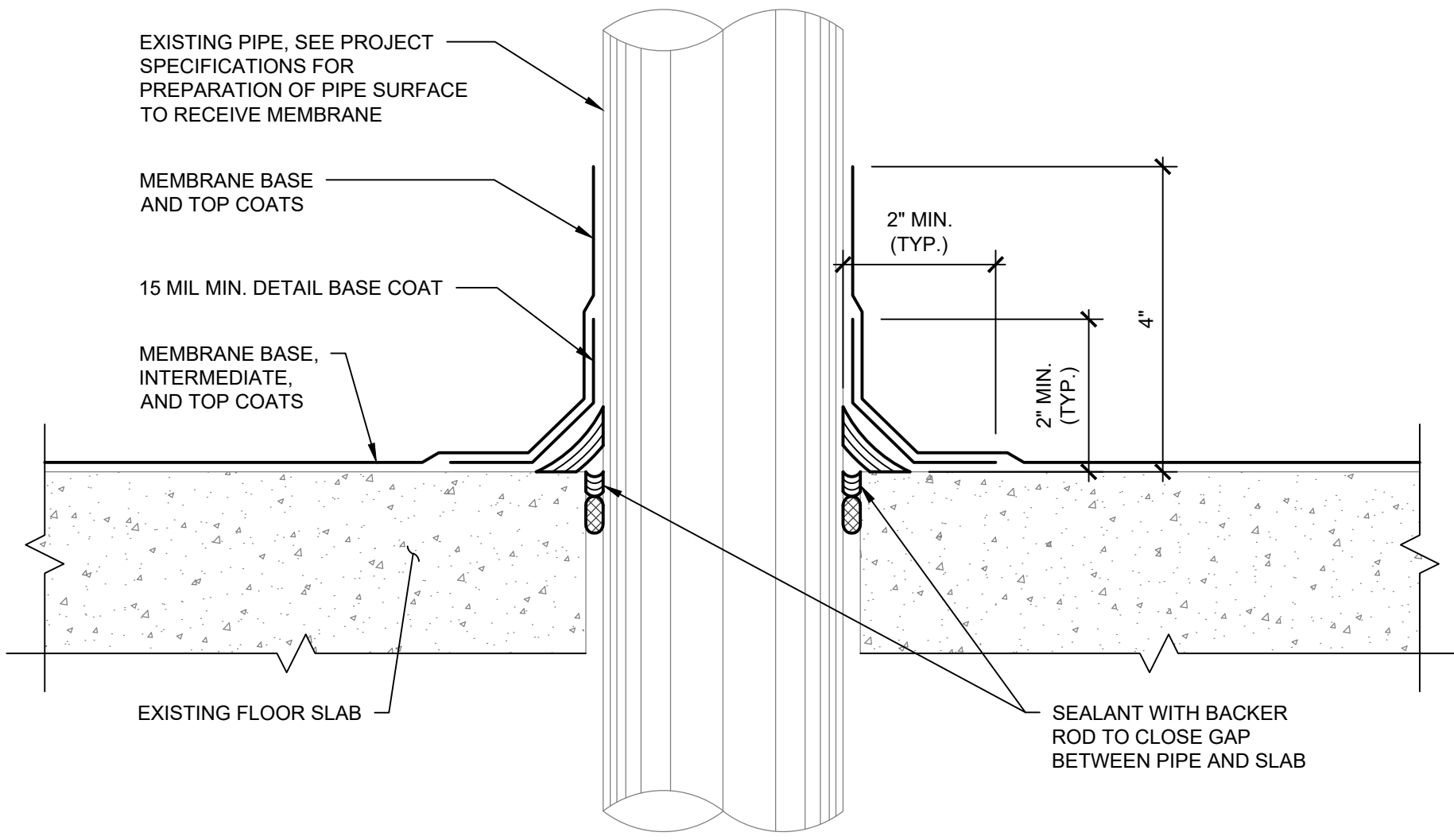
**NOTES:**  
 1. ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3. ROUGH SURFACES MUST BE LEVELED ACCORDINGLY.  
 2. AT NEW MEMBRANE AREAS, INCLUDE ALL CRACK AND JOINT SEALANTS AND MEMBRANE DETAIL STRIPS IN MEMBRANE PRICE.

