

**SOUTHERN UNIVERSITY AND A&M COLLEGE
BATON ROUGE CAMPUS
REQUEST FOR BID
January 9, 2026 @ 10:30 AM
VITICULTURE FIELDS
TLA Project Number 24-131 SU Ag Center Project
Engineer Firm: Thompson Luke & Associates, LLC
10705 Rieger Road
Baton Rouge, LA 70809
Ph. 225-293-9474
Contact: Scott Welch, P.E.
Email: scott@tlaeng.com**

All Times are CTS

**MANDATORY PRE—BID CONFERENCE
AND SITE VISIT:
LOCATION:**

**December 3, 2025 @ 10:30 AM
Physical Plant Department
Benjamin H. Kraft Building
515 James L. Hunt Street
Southern University
Baton Rouge Campus
Site Telephone No. 225-771-4741 or
225-771-6241**

**DEADLINE TO SUBMIT INQUIRIES:
SUBMIT INQUIRIES TO:**

**December 9, 2025 by 5:00 PM
Linda Antoine
Email: linda_antoine@subr.edu**

DEADLINE TO RESPOND TO INQUIRIES:

December 15, 2025 by 5:00 PM

*Note: Responses to inquiries/addenda are posted on LAPAC (La State Procurement website) LAPAC website: <https://www.cfprd.doa.louisiana.gov/OSP/LaPAC/Agency/outMain.cfm>
It is the responsibility of the vendor to check LAPAC for addenda.*

**DEADLINE TO SUBMIT BID:
SUBMIT BID TO:**

**January 9, 2026 @ 10:30 AM
Linda Antoine, Director
Southern University Purchasing
Department-P. O. Box 9534 or
James L. Prestage Drive
J. S. Clark Adm. Bldg. Annex, 1st Floor
Baton Rouge, LA 70813
Telephone 225-771-2804 or 771-4587**

**Use link to submit bid online:
<http://www.sus.edu/bidcertification>**

**ADVERTISEMENT
REQUEST FOR BID
BID #50016-10347
VITICULTURE FIELDS
SOUTHERN UNIVERSITY AND A&M COLLEGE BATON ROUGE
TLA Project Number: 24-131 SU Ag Center Project
BID OPENING DATE AND TIME: JANUARY 9, 2026 @ 10:30 AM**

Sealed bids will be received by Southern University, Baton Rouge, Louisiana, in the Purchasing Department, 8100 James L. Prestage Drive, PO Box 9543, J. S. Clark Administration Building Annex, South Entrance, First Floor East, Baton Rouge, LA 70813. Bids will be opened and read aloud in a public meeting in the Southern University Purchasing Department.

**MAIL, HAND-DELIVER OR ELECTRONIC SUBMITTAL TO PURCHASING
DEPARTMENT NO LATER THAN 10:30 AM-ON JANUARY 9, 2026**

*Electronic submittal: Use link to submit bid online:
<http://www.sus.edu/bidcertification>*

Bidders are solely responsible for ensuring timely delivery of their bids. The Southern University Purchasing Department is not responsible for any delays caused by bidders' chosen means of delivery. Failure to meet the bid deadline submittal date and time shall result in rejection of bid.

Engineer Firm: Thompson Luke & Associates
10705 Rieger Road
Baton Rouge, LA 70809
Ph.225-293-9474
Contacts: Scott Welch, P.E.
Email: scott@tlaeng.com

**ALL BID SPECIFICATIONS AND ADDENDA CAN BE OBTAINED BY ACCESSING
THE LA STATE PROCUREMENT WEBSITE**
<https://wwwcfprd.doa.louisiana.gov/osp/lapac/pubMain.cfm>.

(Search by bid # 50016-10347)

We highly recommend registering your company with Louisiana State Procurement/LAPAC

Mandatory Pre-Bid Conference & Site Visit: December 3, 2025 @ 10:30 AM
Conference & Site Visit Location:
Physical Plant Department
Benjamin H. Kraft Building
515 James L. Hunt Street
Southern University
Baton Rouge Campus
Site Telephone No. 225-771-4741 or 771-6241

Participants shall be in attendance by 10:30 a.m. and sign sheet provided by the Purchasing Department.

Bidders must visit the site and be familiar with the local conditions under which the work is to be performed. No additional compensation will be granted because of unusual difficulties, which may be encountered in the execution of any portion of the work.

Inquiries will be accepted until December 9, 2025, by 5:00 p.m. Inquiries shall be submitted to Linda Antoine at linda_antoine@subr.edu

Responses to inquiries will be posted on LAPAC (LA State Procurement website) December 15, 2025, by 5:00 PM.

