

REQUEST FOR PROPOSAL SUBMITTAL INSTRUCTIONS

Enemy Swim Day School Road RFP



Enemy Swim Day School

13525 446th Avenue
Waubay, South Dakota 57273

For further information contact:

Dr. Nadine Eastman, School Superintendent

neastman@esds.us

Mr. Ed Johnson, Facility Manager

ejohnson@esds.us

Due Date & Time:

Tuesday April 14, 2026 No later than 4:00 p.m. CST

The Enemy Swim Day School is seeking qualified contractors to the Enemy Swim Day School located at 13525 446th Avenue, Waubay, SD 57273 to replace the asphalt paving on the main entrance, the bus loop, create an access road to our new staff houses, and two shared driveways (see paving map) in order to enhance the safety and functionality of vehicle and pedestrian circulation.

NOTICE TO RESPONDERS - All Proposals to this RFP shall be:

- Proposals will be received until **Tuesday, April 14, 2026 at 4:00 pm central standard time.**
- The RFP documents may be obtained by e-mail request submitted to Dr. Nadine Eastman, Supt., neastman@esds.us or on the school website at esds.us under the employment page.

Proposals will be evaluated based on best value to the Enemy Swim Day School as evidenced by a statement of Contractor qualifications, history, ability to meet timeline, supervision and quality control, relationship with clients, cost estimates, budget control and schedule for the delivery of services.

The Enemy Swim Day School team may reject any or all proposals upon a finding it is in the School's interest to do so and to rescind the award of any contract at any time before the execution of said contract by all parties and Enemy Swim Day School will not incur any liability or obligation as a result of any such actions.

The anticipated construction start time will be after May 22, 2026 with an end date of June 7, 2026.

This area is no longer part of the ESDS Road Project
Also, we hired a civil engineer to oversee the project



A. INTRODUCTION:

1. The ENEMY SWIM DAY SCHOOL (hereinafter referred to as “ESDS” or “Owner”) requests a proposal which replaces the deteriorated entrance road, bus loop, and area in front of the bus garage and also creates a new access road to new staff houses and two new shared driveways. The project will include removal of the old current asphalt, preparation of the subgrade, installation of the new asphalt paving with new striping. In addition, foundation work for a new access road and two driveways. The new asphalt paving will fit seamlessly with the parking lot and newly asphalt paved areas for the expansion project. The contractor shall provide all equipment, installation, manpower, accessories, and material in accordance with this rfp. The contractor shall include all material, freight, labor, demolition, and 3rd Party testing required for project completion in their proposal.
2. ESDS will receive sealed proposals until 4:00 P.M., on April 14, 2026 from qualified Contractors for Road Asphalt Paving Project described in this Request for Proposals dated March 16, 2026, at which time and place the acceptance of proposals will be closed and all proposals then received will be tabled and the identity of the awarded Contractor recorded. The Enemy Swim Day School will not consider proposals received after closing. The content of the proposals submitted will remain confidential in nature until an award has been made to the selected firm.
3. The Project will be subject to a 5.5% fee imposed by the Tribal Employment Rights Office (TERO - see #8 below) and other Tribal laws. SWO tribal projects are required to use the Davis Bacon established wages.
4. The Proposed Project Schedule:
 - i. ESDS intends to select a proposal and enter into a Construction Contract by the end of April, 2026. The selected Contractor and ESDS will then work together to establish a schedule for the Project. It is the goal of ESDS to have the Project completed prior to June 8, 2026 which is the beginning of summer school.
5. Dispute Resolution & Governing Laws:
 - i. The Construction Contract shall be governed by and construed in accordance with the laws of the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation. Contractor will acknowledge that the situs of the Project and execution of the Construction Contract is in Indian country on the Lake Traverse Reservation.
 - ii. The Enemy Swim Day School is an entity created by the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation. The Sisseton-Wahpeton Oyate is a sovereign and federally recognized Indian Tribe and is immune from suit. Nothing in the Construction Contract will be construed to be a waiver of the Tribe's sovereign immunity from suit.
6. Construction Contract:
 - i. The Construction Contract will be AIA Document A101-2017 (Standard Form of Agreement between Owner and Contractor Where the Basis of Payment will be a Stipulated Sum), and AIA Document A201-2017 (General Conditions), both as modified.
 - ii. The Construction Contract shall be governed in accordance to the Tribe's law and any conflicts, disputes, and causes of action, if any and if authorized, shall be subject to the exclusive jurisdiction of the Tribal Court of the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation.
7. SWO Sex Offender Registration and Notification Code:
 - i. All persons who will be present on the Lake Traverse Reservation, working with the Sisseton-Wahpeton Oyate or its entities, or working in any other capacity are subject to the provisions of Chapter 75 - SWO Sex Offender Registration and Notification Code which can be found at: <https://swo-nsn.gov/media/2bsh40rw/chapter-75-swo-sex-offender-notification-and-registration-code-2014.pdf>
8. Tribal Employment Rights Office:
 - i. All covered employers are subject to the Tribal Employment Rights Office and are subject to the provisions of Chapter 59 - Tribal Employment Rights Ordinance which can be found at: <https://swo-nsn.gov/media/xwkok0ic/chapter-59-tribal-employment-rights-office-adopted-7-2-03-amend-10-7-09.pdf>
For more information email Tero Director Delray German delrayg@swo-nsn.gov

9. The Project is exempt from state contractor’s excise, sales, and use taxes. ESDS will submit an “Indian Country Project—Request for Exemption” Form to the South Dakota Department of Revenue. The contract between the Contractor and Enemy Swim Day School will not include any state taxes.

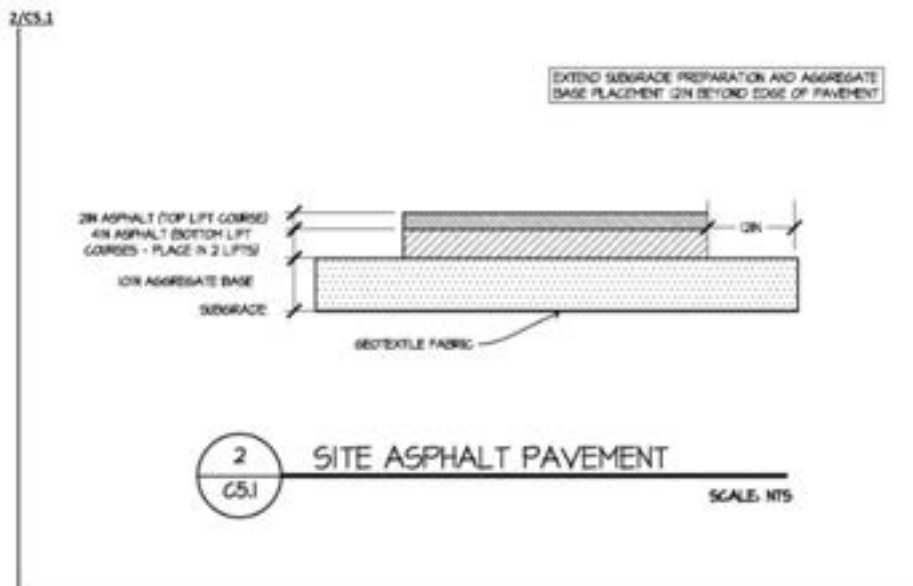
10. BACKGROUND:

Established in 1938 and built by the Bureau of Indian Affairs, ESDS is one of a handful of day schools in the nation. A transition from a 638 Grant School to a P.L. 100-297 Contract School Began in 1983. In the 1960’s & 70’s, ESDS provided education services in cooperation with Waubay Public School. Presently, ESDS is chartered by the Sisseton Wahpeton Oyate and operated by a local School Board. In December 2005, under the direction of Dr. Sherry Johnson, ESDS moved to its new home north of the SWO Buffalo Farm. Enemy Swim Day School opened its FACE (Family and Child Education) site in 2000 and operated a full service child care center from 2007 to 2013. The “Day” in Enemy Swim Day School reflects a change in US Indian Education policy from boarding schools to educating American Indian children in their own communities. Toka Nuwan Wayawa Tipi is the Dakota name which means Enemy Swim-place where we learn. Enemy Swim is a legend name derived from a local battle between the Dakota and rivals where Dakota Akicitapi forced their attackers to swim to the safety of an island in Enemy Swim Lake. Enemy Swim Day School has never had Staff Housing available, but there has been a need since the school is in a rural location and there is little housing available for the staff of the school. We invite you to submit proposals based on the following scope of work:

B. SCOPE OF WORK: The objective of this project is to provide construction services in accordance with the contract until completion of the replacement road entrance, bus loop, and asphalt paving in front of the bus barn, as well as, creation of a new access road and two shared driveways:

- i.
 - Remove Asphalt Paving
 - Infrastructure in the area of work
 - Grade/Undercut/Haul Off
 - Scarify and Recompact
 - Fabric and Base Course
 - Asphalt Paving (1st & 2nd lifts).
 - Standard Road Striping
 - Also, see attached Site Grading Document

ii. Build an asphalt access road to the houses and a shared driveway for each of the 2 sets of houses.



The Contractor shall hire enough qualified workers with the necessary skills to complete the work properly and timely, according to the Project requirements. Also, ensure that all working personnel are well trained and equipped to carry out the job. Additionally, the School will rely on the Contractor's expertise in recognizing problems that may be encountered during construction to ensure timely execution of the work of the Project.

The Contractor's work responsibility shall include all contractor planning, programming, administration, coordination, and management necessary to perform all work as specified in the contract documents. The work shall be conducted by the Contractor in strict accordance with the contract documents and all applicable Tribal, Federal, State, and local laws, regulations, codes, or directives. The Contractor shall ensure that all work meets or exceeds critical reliability rates or tolerances specified or included in the contract documents. The Contractor shall provide related services such as pre-award project development, project management, quality control (Q.C.), preparation, review, and submission of required deliverables, environmental permits, along with other construction administration services reasonably required to complete the Project.

The following general work requirements shall also apply:

1. Field verify all existing conditions, utilities, dimensions, and clearances impacted by the work.
2. Notify the ESDS Facility Manager and Superintendent of any deficiencies or other conditions encountered.
3. Coordinate work with applicable codes and AHJ requirements.
4. The Contractor shall provide all labor and materials required to complete the work.
5. The Contractor shall be responsible for safeguarding all materials and equipment required for work.
6. The Contractor shall protect and keep the surrounding work area clean and free from spills and debris and also kept free of safety hazards.
7. All waste materials shall be removed and disposed of in a manner as specified by local, state, and federal regulations.
8. All rework due to Contractor fault will be promptly rectified by the Contractor at no additional cost to the school.
9. A final inspection will be provided that ensures that the completed project adheres to the BIA School Facilities Design Handbook.

NOTE: No work may proceed without approval by the Facilities Manager.

C. TIME FRAMES AND DELIVERABLES

- a. The Project shall be completed by June 7, 2026, unless there is a formal written agreement to extend the contract time due to unforeseen circumstances or delays.
- b. The Contractor shall furnish product data and review the submittals for materials that will be used as part of the construction with ESDS Management.
- c. The Contractor to develop plan and scheduling with ESDS to address any shutdowns.
- d. The Contractor shall provide all close-out documents, copies of certifications, warranties, etc., as required by the contract.
- e. Submit deliverables to:
Dr. Nadine Eastman, Superintendent

CODES AND STANDARDS

The Contractor shall provide a team to furnish services required to complete the work. Each responsible team member must be knowledgeable of and provide work in compliance with the most current editions of all applicable codes, standards, and guidelines as adopted by BIA.

Where applicable, the Contractor shall adhere to all federal and State statutes pertaining to archaeological, historical, and environmental clearances which may affect this Project. Strict adherence to the National Environmental Protection Act (NEPA) and the National Historic Preservation Act (NHPA), Section 106, will be mandatory, as well as the Sisseton-Wahpeton Oyate Tribal Historic Preservation Office. Enemy Swim Day School has an approved THPO Clearance for the whole campus.

The Contractor shall allow all applicable environmental laws.

PROPOSED BASIS OF COMPENSATION

Please specify the breakdown of your proposed bid including any Management Fees, Site Supervision, General Conditions, or other fees that are in addition to the construction labor and materials.

The Enemy Swim Day School requests the following material for use in selecting a Contractor.

- a. Format:
 - i. Submittals should not exceed 5 printed pages. Proposers shall provide one (1) original copy of their proposal through the mail or via email to neastman@esds.us, with all attachments and original signatures. Mailed proposals should be addressed as follows:
 1. Enemy Swim Day School
Attention: Dr. Nadine Eastman
13525 446th Avenue
Waubay, SD 57273
 - ii. Also, the name and address of the proposer and the RFP title (that appears on the cover of this RFP) shall be on the outside of envelope or package if the proposal is mailed and included in the email if emailed.
- b. **IMPORTANT NOTICE:** The Enemy Swim Day School takes the proposal process seriously, and it is intended to solicit proposals that are accurate, and that each proposer intends to honor. Proposers are expected to submit proposals that are accurate, complete, and contain all terms and conditions that they feel are necessary. If after submitting a proposal, the proposer finds changes are required, the proposer may change or withdraw their proposal at any time up to the time of the proposal opening.
- c. All proposals must be received by the addressee the date and time specified no later the date and time specified herein. The Enemy Swim Day School WILL NOT be responsible for proposals delivered by a proposer, the U.S. Postal Service or any other means to any location other than the address listed within this RFP. Proposals may also be submitted electronically. Facsimile transmissions of proposal will not be accepted.
- d. The Proposal shall be signed, as follows:
 - i. In the case of an individual proposer, by such individual proposed.
 - ii. In the case of a partnership or limited liability partnership, the name of the partnership or limited liability partnership must appear on such proposal, and it shall be signed in the name of such partnership or limited liability partnership by at least one partner. In addition to such signature, the names of all partners shall be stated in the proposal.
 - iii. In the case of a corporation, the corporate name must appear on such a proposal, and it shall be signed by the president or other authorized officer, and there shall be set forth under the signature of such officer the name of the office he or she holds or the capacity in which he or she acts for such corporation.
- e. Firm Background:
 - i. Describe your firm including ownership structure, service area, experience in direct or related services, length of time in the industry, financial stability, and availability to the Project locale.
- f. Project Experience:
 - i. Each firm shall supply project name, size, cost, and schedule for a minimum of two comparable projects completed within the past five years. Reference information shall

also be included on similar projects, working with Enemy Swim Day School, or working on other Native American projects.

- g. Ability of Key Personnel:
 - i. Qualifications of key personnel.
- h. Current and Projected Workload:
 - i. Indicate the availability of key personnel, workforce, and consultants as it relates to project commitments and schedule.
 - ii. Does your firm possess the capacity to start immediately upon approval from the Enemy Swim Day School?
- i. Describe your cost estimating process.
- j. Describe your scheduling process.
- k. Sub-Contractors:
 - i. The Enemy Swim Day School reserves the right to reject any sub-contractors.
- l. Bond and Insurance:
 - i. Proof of ability to provide a bond in an amount at least equal to the amount of the estimated cost of the project as well as meet necessary insurance requirements of the Enemy Swim Day School.
 - ii. Show ability to provide Comprehensive general liability of \$500,000
 - iii. Show ability to provide Auto liability of \$500,000
 - iv. Show ability to provide Worker's compensation of \$500,000
- m. Licenses:
 - i. Sisseton Wahpeton Oyate and TERO
 - ii. South Dakota

2. PROPOSAL CONTENT FOR EVALUATION

- a. Firm Background (10 points)
- b. School or Similar Experience and Past Performance (20 points)
- c. Staffing Plan (5 Points)
- d. Cost/Scheduling Approach (5 points)
- e. Fee Proposal (60 points)

3. SELECTION CRITERIA

- a. The Enemy Swim Day School Board of Directors along with administration will evaluate submittals. Formal interviews will not be held unless the School Board deems it appropriate to do so after the evaluation of submittals is complete. The Construction Contract will be awarded this project based on, but not limited to, the following criteria:
 - i. Demonstration of the qualifications contained herein.
 - ii. In the best interest of the Enemy Swim Day School by providing value-engineered cost-saving solutions to the project will also be a favorable consideration for selection.

4. OTHER

- a. All submitting firms are responsible for costs incurred in submitting their responses. The Enemy Swim Day School will not provide reimbursement for any costs associated by all firms in connection with this process.
- b. The Enemy Swim Day School may elect to request qualified firms to be available for a formal in-person interview. Time and location are mentioned above.

5. Contact Person

- a. All contact and questions regarding this request for proposal should be directed to:

Enemy Swim Day School
Attention: Dr. Nadine Eastman, School Superintendent

13525 446th Avenue
Waubay, SD 57273
Phone: 605-947-4605
Email: neastman@esds.us

- b. To coordinate a visit to the Project site and for any technical questions should be directed to:

Enemy Swim Day School
Attention: Ed Johnson, Facility Manager
13525 446th Avenue
Waubay, SD 57273
Phone: 605-947-4605
Email: ejohnson@esds.us

6. Federal Contract Provisions

Because the ESDS Road Project will be paid with federal funds, it is the responsibility of Contractor to comply with (and to ensure compliance by its subcontractors) all applicable Federal Contract Provisions per the Code of Federal Regulations, Title II, Part 200, Appendix II, which will be incorporated into and form part of the construction agreement, including the contract provisions set forth below.

A. DEBARMENT AND SUSPENSION AND CERTIFICATION (Executive Orders 12549 and 112689). Contractor certifies that it is presently not debarred, suspended, proposed for debarment, declared ineligible, is not in the process of being debarred, nor is Contractor voluntarily excluded from covered transactions by any federal department or agency.

B. TERMINATION FOR CONVENIENCE. The Owner may terminate the Agreement upon not less than seven days' written notice to the Contractor for the Owner's convenience and without cause. If the Owner terminates the Agreement the Owner shall compensate the Contractor for services performed prior to termination, reimbursable expenses incurred and approved by Owner, and proven costs attributable to demobilization.

C. DAVIS-BACON ACT (for all contracts in excess of \$2,000 that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3). The Contractor must comply in all respects with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). Specifically, Contractor is required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in the applicable U.S. Department of Labor wage determinations.

D. ANTI-KICKBACK ACT (for all contracts in excess of \$2,000 that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3). The Contractor certifies compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Contractor and its sub-Contractors are prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The Contractor must report all suspected or reported violations to Owner.

E. STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY EQUAL OPPORTUNITY CLAUSE (for all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3).

- .1 The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identify, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff, or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- .2 The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- .3 That Contractor agrees to include the non-discrimination (in hiring) clause in any subcontracts connected with the performance of the Agreement.
- .4 In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- .5 By signing the below, the Contractor agrees to read and fully comply with Executive Order 11246, entitled "Equal Employment Opportunity", as amended by Executive Order 11375 and Executive Order 13672 and as supplemented in Department of Labor Regulations (41 CFR, Part 60), and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

F. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (for all contracts in excess of \$150,000). The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

G. CONTRACT WORK HOURS AND SAFETY STANDARDS (for all contracts awarded in excess of \$100,000 that involve the employment of mechanics or laborers). The Contractor must comply with 40 U.S.C. 3702 and 3704, as supplements by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702, the Contractor is required to compute wages of every mechanic and laborer on the basis of a standard work week or 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous.

H. BYRD ANTI-LOBBYING AMENDMENT, 31 U.S.C. § 1352 (certification required for contracts of more than \$100,000, and for subcontracts of more than \$100,000). Contractor certifies, to the best of Contractor's knowledge and belief, that:

- .1 No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- .2 If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an

officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

.3 Contractor shall require that the language of this certification be included in subcontracts at all tiers, and that all sub-contractors at all tiers shall certify and disclose accordingly.

.4 This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S.C. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

I. **PROCUREMENT OF RECOVERED MATERIALS.** The contractual procedure requirements of section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act and 2 CFR §200.322 apply to the purchase price of the items that exceed \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeds \$10,000. To the extent applicable, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired (1) competitively within a timeframe providing for compliance with the contract performance schedule; (2) meeting contract performance requirements; or (3) at a reasonable price. Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

Prohibition on certain telecommunications and video surveillance services or equipment (2 CFR §200.216). Prohibition on certain telecommunications and video surveillance services or equipment. The Contractor may not procure or obtain, extend or renew a contract or subcontract to procure or obtain, or enter into a contract to procure or obtain equipment, services or systems that uses covered telecommunications equipment for services as a substantial or essential component of any system, or as critical technology as part of any system that is produced by the following: Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

J. **ACCESS TO RECORDS** (2 C.F.R. § 200.336). The Contractor agrees that duly authorized representatives of the Owner shall have access to any books, documents, papers and records of Contractor that are directly pertinent to the Contractor's discharge of its obligations under the contract for the purpose of making audits, examinations, excerpts, and transcriptions.

SITE GRADING

PART1 GENERAL

1.01 SECTION INCLUDES

- A. Removal of topsoil.
- B. Rough grading the site.
- C. Subgrade Preparation-Pavements.
- D. Finish grading.

1.02 REFERENCE

- A. See Architectural Plans for House Access Road and Driveways

1.03 DEFINITIONS

- A. Subgrade: Top of excavation or fill material located at the bottom of the aggregate at pavement and similar construction areas such as curb and gutter and sidewalks or bottom of topsoil in non-pavement areas.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Topsoil: Topsoil excavated on-site.
 - 1. Graded.
 - a. Topsoil shall be fine graded to particle sizes not exceeding 1/2 inch.
 - 2. Free of roots, rocks larger than 1/2 inch, subsoil, debris, large weeds and foreign matter.
 - 3. Contractor shall remove existing topsoil and import new topsoil material necessary for project if unable to fine grade existing salvaged topsoil.
 - 4. Import topsoil if necessary for quantity.

PART 3 EXECUTION

3.01 PREPARATION

- A. Protect existing utilities from damage.
 - 1. The contractor shall contact South Dakota One Call at 800-781-7474 prior to beginning any excavation work.
 - a. Also contact the Owner's Representative for private site utility locations.
 - 2. The contractor shall notify the various utility companies if work will expose, affect, or endanger any existing utility.
 - 3. The contractor shall support, protect or relocate existing utilities affected by the work.
 - a. Means and methods shall be approved by the utility owner.
- B. Identify required lines, levels, contours, and datum.
- C. Provide temporary means and methods to remove all standing or ponding water from areas prior to grading.
- D. Protect site features to remain, including but not limited to paving, from damage by grading equipment and vehicular traffic.

3.02 SUBGRADE GRADING

- A. Remove topsoil and organic soils from areas to be further excavated, re-landscaped, or re-graded, without mixing with foreign materials.
- B. Do not remove topsoil when wet.
- C. Remove subsoil from areas to be further excavated, re-landscaped, or re-graded.
- D. Do not remove wet subsoil, unless it is subsequently processed to obtain optimum moisture content.
- E. Stability: Replace damaged or displaced subsoil to same requirements as for specified fill.
- F. Remove and replace soils deemed unsuitable by classification and which are excessively moist due to lack surface water control.

- G. Grade to project's subgrade elevations.
- H. Compaction methods and finish densities shall meet requirements listed in Sections 31 23 17 and 31 23 24.
- I. The required stability shall be such that no rutting or displacement of the subgrade shall occur from construction vehicles and equipment.
- J. Completed subgrade shall be within 1/2 inch of plan elevation.

3.03 SUBGRADE PREPARATION-PAVEMENT

- A. Compact and shape the subgrade to produce the required density and stability in the top 12 inches of the subgrade and the required elevation.
 - 1. Density and stability shall be in-place at the time the aggregate base and/or geotextile fabric is placed.
- B. Compaction Density as per ASTM D698-Standard Proctor, unless otherwise specified or indicated.
 - 1. Scarify the soils at the new subgrade elevation and recompact the soils to a minimum 95 percent of maximum dry density.
 - a. 12 inches, minimum, within vehicular pavement areas (or remove and replace, if necessary, to reach 12 inch depth)
 - 1) Recompact with a large roller with a minimum drum diameter of 3-1/2 feet.
 - b. 3 inches, minimum, in pedestrian pavement areas.
 - c. Moisture condition the soils as necessary after scarifying and prior to recompacting.
 - 1) Moisture content variance from optimum moisture shall be 3 percentage points, +/- per Reference 1.2 A.
- C. The required stability shall be such that no rutting or displacement of the subgrade shall occur from construction equipment.
- D. Completed subgrade shall be within 1/2 inch of plan elevation.
- E. Proofroll vehicular pavement subgrades prior to placing geotextile fabric and/or aggregate.
 - 1. Proofroll shall be observed by a geotechnical engineer to determine if the results of the procedure meet the project specifications.
 - a. Proofroll with a fully aggregate loaded tandem-axle truck.
 - b. The Contractor shall correct areas that display excessive yielding or rutting during the proofroll, as determined by the geotechnical representative.
 - 1) Corrections shall include, as necessary, moisture conditioning and recompactation, and subcutting and replacement of soil.
- F. Tolerances
 - 1. Completed subgrade shall be within 1/2 inch of plan elevation.
- G. Placement of aggregate and/or geotextile fabric shall not take place until results of the proofroll are known, the final elevations have been checked, and given notice to proceed from the Owner's Representative.

3.04 SOIL REMOVAL

- A. Remove excess topsoil from site.

3.05 FINISH GRADING TOPSOIL AREAS

- A. Before Finish Grading:
 - 1. Verify subgrade has been compacted.
- B. Remove debris, roots, branches, stones, in excess of 1/2 inch in size.
- C. Where topsoil is to be placed, scarify surface to a minimum depth of 4 inches.
- D. Place topsoil in areas not designated in the plans as pavement areas.

1. Include all areas graded as part of this project as well as all adjacent turf areas disturbed by construction
- E. Place topsoil where required to level finish grade.
- F. Place topsoil to the following compacted thicknesses:
 1. Areas to be seeded or sodded with Grass: 4 inches, minimum.
- G. Place topsoil during dry weather.
- H. Remove roots, weeds, rocks, and foreign material while spreading.
- I. Fine grade topsoil.
 1. Rake, chain drag and lightly roll topsoiled areas, remove all ridges and fill all depressions.
 2. Use hydraulic power box rake or similar mechanical equipment to remove soil lumps, rocks and debris, fill and level low areas; and correct other grading deficiencies in preparation of seed or sod bed.
 3. Maintain profiles and contour of subgrade.
 4. Lightly compact placed topsoil to prevent sinkage pockets when watered.

3.06 TOLERANCES

- A. Top Surface of Subgrade: Plus or minus 0.04 foot (1/2 inch) from required elevation.
- B. Top Surface of Finish Grade: Plus or minus 0.04 foot (1/2 inch).

3.07 REPAIR AND RESTORATION

- A. Existing Facilities, Utilities, and Site Features to Remain: If damaged due to this work, repair or replace to original condition.

END OF SECTION



2 Houses

2 Houses

Driveway

No Road Currently exists

32' wide (approx.)