**2 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT EDGE OF REPAIR**  
 NOT TO SCALE

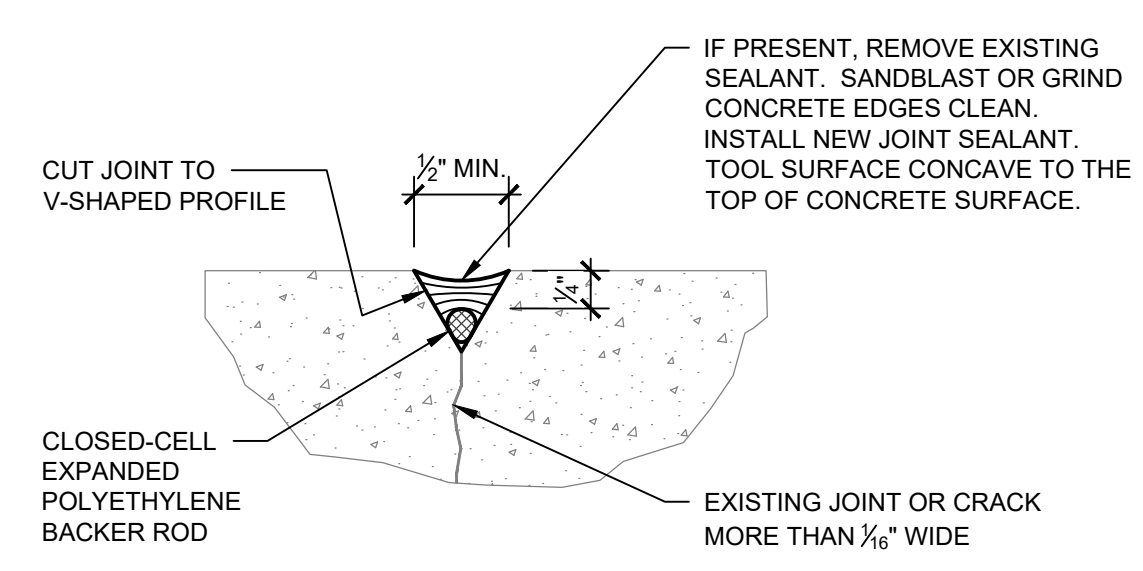


**NOTE:** ALL CONCRETE SURFACES TO RECEIVE MEMBRANE MUST BE PROPERLY PREPARED BY SANDBLASTING OR SHOTBLASTING TO MEET ICRI CSP 3.

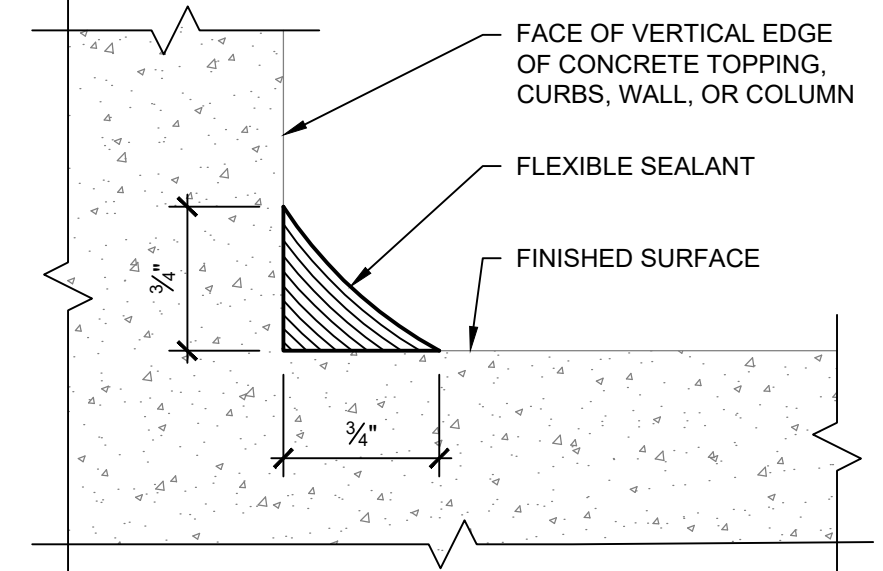
**3 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT FLOOR DRAIN**  
 NOT TO SCALE