Any person requiring special accommodation should notify the Purchasing Office of the type(s) of accommodation required not less than seven (7) days before the bid opening date. Additional contact is Wilbert Rossett, Southern University Safety Department at wilbert.rossett@sus.edu or 225-771-3101.

5% Security

All bids must be accompanied by bid security equal to **five (5%) percent of the sum of the base bid and all alternates, if applicable**, and must be in the form of a certified/official check, cashier's check or bid bond, made payable to Southern University and A & M College. Surety represents that it is listed on the current U.S. Department of the Treasury Financial Management Service list of approved bonding companies and that is listed thereon as approved for amount equal to or greater than the amount for which it obligates itself in this instrument. No bid bond indicating an obligation of less than five percent (5%) by any method is acceptable.

Performance & Payment Bond

Successful Proposer shall be required to furnish a performance (surety) bond 100% of bid price. The Bond should be made payable to Southern University. Any performance bond furnished shall be written by a surety or insurance company currently on the U.S. Department of the Treasury Financial Management Service list of approved bonding companies which is published annually in the *Federal Register*, or by a Louisiana domiciled insurance company with at least an A-:VI rating or higher in the latest printing of the A.M. Best's Key Rating Guide or by an insurance company that is either domiciled in Louisiana or owned by Louisiana residents and is licensed to write surety bonds.

No surety or insurance company shall write a performance bond which is in excess of the amount indicated as approved by the U.S. Department of the Treasury Financial Management Service list or by a Louisiana domiciled insurance company with an A-:VI rating by A.M. Best up to a limit of 10 percent of policyholders' surplus as shown by A.M. Best; companies authorized by this Paragraph who are not on the treasury list shall not write a performance bond when the penalty exceeds 15 percent of its capital and surplus, such capital and surplus being the amount by which the company's assets exceed its liabilities as reflected by the most recent financial statements filed by the

company with the Department of Insurance.

In addition, any performance bond furnished shall be written by a surety or insurance company that is currently licensed or authorized to do business in the State of Louisiana. The bond must be received within twelve (12) working days from the date of notification.

Bidders shall include the following on envelopes of choice: company's name, address, Louisiana contractor's license number, bid number, bid opening date and time.

Bids may be withdrawn by written, telegraphic fax notice or email and received at the address or email address designated in the Invitation to Bid prior to the time set for bid opening, as recorded by date stamp at the Purchasing Office. Bids received after closing time will be returned unopened. Evidence of authority to submit the bid shall be required in accordance with R.S. 38:2212(a)(1)(c) and/or R.S. 39:1594(c)(2)(d).

The Southern University System is a participant in the Louisiana for the Small Entrepreneurships Program (the Hudson Initiative) and the Louisiana Initiative for Veterans and Service-Connected Disabled Veterans-Owned Business Small Entrepreneurships. Bidders are encouraged to consider participation. A list of certified vendors and additional information can be obtained from website <http://www.ledsmallbiz.com>. Potential participants may also register at this website.

Any questions concerning bid documents, please contact Mary Jane Spruel, Assistant Director of Purchasing at (225) 771-2800 or email to maryjane_spruel@subr.edu

No bid may be withdrawn for a period of forty-five (45) days after receipt of bids, except under the provisions of LA. R.S. 38:2214. Bidder is required to comply with provisions and requirements of LA R.S. 38:2212(B)(5).

The University reserves the right to reject all bids and to waive any informalities incidental thereto.

Bids shall be accepted from Contractors who are licensed under LA. R.S. 37:2150-2192 for the classification of 72000000 Building & Construction, 72130000 General Building Construction, 712136000 Commercial or Industrial Construction, 30120000/30121800 Roads/Landscape

**SOUTHERN UNIVERSITY & A&M COLLEGE
AN EQUAL OPPORTUNITY EMPLOYER
Linda A. Antoine, Director of Purchasing**

**DATES ADVERTISED
11/12/2025, 11/19/2025, 11/26/2025**

LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO: **Southern University and A&M College**
Post Office Box 9534
James J. Prestage Dr-J.S. Clark Adm. Bldg. Annex
Baton Rouge, LA 70813

BID FOR: Bid Number 50016-10347
PROJECT: **VITICULTURE FIELDS**
TLA Project Number 24-13su Ag Center
Southern University and A&M College
Baton Rouge Campus

The undersigned bidder hereby declares and represents that she/he: a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: **Thompson Luke & Associates**

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA**: (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) _____.