1,862 feet long

Google Earth

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400 ft

ENEMY SWIM DAY SCHOOL HOUSING AND GARAGE FOUNDATION DESIGN

WAUBAY, SD

RS224-06

PROJECT INFORMATION	CODE SUMMARY	SHEET INDEX	CONSULTANTS																																																																																																																																																																																																																								
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4/30/2025



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605.336.6891
 605.335.5858 Fax
 2307 W. 57th St., Suite 101
 Sioux Falls, SD 57108
 rsa@rsa-create.com

Project Name:

Enemy Swim Day School Housing

Project Location:
Waubay, SD

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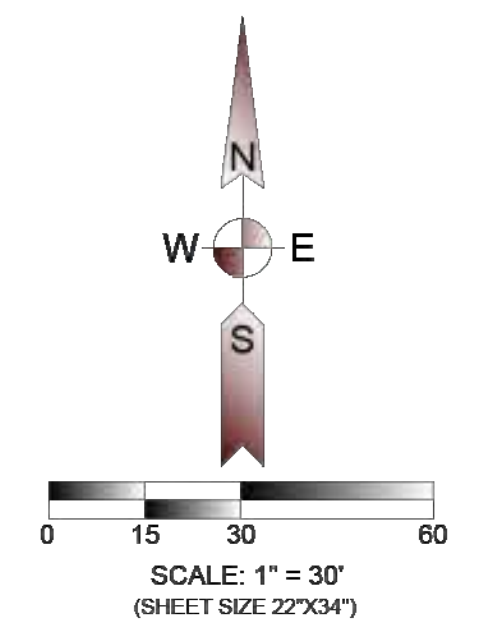
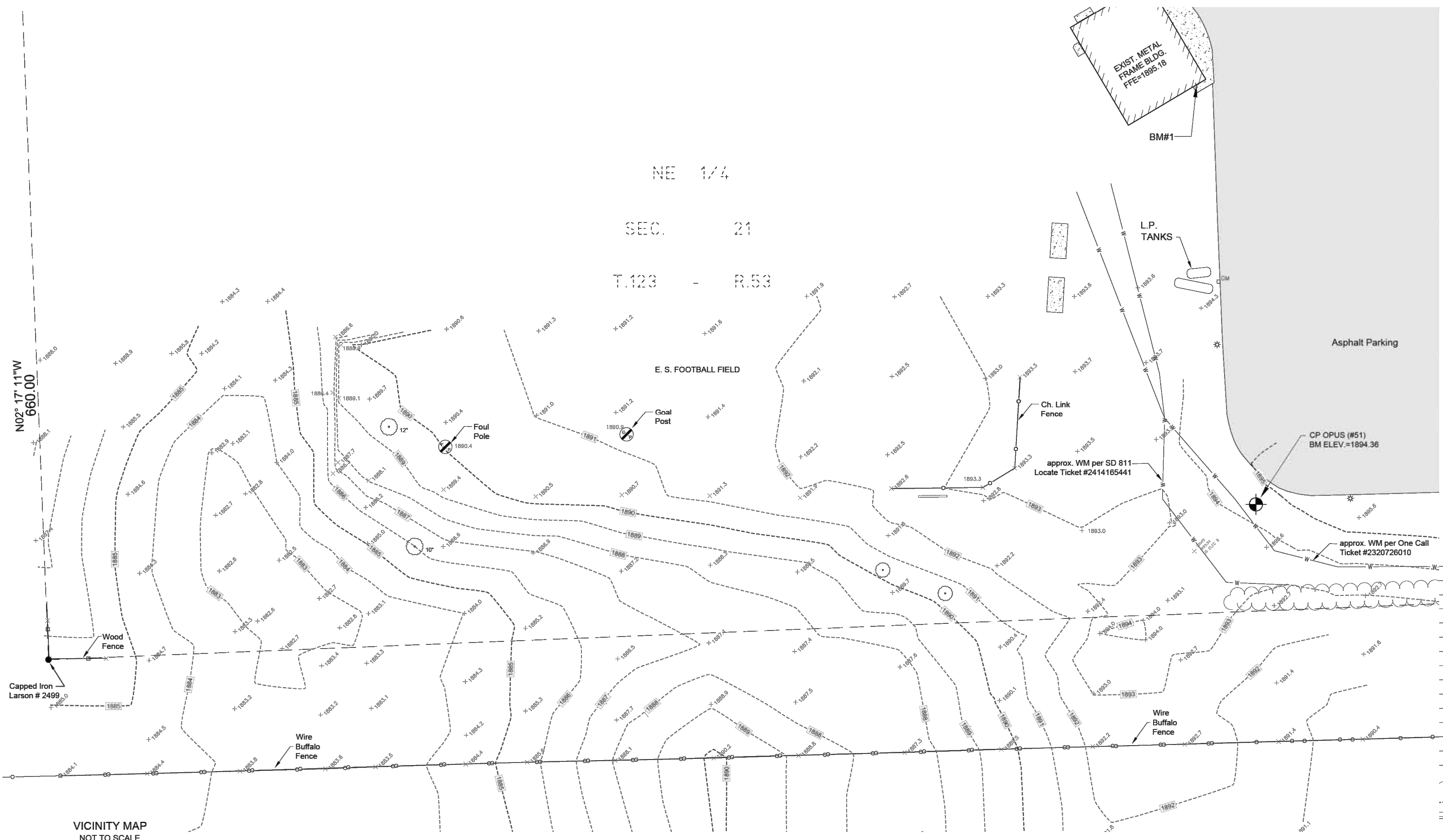
MARK	DATE	REVISION

Project Information:

Project No. : 2025072
 Drawn By :
 Checked By :
 Date : 04/25/2025

Sheet Title:
EXISTING CONDITIONS

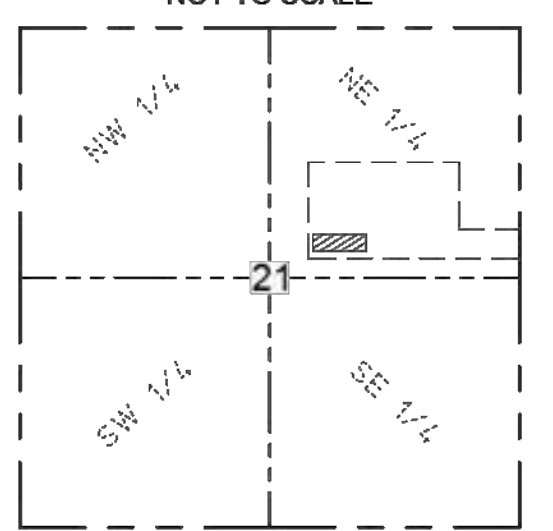
Sheet Number:
V100



LEGEND

●	Found Monument (as described)	⊕	Manhole Unknown Utility
⊕	Benchmark	⊕ ^{PP}	Outlet Post
•	Bollard	⊕ ^{PRL}	Power Pole
⊕	Bush	⊕ ^{PPR}	Power Pole with Light
⊕	Catch Basin	⊕ ^{PPF}	Power Pole with Riser
⊕	Cleanout	⊕ ^{PLBX}	Power Pole w/ Transformer
⊕	Communication Manhole	⊕	Pull Box
⊕	Communication Pedestal	⊕	Sanitary Manhole
⊕	Downspout	⊕	Satellite Dish
⊕	Electric Meter	+	Spot Elevation
⊕	Electric Manhole	⊕	Steam Manhole
⊕	Electric Pedestal	⊕	Storm Manhole
⊕	Fiber Pedestal	⊕	Street Light
⊕	Fire Hydrant	⊕	Street Sign
⊕	Floodlight	⊕	Telephone Marker
⊕	Coniferous Tree, Trunk Dia.	⊕	Telephone Manhole
⊕	Deciduous Tree, Trunk Dia.	⊕	Telephone Pedestal
⊕	Overhead Electric	⊕	Television Pedestal
⊕	Underground Electric	⊕	Traffic Signal
⊕	Sanitary Sewer	⊕	Water Manhole
⊕	Sanitary Force Main	⊕	Water Meter
⊕	Silt Fence	⊕	Water Service
⊕	Gas Pipeline	⊕	Well
⊕	Steam Pipe	⊕	Water Spigot
⊕	Storm Sewer	⊕	Water Marker
⊕	Storm Force Main	⊕	Gate Valve
⊕	Overhead Telephone Line	⊕	Guy Anchor
⊕	Underground Telephone Line	⊕	Guy Pole
⊕	Overhead Television Line	⊕	Handicap Symbol
⊕	Underground Television Line	⊕	Mail Box
⊕	Underground Fiber Optic	⊕	Gas Manhole
⊕	Water Main	⊕	Gas Marker
⊕	Tree Line	⊕	Gas Meter
⊕	Contour	⊕	Gas Valve
⊕	Curb and Gutter	⊕	Bituminous Surface
⊕		⊕	Concrete Surface
⊕		⊕	Gravel Surface

VICINITY MAP
NOT TO SCALE



SECTION 21
TOWNSHIP 123 N., RANGE 53 W., 5TH P.M.
DAY COUNTY, SD

SITE BENCHMARKS

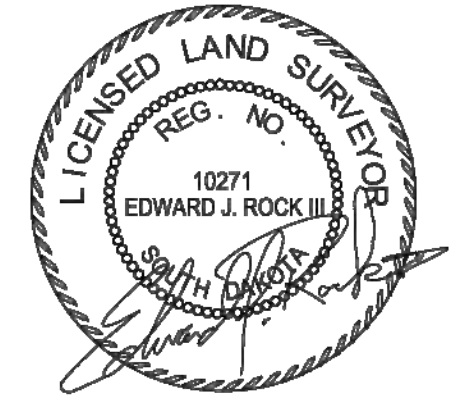
"CP OPUS" rebar with cap "ULTEIG ENG CONTROL PT" set at SW corner of parking lot, approximately 50' west of light pole. OPUS derived solution to control point #51:
Elevation = 1894.36 (NAVD88).
 BM #1: Finished Floor Elevation (FFE) @ Bldg. as shown
Elevation = 1895.18
 BM #2: Top of Hydrant Flange Bolt; Located 12' N. of concrete walk @ N. End of Parking Lot
Elevation = 1899.21'

UTILITY NOTE

Visible above ground utilities have been field located as shown. Evidence of underground utility lines and structures are shown in an approximate way only, through field markings or mapping information provided by others. A request that utilities be located for this survey was made through South Dakota State One Call, 811 Locate Request Ticket No. 2414165441. The underground utility lines and structures shown on this map represent the information provided to Ulteig Engineers, Inc. as a result of that request. The underground utilities have not been physically located as a part of this survey. The surveyor does not guarantee that the information provided was either complete or accurate. The surveyor does not guarantee that there are no other underground utility lines and structures, active or abandoned, on or adjacent to the subject property. Prior to excavation or digging, contact SOUTH DAKOTA ONE CALL at 811 or 800-781-7474.

GENERAL NOTES

- This survey is for topographic purposes only.
- Subject property boundaries that are graphically depicted on this survey map are shown in an approximate way, based on monumented locations, and are subject to revision based upon receipt of current Title Commitment.
- Orientation of the bearing system used for this survey is based on the NSRS 2011 South Dakota State Plane Coordinate System, North Zone, US Foot as determined by OPUS Solution. For the purposes of this survey, the west line of the subject property, as monumented, has a bearing of N02°17'11"W.
- Current zoning classification and setback information was not provided to the Surveyor in a report or letter and is therefore unknown.
- Elevations & contour lines referenced to NAVD 88, derived from Geoid18, based on OPUS solution to control point #51 "CP OPUS" (shown hereon).
- The field work for this survey was completed on June 10, 2024.



I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly Registered Land Surveyor under the laws of the State of South Dakota.
 Edward J. Rock III Lic. No. 10271
 Date: 07/15/2024

Ulteig
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 Phone: 651.415.3800 Fax: 888.858.3440
 Web: www.ulteig.com

Revision	Date	Description	By

TOPOGRAPHIC SURVEY
ENEMY SWIM DAY SCHOOL - GOVERNOR'S LOT

ENEMY SWIM DAY SCHOOL
 SISSETON WAHPETON OYATE - LAKE TRAVERSE RESERVATION
 WAUBAY, SD

Project Number:	24.01424
Date:	06/20/2024
Drawn By:	JS
Reviewed By:	ER
Approved By:	ER
Sheets:	1 of 1

Project Name:

**Enemy Swim Day
 School Housing**

Project Location:
 Waubay, SD

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MARK	DATE	REVISION



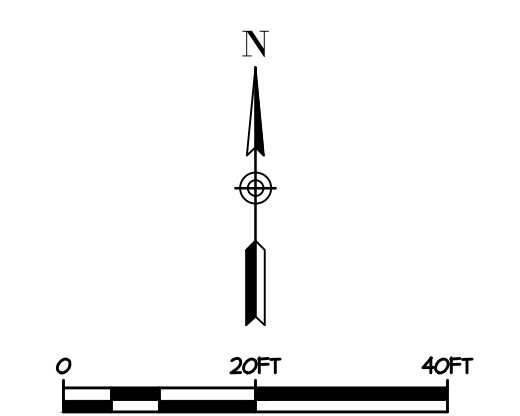
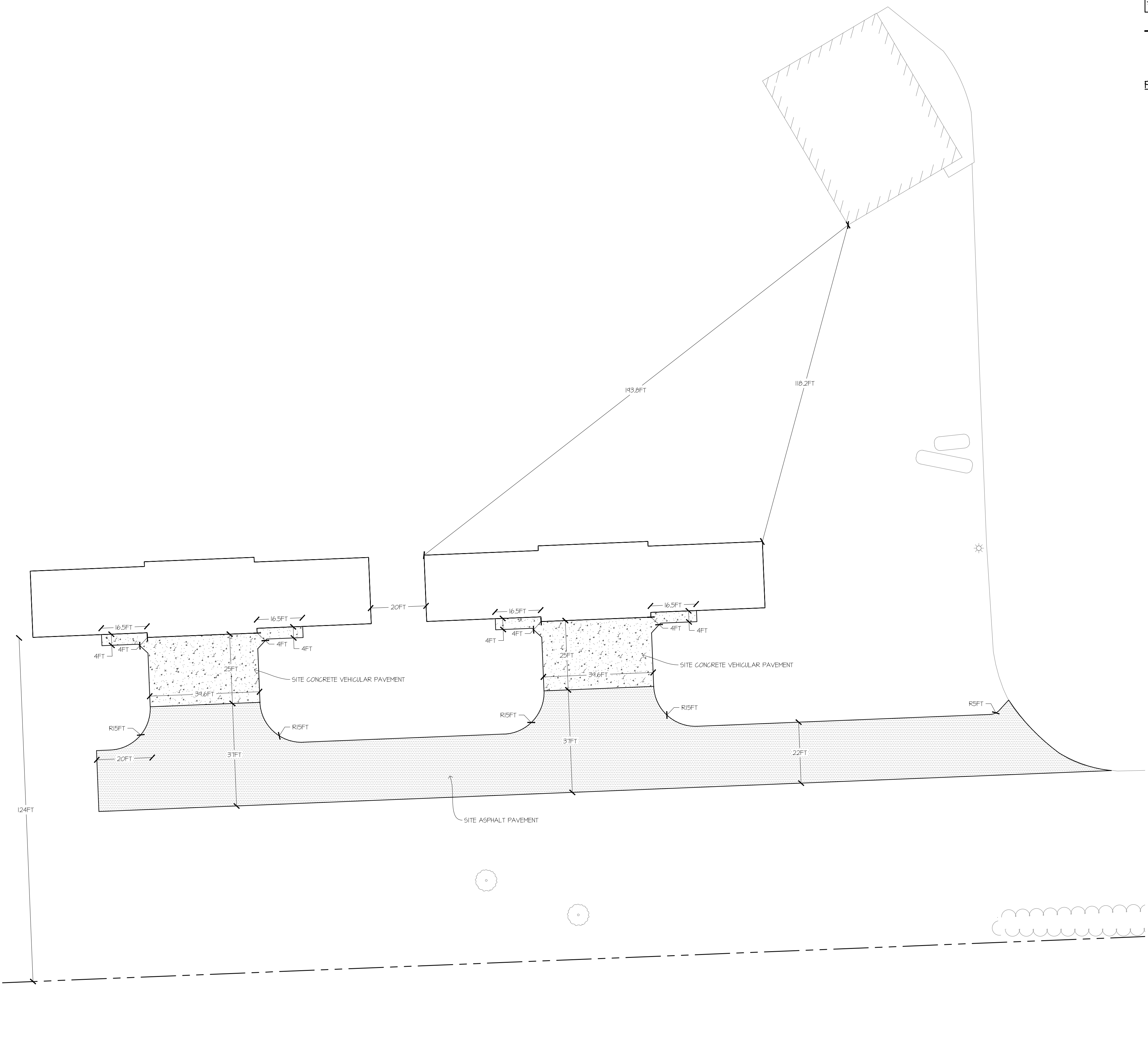
Project Information:
 Project No. : 2025072
 Drawn By : CJJ
 Checked By : SMS
 Date : 04/25/2025

Sheet Title:
 SITE PLAN

Sheet Number:
C100

- LEGEND:**
- SITE ASPHALT PAVEMENT
 - SITE CONCRETE VEHICULAR PAVEMENT
 - PROPERTY LINE

- PLAN NOTES:**
1. SITE ASPHALT PAVEMENT PER DETAIL 1/C500.
 2. SITE CONCRETE VEHICULAR PAVEMENT PER DETAIL 2/C500.
 3. SITE CONCRETE JOINTING PER DETAIL 6/C500.



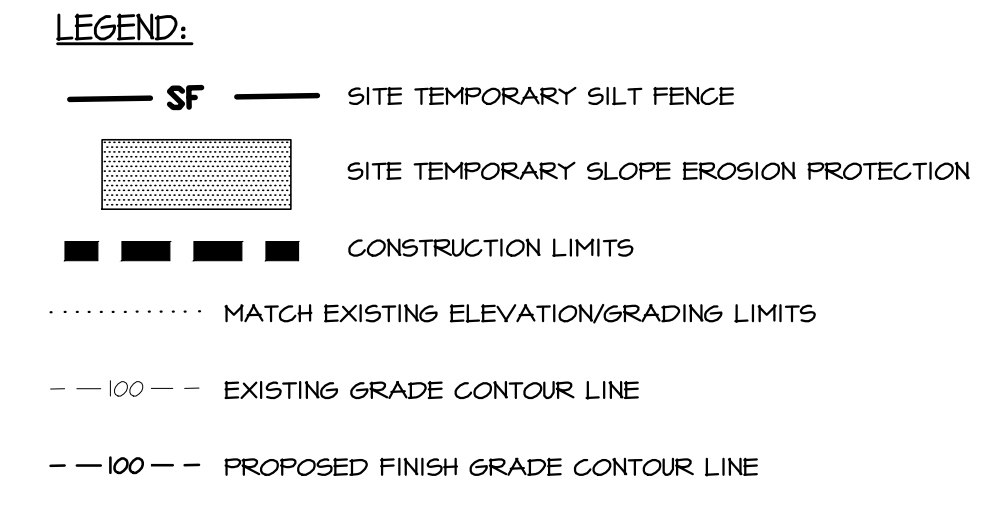
1. SECTION INCLUDES
- A. PREVENTION OF EROSION AND SEDIMENTATION DUE TO CONSTRUCTION ACTIVITIES.
2. REFERENCE STANDARDS
- A. 2022 CONSTRUCTION GENERAL PERMIT (CGP) - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT FOR DISCHARGES FROM CONSTRUCTION ACTIVITIES, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.
3. PERFORMANCE REQUIREMENTS
- A. THE CONSTRUCTION SITE OPERATOR SHALL FOLLOW ALL REQUIREMENTS OF THE 2022 CONSTRUCTION GENERAL PERMIT (CGP) - NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT FOR DISCHARGES FROM CONSTRUCTION ACTIVITIES, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.
1. THE CONTRACTOR SHALL DEVELOP A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.
- B. TIMING - PUT PREVENTIVE MEASURES IN PLACE PRIOR TO DISTURBANCE OF SURFACE COVER AND BEFORE PRECIPITATION OCCURS.
- C. EROSION AND SEDIMENTATION - PREVENT EROSION OF SOIL AND DEPOSITION OF SEDIMENT CAUSED BY STORMWATER DUE TO CONSTRUCTION ACTIVITIES FOR THIS PROJECT.
1. PREVENT WINDBLOWN SOIL FROM LEAVING THE PROJECT SITE.
2. PREVENT TRACKING OF MUD ONTO PUBLIC ROADS OUTSIDE SITE.
3. PREVENT SEDIMENT FROM ENTERING OPEN STORMWATER DRAINAGE WAYS AND/OR STORM SEWERS.
4. PREVENT MUD AND SEDIMENT FROM FLOWING ONTO PAVEMENTS.
5. IF SEDIMENTATION OCCURS, INSTALL OR CORRECT PREVENTIVE MEASURES IMMEDIATELY AT NO COST TO OWNER REMOVE DEPOSITED SEDIMENTS; COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
- D. MAINTENANCE - MAINTAIN TEMPORARY PREVENTIVE MEASURES UNTIL PERMANENT MEASURES HAVE BEEN ESTABLISHED.

- 1.4. SUBMITTALS
- A. SUBMIT A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN TO THE OWNER
- B. SUBMIT THE NOTICE OF INTENT (NOI) APPLICATION TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY.
1. PROVIDE A COPY TO THE OWNER.
2. MATERIALS
- A. TEMPORARY SILT FENCE - NOVEN POLYPROPYLENE GEOTEXTILE RESISTANT TO COMMON SOIL CHEMICALS, MILDEW AND INSECTS, NON-BIODEGRADABLE IN LONGEST LENGTHS POSSIBLE, FABRIC INCLUDING SEAMS WITH THE FOLLOWING MINIMUM AVERAGE ROLL LENGTHS:
1. AVERAGE OPENING SIZE: 30 U.S. STD. SIEVE, MAXIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D4871.
2. PERMITTIVITY: 0.05 SEC⁻¹, MINIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM D4441/D4441M.
3. ULTRAVIOLET RESISTANCE: RETAINING AT LEAST 10 PERCENT OF TENSILE STRENGTH WHEN TESTED IN ACCORDANCE WITH ASTM D4355/D4355M AFTER 5000 HOURS EXPOSURE.
4. TENSILE STRENGTH: 100 LB.-F. MINIMUM, IN CROSS-MACHINE DIRECTION; 124 LB.-F. MINIMUM, IN MACHINE DIRECTION; WHEN TESTED IN ACCORDANCE WITH ASTM D4632.
5. ELONGATION: 15 TO 30 PERCENT, WHEN TESTED IN ACCORDANCE WITH ASTM D4632.
6. TEAR STRENGTH: 55 POUNDS-FORCE, MINIMUM, WHEN TESTED IN

- ACCORDANCE WITH ASTM D4533.
7. COLOR: MANUFACTURER'S STANDARD, WITH EMBEDMENT AND FASTENER LINES PREPRINTED.
- B. SILT FENCE POSTS: MINIMUM 5 FEET LONG.
- a. STEEL U- OR T-SECTION, WITH MINIMUM MASS OF 133 POUND PER LINEAR FOOT.
- B. TEMPORARY SLOPE EROSION PROTECTION
1. SHALL BE ONE OF THE FOLLOWING.
- a. EROSION CONTROL BLANKET.
- 1) SHALL CONSIST OF A UNIFORM MESH OF INTERLOCKING STRAP OR WOOD FIBERS SANDWICHED BETWEEN AN ATTACHED TOP AND BOTTOM LAYER OF NET BACKING.
- 2) THE NETTING SHALL BE BIODEGRADABLE CONTAINING SUFFICIENT IV STABILIZATION FOR BREAKDOWN TO OCCUR WITHIN A NORMAL GROWING SEASON.
- 3) STAPLES USED TO ANCHOR THE BLANKETS SHALL BE U-SHAPED II GAUGE OR HEAVIER STEEL WIRE HAVING A SPAN WIDTH OF 1 INCH AND A LENGTH OF 8 INCHES OR MORE FROM TOP TO BOTTOM AFTER BENDING.
- 4) THE EROSION CONTROL BLANKETS ACCEPTABLE FOR USE ON THIS PROJECT INCLUDE:
- (a) GEO-SYNTHETICS, INC. - LANDLOK 52.
- (b) NORTH AMERICAN GREEN - 5150.
- (c) OR EQUAL.
- b. BONDED FIBER MATRIX.
- 1) THE FIBERS SHALL BE COMPOSED OF 100% WOOD OR WOOD BY-PRODUCTS. A MINIMUM OF 25% OF THE FIBERS SHALL AVERAGE 1016 MM (0.4 INCHES) IN LENGTH AND 50% OR MORE SHALL BE RETAINED ON A CLARK FIBER CLASSIFIER 24 MESH SCREEN. FIBERS SHALL BE COLORED WITH A WATER SOLUBLE, NON-TOXIC DYE, TO AID IN UNIFORM APPLICATION OVER THE SITE.
- 2) THE BINDER SHALL BE A HYDRO COLLOID BASED (GIAR GUM) WITH ADDED SLOW-RELEASE AND AGRICULTURAL BASED FERTILIZERS. THE BINDER SHALL NOT DISSOLVE OR DISPERSE UPON RETIENING.
- 3) THE BFM SLURRY SHALL DRY TO FORM A CRUST APPROXIMATELY 3-6 MM (0.09 TO 0.14 INCHES) THICK ADHERING TO THE SOIL SURFACE.
- 4) THE MOISTURE CONTENT OF THE MATRIX SHALL BE 12% +/- 3% BY WEIGHT.
- 5) THE MATRIX SHALL CONSIST OF MATERIALS THAT ARE 100% BIODEGRADABLE AND 100% BENEFICIAL TO PLANT LIFE.
- 6) THE MATRIX SHALL PROVIDE 100% CONTINUOUS COVERAGE AND SHALL HAVE NO HOLES GREATER THAN 1MM IN SIZE.
- 7) THE HYDRATED MIXTURE DENSITY SHALL BE APPROXIMATED BY A SLUMP TEST PRIOR TO APPLICATION.
- 8) THE BFM MULCH WATER RATIO SHALL BE AS MANUFACTURER RECOMMENDATIONS. THE MINIMUM BFM MULCH TO WATER RATIO IS 50LBS BFM MULCH AND 100 GALLONS WATER. THE WATER RATE WILL VARY BETWEEN 100 GALLONS AND 125 GALLONS PER SOLDS, DEPENDING ON WHICH OF THE PRODUCTS IS USED.
- 9) THE BONDED FIBER MATRIX MULCH PRODUCTS ACCEPTABLE FOR USE ON THIS PROJECT INCLUDE:
- (a) GEOAEGIS - MANUFACTURED BY CANFOR.
- (b) SOIL GUARD - MANUFACTURED BY MAT, INC.
- (c) CONNED 3000 - MANUFACTURED BY CONNED FIBERS, INC.
- C. TEMPORARY PUMPED SEDIMENT CONTROL DEVICE.

1. NON-NOVEN GEOTEXTILE FABRIC SEWN INTO A BAG USING A DOUBLE NEEDLE MACHINE AND HIGH STRENGTH THREAD.
- a. SEAMS SHALL HAVE AN AVERAGE WIDTH STRENGTH OF 60LB/INCH AS PER ASTM D4069 AND MEET OR EXCEED THE FOLLOWING:
- 1) GRAB TENSILE OF 205 LBS AS PER ASTM D 4632.
- 2) PUNCTURE OF 110 LBS AS PER ASTM D 4833.
- 3) FLOW RATE OF 45 GAL/MIN/SF AS PER ASTM D 4441.
- 4) PERMITTIVITY OF 1.5 SEC⁻¹ AS PER ASTM D 4441.
- 5) MILLEN BURST STRENGTH OF 350 PSI AS PER ASTM D 3706.
- 6) AOS# OF 80# US SIEVE AS PER ASTM D 4751.
2. SPOUT LARGE ENOUGH TO ACCOMMODATE A 4 INCH DISCHARGE HOSE WITH STRAP TO THE UNIT CLOSED.
3. SHALL BE ONE OF THE FOLLOWING.
- a. DRITBAG
- 1) ACE ENVIRONMENTAL, INC., 2831 GARDWELL ROAD, RICHMOND, VIRGINIA 23234, 800-448-3636.
- b. DANDY DEWATERING BAG.
- 1) DANDY PRODUCTS, INC., P.O. BOX 1980, WESTERVILLE, OHIO 43086, 800-591-2284.
- c. OR EQUAL.
- 3) PREPARATION
- A. SCHEDULE WORK SO THAT SOIL SURFACES ARE LEFT EXPOSED FOR THE MINIMUM AMOUNT OF TIME.
- 3.2. SCOPE OF PREVENTIVE MEASURES
- A. NATURAL VEGETATION SHALL BE RETAINED WHENEVER FEASIBLE.
- B. LAND GRADING AND EXCAVATING SHALL BE KEPT AT A MINIMUM TO REDUCE THE POSSIBILITY OF CREATING RUNOFF AND EROSION PROBLEMS WHICH REQUIRE EXTENSIVE CONTROL MEASURES.
- C. LAND EXPOSURE SHALL BE MINIMIZED IN TERMS OF AREA AND TIME.
- D. TEMPORARY SILT FENCE.
1. PROVIDE ALONG THE DOWNGRADE PERIMETER EDGE OF SOIL STOCKPILES.
2. PROVIDE AT LOCATIONS SHOWN ON THE PLANS.
3. PROVIDE AT ADDITIONAL LOCATIONS AS NECESSARY TO MEET THE REQUIREMENTS UNDER SECTION 1.3 OF THESE NOTES.
- E. TEMPORARY CONCRETE WASHOUT.
1. PROVIDE AT A DEFINED AREA ON SITE OR TO AN AREA DESIGNATED FOR CEMENT WASHOUT.
2. SHALL BE SUFFICIENT IN SIZE TO CONTAIN THE WASH WATER AND RESIDUAL CEMENT.
- F. TEMPORARY PUMPED SEDIMENT CONTROL DEVICE.
1. DEVICE SHALL BE USED TO CONTROL SEDIMENT DISCHARGE IN ANY DEWATERING OR PUMPED WATER APPLICATION.
- 3.3. INSTALLATION
- A. TEMPORARY SILT FENCES:
1. STORE AND HANDLE FABRIC IN ACCORDANCE WITH ASTM D4873.
2. USE NOMINAL 30 INCH HIGH BARRIERS, MINIMUM 60 INCH LONG POSTS SPACED AT 6 FEET MAXIMUM SPACINGS.
3. EMBED BOTTOM OF FABRIC IN A TRENCH ON THE UPSLOPE SIDE OF FENCE, WITH 6 INCHES OF FABRIC Laid FLAT ON BOTTOM OF TRENCH FACING UPSLOPE, BACKFILL TRENCH AND COMPACT.