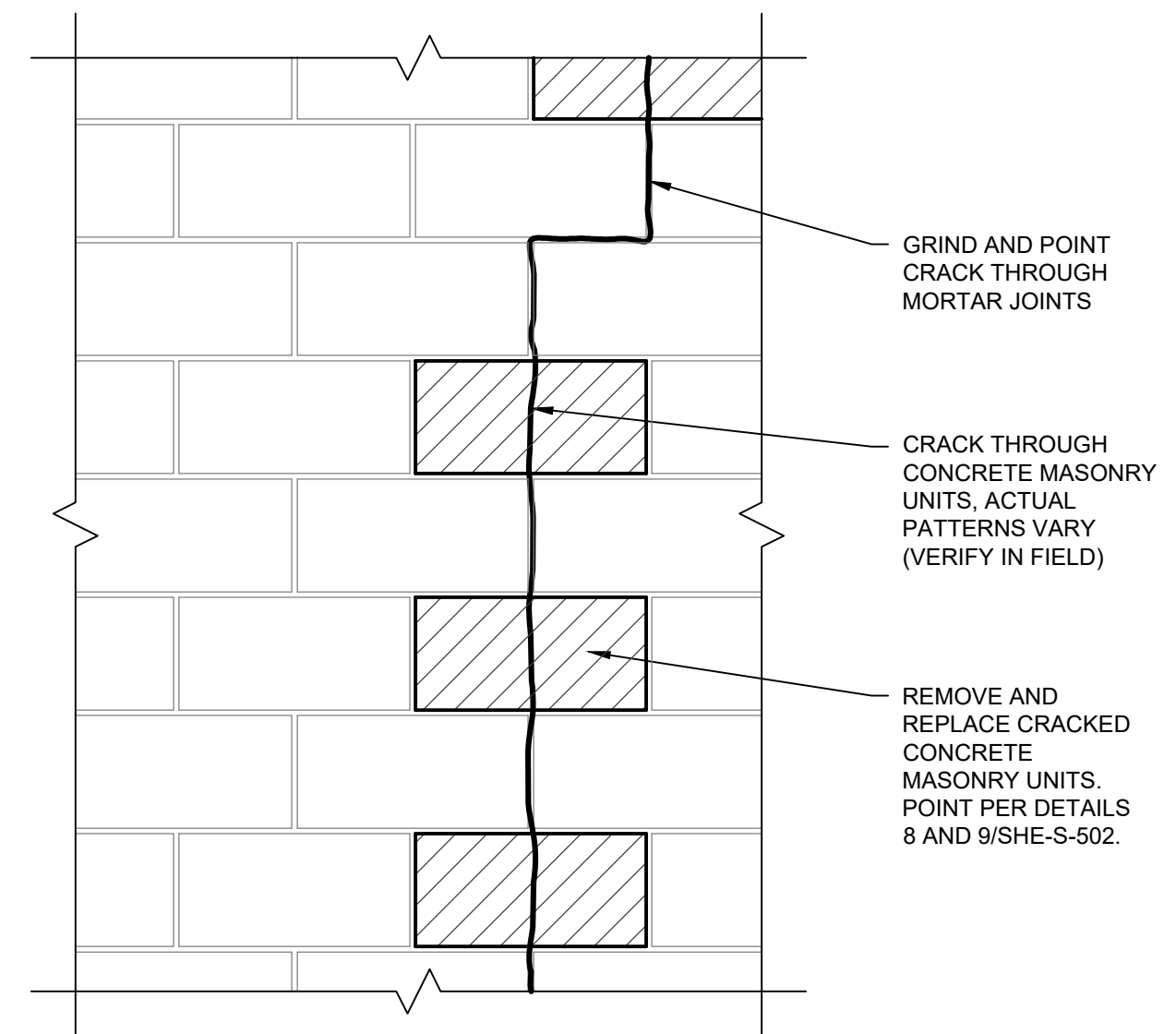
**4 TRAFFIC-BEARING WATERPROOFING MEMBRANE AT PENETRATION**  
 NOT TO SCALE



