

**Four Rivers Sanitation Authority
Rockford, Illinois**

Bidding Requirements and Contract Forms

for

**Collection Systems Operations Facility
Structural Steel Package**

Capital Project No. 2217

Four Rivers Sanitation Authority Rockford, Illinois

Bidding Requirements and Contract Forms
and
General Provisions and Technical Specifications
for
Sanitary Sewer Construction

for

Collection Systems Operations Facility Structural Steel Package

Capital Project No. 2217

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Section I

Bidding Requirements

Not to be used for bidding purposes

Article 1 — Notice to Bidders

The Four Rivers Sanitation Authority (FRSA) will receive signed and sealed bids for the Collection Systems Operations Facility Structural Steel Package, Capital Project No. 2217, at the Steve Graceffa Administration Building (Administration Building) at 3501 Kishwaukee Street, Rockford, Illinois until 10:00 a.m. on Tuesday, April 19, 2022, at which time and place responsive / responsible bids will be publicly opened and read aloud.

The Collection Systems Operations Facility Structural Steel Package, Capital Project No. 2217, consists of production of a red-iron structural steel package for a new operations facility including the fabrication of structural steel, storage at the fabricator's facility until ready for erection, and delivery to the project site as indicated in the Project Manual and on the Contract Drawings. Construction of the operations facility will be bid at a later date; the selected steel fabricator will be assigned to the General Contractor at that time.

Bidder's attention is called to Article 2 – Instructions to Bidders 3.8 requirements for Statement of Qualifications. Bidder must have a permanent business office within forty (40) miles of FRSA's office at 3501 Kishwaukee Street in Rockford, Illinois.

Structural steel shall be available for procurement no later than October 1, 2022. Liquidated damages shall be \$300.00 per calendar day beyond that date.

Bid documents may be obtained at a cost of \$50.00 per set (non-refundable) by contacting the FRSA Engineering Department at 815-387-7660.

Plans and specifications may also be viewed at the offices of the Northern Illinois Building Contractors Association at 1111 S. Alpine Rd, Rockford, Illinois. For more information, visit the FRSA website at fourrivers.illinois.gov.

All construction shall be done in accordance with specifications on file with FRSA, including FRSA's *General Provisions and Technical Specifications for Sanitary Sewer Construction* (Current Edition).

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Security attached, in the amount of five percent (5%) of the total bid price. This amount is a guarantee that, if the Proposal is accepted, a Contract will be entered into and its performance properly secured.

The successful bidder will be required to furnish a satisfactory Performance Bond in the full amount of the Bid or Proposal. No Bid shall be withdrawn without FRSA's consent for a period of thirty (30) days after the scheduled closing time for receipt of bids.

FRSA reserves the right to reject any or all bids, or any part thereof, or to accept any bid or any part thereof, or to waive any formalities in any bids, deemed to be in the best interest of FRSA.

Dated this 4th day of April, 2022.


BY: Timothy S. Hanson, Executive Director

Article 2 — Instructions to Bidders

1 General

1.1 Scope and Intent

This section of the Contract Documents is concerned with furnishing detailed information and requirements for preparing bids to prospective bidders, bidders' responsibility, the preparation and the submission of bids, basis for awarding the Contract and other general information concerned with bidding and executing the Contract.

1.2 Contradictions

If in the case of apparent contradiction between or among the Contract Documents, the Contract Documents shall be consulted in the following order: Addenda, Agreement, Supplementary Drawings, Instructions to Bidders, Detailed Specifications, Plans, Four Rivers Sanitation Authority (FRSA) General Provisions and Technical Specifications for Sanitary Sewer Construction. The language in the first such document in which language regarding the conflict, error or discrepancy occurs shall control.

1.3 Pre-Bid Meeting

A Pre-Bid Meeting will not be held for this project.

2 Legal Requirements

2.1 Illinois Regulations

1. Public Act 100-1177 (820 ILCS 130/) entitled the "Prevailing Wage Act" requires the Bidder to comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Bidder is responsible for verifying current information at the State's website.
2. Public Act 83-1030 (30 ILCS 565/) entitled the "Steel Products Procurement Act" requires that steel products used or supplied in performance of this Contract or subcontract must be manufactured or produced in the United States with three exceptions.

The provisions of this Section shall not apply:

- a. Where the Contract involves an expenditure of less than \$500.
- b. Where the executive head of the public agency certifies in writing that
 - i. the specified products are not manufactured or produced in the United States in sufficient quantities to meet the agency's requirements, or
 - ii. obtaining the specified products, manufactured or produced in the United States would increase the cost of the Contract by more than 10%.
- c. When its application is not in the public interest.

2. Public Act 96-929 (30 ILCS 570/) entitled the "Illinois Workers on Public Works Act" provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and, further, that Illinois workers are available and capable of performing the particular type work involved.
4. Public Act 101-0221 entitled the "Workplace Transparency Act" requires that any party to a contract adopt and promulgate written sexual harassment policies that include, as a minimum, the following information:
 - a. the illegality of sexual harassment
 - b. the definition of sexual harassment under Illinois State law
 - c. a description of sexual harassment, utilizing examples
 - d. my (our) organization's internal complaint process including penalties
 - e. the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Illinois Human Rights Commission
 - f. directions on how to contact the Department and the Commission
 - g. protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act

Upon request, this information must be provided to the Illinois Department of Human Rights and the FRSA.

5. With regard to nondiscrimination in employment, the Contractor for this project will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations.
6. The Contractor for this project must comply with the Occupational Safety and Health Act.
7. The Contractor for this project must comply with the Federal Drug-Free Workplace Act.
8. Public Act 96-1416 requires the Certification of Clean Construction and Demolition Debris (CCDD) and uncontaminated soil prior to disposal at a CCDD fill site. The Contractor for this project must comply with Public Act 96-1416 and be responsible for the certifications and any fees associated with the disposal at a CCDD fill site.
 - a. In the event that contaminated soil is uncovered on the project, the Contractor must notify FRSA immediately. Any extra costs resulting from the presence of contaminated soil must be evaluated in accordance with FRSA General Provisions & Technical Specs for Sanitary Sewer Construction; General Conditions: Article 5 – Time Provisions and Article 8 – Changes.

2.2 Americans with Disabilities Act

The Contractor for this project will comply with all applicable requirements of the Americans with Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify Four Rivers Sanitation Authority (FRSA) and their representatives from all:

1. suits, claims, or actions
2. costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement
3. damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the Contract.

3 General Instructions

3.1 Bidder's Responsibility

As applicable, Bidders are cautioned not to submit proposals until having carefully examined the proposed work and adjacent premises and the various means of approach and access to the site, and having made all necessary investigations to inform themselves thoroughly as to the facilities for delivering, placing and handling the materials at the site, and having informed themselves thoroughly as to all difficulties involved in the completion of all the work under this Contract in accordance with its requirements.

Bidders must examine the Plans, Specifications and other Contract Documents and shall exercise their own judgment as to the nature and amount of the whole of the work to be done and for the bid prices must assume all risk of variance, by whomsoever made, in any computation or statement of amount or quantities necessary to complete fully the work in strict compliance with the Contract Documents. The Bidder must satisfy himself by making borings or test pits, or by such methods as he may prefer, as to the character and location of the materials to be encountered or work to be performed. No pleas of ignorance of conditions that exist or that may hereafter exist, or of conditions or difficulties that may be encountered in the execution of the work under this Contract, as a result of failure to make the necessary examinations and investigations, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill, in every detail, all of the requirements of the Contract Documents, or will be accepted as a basis for any claims whatsoever for extra compensation or for an extension of time.

The Bidder, therefore, shall satisfy himself by such means as he may deem proper as to the location of all structures that may be encountered in construction of the work.

3.2 Addenda and Interpretations

No interpretation of the meaning of the Plans, Specifications, or other Contract Documents will be made to any bidder orally. Every request for such interpretation must be in writing addressed to Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois. To be given consideration, such request must be received at least five (5) days prior to the date

fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda which, if issued, will be sent by email, fax, or certified mail with acknowledgement of receipt requested, to all prospective bidders, at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addenda or interpretation shall not relieve said bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the Contract Documents.

3.3 Laws and Regulations

The prospective bidder is warned that he must comply with all laws of the United States Government, State of Illinois, all ordinances and regulations of FRSA in the performance of the work under this Contract. The Bidder's attention is specifically called to that provision of the General Conditions regarding the rate of wage to be paid on the work.

3.4 Quantities Estimated Only

As applicable, Bidders are warned that the estimate of quantities of the various items of work and materials, as set forth in the Proposal form, is approximate only and is given solely to be used as a uniform basis for the comparison of bids. The quantities actually required to complete the Contract work may be less or more than so estimated, and if awarded a contract for the work specified, the Contractor further agrees that he will not make any claim for damages or for loss of profits or for an extension of time because of a difference between the quantities of the various classes of work assumed for comparison of bids and quantities of work actually performed.

3.5 Form, Preparation, and Presentation of Proposals

For particulars as to the quantity and quality of the supplies, materials and equipment to be furnished, and the nature and extent of the work or labor to be done, prospective bidders are referred to the Contract Documents, which may be examined or obtained at the office of FRSA.

Each bid will be submitted upon the prescribed Proposal form. All blank spaces for bid prices must be filled in, in ink, with the unit or total sum or both for which the Proposal is made. If the Proposal contains any omissions, erasures, alterations, additions or items not called for in the itemized Proposal, or contains irregularities of any kind, such may constitute sufficient cause for rejection of bid. In case of any discrepancy in the unit price or amount bid for any item in the Proposal, the unit price as expressed in figures will govern. In no case is the agreement form to be filled out or signed by the bidder.

Bidders may opt to contact FRSA's Engineering Department at 815.387.7660 to obtain an electronic Proposal form. If used, this form must be attached to the hard copy Proposal form and appropriately signed and executed with the bid.

The bid must be verified and be presented on the prescribed form in a sealed envelope on or before the time and at the place stated in the Advertisement for Bids, endorsed with the name of the person, firm or corporation presenting it, the date of presentation, and the title of the work for which the bid is made. If forwarded by mail, the sealed envelope containing the Proposal and marked as directed above, must be enclosed in another envelope addressed to

Clerk of the Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois, 61109 and be sent preferably by certified mail. FRSA will not accept facsimile generated bids.

3.6 Bid Security

Each Proposal must be accompanied by the FRSA Bid Bond form with an acceptable Bid Security attached, in the amount specified in Article One, Notice to Bidders. This sum is a guarantee that, if the Proposal is accepted, a contract will be entered into and its performance properly secured. The FRSA's Bid Bond Form included in the bid packet must be used. No other Bid Bond form may be substituted.

Within ten (10) days after the opening of bids, the deposits of all but the three lowest bidders will be returned. The deposits of the remaining two unsuccessful bidders will be returned within three (3) days after the execution of the Contract, or, if no such Contract has been executed, within sixty (60) days after the date of opening bids. The deposit of the successful bidder will be returned only after he has duly executed the Contract and furnished the required bond and insurance.

3.7 Affidavit of Compliance

Each proposal must be accompanied by an executed Affidavit of Compliance. A separate Affidavit of Compliance form is enclosed with the Proposal packet. Failure to submit an executed Affidavit of Compliance with the Proposal may constitute sufficient cause for rejection of the bid.

3.8 Statement of Qualifications

Each Proposal must be accompanied by a Statement of Qualifications certifying that the bidder is registered to do business in the State of Illinois, has a permanent business office within forty (40) miles of the FRSA office at 3501 Kishwaukee Street in Rockford, IL, and provides documentation that the bidder possesses the appropriate financial, material, equipment, facility and personnel resources and expertise necessary to meet all contractual obligations. The bidder shall document no less than three (3) contracts for structural steel fabrication work within the past five (5) years of similar scope to the bid being submitted. FRSA reserves the right to request additional information, as needed, to evaluate bids prior to making an award.

3.9 Comparison of Proposals

Bids on lump sum contracts will be considered upon the basis of the lowest sum bid.

3.10 Acceptance of Bids and Basis of Award

No bidder may withdraw his bid after the scheduled closing time for receipt of bids, for at least thirty (30) days.

The Contract will be awarded, if at all, to the lowest responsive, responsible bidder. Four Rivers Sanitation Authority also reserves the right to reject any or all bids.

The bidder whose Proposal is accepted shall enter into a written Contract for the performance of the work and furnish the required bonds and insurance certificate within ten (10) days after written notice by FRSA's Director of Engineering has been served on such bidder personally or by mailing a postpaid wrapper to such bidder at the address given in his proposal. If the bidder to whom the Contract is awarded refuses or neglects to execute it or fails to furnish the

required bond and insurance within five (5) days after receipt by him of the notice, the amount of his deposit shall be forfeited and shall be retained by the FRSA as liquidated damage and not as a penalty. It being now agreed that said sum is a fair estimate of the amount of damages that the FRSA will sustain in case said bidder fails to enter into a Contract and furnish the required bond and insurance. No plea of mistake in the bid shall be available to the bidder for the recovery of his deposit or as a defense to any action based upon the neglect or refusal to execute a Contract.

3.10.1 Evaluation of Responsiveness

The responsiveness of bidders will be judged on the basis of the completeness of the bid submitted. To be responsive, a Bid must be submitted on the forms provided as part of the Bid Documents and comply with all the requirements of the Instruction to Bidders.

3.10.2 Evaluation of Responsibility

To be judged as responsible, the bidder shall:

- a. Have adequate financial resources for performance, the necessary experience, organization, technical qualifications, and facilities, or a firm commitment to obtain such by subcontracts;
- b. Be able to comply with the required completion schedule for the project;
- c. Have a satisfactory record of integrity, judgment, and performance, including, in particular, any prior performance on contracts from FRSA;
- d. Have an adequate financial management system and audit procedures, that provide efficient and effective accountability and control of all property, funds, and assets;
- e. Conform to the civil rights, equal employment opportunity and labor law requirements of the Bid Documents.
- f. Have satisfactorily completed no less than three (3) contracts for structural steel fabrication work within the past five (5) years of similar scope to the bid being submitted.

3.11 The Rejection of Bids

FRSA reserves the right to reject any bid if the evidence submitted in the statement of the bidder's qualifications, or if investigation of such bidder fails to satisfy FRSA that such bidder is properly qualified to carry out the obligations and to complete the work contemplated therein. Any or all proposals will be rejected if there is reason to believe that collusion exists among the bidders. Conditional bids will not be accepted. FRSA reserves the right to reject any and all bids and to accept the bid which they deem most favorable to the interest of FRSA after all Proposals have been examined and canvassed.

3.12 Insurance and Bonding

Contractor shall provide all necessary insurance and bonds required to complete the project. No more than ten (10) calendar days subsequent to FRSA's issuance of an award letter, the Contractor shall provide documentation to prove that he has obtained all required insurance and bonds. FRSA shall be the sole judge as to the acceptability of any such proof.

Contractor shall provide and maintain all insurance and bonds as required by FRSA.

3.12.1 General

The Contractor shall ensure that:

1. All insurance policies shall be specific to the project.
2. The insurance certificate shall state: This certifies that the insurance coverage meets or exceeds that required for Collection System Operations Facility Structural Steel Package, Capital Project No. 2217.
3. FRSA shall be named as Additional Insured in all policies; this shall include the Owners' Contractors' Protective Policy option.
4. All completed operations coverages and bonds shall remain in force for a period of two (2) years following acceptance of the Project and completed operations shall stay in force for two (2) years following completion of the Project.

3.12.2 Insurance

The Contractor shall, for the duration of the Contract and for two (2) years following project acceptance, maintain the following:

1. General Liability: \$1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project or the general aggregate limit shall be twice the required occurrence limit. The Contractor shall provide "XCU" coverage.
2. Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage including coverages for owned, hired or non--owned vehicles, as applicable.
3. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by statute and Employers Liability limits of \$500,000 per accident and \$500,000 per disease.
4. Umbrella: \$2,000,000 per occurrence/aggregate for contracts valued at \$500,000 or over, or \$1,000,000 for contracts below \$500,000. \$10,000 is maximum allowable self-retained limit.
5. Errors and Omissions: If the Contractor performs professional services, he shall maintain errors and omissions insurance with a limit no lower than \$1,000,000 for the duration of the contract.

The policies shall contain, or be endorsed to contain, the following provisions in the General Liability and Automobile Liability Coverage's:

- a. Unless otherwise provided in paragraph "c" of this section, FRSA, its officers, officials, employees and volunteers shall be covered as additional insureds as respects liability arising out of activities performed by or on insured's general supervision of the Contractor, products and completed operations of the Contractor, premises owned, occupied or used by the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage

shall contain no special limitations on the scope of protection afforded to FRSA, its officers, officials, employees, volunteers, or agents.

- b. Unless otherwise provided in paragraph “c” of this section, the Contractor’s insurance coverage shall be primary insurance as respects FRSA, its officers, officials, employees, volunteers, and agents. Any insurance or self-insurance maintained by FRSA, its officers, officials, employees, volunteers, or agents shall be excess of the Contractor’s insurance and shall not contribute with it.
- c. As an acceptable alternative to provisions “a” and “b” of this section, the Contractor may provide owner's and contractor's protective liability insurance with coverage limits, named insureds, and in conformity with all applicable specifications of this section.
- d. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to FRSA, its officers, officials, employees, volunteers, or agents.
- e. The Contractor’s insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer’s liability.
- f. All Coverages — Each insurance policy required by this clause shall not be suspended, voided, canceled by either party, reduced in coverage, or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to FRSA.

3.12.3 Best's Ratings

FRSA shall be the sole judge of whether or not said insurer's ratios are satisfactory. FRSA 's decision shall be final and FRSA 's bidding procedures contain no appeal provision.

1. Alphabetical Rating: For purposes of this Request for Bids, "insurer" shall mean any surety, insurance carrier, or other organization which proposes to provide an insurance policy or bond for the Contractor. No insurer or surety rated lower than "A-, Excellent" in the current *Best's Key Rating Guide* shall be acceptable to FRSA.
2. Financial Size Rating: Provided an insurer's alphabetical rating is satisfactory, FRSA will examine said insurer's financial size rating.
 - a. If Best classifies the insurer XII or larger, said insurer shall be acceptable to FRSA.
 - b. If Best classifies the insurer as smaller than XII, but larger than VI, said insurer shall be submitted to FRSA’s Director of Management Services and/or FRSA’s insurance consultant for review.

Financial Size ratings less than VII are not acceptable and will disqualify the Contractor.

3.12.4 Performance Bond and Labor & Materials Payment Bond Form

The Contractor shall provide a Performance Bond and Labor & Materials Payment Bond form acceptable to FRSA. The performance bond shall be for either 100% of the contract price or for the Contractor’s unit price times the estimated number of units, as applicable.

This Request for Bids contains a Performance Bond and a Labor & Material Bond form for the Contractor's use.

If the Contractor fails to provide acceptable bonds within the specified time, he shall be in default.

3.12.5 Correction of Contractor's Insurance or Bond Deficiencies

If FRSA determines that the Contractor's insurance or bond documentation does not conform to these specifications, FRSA shall inform said Contractor of the non-conformity. If said Contractor fails to provide conforming insurance or bond documentation within five (5) calendar days of FRSA's deficiency notice, he shall be in default.

3.12.6 Indemnification Clause

Contractor shall protect, indemnify, hold and save harmless and defend FRSA, its officers, officials, employees, volunteers, and agents against any and all claims, costs, causes, actions and expenses, including but not limited to attorney's fees incurred by reason of a lawsuit or claim for compensation arising in favor of any person, including the employees, officers, independent contractors, or subcontractors of the Contractor or FRSA, on account of personal injuries or death, or damages to property occurring, growing out of, incident to, or resulting directly or indirectly from the performance by the Contractor or subcontractor, whether such loss, damage, injury or liability is contributed to by the negligence of FRSA or by premises themselves or any equipment thereon whether latent or patent, or from other causes whatsoever, except that the successful bidder shall have no liability for damages or the costs incident thereto caused by the sole negligence of FRSA.

The indemnification shall not be limited by a limitation on amount or type of damages payable by or for the Contractor or its subcontractor under any employee benefits act including, but not limited, to the Workers Compensation Act.

No inspection by FRSA, its employees, or agents shall be deemed a waiver by FRSA of full compliance with the requirements of the Contract. This indemnification shall not be limited by the required minimum insurance coverages in the Contract.

3.13 Tax Exemption

FRSA is exempt, by law, from paying bidder Federal Excise Tax and Illinois Retailers' Occupational Tax. Therefore, the bidder shall exclude those taxes from his bid. FRSA's tax exemption number is E9992-3696-06. The bidder shall include all applicable taxes in his bid price.

Proposal

Project: Collection Systems Operations Facility
Structural Steel Package
Capital Project No. 2217

Location: The Operations Facility will be constructed on FRSA-owned properties north of FRSA's treatment plant (3333 Kishwaukee Street) and adjacent to Martin Road and Lyle Street.

Completion Date: Structural steel shall be available for procurement no later than October 1, 2022.

Liquidated Damages: \$300/calendar day per beyond October 1, 2022

To: Board of Trustees
Four Rivers Sanitation Authority
3501 Kishwaukee Street
Rockford, IL 61109

From: _____
(Individual, Partnership or Corporation, as case may be)

(Address of Individual, Partnership or Corporation)

Gentlemen:

I (We), the undersigned, hereby propose to furnish all materials, equipment, tools, services, labor, and whatever else may be required to construct and place in service the above subject Sanitary Sewer for the Four Rivers Sanitation Authority all in accordance with the plans and specifications, provided by Four Rivers Sanitation Authority. The undersigned also affirms and declares:

1. That I (we), have, examined and am (are) familiar with all the related contract documents and found that they are accurate and complete and are approved by the undersigned.
2. That I (we), have carefully examined the site of the work, and that, from my (our) investigation, has satisfied myself (ourselves) as to the nature and location of the work, the character, quality, and quantity of materials and the kind and extent of equipment and other facilities needed for the performance of the work, the general and local conditions and all difficulties to be encountered, and all other items which may, in any way, effect the work or its performance.

3. That this bid is made without any understanding, agreement or connection with any other person, firm, or corporation making a bid for the same purposes, and is in all respects fair and without collusion or fraud; and that I (we) are not barred from bidding as a result of a bid-rigging or bid-rotating conviction.
4. That accompanying the Proposal is a Bidder's Bond in the amount specified in Article 1, Notice to Bidders, payable to the Board of Trustees of the Four Rivers Sanitation Authority, which it is agreed, shall be retained as liquidated damages by said Four Rivers Sanitation Authority if the undersigned fails to execute the Contract in conformity with the contract documents incorporated in the contract documents and furnish bond as specified, within ten (10) days after notification of the award of the contract to the undersigned.
5. The Bidder is of lawful age and that no other person, firm or corporation has any interest in this Proposal or in the Contract proposed to be entered into.
6. The Bidder is not in arrears to the Four Rivers Sanitation Authority, upon debt or contract, and is not a defaulter, as surety or otherwise, upon any obligation to the Four Rivers Sanitation Authority.
7. No officer or employee or person whose salary is payable in whole or in part by the Four Rivers Sanitation Authority is, shall be or become interested, directly or indirectly as a contracting party, partner, stockholder, surety or otherwise, in this Proposal, or in the performance of the Contract, or in the work to which it relates, or in any portion of the profits thereof.
8. The Bidder which I represent complies with all applicable requirements of the Americans with Disabilities Act (ADA) and the Occupational Safety and Health Act (OSHA) and that if said bidder is awarded a contract, it will complete all OSHA-required or ADA-required employee and customer training, will make available all required information, and will hold harmless and indemnify the Four Rivers Sanitation Authority and the Four Rivers Sanitation Authority's representatives.

In regard to participation in an approved Apprenticeship program, upon request, Contractor will be required to provide written proof of participation.
9. The undersigned, as Bidder, declares that he has adopted and promulgated written sexual harassment policies in accordance with Public Act 101-0221 and will make this information available upon request.
10. The undersigned, as Bidder, declares he will comply with prevailing wages in accordance with the Illinois Department of Labor Standards. The State of Illinois requires contractors and subcontractors on public works projects (including Four Rivers Sanitation Authority) to submit certified payroll reports via the State's Certified Transcript of Payroll Portal found at www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx.
10. The undersigned, as Bidder, declares he will comply with the Federal Drug Free Workplace Act.

12. The undersigned, as Bidder, declares he will comply with Public Act 83-1030 entitled "Steel Products Procurement Act".
13. The undersigned, as Bidder, declares he will comply with Public Act 96-929 (30 ILCS 570) regarding Illinois residents' employment.
14. The undersigned, as Bidder, declares he will comply with non-discrimination in employment in accordance with the Illinois Fair Employment Practices Commissions Rules & Regulations.
15. The undersigned, as Bidder, declares that he currently participates in an apprenticeship or training program that is registered with the United States Department of Labor's Bureau of Apprenticeship and Training or other acceptable State of Illinois Department of Labor monitored program.

In submitting this bid, it is understood that the right is reserved by the Four Rivers Sanitation Authority to reject any and all bids. It is agreed that this bid may not be withdrawn for a period of thirty (30) days from the opening thereof.

The undersigned further declares that he (they) has (have) carefully examined the following items of work and that the cost of all the work to complete this project is given in this Proposal.

Lump Sum Bid Amount

Total Amount of Lump Sum Bid, expressed in figures, for providing all materials, equipment, warranty, and labor to complete this project in conformity with all specifications in this Invitation to Bid.

\$ _____

The undersigned acknowledges that he has received Addendum numbers _____, _____, and realizes that all Addenda are considered part of the Contract.

Date: _____

Bidder: _____
(Printed Name of Firm)

By: _____
(Authorized Rep's Signature)

(Printed Street Address)

By: _____
(Printed Authorized Rep's Name)

(Printed City, State, Zip)

By: _____
(Printed Authorized Rep's Title)

(Area Code and Phone Number)

By: _____
(Fax Number)

(Authorized Rep's Email Address)

Fair Employment Practices Affidavit of Compliance

Project: Collection Systems Operations Facility Structural Steel Package, Capital Project No. 2217

NOTE: THE BIDDER MUST EXECUTE THIS AFFIDAVIT AND SUBMIT IT WITH ITS SIGNED BID. THE FOUR RIVERS SANITATION AUTHORITY CANNOT ACCEPT ANY BID WHICH DOES NOT CONTAIN THIS AFFIDAVIT

_____, being first duly sworn, deposes and says that:
(Name of person making affidavit)

They are: _____ of _____
(Officer's Title) (Company Name)

that said company is and "Equal Opportunity Employer" as defined by Section 2000(e) of Chapter 21, Title 42 of the United States Code annotated and Federal Executive Orders #11375 which are incorporated herein by reference;

and that said company will comply with any and all requirements of Title 44 Admin. Code 750. APPENDIX A – Equal Opportunity Clause, Rules and Regulations, Illinois Department of Human Rights, which read as follows:

"In the event of the contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, 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. During the performance to 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, sexual orientation, marital status, national origin or ancestry, citizen status, age, physical or mental handicap unrelated to ability, sexual orientation, military status or an unfavorable discharge from military service; 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.
2. That, if he or she hires additional employees in order to perform this contract or any portion of this contract, he or she will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the areas from which he or she may reasonably recruit and he or she will hire for each job classification for which employees are hired in a way that minorities and women are not underutilized.
3. That, in all solicitations or advertisements for employees placed by him or her or on his or her behalf, he or she will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, national origin or ancestry, citizenship status, age, physical or mental handicap unrelated to ability, sexual orientation, military status or an unfavorable discharge from military service.
4. That he or she will send to each labor organization or representative of workers with which he or she 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 Human Rights Act and the Department's Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the contractor in his or her efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations under the contract.
5. That he or she will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
6. That he or she will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
7. That he or she will include verbatim or by reference the provisions of this clause in every subcontract awarded under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. 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 such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply with the provisions. In addition, the contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

(Source: Amended at 32 Ill. Reg. 16484, effective September 23, 2008)"

IL Dept of Human Rights Registration No.: _____ Expiration Date: _____

Signature

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we:

_____ (hereinafter called the Principal)
and

_____ (hereinafter called the Surety)

a Corporation chartered and existing under the laws of the State of _____ with its principal offices in the City of _____ and authorized to do business in the State of Illinois are held and firmly bound onto the Four Rivers Sanitation Authority (FRSA) of Winnebago County, Illinois, in the full and just sum of: **FIVE PERCENT (5%) OF THE TOTAL BID PRICE** good lawful money of the United States of America, to be paid upon demand of the FRSA, to which payment will and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted to FRSA, a proposal for constructing Sanitary Sewers and Appurtenances.

WHEREAS, the Principal desires to file this bond, in accordance with law, to accompany this Proposal.

NOW THEREFORE, The conditions of this obligation are such that if the Proposal be accepted, the Principal shall, within ten days after the date of receipt of a written notice of award of Contract, execute a Contract in accordance with the Proposal and upon the terms, conditions, and prices set forth therein, in the form and manner required by FRSA, and execute a sufficient and satisfactory Contract Performance Bond payable to said FRSA in an amount of one hundred percent (100%) of the Contract price (including alternates) in form and with security satisfactory to said FRSA, then this obligation to be void, otherwise to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid FRSA, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

IN TESTIMONY THEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20_____.

Principal

(Seal)

By _____

Name: _____

Title: _____

Date: _____

Attest:

Secretary

Surety

(Seal)

By _____

Name: _____

Title: _____

Date: _____

Agreement

1. General

THIS AGREEMENT, made and concluded this _____ day of _____, 2022, between the Four Rivers Sanitation Authority (FRSA), Rockford, Illinois, acting by and through the Board of Trustees, and _____, his/their executors, administrators, successors or assigns:

2. Scope of Work

WITNESSETH: That for and in consideration of the payments and agreements made in the Proposal attached hereto, to be made and performed by FRSA and according to the terms expressed in the Bond referring to these presents, the Contractor agrees with FRSA at his/their own proper cost and expense to do all the work, furnish all equipment, materials and all labor necessary to complete the work in accordance with the plans and specifications hereinafter described, and in full compliance with all of the terms of this agreement and the requirements of FRSA and its representative.

And it is also understood and agreed that the Bidding Requirements, Detailed Specifications, Contract Forms, General Conditions, General Requirements, Technical Specifications, Plans, Addenda, and provisions required by law are all essential documents of the contract, and are a part hereof, as if herein set out verbatim or as if attached, except for titles, subtitles, headings, table of contents and portions specifically excluded.

3. Contract Price

FRSA shall pay to the Contractor, and the Contractor shall accept, in full payment for the performance of this Contract, subject to any additions or deductions provided for hereby, in current funds, the Total Contract Price of _____ and 00/100 (\$_____).

Payments are to be made to the Contractor in accordance with and subject to the provisions of Section 7 of this Agreement, which is a part of this Contract.

4. Bond

The Contractor has entered into and herewith tenders a bond of even date herewith, in the penal sum of _____ and 00/100 (\$_____) to insure the faithful performance of this Contract, which said bond is hereby made a part of this Contract by reference.

5. Maintenance and Guarantee

The Contractor shall promptly repair, replace, restore or rebuild any imperfections that may arise and shall maintain satisfactory to FRSA all work for a period three years from the date of final acceptance of the Contract for trench settlement and for a period of two years all other work, except where periods of maintenance and guarantee are provided for. The Contractor shall, for this period, indemnify and save harmless the FRSA, its officers and agents from any injury done to property or persons as a direct or alleged result of

imperfections in the Contractors' work, and shall immediately assume and take charge of the defense of such action or suits in like manner and to all intents and purposes as if said actions and suits had been brought directly against the Contractor.

If the Contractor shall fail to repair, replace, rebuild or restore such defective or damaged work promptly after receiving notice given by FRSA, the FRSA shall have the right to have the work done by others and to call on the Contractor and his bondsman to pay the costs thereof.

6. Contract Execution

IT IS EXPRESSLY UNDERSTOOD AND AGREED that the entire improvement shall be done in a thorough and workmanlike manner, under the direction and to the satisfaction of FRSA and in full compliance with all the requirements of its representative under them. All loss or damage arising out of the nature of the work to be done, or from any detention of unforeseen obstruction or difficulty which may be encountered in the prosecution of the work, or from the action of the elements, shall be sustained by the Contractor.

The Contractor will be held responsible for all accidents, and hereby agrees to indemnify and protect FRSA from all suits, claims, and actions brought against it, and all cost, and damages which FRSA may be put to by reason of an injury or alleged injury, to the person or property of another in the execution of this contract, or the performance of the work, or in guarding the same, or for any material used in its prosecution or in its construction.

Any person employed on the work who shall refuse or neglect to obey the directions of FRSA or its representative, or who shall be deemed by FRSA to be incompetent, or who shall be guilty of any disorderly conduct, or who shall commit any trespass on any public or private property in the vicinity of the work, shall at once be removed from the work by the Contractor when so requested by FRSA.

Any request to extend the contract completion date must be considered by the Board at the Board meeting prior to the then-existing contract termination date. Any deviation from this action will result in the liquidated damage clause in the contract to be exercised.

7. Payments to Contractor

FRSA hereby covenants and agrees, in consideration of the covenants and agreements in this Contract, specified to be kept and performed by the Contractor and subject to the conditions herein contained, and if FRSA receives an acceptable invoice prior to the tenth day of the month and receives approval of the work by the FRSA's Director of Engineering, FRSA shall issue payment before the fifth day of the succeeding month. If FRSA receives an acceptable invoice on or after the tenth day of the month, FRSA shall issue payment before the fifth day of the second succeeding month.