4. MINIMUM POST EMBEDMENT.
- a. STEEL POST = 24 INCHES, MINIMUM.
5. DO NOT SPLICE FABRIC WIDTH; MINIMIZE SPLICES IN FABRIC LENGTH; SPLICE AT POST ONLY, OVERLAPPING AT LEAST 18 INCHES, WITH EXTRA POST.
6. FASTEN FABRIC TO STEEL POSTS USING WIRE, NYLON CORD, OR INTEGRAL POCKETEYS.
- B. TEMPORARY RIMPED SEDIMENT CONTROL DEVICE.
1. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
- C. TEMPORARY SLOPE EROSION PROTECTION
1. SEED AND FERTILIZE PER SPECIFICATION 32.42.19 PRIOR TO INSTALLING TEMPORARY SLOPE EROSION PROTECTION.
2. PROVIDE AT ALL LOCATIONS TOPSOILED AND/OR DISTURBED BY CONSTRUCTION.
3. BONDED FIBER MATRIX.
- a. INSTALL THE BFM AS PER THE MANUFACTURER'S INSTRUCTIONS WITH THE FOLLOWING MINIMUM GUIDELINES:
- 1) THE BFM SHALL BE APPLIED WITH HYDRAULIC SPRAY EQUIPMENT BY A MANUFACTURER'S CERTIFIED APPLICATOR.
- 2) APPLICATION SHALL BE DONE AT LEAST 24 HOURS IN ADVANCE OF PROJECTED RAINFALL TO ALLOW THE BFM MULCH ADEQUATE TIME TO DRY.
- 3) THE BFM MULCH SHALL BE APPLIED IN TWO STAGES (ONE-HALF RATE) WITH AMPLE TIME TO DEWATER THE FIRST APPLICATION.
- 4) THE BFM MULCH SHALL BE APPLIED FROM AT LEAST TWO ALTERNATE DIRECTIONS, PREFERABLY 90 DEGREES APART, IF POSSIBLE, TO ENSURE ALL SOIL FACES ARE COVERED.
- 5) THE INSTALLATION RATE OF THE BFM MULCH SHALL BE 3500 LBS PER ACRE, MINIMUM AND 100% COVERAGE.
4. EROSION CONTROL BLANKET.
- a. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
- 3.4. MAINTENANCE
- A. INSPECT PREVENTIVE MEASURES WEEKLY WITHIN 24 HOURS AFTER THE END OF ANY STORM THAT PRODUCES 0.25 INCHES OR MORE RAINFALL AT THE PROJECT SITE, AND DAILY DURING PROLONGED RAINFALL.
- B. REPAIR DEFICIENCIES IMMEDIATELY.
- C. TEMPORARY SILT FENCES:
1. PROMPTLY REPLACE FABRIC THAT DETERIORATES UNLESS NEED FOR FENCE HAS PASSED.
2. REMOVE SILT DEPOSITS THAT EXCEED ONE-THIRD OF THE HEIGHT OF THE FENCE.
3. REPAIR FENCES THAT ARE UNDERCUT BY RUNOFF OR OTHERWISE DAMAGED, WHETHER BY RUNOFF OR OTHER CAUSES.
- D. TEMPORARY PUMPED SEDIMENT CONTROL DEVICE.
1. REPLACE THE UNIT WHEN 1/2 FULL OF SEDIMENT OR WHEN SEDIMENT HAS REDUCED THE FLOW RATE OF THE PUMP DISCHARGE TO AN IMPRACTICAL RATE.
- E. PLACE SEDIMENT IN APPROPRIATE LOCATIONS ON SITE; DO NOT REMOVE FROM SITE.
- 3.5. CLEAN UP
- A. REMOVE TEMPORARY MEASURE AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.
- B. WHERE REMOVAL OF TEMPORARY MEASURES WOULD LEAVE EXPOSED SOIL, SHAPE SURFACE TO AN ACCEPTABLE GRADE AND FINISH TO MATCH ADJACENT GROUND SURFACES.



SWPPP NARRATIVE

PROJECT NAME: ENEMY SWIM DAY SCHOOL HOUSING

PROJECT LOCATION: 19525 446TH AVE WAUBAY, SD 57273

PROJECT SIZE: APPROXIMATELY 2 ACRES

EXISTING CONDITIONS: EXISTING TERRACE ARE CLASSIFIED AS LEAN CLAY OVER SILTY SAND WITH GRAVEL.

PROJECT TYPE: NEW BUILDING CONSTRUCTION OF TWO STRUCTURES INCLUDING NEW SITE PAVEMENTS AND SITE UTILITIES.

CUMULATIVE IMPERVIOUS SURFACE: NEW IMPERVIOUS ADDED TO SITE AS PART OF THIS PROJECT - 0.4 ACRES.

PERMANENT SURFACE WATER MANAGEMENT: N/A

RECEIVING WATERS: STORMWATER FOLLOWS THE EXISTING DRAINAGE DITCH ON THE SOUTH SIDE OF THE SITE.

ESTIMATED DATES OF CONSTRUCTION

START DATE: _____ (TO BE FILLED IN BY CONTRACTOR)

COMPLETION DATE: _____ (TO BE FILLED IN BY CONTRACTOR)

CONTACT INFORMATION

OWNER

OWNER CONTACT: DR. NAOMIE EASTMAN

TITLE: SUPERINTENDENT

ADDRESS: ENEMY SWIM DAY SCHOOL

19525 446TH AVENUE

WAUBAY, SD 57273

TELEPHONE: 605-441-4605

EMAIL: NEASTMAN@SDSU.EDU

CONTRACTOR (TO BE FILLED OUT BY THE CONTRACTOR)

BUSINESS NAME: _____

OWNER NAME: _____

MAILING ADDRESS: _____

CITY: _____

TELEPHONE: _____

EMAIL ADDRESS: _____

CONTACT NAME: _____

MAILING ADDRESS: _____

CITY: _____

TELEPHONE: _____

EMAIL ADDRESS: _____

CONTRACTOR TO PREPARE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

THE CONTRACTOR SHALL DEVELOP A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. SUBMIT A COPY OF THE SWPPP TO THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY WORK ON SITE.

DESCRIPTION OF THE NATURE OF THE CONSTRUCTION ACTIVITY

SITE PROJECT CONSTRUCTION WILL CONSIST PRIMARILY OF NEW BUILDING CONSTRUCTION, SITE GRADING, PAVING AND UTILITY IMPROVEMENTS FOR ENEMY SWIM DAY SCHOOL HOUSING IN WAUBAY, SD OVER AN AREA OF APPROXIMATELY 2 ACRES.

POTENTIAL FOR A DISCHARGE OF SEDIMENT AND/OR OTHER POTENTIAL POLLUTANTS FROM THE SITE.

CONSTRUCTION PHASE POLLUTANT SOURCES ANTICIPATED AT THE SITE ARE DISTURBED SOIL, AND CONSTRUCTION GENERATED LITTER AND DEBRIS. WITHOUT ADEQUATE CONTROL, THERE IS POTENTIAL FOR EACH TYPE OF POLLUTANT TO BE TRANSPORTED BY STORMWATER AND/OR WIND.

KNOWLEDGEABLE PERSON EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL.

BMP'S SHALL OVERSEE THE IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENTATION CONTROL BMP'S BEFORE AND DURING CONSTRUCTION.

THE CONTRACTOR SHALL IMPLEMENT THE PROJECT'S STORMWATER POLLUTANT PREVENTION PLAN. THE CONTRACTOR SHALL PROVIDE AN EROSION CONTROL SUPERVISOR WITH A VALID CERTIFICATION TO DIRECT THE CONTRACTOR AND SUBCONTRACTOR(S) OPERATIONS AND INSURE COMPLIANCE WITH FEDERAL, STATE, LOCAL ORDINANCE AND REGULATIONS.

CHAIN OF RESPONSIBILITY FOR SWPPP IMPLEMENTATION FOR ALL OPERATORS ON THE SITE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING THE WORK OF ALL OPERATORS, INCLUDING SUBCONTRACTORS AND UTILITY COMPANIES, SUCH THAT EROSION AND SEDIMENT CONTROL MEASURES ARE FULLY EXECUTED FOR EACH OPERATION AND IN A TIMELY MANNER OVER THE DURATION OF THE PROJECT. OPERATORS HAVE DAILY ACCESS TO THE PROJECT SITE. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE SWPPP IMPLEMENTATION UNTIL THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION AND N.O.T. HAS BEEN SUBMITTED TO THE EPA.

TRAINING DOCUMENTATION

SWPPP PREPARATION

NAME OF SWPPP PREPARER: _____

DATE OF TRAINING: _____

NAME OF INSTRUCTOR: _____

ENTITY PROVIDING TRAINING: _____

CONTENT OF TRAINING COURSE: _____

TOTAL HOURS OF TRAINING: _____

SWPPP IMPLEMENTATION, REVISING, AMENDING, AND INSPECTING (TO BE FILLED IN BY CONTRACTOR AFTER PROJECT IS AWARDED)

NAME OF INDIVIDUAL OVERSEEING AND INSPECTING: _____

DATE OF TRAINING: _____

NAME OF INSTRUCTOR: _____

ENTITY PROVIDING TRAINING: _____

CONTENT OF TRAINING: _____

TOTAL HOURS OF TRAINING: _____

BMP INSTALLATION, MAINTENANCE, AND REPAIR (TO BE FILLED OUT BY CONTRACTOR AFTER PROJECT IS AWARDED)

NAME OF INDIVIDUAL OVERSEEING AND INSPECTING: _____

DATE OF TRAINING: _____

NAME OF INSTRUCTOR: _____

ENTITY PROVIDING TRAINING: _____

CONTENT OF TRAINING: _____

TOTAL HOURS OF TRAINING: _____

INSTALLATION TIMING FOR EROSION PREVENTION AND SEDIMENT CONTROL BMP'S

THE EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND PREVENT SEDIMENT FROM LEAVING THE SITE AND SHALL MEET THE NPDES MIN100001 PERMIT PART IV CONSTRUCTION ACTIVITY REQUIREMENTS. ALL BMP'S SHALL BE LEFT IN PLACE UNTIL FINAL STABILIZATION IS COMPLETED. ALL BMP'S SHALL BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF FINAL STABILIZATION AND PRIOR TO SUBMITTING THE NOTICE OF TERMINATION.

PROCEDURES TO ESTABLISH ADDITIONAL TEMPORARY BMP'S AS NECESSARY FOR THE SITE CONDITIONS DURING CONSTRUCTION

THE SWPPP MUST BE AMENDED AS NECESSARY DURING THE COURSE OF THE CONSTRUCTION IN ORDER TO KEEP IT CURRENT WITH THE POLLUTANT CONTROL MEASURES UTILIZED AT THE SITE. CONTRACTOR SHALL AMEND THE SWPPP AS NECESSARY TO INCLUDE ADDITIONAL OR MODIFIED BMP'S TO CORRECT PROBLEMS IDENTIFIED. AMENDING THE SWPPP WILL NOT REQUIRE IT TO BE REPERMITS. ADDITIONAL SKETCHES AND/OR REVISED DRAWINGS MAY BE ADDED TO THE SWPPP. THE SITE MAP SHOWING THE LOCATIONS OF THE STORMWATER CONTROLS SHALL BE UPDATED TO SHOW THE PROGRESS OF CONSTRUCTION.

RECORD RETENTION

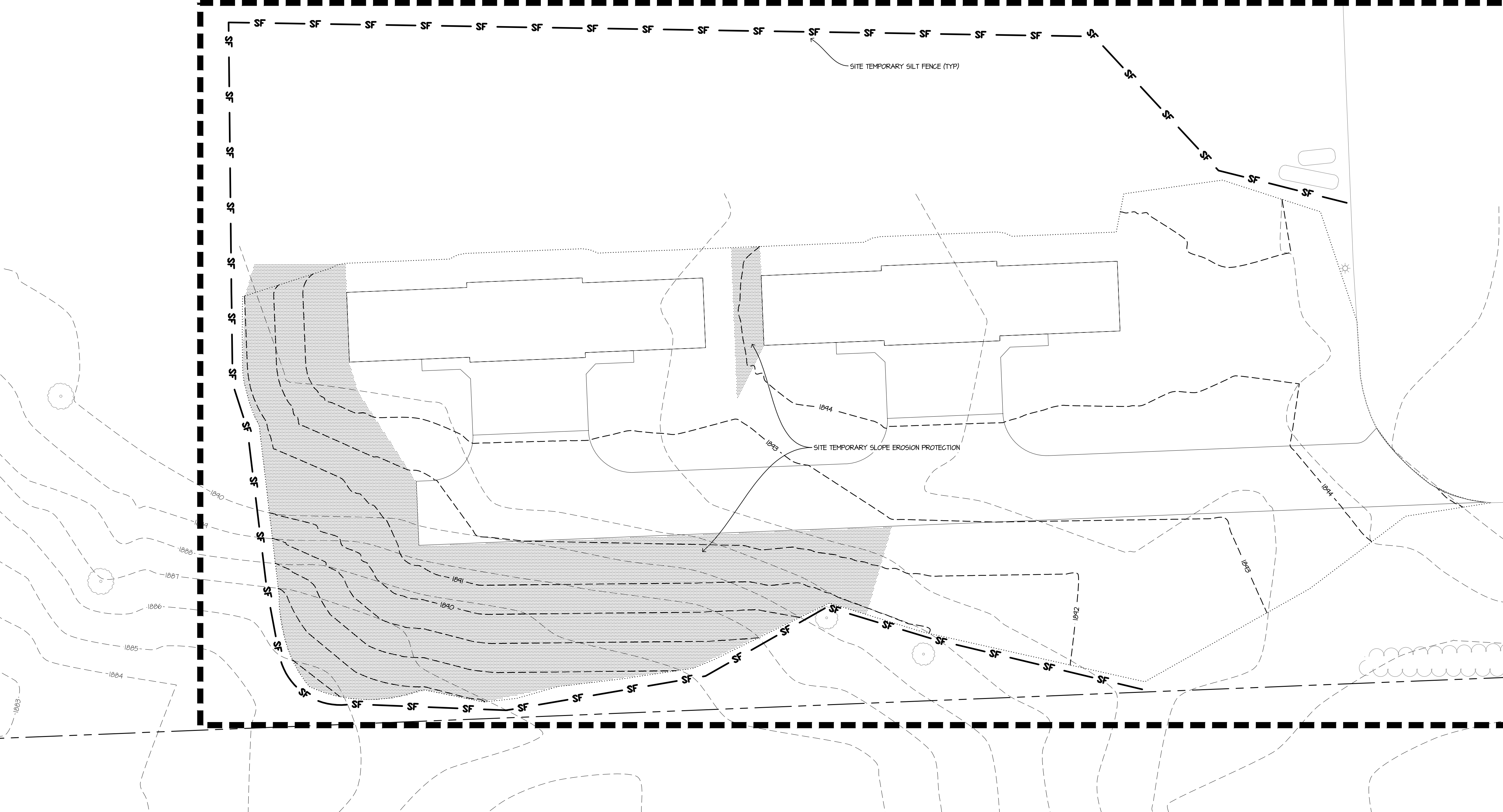
THE SWPPP (ORIGINAL OR COPIED) INCLUDING ALL CHANGES TO IT, AND INSPECTION, AND MAINTENANCE RECORDS SHALL BE KEPT IN THE CONTRACTOR'S CONSTRUCTION OFFICE.

REFERENCE TO OTHER PLAN SHEETS

REFER TO SHEET 1008 EXISTING CONDITIONS

REFER TO SHEET C104 SITE GRADING PLAN FOR EXISTING AND FINAL ELEVATIONS AND POST CONSTRUCTION DRAINAGE PATTERNS

REFER TO SHEET C100 SITE PLAN FOR IMPERVIOUS SURFACE AREAS.



Project Name:

Enemy Swim Day
 School Housing

Project Location:
 Waubay, SD

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MARK	DATE	REVISION

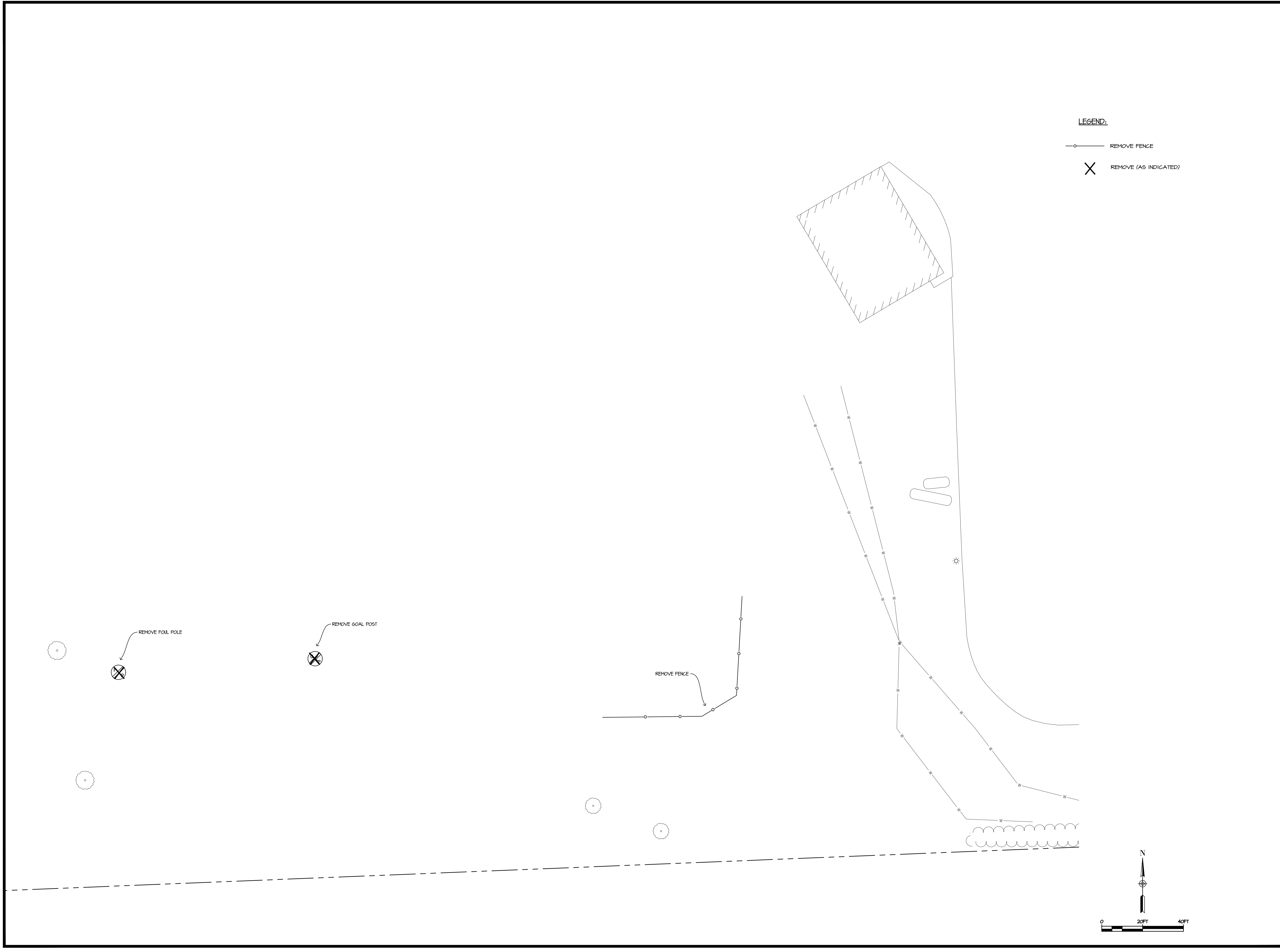


Project Information:
 Project No. : 2025072
 Drawn By : CJJ
 Checked By : SMS
 Date : 04/25/2025

Sheet Title:
 SITE DEMOLITION PLAN

Sheet Number:
C102

LEGEND:
 —○— REMOVE FENCE
 X REMOVE (AS INDICATED)



Project Name:

Enemy Swim Day School Housing

Project Location:
Waubay, SD

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MARK	DATE	REVISION



Project Information:
Project No. : 2025072
Drawn By : CJJ
Checked By : SMS
Date : 04/25/2025

Sheet Title:
SITE UTILITY PLAN

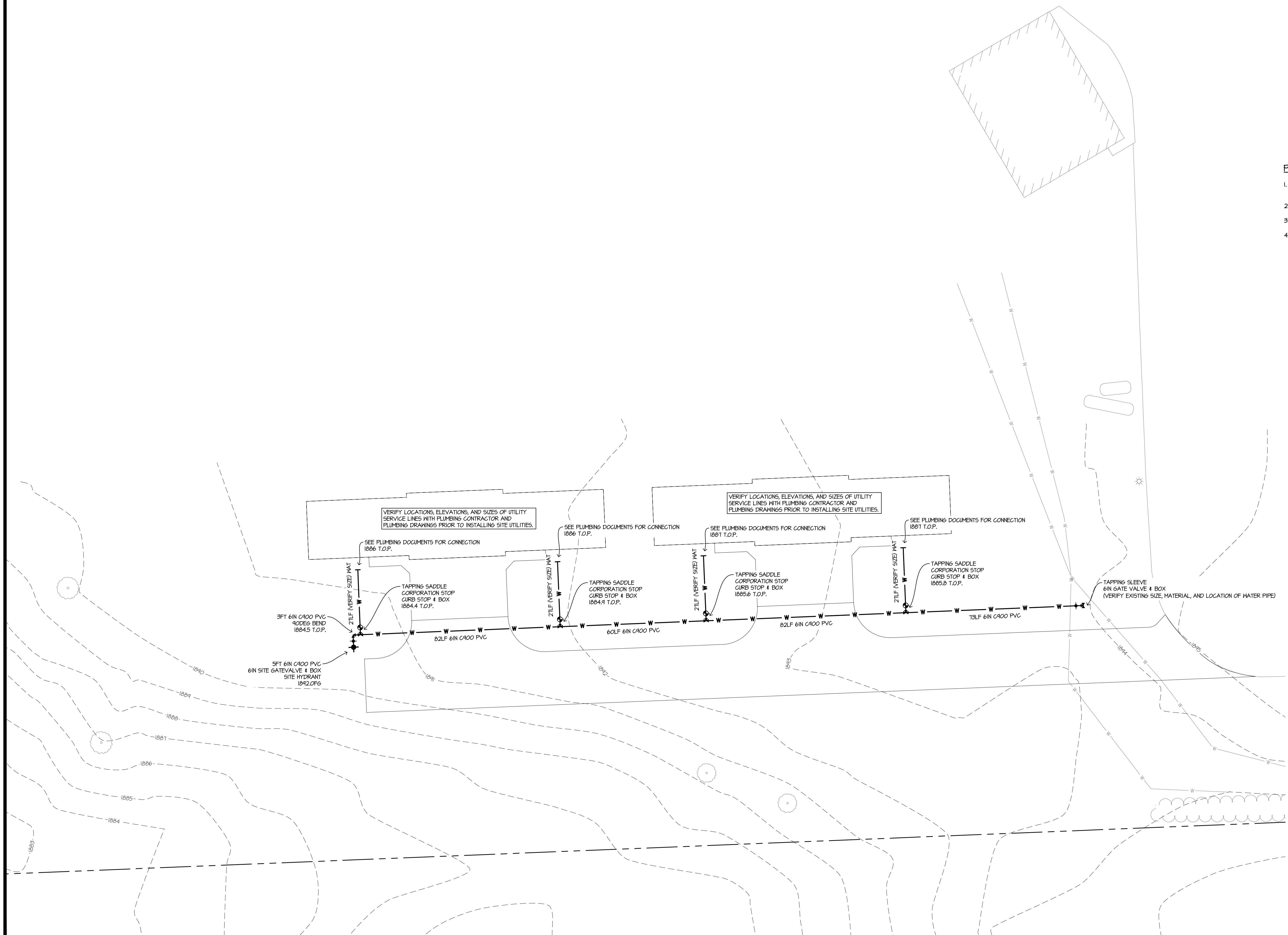
Sheet Number:
C103

LEGEND:

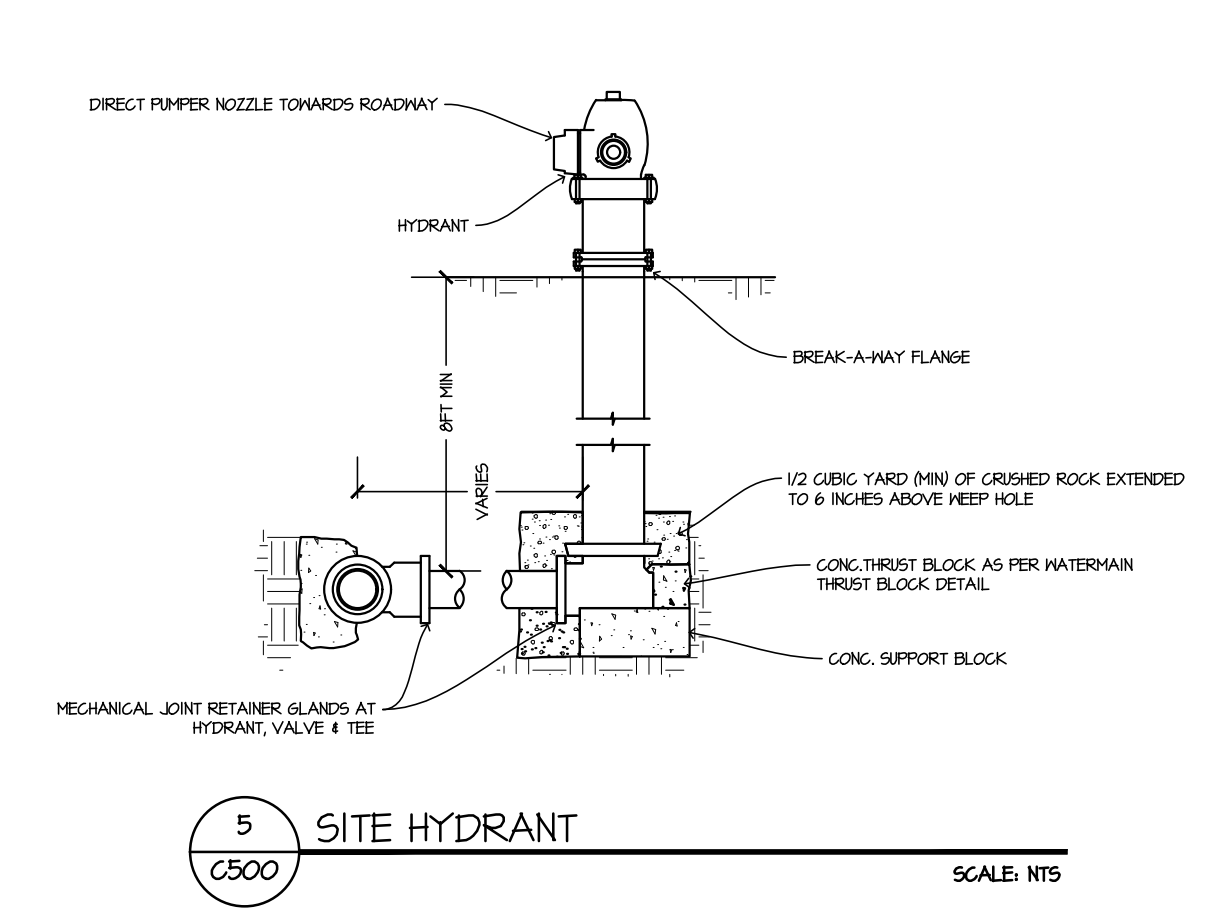
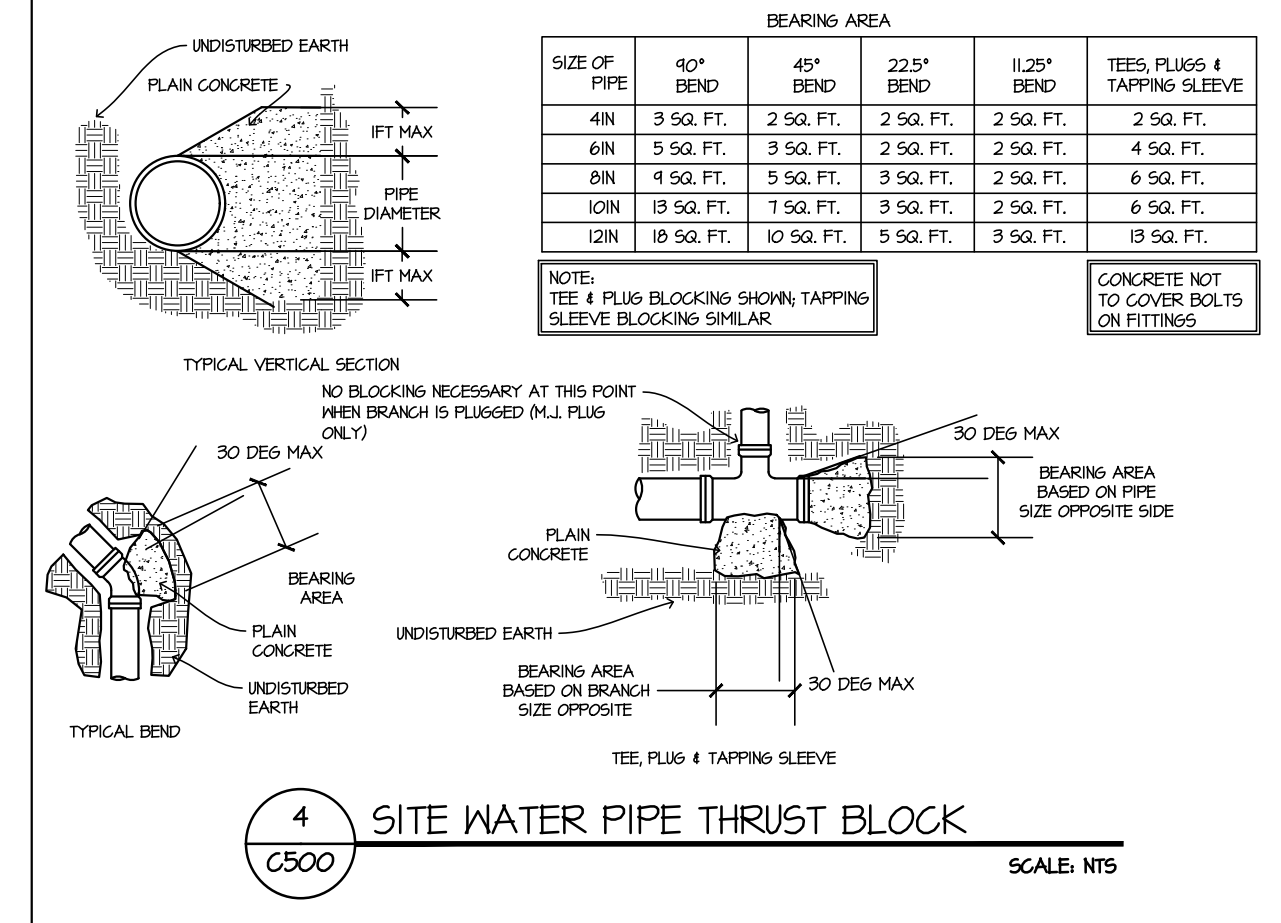
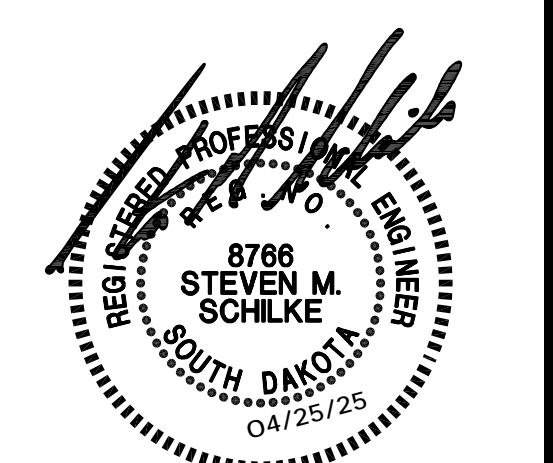
- W — SITE WATER PIPE
- ✦ SITE PIPE FITTING
- ⊕ SITE GATE VALVE & BOX
- SITE CURB STOP & BOX
- ⊕ SITE HYDRANT
- - - - - EXISTING CONTOUR LINE

PLAN NOTES:

1. VERIFY INVERT ELEVATIONS OF EXISTING UTILITIES AT POINT OF CONNECTION WITH NEW UTILITIES PRIOR TO INSTALLING ANY UTILITIES.
2. PROVIDE SITE PIPE BEDDING PER DETAIL 3/C500.
3. PROVIDE SITE WATER PIPE THRUST BLOCK PER DETAIL 4/C500.
4. PROVIDE SITE HYDRANT PER DETAIL 5/C500.