TOTAL BASE BID: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" * but not alternates) the sum of:

_____ Dollars (\$ _____)

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description. **N/A**

Alternate No. 1 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A _____ Dollars (\$ _____)

Alternate No. 2 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A _____ Dollars (\$ _____)

Alternate No. 3 (Owner to provide description of alternate and state whether add or deduct) for the lump sum of:

N/A _____ Dollars (\$ _____)

NAME OF BIDDER: _____

ADDRESS OF BIDDER: _____

EMAIL _____

PHONE _____

LOUISIANA CONTRACTOR'S LICENSE NUMBER: _____

PRINT NAME OF AUTHORIZED SIGNATORY OF BIDDER: _____

SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER: _____

TITLE OF AUTHORIZED SIGNATORY OF BIDDER: _____

DATE: _____

Completion Time: 150 days Liquidated Damages: \$500.00 per day

5% Bid Security: XX Yes (shall be included with bid)

(check here) _____ Bid Security included. Bid Security shall be total of 5% for base bid and alternates.

Successful bidder will be notified by letter to secure Performance and Payment Bond up to 100% of cost.

(check here) _____ Board Resolution

A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5) or Secretary of State verification.

BID SECURITY(5%) in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38: 2218.A is attached to and made a part of this bid.

The Unit Price Form shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

LOUISIANA UNIFORM PUBLIC WORK BID FORM

UNIT PRICE FORM

TO: Southern University and A&M College
 Post Office Box 9534
 James J. Prestage Dr.-J. S. Clark Administration Bldg. Annex
 Baton Rouge, LA 70813

BID FOR: Bid Number 10347

VITICULTURE FIELDS

UNIT PRICES: This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

DESCRIPTION:	☐ Base Bid or ☐ Alt.# _____				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE		UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
DESCRIPTION:	☐ Base Bid or ☐ Alt.# _____				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE		UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
DESCRIPTION:	☐ Base Bid or ☐ Alt.# _____				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE		UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
DESCRIPTION:	☐ Base Bid or ☐ Alt.# _____				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE		UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
DESCRIPTION:	☐ Base Bid or ☐ Alt.# _____				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE		UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
DESCRIPTION:	☐ Base Bid or ☐ Alt.# _____				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE		UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)
DESCRIPTION:	☐ Base Bid or ☐ Alt.# _____				
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE		UNIT PRICE EXTENSION (<i>Quantity times Unit Price</i>)

Wording for "DESCRIPTION" is to be provided by the Owner.
 All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

JOB SITE VISIT

PROJECT: VITICULTURE FIELDS

SU AG CENTER

BID NUMBER 50016-10347

MANDATORY SITE VISIT DATE: DECEMBER 3, 2025 @ 10:30 AM

LATE ARRIVALS CANNOT PARTICIPATE IN THE BID PROCESS

It is the responsibility of the bidder to inspect job site verify any measurements and/or supplies needed prior to submitting a bid price on this project. Each bidder shall fully acquaint himself with conditions relating to construction and labor so that he may fully understand the facilities, difficulties and restrictions attending the execution of work under this contract. If vendor finds conditions that disagree with the physical layout as described in the bid, or any other features of the specifications that appear to be in error, same shall be noted on proposal. Failure to do so will be interpreted as specified. No consideration or allowance will be granted the Contractor for failure to visit the site or for any alleged misunderstanding of the materials to be furnished or the work to be done.

JOB SITE VISIT LOCATION:

Physical Plant Department

Benjamin H. Kraft Building

515 James L. Hunt Street

Southern University

Baton Rouge Campus

Site Telephone No. 225-771-4741 or 771-6241

The signed statement certifies the vendor's name listed below, has visited the proposed site and is familiar with all conditions surrounding fulfillment of the specifications for this project.

COMPANY _____

BY _____

DATE _____

Note: Questions not answered at Site Visit or any additional questions shall be submitted in writing to the Director of Purchasing, Linda A. Antoine at linda_antoine@subr.edu.

Note: Responses to inquiries/Addenda are pasted on LaPAC (LA Procurement Website) LA State Procurement website:

<https://wwwcfprd.doa.louisiana.gov/OSP/LaPAC/Agency/outMain.cfm>

It is the responsibility of the vendor to check LAPAC for addenda.