FRSA reserves the right at all times to refuse to issue payment in case the Contractor has neglected or failed to pay any subcontractors, workmen or employee on the work.

8. Subcontracts

No part of the work herein provided for shall be sublet or subcontracted without the express consent of FRSA, to be entered in the records, and in no case shall consent relieve the Contractor from the obligation herein entered into, or change the terms of this Agreement.

9. Contractor's Responsibility

This Contract shall extend to and be binding upon the successors and assigns, and upon the heirs, administrators, executors, and legal representatives of the Contractor.

In consideration of and to induce the award of this Contract to him, the Contractor represents and warrants: that he is not in arrears to FRSA upon debt of the Contract and that he is not a defaulter, as surety, contractor or otherwise; that he is financially solvent and sufficiently experienced and competent to perform the work; that the work can be performed as called for by the Contract; that the facts stated in his proposal and the information given by him is true and correct in all respects, and that he is fully informed regarding all the conditions affecting the work to be done and labor and materials to be furnished for the completion of this Contract and that his information was secured by personal investigation and research.

The Contractor shall pay not less than the prevailing wage rate as determined by the Department of Labor, to all laborers, workmen and mechanics performing work under this Contract. Contractor shall comply with current revisions of the wage standards; as required by law. The Contractor shall be responsible for verifying the prevailing wages each month and notifying all subcontractors of the appropriate monthly rates. The State of Illinois requires contractors and subcontractors on FRSA projects to submit certified payroll reports via the State's Certified Transcript of Payroll Portal currently found at: <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/certifiedtranscriptofpayroll.aspx>. The Contractor is responsible for verifying current website.

In regard to nondiscrimination in employment, Contractor will be required to comply with the Illinois Fair Employment Practices Commission's Rules and Regulations as provided herein.

The Contractor shall comply with the American Disabilities Act of 1990 (ADA). The Contractor will hold harmless and indemnify FRSA and their representatives from all:

- (a) suits, claims, or actions;
- (b) costs, either for defense (including but not limited to reasonable attorney's fees and expert witness fees) or for settlement, and;
- (c) damages of any kind (including but not limited to actual, punitive, and compensatory damages)

relating in any way to or arising out of the ADA, to which said firm is exposed or which it incurs in the execution of the contract.

Contractor shall also comply with Public Act 101-0221, which requires any party to a contract to adopt and enforce a written policy regarding sexual harassment that includes, as a minimum, the following information:

- (a) the illegality of sexual harassment
- (b) the definition of sexual harassment under Illinois State law;
- (c) a description of sexual harassment, utilizing examples;
- (d) my (our) organization's internal complaint process including penalties;
- (e) through the Illinois Department of Human Rights and the Illinois Human Rights Commission;
- (f) directions on how to contact the Department and the Commission; and
- (g) protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act.

Upon request this information will be provided to the Illinois Department of Human Rights. Upon FRSA award of a contract, FRSA will be provided this information described no more than ten working days after FRSA issues its award notification.

The Contractor shall comply with Public Act 96-929 (30 ILCS 570) which provides that Illinois residents be employed on Illinois public works projects, provided there has been a period of excessive unemployment (5%) in the State of Illinois as defined in the Act; and further, that Illinois workers are available and capable of performing the particular type work involved.

The Contractor shall comply with all rules and regulations of OSHA during the execution of this Contract.

The Contractor shall comply with the Federal Drug Free Workplace Act.

The Steel Products Procurement Act, Illinois Public Act 83-1030, requires that steel products used or supplied in performance of this Contract or subcontract shall be manufactured or produced in the United States with three exceptions, as explained in the Instructions to Bidders.

The Contractor shall comply with Public Act 96-1416 regarding the disposal of CCDD and uncontaminated soil at CCDD fill sites as explained in the Instructions to Bidders.

10. Time

Work under this Agreement shall be commenced upon written Notice to Proceed. The completion date for this project shall be October 1, 2022.

11. Liquidated Damages

The amount of liquidated damages shall be \$300.00 per calendar day.

12. Counterparts

This Agreement may be executed and recorded in counterparts, each of which shall be deemed an original and all of which, when taken together, shall constitute one and the same instrument. The Parties hereby acknowledge and agree that facsimile signatures or signatures transmitted by electronic mail in so-called "pdf" format shall be legal and

binding and shall have the same full force and effect as if an original of this Agreement had been delivered. Each of the parties (a) intend to be bound by the signatures on any document sent by facsimile or electronic mail, (b) are aware that the other party will rely on such signatures, and (c) hereby waive any defenses to the enforcement of the terms of this Agreement based on the foregoing forms of signature.

13. Seals

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals, and such of them as are corporations have caused these presents to be signed by their duly authorized officers.

(Seal)

Four Rivers Sanitation Authority
Winnebago County, Illinois

By _____
President, Board of Trustees

ATTEST: _____
Clerk of the Board

Contractor

(Corporate Seal)

By _____
Contractor's Officer

Name: _____
Title: _____
Date: _____

ATTEST: _____

Labor & Material Payment Bond

TO: _____ Contractor Name

Contractor City, State

KNOW ALL MEN BY THESE PRESENTS

That _____ (Contractor)

as Principal, and _____

a corporation of the State of _____ as Surety, are held and firmly bound unto the Four Rivers Sanitation Authority, as Obligee, for the use and benefit of claimants as hereinafter defined in the amount of

_____ Dollars (\$ _____), for the payment where of Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____ 20__ Entered into a Contract with Obligee for _____ in accordance with contract documents prepared by the Four Rivers Sanitation Authority which Contract is by reference made a part hereof, and is hereinafter referred to as "the Contract".

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Principal shall promptly pay for all laborers, workers and mechanics engaged in the work under the Contract, and not less than the general prevailing rate of hourly wages of a similar character in the locality in which the work is performed, as determined by the State of Illinois Department of Labor pursuant to the Illinois Compiled Statutes 280 ILCS 130 / 1-12 et.seq. and for all material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect.

1. A claimant is deemed as any person, firm, or corporation having contracts with the Principal or with any of Principal's subcontractors for labor or materials furnished in the performance of the Contract on account of which this Bond is given.
2. Nothing in this Bond contained shall be taken to make the Obligee liable to any subcontractor, material man or laborer, or to any other person to any greater extent than it would have been liable prior to the enactment of The Public Construction Bond Act, approved June 20, 1931, as amended; provided further, that any person having a claim for labor and materials furnished in the performance of the Contract shall have no right of action unless he shall have filed a verified notice of such claim with the Obligee within 180 days after the date of the last item of work or the furnishing of the last item of materials, which claim shall have been verified and shall contain the name and address of the claimant, the business address of the claimant within the State of Illinois, if any, or if the claimant be a foreign corporation having no place of business within the State the principal place of business of the corporation, and in all cases of

partnership the names and residences of each of the partners, the name of the Contractor for the Oblige, the name of the person, firm or corporation by whom the claimant was employed or to whom such claimant furnished materials, the amount of the claim and a brief description of the public improvement for the construction or installation of which the contract is to be performed. No defect in the notice herein provided for shall deprive the claimant of its right of action under the terms and provisions of this Bond unless it shall affirmatively appear that such defect has prejudiced the rights of an interested party asserting the same.

3. No action shall be brought on this Bond until the expiration of 120 days after the date of the last item of work or of the furnishing of the last item of material except in cases where the final settlement between Oblige and the Contractor shall have been made prior to the expiration of the 120 day period, in which case action may be taken immediately following such final settlement; nor shall any action of any kind be brought later than 6 months after the acceptance by the Oblige of the work. Such suit shall be brought only in the circuit court of this State in the judicial district in which the Contract is to be performed.
4. Surety hereby waives notice of any changes in the Contract, including extensions of time for the performance thereof.
5. The amount of this Bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.
6. The Principal and Surety shall be liable for any attorneys' fees, engineering costs, or court costs incurred by the Oblige relative to claims made against this Bond.

Signed and Sealed this _____ day of _____, 20____.

CONTRACTOR

SURETY

Contractor Firm Name

By: _____
Signature

Printed Name

Title

By: _____
Attorney-in-Fact Signature

Printed Name

Resident Agent

ATTEST:

Corporate Secretary (Corporations only)

Performance Bond

KNOW ALL MEN BY THESE PRESENTS, that WHEREAS, the Four Rivers Sanitation Authority has awarded to: _____ hereinafter designated as the “Principal”, a contract, dated, _____, for the Four Rivers Sanitation Authority.

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract (the “Bond”);

NOW, THEREFORE, we the Principal and _____, as Surety, are firmly bound unto the Four Rivers Sanitation Authority in the penal sum of _____ Dollars (\$ _____) lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents for a performance bond. The conditions of this obligation is such that if the said Principal does well and faithfully performs all the conditions and covenants of said Contract, according to the true intent and meaning thereof, upon its part to be kept and performed, then the above obligation is to be null and void, otherwise to remain in full force and effect.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract, including the provisions for liquidated damages in the said Contract, any changes, additions or alterations thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Four Rivers Sanitation Authority, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect. And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same and no inadvertent overpayment of progress payments shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications or of any inadvertent overpayment of progress payments. The Four Rivers Sanitation Authority shall be named as beneficiary on this Performance Bond.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their seal this _____ day of _____, 20_____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

CONTRACTOR

SURETY

Contractor Firm Name

By: _____
Signature

Printed Name

Title

By: _____
Attorney-in-Fact Signature

Printed Name

Resident Agent

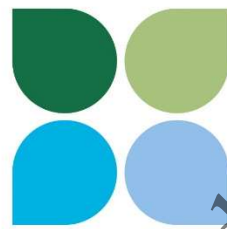
ATTEST:

Corporate Secretary (Corporations only)

Section II
Project Manual

PROJECT MANUAL

Collections Systems Operations Facility Structural Steel Package



Four Rivers

Sanitation Authority

Rockford, IL

FRSA Capital Project No. 2217

BA Project No. 2021-13

Date 4-5-2022

BA BLAKEMORE
ARCHITECTS

400 North First Street
Rockford, IL. 61107
Phone 815-227-0023

www.blakemore-architects.com

COVER PAGE

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PROCUREMENT AND CONTRACTING REQUIREMENTS

Division 00 -- Procurement and Contracting Requirements

00 0101 - Project Title Page

00 0102 - Project Information

00 2113 - Instructions to Bidders

SPECIFICATIONS

Division 01 -- General Requirements

01 1000 - Summary

01 3000 - Administrative Requirements

Division 05 -- Metals

05 1200 - Structural Steel Framing

05 2100 – Steel Joist Framing

05 3100 - Steel Decking

05 5000 - Metal Fabrications

END OF SECTION

**SECTION 00 0101
PROJECT TITLE PAGE**

PROJECT MANUAL

FOR

**COLLECTIONS SYSTEMS OPERATIONS FACILITY
STEEL BID PACKAGE
CAPITAL PROJECT NO. 2217**

**FOUR RIVERS SANITATION AUTHORITY
3501 KISHWAUKEE STREET
ROCKFORD , ILLINOIS 61109**

DATE: APRIL 5, 2022

PREPARED BY:

**BLAKEMORE ARCHITECTS, INC
400 N. FIRST STREET
ROCKFORD, ILLINOIS 61107
815-227-0023
WWW.BLAKEMORE-ARCHITECTS.COM**

END OF PROJECT TITLE PAGE

SECTION 00 0102
PROJECT INFORMATION

PART 1 GENERAL

1.01 PROJECT IDENTIFICATION

- A. Project Name: Collections Systems Operations Facility, located at: 3501 Kishwaukee Street, Rockford, Illinois
- B. Blakemore Architects's Project Number: 2022-13.
- C. Four Rivers Sanitation Authority (FRSA)'s Capital Project Number: 2217.
- D. The Owner, hereinafter referred to as Owner: Four Rivers Sanitation Authority
 - 1. Sales Tax Exemption Number: E999223696.

1.02 NOTICE TO PROSPECTIVE BIDDERS

- A. These documents constitute an Invitation to Bid to prospective Steel Fabricators to submit qualifications and proposals for the production of a red-iron steel package including the fabrication, Storage at fabricators yard until ready for erection and delivery to the project job site the following:
 - 1. Steel Columns with base and top plates
 - 2. Steel Girts
 - 3. Steel Beams
 - 4. Steel Barjoist and Girder Trusses (including bridging)
 - 5. Steel Deck
 - 6. Steel angles (for roof drain and over flows, HVAC/Exhaust Equipment and Roof Hatch)
 - 7. Steel angles for perimeter deck attachment or angle deck support at columns
 - 8. Steel Lintels
 - 9. Steel Channels
 - 10. Steel Gusset Plates
 - 11. All steel to steel connection plates and bolts
 - 12. Steel anchor bolts and setting plates
 - 13. Shop Drawings
- B. Notice Date: 04-05-2022.

1.03 PROJECT DESCRIPTION

- A. Summary Project Description: Steel package for new building . Project known as Phase I. Phase II to be issued at later date and include proposals from General Contractors for construction of building. Selected steel fabricator will be assigned to the General Contractor.
- B. Phase II to include erection contractor as contracted through the General Contractor.

1.04 PROJECT CONSULTANTS

- A. Architect
 - 1. Blakemore Architects, Inc
 - a. 400 North First Street
 - b. Rockford, Illinois 61107
 - c. Brian Blakemore-Principal in charge
- B. Structural Engineer
 - 1. Core4 Engineering
 - a. 12308 North Corporate Parkway
 - b. Suite 300 Mequon, WI 53092
 - c. 1-262-236-9372
 - d. Brian Hess- Project Manager

1.05 PROCUREMENT TIMETABLE

- A. Bid Due Date: April 19, 2022, before 10 AM local time.

- B. Bid Opening: Same day, 10:00 am local time.
- C. Bids May Not Be Withdrawn Until: 30 days after due date.
- D. Contract Time: To be stated in bid documents.
- E. Desired Final Completion Date: October 1, 2022.
- F. The Owner reserves the right to change the schedule or terminate the entire procurement process at any time.

1.06 PROCUREMENT DOCUMENTS

- A. Documents may be procured from Four Rivers Sanitaztion Authority
- B. Documents may be viewed at The office of the Northern Illinois Building Contractors Association at 1111 S, Alpine Road, Rockford, Illinois .

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

END OF SECTION

SECTION 00 2113
INSTRUCTIONS TO BIDDERS

SUMMARY

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

1.02 DOCUMENT INCLUDES

- A. Invitation
 - 1. Bid Submission
 - 2. Work Identified in the Contract Documents
 - 3. Contract Time
- B. Bid Documents and Contract Documents
 - 1. Definitions
 - 2. Contract Documents Identification
 - 3. Inquiries/Addenda
- C. Qualifications
 - 1. Prequalification
 - 2. Subcontractors/Suppliers/Others
- D. Bid Submission
 - 1. Bid Depository
 - 2. Submission Procedure
- E. Offer Acceptance/Rejection
 - 1. Duration of Offer
 - 2. Acceptance of Offer

1.03 RELATED DOCUMENTS

INVITATION

2.01 BID SUBMISSION

- A. Bids signed, executed, and dated will be received at the office of Four Rivers Sanitation Authority (FRSA) at 3501 Kishwaukee Street, Rockford, Illinois
- B. Offers will be opened publicly immediately after the time for receipt of bids.

2.02 INTENT

- A. The intent of this Bid request is to obtain an offer for the production of a red-iron steel package including the fabrication, Storage at fabricators yard until ready for erection and delivery to the project job site

2.03 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

- A. Work of this proposed Contract comprises for the production of a red-iron steel package including the fabrication, Storage at fabricators yard until ready for erection and delivery to the project job site .

2.04 CONTRACT TIME

- A. The bidder, in submitting an offer, accepts the Contract Time period stated by FRSA for performing the Work. The completion date in the Agreement shall be October 1, 2022 .
- B. Owner requires that under the work of this contract be completed as quickly as possible and consideration will be given to time of completion when reviewing the submitted bids.

BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 DEFINITIONS

- A. Bid Documents: Contract Documents supplemented with Invitation To Bid and Instructions to Bidders.

- B. Bid, Offer, or Bidding: Act of submitting an offer under seal.

3.02 CONTRACT DOCUMENTS IDENTIFICATION

- A. The Contract Documents are identified as Project Number BA 2022-13, as prepared by Blakemore Architects who is located at 400 First Street, Rockford, Illinois 61107, and with contents as identified in the Project Manual and Drawings.

3.03 AVAILABILITY

- A. One sets of Bid Documents can be obtained by bidders upon receipt of a deposit, by cash, in the amount of \$50.00 for one set.
- B. Bid Documents are made available only for the purpose of obtaining offers for this project. Their use does not grant a license for other purposes.

3.04 EXAMINATION

- A. Bid documents may be obtained at a cost of \$50.00 per set (non-refundable) by contacting the FRSA Engineering Department at 815-387-7660.
- B. Bid Documents are on display at the offices of the following construction plan rooms:
 - 1. Northern Illinois Building Contractors Association-1111 S. Alpine Street, Rockford, Illinois.
 - 2. Four Rivers Sanitation Authority, 3501 Kishwaukee Street, Rockford, Illinois by appointment.
- C. Upon receipt of Bid Documents verify that documents are complete. Notify FRSA who will then notify Blakemore Architects should the documents be incomplete.
- D. Immediately notify FRSA who will then notify Blakemore Architects upon finding discrepancies or omissions in the Bid Documents.

3.05 INQUIRIES/ADDENDA

- A. Direct questions to Tyler Nelson at FRSA, telephone 815-387-7660 or email: TNelson@Fourrivers.illinois.gov
- B. Addenda may be issued during the bidding period. All Addenda become part of the Contract Documents. Include resultant costs in the Bid Amount.
- C. Verbal answers are not binding on any party.
- D. Clarifications requested by bidders must be in writing not less than 7 days before date set for receipt of bids. The reply will be in the form of an Addendum, a copy of which will be forwarded to known recipients .

QUALIFICATIONS

4.01 EVIDENCE OF QUALIFICATIONS

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

BID SUBMISSION

BID ENCLOSURES/REQUIREMENTS

OFFER ACCEPTANCE/REJECTION

7.01 DURATION OF OFFER

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

7.02 ACCEPTANCE OF OFFER

- A. Owner reserves the right to accept or reject any or all offers.
- B. After acceptance by Owner, Blakemore Architects on behalf of Owner, will issue to the successful bidder, a written Bid Acceptance.

END OF INSTRUCTIONS TO BIDDERS

SECTION 01 1000

SUMMARY

PART 1 GENERAL

1.01 PROJECT

- A. Owner's Name: Four Rivers Sanitation Authority.
- B. Architects's Name: Blakemore Architects, Inc.
- C. The Project consists of the production of a red-iron steel package including the fabrication, Storage at fabricators yard until ready for erection and delivery to the project job site.

1.02 CONTRACT DESCRIPTION

- A. Contract Type: A single prime contract based on a Stipulated Price as described in Document 00 5200 - Agreement Form.

1.03 FUTURE WORK

- A. Project is designed for future building construction know as phase II..

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01 3000
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. General administrative requirements.
- B. Number of copies of submittals.
- C. Requests for Interpretation (RFI) procedures.
- D. Submittal procedures.

1.02 GENERAL ADMINISTRATIVE REQUIREMENTS

- A. Conform to requirements of Section 01 7000 - Execution and Closeout Requirements for coordination of execution of administrative tasks with timing of construction activities.
- B. Make the following types of submittals to FRSA who will distribute to Blakemore Architects:
 - 1. Requests for Interpretation (RFI).
 - 2. Shop drawings, product data, and samples.
 - 3. Applications for payment and change order requests.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 REQUESTS FOR INTERPRETATION (RFI)

- A. Definition: A request seeking one of the following:
 - 1. An interpretation, amplification, or clarification of some requirement of Contract Documents arising from inability to determine from them the exact material, process, or system to be installed; or when the elements of construction are required to occupy the same space (interference); or when an item of work is described differently at more than one place in Contract Documents.

3.02 SUBMITTALS FOR REVIEW

- A. When the following are specified in individual sections, submit them for review:
 - 1. Shop drawings.
- B. Submit to FRSA who will distribute to Blakemore Architects for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
- C. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article below.

3.03 SUBMITTALS FOR INFORMATION

- A. When the following are specified in individual sections, submit them for information:
 - 1. Shop Drawings.
- B. Submit for Blakemore Architects's knowledge as architect for Owner.

3.04 NUMBER OF COPIES OF SUBMITTALS

- A. Documents for Review:
 - 1. Larger Sheets, Not Larger Than 36 by 48 inches: Submit the number of opaque reproductions that Contractor requires, plus two copies that will be retained by FRSA and Blakemore Architects.

3.05 SUBMITTAL PROCEDURES

- A. General Requirements:
 - 1. Use a separate transmittal for each item.
 - 2. Deliver each submittal on date noted in submittal schedule, unless an earlier date has been agreed to by all affected parties, and is of the benefit to the project.

- a. Deliver submittals to FRSA who will distribute to Blakemore Architects at business address.
- 3. Identify variations from Contract Documents and product or system limitations that may be detrimental to successful performance of the completed work.
- 4. When revised for resubmission, identify all changes made since previous submission.
- 5. Incomplete submittals will not be reviewed, unless they are partial submittals for distinct portion(s) of the work, and have received prior approval for their use.
- B. Shop Drawing Procedures:
 - 1. Prepare accurate, drawn-to-scale, original shop drawing documentation by interpreting the Contract Documents and coordinating related work.
 - 2. Do not reproduce the Contract Documents to create shop drawings.
 - 3. Generic, non-project-specific information submitted as shop drawings do not meet the requirements for shop drawings.
- C. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- D. When revised for resubmission, identify all changes made since previous submission.
- E. Distribute reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- F. Submittals not requested will not be recognized or processed.

END OF SECTION

SECTION 05 1200
STRUCTURAL STEEL FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Structural steel framing members.
- B. Structural steel support members.

1.02 RELATED REQUIREMENTS

- A. Section 05 50 00 - Metal Fabrications
- B. Section 05 31 00 - Steel Decking: Support framing for small openings in deck.

1.03 REFERENCE STANDARDS

- A. AISC (MAN) - Steel Construction Manual; 2011.
- B. AISC S303 - Code of Standard Practice for Steel Buildings and Bridges; 2016.
- C. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
- D. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2012.
- E. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2015.
- F. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2013.
- G. ASTM A514/A514M - Standard Specification for High-Yield-Strength, Quenched and Tempered Alloy Steel Plate, Suitable for Welding; 2014.
- H. ASTM A529/A529M - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality; 2014.
- I. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts; 2007a (Reapproved 2014).
- J. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a.
- K. ASTM F436/F436M - Standard Specification for Hardened Steel Washers Inch and Metric Dimensions; 2016.
- L. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- M. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015.
- N. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel; International Accreditation Service, Inc; 2011.
- O. RCSC (HSBOLT) - Specification for Structural Joints Using High-Strength Bolts; Research Council on Structural Connections; 2009.

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings:
 - 1. Indicate profiles, sizes, spacing, locations of structural members, openings, attachments, and fasteners.
 - 2. Connections.
 - 3. Indicate cambers and loads.
 - 4. Indicate welded connections with AWS A2.4 welding symbols. Indicate net weld lengths.

- C. Welder's Certificates: "Upon request, certify welders employed on the Work, verifying AWS and Wisconsin Department of Safety and Professional Services, SPS 305 Licenses, Certifications and Registrations qualification within the previous 12 months
- D. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under IAS AC172.

1.05 QUALITY ASSURANCE

- A. Fabricate structural steel members in accordance with AISC "Steel Construction Manual."
- B. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.
- C. Erector: Company specializing in performing the work of this section with minimum three years of experience.
- D. Design connections not detailed on the drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in Illinois.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Steel Angles, Plates, Channels, and M Shapes: ASTM A36/A36M.
- B. Steel W Shapes and Tees: ASTM A992/A992M.
- C. Steel Shapes, Plates, and Bars: ASTM A992/A992M.
- D. Cold-Formed Structural Tubing: ASTM A500/A500M, Grade B.
- E. Steel Plate: ASTM A36/36M.
- F. Pipe: ASTM A53/A53M, Grade B, Finish black.
- G. High-Strength Structural Bolts, Nuts, and Washers: ASTM F1554/F1554, Grade 36, with matching compatible ASTM A563 or ASTM A563M nuts and ASTM F436/F436M washers.
- H. Welding Materials: AWS D1.1/D1.1M, type required for materials being welded.
- I. Shop and Touch-Up Primer: Fabricator's standard, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

- A. Shop fabricate to greatest extent possible.
- B. Fabricate connections for bolt, nut, and washer connectors.
- C. Develop required camber for members.

2.03 FINISH

- A. Shop prime structural steel members. Do not prime surfaces that will be fireproofed, field welded, or in contact with concrete.
- B. Exposed Members: Galvanize structural steel members to comply with ASTM A123/A123M. Provide minimum 1.7 oz/sq ft galvanized coating.

2.04 SOURCE QUALITY CONTROL AND TESTS

- A. High-Strength Bolts: Provide testing and verification of shop-bolted connections in accordance with AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts", testing at least 50 percent of bolts at each connection.
- B. Welded Connections: Visually inspect all shop-welded connections and test at least 50 percent of welds using one of the following:
 1. Radiographic testing performed in accordance with ASTM E94.
 2. Ultrasonic testing performed in accordance with ASTM E164.
 3. Liquid penetrant inspection performed in accordance with ASTM E165/E165M.
 4. Magnetic particle inspection performed in accordance with ASTM E709.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

3.02 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.

3.03 FIELD QUALITY CONTROL

- A. Welded Connections: Visually inspect all field-welded connections and test at least 50 percent of welds using one of the following:
 - 1. Radiographic testing performed in accordance with ASTM E94.
 - 2. Ultrasonic testing performed in accordance with ASTM E164.
 - 3. Liquid penetrant inspection performed in accordance with ASTM E165/E165M.
 - 4. Magnetic particle inspection performed in accordance with ASTM E709.

END OF SECTION

SECTION 05 2100
STEEL JOIST FRAMING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Open web steel joists, with bridging, attached seats and anchors.
- B. Loose bearing members, such as plates or angles, and anchor bolts for site placement.
- C. Supplementary framing for roof openings greater than 18 inches.

1.02 RELATED REQUIREMENTS

- A. Section 05 12 00 - Structural Steel Framing: Superstructure framing.
- B. Section 05 31 00 - Steel Decking: Support framing for openings less than 18 inches in decking.
- C. Section 05 50 00 - Metal Fabrications: Non-framing steel fabrications attached to joists.

1.03 REFERENCE STANDARDS

- A. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts; 2007a (Reapproved 2014).
- B. ASTM E164 - Standard Practice for Contact Ultrasonic Testing of Weldments; 2013.
- C. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a.
- D. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015.
- E. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel; International Accreditation Service, Inc; 2011.
- F. SJI Technical Digest No. 9 - Handling and Erection of Steel Joists and Joist Girders; 2008.
- G. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 1999 (Ed. 2004).
- H. SSPC-SP 2 - Hand Tool Cleaning; 1982 (Ed. 2004).

1.04 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate standard designations, joist coding, configurations, sizes, spacings, cambers, locations of joists, joist leg extensions, bridging, connections, and attachments.

1.05 QUALITY ASSURANCE

- A. Design connections not detailed on the drawings under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in Illinois.
- B. Perform Work, including that for headers and other supplementary framing, in accordance with SJI (SPEC) Standard Specifications Load Tables and SJI Technical Digest No. 9.
- C. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Transport, handle, store, and protect products to SJI requirements.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Steel Joists:
 - 1. Canam Group Inc: www.canam-steeljoists.ws
 - 2. CMC Joist: www.cmcjoist.com.
 - 3. New Millennium Building Systems: www.newmill.com
 - 4. Nucor-Vulcraft Group: www.vulcraft.com.

2.02 MATERIALS

- A. Open Web Joists: Types as indicated on drawings:
 - 1. Minimum End Bearing on Steel Supports: Comply with referenced SJI standards.
 - 2. Minimum End Bearing on Masonry or Concrete Supports: Comply with referenced SJI standards.
 - 3. Finish: Shop primed.
- B. High-Strength Structural Bolts, Nuts, and Washers: ASTM F3125/F3125M , Type 1, with matching compatible ASTM A563 or ASTM A563M nuts and ASTM F436/F436M washers.
- C. Structural Steel For Supplementary Framing and Joist Leg Extensions: ASTM A36/A36M.
- D. Welding Materials: AWS D1.1/D1.1M ; type required for materials being welded.
- E. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.

2.03 FABRICATION

- A. Drill holes in chords for attachment of wood nailers where indicated.
- B. Frame special sized openings in joist web framing as detailed.

2.04 FINISH

- A. Shop prime joists as specified.
 - 1. Do not prime surfaces that will be field welded.
- B. Prepare surfaces to be finished in accordance with SSPC-SP 2.

2.05 SOURCE QUALITY CONTROL

- A. Provide shop testing of steel components per SJI recommendations.

PART 3 EXECUTION

3.01 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch.
- B. Maximum Offset From True Alignment: 1/4 inch.

END OF SECTION

SECTION 05 3100
STEEL DECKING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Roof deck.
- B. Supplementary framing for openings up to and including 18 inches.
- C. Bearing plates and angles.

1.02 RELATED REQUIREMENTS

- A. Section 05 1200 - Structural Steel Framing: Support framing for openings larger than 18 inches and shear stud connectors.
- B. Section 05 2100 - Steel Joist Framing: Support framing for openings larger than 18 inches and shear stud connectors.

1.03 REFERENCE STANDARDS

- A. AWS D1.3/D1.3M - Structural Welding Code - Sheet Steel; 2008.
- B. FM (AG) - FM Approval Guide; Factory Mutual Research Corporation; current edition.
- C. SDI (DM) - Publication No.30, Design Manual for Composite Decks, Form Decks, and Roof Decks; 2007.
- D. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 1999 (Ed. 2004).
- E. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittals procedures.
- B. Shop Drawings: Indicate deck plan, support locations, projections, openings, reinforcement, pertinent details, and accessories.
- C. Product Data: Provide deck profile characteristics, dimensions, structural properties, and finishes.
- D. Submit manufacturer's installation instructions.
- E. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification within the previous 12 months.

1.05 QUALITY ASSURANCE

- A. Design deck layout, spans, fastening, and joints under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in Illinois.
- B. Fabricator Qualifications: A qualified steel fabricator that is accredited by the International Accreditation Service (IAS) Fabricator Inspection Program for Structural Steel in accordance with IAS AC172.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Cut plastic wrap to encourage ventilation.
- B. Separate sheets and store deck on dry wood sleepers; slope for positive drainage.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Steel Deck:
 - 1. Canam Steel Corporation; .: www.canam-steeljoists.ws.
 - 2. Vulcraft/Nucor Corporation: www.vulcraft.com.
 - 3. Wheeling Corrugating Co: www.wheelingcorrugating.com.

2.02 STEEL DECK

- A. Roof Deck: Non-composite type, fluted steel sheet.
 - 1. See Structural Drawings for requirements.
- B. Primer: Shop coat of manufacturer's standard primer paint over cleaned and phosphatized substrate.
- C. Side Joints: Lapped, mechanically fastened as indicated on Drawings
- D. End Joints: Lapped, fastened as indicated on Drawings.

2.03 ACCESSORY MATERIALS

- A. Bearing Plates and Angles: ASTM A36/A36M steel, unfinished.
- B. Welding Materials: AWS D1.1/D1.1M .
- C. Fasteners: Galvanized hardened steel, self tapping. See Drawings.
- D. Mechanical Fasteners: Steel; hex washer head, self-drilling, self-tapping.
- E. Weld Washers: Mild steel, uncoated, 3/4 inch outside diameter, 1/8 inch thick.
- F. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, complying with VOC limitations of authorities having jurisdiction.

2.04 FABRICATED DECK ACCESSORIES

- A. Roof Sump Pans: Formed sheet steel, 14 gage, 0.0747 inch minimum thickness, flat bottom, sloped sides, recessed 1-1/2 inches below roof deck surface, bearing flange 3 inches wide, sealed watertight.

END OF SECTION

SECTION 05 5000
METAL FABRICATIONS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Shop fabricated steel items, including:
 - 1. Columns and base plates
 - 2. Lintels
 - 3. Other metal fabrications shown on Drawings.

1.02 REFERENCE STANDARDS

- A. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2012.
- B. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2015.
- C. ASTM A283/A283M - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates; 2013.
- D. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2014.
- E. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a.
- F. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
- G. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015.
- H. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).
- I. SSPC-SP 2- Hand Tool Cleaning; 1982 (Ed. 2004).

1.03 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
 - 1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
- C. Welder's Certificates: "Upon request, certify welders employed on the Work, verifying AWS and Wisconsin Department of Safety and Professional Services, SPS 305 Licenses, Certifications and Registrations qualification within the previous 12 months
- D. Weld Procedure Qualification Test Records: Submit successful test record of welder performing welds for joints used that are not pre-qualified by AISC.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

- A. Steel Beams: S or W shapes, ASTM A 992
- B. Steel Sections: ASTM A36/A36M.
- C. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.
- D. Plates: ASTM A 283; Grade D
- E. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.
- F. Bolts, Nuts, and Washers: ASTM F3125/F3125M , Type 1, plain.
- G. Welding Materials: AWS D1.1/D1.1M ; type required for materials being welded.

- H. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.
- I. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.