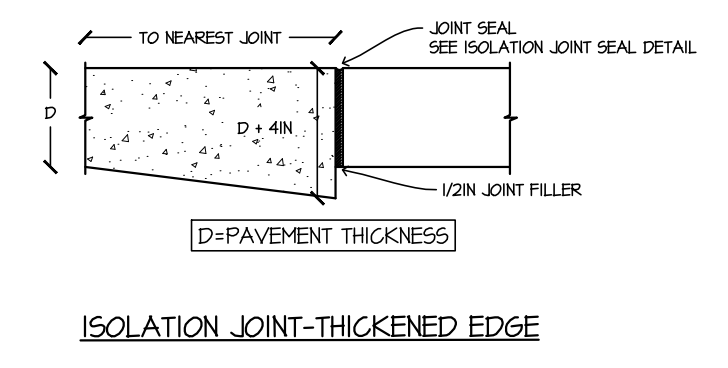
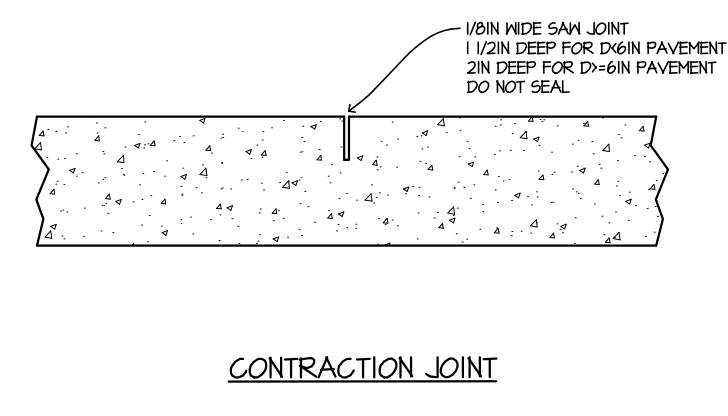
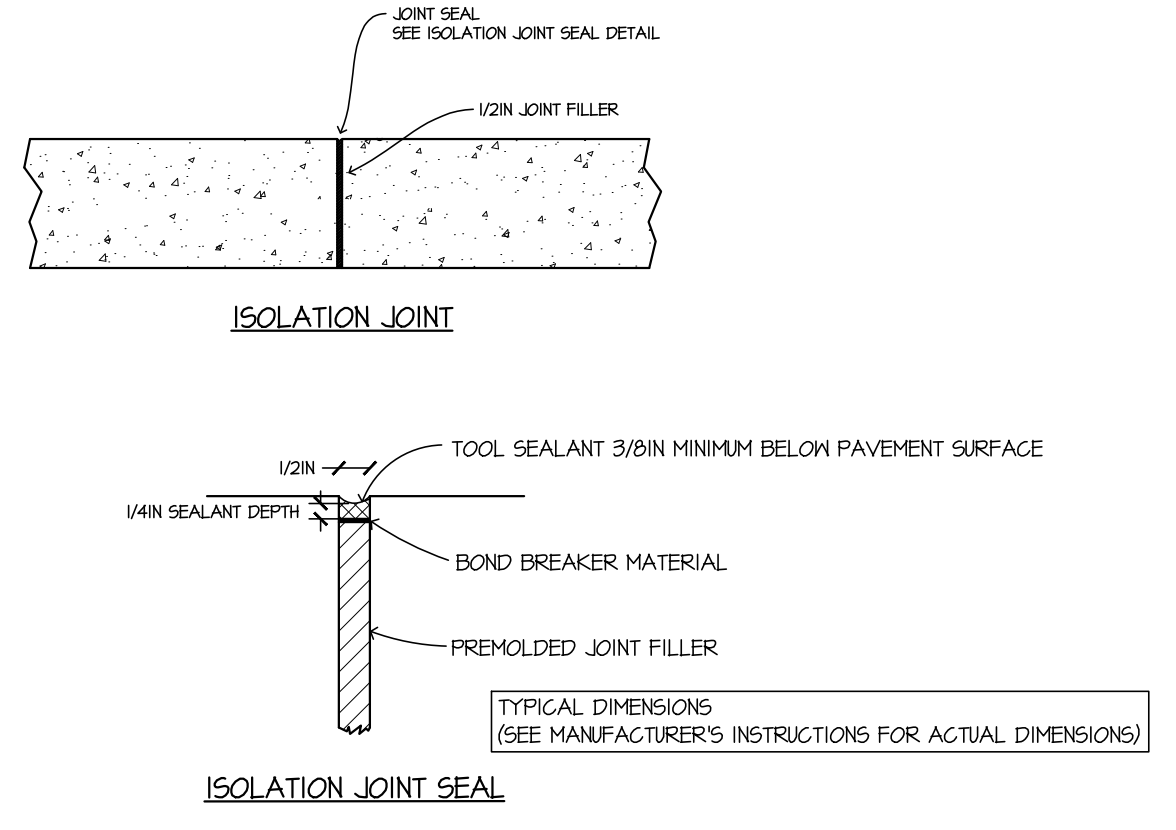
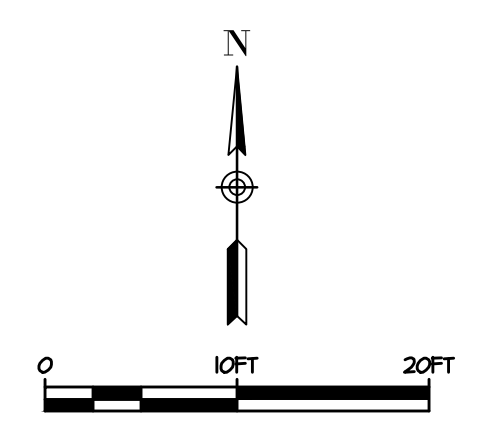
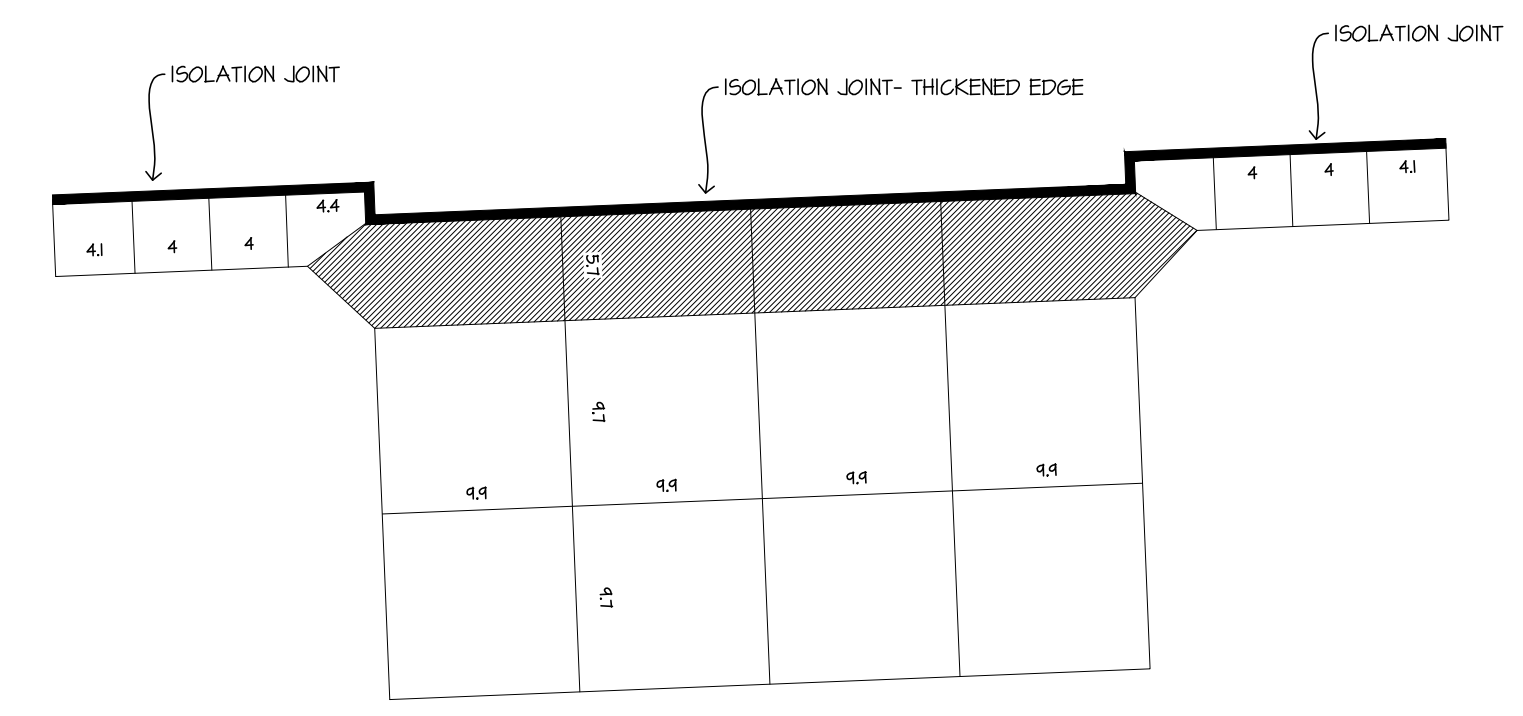


MARK	DATE	REVISION



LEGEND:

- CONTRACTION JOINT
- ISOLATION JOINT - THICKENED EDGE
- 10.0 10FT SPACING BETWEEN JOINTS



GENERAL DESIGN CRITERIA:

- CODES:
 - INTERNATIONAL BUILDING CODE, 2021
 - AMERICAN INSTITUTE OF STEEL CONSTRUCTION, LATEST EDITION
 - AMERICAN CONCRETE INSTITUTE, LATEST EDITION
 - AMERICAN WOOD COUNCIL, NATIONAL DESIGN SPECIFICATION, LATEST EDITION
 - COMPLY WITH ALL LOCAL CODES AND LAWS, INCLUDING OSHA REGULATIONS
- LATERAL LOADS:
 - LATERAL SYSTEM- PLYWOOD/GYPSUM/THERMOPLY SHEAR WALLS
 - BUILDING OCCUPANCY: II

- SEISMIC:
- SEISMIC DESIGN CATEGORY A
 - IMPORTANCE FACTOR $I_p=1.00$
 - ACCELERATIONS: $S_S=0.081$ $S_1=0.024$
 - SITE CLASS D
 - SPECTRAL: $S_{DS}=0.086$ $S_{D1}=0.039$
 - ANALYSIS PROCEDURE:
 - EQUIVALENT LATERAL FORCE

- WIND:
- BASIC WIND SPEED: 112 MPH
 - EXPOSURE C
 - INTERNAL PRESSURE COEFFICIENT: ENCLOSED

COMPONENTS AND CLADDING WIND (UNFACTORED):

WIND ZONES	GROSS WIND PRESSURE
ROOF (ZONE 1):	+16PSF OR -16PSF
ROOF (ZONE 2):	+16PSF OR -26PSF
ROOF (ZONE 3):	+16PSF OR -43PSF
WALL (ZONE 4):	+20PSF OR -26PSF
WALL (ZONE 5):	+20PSF OR -30.5PSF
WALL (ZONE 4F):	+/- 20PSF
WALL (ZONE 5F):	+/- 20PSF

THIS ASSUMES AN INFLUENCE AREA OF 50 SQ FT. FOR WALL ZONES & 300 SQ FT. FOR ROOF ZONES. INCREASE OF PRESSURE FOR OTHER INFLUENCE AREAS SHALL BE BY THE COMPONENT DESIGNER. THE USE OF ALTERNATE LOAD COMBINATIONS IN SECTION 1605.2.2 IS NOT ALLOWED.

- SUPERIMPOSED - DEAD LOADS:
 - WOOD:
 - TOP CHORD: 10PSF
 - BOT. CHORD: 10PSF
 - MISC: 5PSF

- LIVE LOADS
 - GROUND SNOW LOAD: 50PSF
 - SLOPED ROOF SNOW LOAD (MINIMUM): 39PSF
 - IMPORTANCE FACTOR $I_p=1.00$
 - SNOW EXPOSURE FACTOR $C_e=1.00$
 - THERMAL FACTOR $C_t=1.00$
 - SNOW DRIFT LOAD: ASC-7 (2021)

GENERAL:

- THE CONTRACT DRAWINGS REPRESENT THE COMPLETED STRUCTURE, AT TIME OF SUBSTANTIAL COMPLETION, UNLESS NOTED OTHERWISE, THEY DO NOT REPRESENT THE MEANS AND METHODS OF CONSTRUCTION. SEQUENCING AND MEANS-AND-METHODS OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH, SAFETY, AND STABILITY OF THE NEW AND EXISTING STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING, AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY. THE CONTRACTOR SHALL, AT HIS DISCRETION, EMPLOY A REGISTERED PROFESSIONAL ENGINEER FOR THE DESIGN OF ANY TEMPORARY BRACINGS AND SHORING.
- FIELD VERIFY ANY EXISTING DIMENSIONS, SIZES, AND THICKNESSES SHOWN ON DRAWINGS. IMMEDIATELY NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- DETAILS AND NOTES SHOWN ON THE STRUCTURAL DOCUMENTS ARE TYPICAL FOR SIMILAR SITUATIONS IN THE PROJECT.
- OPTIONS, IF SHOWN, ARE FOR THE CONVENIENCE OF THE CONTRACTOR.
- THE COST OF ADDITIONAL DESIGN WORK NECESSITATED BY SEQUENCING OR CONSTRUCTION ERRORS SHALL BE PAID BY THE CONTRACTOR.
- ANY ENGINEERING PROVIDED BY OTHERS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

- SPECIAL INSPECTION:
- THE OWNER SHALL EMPLOY SPECIAL INSPECTORS TO PERFORM SPECIAL INSPECTION, BASED ON IBC 2021, SPECIAL INSPECTION WILL BE REQUIRED FOR THE FOLLOWING:
- GEOTECHNICAL INVESTIGATIONS
 - CAST-IN-PLACE CONCRETE

FOOTING AND FOUNDATIONS:

- NET ALLOWABLE BEARING PRESSURE: (ASSUMED PRESSURES- TO BE VERIFIED BY THE OWNER'S SOILS CONSULTANT DURING CONSTRUCTION)
 - COLUMN FOOTINGS: 1500PSF
 - WALL FOOTING: 1500PSF
- CENTER FOOTINGS UNDER WALLS AND COLUMNS, UNLESS NOTED OTHERWISE.
- CONCRETE SHALL NOT BE CAST ON FROZEN GROUND OR GROUND CONTAINING STANDING WATER. OWNER'S SOILS CONSULTANT SHALL REVIEW SUBGRADE PRIOR TO CASTING OF FOOTINGS AND SLABS. PROTECT SOIL FROM FREEZING AFTER CASTING FOOTING.
- UNLESS NOTED OTHERWISE, SLABS ON GRADE SHALL CONTAIN FIBERMESH REINFORCEMENT. SLAB SHALL BE PLACED OVER VAPOR BARRIER AND 2" MINIMUM COMPACTED GRANULAR FILL. OWNER'S SOILS CONSULTANT SHALL VERIFY SUBGRADE PRIOR TO PLACEMENT OF ANY FILL BELOW SLABS.
- PLACE REINFORCING IN ALL FOOTINGS PRIOR TO CASTING. FLOATING OF REINFORCING INTO FOOTING AFTER CASTING IS NOT PERMITTED. HOLD REINFORCING IN PLACE DURING CASTING OPERATIONS. CONSOLIDATE CONCRETE.
- BASEMENT WALLS SHALL NOT BE BACKFILLED UNTIL LOWER LEVEL SLAB AND FIRST FLOOR STRUCTURE IS IN PLACE, UNLESS BRACING IS PROVIDED.
- BACKFILL PLACED AGAINST FOUNDATION WALLS SHALL BE CLEAN, FREE-DRAINING GRANULAR MATERIAL FOR A MINIMUM OF 2FT AGAINST WALL. COMPACT SOILS ADJACENT TO FOUNDATION WALLS USING HAND EQUIPMENT.
- STEPS IN FOOTING, FOUNDATION WALLS, AND GRADE BEAMS SHALL BE COORDINATED WITH WALL FORMING SYSTEM.
- SEE ARCHITECTURAL DRAWINGS FOR OTHER REVEALS, INSERTS, EMBEDS, AND BOLTS.
- ALL CAST-IN-PLACE ANCHOR BOLTS SHALL BE SET WITH TEMPLATES.
- PIPING RUNNING BELOW FOOTING SHALL BE PLACED PRIOR TO FOOTING OPERATIONS AND THE HOLE FILLED WITH LEAN CONCRETE.

- DRILLED PIERS:
- THE SHALL BE CONTINUOUS SPECIAL INSPECTION DURING THE INSTALLATION OF PIERS.
 - SIZE, LENGTH, CASING, BELLING, ETC OF PIERS SHOWN ON THE DRAWINGS ARE MEANT TO BE FOR ESTIMATING PURPOSES ONLY, BASED ON EARLY SOILS INVESTIGATIONS. ACTUAL DIAMETER, LENGTH, ETC. OF PIERS SHALL BE DETERMINED BY THE SPECIAL INSPECTOR IN ORDER TO MEET CAPACITY OF PIERS SHOWN.
 - CONTRACTOR SHALL BE PLACED IMMEDIATELY AFTER SHAFT IS CLEANED, INSPECTED, AND REBAR IS INSTALLED. AT NO TIME SHALL ANY PERSONNEL ACCESS SHAFT.

- UNDERPINNING:
- UNDERPINNING OPERATIONS SHALL IMPART NO EXCESSIVE STRESS OR MOVEMENTS TO EXISTING OR NEW CONSTRUCTION.
 - UNDERPINNING OPERATIONS SHALL BE DEEMED COMPLETED WHEN ALL ASSOCIATED WORK HAS ACHIEVED PROPER STRENGTH, AND ALL FINAL BRACING ITEMS (SLAB, WALL, ETC) ARE IN PLACE AND PROPERLY CURED.
 - CONTRACTOR SHALL SUBMIT FULL UNDERPINNING SCHEDULE, INCLUDING BRACINGS, AND OTHER TEMPORARY ITEMS FOR REVIEW PRIOR TO COMMENCING UNDERPINNING OPERATIONS.
 - UNDERPINNING SHALL TAKE PLACE IN SEGMENTS NO MORE THAN 4FT WIDE AT ANY ONE TIME. CONCRETE SHALL BE ALLOWED TO GAIN SUFFICIENT STRENGTH PRIOR TO CONTINUING WITH NEXT UNDERPINNING SEGMENT.
 - EXISTING MASONRY WALLS SHALL BE SURVEYED PRIOR, DURING AND AFTER UNDERPINNING OPERATIONS TO ENSURE NO MOVEMENT OCCURS.

CONCRETE:

- CONCRETE STRENGTHS: 145PCF CONCRETE DENSITY. MINIMUM 28-DAY CONCRETE STRENGTHS SHALL BE AS FOLLOWS:
 - TYPICAL UNLESS NOTED OTHERWISE: 4000PSI
 - BEAMS, JOISTS, AND FORMED SLABS: 4000PSI
 - COLUMNS: 4000PSI
 - DRILLED PIERS: 3500PSI
 - FILL ON COMPOSITE MTL. DECK: 3500PSI
 - FOOTINGS: 3500PSI
 - FOUNDATION WALLS: 3500PSI
 - GRADE BEAMS: 4000PSI
 - SLABS ON GRADE: 4000PSI
- ALL CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF ACI 301, 305, 306, 311, 315, 318 AND 347.
- CONCRETE MIX DESIGN SHALL CONFORM TO ACI 301 AND 318. WATER SHALL NOT BE ADDED ON SITE, UNLESS CALLED OUT ON THE APPROVED MIX DESIGN.
- CONCRETE MIX DESIGN PARAMETERS:
 - INTERIOR SLAB ON GRADE:
 - WATER TO CEMENT RATIO (W/C): ≤ 0.48
 - AIR CONTENT: NO MORE THAN 3%
 - FOOTINGS & FOUNDATION WALLS
 - WATER TO CEMENT RATIO (W/C): ≤ 0.48
 - AIR CONTENT: 6.5% +/- 1%

CONCRETE (CONT.):

- DRYPACK OR GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 7,000psi.
- CONCRETE SLABS ON GRADE SHALL HAVE CONSTRUCTION JOINTS OR CUT JOINT AT 12FT O.C. MAXIMUM IN EACH DIRECTION. CUT SLAB BETWEEN 4 AND 12 HOURS AFTER CASTING SLAB. ISOLATE COLUMNS, WALLS, AND PIERS FROM SLABS AS SHOWN ON DRAWINGS. DO NOT CUT SLABS ON-DECK OR PRECAST TOPPING SLABS.
- SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS, PITCH SLAB TO DRAIN WITHOUT REDUCING THICKNESS OF CONCRETE SECTION.
- PROVIDE CONSTRUCTION JOINTS IN EXPOSED WALLS AT A MAXIMUM SPACING OF 40FT. COORDINATE LOCATION OF JOINT WITH ARCHITECTURAL DRAWINGS. PROVIDE CONSTRUCTION JOINTS IN UNEXPOSED WALLS AT A MAXIMUM SPACING OF 80FT.
- ALL JOINTS IN CONCRETE CONSTRUCTION SHALL BE KEYS WITH A MINIMUM 2X4 KEYSWAY. PROPERLY CONSOLIDATE CONCRETE WHEN CASTING.
- DO NOT PLACE CONDUIT, PIPES, OR DUCTS WITHIN COLUMNS, BEAMS, WALLS, OR SLAB SYSTEMS WITHOUT APPROVAL FROM STRUCTURAL ENGINEER.

REINFORCING BARS:

- BAR DETAILING SHALL CONFORM TO THE LATEST ACI DETAILING MANUAL. PROVIDE COVER TO REINFORCEMENT AS LISTED IN ACI 318.
- STEEL SHALL BE AS FOLLOWS:
 - REBAR- ASTM A605, GR 60
 - WELDABLE REINFORCING- A706, GR 60
 - WELDED WIRE FABRIC- ASTM A185
- ALL FIELD BENDING OF REINFORCING SHALL BE DONE COLD. DO NOT HEAT REINFORCEMENT.
- BAR LAPS SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE. STAGGER SPLICES OF REINFORCING BY 2X INTERLAP SPACINGS.
 - BEAMS/JOIST TOP AND BOTTOM BARS - 48DB
 - COLUMN/WALL VERTICAL BARS - 48DB
 - TIES - 38DB
- HOLD REINFORCING IN PLACE DURING CASTING OPERATIONS.

MASONRY

- HOLLOW CONCRETE MASONRY UNITS: NORMAL WEIGHT, FM-2000, MORTAR TYPE "S" OR "M", GROUT STRENGTH - 2000PSI.
- MASONRY CONSTRUCTION SHALL COMPLY WITH THE LATEST VERSION OF TMS 402/602. SEE IBC 2018 FOR HOT AND COLD WEATHER PROCEDURES.
- CMU SHALL BE LAID IN A RUNNING-BOND PATTERN.
- PROVIDE BOND BEAMS WITH 2 #5 AT ALL FLOOR LINES, ROOF LINES, TOP OF WALL, AND AT 12'-0" O.C. MAXIMUM SPACING IN WALL.
- PROVIDE REINFORCING AT CENTER OF CORES OF CMU CONSTRUCTION, OR AS INDICATED ON STRUCTURAL DRAWINGS. HOLD REINFORCING IN PLACE DURING GROUTING OPERATIONS. FILL ALL REINFORCED CELLS WITH GROUT. FILL ALL CMU CELLS SOLID BELOW GRADE. SEE DRAWINGS FOR OTHER GROUTING. CONSOLIDATED GROUT.
- GROUT CELLS FLOOR-TO-FLOOR AT JAMBS OF OPENINGS.
- LAP BARS 48 BAR DIAMETERS, UNLESS NOTED OTHERWISE.
- PROVIDE HORIZONTAL JOINT REINFORCEMENT AT 18" O.C. MAX SPACING PER SPECIFICATION.
- HIGH LIFT GROUTING WILL NOT BE PERMITTED WITHOUT AN APPROVED WRITTEN PROCEDURE SUBMITTED THROUGH THE ARCHITECT.
- USE GROUTED KEYWAYS OR PREMANUFACTURED JOINTS AT ALL CONTROL JOINTS.
- DO NOT PLACE CONDUIT, CHASES, OR OTHER EMBED ITEMS IN GROUTED CELLS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
- LOCATE CONTROL JOINTS IN CMU AT A MAXIMUM SPACING OF 20FT, UNLESS NOTED OTHERWISE. LOCATE CONTROL JOINTS IN EXTERIOR MASONRY PER ARCHITECTURAL DRAWINGS.
- CONTINUE REINFORCING THROUGH CONTROL JOINTS. WRAP REBAR WITH BOND-BREAKING TAPE 2'-0" EACH SIDE OF JOINT. DO NOT SPLICE REINFORCING WITHIN 4FT OF JOINTS.
- ALL NON-LOAD BEARING CMU WALLS @ 48" O.C. U. O. N.

LINTELS:

- LINTELS SHALL BE PLACED ABOVE ALL OPENINGS AND RECESSES IN MASONRY CONSTRUCTION.
- LINTELS NOT SHOWN ON THE CONSTRUCTION DRAWINGS SHALL BE AS FOLLOWS:

SPAN	NOMINAL THICKNESS	LINTEL
0'-0" - 2'-0"	4"	L3.5x3.5x14"
	6"	BOND BEAM w/ (1) #4
	8"	BOND BEAM w/ (2) #5
	10"	BOND BEAM w/ (2) #5
2'-1" - 4'-0"	12"	BOND BEAM w/ (2) #5
	4"	L3.5x3.5x14"
	6"	BOND BEAM w/ (1) #4
	8"	BOND BEAM w/ (2) #5
4'-1" - 6'-0"	10"	BOND BEAM w/ (2) #5
	12"	BOND BEAM w/ (2) #5
	4"	L5x3.5x14" LLV
	6"	BOND BEAM w/ (1) #4
4'-1" - 6'-0"	8"	BOND BEAM w/ (2) #5
	10"	BOND BEAM w/ (2) #5
	12"	BOND BEAM w/ (2) #5

BACK-TO-BACK ANGELS SHALL BE WELDED TOGETHER WITH 2" WELD AT 12" O.C.

- STEEL LINTELS SHALL HAVE A MINIMUM OF 8" BEARING ON FULLY GROUTED CELL.
- GROUT ALL CMU CORES SOLID UNDER LINTEL BEARING, BEAMS AND BEARING PLATES.
- GALVANIZE ALL STEEL EXPOSED TO WEATHER.