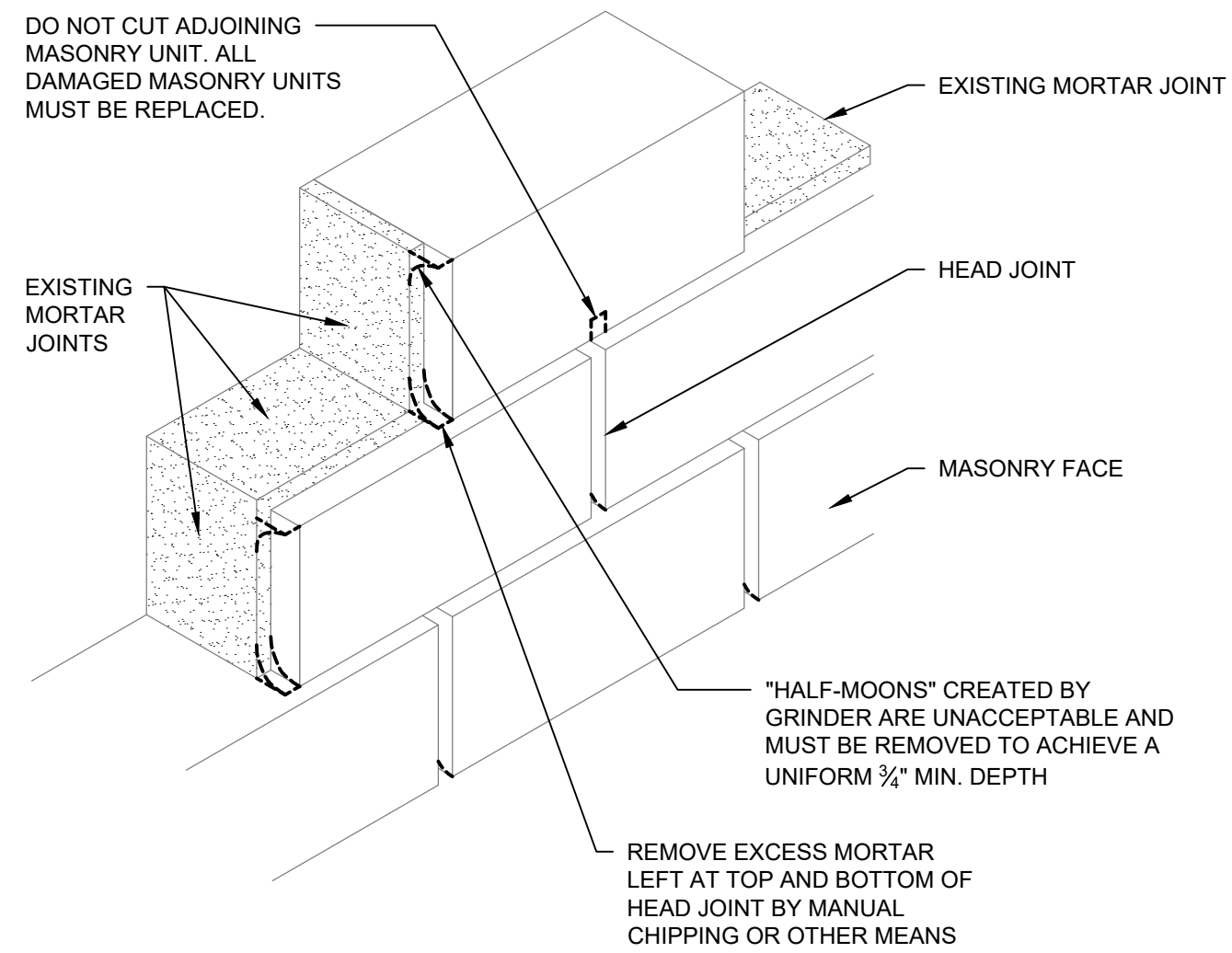
**5 SEALANT AT CRACK OR CONSTRUCTION JOINT**  
 SCALE: 1'-0" = 1'-0"