2.02 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.
- D. Exposed Mechanical Fastenings: Flush countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.
- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

2.03 FABRICATED ITEMS

- A. Ledge Angles, Shelf Angles, Channels, and Plates Not Attached to Structural Framing: For support of joists and masonry; galvanized finish.
- B. Lintels: As detailed; prime paint finish.

2.04 FINISHES - STEEL

- A. Prime paint steel items.
 - 1. Exceptions: Do not prime surfaces in direct contact with concrete, where field welding is required, and items to be covered with sprayed fireproofing.
- B. Prepare surfaces to be primed in accordance with SSPC-SP2.
- C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- D. Prime Painting: One coat (Gray).
- E. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating.
- F. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

2.05 FABRICATION TOLERANCES

- A. Squareness: 1/8 inch maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch.
- C. Maximum Misalignment of Adjacent Members: 1/16 inch.
- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

END OF SECTION

Section III
Contract Drawings

Not to be used for bidding purposes

New Collection Systems Operation Facility Structural Steel Package

for



Rockford, Illinois



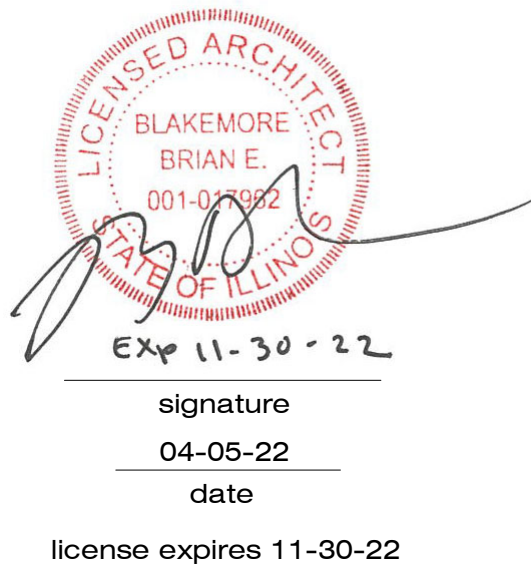
BA
BLAKEMORE
ARCHITECTS

Date: 04-05-22 Project: 21-13

Issued for Bids

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342

ARCHITECT SEAL



SHEET INDEX

COVER.....	COVER SHEET
A101.....	FLOOR PLAN
A102.....	ROOF PLAN
A201.....	EXTERIOR ELEVATIONS
A202.....	BUILDING SECTIONS
S000.....	3D VIEWS & TITLE SHEET
S001.....	GENERAL NOTES
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S101.....	FOUNDATION PLAN - OVERALL
S101A.....	FOUNDATION PLAN - AREA A
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S102.....	ROOF FRAMING PLAN - OVERALL
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S200.....	STEEL ELEVATIONS
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S400.....	MASONRY SECTIONS & DETAILS
S500.....	STEEL SECTIONS & DETAILS
S502.....	STEEL JOIST SECTIONS & DETAILS

New
Collection Systems
Operations Facility
Structural Steel
Package

for



Rockford, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

NO. DATE DESCRIPTION

1)	05-20-2021	Initial Owner Layout Review
2)	08-18-2021	Owner Layout Review
3)	01-21-2022	Owner Review One
4)	02-04-2022	Owner Review Two
5)	04-05-2022	Issued for Bids

FOR REFERENCE USE ONLY

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BA Project No. 21-13

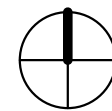
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Sheet Title

FLOOR PLAN

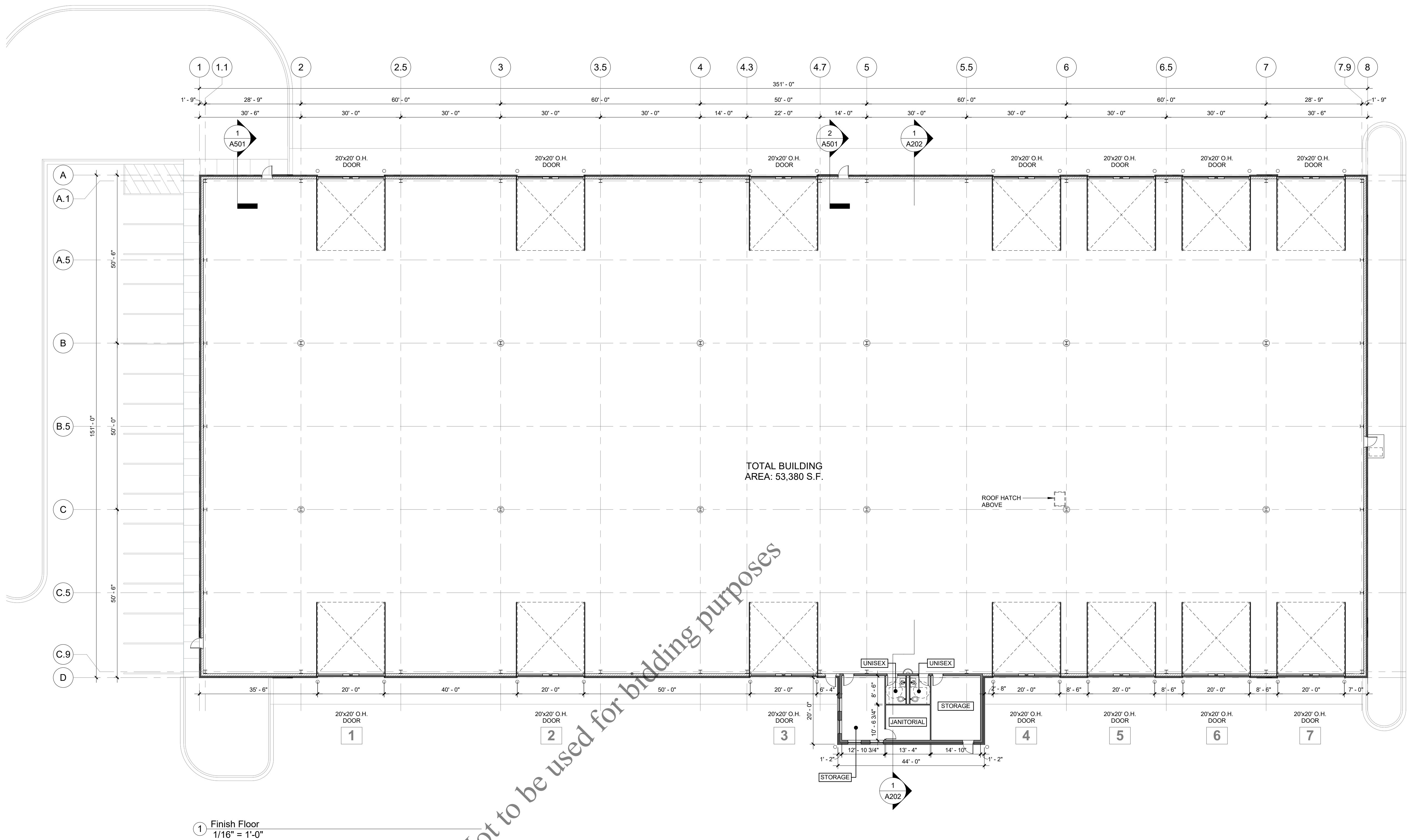
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Sheet No.

A101

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342





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New
Collection Systems
Operations Facility
Structural Steel
Package

for



Rockford, Illinois

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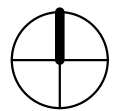
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Sheet Title

ROOF PLAN

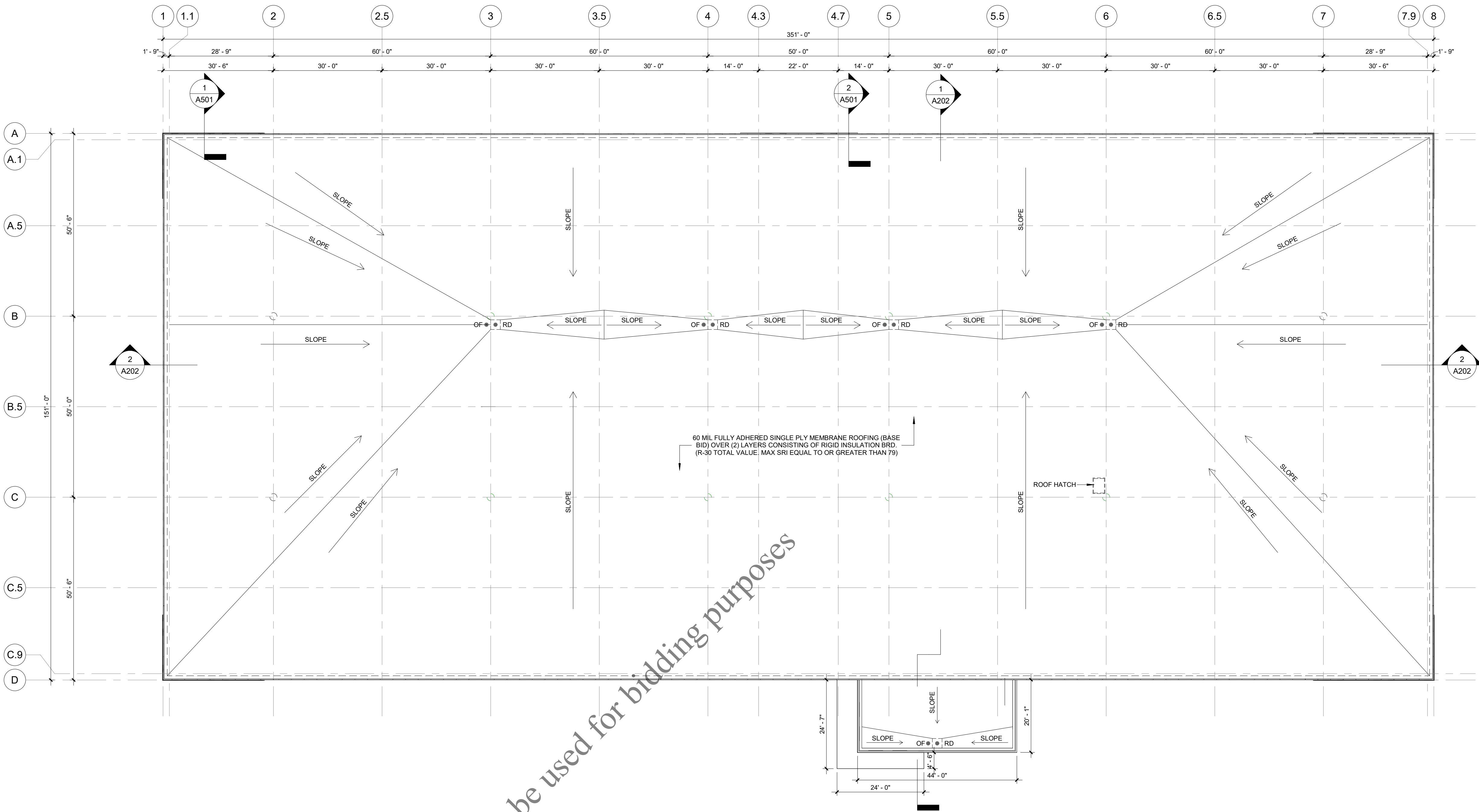
Ref. North



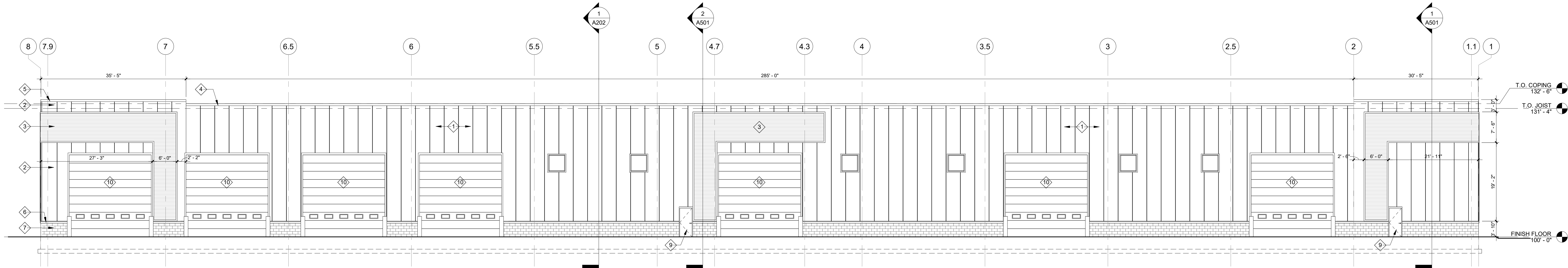
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A102

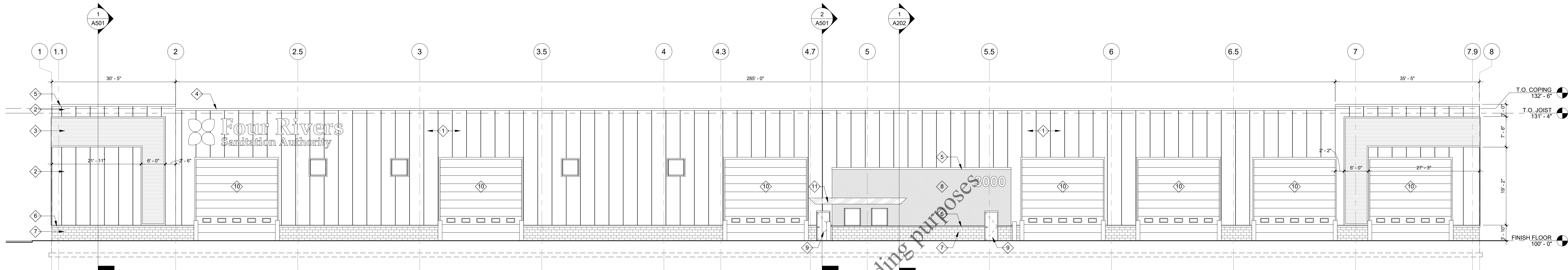
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1 Roof Plan
1/16" = 1'-0"

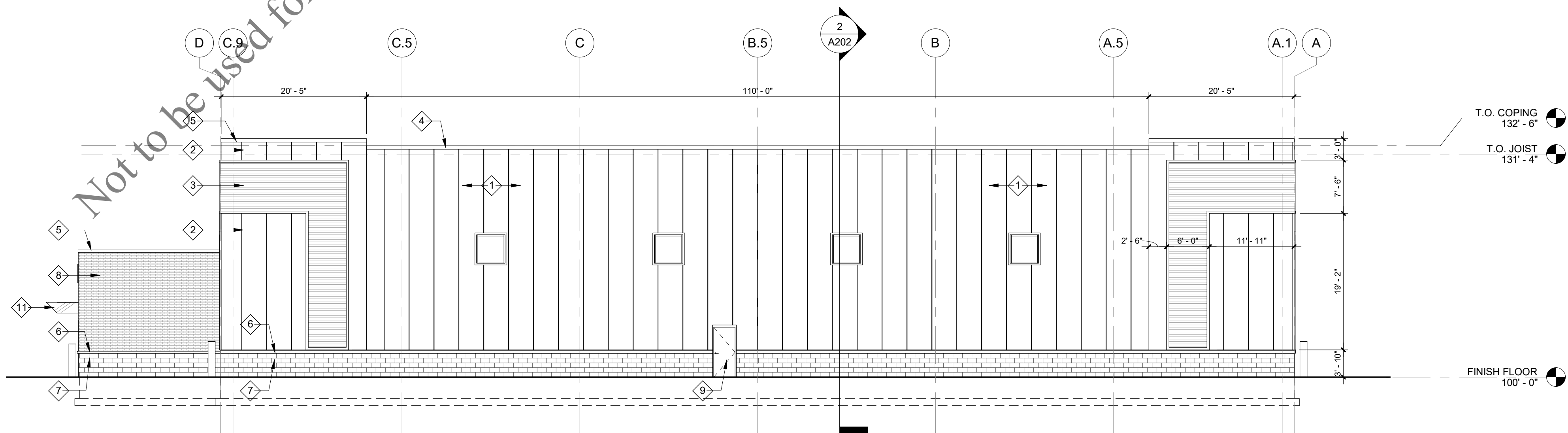


1 North Elevation
3/32" = 1'-0"

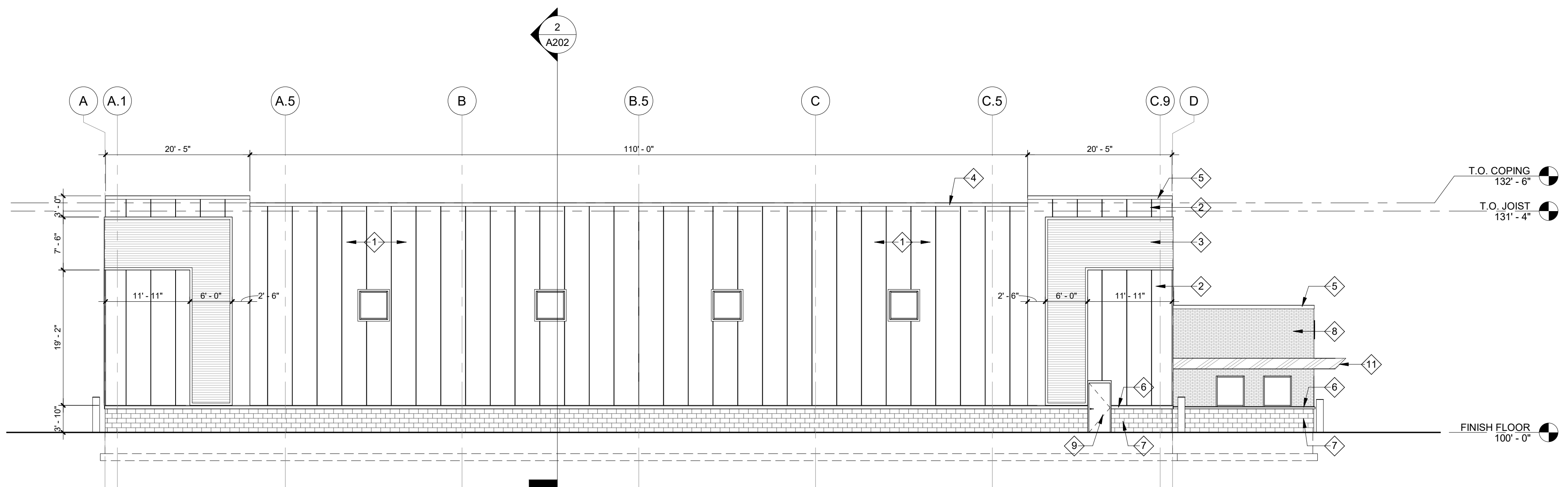


2 South Elevation
3/32" = 1'-0"

#	ELEVATION KEY NOTES
1)	INSULATED METAL PANEL: COLOR "SANDSTONE"
2)	INSULATED METAL PANEL: COLOR "DOVE GRAY"
3)	CORRUGATED METAL PANEL: COLOR "MEDIUM BRONZE"
4)	METAL COPING: PAINT TO MATCH "SANDSTONE"
5)	METAL COPING: PAINT TO MATCH "DOVE GRAY"
6)	STONE WATER TABLE: COLOR "T.B.D."
7)	EXTERIOR CMU: COLOR "T.B.D."
8)	EXTERIOR BRICK VENEER: COLOR "T.B.D."
9)	EXTERIOR HOLLOW METAL DOORS: PAINT TO MATCH "T.B.D."
10)	O.H. DOORS: PAINT TO MATCH "MEDIUM BRONZE"
11)	CITADEL SINOCORE METAL PANEL SYSTEM COLOR: "SILVER GREY"
12)	PIPE BOLLARD: COLOR "T.B.D."



3 East Elevation
3/32" = 1'-0"



4 West Elevation
3/32" = 1'-0"

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Scale

3/32" = 1'-0"

Sheet Title

EXTERIOR ELEVATIONS

Ref. North **Sheet No.**

A201

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1/8" = 1'-0"

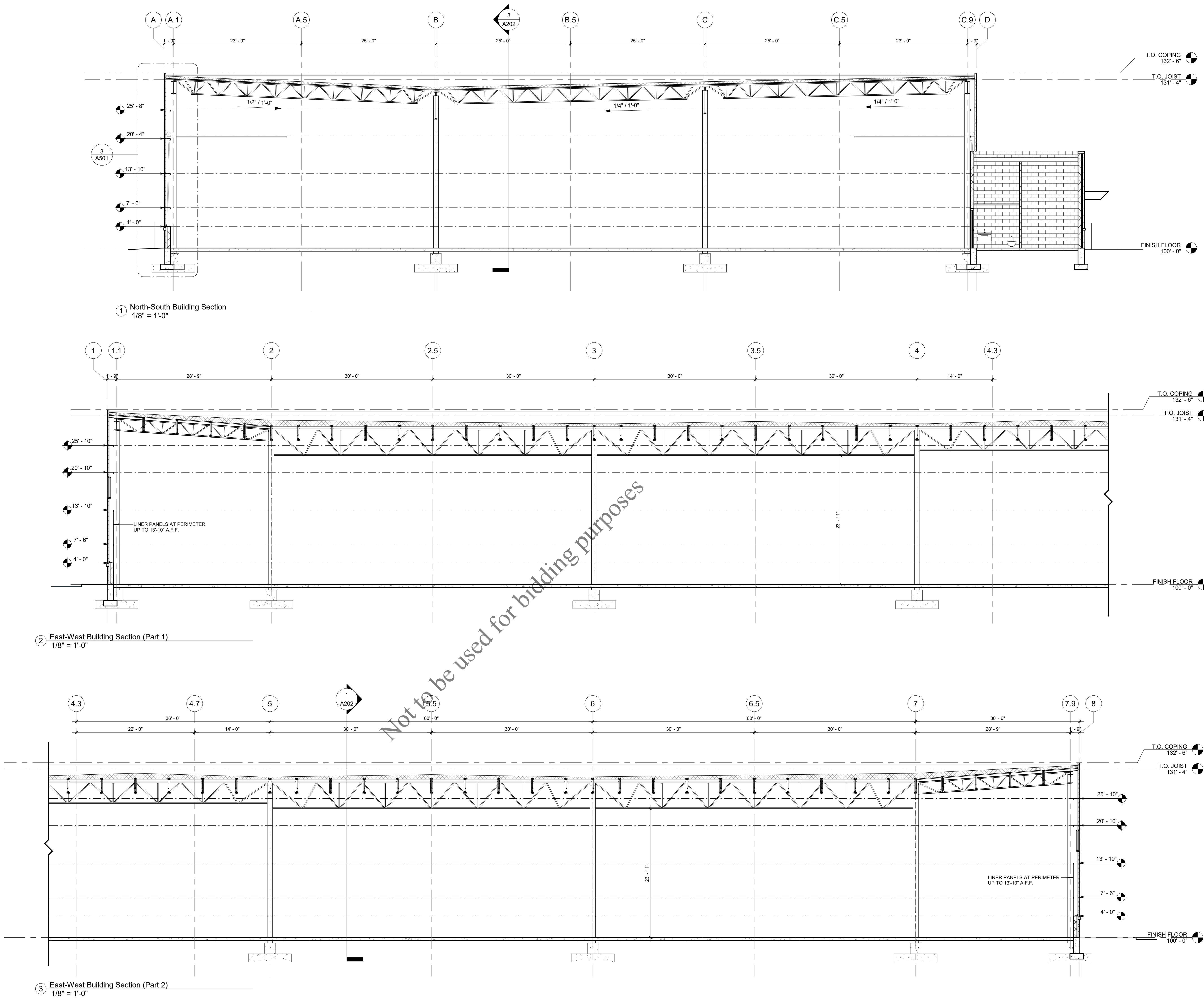
Sheet Title

BUILDING SECTIONS

Ref. North Sheet No.

A202

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Scale

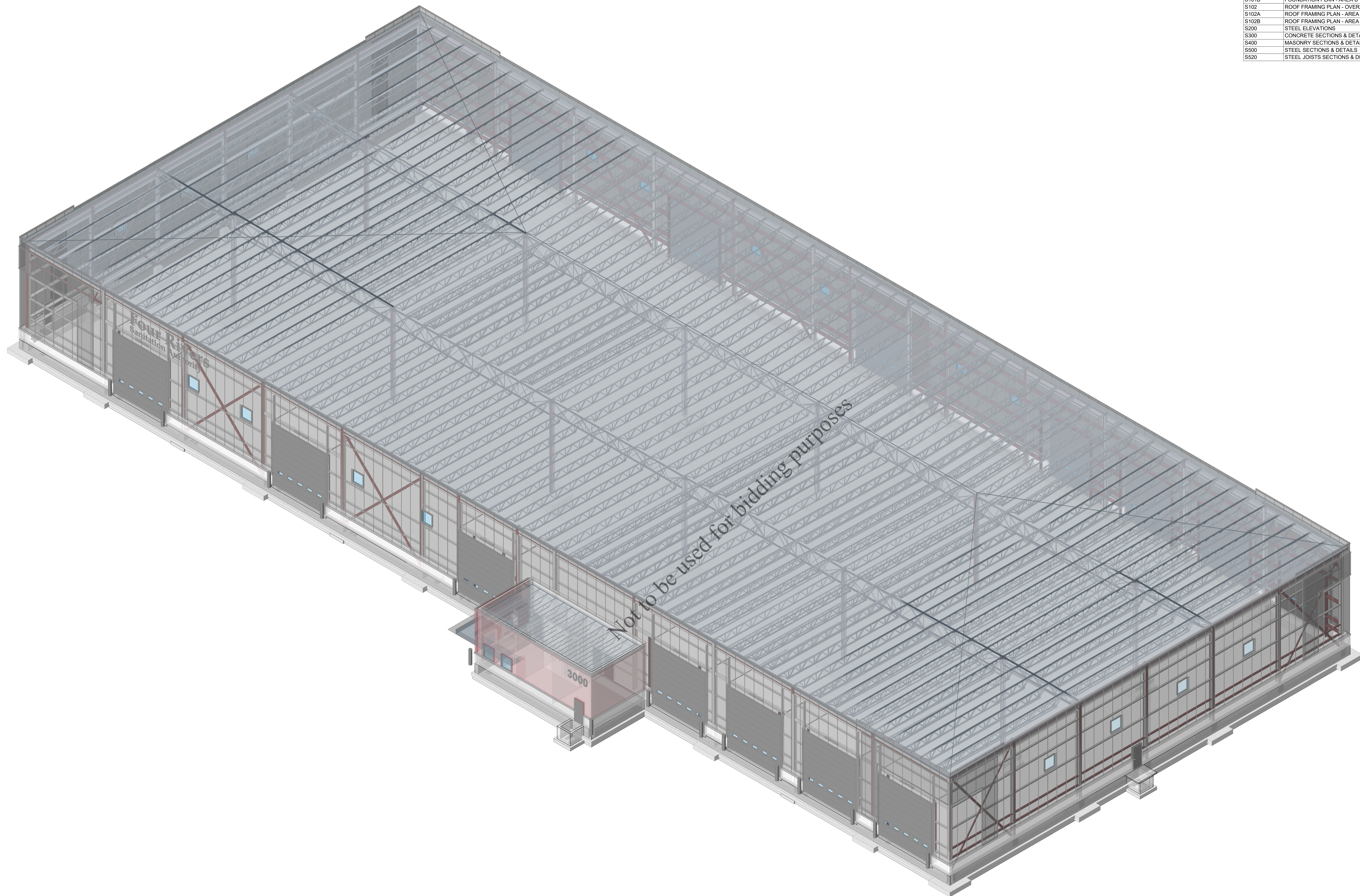
$$12'' = 1'-0''$$

Sheet Title

Ref. North	Sheet No.
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DISCLAIMER: 3D MODEL VIEWS DISPLAYED THROUGHOUT CONSTRUCTION DOCUMENTS PROVIDE A GENERAL REPRESENTATION OF THE STRUCTURAL MODEL ONLY. THESE VIEWS ARE NOT DESIGNED TO SHOW EVERY DETAILED ASPECT, AND MAY NOT BE FULLY ACCURATE. PLEASE REVIEW THE PLANS, SECTIONS, AND DETAILS FOR THE COMPLETE STRUCTURAL REQUIREMENTS. IF DISCREPANCIES EXIST, THE 3D VIEWS WILL NEVER CONTROL.



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Sheet Title

SCHEDULES

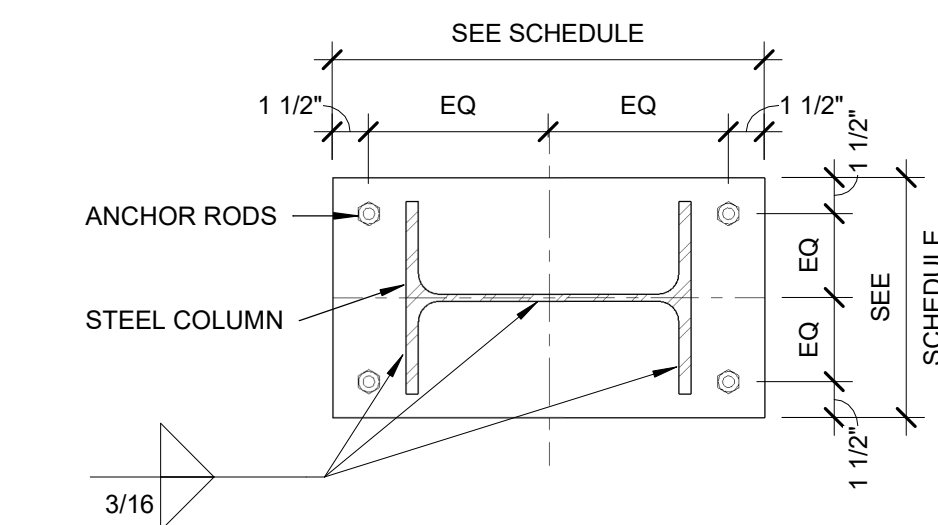
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Sheet No.