STRUCTURAL STEEL:

- STEEL SHALL BE DETAILED, FABRICATED AND ERECTED PER AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
- HIGH STRENGTH BOLTS SHALL BE INSTALLED PER AISC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
- PROPERTIES:
 - WIDE FLANGE SHAPES: ASTM A992, $F_y = 50$ KSI
 - OTHER ROLLED SHAPES: ASTM A36, $F_y = 36$ KSI
 - PIPE SECTIONS: ASTM A53, GR B, $F_y = 35$ KSI
 - HSS SECTIONS: ROUND: ASTM A500, GR C, $F_y = 46$ KSI
 - HSS SECTION, SQUARE: ASTM A500, GR C, $F_y = 50$ KSI
 - HP SHAPES: ASTM A572, $F_y = 50$ KSI
 - BASE AND CONNECTION PLATES: ASTM A36 A572, $F_y = 36$ 50 KSI
 - ANCHOR RODS: ASTM F1554, GR 36 55, $F_y = 36$ 55 KSI
 - HIGH STRENGTH BOLTS: ASTM F3125, GR A325, $F_y = 120$ KSI
 - HIGH STRENGTH TWIST-OFF BOLTS: ASTM F3125, GR A325
 - HEAVY HEX NUTS: ASTM A563
 - WASHERS: ASTM F436
 - HEADED STUD ANCHORS: ASTM A108, TYPE B
 - ELECTRODES FOR ARCH WELDING: AWS 5.1, E70XX

- SIMPLE SHEAR CONNECTIONS NOT FULLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE SELECTED BY THE STEEL FABRICATOR FROM APPROPRIATE AISC LOAD TABLES USING END REACTION SHOWN ON PLANS. DOUBLE ANGLE, SINGLE ANGLE, OR WELDED SHEAR PLATE CONNECTIONS SHALL BE USED. BOLTED CONNECTIONS SHALL USE A MINIMUM OF 2 BOLTS.
- ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS WITH EXPERIENCE IN THAT TYPE OF JOINT. WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE. IN LIEU OF AWS WELDING CERTIFICATES, WELDERS EMPLOYED ON THE WORK MAY PROVIDE WELDING TESTS THAT HAVE BEEN PERFORMED WITHIN THE LAST 12 MONTHS.
- UNLESS NOTED OTHERWISE, WELDS SHALL BE 3/16" THROAT THICKNESS.
- PAINT STEEL EXPOSED TO VIEW WITH MANUFACTURER'S STANDARD PRIMER. DO NOT PRIME STEEL RECEIVING FIRE-PROOFING, OR AT WELDS IF STEEL MEMBERS ARE NOT EXPOSED TO VIEW. CONTRACTOR MAY ELECT TO NOT PRIME THIS STEEL. GALVANIZE ALL STEEL EXPOSED TO WEATHER.
- HEADED STEEL STUDS SHALL BE PLACED ON BEAMS IN FIELD, ARC-WELDED THROUGH METAL FLOOR DECK. SEE STUD REPLACEMENT DETAIL.
- DO NOT FIELD TORCH-CUT HOLES OR NOTCHES IN STEEL MEMBERS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
- BOLTS SHOWN ON STRUCTURAL DRAWINGS SHALL BE 3/4" DIAM., A325-N BOLTS UNLESS NOTED OTHERWISE. USE TWIST-OFF TYPE BOLTS FOR CONNECTIONS REQUIRING FULLY TIGHTENED CONDITIONS.
- FURNISH AND INSTALL OTHER MISCELLANEOUS SCS AS CALLED OUT OR REQUIRED BY ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
- PROVIDE 5,000 PSI NON-SHRINK GROUT UNDER BASE PLATES AND BEARING PLATES WHERE INDICATED. ANCHOR BOLTS SHALL BE EMBEDDED 12 X (DIAM OF BOLT) MEASURED TO UNDERSIDE OF HEAD.

STEEL DECK:

- DESIGN, FABRICATE, DELIVER, AND ERECT METAL ROOF DECK, NON-COMPOSITE METAL DECK, AND COMPOSITE METAL DECK ACCORDING TO THE SPECIFICATIONS AND RECOMMENDATIONS OF THE STEEL DECK INSTITUTE (SDI).
- STEEL DECK PROPERTIES SHALL BE (AT MINIMUM), THOSE LISTED IN VULCRAFT CATALOGS FOR THE TYPE AND GAGE SHOWN ON THE DRAWINGS.
- STEEL DECK SHALL BE ATTACHED TO SUPPORTING STRUCTURE AS NOTED ON PLANS.
- USE WELD-WASHERS WHEN WELDING THROUGH DECK. POWDER DRIVEN FASTENERS, IF DESIRED FOR DECK ATTACHMENT, SHALL BE SUBMITTED FOR REVIEW.
- ROOF FLOOR DECKING THAT WILL HAVE CONCRETE POURED ON TOP OF IT OR IS LOCATED IN AN AREA THAT WILL HAVE HIGH HUMIDITY SHALL BE GALVANIZED. FOR ALL OTHER INSTANCES THE DECKING SHALL BE PRIME-PAINTED.
- ROOF DECK AND NON-COMPOSITE DECK ENDS SHALL BE LAPPED 2' OVER SUPPORT. COMPOSITE DECK ENDS SHALL BE BUTTED OVER CENTER OF SUPPORT.
- PROVIDE HIP AND VALLEY PLATES, GORDER FILERS, END CLOSERS, CANT STRIPS, SUMP PANS, EDGE FORMS AND OTHE ACCESSORIES AS SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS, OR AS NEEDED TO PROVIDE A COMPLETE DECK SYSTEM SHOWN ON THE DRAWINGS.
- SUPPORT DECK AT SUMP PANS AND OTHER ROOF DECK OPENINGS. SEE DETAILS.
- HANG LOADS FROM STEEL BEAMS AND JOISTS WHENEVER POSSIBLE. PROVIDE UNISTRUT, ANGLES, OR TUBES TO ACCOMMODATE THIS. DO NOT HANG ANY LOADS FROM ROOF DECK OR NON-COMPOSITE DECK. LOADS LESS THAN 100LBS MAY BE HUNG FROM CURED, COMPOSITE DECK. RESPONSIBILITY FOR DESIGN OF MEP SUPPORT SYSTEMS WILL BE WITH THE CONTRACTOR.

STEEL JOISTS:

- DESIGN, FABRICATE, DELIVER, AND ERECT OPEN WEB STEEL JOISTS, JOIST GIRDERS, AND ACCESSORIES ACCORDING TO THE SPECIFICATIONS OF THE STEEL JOIST INSTITUTE (SJI).
- THE BASIS OF DESIGN FOR JOIST SIZES SHOWN ON THE DRAWINGS IS PER VULCRAFT DESIGN CATALOG. SPECIAL JOIST PRELIMINARY SIZES SHOWN ARE BASED ON SNOW DRIFT AND MECHANICAL LOADS SHOWN ON DOCUMENTS.
- ATTACH STEEL JOIST TO SUPPORT AS FOLLOWS:

JOIST TYPE/SERIES	DETAILS WITH WELD INFORMATION		DETAILS WITH BOLT INFORMATION		MINIMUM END BEARING (IN.)	
	FILLET WELD SIZE	WELD LENGTH (IN.)	BOLT DIAMETER (IN.)	BOLT MATERIAL	STEEL	MASONRY
K	1/8	2	1/2	A307	2 1/2	4
LHD/LH 02-06	3/16	2	3/4	A307	2 1/2	6
LHD/LH 07-17	1/4	2	3/4	A307	4	6
LHD/LH 18-25	1/4	4	3/4	A325	6	6
JOIST GIRDER	1/4	2	3/4	A307	4	6

- PROVIDE BRIDGING, EXTENDED ENDS, SLOPED BEARINGS, CEILING EXTENSIONS AND OTHER ACCESSORIES AS SHOWN ON THE STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- BRIDGING SHOWN ON DRAWINGS SHALL BE USED FOR ESTIMATING ONLY. FINAL SIZE, CONFIGURATION, AND QUANTITY OF BRIDGING SHALL BE DETERMINED BY THE JOIST MANUFACTURER. UPLIFT BRIDGING MAY BE REQUIRED- SEE DRAWINGS.
- WHERE BRIDGING INTERFERES WITH MECHANICAL DUCTWORK OR PIPING, BRIDGING MAY BE REMOVED AFTER ROOF DECK ATTACHMENT. NOTIFY STRUCTURAL ENGINEER OF LOCATIONS PRIOR TO REMOVAL.
- PAINT JOISTS WITH MANUFACTURER'S STANDARD RUST-INHIBITING PRIMER. JOISTS TO RECEIVE FIREPROOFING ARE NOT TO BE PAINTED.
- TO AID IN BEARING SEAT DESIGN FOR JOISTS, IF JOIST MANUFACTURER WOULD LIKE TO STAGGER JOISTS ON EITHER SIDE OF A SUPPORT, THIS SHALL BE SUBMITTED FOR APPROVAL ON THE SHOP DRAWINGS.
- JOISTS BEARING ABOVE A COLUMN LINE SHALL HAVE ERECTION BOLTS IN THE BEARING SEAT. BOTTOM CHORDS SHALL BE ALSO EXTENDED TO THE FACE OF THE COLUMN.
- JOISTS SHALL BE WELDED TO SUPPORTS, TYPICAL.
- LIGHT WEIGHT MECHANICAL DUCTS, CONDUIT, AND CEILING MAY BE HUNG AT ANY POINT ALONG THE JOIST BOTTOM OR TOP CHORD.
- LOADS GREATER THAN 100LBS SHALL BE HUNG WITHIN 6" OF TOP AND BOTTOM CHORD POINTS. LOADS HUNG OUTSIDE THIS RANGE SHALL HAVE ADDED BRACING TO NEAREST CHORD POINT, AS SHOWN ON THE DETAILS.

SHEET LIST	
S001	STRUCTURAL NOTES
S002	STRUCTURAL NOTES & SCHEDULES
S100	FOOTING & FOUNDATION PLAN
S200	ROOF FRAMING PLAN
S300	STRUCTURAL DETAILS

ABBREVIATIONS			
ADJ	ADJACENT	CONST	CONSTRUCTION
ACI	AMERICAN CONCRETE INSTITUTE	CONT	CONTINUOUS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	DBL	DOUBLE
ANCH	ANCHOR	DTL	DETAIL
APA	AMERICAN PLYWOOD ASSOCIATION	DIA	DIAMETER
ARCH	ARCHITECT/ARCHITECTURAL	DIAG	DIAGONAL
BLDG	BUILDING	DIM	DIMENSION
BLKG	BLOCKING	DL	DEAD LOAD
BM	BEAM	DWG	DRAWING
BOF	BOTTOM OF FOOTING	EA	EACH
BOS	BOTTOM OF STEEL	EL	ELEVATION
BOT	BOTTOM	EMB	EMBEDDED, EMBEDMENT
BRG	BEARING	EOR	ENGINEER OF RECORD
BSMT	BASEMENT	EQ	EQUAL
BTB	BACK-TO-BACK	EXIST	EXISTING
CANT	CANTILEVER	EXP	EXPANSION
CFS	COLD FORMED STEEL	EXT	EXTERIOR
CL	CENTERLINE	FND	FOUNDATION
CLR	CLEAR/CLEARANCE	FFE	FINISHED FLOOR ELEVATION
CMU	CONCRETE MASONRY UNIT	FLR	FLOOR
COL	COLUMN	FTG	FOOTING
CONC	CONCRETE	GA	GAUGE
CONN	CONNECTION	GALV	GALVANIZED
GC	GENERAL CONTRACTOR	MTL	METAL
H/C	HOLLOW CORE	NIC	NOT IN CONTRACT
HLR	HEADER	NLB	NON-LOAD BEARING
HORIZ	HORIZONTAL	NWT	NORMAL WEIGHT
HAS	HEADED STUD ANCHOR	NO	NUMBER
HSS	HOLLOW STRUCTURAL SECTION	NTS	NOT TO SCALE
IBC	INTERNATIONAL BUILDING CODE	OC	ON CENTER
ID	INSIDE DIAMETER	OD	OUTSIDE DIAMETER
INSUL	INSULATION	PIC	PRECAST
EA	EACH	PL	PLATE
JT	JOINT	PSF	POUNDS per SQUARE FOOT
K	KIP	PSI	POUNDS per SQUARE INCH
KLF	KIP PER LINEAL FOOT	QTY	QUANTITY
KSF	KIP PER SQUARE FOOT	REC	RECESSED
LG	LIGHT GAUGE STEEL	REINF	REINFORCEMENT
LL	LIVE LOAD	REF	REFERENCE
LLH	LONG LEG HORIZONTAL	REV	REVISION
LLV	LONG LEG VERTICAL	REQD	REQUIRED
LOC	LOCATION, LOCATE	SCHED	SCHEDULE
MAX	MAXIMUM	SDI	STEEL DECK INSTITUTE
MECH	MECHANICAL	SDL	SUPERIMPOSED DEAD LOAD
MEZZ	MEZZANINE	SECT	SECTION
MIN	MINIMUM	SIM	SIMILAR
SL	SNOW LOAD	SJI	STEEL JOIST INSTITUTE
SPA	SPACES, SPACING	SPC	SPECIAL
SPECS	SPECIFICATIONS	STD	STANDARD
STL	STEEL	STL	STEEL
STRUCT	STRUCTURAL	T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE	THK	THICK/THICKENED
TOF	TOP OF FOOTING	TOW	TOP OF WALL
TOS	TOP OF STEEL	TPI	TRUSS PLATE INSTITUTE
TOW	TOP OF WALL	TRANS	TRANSVERSE
TYP	TYPICAL	UNO	UNLESS NOTED OTHERWISE
VAR	VARIABLE	VER	VERTICAL
WL	WIND LOAD	WD	WOOD
WWF	WELDED WIRE FABRIC	WL	WIND LOAD
WWW	WELDED WIRE FABRIC	WWF	WELDED WIRE FABRIC

SYMBOLS LEGED			
	GRID SYMBOL		DETAIL OR CALL OUT VIEW NUMBER / DRAWING SHEET
	ELEVATION NAME & HEIGHT		WALL SECTION VIEW NUMBER / DRAWING SHEET
	NORTH ARROW	1t	PIER & PAD FOOTING TAG
	VIEW TITLE	1t	WALL FOOTING TAG
	VIEW TITLE	1t	WALL FOOTING TAG
	ELEVATION / DRAWING SHEET	1t	COLUMN TAG
	REVISION TAG	1t	REVISION TAG
	SHEARWALL TAG	1 / A101	VIEW REFERENCE

ENEMY SWIM DAY SCHOOL HOUSING AND GARAGE FOUNDATION DESIGN

WAUBAY, SD

STRUCTURAL NOTES

LIGHT GAGE STEEL:

- LIGHT GAGE STEEL DESIGN, DETAILING AND ERECTION SHALL FOLLOW STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) GUIDELINES.
- LIGHT GAGE CALLED OUT ON THE DRAWINGS SHALL HAVE A MINIMUM PROPERTIES CALLED OUT IN THE LATEST EDITION OF SSMA PRODUCT TECHNICAL INFORMATION.
- END TRACK GAGE SHALL MATCH WALL STUD GAGE. ALIGN STUDS BELOW STRUCTURAL MEMBERS ABOVE. PROVIDE FULL BEARING OF WALL STUDS TO TOP AND BOTTOM TRACK. STUDS SHALL NOT HAVE PUNCH-OUT LOCATED AT ENDS OF STUDS.
- PROVIDE TRACK, BRIDGING, BLOCKING, HEADERS, CLIP-ANGLES, SLIDE CLIPS, FASTENERS, AND OTHER ACCESSORIES AS NEEDED TO SUPPLY A COMPLETED LIGHT-GAGE SYSTEM AS SHOWN ON THE DRAWING.
- PROVIDE BRIDGING AT 4'-0" O.C. MAXIMUM SPACING IN BEARING, SHEAR AND EXTERIOR WALLS. PROVIDE FULL DEPTH BLOCKING AT ALL SHEAR PANEL EDGES.
- SCREW SHEATHINGS FOR FLOORS & ROOFS WITH #8 SCREWS AT 6" O.C. AT PANEL EDGES AND 12" O.C. IN THE FIELD. STAGGER EDGES OF PANELS.
- PROVIDE 2 FULL HEIGHT STUDS AT JAMBS OF OPENINGS, UNLESS NOTED OTHERWISE.
- ALL WELDED CONNECTIONS SHALL BE DONE BY PERSONNEL CERTIFIED IN LIGHT-GAGE WELDING.

WOOD:

- WOOD CONSTRUCTION SHALL COMPLY WITH IBC 2021, AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, AND THE AMERICAN WOOD COUNCIL.
- MEMBERS PROPERTIES SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE:
 - ROOF SHEATHING- 19/32" APA RATED SHEATHING (FLAT ROOF)
 - ROOF SHEATHING- 7/16" APA RATED SHEATHING (PITCHED ROOF)
 - FLOOR SHEATHING- 3/4" APA RATED TONGUE & GROOVE SHEATHING
 - WALL SHEATHING- 7/16" APA RATED SHEATHING/5/8" EXTERIOR GYPSUM SHEATHING.
 - 2X4 THROUGH 2X10: SPRUCE-PINE-FIR #1/#2 (OR EQUAL).
 - 2X12: SPRUCE-PINE-FIR SELECT STRUCTURAL (OR EQUAL).
 - LAMINATED VENEER LUMBER (LVL) E= 1,900,000PSI, FB= 2,600PSI
- DO NOT DRILL OR NOTCH STRUCTURAL ELEMENTS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER.
- CONNECTIONS NOT SHOWN SHALL BE FASTENED PER TABLE 2304.10.1 IN IBC 2021.
- PLYWOOD INDICATED AS RATED SHEATHING, SHALL BEAR THE APPROPRIATE MARK OF THE AMERICAN PLYWOOD ASSOCIATION. ALL WOOD MEMBERS SHALL BEAR THE APPROPRIATE MARK OF THE APPROPRIATE ACCREDITING AGENCY.
- HOLES FOR BOLTS SHALL BE MATCH-DRILLED IN FIELD TO ENSURE PROPER ALIGNMENT. PROVIDE WASHERS AT ALL BOLT LOCATIONS.
- NAIL SHEATHING FOR FLOORS AND ROOFS WITH 10d COMMON NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. REST OF FIELD OF PANEL. PROVIDE BLOCKING AT PANEL EDGES WHERE SPECIFIED. STAGGER EDGES OF PANELS.
- PROVIDE 2 FULL HEIGHT STUDS AT JAMBS OF OPENINGS, UNLESS NOTED OTHERWISE.
- CONNECT FRAMING MEMBERS WITH APPROVED LIGHT-GAGE CONNECTORS FROM SIMPSON STRONG TIE, OR EQUAL, CONNECT PER MANUFACTURER'S INSTRUCTIONS.
- FOR MEMBERS EXPOSED TO WEATHER, NAILS, SCREWS AND BOLTS LESS THAN 1/2" DIAM SHALL BE STAINLESS STEEL. GREATER THAN 1/2" SHALL BE GALVANIZED OR STAINLESS STEEL.
- ALL LUMBER IN CONTACT WITH CONCRETE/MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED SOUTHERN PINE #2, UNLESS NOTED OTHERWISE ON PLANS.
- SPACING OF BRIDGING FOR JOISTS SHALL NOT EXCEED 8'-0" O.C. BRIDGING SHALL BE METAL OR 1X3 MEMBERS.
- DOUBLE ALL JOISTS UNDER PARALLEL PARTITIONS.
- MINIMUM ANCHORAGE OF STRUCTURAL WALLS SHALL BE WITH 5/8" ANCHOR BOLT AT 4FT O.C. UNO IN SHEARWALL SCHEDULE
- DESIGN, FABRICATE, AND ERECT PLATE-CONNECTED WOOD TRUSSES WITH WITHSTAND LOADS SHOWN IN DESIGN CRITERIA, ACCORDING TO RULES ESTABLISHED BY TPI.
 - SHOP DRAWINGS SHALL INCLUDE STRUCTURAL ANALYSIS STAMPED BY A LICENSED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED.
 - ALL TEMPORARY AND FINAL BRACING SHALL BE DESIGNED PER TPI RECOMMENDATIONS.
 - STORE TRUSSES ON SITE IN A MANNER TO MINIMIZE WARPING.
 - TRUSS DEFLECTION CRITERIA:
 - TOTAL LOAD - L/240
 - LIVE LOAD - L/360

SUBMITTALS:

- THE FOLLOWING SUBMITTALS SHALL BE PROVIDED
 - CONCRETE & GROUT MIX DESIGNS
 - PRECAST ELEMENTS & CONNECTIONS
 - CONCRETE & CMU REINFORCEMENT
 - CAST-IN-PLACE ANCHOR BOLTS
 - POST-INSTALLED ANCHORS & EPOXY
 - STRUCTURAL STEEL FRAMING & MISCELLANEOUS METALS
 - STEEL BAR JOISTS & JOIST GIRDERS
 - METAL FLOOR & ROOF DECK
 - COLD-FORMED STEEL FRAMING
 - ALUMINUM FRAMING (DECKS, CANOPIES, GUARDRAILS, ETC.)
 - WOOD WALL PANELS
 - WOOD FLOOR & ROOF TRUSSES
 - GLU-LAM FRAMING & CONNECTIONS
 - MASS-TIMBER FLOOR / WALL PANELS & CONNECTIONS

- SUBMITTALS SHALL BE REVIEWED AND COORDINATED PRIOR TO SUBMITTING TO THE ARCHITECT. EACH SUBMITTAL SHALL BE STAMPED INDICATING REVIEW BY THE CONSTRUCTION MANAGER/GENERAL CONTRACTOR. REVIEW BY THE ARCHITECT SHALL NOT BEGIN UNTIL THIS IS COMPLETE. WORK SHALL NOT BEGIN WITHOUT REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER.
- SUBMITTALS SHALL BE REVIEWED BY THE ARCHITECT AND STRUCTURAL ENGINEER FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT ONLY. NOTATIONS MADE BY THE ARCHITECT AND STRUCTURAL ENGINEER ON THE SUBMITTALS DO NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE CONSTRUCTION DRAWINGS.

DELEGATED DESIGNS:

- THE DESIGN OF THE FOLLOWING BUILDING COMPONENTS SHALL BE DELEGATED TO THE CONTRACTOR/SUPPLIER.
 - EXCAVATION, SHORING, & UNDERPINNING.
 - PRECAST CONCRETE ELEMENTS & CONNECTIONS.
 - STRUCTURAL STEEL CONNECTIONS.
 - STEEL STAIRS, ACCESS LADDERS, HANDRAILS, GUARDRAILS, GRATING & CONNECTIONS.
 - ALUMINUM DECKS, AWNINGS/CANOPIES, HANDRAILS, GUARDRAILS & CONNECTIONS.
 - LOAD BEARING & NON-LOAD BEARING COLD-FORMED STEEL FRAMING.
 - WOOD FLOOR AND ROOF TRUSSES.
 - GLU-LAM COLUMNS, BEAMS & CONNECTIONS.
 - MASS-TIMBER FLOOR PANELS, WALL PANELS & CONNECTIONS.
- DESIGN ITEMS THAT HAVE BEEN DELEGATED WILL REQUIRE THE CONTRACTOR/SUPPLIER TO PROVIDE SHOP DRAWINGS AND CALCULATIONS TO THE ENGINEER OF RECORD THAT HAVE BEEN SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.
- THE DESIGN OF DELEGATED ITEMS MAY BE DEFERRED UNTIL AFTER A BUILDING PERMIT HAS BEEN ISSUED.

SPECIAL INSPECTIONS SCHEDULE			CONT.	PERIODIC
REQUIRED VERIFICATION & INSPECTION				
A. CONCRETE CONSTRUCTION				
1.	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AN DPLACING			X
	INSPECTION OF REINFORCING STEEL WELDING:			
a.	VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706			X
b.	SHEAR REINFORCEMENT	X		
c.	OTHER REINFORCING STEEL			X
d.	BUMPER WALL REINFORCING	X		
3.	INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.			X
4.	INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE	X	X	
5.	VERIFYING USE OF REQUIRED DESIGN MIX		X	
6.	PERFORM SAMPLING AND TESTING OF CONCRETE ACCORDING TO SPECIFICATIONS	X		
7.	INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X		
8.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES			X
9.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED			X
10.	VERIFY FINISH OF CONCRETE SLABS AND FLOORS (SEE SPECIFICATION SECTION 03300)			X
11.	VERIFY LOCATION AND CONSTRUCTION OF POUR STRIPS AND JOINTS IN CONCRETE SLABS AND FLOORS (SEE SPECIFICATION SECTION 03300 AND...			X
B. PRECAST CONCRETE				
1.	ERECTION OF PRECAST CONCRETE MEMBERS			X
2.	VERIFICATION OF PRECAST MEMBER CONNECTIONS IN ACCORDANCE WITH STRUCTURAL DRAWINGS AND PRECAST CONSTRUCTION (SHOP) DRAWINGS			X
3.	PRECAST GROUT VISUAL INSPECTION		X	
4.	PRECAST GROUT SAMPLING AND TESTING (2 CUBES MINIMUM, PER DAY, PER DIFFERENT GROUT.) RECORD DAILY TEMPERATURE		X	
C. STEEL CONSTRUCTION				
1.	MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:			
A.	IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS			X
B.	MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED			X
2.	INSPECTION OF HIGH-STRENGTH BOLTING:			
A.	BEARING-TYPE CONNECTIONS			X
B.	SLIP-CRITICAL CONNECTION (SEE IBC 1704.3.3)	X		X
3.	MATERIAL VERIFICATION OF STEEL:			
A.	IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS IN APPROVED CONSTRUCTION DOCUMENTS			X
B.	MANUFACTURER'S CERTIFIED MIL TEST REPORTS			X
4.	MATERIAL VERIFICATION OF WELD FILLER MATERIALS			
A.	IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN APPROVED CONSTRUCTION DOCUMENTS			X
B.	MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED			X
5.	INSPECTION OF STRUCTURAL STEEL WELDING:			
A.	COMPLETE AND PARTIAL PENETRATION GROOVE WELDS		X	
B.	MULTI-PASS FILLET WELDS		X	
C.	SINGLE-PASS FILLET WELDS > 5/16"		X	
D.	SINGLE PASS FILLET WELDS ≤ 5/16"			X
E.	FLOOR AND DECK WELDS			X
6.	INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS:			
A.	DETAILS SUCH AS BRACING AND STIFFENING			X
B.	MEMBER LOCATIONS			X
C.	APPLICATING OF JOINT DETAILS AT EACH CONNECTION			X
D. MASONRY CONSTRUCTION (SEE IBC SECTION 1704.5.2)				
1.	VERIFICATION OF SLUMP FLOW AND VSI AS DELIVERED TO THE SITE FOR SELF-CONSOLIDATING GROUT		X	
2.	VERIFICATION OF MASONRY CONSTRUCTION			
A.	PROPORTIONS OF SITE-PREPARED MORTAR			X
B.	CONSTRUCTION OF MORTAR JOINTS			X
C.	LOCATING OF REINFORCEMENT, CONNECTORS, AND ANCHORAGES.			X
3.	DURING CONSTRUCTION THE INSPECTION PROGRAM SHALL VERIFY:			
A.	SIZE AND LOCATION OF STRUCTURAL ELEMENTS			X
B.	TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER...			X
C.	SPECIFIED SIZE, GRADE, AND TYPE OF REINFORCEMENT, ANCHOR BOLTS, AND ANCHORAGES.			X
D.	PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURE...			X
4.	PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:			
A.	GROUT SPACE IS CLEAN			X
B.	PLACEMENT OF REINFORCEMENT AND CONNECTORS, AND ANCHORAGES.			X
C.	CONSTRUCTION OF MORTAR JOINTS.			X
5.	PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED			X
E. SOILS				
1.	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY			X
2.	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL			X
3.	PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.			X
4.	VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF FILL.	X		
5.	PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.			X
F. DRIVEN PILE FOUNDATIONS				
1.	VERIFY PILE MATERIALS, SIZES, AND LENGTHS COMPLY WITH REQUIREMENTS.			X
2.	DETERMINE CAPACITIES OF TEST PILES AND CONDUCT ADDITIONAL LOAD TEST AS REQUIRED			X
3.	OBSERVE DRIVING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH PILE.		X	
4.	VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM TYPE AND SIZE OF HAMMER, RECORD NUMBER OF BLOWS PER FOOT OF PENETRATION, DETERMINE REQUIRED PENETRATIONS TO ACHIEVE DESIGN CAPACITY, RECORD TIP AND BUTT ELEVATIONS, AND DOCUMENT AND PILE DAMAGE		X	
5.	FOR STEEL PILES, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH ITEM C. ABOVE.			
G. GUARDRAIL STRANDS				
1.	MATERIAL VERIFICATION OF GUARDRAIL STRANDS (SEE SPECIFICATION SECTION 051617)			X
2.	INSPECT PLACEMENT OF GUARDRAIL STRANDS			X
3.	VERIFICATION OF BACKSTRESS TO SEAT WEDGES AT NON-STRESSING ENDS.	X		
4.	VERIFICATION OF SPECIFIED STRESSING FORCES AND BACKSTRESS AT STRESSING ENDS.		X	
5.	RESTORATION OF CORROSION PROTECTION AFTER BACK STRESSING.			X
6.	SEALING OF SLEEVES IN COLUMN			X
H. MASS TIMBER CONSTRUCTION				
1.	INSPECTION OF ANCHORAGE AND CONNECTIONS OF MASS TIMBER CONSTRUCTION TO TIMBER DEEP FOUNDATION SYSTEMS.			X
2.	INSPECT ERECTION OF MASS TIMBER CONSTRUCTION			X
3.	INSPECTION OF CONNECTIONS WHERE INSTALLATION METHODS ARE REQUIRED TO MEET DESIGN LOADS.			
A.	VERIFY USE OF PROPER INSTALLATION EQUIPMENT FOR THREADED FASTENERS.			X
B.	VERIFY USE OF PRE-DRILLED HOLES WHERE REQUIRED FOR THREADED FASTENERS.			X
C.	INSPECT SCREWS, INCLUDING DIAMETER, LENGTH, HEAD TYPE, SPACING, INSTALLATION ANGLE AND DEPTH FOR THREADED FASTENERS.			X
D.	ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATION TO RESIST SUSTATION TENSION LOADS.	X		
E.	ADHESIVE ANCHORS NOT DEFINED IN PRECEDING CELL.			X
F.	BOLTED CONNECTIONS.			X
G.	CONCEALED CONNECTIONS.			X
I. MISCELLANEOUS ITEMS				
1.	VERIFY INSTALLATION OF EXPANSION JOINTS, TRAFFIC TOPPING MEMBRANES, AND JOINT SEALANTS			X
2.	VERIFY ATTACHMENT AND/OR BRACING OF MISCELLANEOUS ITEMS SUCH AS PIPES, EQUIPMENT, SIGNS, BOLLARDS, ETC.			X

WALL FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
TS1	1'-4" x 1'-0"	(2) #5 CONT.
WF1	2'-0" x 1'-0"	(2) #5 CONT.