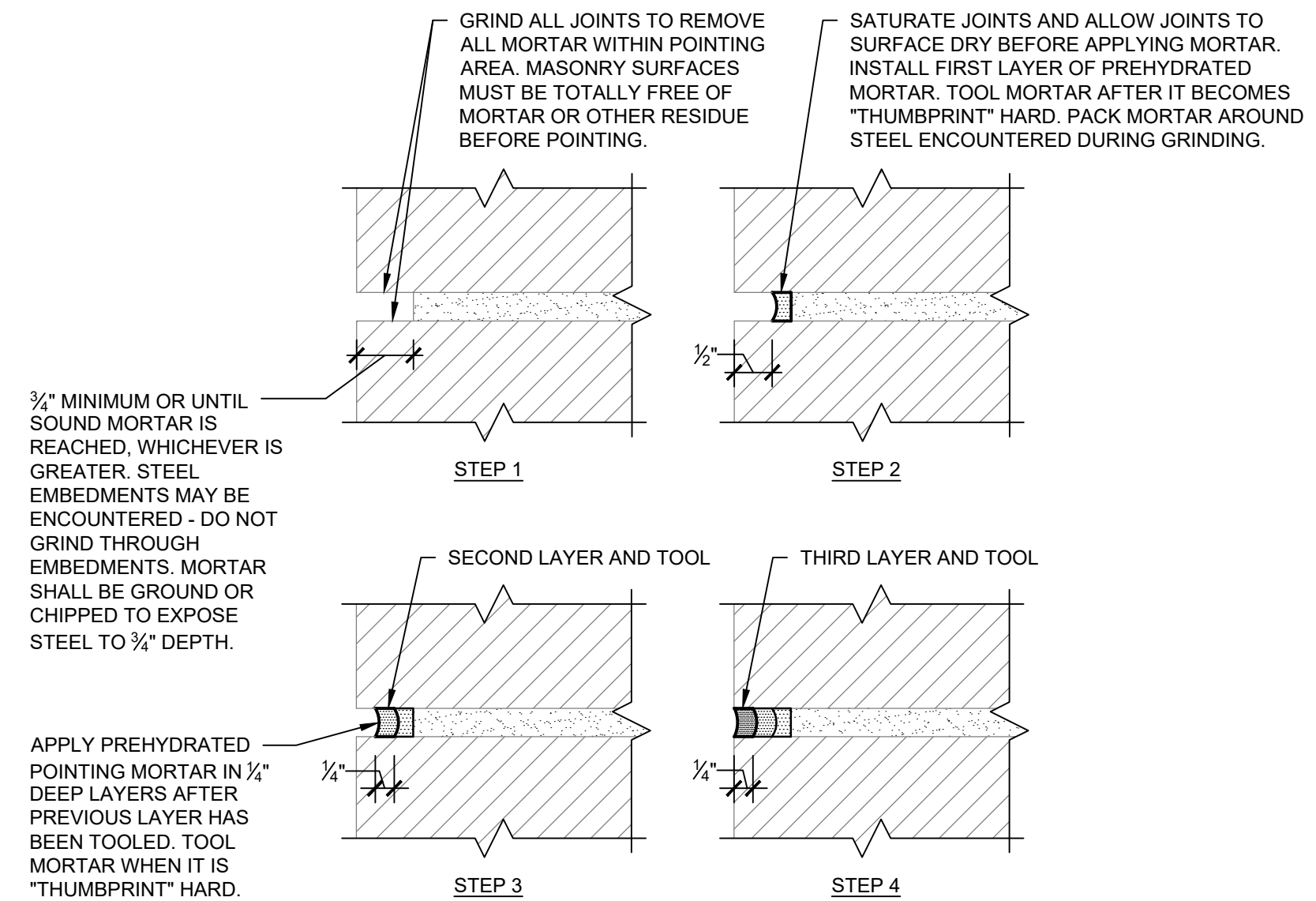
**6 COVE SEALANT AT JOINT**  
 SCALE: 1'-0" = 1'-0"



**7 CRACKED CONCRETE MASONRY UNIT REPAIR**  
 SCALE: 1" = 1'-0"



**8 GRINDING AND POINTING DETAIL**  
 NOT TO SCALE



**9 REPOINTING DETAIL**  
 NOT TO SCALE

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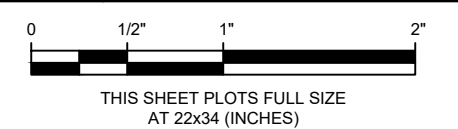
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Consultants

Project  
**SHERMAN PLAZA  
 PARKING GARAGE REPAIRS**  
 821 DAVIS STREET  
 EVANSTON, ILLINOIS

Client  
**CITY OF EVANSTON PUBLIC  
 WORKS AGENCY**  
 2100 RIDGE AVENUE  
 EVANSTON, ILLINOIS 60201

Mark	Date	Description



Project No.	2020.1793.1
Date	1/26/2022
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Checked	MJF
Scale	AS NOTED

**REPAIR DETAILS**

Sheet Title  
**SHE-S-502**

Sheet No.