JOB SITE VERIFIED BY DESIGNATED SOUTHERN UNIVERSITY EMPLOYEE:

SIGNATURE

Return this sheet with bid for information purpose

**GENERAL TERMS & CONDITIONS
SOUTHERN UNIVERSITY AND A&M COLLEGE
BATON ROUGE CAMPUS
REQUEST FOR BID**

PROJECT: VITICULTURE FIELDS

LOCATION: SU AG CENTER

LTA PROJECT NUMBER 24-131

BID DUE DATE: JANUARY 9, 2026 @ 10:30 AM

BID # 50016-10347

Bids submitted are subject to provisions of but not limited to La.R.S.38 Purchasing Rules and Regulations; Executive Orders; and the General Terms and Conditions, listed in this Invitation for Bid. Southern University reserves the right to award items separately, grouped or on an all or none basis and to reject any or all bids and waive any informalities.

BIDS MAY BE SENT BY MAIL, HAND-DELIVERED OR ELECTRONIC

Bids should be mailed to:

Southern University
Purchasing Department
Post Office Box 9534
Baton Rouge, Louisiana 70813

As an alternative, bids may be hand delivered to:

Southern University
Purchasing Department
1st Floor East-James L. Prestage Drive
J. S. Clark Administration Building
Baton Rouge, Louisiana 70813

Electronic submittal: Use link to submit bid online:

<http://www.sus.edu/bidcertification>

MANDATORY PRE-BID CONFERENCE & SITE VISIT: DECEMBER 3, 2025 @ 10:30 AM

INQUIRIES: ACCEPTED THROUGH DECEMBER 9, 2025, BY 5:00 PM

RESPONSES TO INQUIRIES: DECEMBER 15, 2025, BY 5:00 PM

No negotiations, decisions, or actions will be executed by any bidder as a result or any oral discussion with any University employee or State Consultant. Only those transactions which are in writing, sent to **Linda A. Antoine, Director of Purchasing, will be considered as valid.**

INSTRUCTIONS TO BIDDERS

1. Bid Forms

All written bids, unless otherwise provided for, must be submitted on, and in accordance with forms provided and properly signed in ink. Bids submitted in the following manner will not be accepted:

Bid containing no signature indicating intent to be bound

(1) Bid filled out in pencil

(2) Bid not submitted on university standard forms

Bids must be received at the address specified in the Invitation for Bid prior to bid opening time to be considered. .

2. Envelope (if mailed)

Bidders are requested to submit bid package in a sealed envelope of your choice that is clearly marked identifying the *company's name, complete address, bid number, time and date of bid opening, and license number, if applicable.*

Bidder is responsible for means of delivery of bid.

Louisiana Contractors License Number shall be placed on the outside of the envelope.

3. Standards of Quality

Any product or service bid shall conform to all applicable federal, state and local laws, regulations and the specifications contained in the IFB. Unless otherwise specified in the IFB, any manufacturer's name, trade name, brand name, or catalog numbers used in the specifications is for the purpose of describing the quality level, performance and characteristics required. Bidder must specify the brand and model number of the product offered in his/her bid. Bids not specifying brand and model numbers will be considered as offering the exact product(s) specified in the IFB.

4. Descriptive Information

Bidders proposing an equivalent brand or model should submit information with bid (such as illustrations, descriptive literature, technical data) sufficient for the University to evaluate quality, suitability and compliance with the

This document will be included with the successful vendor's contract

specifications in the IFB. Failure to submit descriptive information may cause bid to be rejected. Any change made to a manufacturer's published specification submitted for a product should be verifiable by the manufacturer. If item(s) bid do not fully comply with specifications (including brand and/or product number), bidder must state in what respect the item(s) deviate. Failure to note exceptions on the bid form will not relieve the successful bidder(s) from supplying the actual products requested.

5. Prices

Unless otherwise specified by the Purchasing Department, bid prices must be complete, including transportation, prepaid by bidder to destination. In the event of extension errors, the unit price shall prevail.

6. Payment Terms

Payment is to be made within thirty (30) days after receipt of properly executed invoice, or delivery and acceptance, whichever is later. Delinquent payment penalties are governed by **L.R.S. 39:1695**.

7. Deliveries

Bids may be rejected if the delivery or completion time indicated is longer than that specified.

8. Vendor Invoices

Invoices or AIA payment shall reference the Southern University purchase/release order number. AIA payment documents shall be certified and approved by the Architect or Engineer Firm and the agency. Pay applications will be paid by the State Office of Facility Planning.