SHEARWALL SCHEDULE				
MARK	1ST FLOOR		# END WALL STUDS	SILL PLATE ANCHORAGE
	SHEATHING	HOLDOWN		
SW-A	7/16" APA RATED SHEATHING w/ 8d NAILS @ 6" O.C. AT PANEL EDGES	SIMPSON HTT4 ATTACH TO END WALL STUDS w/ (18) SD #10x1-1/2" PROVIDE 5/8" DIAx9' EMBED THREADED ROD ANCHOR	2	5/8"Ø x 1'-0" HOOKED ANCHOR BOLT @ 48" O.C. MAX.
NOTES: 1. 8d NAILS TO BE 0.131"Ø x 2-1/2" 2. END WALL STUDS TO MATCH SIZE/GRADE OF ADJACENT WALL FRAMING (U.N.O.) 3. BLOCK ALL PANEL EDGES SOLID. 4. FASTENING PATTERN CALLED OUT IN SCHEDULE IS FOR PANEL EDGES. PROVIDE SAME DIAMETER NAIL @ 12" O.C. REST OF FIELD.				

HEADER SCHEDULE				
MARK	HEADER	BRG.	KING	REMARKS
H1	(3) 1-3/4"x11-7/8" LVL	2	2	1,2,3.
NOTES: 1. ALL BRG. & KING STUDS TO MATCH SIZE/GRADE OF ADJ. WALL FRAMING (U.N.O.) 2. LVLs TO BE 1.9E MICROLAM OR GREATER 3. PROVIDE INSULATION BETWEEN HEADER PLYS IN EXTERIOR WALLS (TYP.)				



ENEMY SWIM DAY SCHOOL HOUSING AND GARAGE FOUNDATION DESIGN

WAUBAY, SD

STRUCTURAL NOTES & SCHEDULES

05/02/2025 RS224-06
 CRC
 MAW

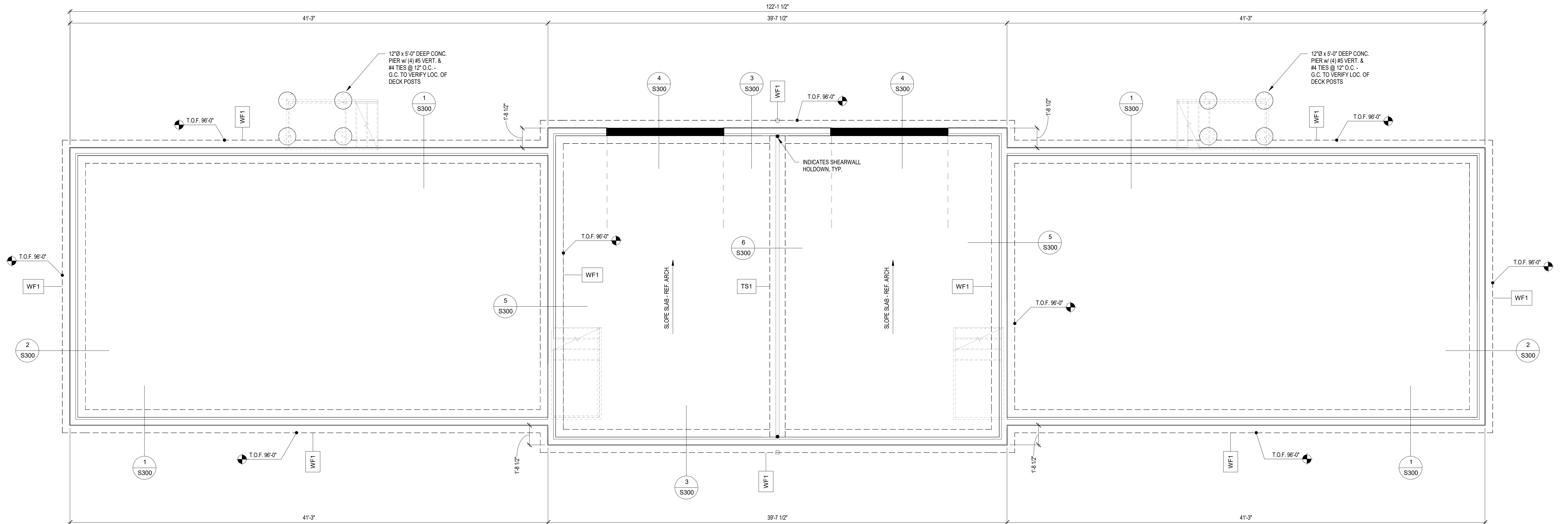
S002



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- PLAN NOTES:
- CONC. SLAB TO BE 4" w/ FIBERMESH REINFORCEMENT ON VAPOR BARRIER (REF. ARCH.) ON 6" DRAINAGE FILL ON APPROVED SUBGRADE. (U.N.O.)
 - CONTRACTOR TO SUBMIT CONTROL JOINT LAYOUT FOR ARCH/ENGINEER APPROVAL. SEE STRUCTURAL NOTES FOR SIZE/SPACING LIMITATIONS.
 - SEE 8 & 9 ON SHEET S3.0 FOR TYPICAL CONTROL JOINT DETAILS.
 - SEE 7&S.0 FOR TYPICAL CORNER WALL REINFORCING.



1 FOOTING & FOUNDATION PLAN
1/4" = 1'-0"

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ENEMY SWIM DAY SCHOOL
HOUSING AND GARAGE
FOUNDATION DESIGN

WAUBAY, SD

FOOTING & FOUNDATION PLAN

05/02/2025
CRC
MAW

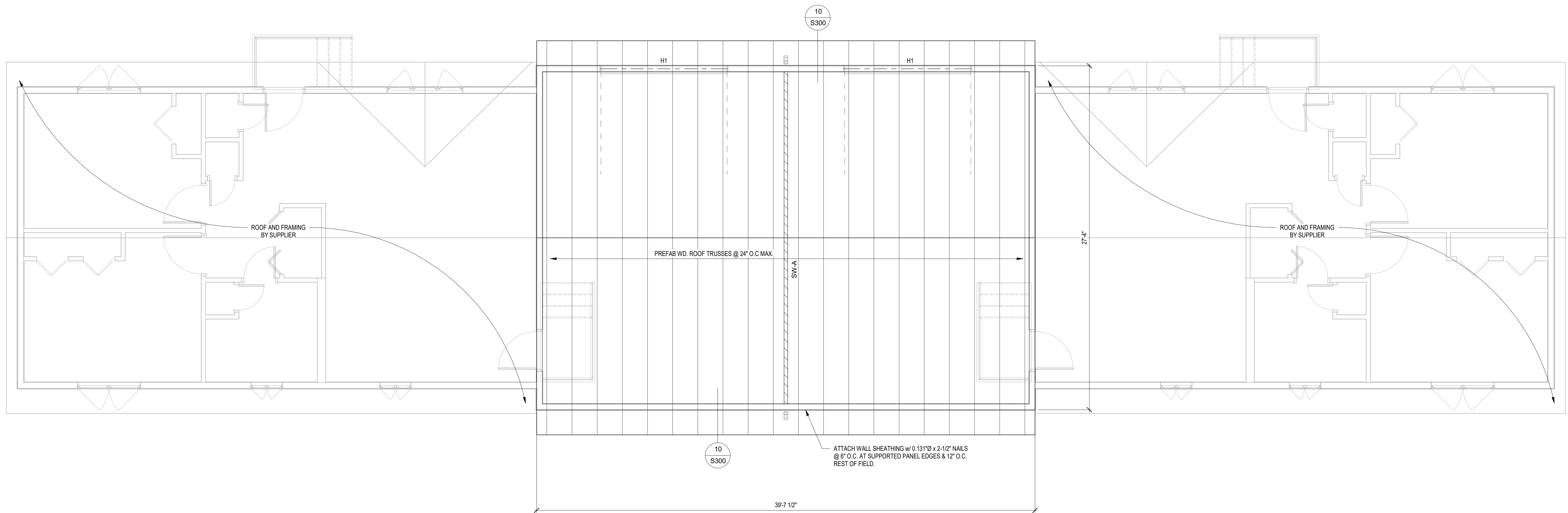
RS224-06

S100



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PLAN NOTES:
 • BEARING WALLS TO BE 2x6 SPF #1#2 @ 18" O.C. (U.N.O.)



1 ROOF FRAMING PLAN
 1/4" = 1'-0"

RISE
 STRUCTURAL ASSOCIATES INC.
 6909 S. Lyncrest Place - Suite 110
 Sioux Falls, SD 57108
 (605)743-2510
 www.riseincorp.com

ENEMY SWIM DAY SCHOOL
 HOUSING AND GARAGE
 FOUNDATION DESIGN
 WAUBAY, SD

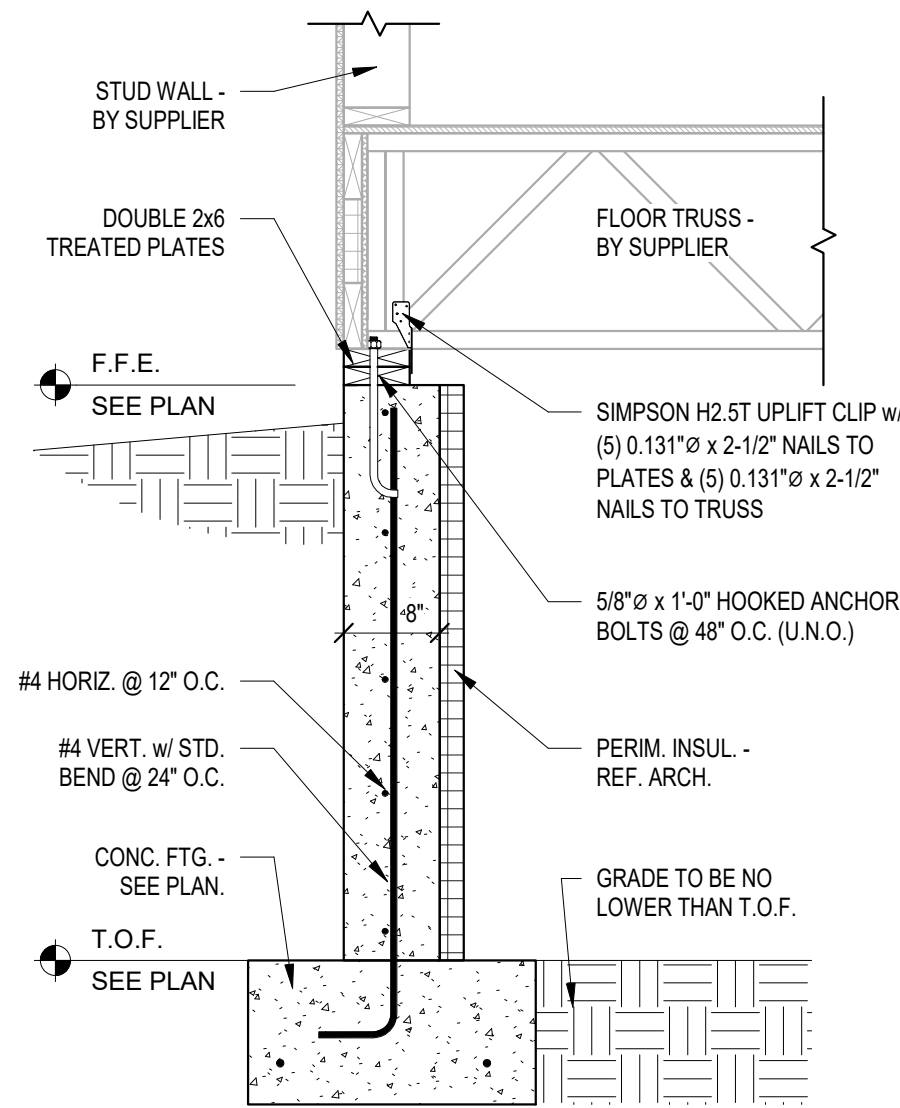
ROOF FRAMING PLAN

05/02/2025
 CRC
 MAW

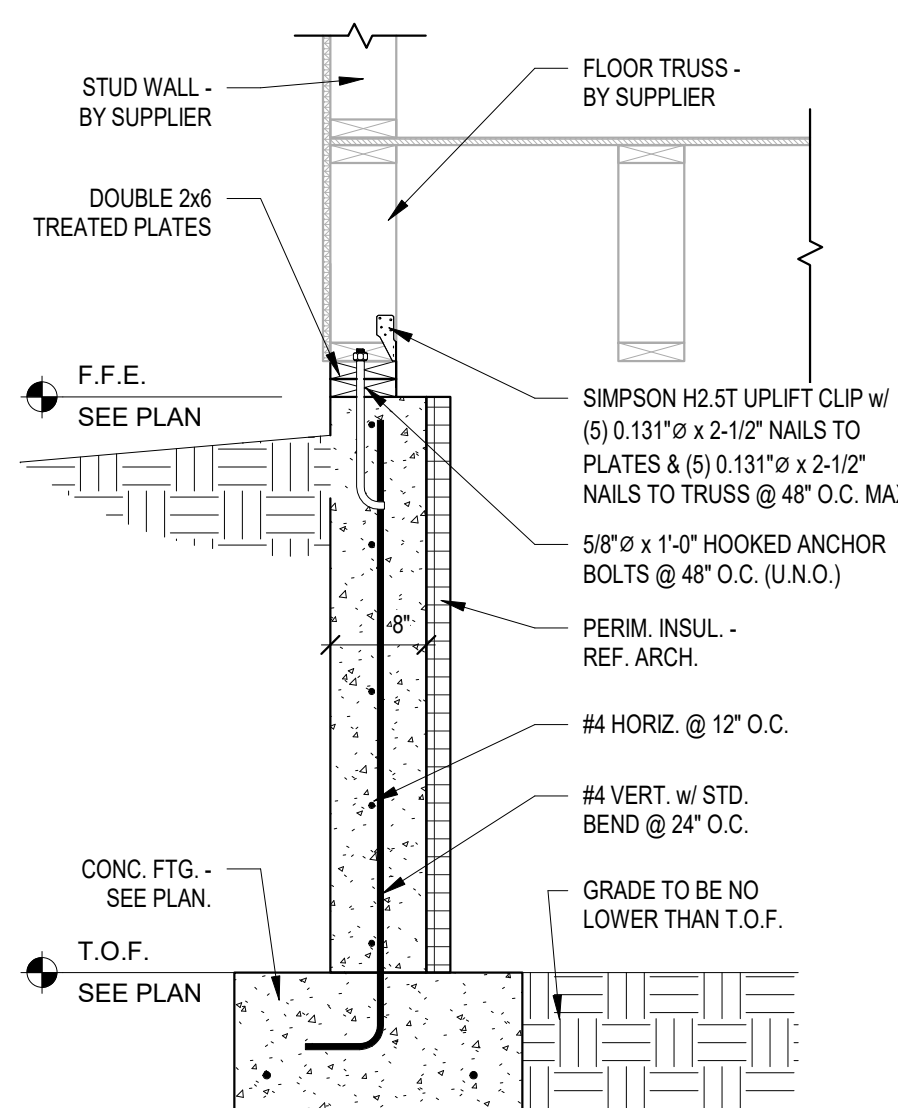
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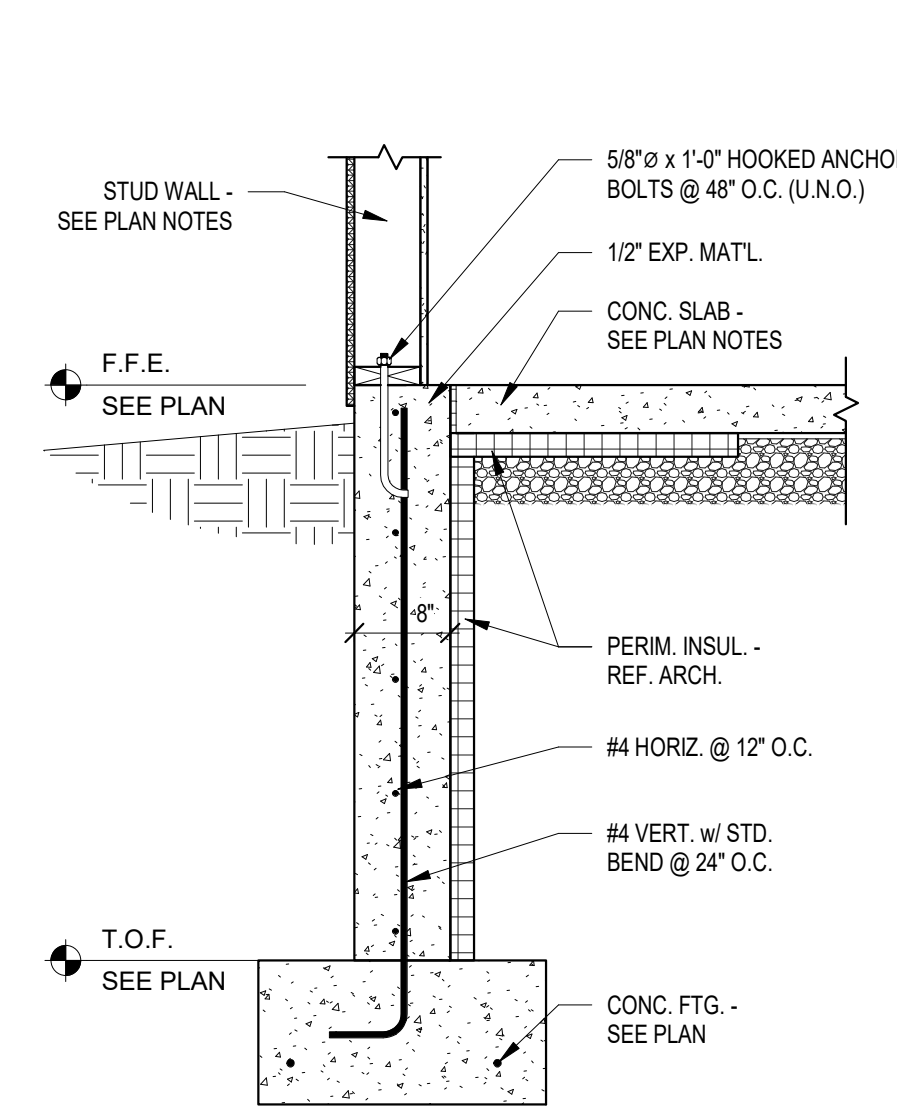
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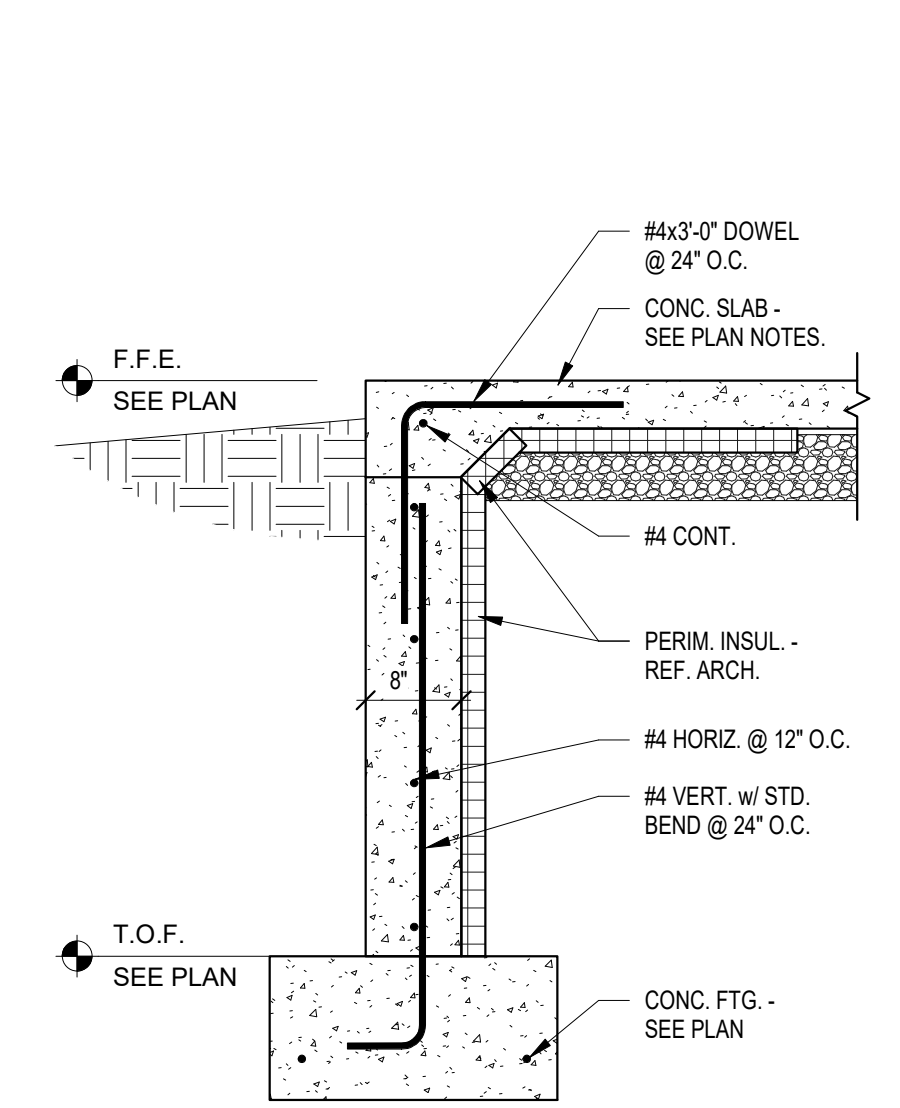
1 TYP. FOUND. WALL SECTION
3/4" = 1'-0"



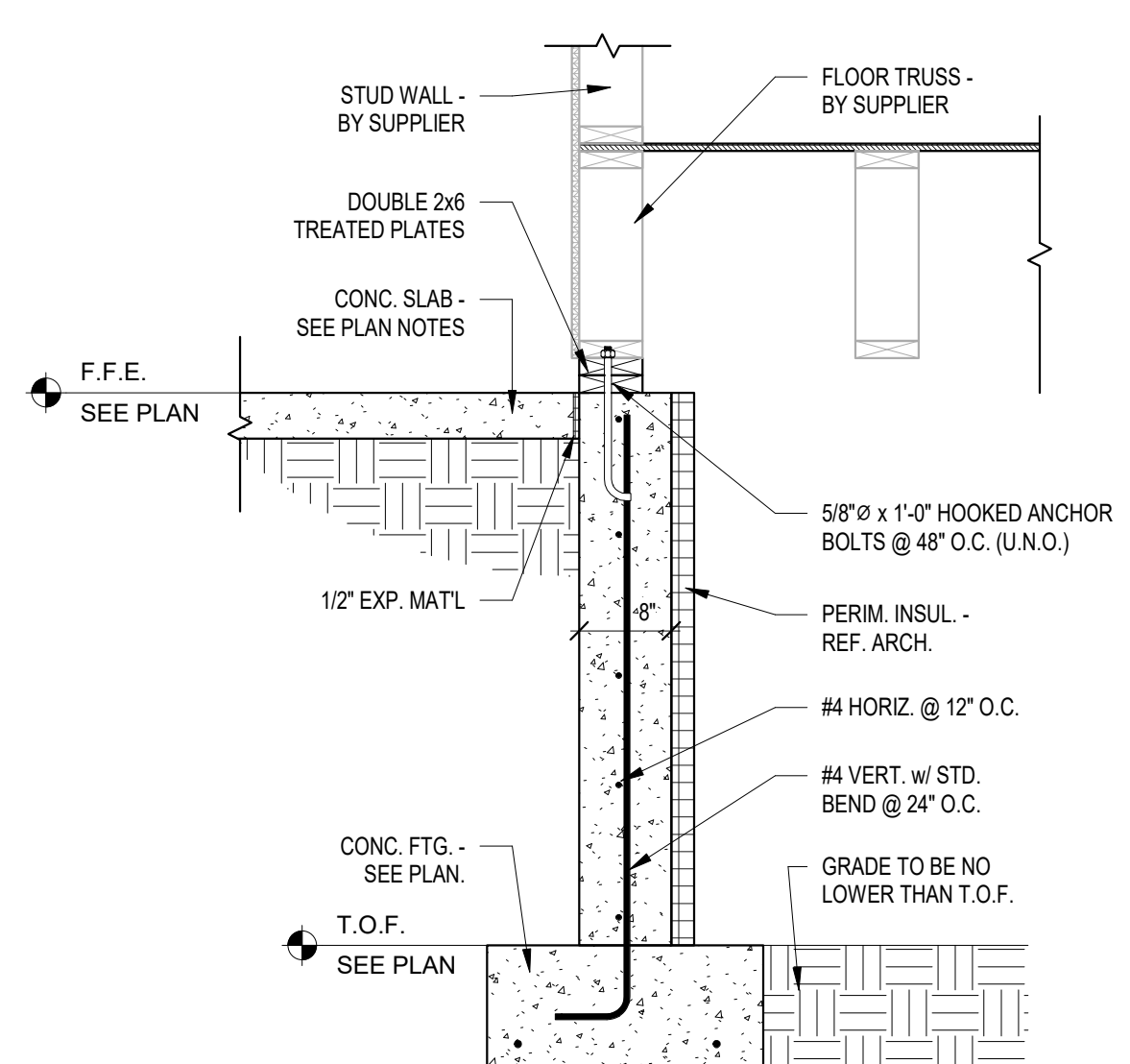
2 FOUND. WALL @ SIDEWALL
3/4" = 1'-0"



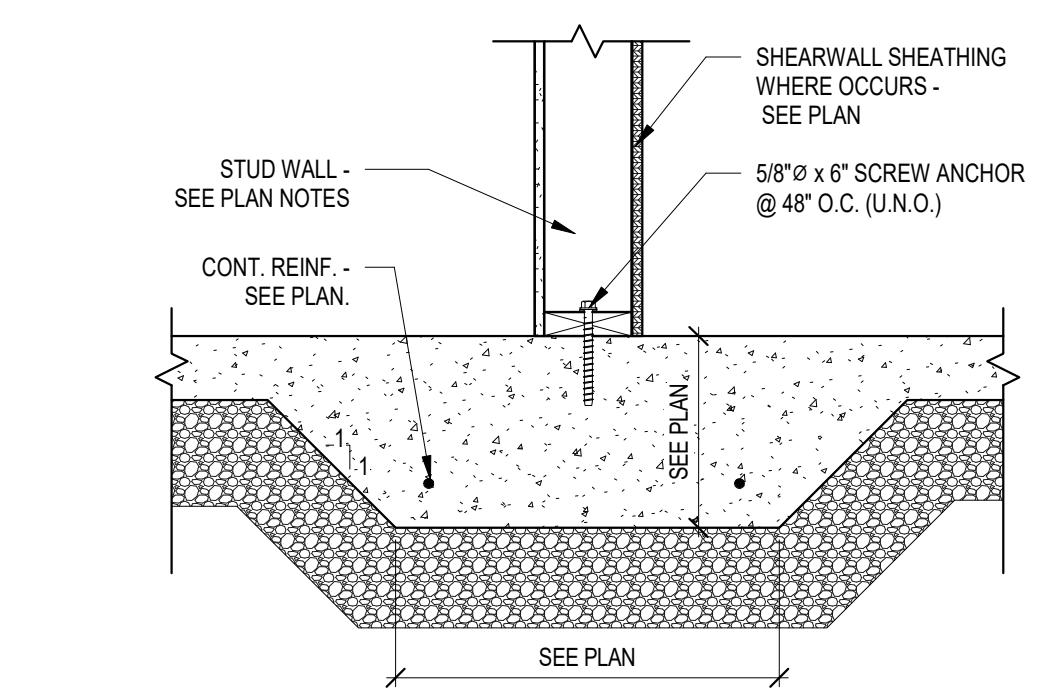
3 FOUND. @ EXT. GARAGE WALL
3/4" = 1'-0"