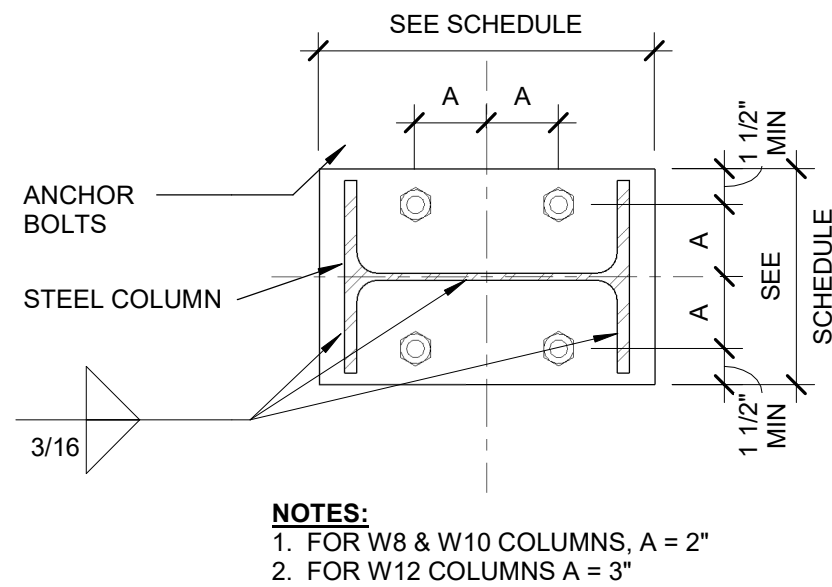
S002

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342

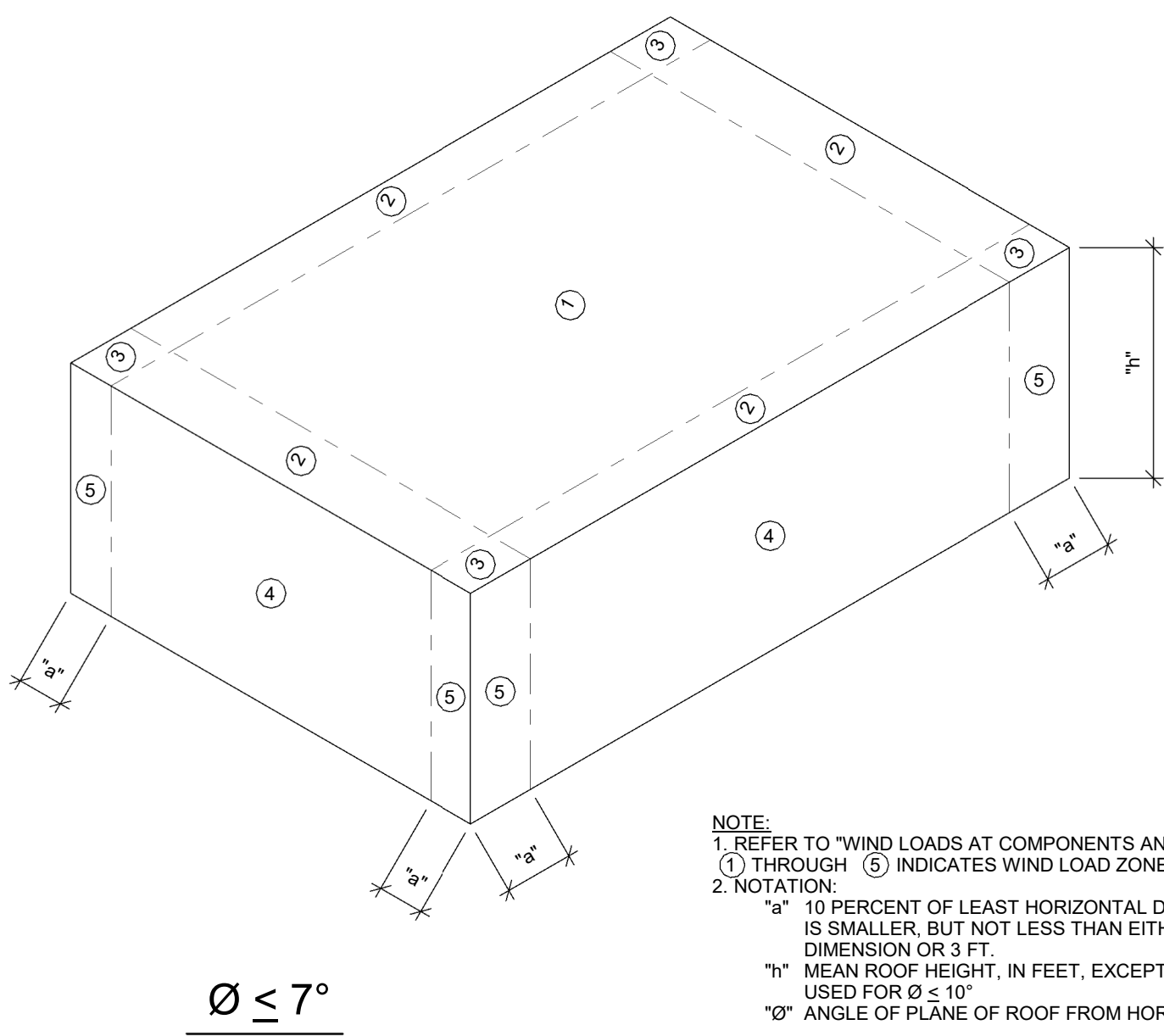
STEEL COLUMN SCHEDULE									
T/JOIST									T/JOIST
131'-4"									131'-4"
GIRT LEVEL 5									GIRT LEVEL 5
125'-10"									125'-10"
GIRT LEVEL 4									GIRT LEVEL 4
120'-10"									120'-10"
GIRT LEVEL 3									GIRT LEVEL 3
113'-10"									113'-10"
GIRT LEVEL 2									GIRT LEVEL 2
107'-4"									107'-4"
GIRT LEVEL 1									GIRT LEVEL 1
104'-4"									104'-4"
FIRST FLOOR									FIRST FLOOR
100'-0"									100'-0"
Column Locations	A-1, A-2, A-2.5, A-3, A-3.5, A-4.3, A-4.7, A-5, A-5.5, A-6, A-7, A-8, A-5-1, A-5-8, B-1, B-2, B-7, B-8, B-5-1, B-5-8, C-1, C-2, C-7, C-8, C-5-1, C-5-8, D-1, D-2, D-2.5, D-3, D-3.5, D-4, D-4.3, D-4.7, D-5, D-5.5, D-6, D-6.5, D-7, D-8		A-4		B-3, B-4, B-5, B-6		C-3, C-4, C-5, C-6		
B/Base PL EL	99'-5 1/2"		99'-5 1/2"		98'-1 1/2"		99'-5 1/2"		B/Base PL EL
Base PL Size	18" x 12"		18" x 12"		18" x 12"		18" x 12"		Base PL Size
Base PL Thick	3/4"		3/4"		3/4"		3/4"		Base PL Thick
Anchor Rods	3/4 Ø		3/4 Ø		3/4 Ø		3/4 Ø		Anchor Rods
Base PL Detail	2/S002		2/S002		2/S002		2/S002		Base PL Detail
Remarks									Remarks



2
S002
BASE PLATE
SCALE: NTS



3
S002
BASE PLATE
SCALE: NTS



1
S002
COMPONENTS & CLADDING DIAGRAM
SCALE: NTS

ULTIMATE ROOF SURFACE PRESSURE (PSF)			
AREA (SF)	10.0	100.0	500.0
NEGATIVE ZONE 1	-52.6	-42.8	-35.9
NEGATIVE ZONE 2	-82.5	-68.8	-59.2
NEGATIVE ZONE 3	-112.4	-94.8	-82.5
POSITIVE ZONE 1	16.0	16.0	16.0
POSITIVE ZONES 2 & 3	-	-	-
OVERHANG ZONE 1 & 2	-	-	-
OVERHANG ZONE 3	-	-	-
ULTIMATE PARAPET SURFACE PRESSURE (PSF)			
AREA (SF)	10.0	50.0	100.0
CASE A: INTERIOR ZONE	106.4	94.0	87.7
CASE A: CORNER ZONE	136.4	121.2	113.8
CASE B: INTERIOR ZONE	-59.9	-55.1	-51.6
CASE B: CORNER ZONE	-89.8	-79.4	-71.5
ULTIMATE WALL SURFACE PRESSURE (PSF)			
AREA (SF)	20.0	100.0	200.0
NEGATIVE ZONE 4	-35.9	-32.6	-31.2
NEGATIVE ZONE 5	-65.9	-52.6	-46.8
POSITIVE ZONE 4 & 5	35.9	30.9	28.8

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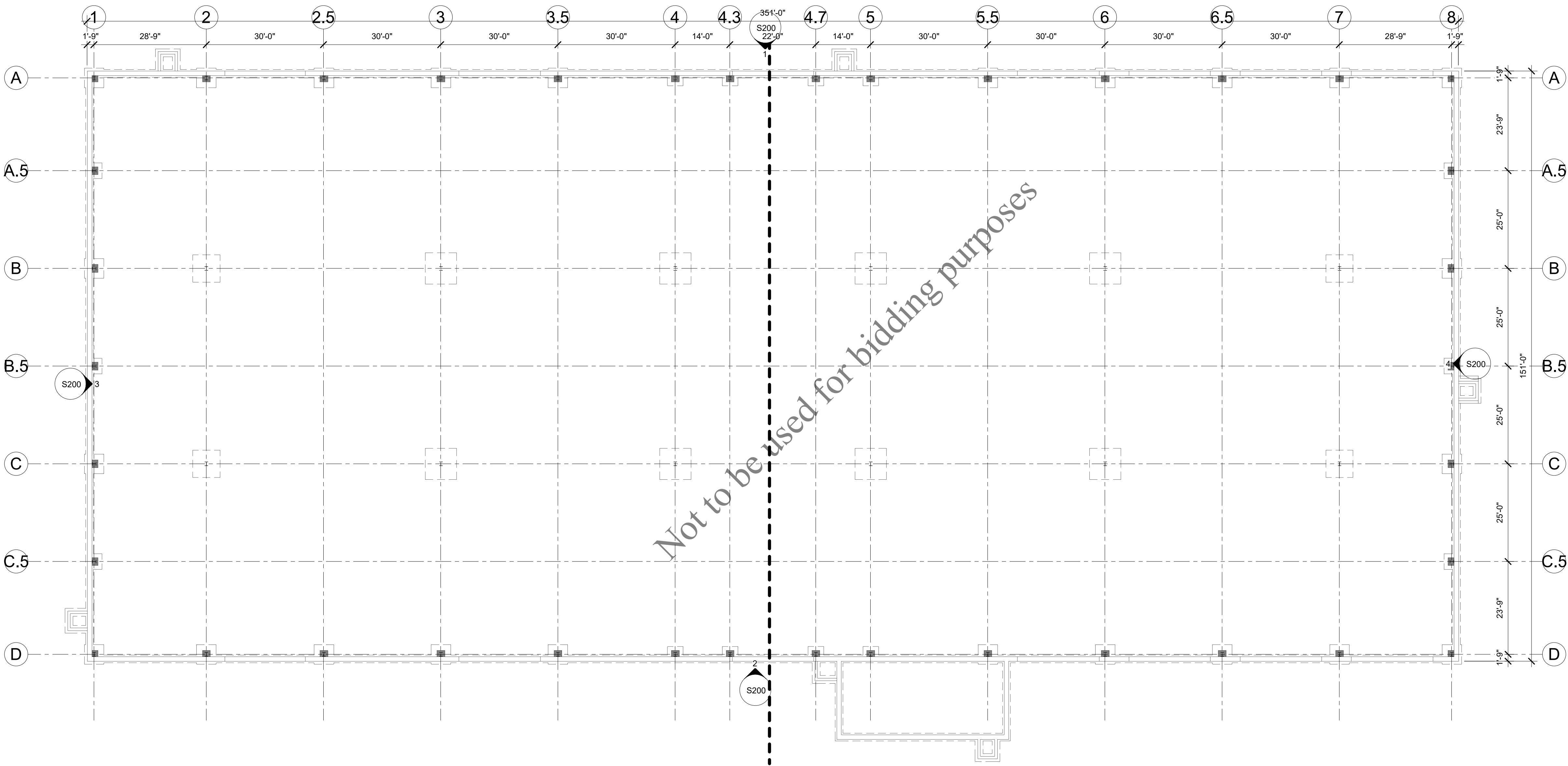
Sheet Title

FOUNDATION PLAN -
OVERALL

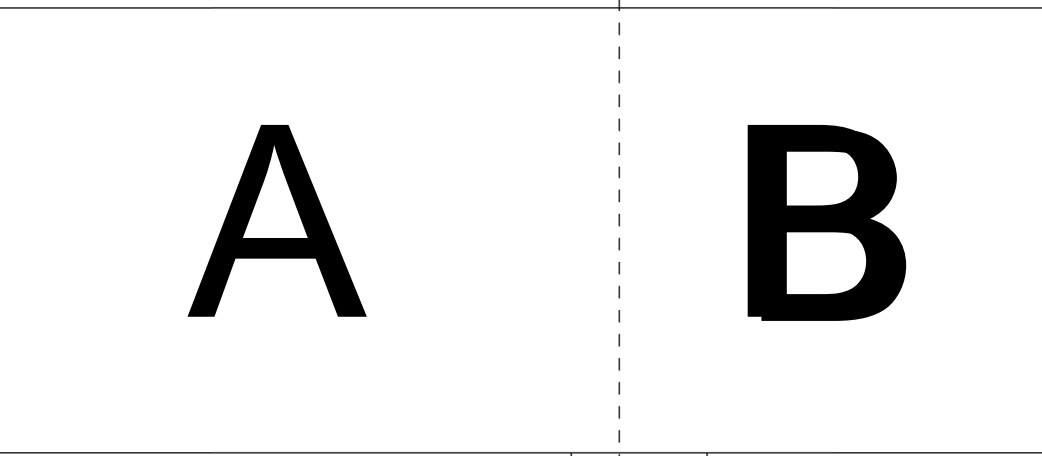
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S101

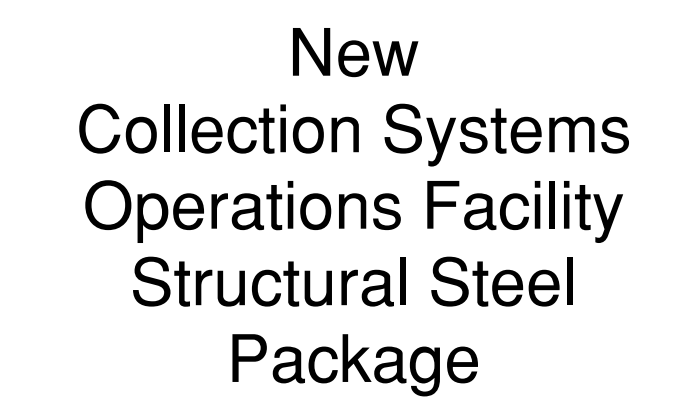
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1 FOUNDATION PLAN
S101 SCALE: 1/16" = 1'-0"



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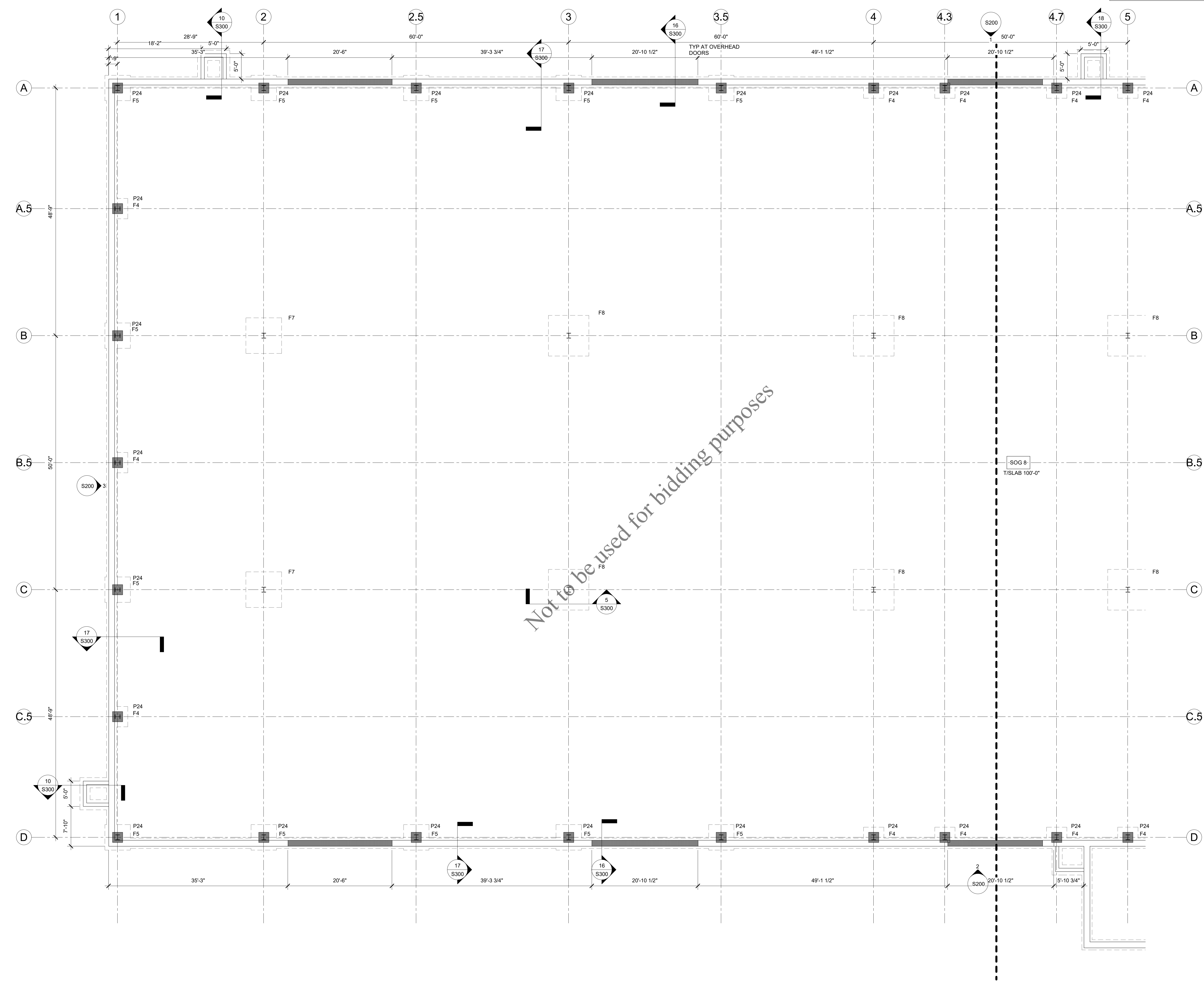
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**FOUNDATION PLAN -
AREA A**

Ref. North	Sheet No.
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S101A

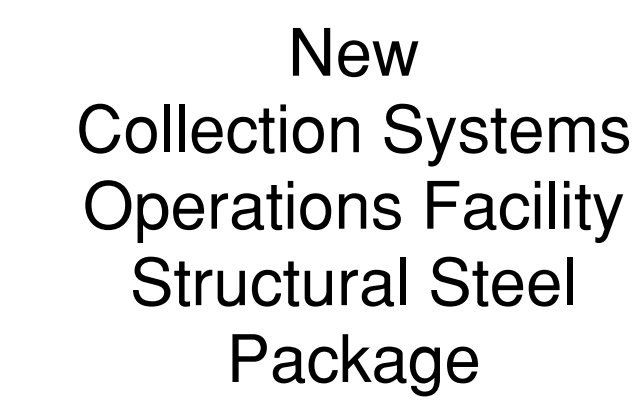
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1 FOUNDATION PLAN - AREA A
S101A SCALE: 1/8" = 1'-0"

A diagram showing a 2x2 grid. The left column contains two identical gray squares, each with a large black letter 'A' in the center. The right column contains two identical white squares, each with a large black letter 'B' in the center. The grid is divided by a vertical line between the two columns.

- 
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NO.	DATE	DESCRIPTION
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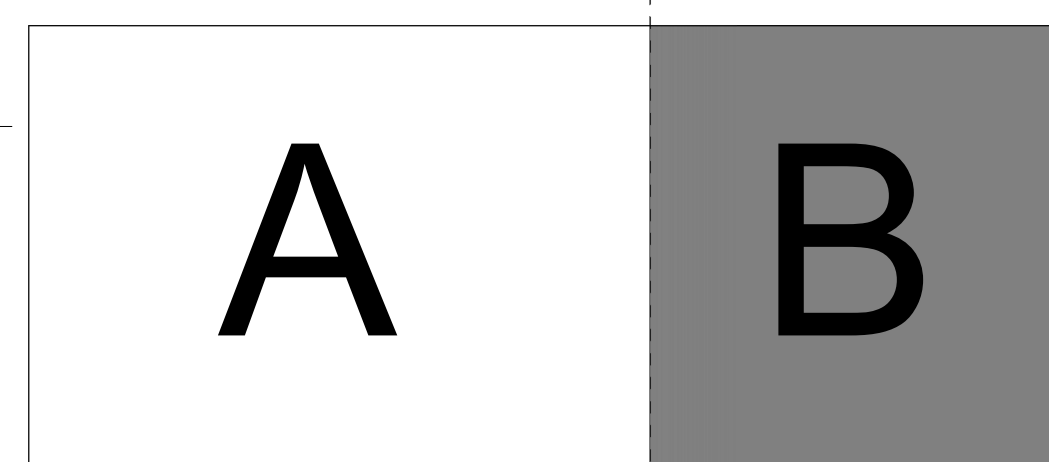
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BA Project No. 21-1

As indicated

FOUNDATION PLAN

S101E



ROOF PLAN NOTES:
1. SEE SHEET S001 FOR GENERAL NOTES AND S002 FOR SCHEDULES.
2. SEE SHEET S400 FOR TYPICAL MASONRY SECTIONS AND DETAILS, INCLUDING TYPICAL WALL REINFORCING.
3. SEE SHEET S500 FOR TYPICAL STEEL SECTIONS AND DETAILS.
4. SEE ARCHITECTURAL DRAWINGS FOR TRUSS BEARING ELEVATIONS AND ROOF SLOPES.
5. COORDINATE FINAL SIZE AND LOCATION OF OPENINGS, EQUIPMENT AND ROOF DRAINS WITH MECHANICAL AND PLUMBING CONTRACTORS.
6. DESIGN JOISTS FOR A NET UPLIFT OF 15 PSF.
7. ALL HEADERS AND BEAMS TO BE DROPPED UNO.

- STEEL CONNECTION SYMBOLS:
- MOMENT
 - CANTILEVER MOMENT
 - END PLATE
 - SHEAR SPLICE
 - SLIP CRITICAL

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for

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Sanitation Authority

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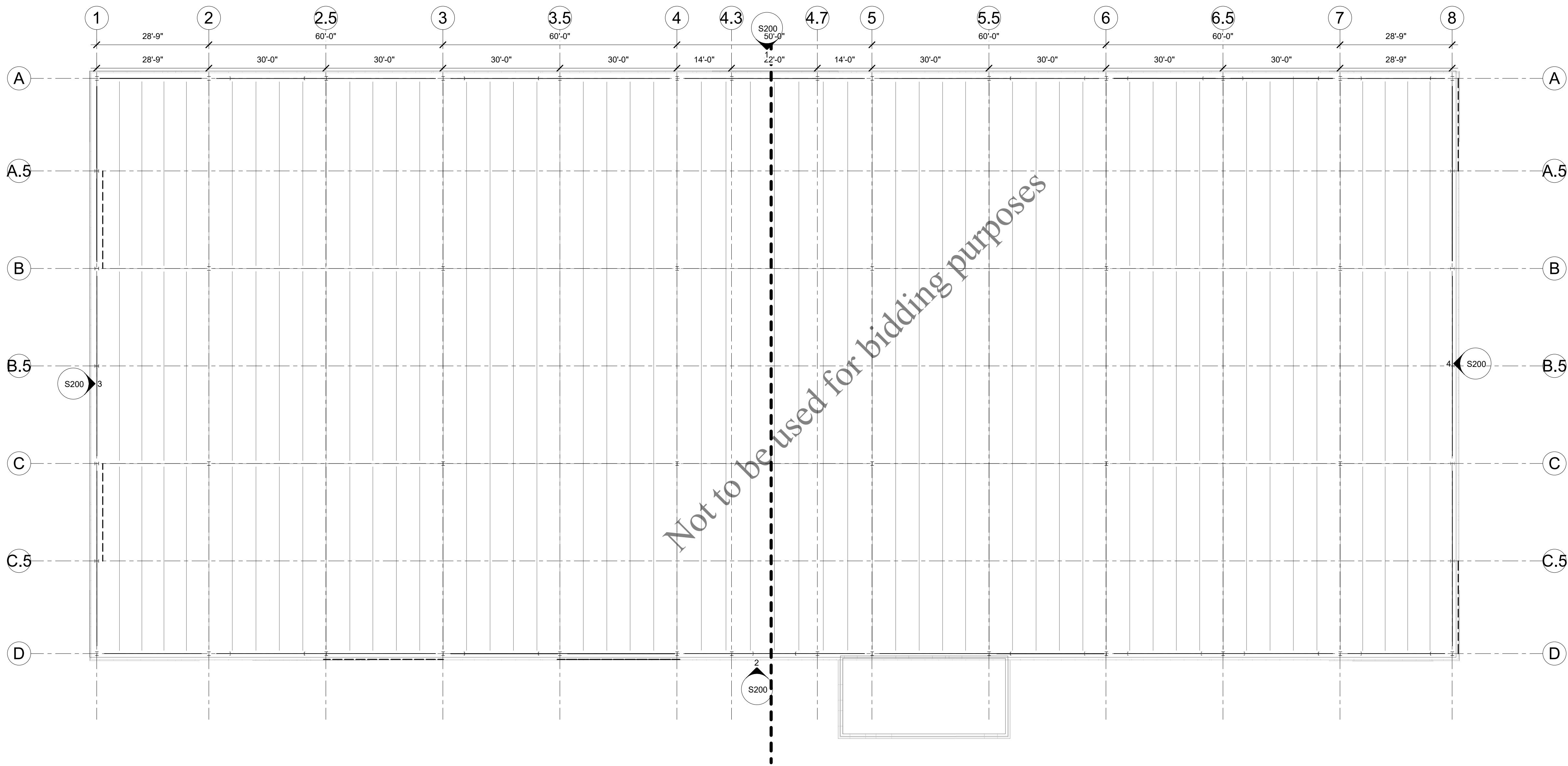
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ROOF FRAMING PLAN -
OVERALL

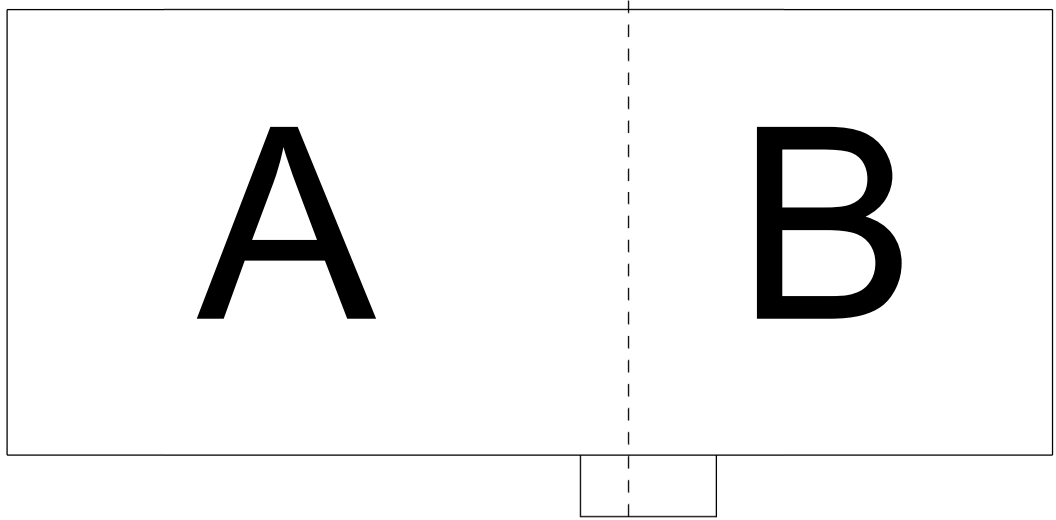
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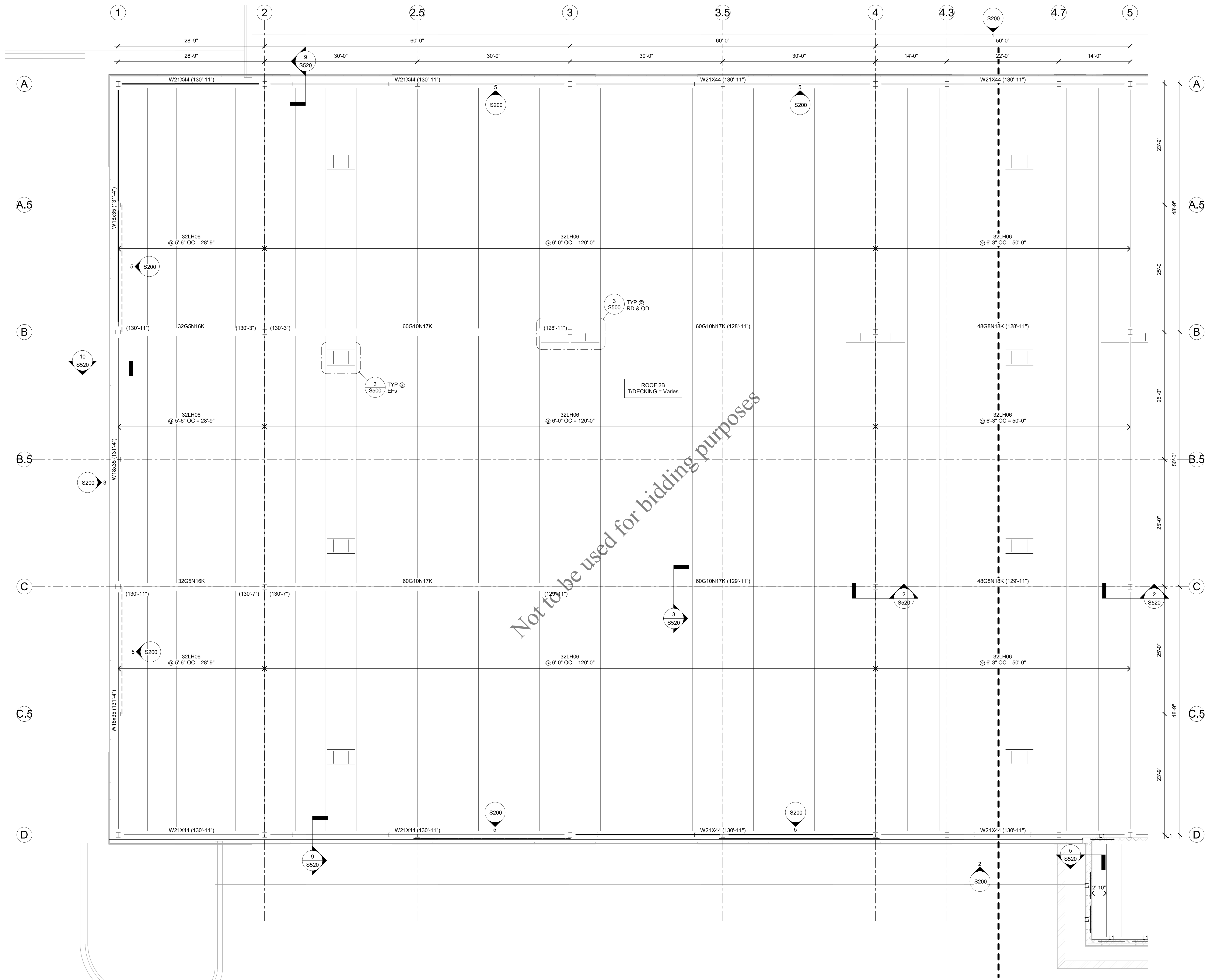
S102

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1 ROOF FRAMING PLAN
S102 SCALE: 1/16" = 1'-0"





ROOF PLAN NOTES:
1. SEE SHEET S001 FOR GENERAL NOTES AND S002 FOR SCHEDULES.
2. SEE SHEET S400 FOR TYPICAL MASONRY SECTIONS AND DETAILS, INCLUDING TYPICAL WALL REINFORCING.
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Sheet Title

**ROOF FRAMING PLAN -
AREA A**

Ref. North **Sheet No.**

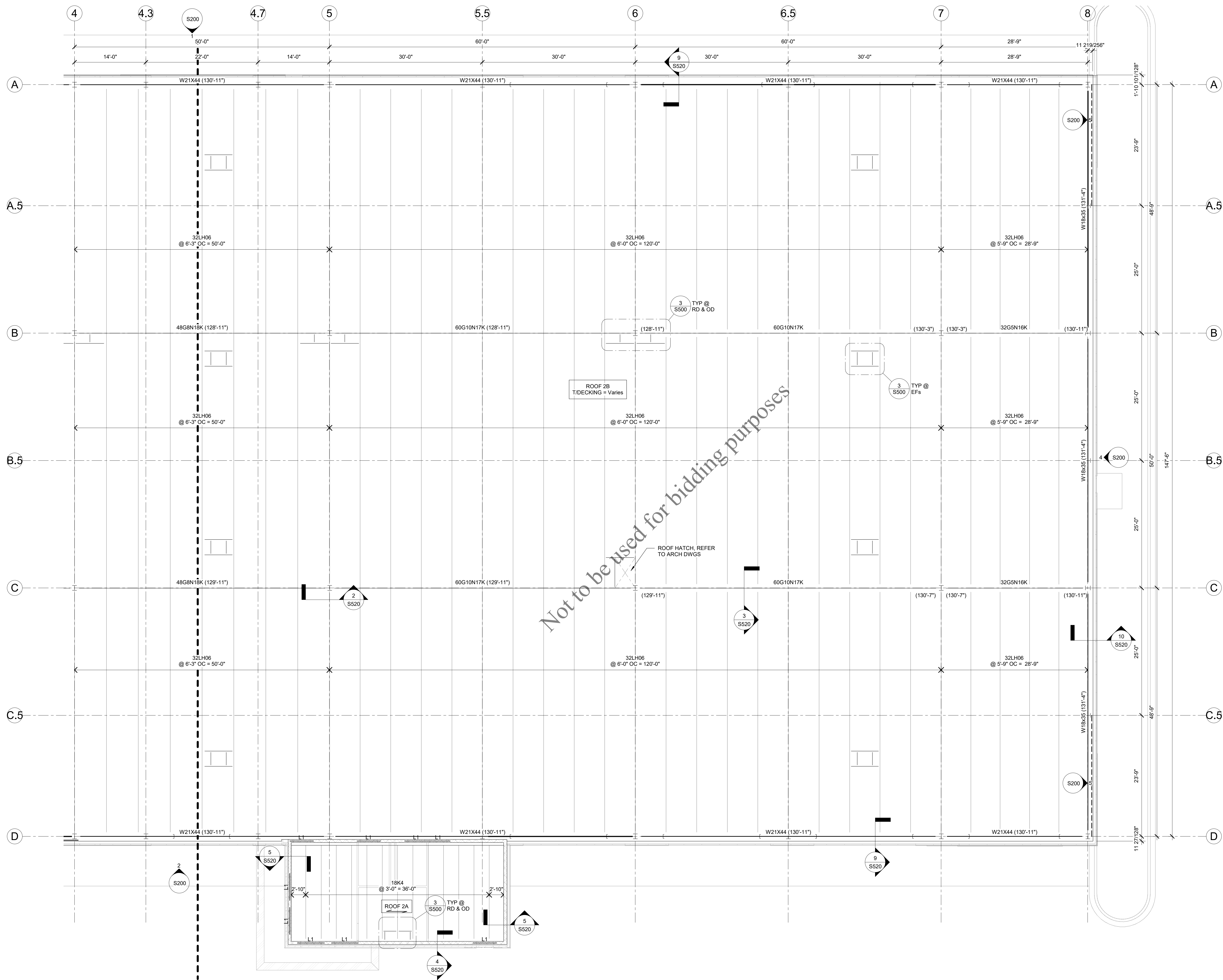
S102A

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184-003342

1
S102A **ROOF FRAMING PLAN - AREA A**
SCALE: 1/8" = 1'-0"

A

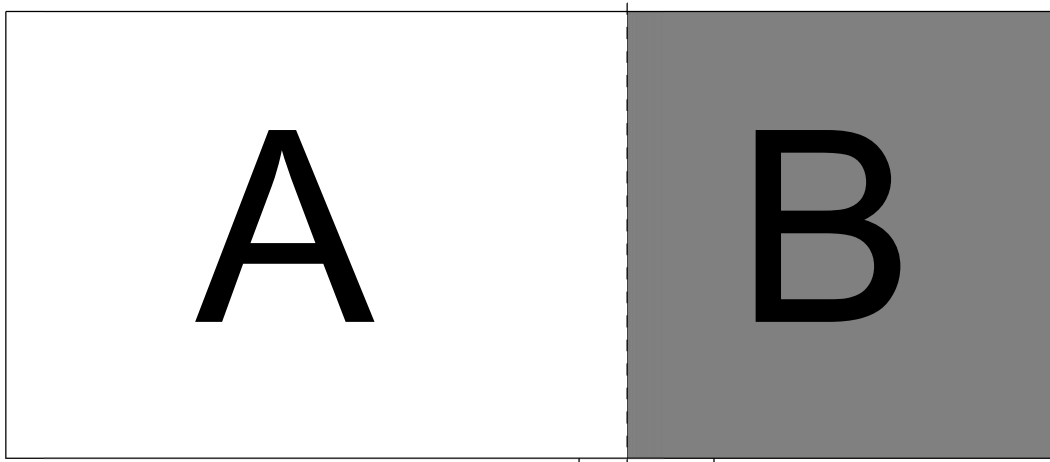
B



1
S102B

ROOF FRAMING PLAN - AREA B

SCALE: 1/8" = 1'-0"