9. Tax Information/State of Louisiana

Southern University is exempt from taxes. By accepting an award, resident and non-resident firms acknowledge their responsibility for the payment of all taxes duly assessed by the State of Louisiana and its political subdivisions for which they are liable, including but not limited to: franchise taxes, privilege taxes, sales taxes, use taxes, ad valorem taxes, etc. In accordance with Act Number 1029 of the 1991 Regular Session, effective September 1, 1991, state agencies will no longer be required to pay state sales tax.

10. New Products

Unless specifically called for, all products for purchases must be new (never previously used) and the current model and/or packaging. The manufacturer's standard warranty will apply unless otherwise specified.

11. Contract Cancellation

Southern University has the right to cancel any contract, in accordance with Purchasing Rules and Regulations, for cause, including but not limited to, the following: (1) failure to deliver within time specified in the contract, (2) failure of the product or service to meet specifications, conform to sample quality or to be delivered in good condition; (3) misrepresentations by the contractor; (4) fraud, collusion, conspiracy or other unlawful means of obtaining any contract with the state; (5) conflict of contract provisions with constitutional or statutory provision of state or federal law; (6) any other breach of contract.

12. AWARD AND EXECUTION OF CONTRACT:

The owner shall incur no obligation to the contractor until the contract between the owner and contractor is duly executed. If the contractor is notified of the acceptance of the bid contractor agrees to execute and deliver to owner, Performance and Payment Bond and Certificate of Insurance, a copy of which is attached to the Contract Documents, within ten (10) working days after notice from the Owner that the instrument is ready for signature.

13. Fiscal Funding Clause (Renewal Contracts Only)

In accordance with LA R.S.39:1615 (c) and (e), any contract entered by the State of Louisiana and Southern University shall include the following Fiscal Funding Clause:

C. Termination due to unavailability of funds in succeeding years. When funds are not appropriate to support continuation of performance in a subsequent year of a multi-year contract, the contract for such subsequent year shall be terminated. When a contract is terminated under these conditions, no additional funds shall be paid to the contractor as a result of such action. **E.** With respect to all multi-year contracts, there shall be no provisions for a penalty to the state for the cancellation or early payment of the contract. The continuation of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by legislature. All proposers should be aware that our legislative process is such that it is often impossible to give prior notice of the non-appropriation of funds.

14. Default of Contactor

Failure to deliver within the time specified in the bid will constitute a default and may cause cancellation of the contract. Where the state had determined the contractor to be in default, the state reserves the right to purchase any or all products or services covered by the contract on the open market and to charge the contractor with cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid from the defaulting contractor will be considered.

This document will be included with the successful vendor's contract

15. Applicable Law

All contracts will be construed in accordance with and governed by the laws of Louisiana. Vendors shall be in compliance with applicable laws of the State of Louisiana and Federal Laws where applicable, to include licenses, fees and permits. Vendors are responsible for the cost of licenses, fees and permits.

16. Certification of No Suspension or Debarment (\$25,000 or more)

By signing and submitting this bid, bidder certifies that its company, any subcontractors, or principals thereof, are not suspended or debarred under federal or state laws or regulations. A list of parties who have been suspended or debarred by federal agencies is maintained by the General Services Administration and can be viewed on the internet at www.sam.gov.

☒ **Federal Funded** ☐ **Non-Federal Funded**

17. E-VERIFY (verification of employees)

Contractor acknowledges and agrees to comply with the provisions of La R.S. 38:2212.10 and federal law pertaining to E-Verify in the performance of services under this contract.

18. Prohibited Contractual Arrangements

Per Louisiana R.S. 42:1113. a, no public servant, or member of such public servant's immediate family, or legal entity in which he is a controlling interest shall bid on or enter into any contract, subcontract, or other transaction that is under the supervision or jurisdiction of the agency of such public servant. See statute for complete law, exclusions and provisions.

19. Discriminatory Boycotts of Israel

This section applies to procurements with a value of \$100,000 or more and for vendors with five (5) or more employees

Prohibition of Discriminatory Boycotts of Israel

In accordance with R.S. 39:1602.1, for any contract for \$100,000 or more and for any contractor with five or more employees, the Contractor certifies that neither it nor its subcontractors are engaged in a boycott of Israel, and that the Contractor and any subcontractors shall, for the duration of this contract, refrain from a boycott of Israel. The State reserves the right to terminate this contract if the Contractor, or any Subcontractor, engages in a boycott of Israel during the term of this contract.

20. Mutual Indemnification

Each party hereto agrees to indemnify, defend and hold the other, its officers, directors, agents and employees harmless from and against any and all losses, liabilities and claims, including reasonable attorney's fees arising out of or resulting from the willful act, fault, omission, or negligence of the indemnifying party or of its employees, contractors, or agents in performing its obligations under this agreement, provided however, that neither party hereto shall be liable to the other for any consequential damages arising out of its willful act, fault, omission, or negligence.