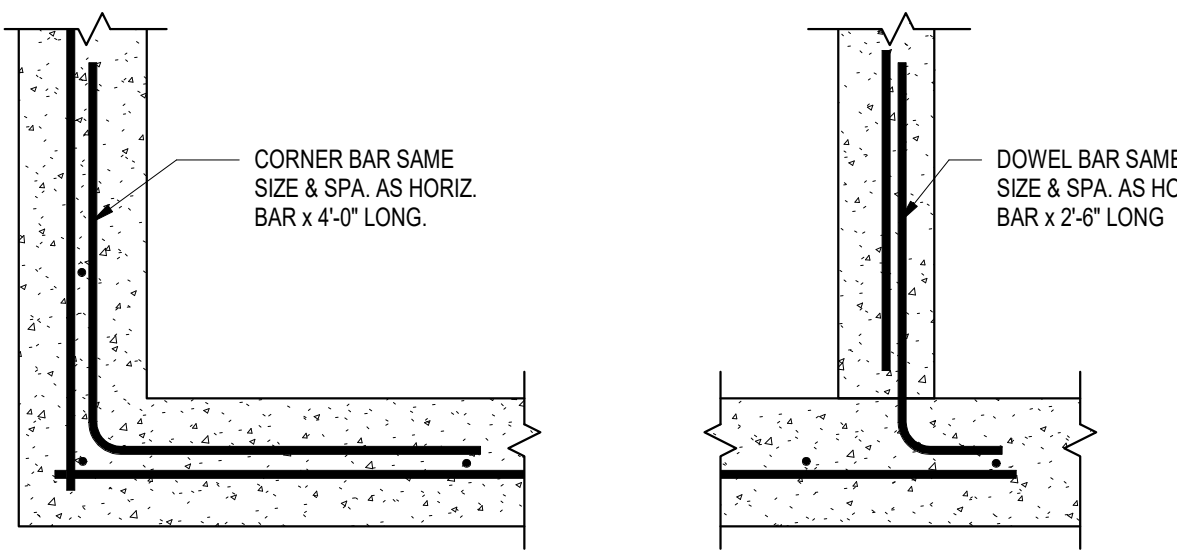
4 FOUND. SECTION O.H. DOOR
3/4" = 1'-0"



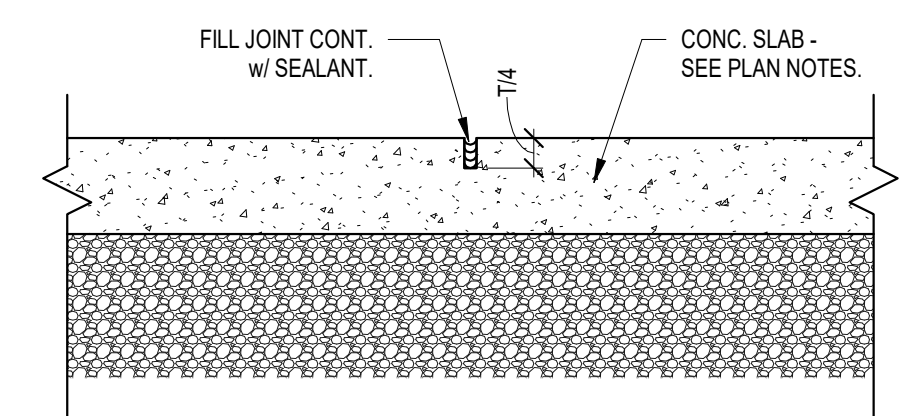
5 SHARED FOUND. WALL @ GARAGE/HOUSE
3/4" = 1'-0"



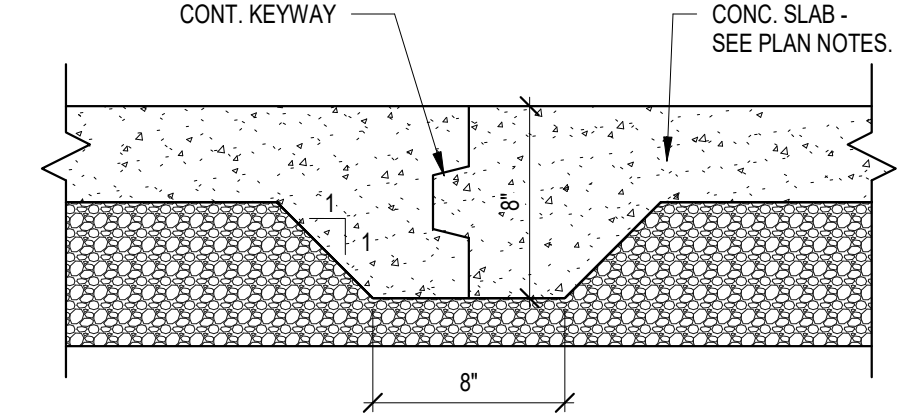
6 THICKENED SLAB DETAIL
1" = 1'-0"



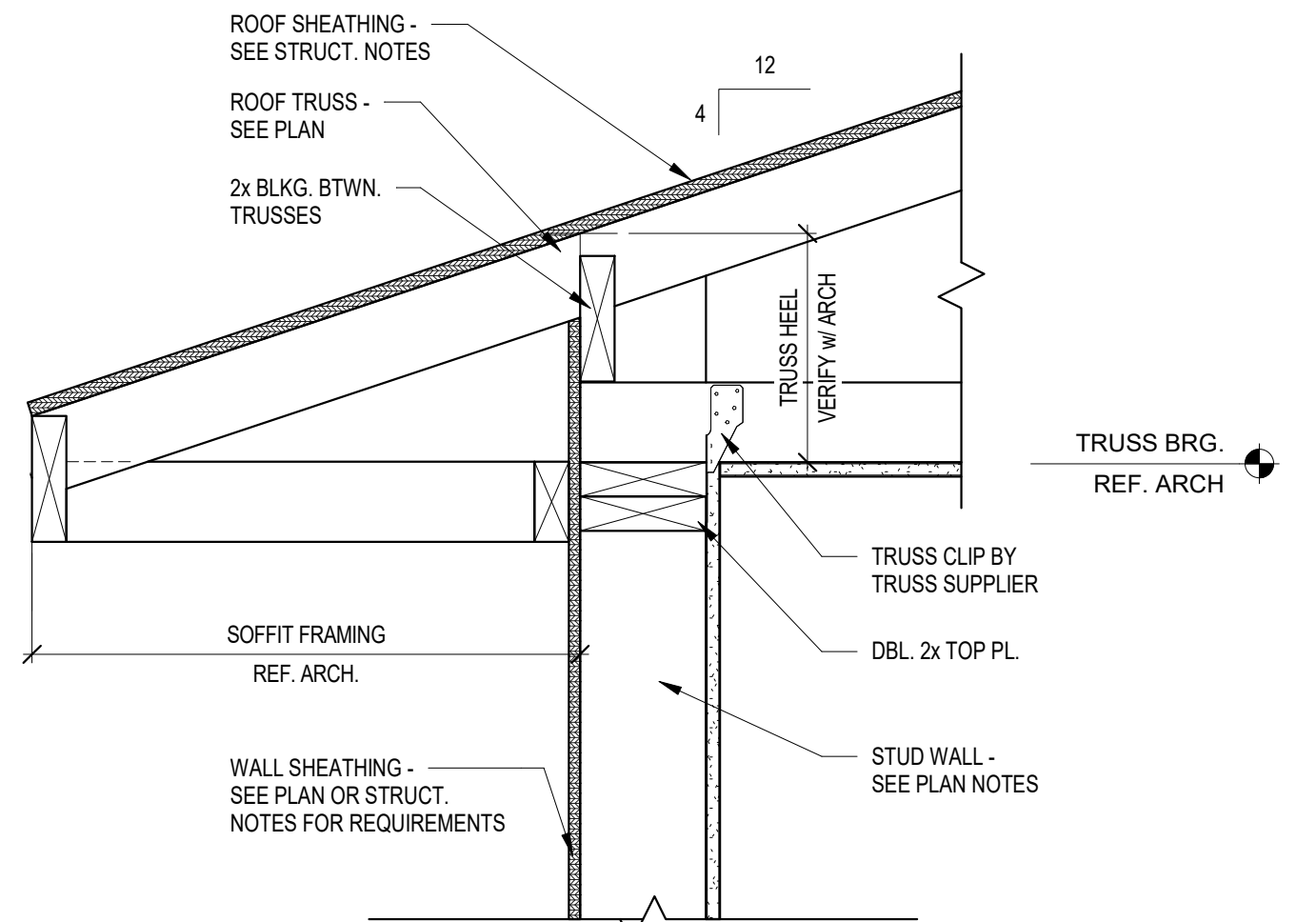
7 TYP. WALL CORNER REINF. DETAILS
1" = 1'-0"



8 TYP. CONTROL JOINT DETAIL
1 1/2" = 1'-0"



9 KEYED CONSTR. JOINT
1 1/2" = 1'-0"



10 ROOF TRUSS BRG. DETAIL
1 1/2" = 1'-0"

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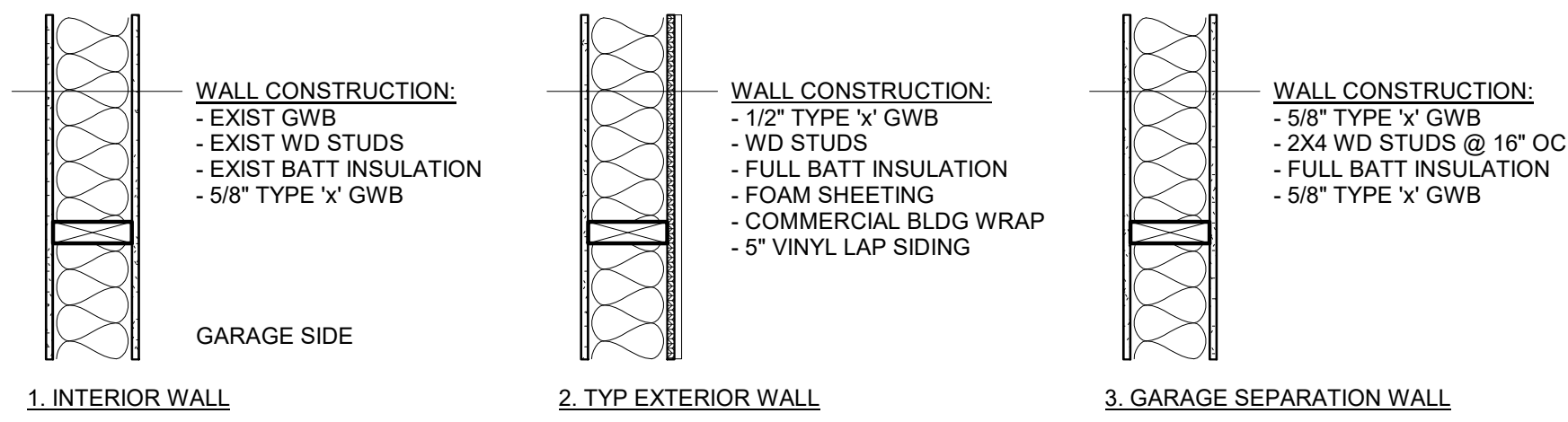
ENEMY SWIM DAY SCHOOL
HOUSING AND GARAGE
FOUNDATION DESIGN
WAUBAY, SD

STRUCTURAL DETAILS

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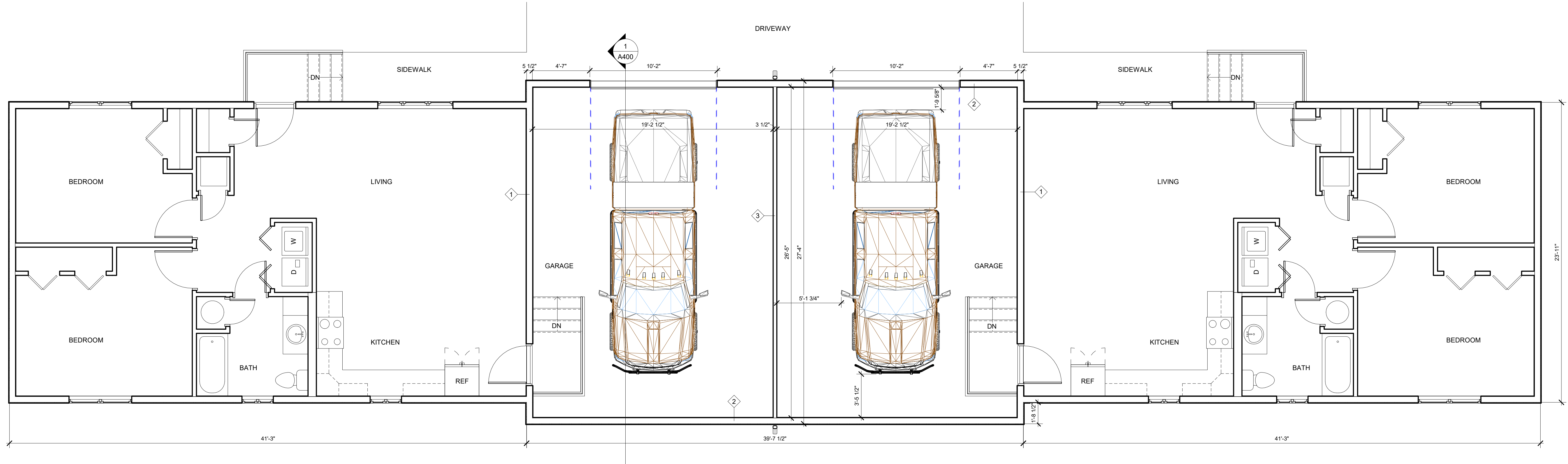
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NOTE:
 REMOVE EXISTING EXTERIOR
 SIDING AND INSULATION BD AND
 REPLACE WITH 5/8" TYPE 'X' GWB

○ WALL TYPES
 1" = 1'-0"

- GENERAL NOTES:
1. CONTRACTORS TO FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
 2. GENERAL CONTRACTOR RESPONSIBLE FOR ALL COORDINATION OF BUILDING TRADES ON THE PROJECT.
 3. COORDINATE FINAL LOCATION OF ALL MECHANICAL AND ELECTRICAL ITEMS WITH THE ARCHITECTURAL, MECHANICAL, & ELECTRICAL DRAWINGS.
 4. PROVIDE GWB CONTROL JOINTS AT A MAXIMUM OF 20 FEET ON CENTER IN WALLS WITH NO DOORS AND AT ONE SIDE OF EACH DOOR FRAMING IN ALL OTHER WALLS.
 5. ALL WET WALLS TO RECEIVE WATER RESISTANT GYPSUM WALL BOARD.
 6. ALL INTERIOR WALLS EXTEND TO ROOF DECK UNLESS OTHERWISE NOTED.
 7. VERIFY ALL DIMENSIONS AND WALL LOCATIONS PRIOR TO CONSTRUCTION. CONTACT THE ARCHITECT IF ACTUAL LOCATIONS DO NOT MATCH WITH THE LAYOUT SHOWN ON DRAWINGS.
 8. ALL EXPOSED STRUCTURE TO BE PAINTED UNLESS OTHERWISE NOTED.



▲ NORTH
 ① MAIN LEVEL PLAN
 1/4" = 1'-0"



ENEMY SWIM DAY SCHOOL
 HOUSING AND GARAGE
 FOUNDATION DESIGN
 WAUBAY, SD

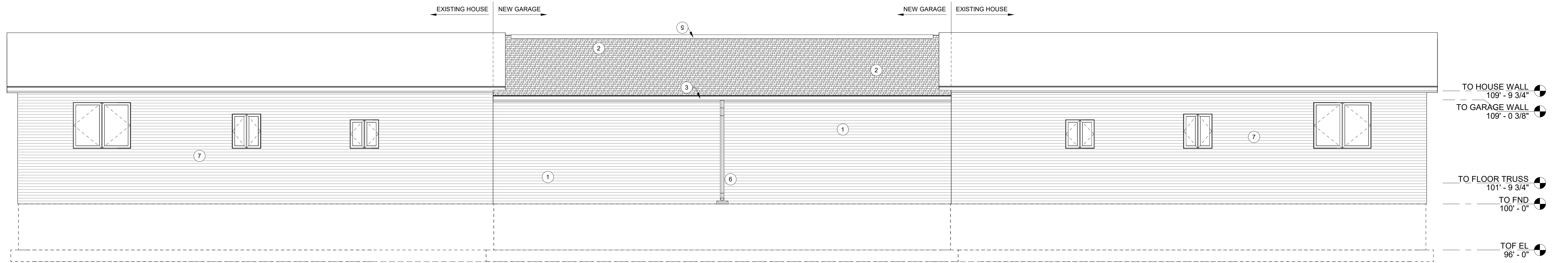
MAIN LEVEL PLAN

4/30/2025
 AV
 KN

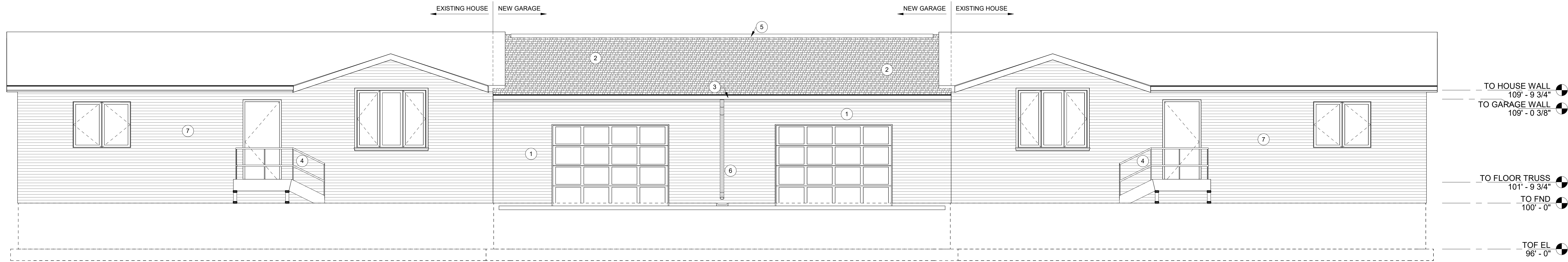
RS224-06
A100



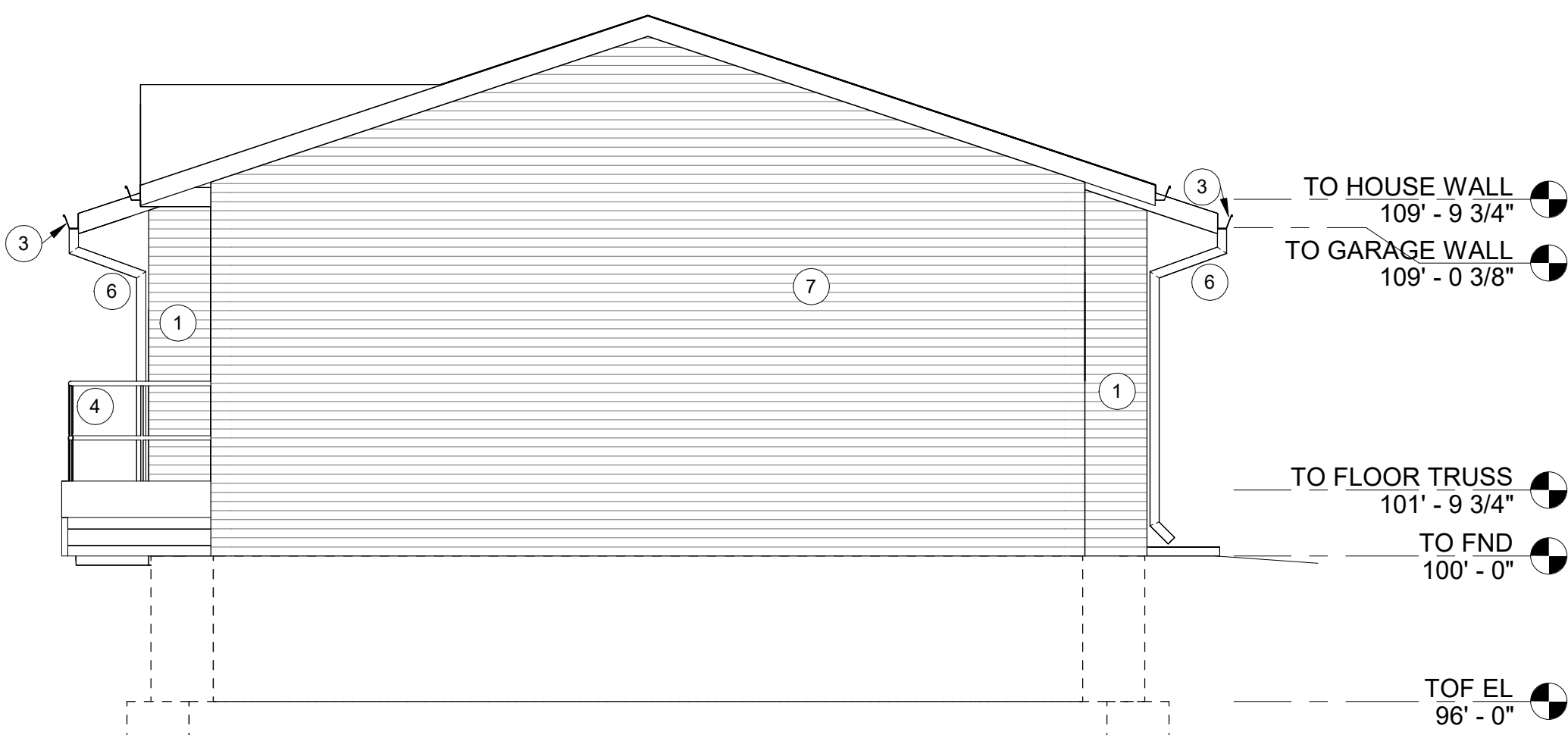
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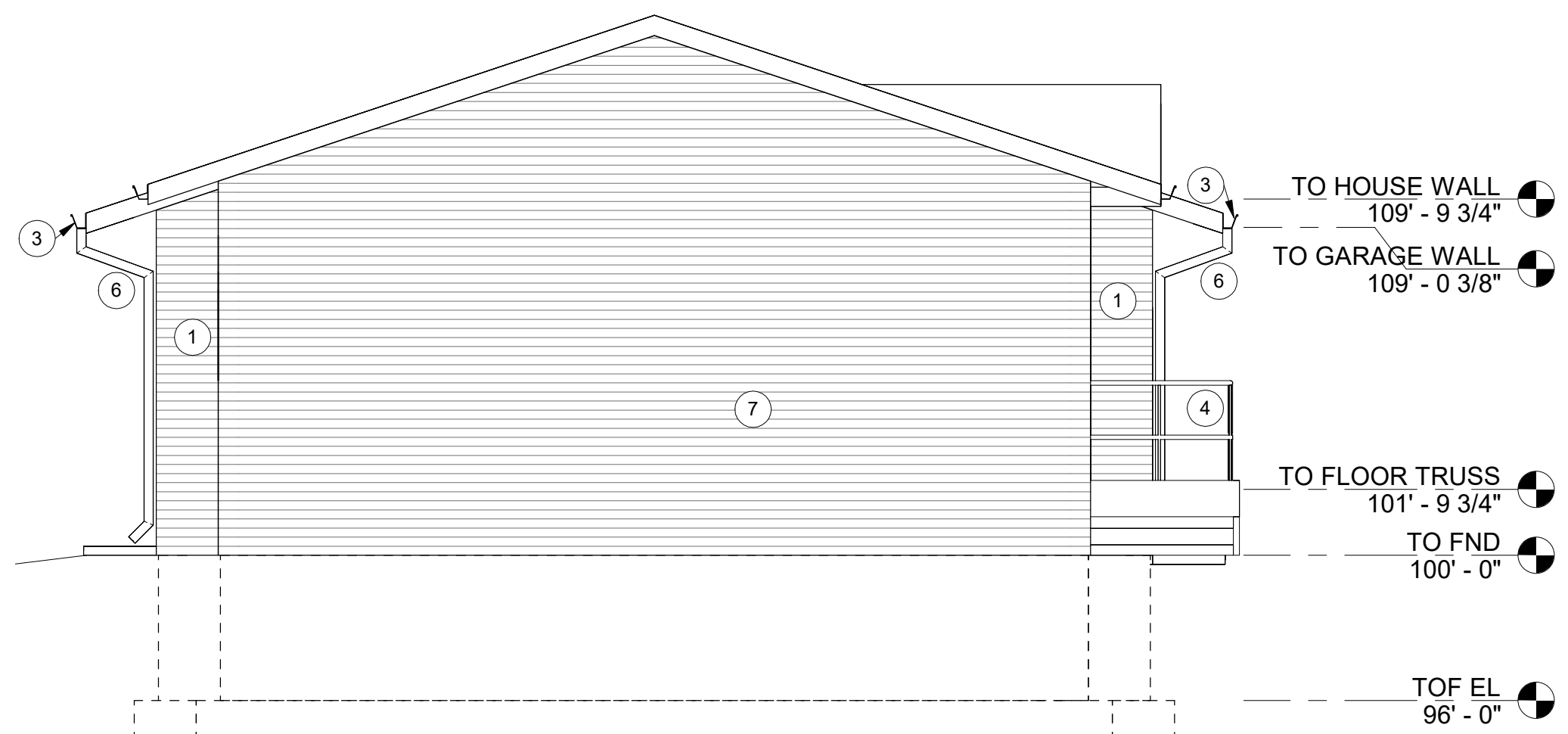
1 NORTH ELEVATION
1/4" = 1'-0"



3 SOUTH ELEVATION
1/4" = 1'-0"



2 WEST ELEVATION
1/4" = 1'-0"



4 EAST ELEVATION
1/4" = 1'-0"

- KEYNOTES:
1. PRE-FINISHED ENGINEERED WOOD SIDING TO MATCH EXISTING
 2. SHINGLE OVER 30# ROOF FELT TO MATCH EXISTING
 3. GUTTERS TO MATCH EXISTING
 4. STEEL PIPE TOP AND INTERMEDIATE RAILS & VERTICAL POSTS
 5. CONT RIDGE VENT
 6. PREFINISHED MET DOWNSPOUT AND PRECAST CONC SPLASH BLOCK
 7. EXISTING SIDING