ROOF PLAN NOTES:
1. SEE SHEET S001 FOR GENERAL NOTES AND S002 FOR SCHEDULES.
2. SEE SHEET S400 FOR TYPICAL MASONRY SECTIONS AND DETAILS, INCLUDING TYPICAL WALL REINFORCING.
3. SEE SHEET S500 FOR TYPICAL STEEL SECTIONS AND DETAILS.
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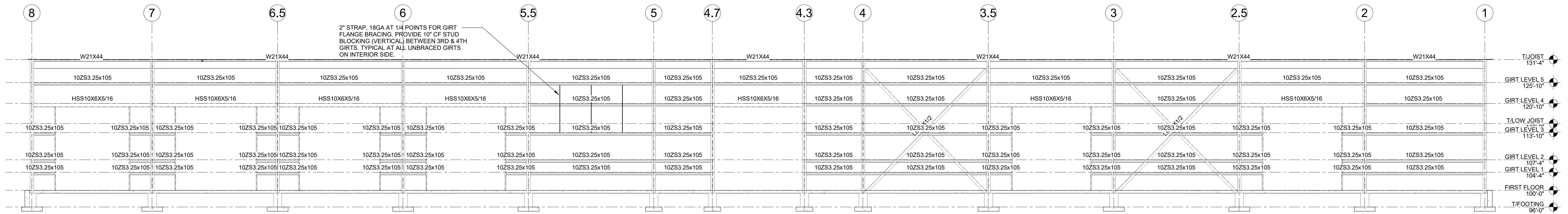
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ROOF FRAMING PLAN - AREA B

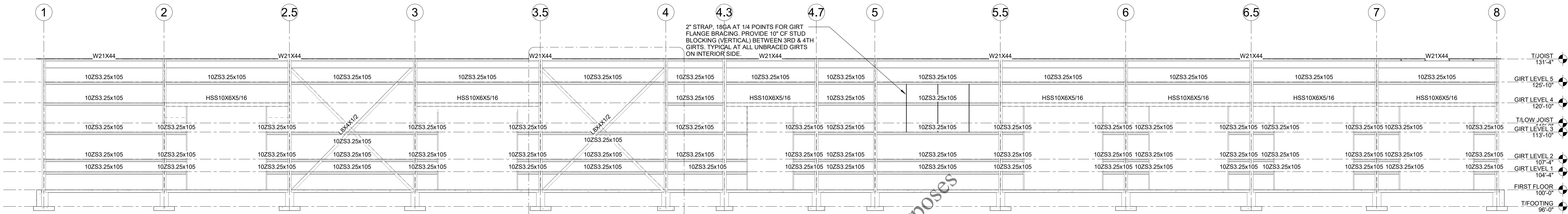
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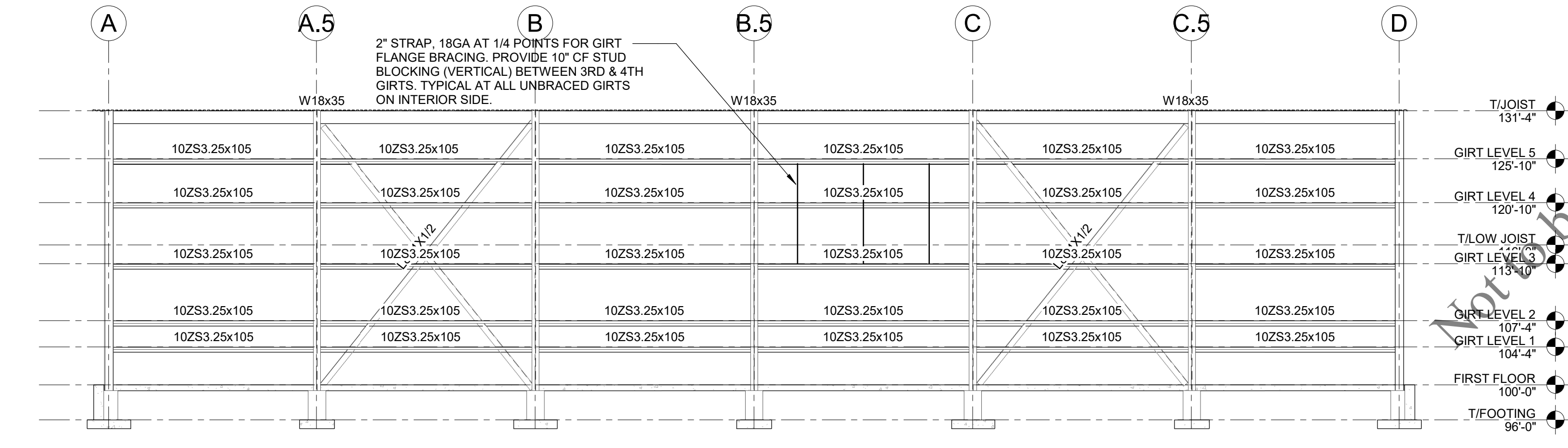
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184-003342



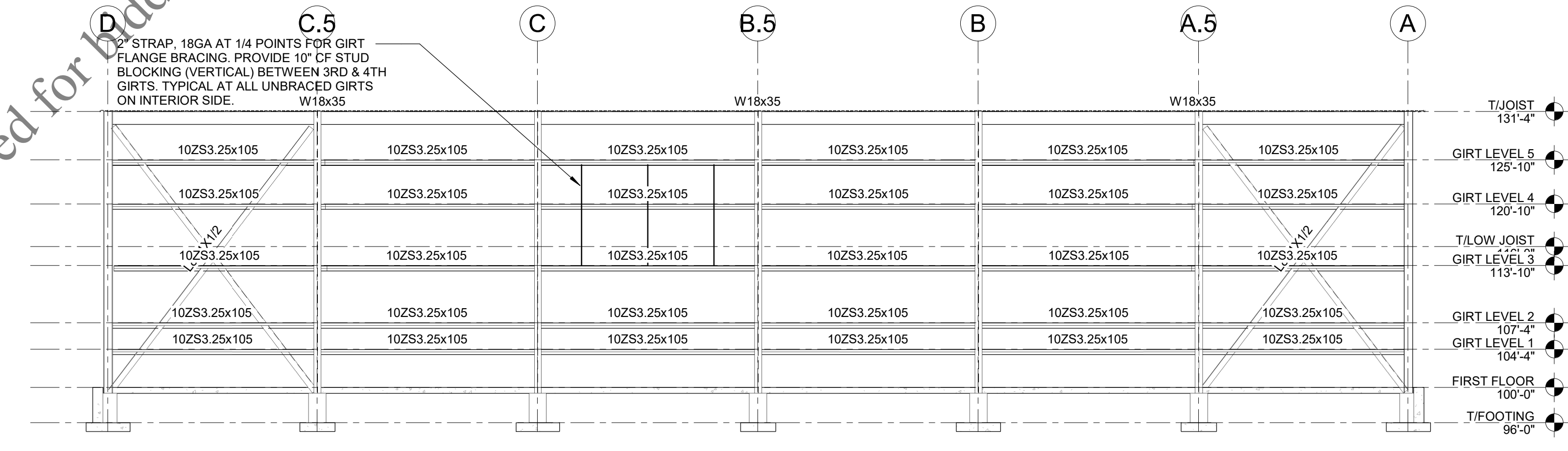
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SCALE: NTS



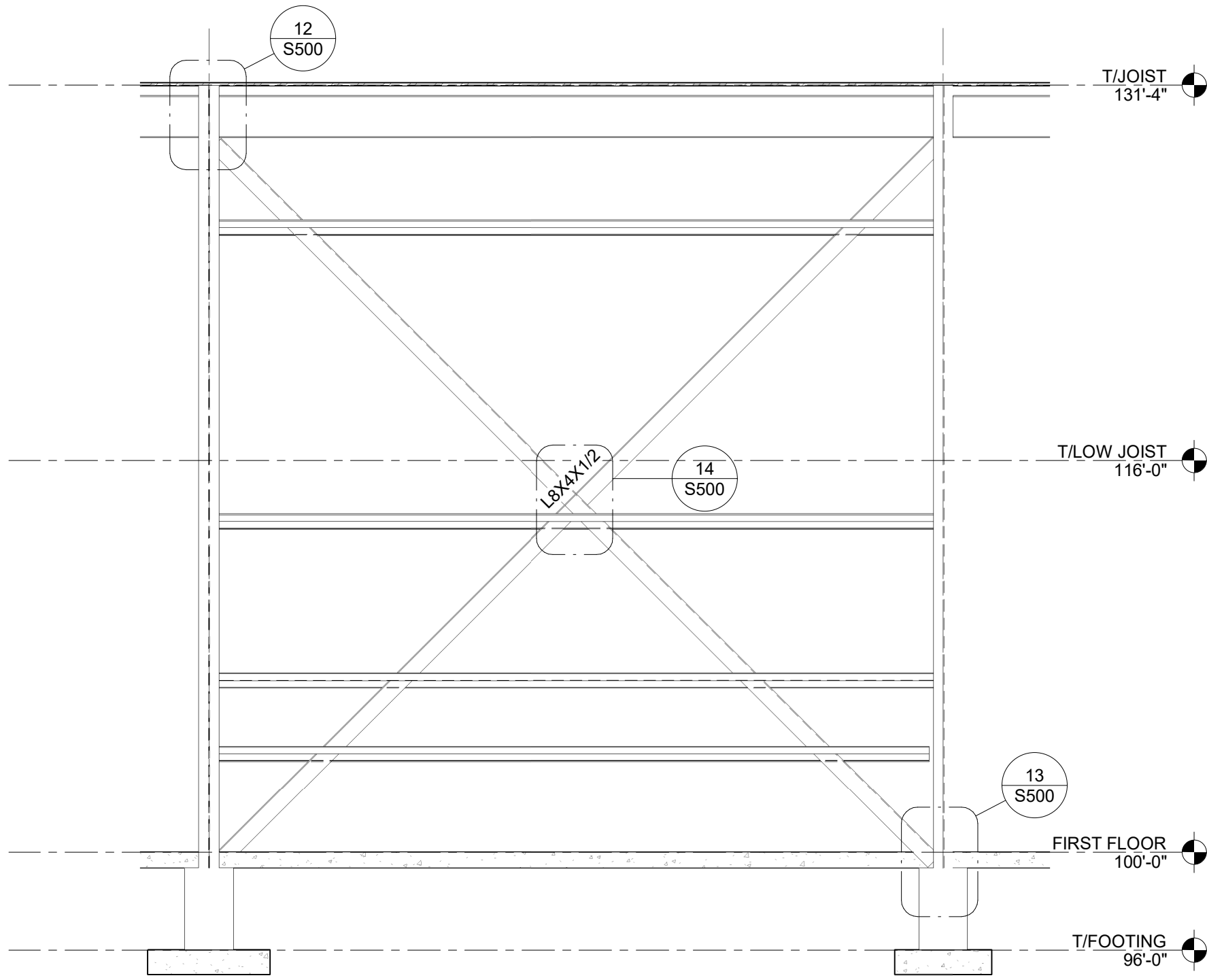
2 SOUTH ELEVATION
SCALE: NTS



3 WEST ELEVATION
SCALE: NTS



4 EAST ELEVATION
SCALE: NTS



5 TYPICAL X-BRACING
SCALE: NTS

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Sheet Title

STEEL ELEVATIONS

Ref. North **Sheet No.**

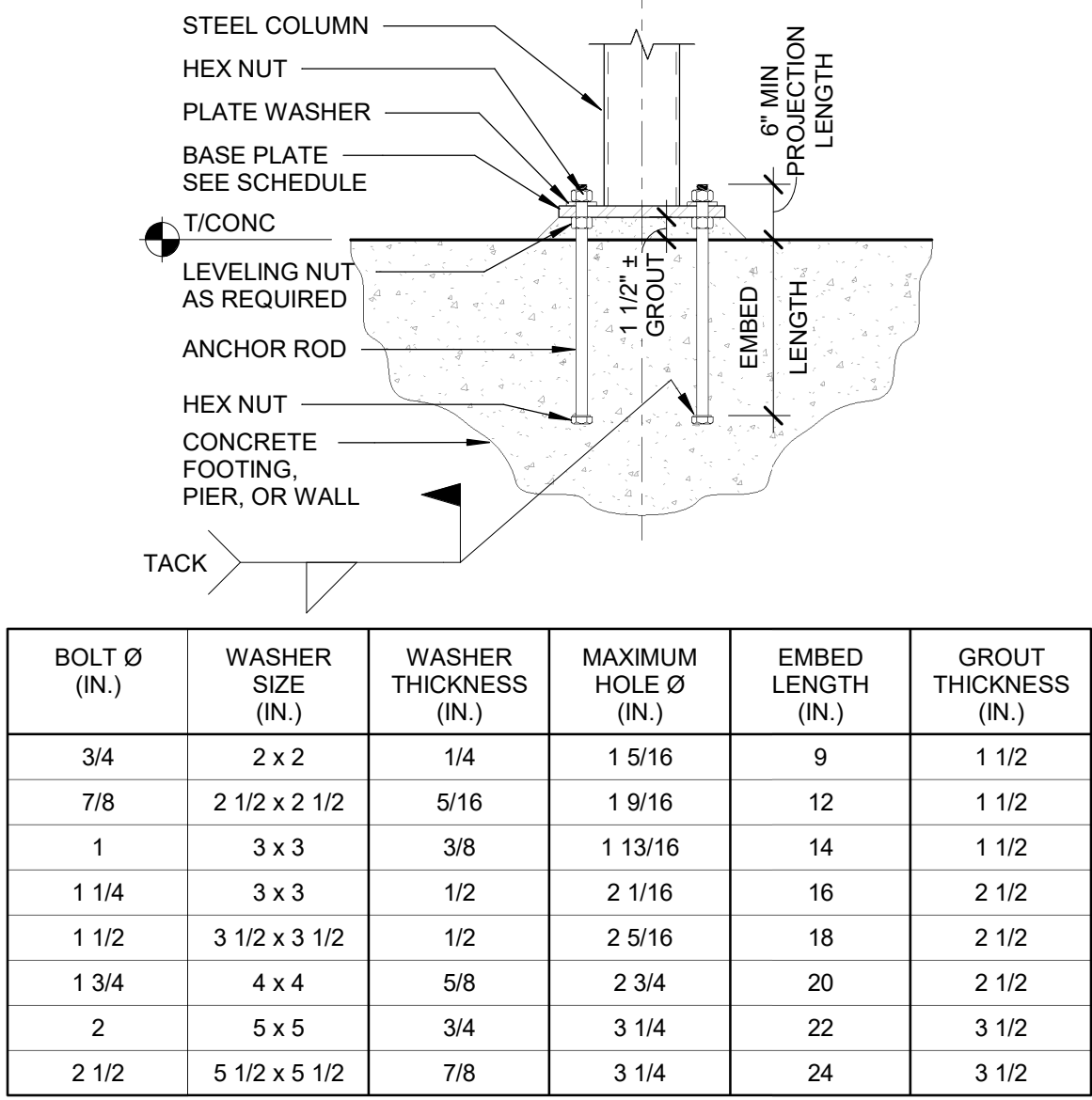
S200

PROFESSIONAL DESIGN FIRM REGISTRATION #
184-003342

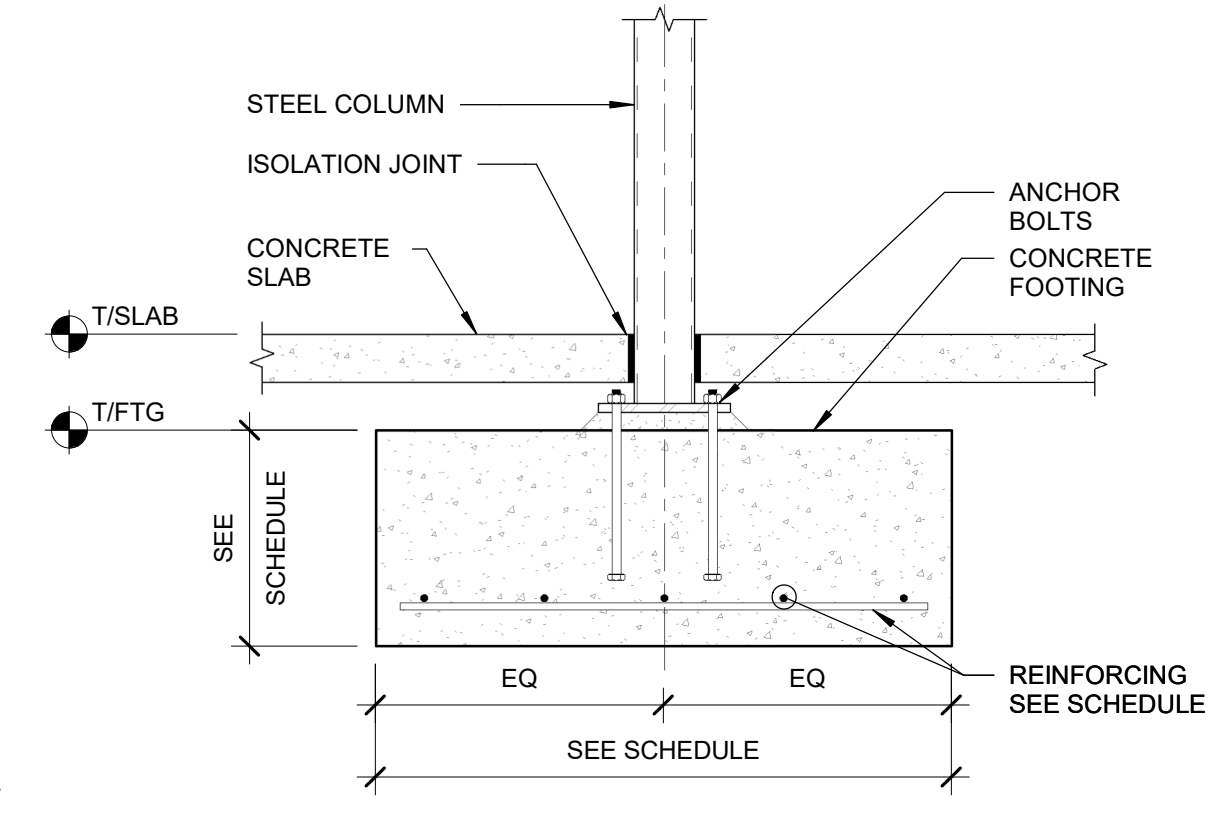
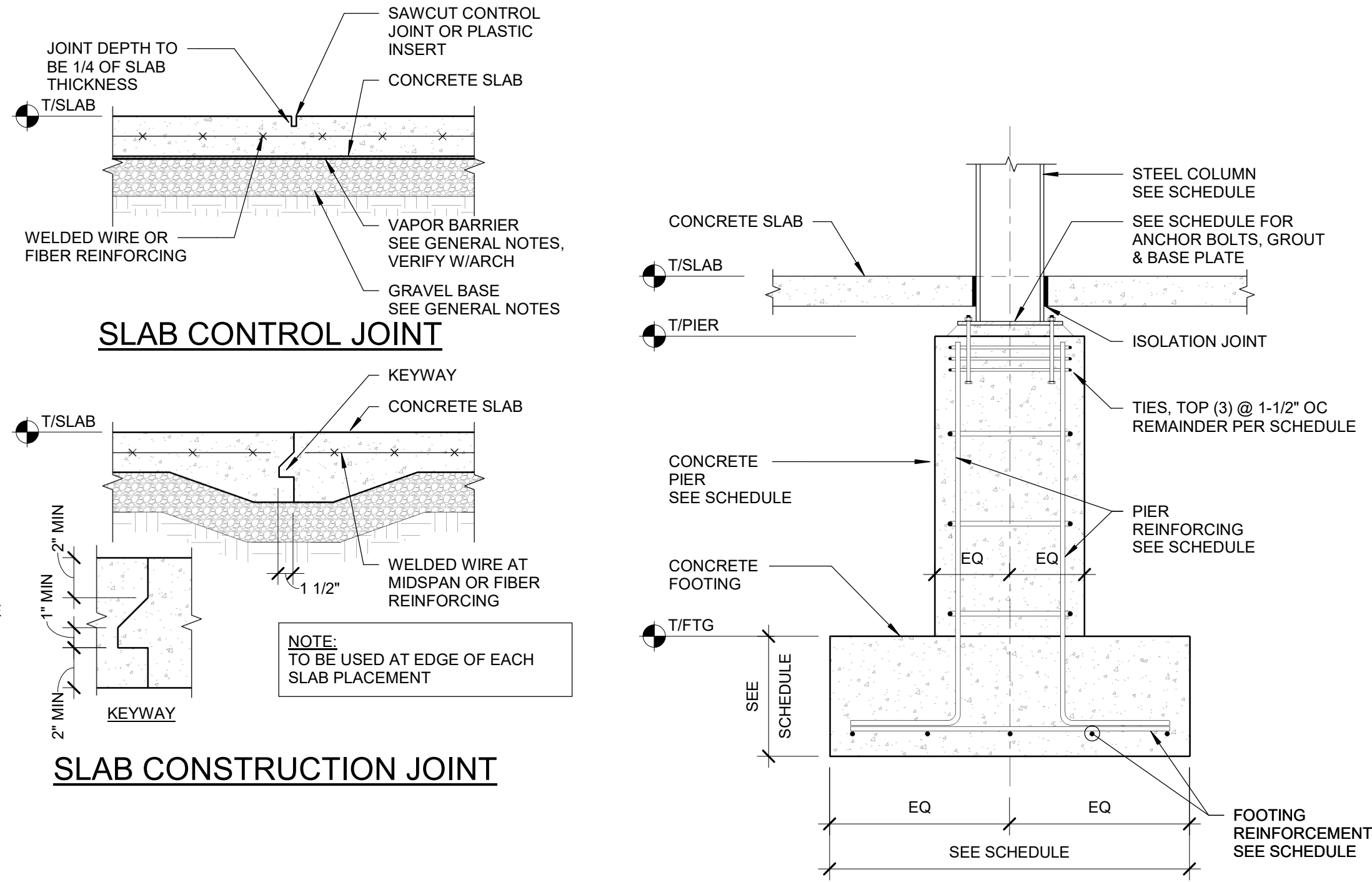
REINFORCING LAP SPlice LENGTH SCHEDULE											
f _c (PSI)	LOCATION	BAR SIZE									
		#3	#4	#6	#7	#8	#9	#10	#11		
3,000	TOP BARS	28	38	47	56	61	93	105	118	131	
	OTHERS	22	29	36	43	63	72	81	91	101	
4,000	TOP BARS	25	33	41	49	71	81	91	102	114	
	OTHERS	19	25	31	37	54	62	70	79	87	

NOTES:

- TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.
- TENSION LAP SPlice LENGTHS ARE CALCULATED PER ACI 318-14. LENGTHS ARE IN INCHES.
- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
- SPlice LENGTHS IN THIS SCHEDULE ARE BASED ON CLEAR COVER AT LEAST 1.0 BAR Ø AND CLEAR SPACING AT LEAST 2.0 BAR Ø.

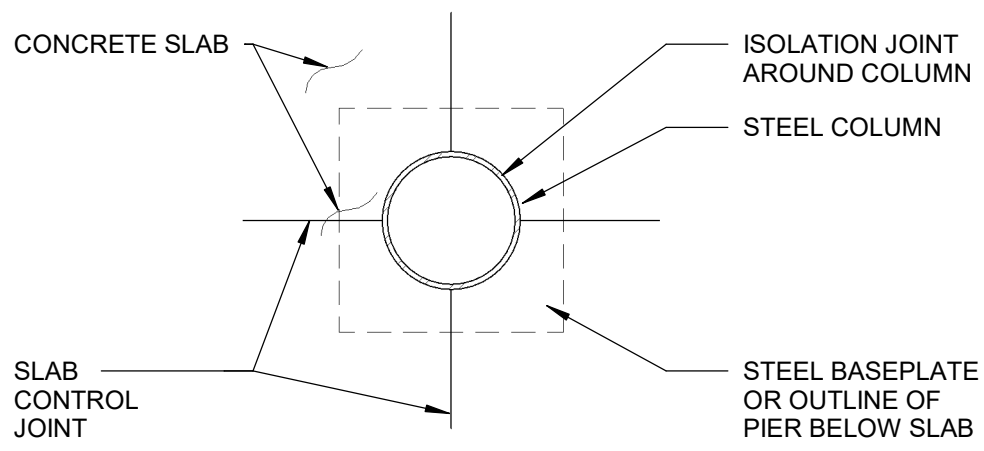


- SECTION 1: SLAB-ON-GRADE NOTES**
- SLAB-ON-GRADE CONSTRUCTION SHOULD CONFORM WITH THE RECOMMENDATIONS AND REQUIREMENTS SET FORTH IN THE LATEST RELEASE OF ACI 302 GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION.
 - REFER TO GEOTECHNICAL REPORT AND/OR ARCHITECTURAL DRAWINGS & SPECIFICATIONS FOR SUB-FLOOR DRAINAGE SYSTEM SUBGRADE PREPARATION, MUD SLAB AND/OR VAPOR RETARDER REQUIREMENTS.
 - THE SURGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.
 - REFER TO PLANS FOR SLAB THICKNESS (T) AND REINFORCEMENT (WWF OR REINFORCEMENT BARS). REFER TO SPECIFICATIONS FOR FIBER REINFORCEMENT TO BE INCORPORATED IN CONCRETE MIX, IF ANY. WHERE PRESENT, REINFORCING BARS SHALL BE CHAIRC BY SOIL SUPPORTED SLAB BOLSTERS.
 - PROVIDE (2) #5 x 6'-0" AT ALL RE-ENTRANT CORNERS AND OTHER SIMILAR SLAB DISCONTINUITIES.
 - UNLESS SHOWN OTHERWISE ON THE DRAWINGS, PROVIDE CONTROL AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN LINE AND IN BETWEEN THE COLUMNS SUCH THAT THE JOINT SPACING DOES NOT EXCEED 36 x (T) UND. THE RESULTING PANELS SHOULD BE APPROXIMATELY SQUARE.
- SECTION 2: CONSTRUCTION JOINT NOTES**
- BREAK THE BOND BETWEEN NEW AND PREVIOUSLY PLACES SLABS BY SPRAYING OR BY PAINTING THE EXPOSED SIDE OF THE JOINT WITH A CURING COMPOUND, ASPHALTIC EMULSION, OR FORM OIL.
- SECTION 3: CONTROL JOINT NOTES**
- FOR SAW-CUT CONTROL JOINTS, MAKE THE SAW-CUT AS SOON AS THE SLAB IS ABLE TO SUPPORT THE WEIGHT OF WORKERS AND SAVING EQUIPMENT WITHOUT DAMAGE TO THE FINISHED SURFACE OF THE SLAB, BUT WITHIN 24 HOURS.
 - DEPTH OF SAW-CUT SHOULD BE 1 1/4" IF PRODUCED USING THE EARLY ENTRY DRY-CUT PROCESS AND 7/4" (1" MIN) IF PRODUCED USING THE CONVENTIONAL WET-CUT PROCESS.
 - REFER TO SPECIFICATIONS REGARDING EPOXY RESIN OR ELASTOMERIC SEALANT REQUIREMENTS FILL CONTROL JOINTS.
- SECTION 4: FORMED CONTROL JOINT OPTION NOTES**
- FORM CONTROL JOINTS BY INSERTING A PRE-MODED STRIP INTO THE FRESH CONCRETE UNTIL THE TOP SURFACE OF THE STRIP IS FLUSH WITH THE TOP SURFACE OF THE SLAB.
 - TOOL THE SLAB EDGES ROUND ON EACH SIDE OF THE INSERT, 1/8" MAX RADIUS.
 - AFTER THE CONCRETE HAS CURED, REMOVE THE INSERTS AND CLEAN THE GROOVE OF LOOSE DEBRIS.