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CMU TO BE REMOVED AND REPLACED PER DETAILS 7, 8, AND 9/SHE-S-502

**1** CMU REPAIRS AT DAVIS STREET EXIT RAMP  
NOT TO SCALE



TYPICAL GROUT POCKET REPAIR AREA

REMOVE LOOSE MATERIAL IN THE POCKET. SANDBLAST OR MECHANICALLY GRIND CONCRETE TO CLEAN AND ROUGHEN POCKET. INSTALL NEW REPAIR MORTAR TO FILL POCKET FLUSH WITH SURFACE.

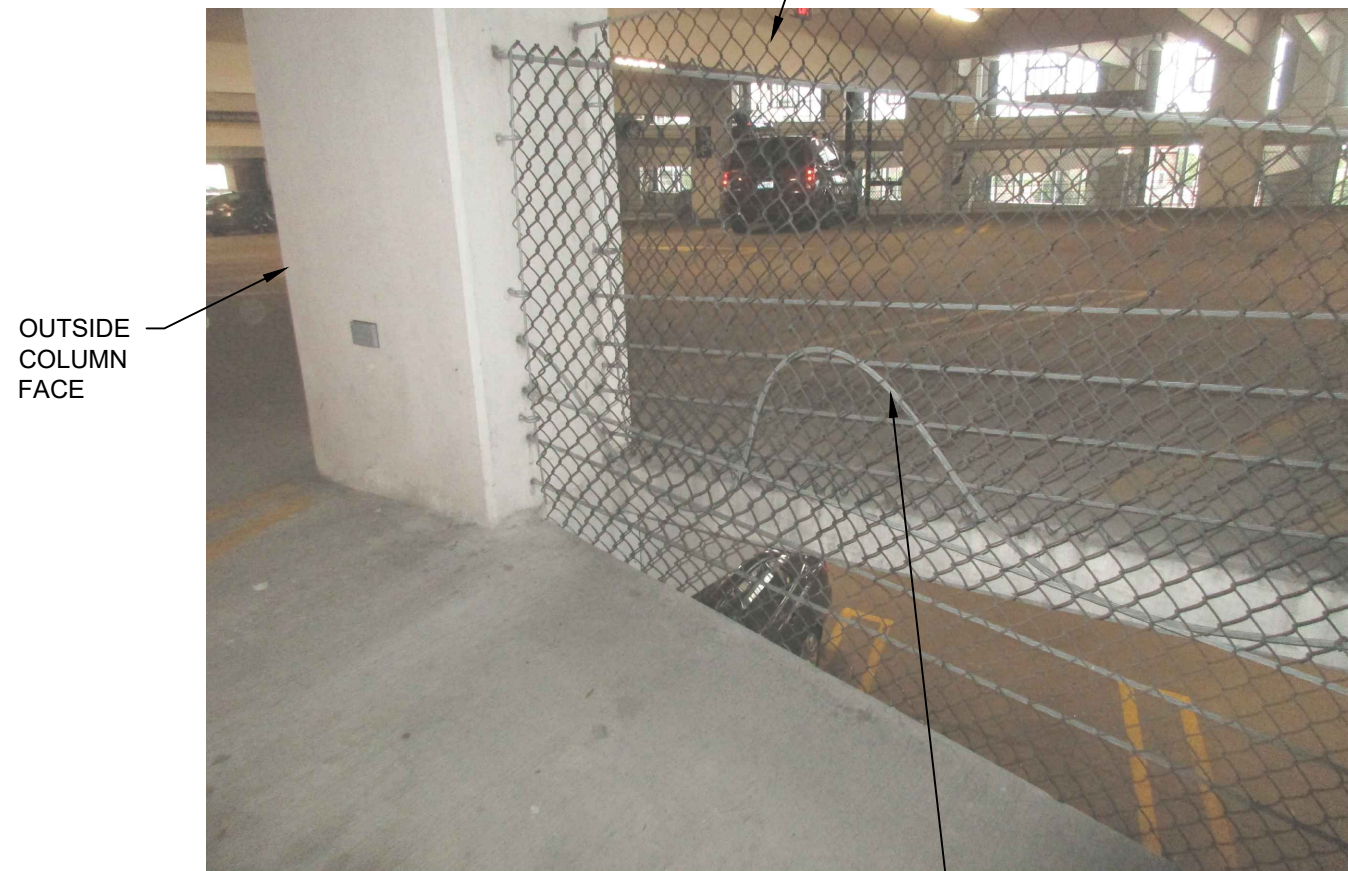
**2** POST-TENSIONED GROUT POCKET REPAIR  
NOT TO SCALE



SUPPLEMENTAL SHIMS TO BE INSTALLED AT FACADE PANEL CONNECTION

INSTALL WELDED STACK OF NEW STEEL SHIMS (EACH 4" x 4" IN AREA), WITH NEW SHIMS AT LEAST PARTLY (50% MIN. AREA) IN PLACE. TAP ON EXISTING SHIMS TO MOVE OR PARTLY CHIP OUT TO MAKE ROOM FOR NEW SHIMS.