21. Fair Labor Standards Act

Contractor shall be in compliance with the **Fair Labor Standards Act 29 USC 201-6**; Establishes minimum wage, overtime pay, equal pay, recordkeeping, and child labor standards for employees or in the production of goods for interstate commerce. **By signing and submitting this bid, bidder certifies that its company, any subcontractors, or principals thereof is in accordance with said compliance.** United States Department of Labor website: www.dol.gov/esa

22. Davis-Bacon Act (\$2,000 or more)

Contractor shall be in compliance with the **Davis-Bacon Act, 40 USC 276A-7**; ensures that laborers and mechanics employed pursuant to federally funded construction contracts, subcontracts and construction under Federal grants, will be paid wages as determined by the U.S. Secretary of Labor. **By signing and submitting this bid, bidder certifies that its company, any subcontractors, or principals thereof is in accordance with said compliance.** United States Department of Labor website: www.dol.gov/esa

☒ **Federal Funded** ☐ **Non-Federal Funded**

23. Small Business Entrepreneurship Programs

The Southern University System is a participant in the Louisiana for the Small Entrepreneurships Program (the Hudson Initiative) and the Louisiana Initiative for Veterans and Service-Connected Disabled Veterans-Owned Business Small Entrepreneurships. Bidders are encouraged to consider participation. A list of certified vendors and additional information can be obtained from website <http://www.ledsmallbiz.com>. Potential participants may also register at this website. Businesses include minority and women.

24. Public Works Projects (R.S. 38:2227)

In accordance with the provisions of R.S. 38:2227; in awarding public works projects, any public entity is authorized to reject a proposal or bid, or not award the contract, to a business in which any individual with an ownership interest of ten percent (10%) or more, has been convicted, or has entered a plea of guilty or nolo contendere to any state felony or equivalent federal felony crime.

This document will be included with the successful vendor's contract

25. Tobacco-Free Policy

The use of tobacco products on any Southern University campus is prohibited by students, staff, faculty or visitors in all campus buildings, facilities, or property owned or leased by Southern University System and outside areas of the campus where non-smokers cannot avoid exposure to smoke; on campus grounds, facilities, or vehicles that are the property of the University; and at lectures, conferences, meetings, and social and cultural events held on school property or school grounds. The sale or free distribution of tobacco products, including merchandise on campus or at school events is prohibited.

26. Equal Opportunity Employer

Southern University and A&M College Systems of the State of Louisiana is an equal opportunity employer and looks to its contractors, sub-contractors, vendors, and suppliers to take affirmative action to affect this commitment in its operations. By submitting and signing this bid, the bidder certifies that he agrees to adhere to the mandates dictated by Title VI and VII of the Civil Rights Act of 1964, as amended; the Vietnam Era Veterans' Readjustment Assistance Act of 1974; Section 303 of the Rehabilitation Act of 1973; Section 202 of Executive Order 124b, as amended; and the Americans with Disabilities Act of 1990. Bidder agrees that he will not discriminate in the rendering of services to and/or employment of individuals because of race, color, religion, sex, age, national origin, handicap, disability, veteran status, or any other non-merit factor. Bidder further agrees to keep informed of and comply with all Federal, State, and local laws, ordinances, and regulations which affect his employees or prospective employees. Any person who is a "Qualified Individual with a Disability" as defined by 42 USC 12131 of the American with Disabilities Act who has submitted a bid on this procurement and who desires to attend the bid opening, must notify this office in writing no later than seven (7) working days prior to the bid opening date of their need for special accommodations. If the accommodation requested cannot be reasonably provided, the individual will be so informed prior to the bid opening.

27. Code of Ethics

The contractor acknowledges that Chapter 15 of Title 42 of the Louisiana Revised Statutes (R.S. 42:1101 et. seq., Code of Governmental Ethics) applies to the Contracting Party in the performance of services called for in this contract. The contractor agrees to immediately notify the state if potential violations of the Code of Governmental Ethics arise at any time during the term of this contract.

28. Vendor Forms/SU Signature Authority

The terms and conditions of the SU solicitation and purchase order/contract shall solely govern the purchase agreement, and shall not be amended by any vendor contract, form, etc. The University's chief procurement officer, or designee, is delegated sole authority to execute any vendor contracts, forms, etc. Departments are prohibited from signing any vendor forms.