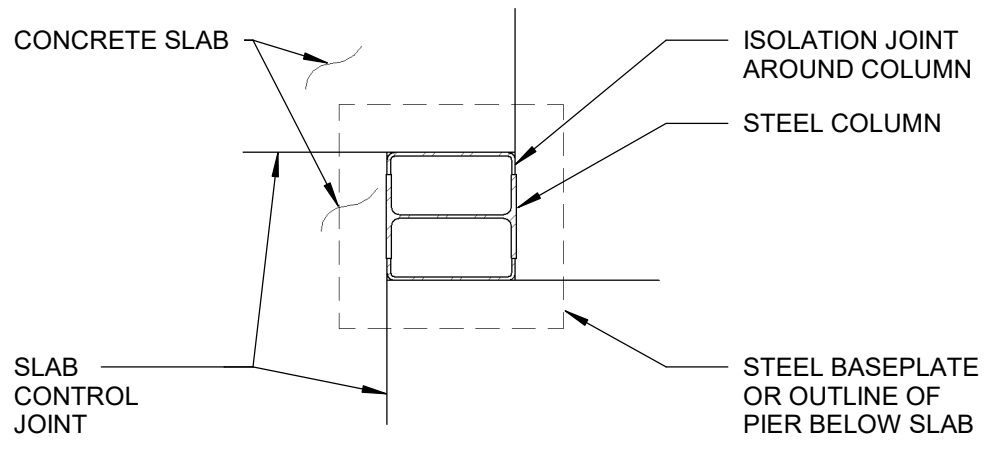


TYPICAL CONCRETE REINFORCING LAP LENGTHS

1 S300 SCALE: NTS

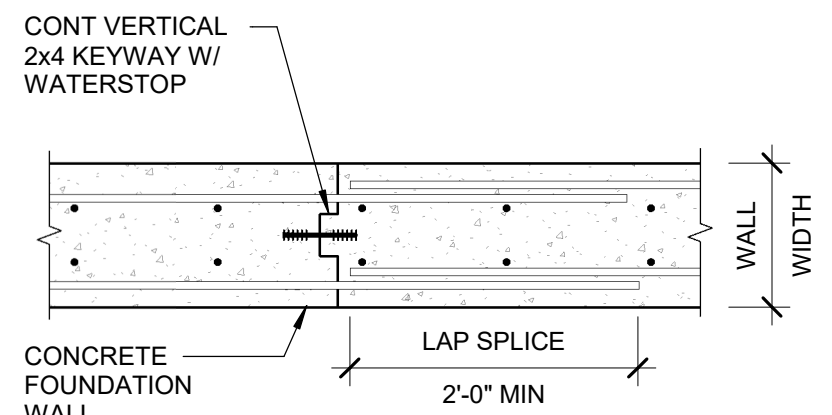


TYPICAL SQUARE COLUMN JOINTS



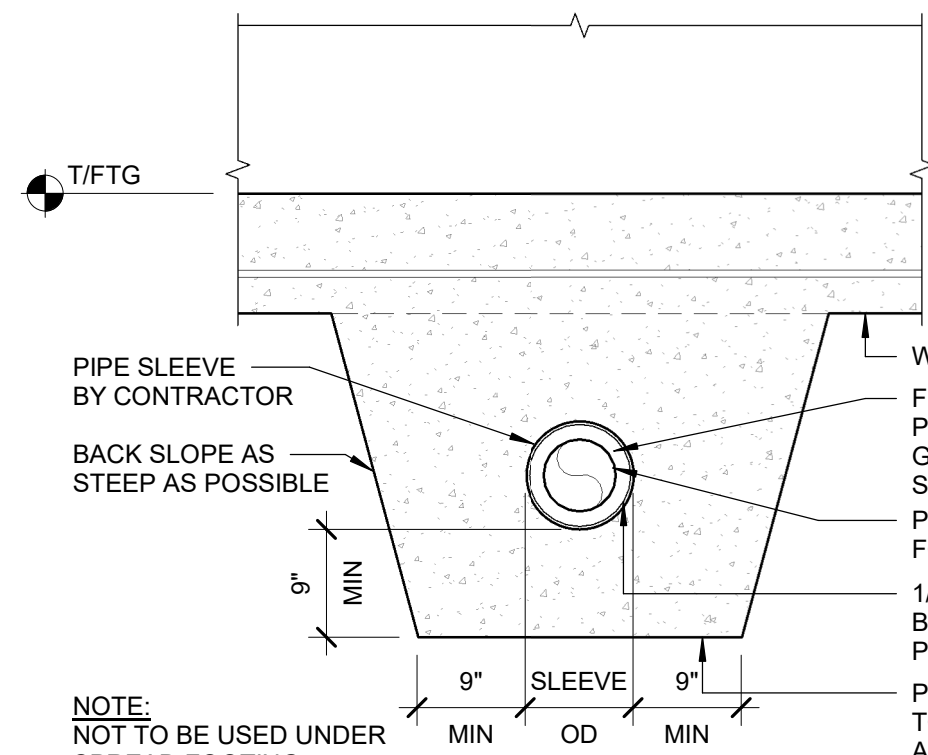
TYPICAL WALL CONSTRUCTION JOINT

2 S300 SCALE: NTS



TYPICAL WALL REINFORCING

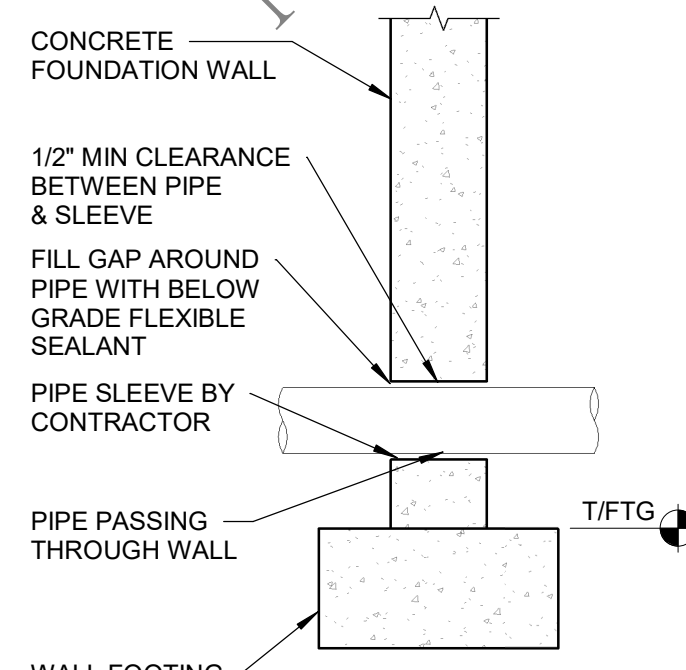
7 S300 SCALE: NTS



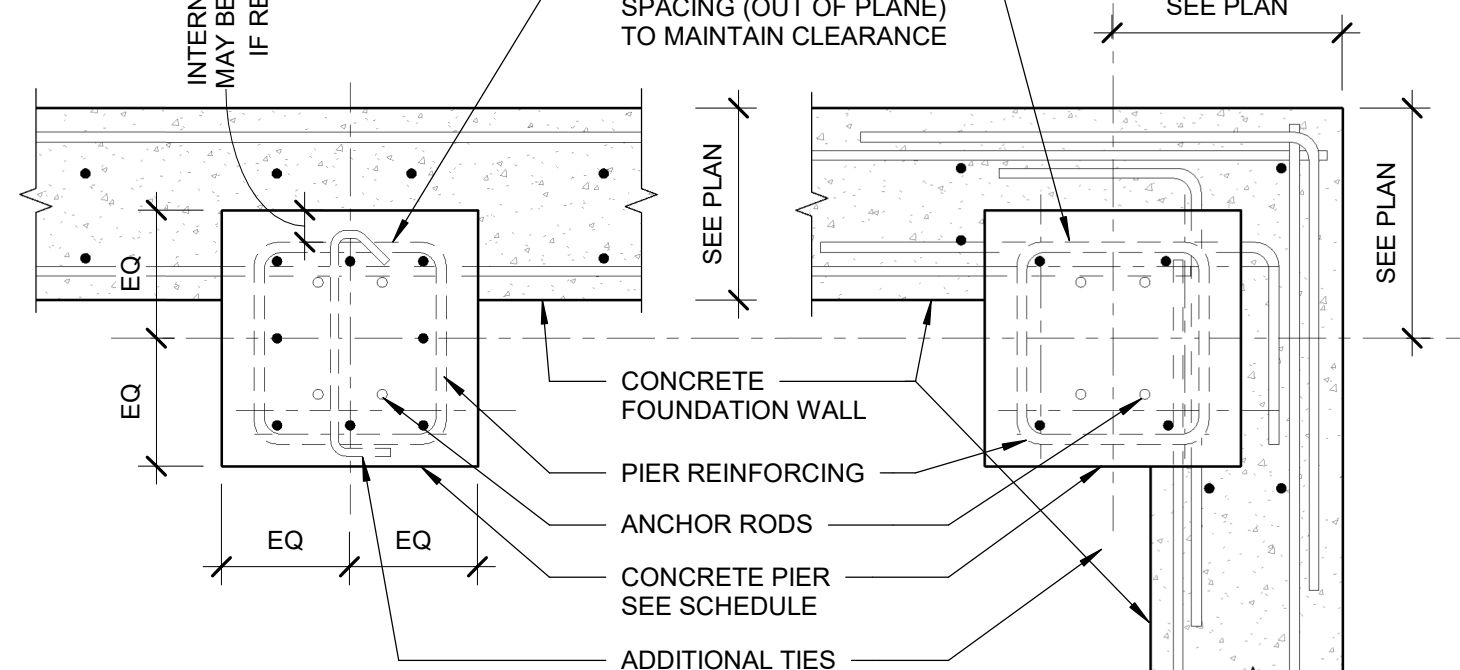
UNDER WALL FOOTING

THROUGH WALL

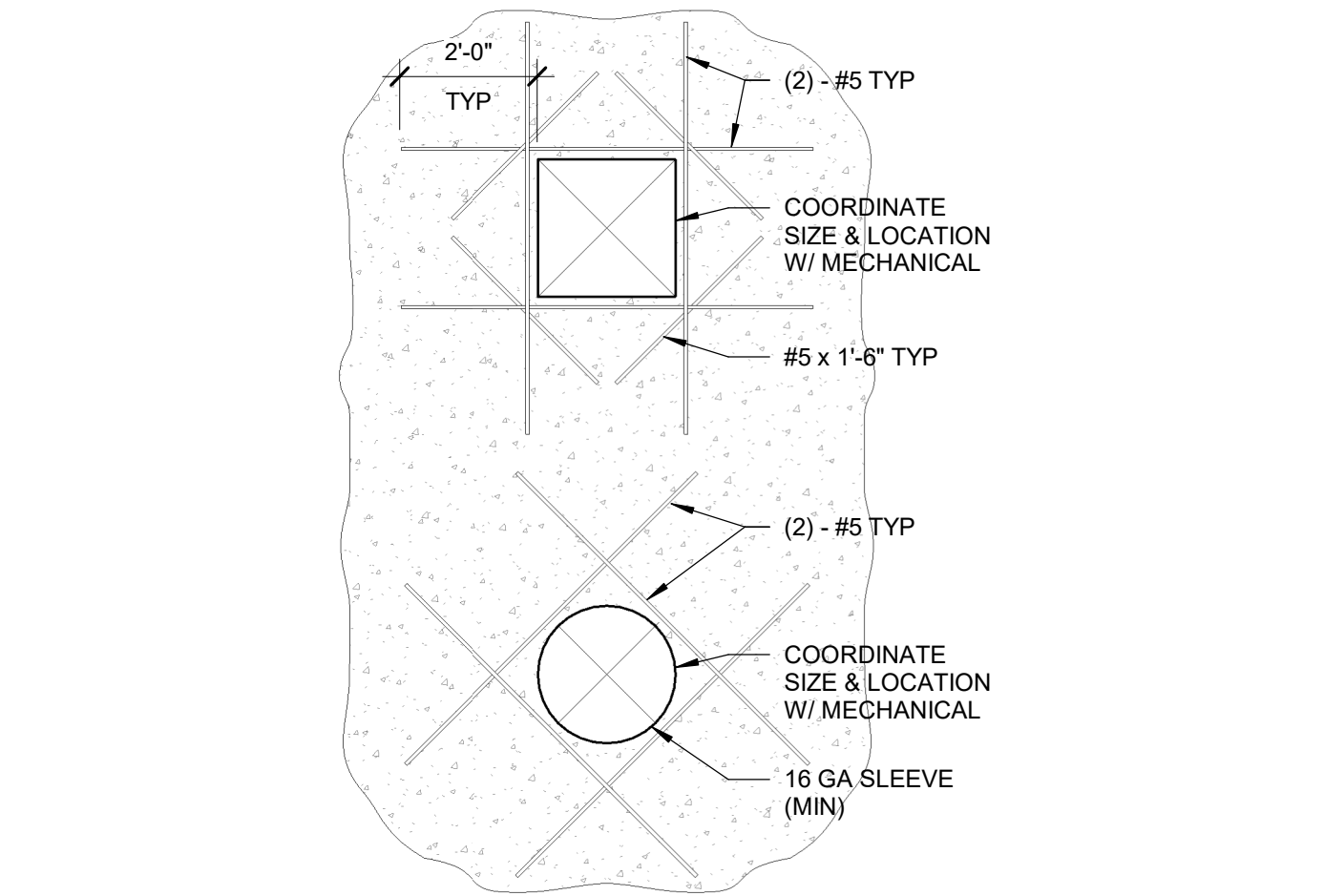
8 S300 SCALE: NTS



9 S300 SCALE: NTS



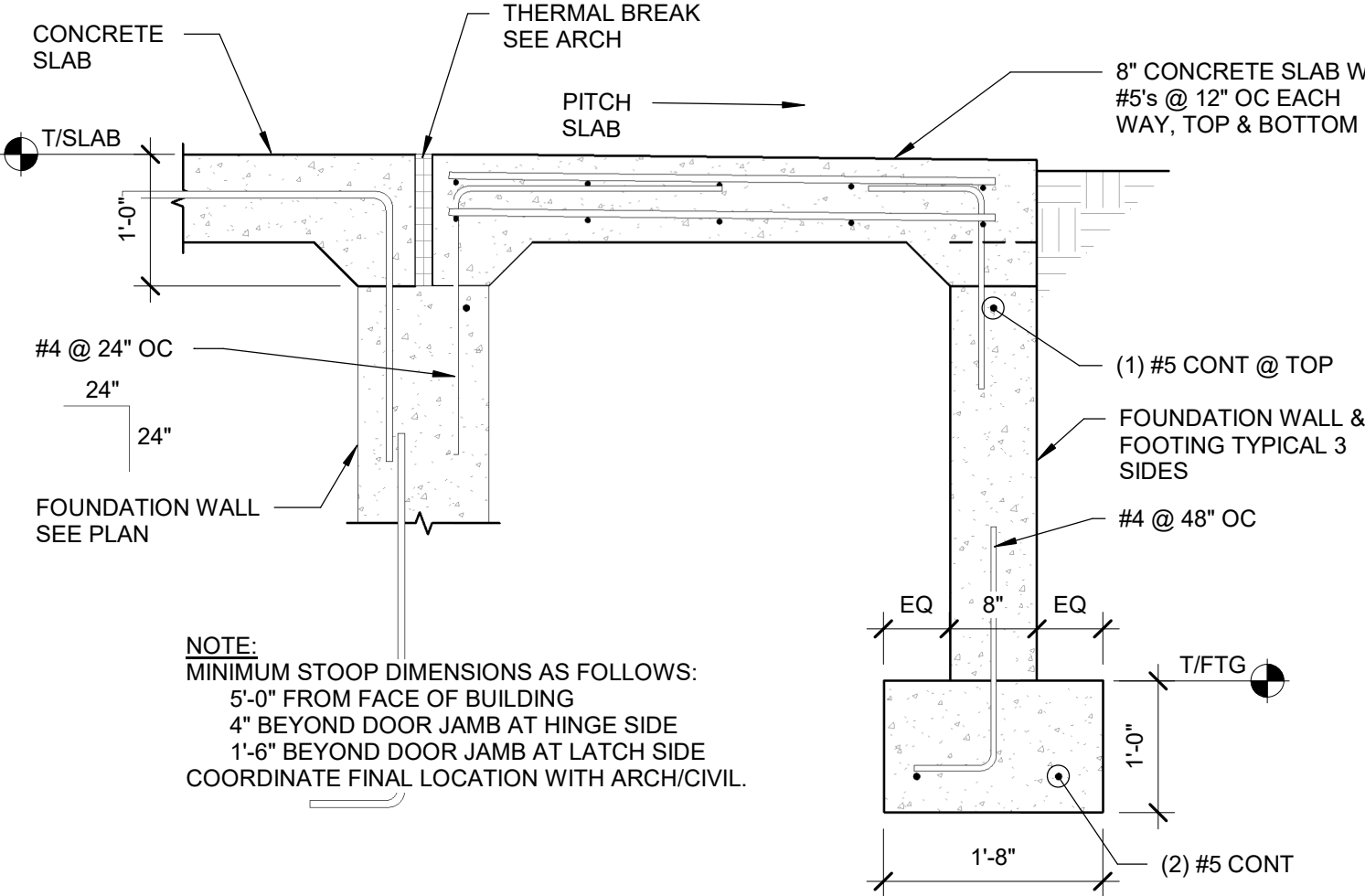
10 S300 SCALE: NTS



- NOTES:**
- APPLIES TO 24" (MAX) OPENINGS THROUGH FOUNDATION WALL.
 - TOP OF OPENING TO BE 24" (MIN) FROM TOP OF WALL.
 - REINFORCING LAYERS TO MATCH FOUNDATION WALL.
 - USE 90° STANDARD HOOK AT CORNERS AND ENDS OF WALL.

TYPICAL CONCRETE WALL PENETRATION

14 S300 SCALE: NTS

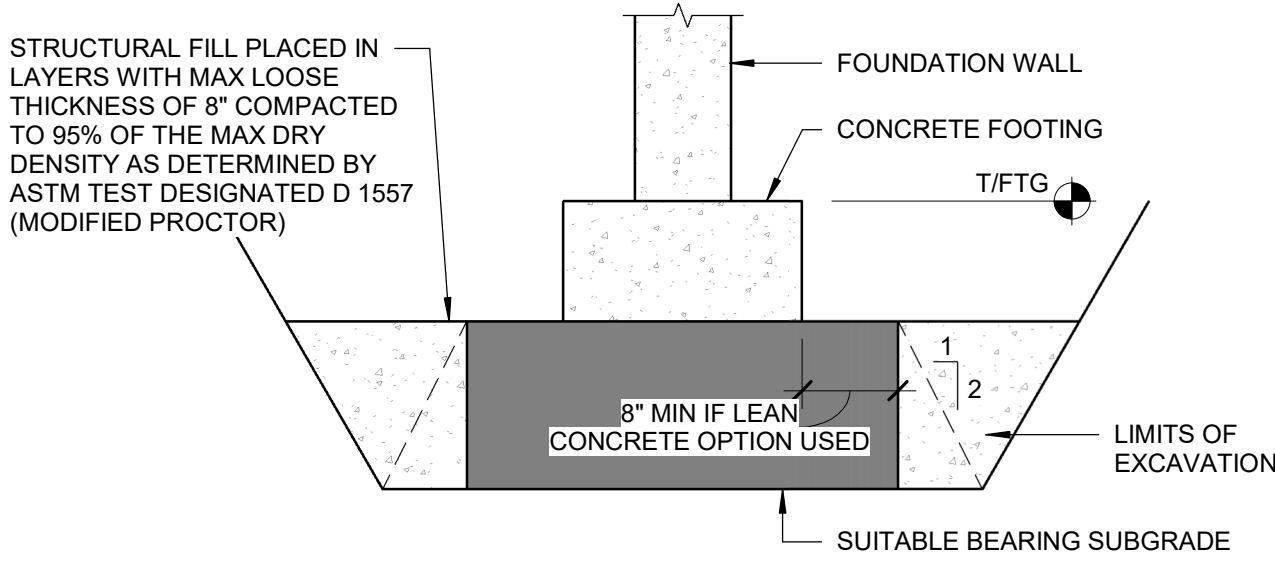


- NOTE:** MINIMUM STOOP DIMENSIONS AS FOLLOWS:
5'-0" FROM FACE OF BUILDING
4" BEYOND DOOR JAMB AT HINGE SIDE
1'-6" BEYOND DOOR JAMB AT LATCH SIDE
COORDINATE FINAL LOCATION WITH ARCH/CIVIL.

18 S300 SCALE: NTS

STOOP SECTION NEAR OVERHEAD DOORS

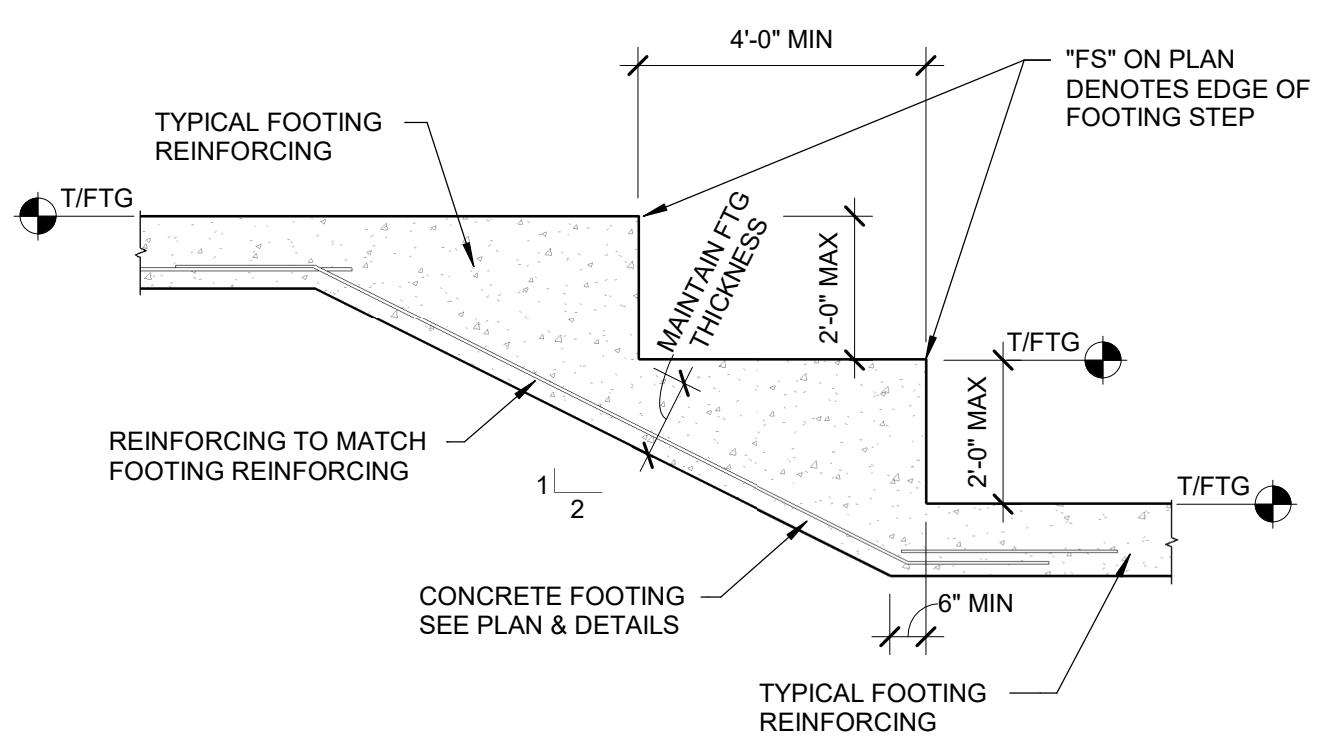
6 S300 SCALE: NTS



- NOTES:**
- CONTRACTOR'S OPTION: ELIMINATE STRUCTURAL FILL BY LOWERING DESIGNED FOOTING ELEVATION SO THAT FOOTING RESTS DIRECTLY ON SUITABLE BEARING SUBGRADE. PROVIDE LEAN CONCRETE (f_c = 500 PSI MIN) UNDER THE FOOTING AS SHOWN HATCHED ABOVE, OR INCREASE FOOTING THICKNESS TO REACH SUITABLE BEARING SUBGRADE.
 - THIS DETAIL APPLIES ONLY AT THOSE LOCATIONS WHERE GEOTECH ENGINEER DEEMS SOILS AT DESIGNED FOOTING ELEVATIONS ARE INADEQUATE FOR FOOTING SUPPORT. WHERE THIS WORK IS REQUIRED, CONTRACTOR WILL BE COMPENSATED ON A PRE-ESTABLISHED UNIT COST AGREED UPON BY THE CONTRACTOR, ARCHITECT/ENGINEER, AND OWNER.

TYPICAL OVER EXCAVATION DETAIL

11 S300 SCALE: NTS

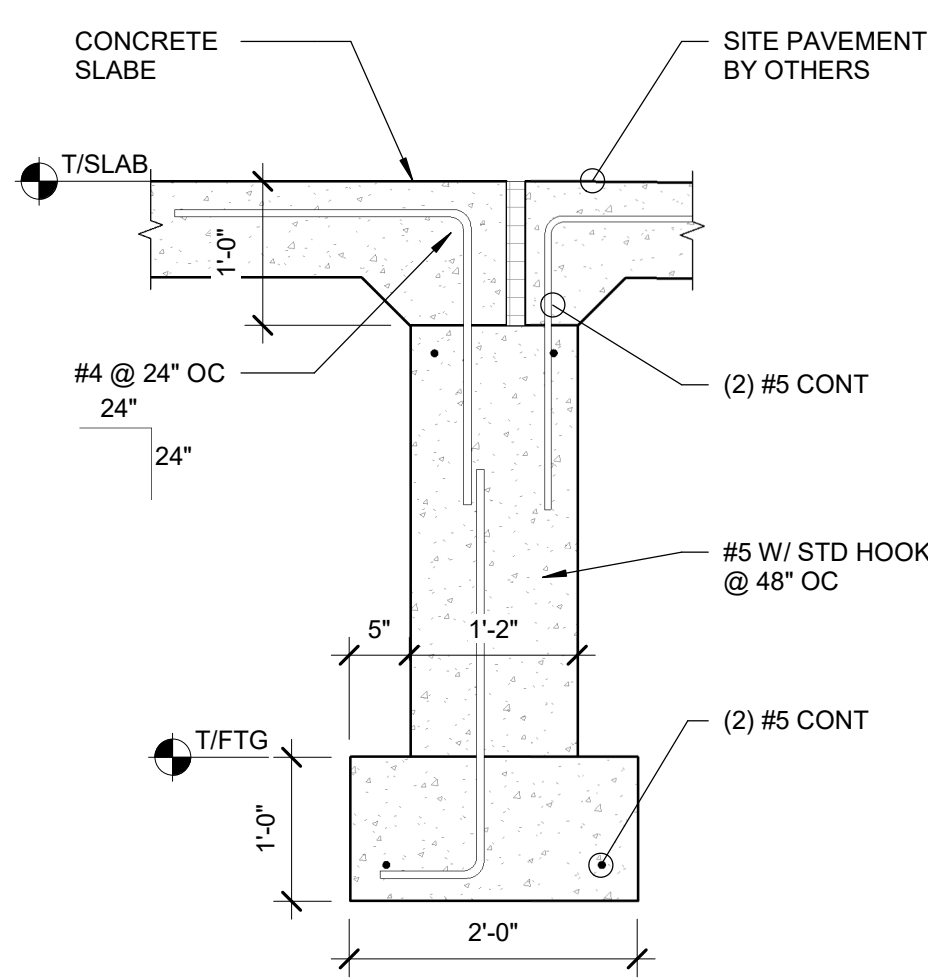


15 S300 SCALE: NTS

TYPICAL FOOTING STEP (FS)

TYPICAL PIPE CROSSING FOUNDATION WALL

12 S300 SCALE: NTS

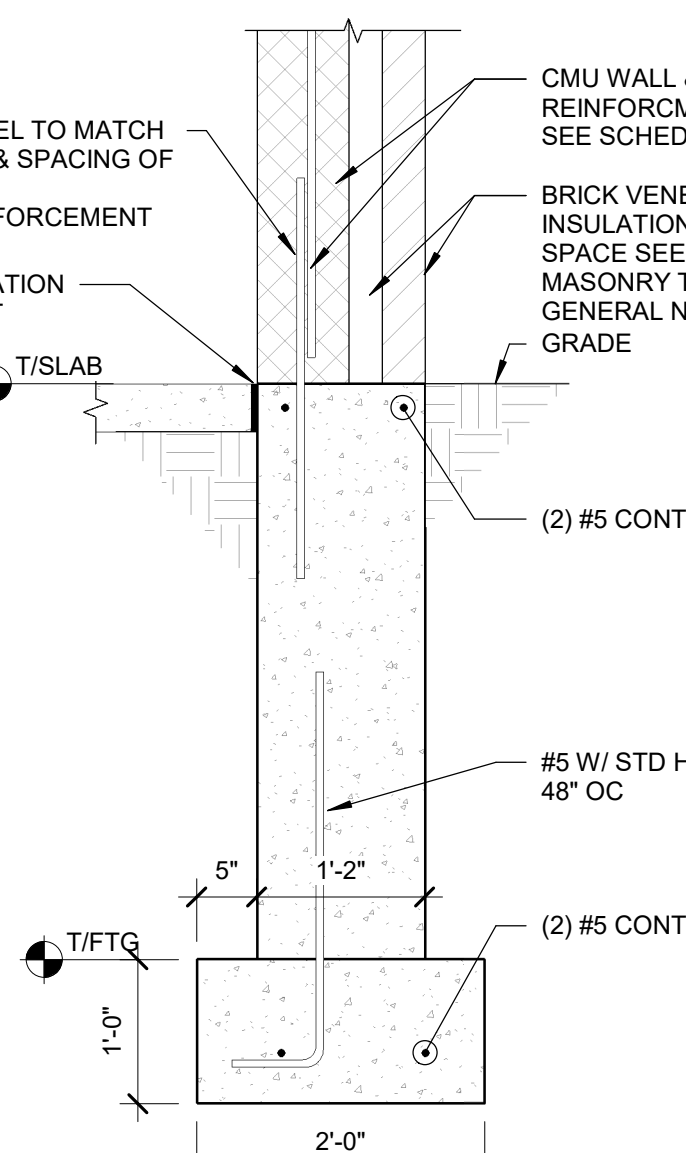


16 S300 SCALE: NTS

SECTION

17 S300 SCALE: NTS

SECTION



TYPICAL PIER AT WALL AND CORNER

13 S300 SCALE: NTS

New Collection Systems Operations Facility Structural Steel Package

for
Four Rivers Sanitation Authority

Rockford, Illinois

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BA Project No. 21-13

Scale As indicated

Sheet Title

CONCRETE SECTIONS & DETAILS

Ref. North

Sheet No.

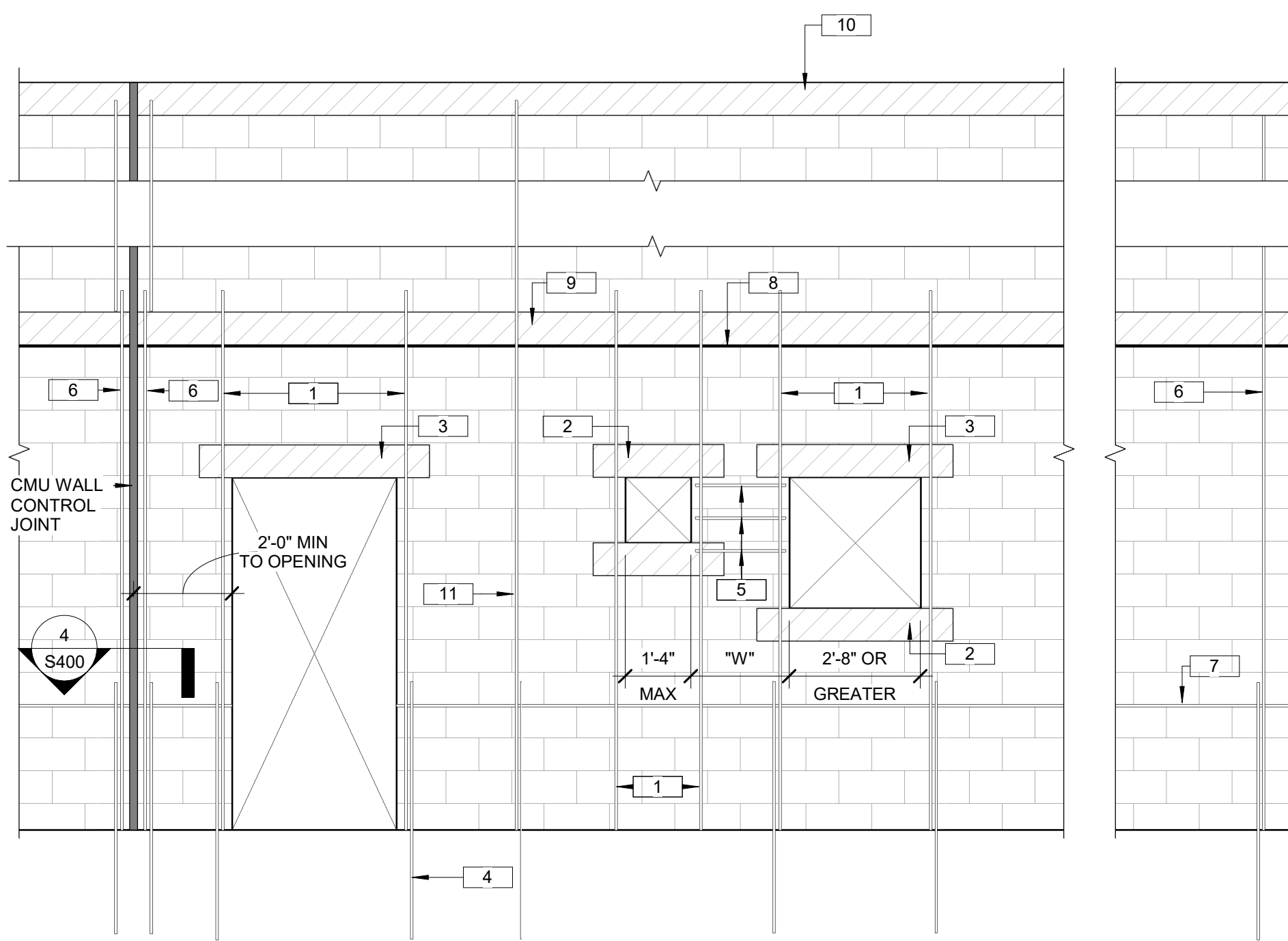
S300

PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342

MASONRY BAR LAP LENGTHS (Ld) F'm = 2,000 psi					
BAR SIZE	8" & 10" BLOCK CLEAR COVER ≥ 1 3/4"	12" BLOCK CLEAR COVER ≥ 2"	CENTERED IN 8" BLOCK	CENTERED IN 10" BLOCK	CENTERED IN 12" BLOCK
#3	15"	13"	8"	8"	8"
#4	25"	22"	13"	10"	10"
#5	39"	35"	20"	16"	13"
#6	MECH SP	MECH SP	MECH SP	38"	29"
#7	MECH SP	MECH SP	MECH SP	40"	33"
#8	MECH SP	MECH SP	MECH SP	MECH SP	MECH SP
#9	NA	MECH SP	NA	MECH SP	MECH SP
#10	NA	MECH SP	NA	MECH SP	MECH SP
#11	NA	MECH SP	NA	NA	MECH SP

TYPICAL MASONRY REINFORCING LAP LENGTHS

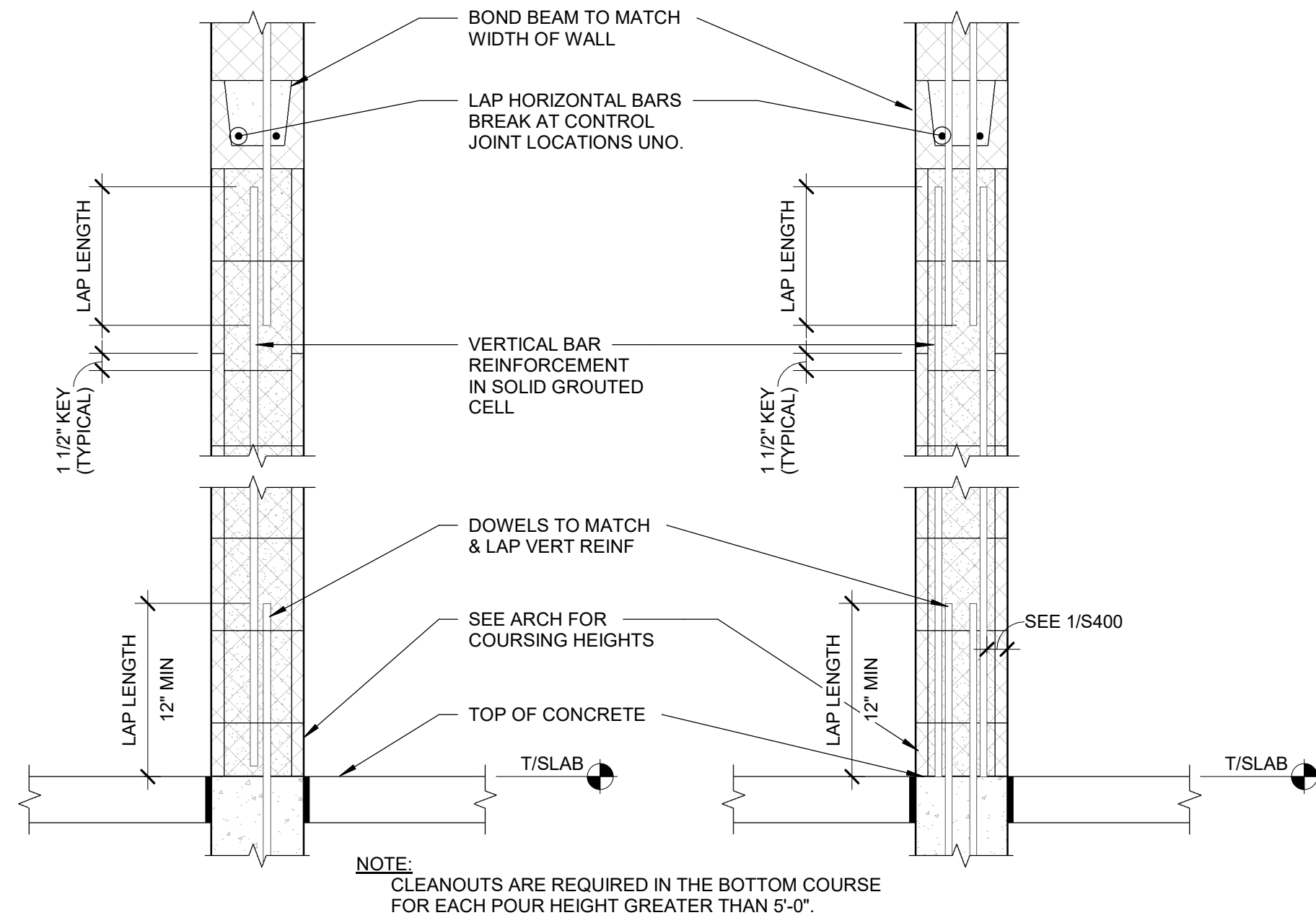
SCALE: NTS



TYP CMU WALL REINFORCEMENT

SCALE: NTS

- NOTES:
- JAMB REINFORCEMENT PER LINTEL SCHEDULE OR LINTEL DETAILS. MIN (1) #5 EA JAMB.
 - 8" BOND BEAM W/ (1) #5 CONT.
 - LINTEL. SEE SCHEDULE.
 - DOWELS TO MATCH & LAP VERTICAL REINFORCEMENT.
 - WHEN "W" IS LESS THAN 2'-0" AT 8" CMU WALL AND 3'-0" AT 12" CMU WALL, ADD 1/4" CLOSED TIE SETS AT 8" OC. REINFORCE VERT CELLS AT END OF WALL AND ADJACENT TO CONTROL JOINTS.
 - HORIZ. JOINT REINFORCEMENT. SEE GENERAL NOTES.
 - ROOF OR FLOOR LINE BEYOND. 8" BOND BEAM W/ (2) #4 CONT AT ROOF OR FLOOR LINE. UNO.
 - 8" BOND BEAM W/ (2) #4 CONT AT TOP OF WALL. UNO.
 - #5 @ 48" OC TYPICAL WALL REINFORCING. UNO.