**3** FACADE PANEL CONNECTION REPAIR  
NOT TO SCALE

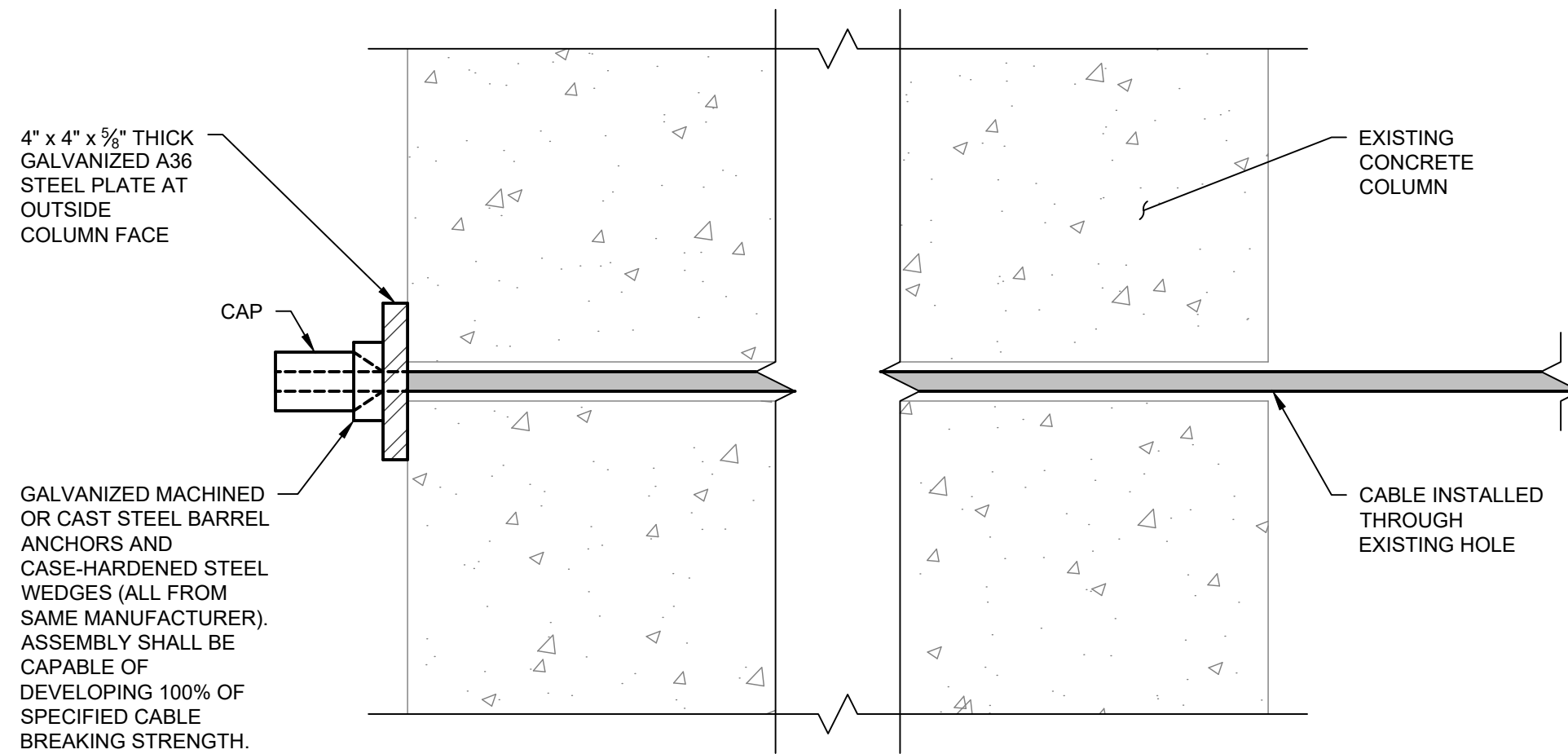


FENCE TO REMAIN. PARTIALLY REMOVE AND REINSTALL AS NEEDED TO ACCESS CABLE (OR WORK AROUND THE FENCE).