29. Prosecution of Work

The work is to be done when Southern University is in operation. The contractor shall, therefore, plan the repairs and installation in specifications so as not to interfere with normal operations of the facility and shall exert effort to expedite completion of the work once it has started. It is intended that the work shall be done during normal working hours, however, should work require overtime (Saturday, Sunday and/or night working hours), the cost must be borne by the contractor at no extra compensation from the Owner (Southern University).

30. On-Campus Attendance (COVID-19)

The Center for Disease and Control (CDC) recommends social distancing and wearing of masks to prevent the spread of the Coronavirus (COVID19).

31. Termination for Cause

The State may terminate this Contract for cause based upon the failure of the Contractor to comply with the terms and/or conditions of the Contract; provided that the State shall give the Contractor written notice specifying the Contractor's failure. If within thirty (30) days after receipt of such notice, the Contractor shall not have either corrected such failure or thereafter proceeded diligently to complete such correction, then the State may, at its option, place the Contractor in default and the Contract shall terminate on the date specified in such notice. The Contractor may exercise any rights available to it under Louisiana law to terminate for cause upon the failure of the Owner to comply with the terms and conditions of this contract; provided that the Contractor shall give the State written notice specifying the State's failure and a reasonable opportunity for the Owner to cure the defect.

32. Auditors

It is hereby agreed that the Legislative Auditor of the State of Louisiana and/or the Office of the Governor, Division of Administration auditors shall have the option of auditing all accounts of contractors which relate to this contract.

33. Awarded Products/Unauthorized Substitutions

Only those awarded brands and numbers stated in the SU contract are approved for delivery, acceptance, and payment purposes. Any substitution requires prior approval of the Purchasing Office. Unauthorized product substitutions are subject to rejection at time of delivery, post-return at vendor's expense, and non-payment.

34. Acceptance

This document will be included with the successful vendor's contract

Upon written notice by the Owner, a Notice by Owner of Acceptance of Work will be executed and forwarded to the Contractor for recording with the Clerk of Court in the parish in which the work has been performed and shall furnish a clear Lien Certificate from the Clerk of Court (to the owner along with final invoice) forty-five (45) days after recordation of acceptance. Final payment will be made at this time.

35. Guarantee

It is the intention of the specifications to secure a first-class permanent material and construction and to this end, Contractor will be held responsible for and must correct defects discovered in the work within one (1) year from acceptance. Should any materials or methods be called for, of such nature to render this guarantee impossible, written notice to this effect should be given Owner (Southern University) before signing contract and/or beginning of work; failure to do this will be construed as agreement to the strictest terms of the guarantee.

36. Clean-Up

The Contractor will be directed during the progress of work to remove and properly dispose of the resultant and debris. Upon completion, Contractor shall remove all equipment, unused materials and debris and will leave the premises in a clean and first-class condition.

37. Examination of Site

Each bidder will visit the site of the proposed project and will fully acquaint himself with conditions relating to construction and labor so that he may fully understand the facilities, difficulties and restrictions attending the execution of work under this contract. No consideration or allowance will be granted the Contractor for failure to visit the site or for any alleged misunderstanding of the materials to be furnished or the work to be done.

38. Anti-Kickback Clause

The Contractor hereby agrees to adhere to the mandate dictated by The Copeland "Anti-Kickback" ACT which provides that each Contractor or Subgrantee shall be prohibited from inducing, by any means, any person employed in the completion of work, to give up any part of the compensation to which he is otherwise entitled.

39. Clean Air Act

The Contractor hereby agrees to adhere to the provisions which require compliance with all applicable standards, orders or requirements issued under Section 306 of the CLEAN AIR ACT which prohibits the use under non-exempt contracts, grants or loans of facilities included on the EPA list of Violating Facilities.

40. Clean Water Act

The Contractor hereby agrees to adhere to the provisions which require compliance with all applicable standards, orders or requirements issued under Section 508 of the Clean Water Act which prohibits the use under non-exempt federal contracts, grants or loans of facilities included on the EPA list of Violating Facilities.

41. Energy Policy and Conservation Act

The Contractor hereby recognizes the mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (P.L. 94-163).

42. Anti-Lobbying and Debarment Act

The Contractor will be expected to comply with federal statutes in the Anti-Lobbying Act and The Debarment Act.