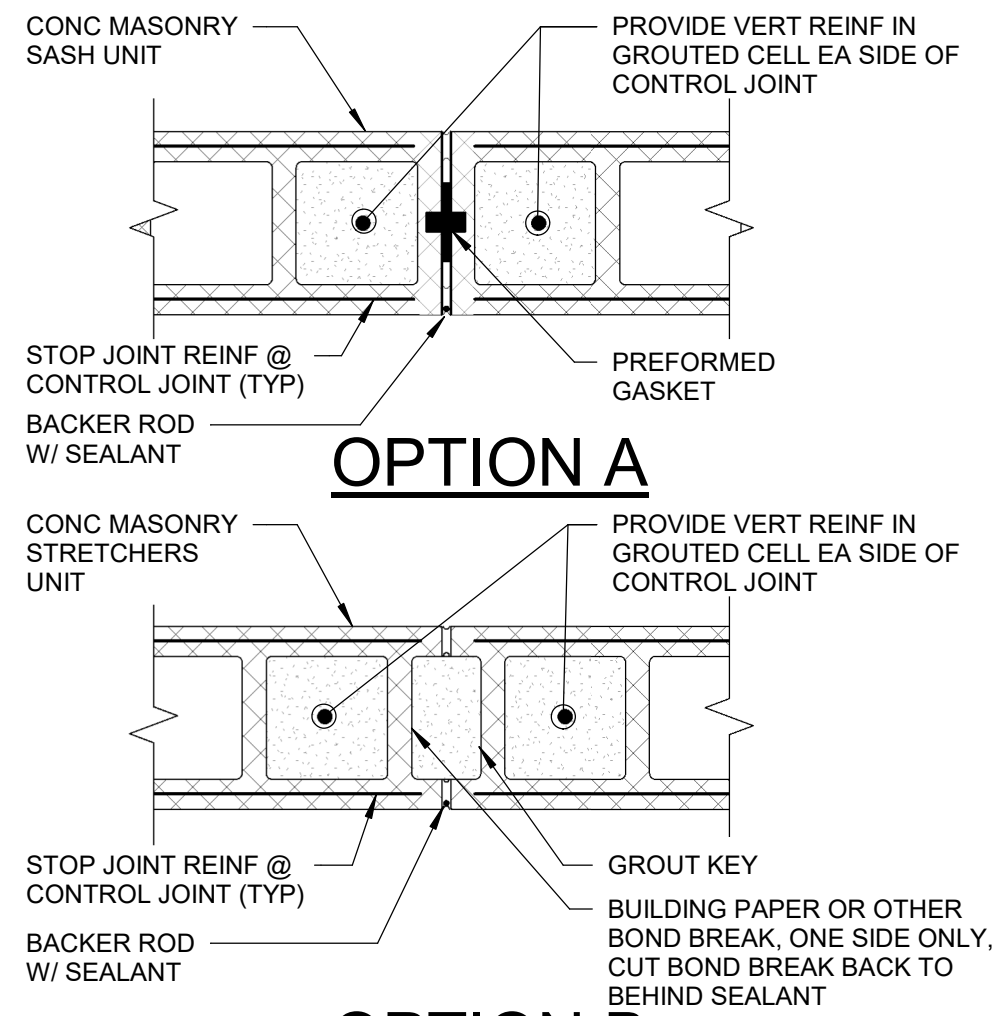


1 LAYER OF REINFORCING

2 LAYERS OF REINFORCING

TYPICAL REINFORCED CMU WALL CONSTRUCTION DETAIL

SCALE: NTS



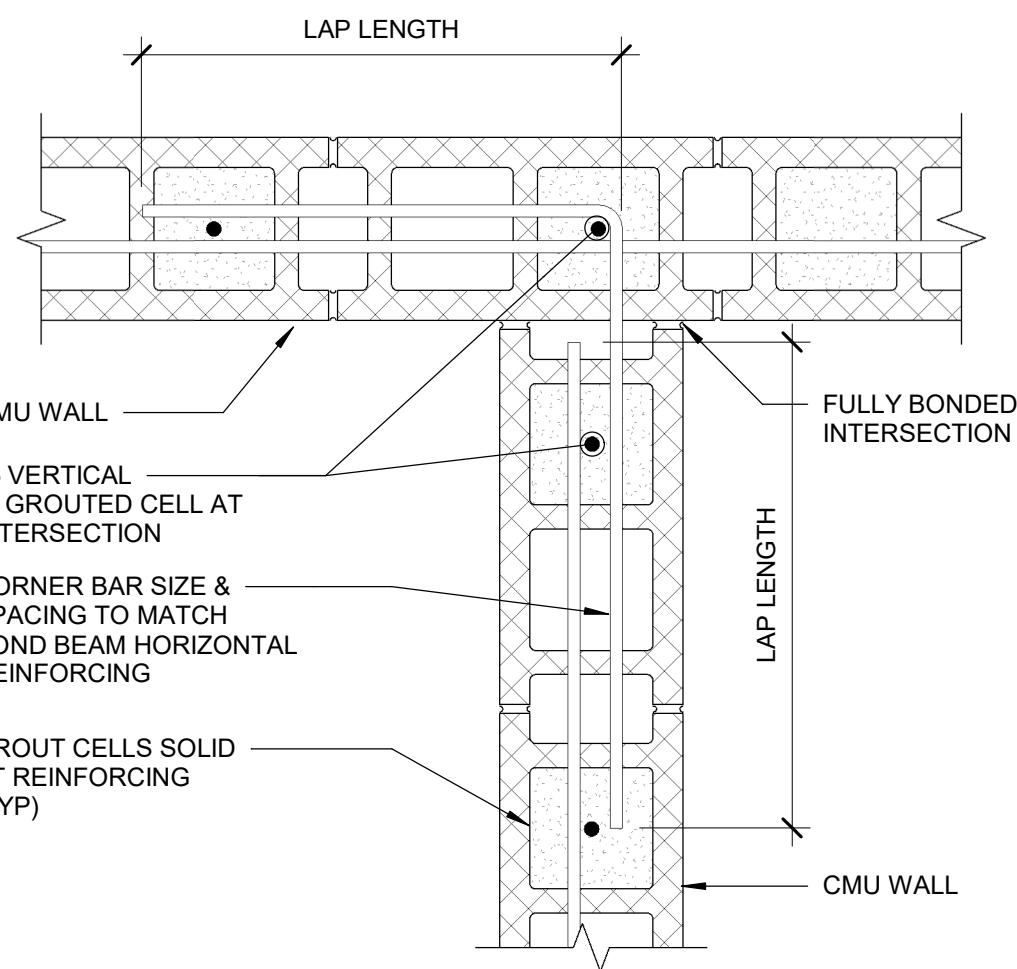
OPTION A

OPTION B

- NOTE: PROVIDE CONTROL JOINTS IN MASONRY WALLS AS FOLLOWS:
- | | |
|---------------------------|----------------------|
| EXTERIOR CONCRETE MASONRY | 25' OC TYPICAL |
| INTERIOR CONCRETE MASONRY | 12' MAX FROM CORNERS |
| | 25' OC TYPICAL |
| | 12' MAX FROM CORNERS |

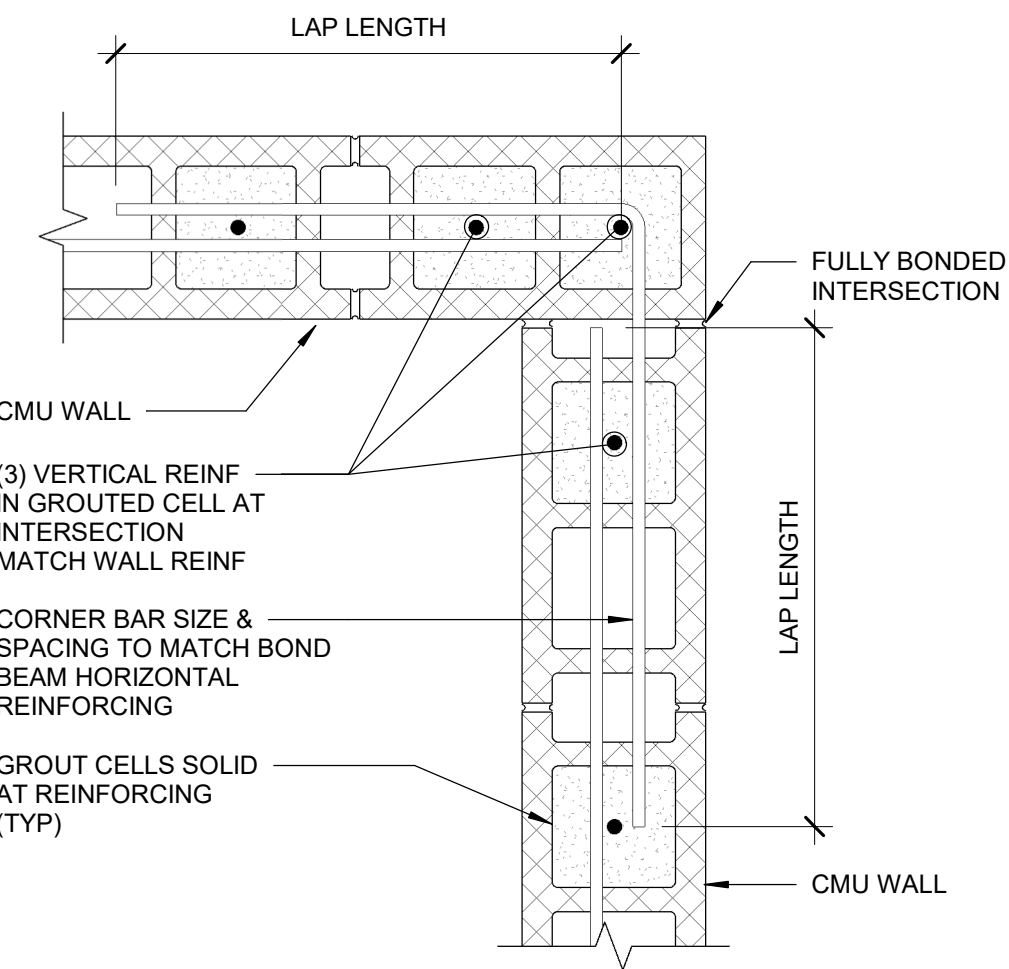
CMU CONTROL JOINT

SCALE: NTS



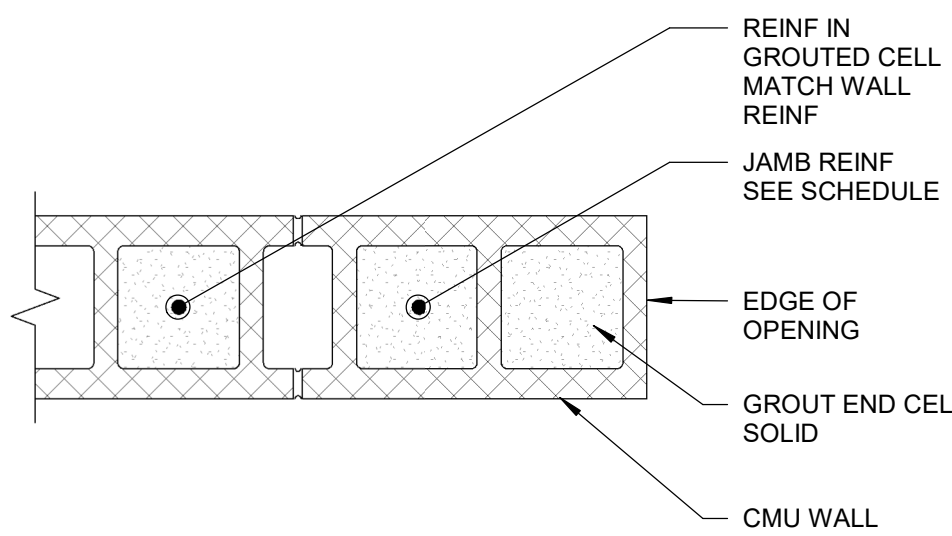
CMU WALL INTERSECTION

SCALE: NTS



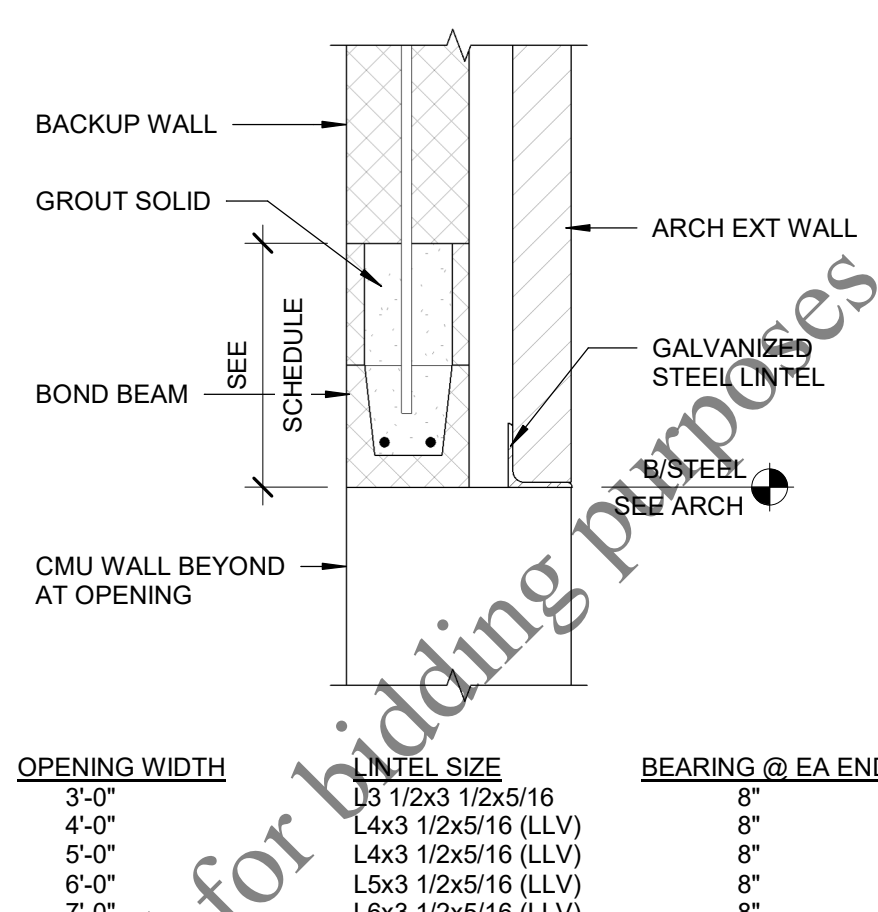
CMU WALL CORNER

SCALE: NTS



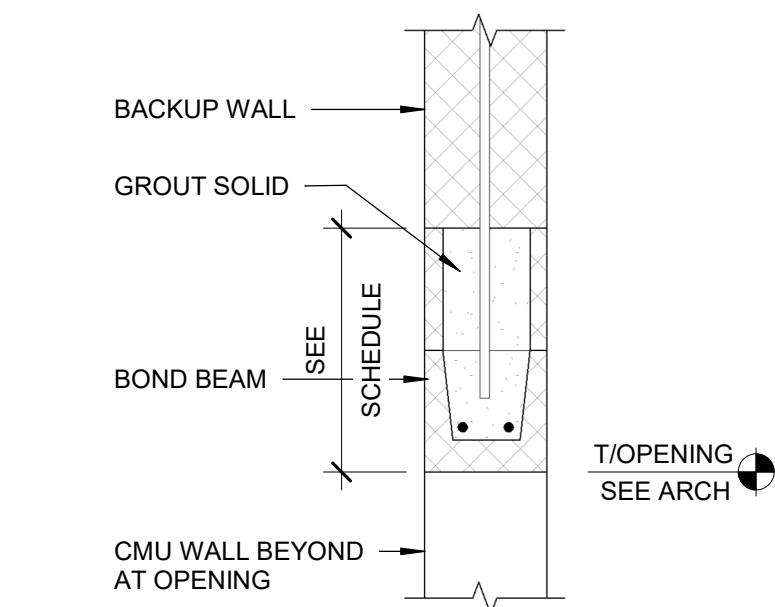
CMU WALL END

SCALE: NTS



LINTEL TYPE A

SCALE: NTS

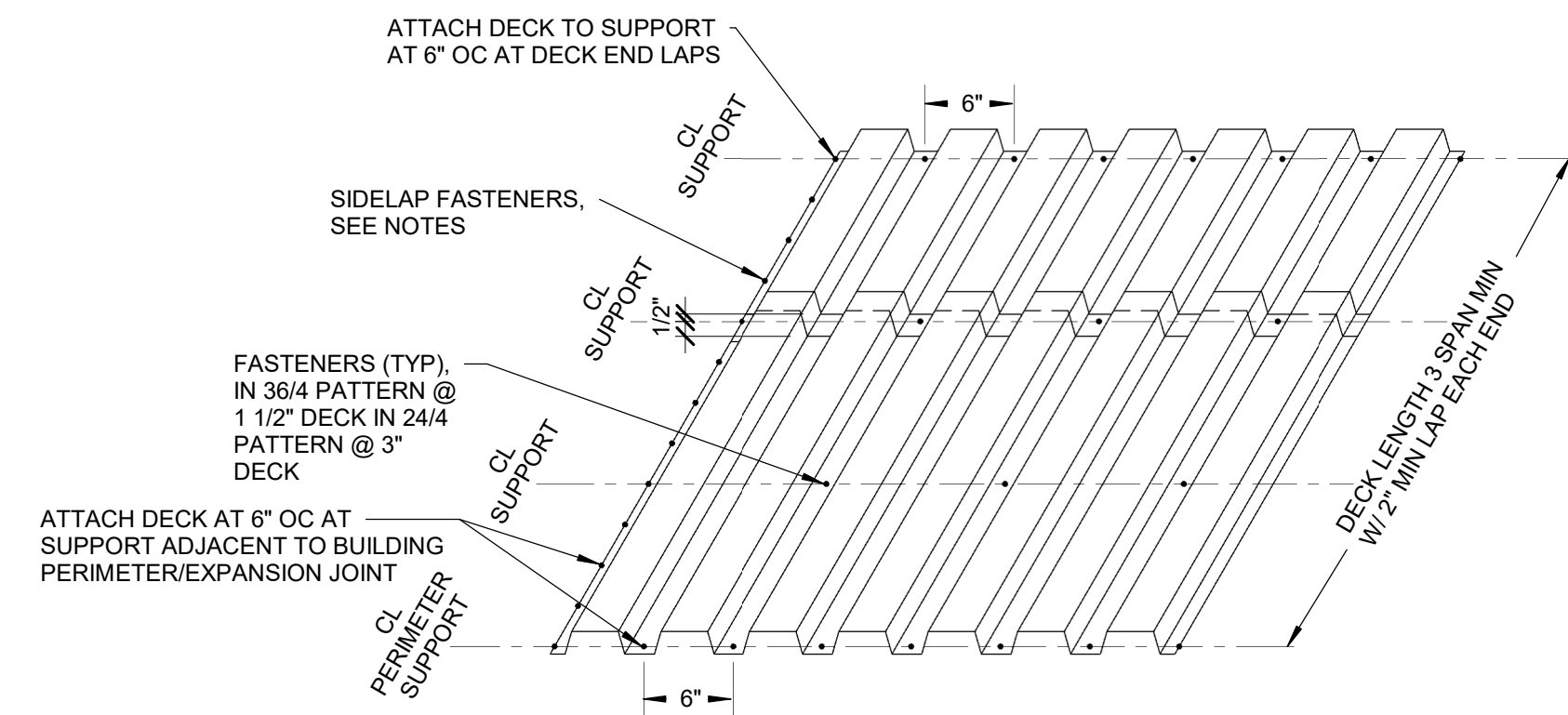


LINTEL TYPE E

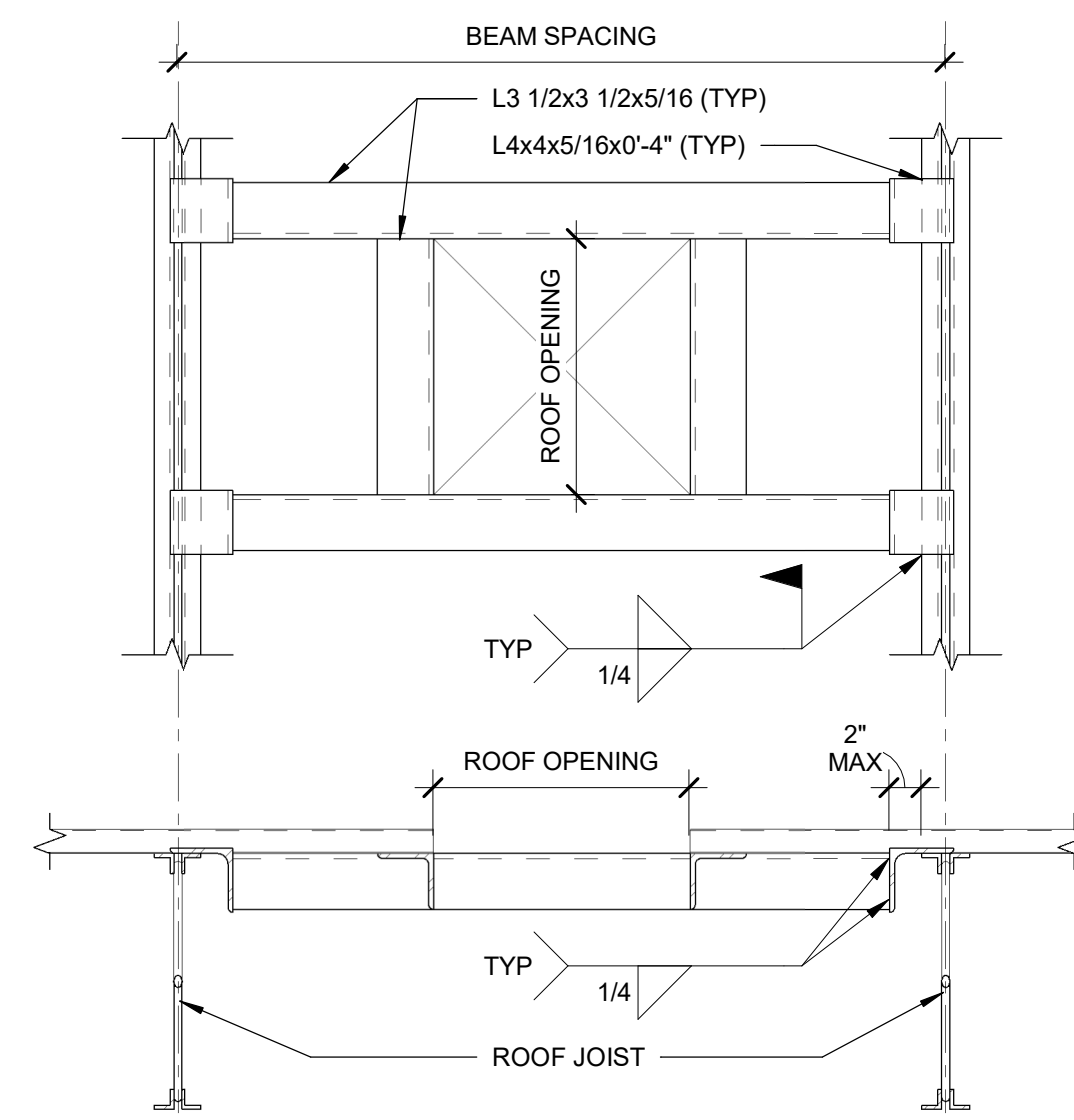
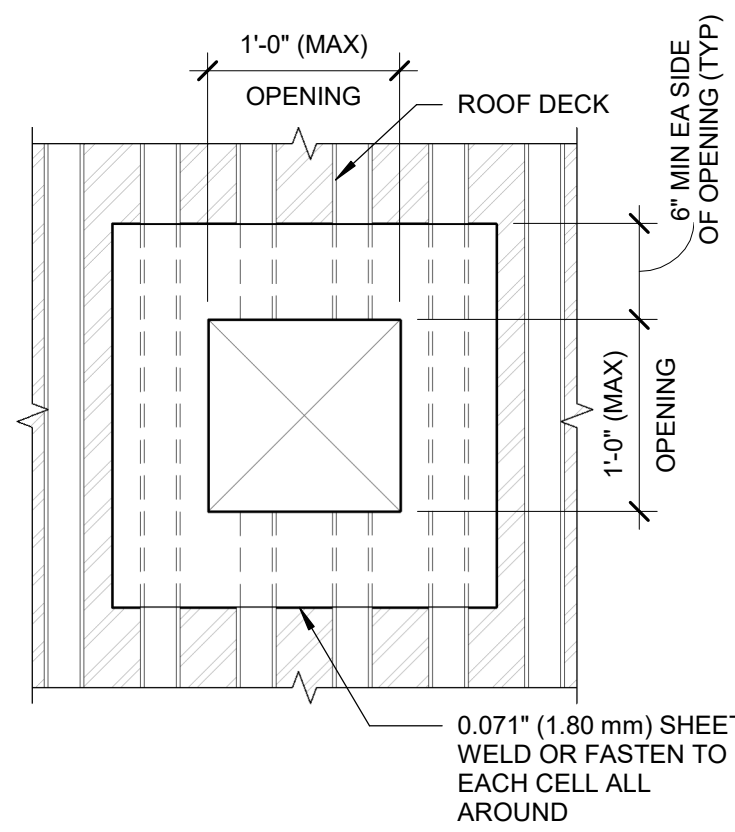
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OPENING WIDTH	LINTEL SIZE	BEARING @ EA END
3'-0"	D3 1/2x3 1/2x5/16	8"
4'-0"	L4x3 1/2x5/16 (LLV)	8"
5'-0"	L4x3 1/2x5/16 (LLV)	8"
6'-0"	L5x3 1/2x5/16 (LLV)	8"
7'-0"	L6x3 1/2x5/16 (LLV)	8"

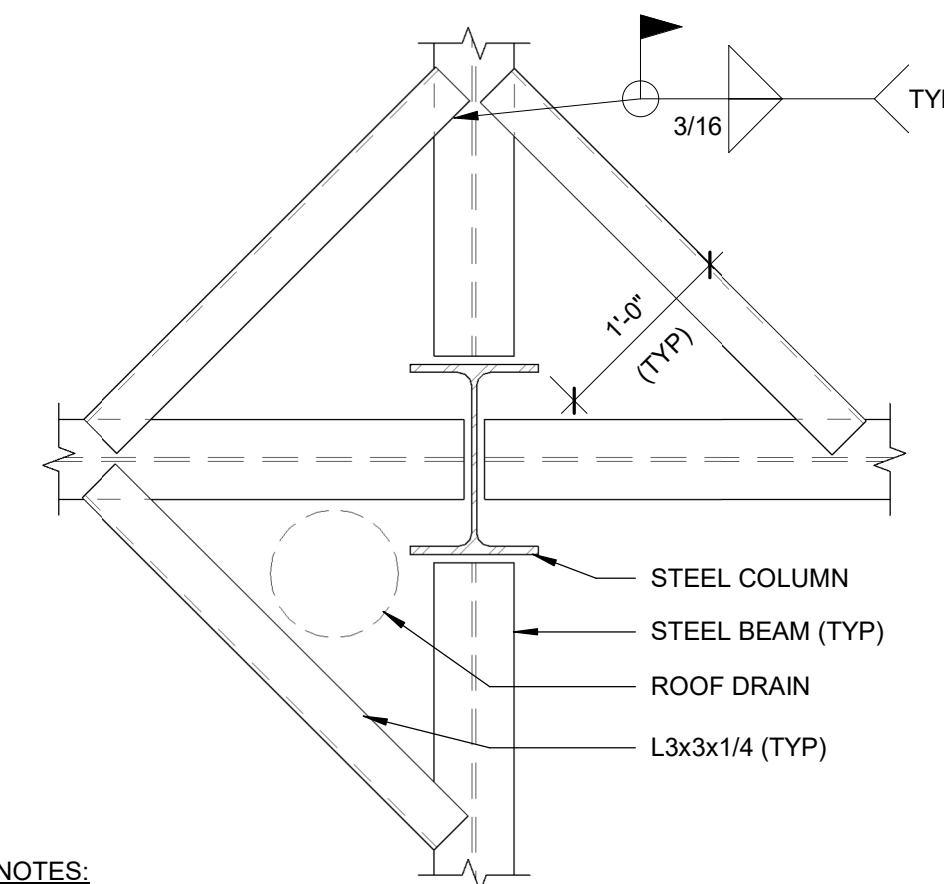
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- NOTES:
- FASTEN SIDELAPS AT INTERVALS NOT EXCEEDING 36" MIN OF (2) SIDELAP FASTENERS PER SPAN. SIDELAPS MAY BE FASTENED BY ANY ONE OF THE FOLLOWING METHODS:
 - BUILDUP OR EQUAL #10 TEK SCREWS OR EQUAL (DEFAULT, UNO).
 - HILTI S-SLC 01 M HWM OR EQUAL. IF SUPPORT MATERIAL GREATER THAN 5/16" THICK, USE HILTI X-EDN 19-L15 FASTENERS INSTEAD.
 - DECK MAY BE FASTENED TO SUPPORT MEMBERS BY ANY OF THE FOLLOWING METHODS:
 - POWDER ACTUATED FASTENERS: HILTI X-HSN24 OR EQUAL
 - SCREWING: #12 TEK SCREWS OR EQUAL
 - WELDING: ALL WELDS ARE TO BE 5/8" Ø PUDDLE WELDS. USE WELDING WASHERS ON ALL DECKS EQUAL TO OR LESS THAN 24 GAUGE THICKNESS.
 - PNEUMATICALLY-DRIVEN FASTENERS: PNEUTEK PINS OR EQUAL



- NOTES:
- PROVIDE FRAMING FOR OPENINGS LARGER THAN 12'x12', 12' Ø OR SUPPORTING EQUIPMENT IN EXCESS OF 50 LBS.
 - GENERAL CONTRACTOR TO COORDINATE FINAL SIZE AND LOCATIONS OF MECHANICAL AND PLUMBING OPENINGS.



- NOTES:
- PROVIDE FRAMING FOR MECHANICAL AND PLUMBING VERTICAL SLEEVES/PIPING. VERIFY FINAL SIZE AND LOCATION W/ CONTRACTOR.
 - PROVIDE FRAMING AT BEAM TO COLUMN MOMENT CONNECTION.