OUTSIDE COLUMN FACE

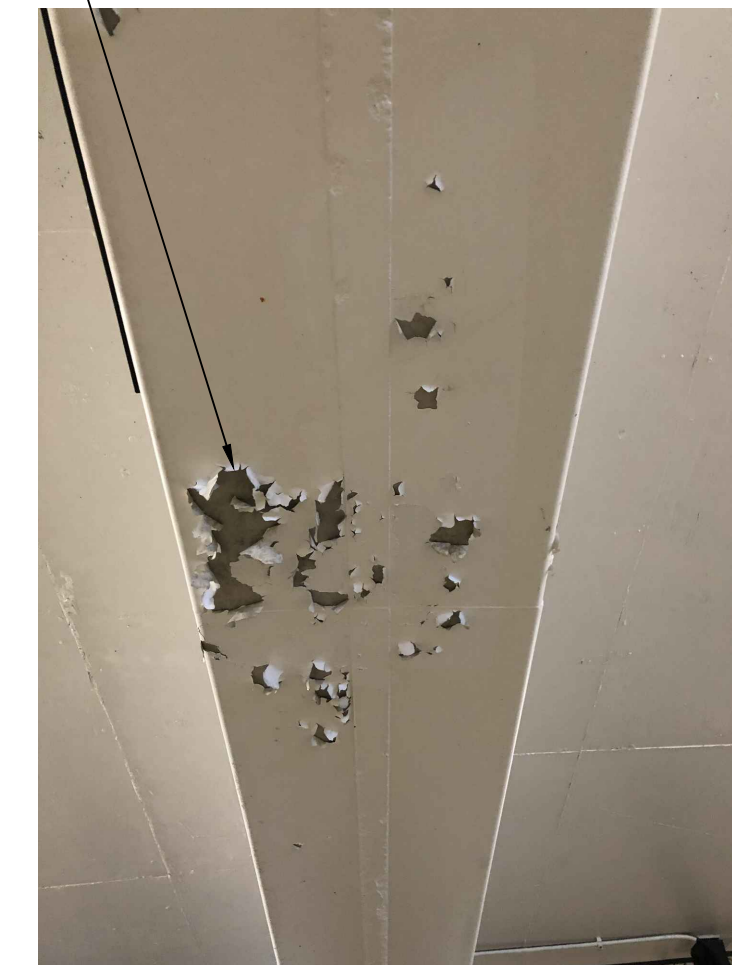
REMOVE EXISTING CABLE (ACROSS 4 BAYS AND THROUGH 5 COLUMNS). NEW CABLE IS TO BE GALVANIZED STRAND, PRESTRESSED TO 3,000 LBS. AT 70 DEG. F, ASTM A416 GRADE 230 (GRADE 1585), UNCOATED 7-WIRE, LOW-RELAXATION 1/2" DIA. STRAND, ZINC GALVANIZED PER ASTM A475 CLASS A, TABLE 2 COATING WEIGHT.

**4A** FAILED BARRIER CABLE REPAIR  
NOT TO SCALE



NOTES:  
 1. CLOSE AREA TO TRAFFIC DURING STRESSING OF NEW CABLE.  
 2. USE A SINGLE CABLE - DO NOT SPLICE CABLES.  
 3. STRESSING IS TO BE PERFORMED BY PERSONNEL WITH PTI CERTIFICATION FOR THIS WORK.

**4B** DETAIL AT BOTH ENDS OF NEW CABLE  
SCALE: 3" = 1'-0"



USE STEEL BRUSHES, SCRAPERS, OR OTHER HAND TOOLS TO REMOVE LOOSE PAINT. CONTAIN AND REMOVE PAINT CHIPS WITH A VACUUM AND PROTECT PARKED CARS WITH TARPS. PRICE BASED ON SPECIFIED NUMBER OF HOURS. USE ROLLING SCAFFOLD OR AN ELECTRIC LIFT TO ACCESS THE BOTTOM BEAM SURFACES.

**5** PEELING PAINT REMOVAL (ALTERNATE WORK ITEM)  
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**REPAIR DETAILS**

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