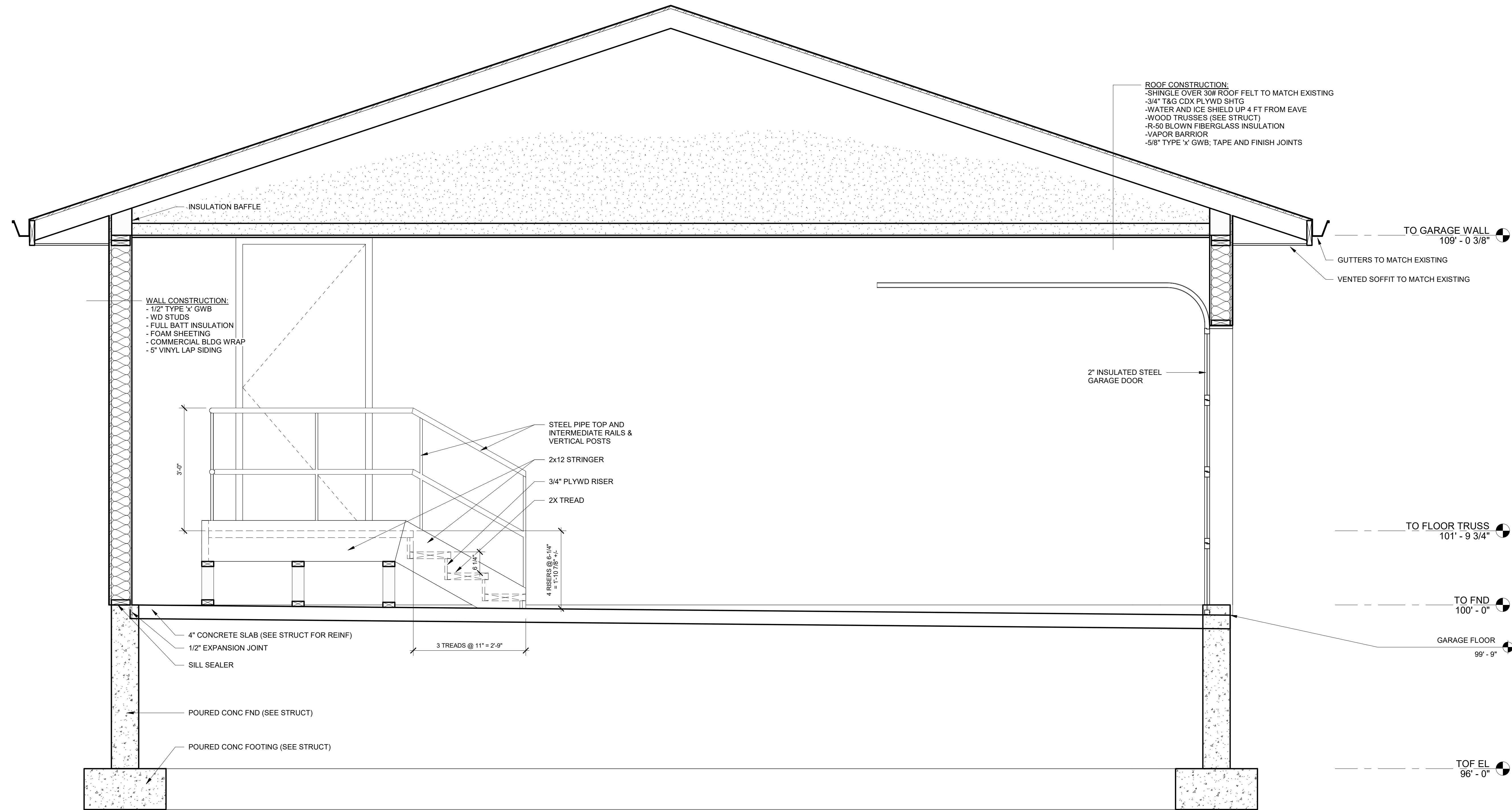


ENEMY SWIM DAY SCHOOL
HOUSING AND GARAGE
FOUNDATION DESIGN
WAUBAY, SD

EXTERIOR ELEVATIONS

4/30/2025
AV
KN

RS224-06
A300



1 GARAGE BUILDING SECTION
 3/4" = 1'-0"



ENEMY SWIM DAY SCHOOL
 HOUSING AND GARAGE
 FOUNDATION DESIGN
 WAUBAY, SD

BUILDING SECTIONS

4/30/2025
 AV
 KN

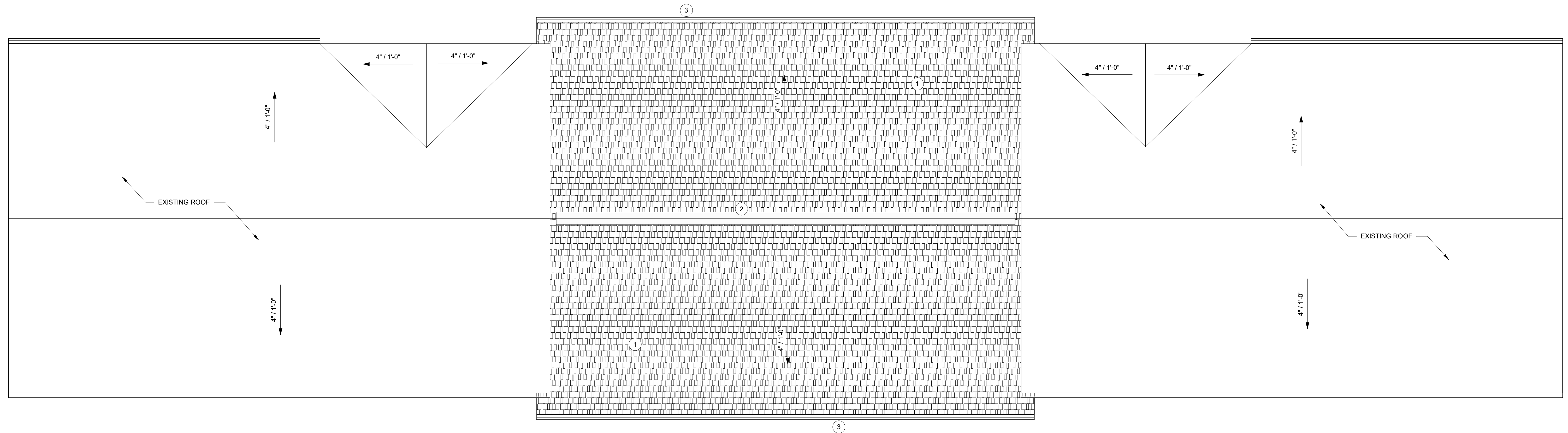
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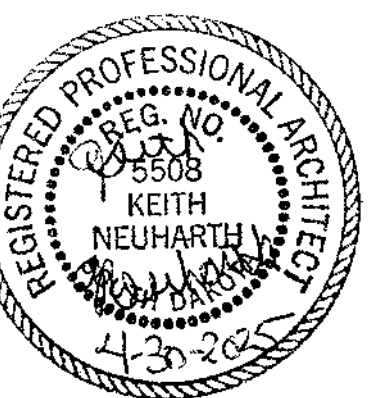
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ROOF PLAN NOTES:

1. SHINGLES TO MATCH EXISTING
2. CONTINUOUS RIDGE VENT
3. PREFIN MET GUTTER AND DOWNSPOUTS TO MATCH EXISTING



1 ROOF PLAN
1/4" = 1'-0"



ENEMY SWIM DAY SCHOOL
HOUSING AND GARAGE
FOUNDATION DESIGN
WAUBAY, SD

ROOF PLAN

4/30/2025
AV
KN

RS224-06

A600

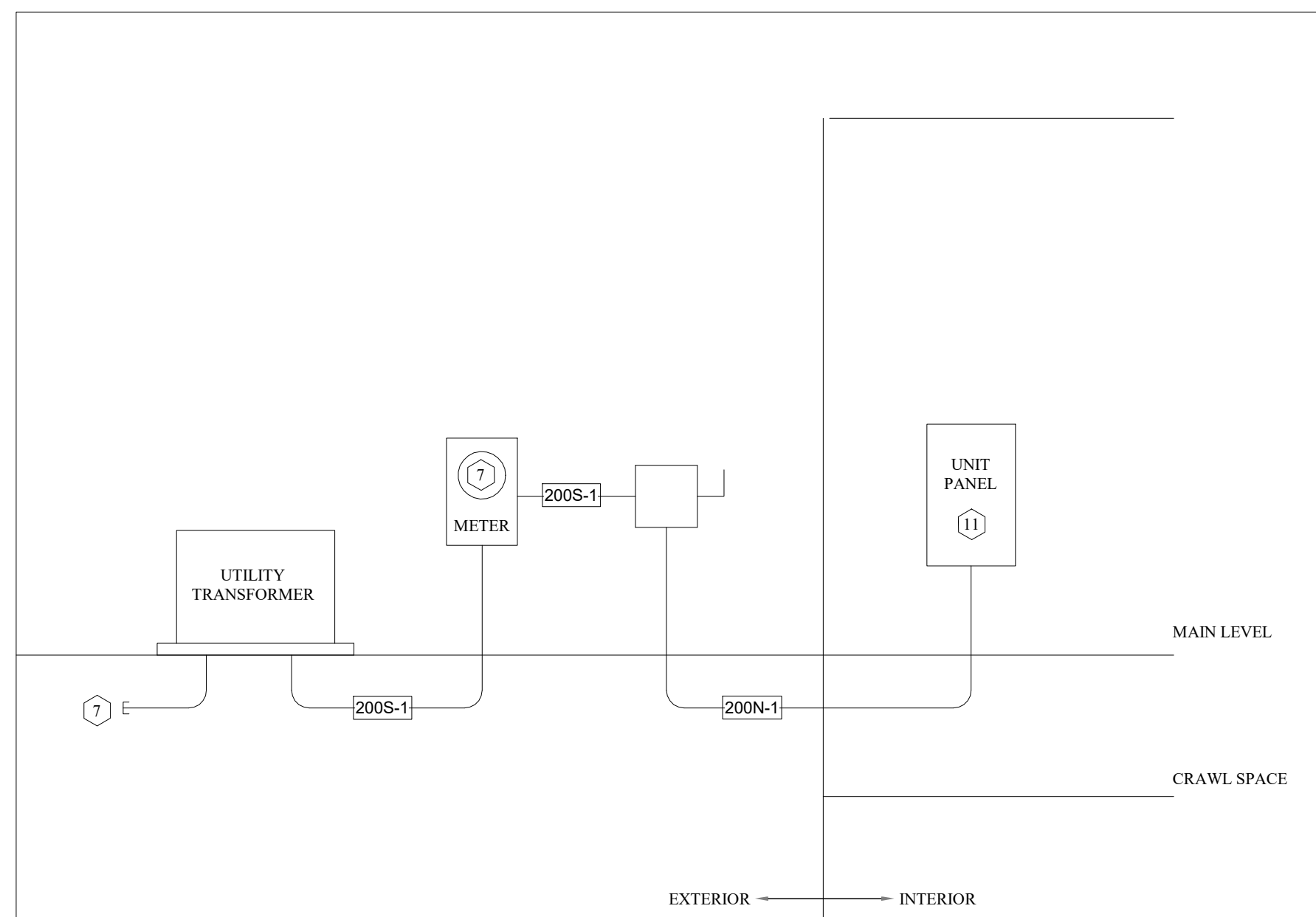


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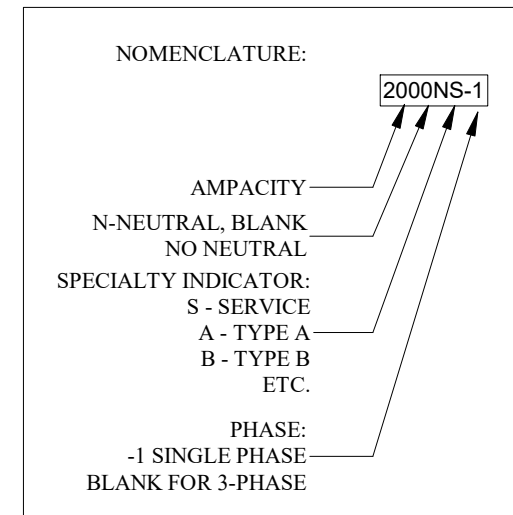
STANDARD ELECTRICAL SYMBOLS

BASED ON ANSI Y32.9-1972, ANSI A117.1-1986, AND FEDERAL REGISTER 56-144(ADA)
MOUNTING HEIGHT MEASUREMENTS SHALL BE MADE FROM FINISH FLOOR TO CENTER LINE OF OUTLET

SYMBOL	DESCRIPTION	MTG. HT.	
LIGHTING OUTLETS			
	CEILING LUMINAIRE, TYPE A, CKT 1, SW b	SCHEDULED	
	WALL MOUNTED LUMINAIRE	SCHEDULED	
	TROFFER LUMINAIRE, SLASH INDICATES UNSWITCHED	SCHEDULED	
	STRIP LUMINAIRE WITH WIRE GUARD	SCHEDULED	
	CEILING MOUNTED EXIT SIGN, SHADING INDICATES LIGHTED FACE	SCHEDULED	
	WALL MOUNTED EXIT SIGN	SCHEDULED	
	EMERGENCY BATTERY UNIT	SCHEDULED	
	REMOTE SCALED BEAM	SCHEDULED	
	PORCELAIN LAMPHOLDER, 100A LAMP LED LAMP EQUIVALENT	SCHEDULED	
	JUNCTION BOX	SCHEDULED	
RECEPTACLE OUTLETS			
	SINGLE, CKT 1	18"	
	DUPLEX	18"	
	DUPLEX - SPLIT WIRED	18"	
	DUPLEX - GROUND FAULT CIRCUIT INTERRUPTER	18"	
	DUPLEX - EMERGENCY	18"	
	DOUBLE DUPLEX	SCHEDULED	
	SPECIAL CONFIGURATION, DESIGNATION REFERS TO SCHEDULE	SCHEDULED	
	MULTI-OUTLET ASSEMBLY, ARROWS EXTEND TO LIMIT OF INSTALLATION, SUBSCRIPT INDICATES SPACING OF OUTLETS	SCHEDULED	
	CLOCK RECEPTACLE	82"	
	DUPLEX RECEPTACLE - FLOOR BOX	82"	
SWITCH OUTLETS			
	SINGLE POLE	46"	
	DOUBLE POLE	46"	
	THREE-WAY	46"	
	FOUR-WAY	46"	
	KEY OPERATED	46"	
	MOTOR - PROVIDE OVERLOAD UNIT AS REQ'D, TOGGLE ACCEPTABLE IF INTERNAL THERMAL PROTECTION INCLUDED, SWITCH NOT REQ'D IF MOTOR ASSEMBLY HAS INTEGRAL DISCONNECTING MEANS	46"	
	PILOT HANDLE	46"	
	TIME DELAY	46"	
	DIMMER - 1000W UNLESS OTHERWISE INDICATED	46"	
	GANGED SWITCHES - ARROW INDICATES MULTI-LEVEL SWITCHING	46"	
	WALL MOUNTED OCCUPANCY SENSOR	46"	
	CEILING MOUNTED OCCUPANCY SENSOR, TYPE A, SW b, REFER TO SCHEDULE FOR TYPE	46"	
MISCELLANEOUS			
	PLAN OR DETAIL NOTE	TOP 75"	
	SPECIAL PURPOSE CONNECTION - AS REQUIRED BY EQUIPMENT MANUFACTURER, COORDINATE ROUGH-IN WITH SHOP DWG.	46"	
	BRANCH CIRCUIT PANELBOARD, SHADING INDICATES NEW PANEL	46"	
	CONTROL PANEL	46"	
	EXTERNALLY OPERATED DISCONNECT SWITCH	46"	
	CONTROLLER OR RELAY	46"	
	COMBINATION CONTROLLER AND DISCONNECT MEANS	46"	
	MOTOR, DESIGNATION REFERS TO SCHEDULE	46"	
	EQUIPMENT DESIGNATION, SEE SCHEDULE	46"	
	ELECTRIC HEAT TO SCALE, DESIGNATION REFERS TO SCHEDULE, "T" INDICATES INTEGRAL THERMOSTAT	46"	
	THERMOSTAT-PROVIDED BY DIV. 26	46"	
	THERMOSTAT-FURNISHED BY DIV. 23, INSTALLED BY DIV. 26	46"	
	HUMIDISTAT-FURNISHED BY DIV. 23, INSTALLED BY DIV. 26	46"	
	POTENTIOMETER-FURNISHED BY DIV. 23, INSTALLED BY DIV. 26	46"	
	TIME SWITCH	46"	
	PHOTOELECTRIC SWITCH	46"	
CIRCUITING			
	HOME RUN, MIN 3/4" C, ARROWS AND SUBSCRIPTS INDICATE NUMBER AND IDENTIFICATION OF CIRCUITS	46"	
	CONTROL WIRE, SEE SPECIFICATION SECTION 260536	46"	
	EMERGENCY, MIN 1/2" C-10 AWG	46"	
	TELEPHONE, MIN 3/4" C, HOME RUN TO TERMINAL BOARD	46"	
	TELEPHONE, MIN 3/4" C, STUB INTO CEILING SPACE	46"	
	LOW VOLTAGE, MIN 1/2" C-14 AWG AS REQ'D	46"	
	SPECIAL SYSTEMS, MIN 3/4" C, PROVIDE CONDUCTORS AS REQ'D BY MANUFACTURER, SUBSCRIPT INDICATES SYSTEM, SEE STANDARD ABBREVIATIONS	46"	
FIRE ALARM SYSTEMS			
	DETECTOR, SUPERSCRIPT INDICATES ZONE, SUBSCRIPT DESCRIBES INITIATION: DIRECT, RATE OF RISE THERMAL, FIXED TEMPERATURE THERMAL, IONIZATION, PHOTO-ELECTRIC, CO-CARBON MONOXIDE, PICO-COMBO PHOTO-ELECTRIC-CARBON MONOXIDE	88"	
	CHIME	88"	
	MAGNETIC DOOR HOLDER	46"	
	FAX RELAY	88"	
	FLOW SWITCH	88"	
	MANUAL STATION	88"	
	AUDIBLE ALARM NOTIFICATION APPLIANCE (HORN)	88"	
	VISUAL ALARM NOTIFICATION APPLIANCE	88"	
	COMBO AUDIBLE-VISUAL ALARM NOTIFICATION APPLIANCE	88"	
	MAIN VALVE SUPERVISORY ("TAMPER") SWITCH	88"	
STANDARD ABBREVIATIONS			
AC	ABOVE COUNTER (MIN 4" ABOVE BACKSPLASH)	LV	LOW VOLTAGE
AF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR
AFG	ABOVE FINISHED GRADE	MCA	MINIMUM CIRCUIT AMPACITY
ATC	AUTOMATIC TEMPERATURE CONTROL	MCB	MAIN CIRCUIT BREAKER
BOF	BOTTOM OF FIXTURE	MLO	MAIN LUG ONLY
CKT	CIRCUIT	NC	NOT REQUIRED
DT	DUST TIGHT	NFDS	NON-FUSIBLE DISCONNECT SWITCH
DTR	DATA RACK	NR	NOT REQUIRED
EC	ELECTRICAL CONTRACTOR	PA	PUBLIC ADDRESS
EGC	EQUIPMENT GROUNDING CONDUCTOR	RSC	RIGID GALVANIZED STEEL CONDUIT
EM	EMERGENCY	R/T	RAN/TIGHT
EP	EXPLOSION PROOF	SEC	SECURITY
EW	ELECTRIC WATER COOLER	SEF	SEF DETAIL
EWV	ELECTRIC WATER HEATER	SS	SURGE SUPPRESSION
F	FUSED	SW	SWITCH
FA	FIRE ALARM	T	TELEPHONE
FACP	FIRE ALARM CONTROL PANEL	TOP	TOP OF PANEL
FARA	FIRE ALARM REMOTE ANNUNCIATOR	TSW	TWO-SPIND SEPARATE WINDING
FDS	FUSIBLE DISCONNECT SWITCH	TTB	TELEPHONE TERMINAL BOARD
FLA	FULL LOAD AMPERES	U	USB COMBINATION RECEPTACLE
FVNR	FULL VOLTAGE NON REVERSING	VD	VARIABLE FREQUENCY DRIVE
FVR	FULL VOLTAGE REVERSING	VT	VAPOR TIGHT
GRA	GENERATOR REMOTE ANNUNCIATOR	W	WALL MTS (40" AFF)
I	INTERCOM	WAP	WIRELESS ACCESS POINT
IG	ISOLATED GROUND	WP	WEATHERPROOF
IL	INTERLOCK	WT	WATER TIGHT
		WM	WIREMOLD



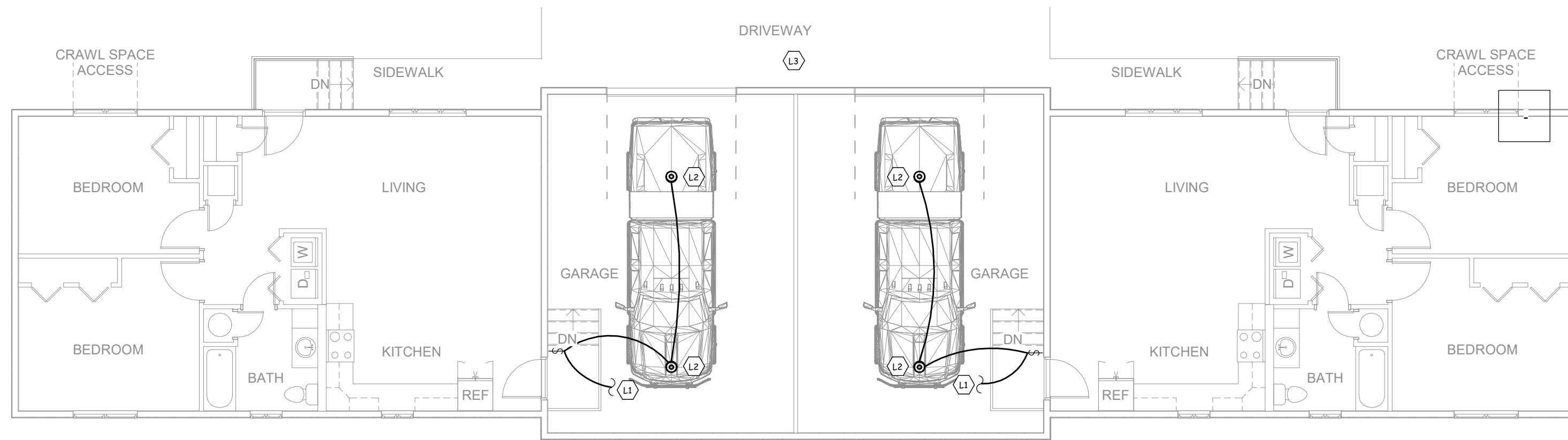
3 RISER DIAGRAM



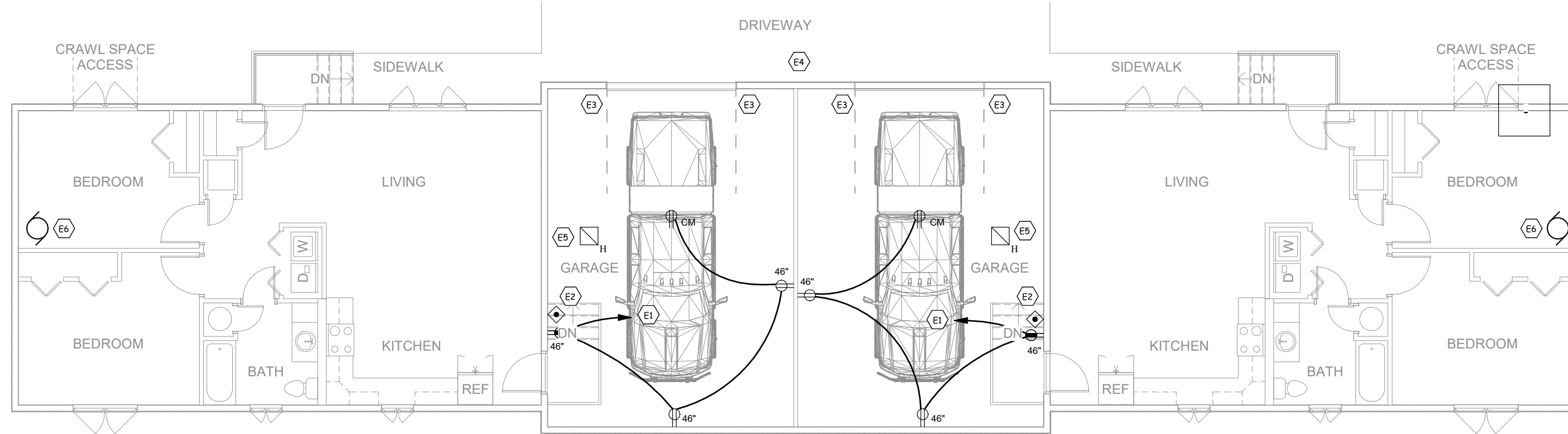
DESIG-NATION	CONFIGU-RATION	REQUIRED AMPACITY	CONDUCTOR SIZE (NOTE 3)				CONDUIT
			PHASE	NEUTRAL	EGC		
200S-1	10 3W	200	#4/0	#4/0	NR	NOTE 6	
200N-1	10 3W	200	#4/0	#4/0	#2/0	NOTE 6	

NOTES:

- FEEDER RISERS ARE SCHEMATIC ONLY, AND NOT INTENDED TO INFER LUG ARRANGEMENTS.
- SEE SPECIFICATION FOR GROUNDING REQUIREMENTS, ALLOWABLE PVC USAGE, AND ALLOWABLE EXPOSED EXTERIOR STUB-UPS.
- CONDUCTORS SIZING BASED UPON 60 DEGREE TERMINATIONS FOR OVERCURRENT PROTECTIVE DEVICES RATED 100 AMPERES OR LESS, AND 75 DEGREE TERMINATIONS FOR RATINGS GREATER THAN 100 AMPERES, AS PER NEC TABLE 310.16, 240.4, 310.15(B2), AND 310.15(B4). IN NO CASE SHALL INDICATED SIZING BE DECREASED.
- EQUIPMENT GROUNDING CONDUCTOR.
- OBTAIN AVAILABLE FAULT CURRENT AT UTILITY COMPANY TRANSFORMER SECONDARY TERMINALS DIRECTLY FROM SERVING UTILITY COMPANY. ASSUME SAME RATING AT SERVICE MAIN. INCLUDE UTILITY COMPANY CORRESPONDENCE WITH SHOP DRAWINGS. SIZE INTERRUPTING RATINGS OF ALL DOWNSTREAM DEVICES IN ACCORDANCE WITH AVAILABLE FAULT CURRENT AS PER NEC 110-9. UL-RECOGNIZED SERIES RATINGS ACCEPTABLE WITH MINIMUM RATINGS AS PER SPECIFICATION. RECALCULATE FAULT CURRENT AT SECONDARY TERMINALS OF SEPARATELY DERIVED SYSTEMS, BASED ON MANUFACTURER'S TRANSFORMER IMPEDANCE ASSUMING AVAILABLE PRIMARY FAULT CURRENT EQUAL TO SERVICE MAIN. EQUIPMENT THAT IS PART OF A SERIES RATED COMBINATION SHALL BE LEGIBLY MARKED IN THE FIELD BY THE CONTRACTOR AS PER NEC 110.22, TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATING.
- FEEDERS TO BE DIRECT BURIED ALUMINUM AND MAY BE TRIPLEX OR TRIPLEX WITH GROUND AS REQUIRED. PROVIDE CONDUIT STUBS FROM ELECTRICAL EQUIPMENT TO MINIMUM 24" BELOW GRADE AND PROVIDE LARGE RADIUS SWEEPS UNDERGROUND FOR CONDUCTOR EXITS. SIZE CONDUITS AS REQUIRED BY CABLES PROVIDED.
- INCOMING PRIMARY BY SERVING UTILITY.
- PROVIDE METER SOCKET PER SERVING UTILITY REQUIREMENTS. PROVIDE UN-STRUT RACK FOR MOUNTING METER, OR MOUNT ON STRUCTURE, AS DIRECTED BY OWNER.
- PROVIDE WEATHER-PROOF 200/3 FUSED DISCONNECT SWITCH OUTSIDE STRUCTURE FOR SERVICE DISCONNECTING MEANS. MOUNT ADJACENT TO METER SOCKET.
- 2" CONDUIT STUBBED OUT OF PANEL IN STRUCTURE BY MANUFACTURER. EXTEND FEEDER INTO PANEL AS REQUIRED.
- TYPICAL UNIT PANEL. PROVIDE METER SOCKET, SERVICE DISCONNECT AND ASSOCIATED FEEDERS FOR EACH INDIVIDUAL LIVING UNIT (4 THUS). IN EACH PANEL, VERIFY MAIN BONDING JUMPER INSIDE PANEL IS REMOVED. VERIFY ALL NEUTRAL AND GROUND CONDUCTORS FROM BRANCH CIRCUITS ARE SEPARATED ON SEPARATE NEUTRAL AND GROUND BARS RESPECTIVELY. RELOCATE NEUTRAL OR GROUND CONDUCTORS AS REQUIRED TO PROVIDE COMPLETE SEPARATION.



1 LIGHTING PLAN



2 POWER PLAN

Keynote Legend	
E1	EXTEND TO UNIT ELECTRICAL PANEL AND PROVIDE 20/1 BREAKER. EXTEND CIRCUITRY TO DOWNSTREAM DEVICES FROM LOAD SIDE OF 6FCT RECEPTACLE. USE #12/2 NM CABLE FOR CIRCUITRY.
E2	PROVIDE LOW-VOLTAGE CIRCUITRY FROM CEILING MOUNTED RECEPTACLE FOR GARAGE DOOR OPENER TO PUSH BUTTON LOCATION AS REQUIRED.
E3	PROVIDE LOW-VOLTAGE CIRCUITRY FROM CEILING MOUNTED RECEPTACLE FOR GARAGE DOOR SAFETY SENSORS AS REQUIRED.
E4	DRAWING IS SHOWN FOR ONE COMPLETE BUILDING. TWO COMPLETE BUILDINGS WILL BE PROVIDED ON SITE AND WILL REQUIRE THE SAME ELECTRICAL ITEMS.
E5	PROVIDE HEAT ALARM IN GARAGE. EXTEND 3 CONDUCTOR NM, #12 OR #14 TO MATCH EXISTING SMOKE ALARM CIRCUIT, TO NEAREST SMOKE ALARM IN HOUSE.
E6	PROVIDE POWER CONNECTION TO CRAWL SPACE VENTILATION FAN AS REQUIRED. EXTEND TO NEAREST RECEPTACLE CIRCUIT IN UNIT.
L1	TO GARAGE RECEPTACLE CIRCUIT. EXTEND FROM LOAD SIDE OF 6FCT RECEPTACLE.
L2	PROVIDE PORCELAIN LAMP HOLDER WITH LED TWIST-IN LAMP EQUIVALENT TO 100-WATT INCANDESCENT LAMP. TYPICAL.
L3	DRAWING IS SHOWN FOR ONE COMPLETE BUILDING. TWO COMPLETE BUILDINGS WILL BE PROVIDED ON SITE AND WILL REQUIRE THE SAME ELECTRICAL ITEMS.

DATE
09/26/2024

JJB
JJB

24561

DRAWN BY
CHECKED BY
JOB NO.

Prairie
Engineering P.C.
Professional Consulting Engineers

ENEMY SWIM DAY SCHOOL
HOUSING AND GARAGE ELECTRICAL SERVICES
WAUBAY, SD

ELECTRICAL PLANS

SHEET
E100