1 TYPICAL ROOF DECK FASTENING DETAIL

SCALE: NTS

2 TYPICAL ROOF OPENING ≤ 1'-0"

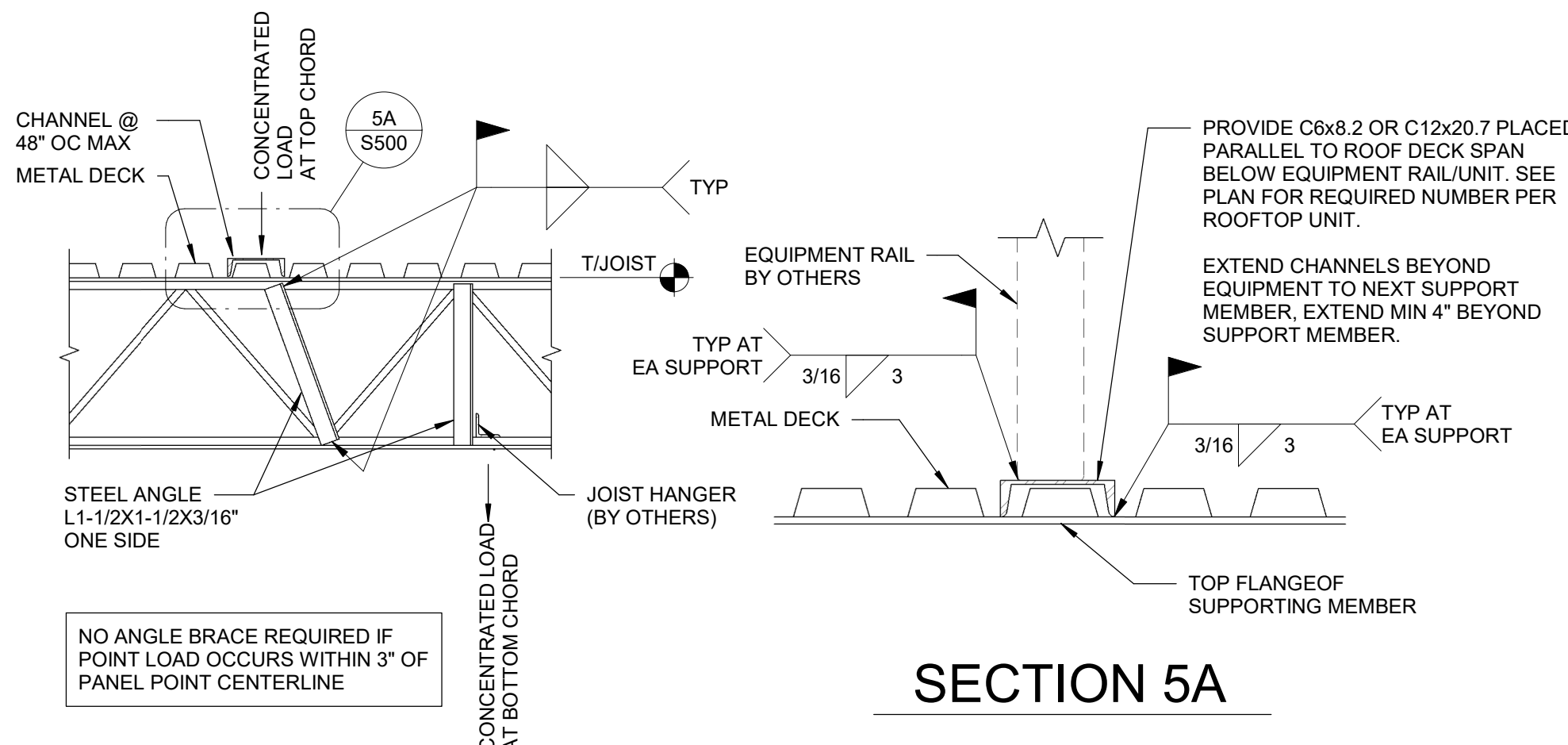
SCALE: NTS

3 TYPICAL ROOF OPENING > 1'-0"

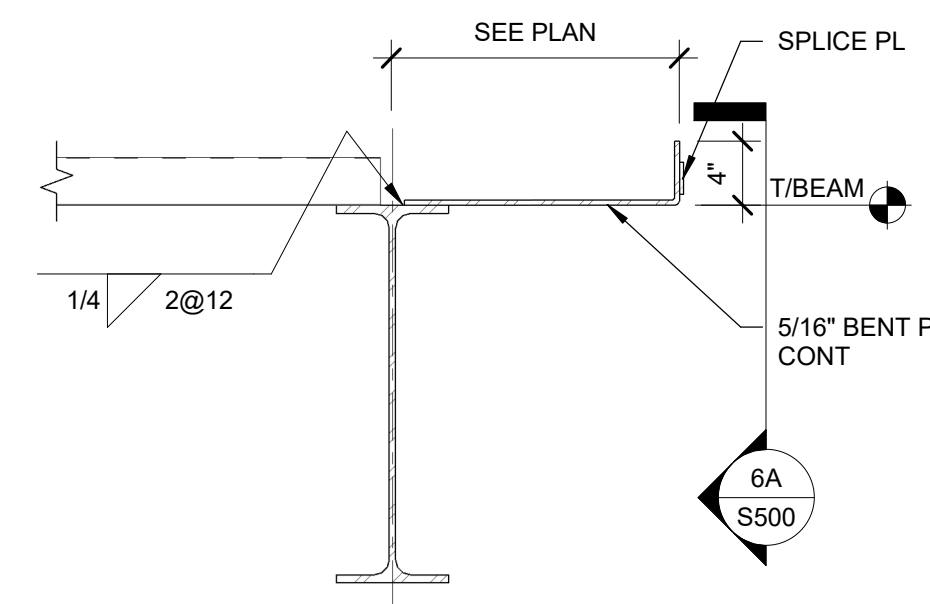
SCALE: NTS

4 DECK SUPPORT AT COLUMNS

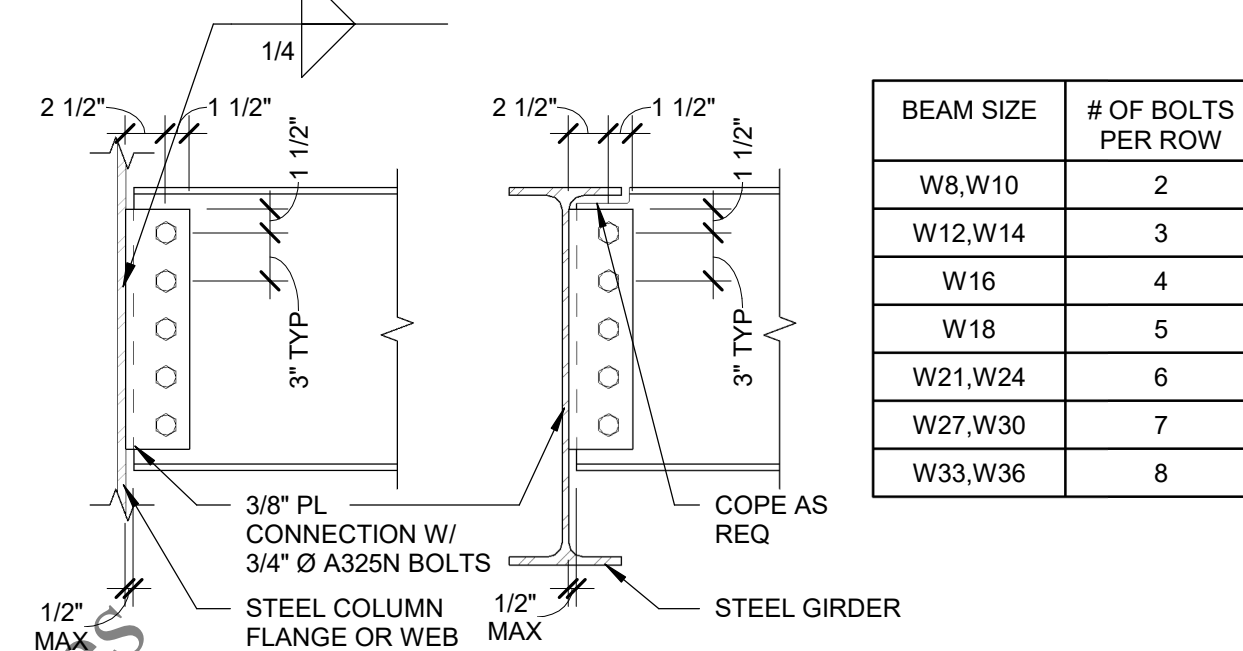
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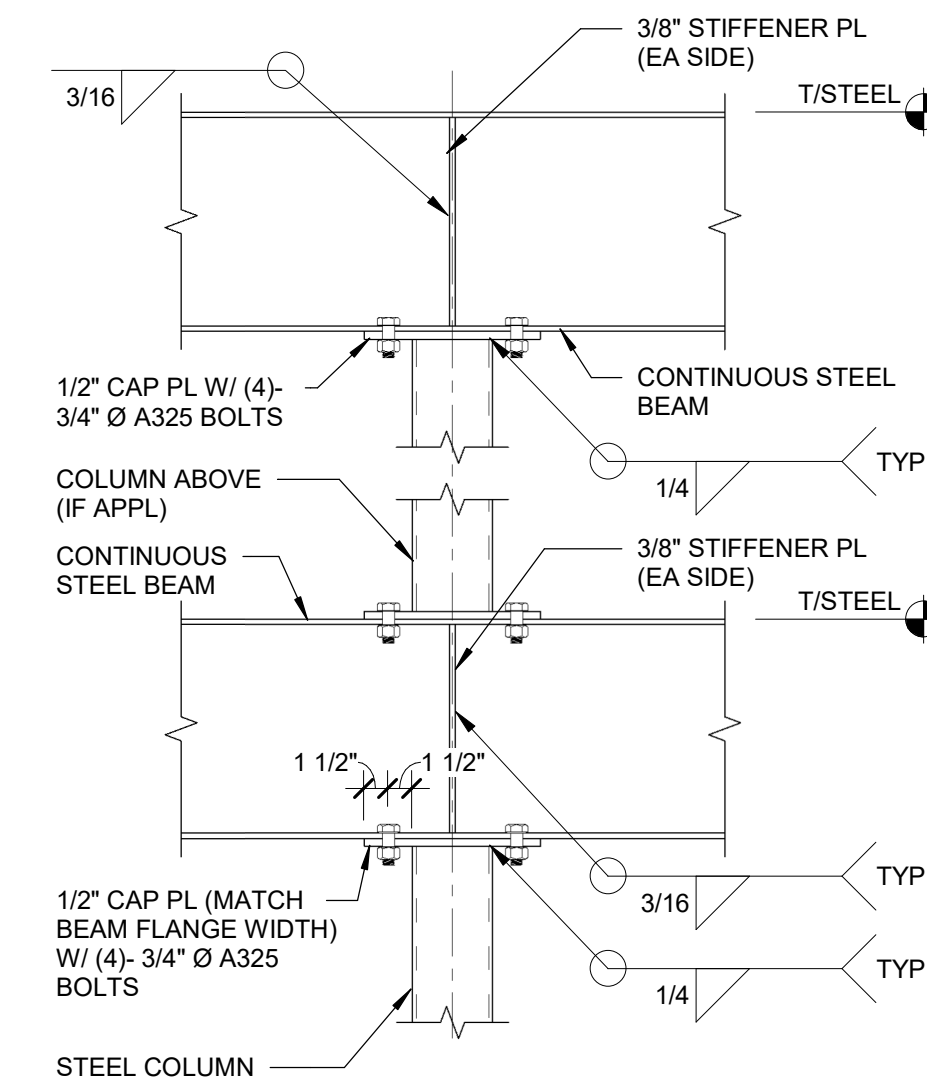
SECTION 5A



SECTION 6A



- NOTES:
- ALL FRAMING CONNECTIONS TO CONFORM TO SCHEDULE ABOVE UNLESS DETAILED OTHERWISE ON PLANS.
 - Leh = 1 1/2", Lev = 1 1/4" MINIMUM ANGLES AND BEAM.
 - PROVIDE STANDARD OR SHORT-SLOTTED HOLES IN PLATE.
 - # OF BOLTS PER ROW APPLIES FOR W, S OR C STEEL SHAPES.



5 TYPICAL JOIST REINFORCING

SCALE: NTS

6 ROOF DECK EDGE

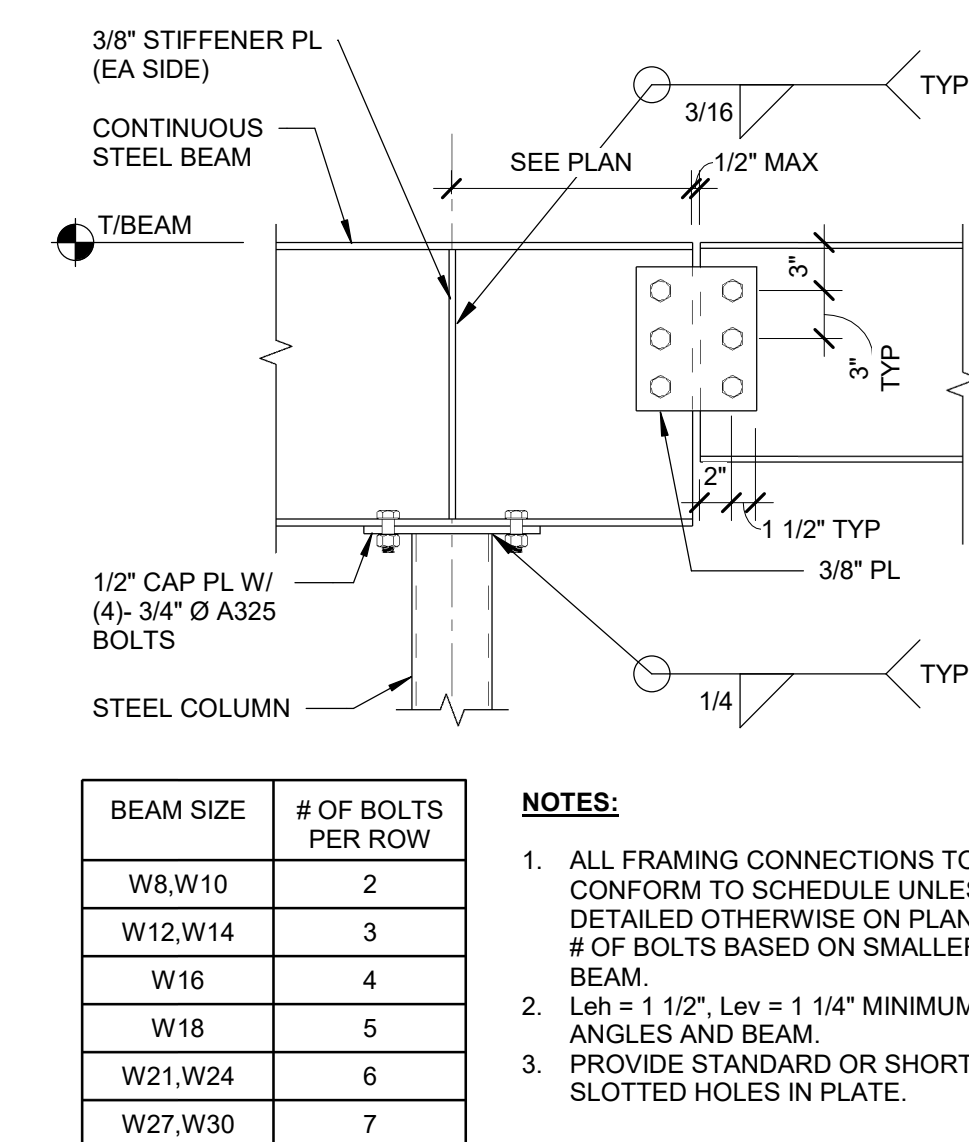
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7 SINGLE PLATE BEAM TO BEAM CONNECTION

SCALE: NTS

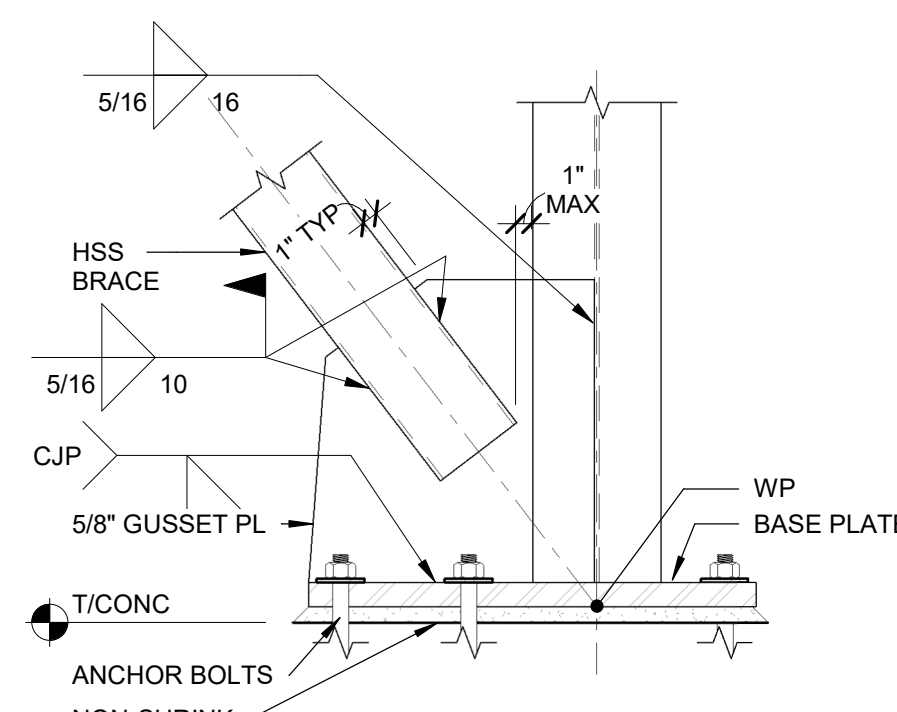
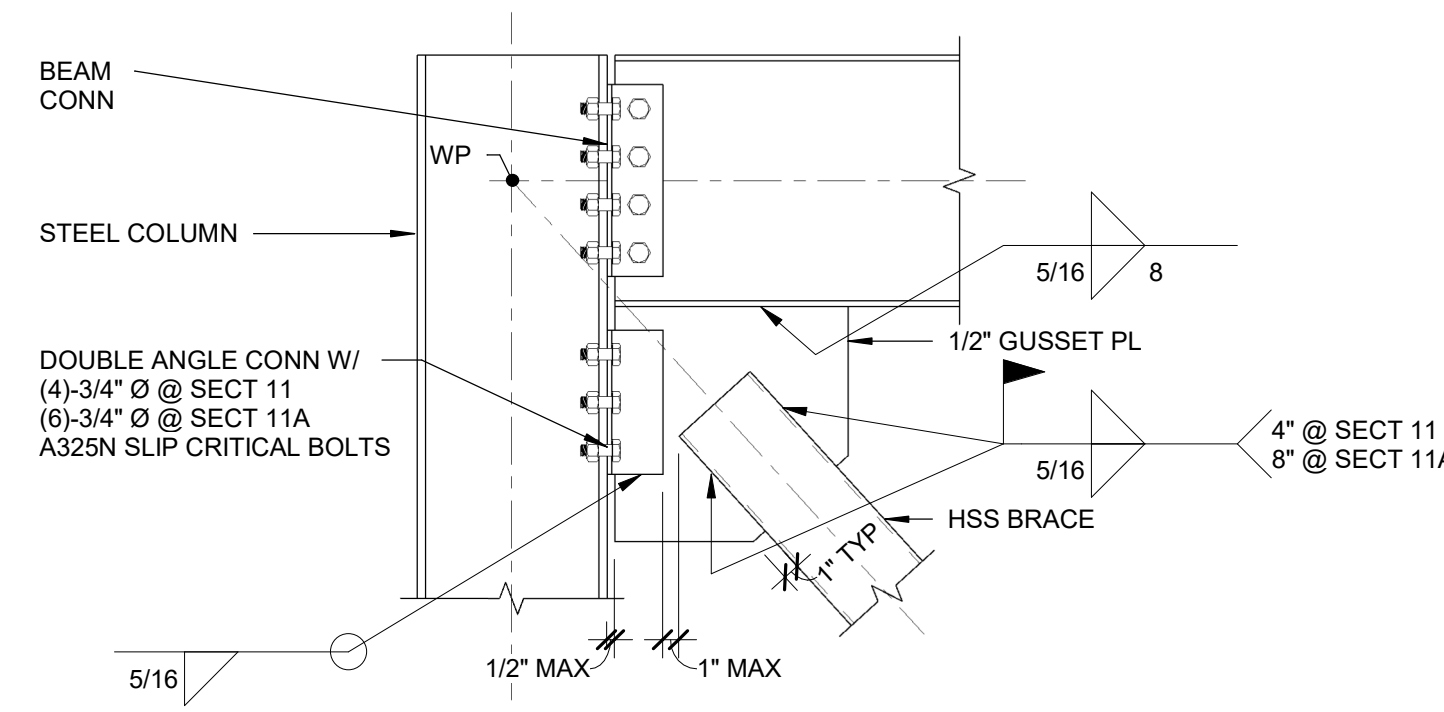
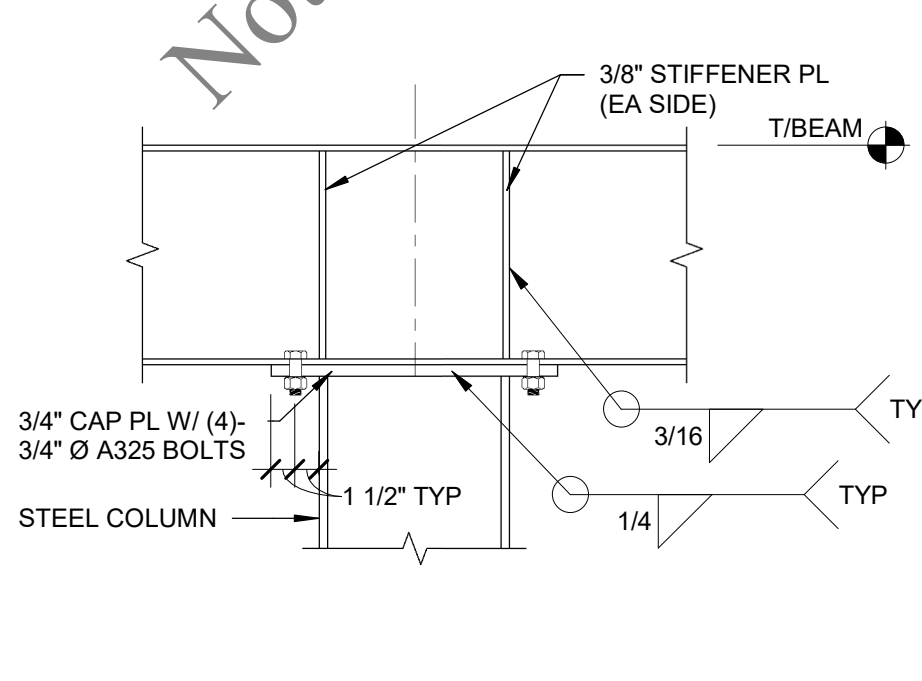
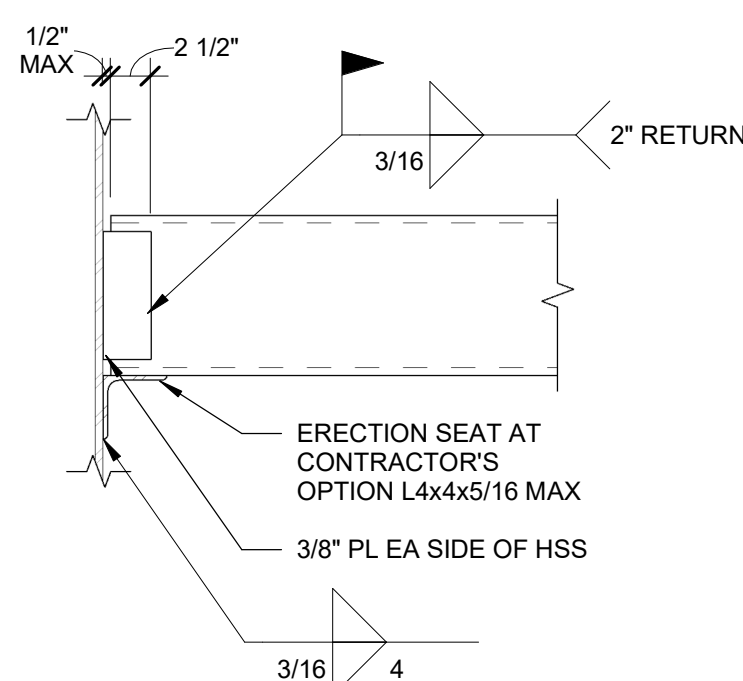
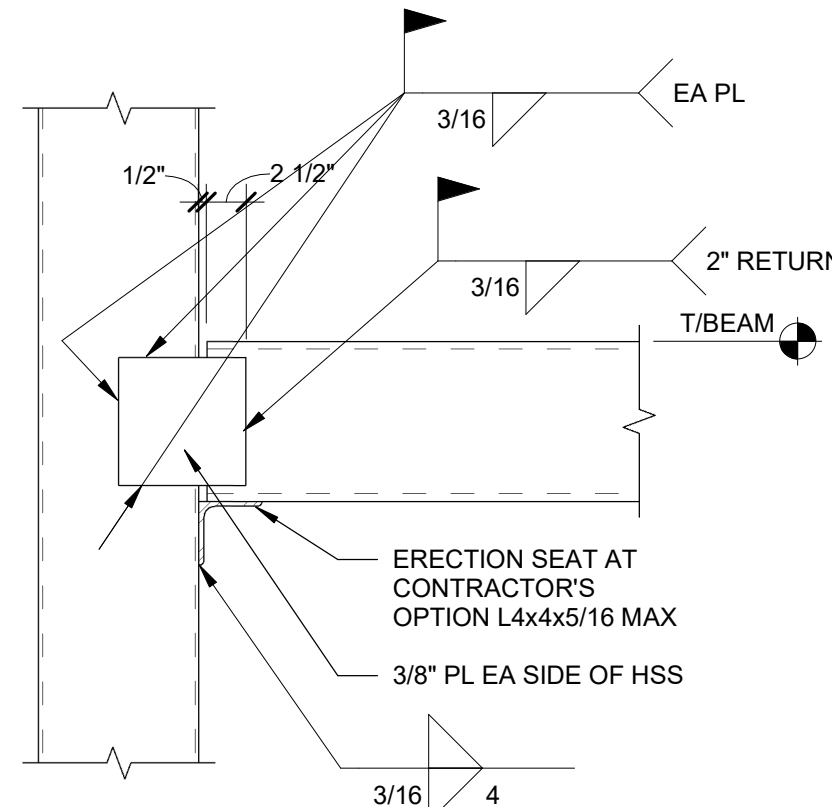
8 BEAM OVER COLUMN

SCALE: NTS



BEAM SIZE	# OF BOLTS PER ROW
W8,W10	2
W12,W14	3
W16	4
W18	5
W21,W24	6
W27,W30	7

- NOTES:
- ALL FRAMING CONNECTIONS TO CONFORM TO SCHEDULE UNLESS DETAILED OTHERWISE ON PLANS. # OF BOLTS BASED ON SMALLER BEAM.
 - Leh = 1 1/2", Lev = 1 1/4" MINIMUM ANGLES AND BEAM.
 - PROVIDE STANDARD OR SHORT-SLOTTED HOLES IN PLATE.



9 CONTINUOUS BEAM SPLICE CONNECTION

SCALE: NTS

10 TYPICAL HSS BEAM CONNECTION

SCALE: NTS

11 BEAM OVER COLUMN

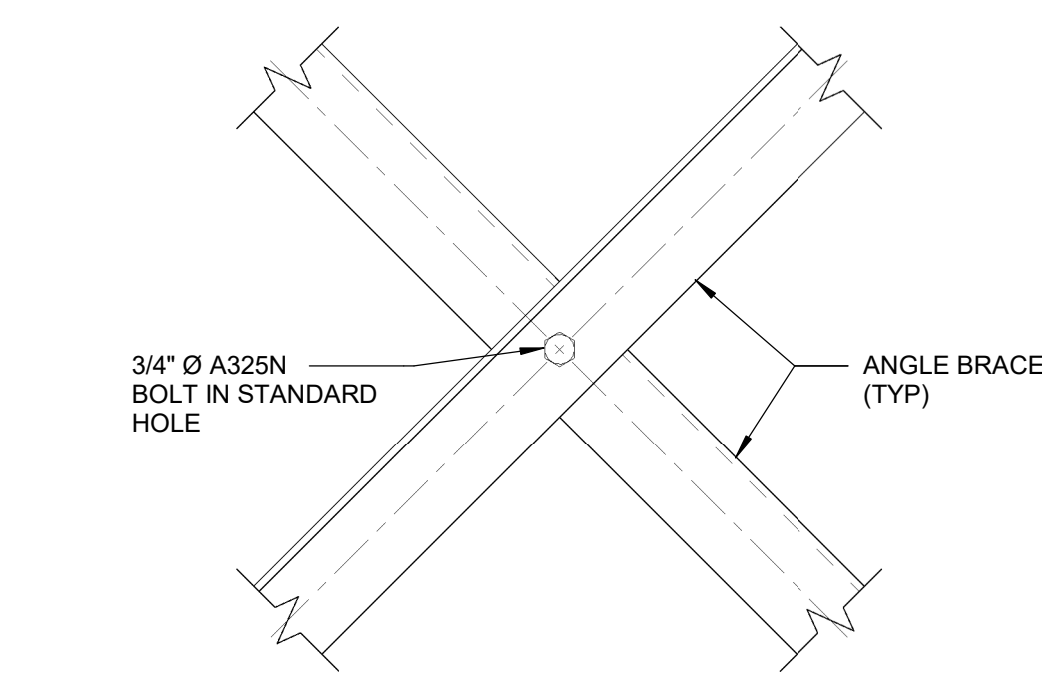
SCALE: NTS

12 BRACE CONNECTION

SCALE: NTS

13 BRACE CONNECTION

SCALE: NTS



14 BRACING INTERSECTION

SCALE: NTS

New Collection Systems Operations Facility Structural Steel Package



Rockford, Illinois

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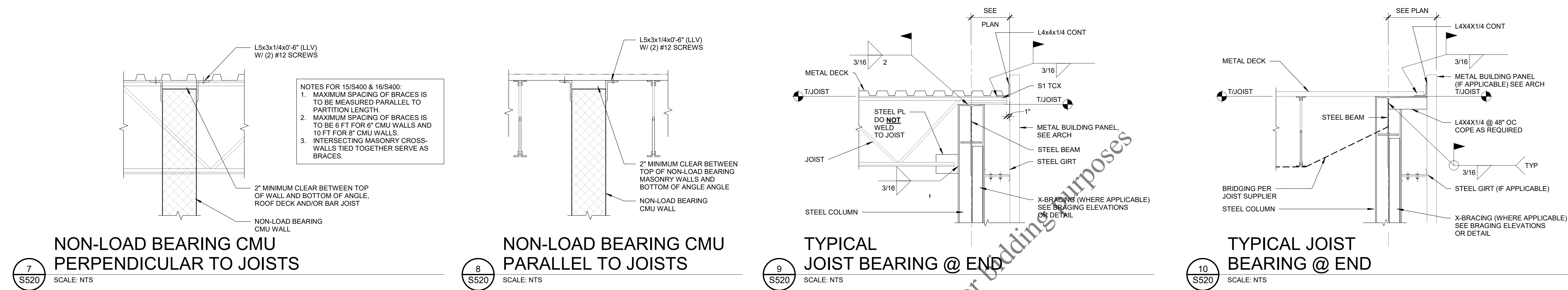
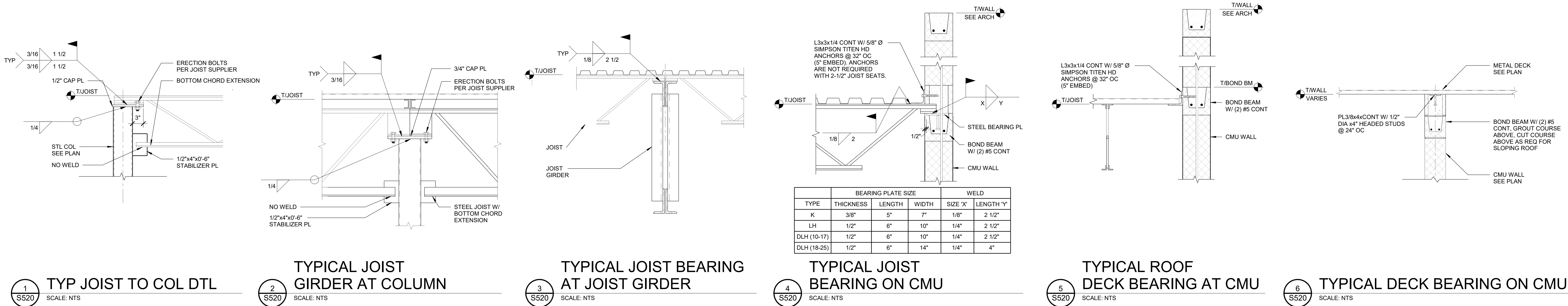
Sheet Title

STEEL SECTIONS & DETAILS

Ref. North Sheet No.

S500

PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342



New
Collection Systems
Operations Facility
Structural Steel
Package



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Section IV

**General Provisions & Technical
Specifications for Sanitary Sewer
Construction**

(Separate document incorporated by reference)