43. Signature Authority

**A CORPORATE RESOLUTION OR WRITTEN EVIDENCE OF THE AUTHORITY OF THE PERSON SIGNING THE BID
FOR THE PUBLIC WORK AS PRESCRIBED BY LOUISIANA REVISED STATUTE 38:2212 (B)(5)
A copy of the applicable signature authority document/Board Resolution or LA Secretary of State Registration must be submitted
with bid.**

44. ADDITIONAL REQUIREMENTS

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE PLANS; THE PROJECT SPECIFICATIONS, AND SHALL COMPLY WITH APPLICABLE LOCAL AND STATE BUILDING CODES AS WELL AS ANY AND ALL REGULATORY AGENCY REQUIREMENTS AND LAWS, INCLUDING BUT NOT LIMITED TO OSHA, ETC. GENERAL NOTES SHALL APPLY TO ALL DRAWINGS.
2. CONTRACTOR SHALL NOTIFY THE ENGINEER/ARCHITECT, IF APPLICABLE, OF ALL CONFLICTS OR DISCREPANCIES PRESENTED IN THESE PLANS PRIOR TO THE START OF WORK.
3. ALL WORK WHETHER SHOWN OR IMPLIED, UNLESS SPECIFICALLY QUESTIONED, SHALL BE CONSIDERED UNDERSTOOD IN ALL RESPECTS BY THE GENERAL CONTRACTOR AND WHO WILL BE RESPONSIBLE FOR ANY MISINTERPRETATIONS AND CONSEQUENCES THEREOF.
4. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
5. ENGINEER/ARCHITECT SHALL BE NOTIFIED IMMEDIATELY OF ALL IDENTIFIED EXISTING UTILITIES NOT IDENTIFIED IN THE PLANS.

This document will be included with the successful vendor's contract

6. OWNER SHALL PROVIDE WATER FOR CLEANING OPERATIONS FROM ANY FIRE HYDRANT AT NO COST TO THE CONSULTANT.

PUBLIC AWARENESS NOTICE – 192.616

Southern University Baton Rouge owns and operates a master meter natural gas distribution system on the school campus. The gas system consists of an underground network of pipelines. The purpose of the gas system is to provide a reliable and safe economical source of energy for heating purposes. The pipeline system has the capacity to reliably deliver natural gas.

The hazards of natural gas are it is odorless, colorless, tasteless, lighter than air and can ignite and/or explode with tremendous force when mixed with the right amount of air.

Prevention measures taken include:

- Adding odorant to the gas to give it that distinctive smell, similar to rotten eggs, to warn us of its presence.
- Testing the odorant level each calendar quarter,
- Performing annual gas leakage surveys, and
- Conducting periodic pipeline patrols.

The following are signs that may indicate a gas leak:

- A hissing or roaring sound (caused by escaping gas)
- A patch of dead or discolored vegetation in an otherwise green setting along a pipeline route
- Blowing dirt, grass or leaves near a pipeline,
- Continuous bubbling in wet, flooded areas,
- A "gas smell" similar to rotten eggs.

Anyone who may smell this odor or notice any unusual conditions on or near gas mains, vents, service lines, meter sets, or especially inside of a building should call the maintenance office immediately. If you smell a strong gas odor inside a building, notify workers/occupants in the building to leave. Do not operate any switches or use the phone. Go a safe distance away upwind of the smell of the gas and call the maintenance office. With any gas leak protect life first, then property, then notify the maintenance office.

State and federal laws require excavators to notify LA One-Call 2 days before digging. If any excavation is planned, you must notify LA One-Call which will notify the Southern University Baton Rouge Maintenance Department to locate the gas lines.

To obtain additional information or report a gas related issue call Southern University Baton Rouge Office of Facility Services. The maintenance office phone number is (225) 771-4741. The LA One-Call Center phone number is 811.

INSURANCE REQUIREMENTS

Southern University and A&M College

VITICULTURE FIELDS

Bid Number 50016-10347

The Contractor shall purchase and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

A. MINIMUM SCOPE AND LIMITS OF INSURANCE

1. Workers Compensation

Workers Compensation insurance shall be in compliance with the Workers Compensation law of the State of the Contractor's headquarters. Employers Liability is included with a minimum limit of \$500,000 per accident/per disease/per employee. If work is to be performed over water and involves maritime exposure, applicable LHWCA, Jones Act, or other maritime law coverage shall be included and the Employers Liability limit increased to a minimum of \$1,000,000. **A.M. Best's insurance company rating requirement may be waived for workers compensation coverage only.**

2. Commercial General Liability

Commercial General Liability insurance, including Personal and Advertising Injury Liability, shall have a minimum limit per occurrence of \$1,000,000 and a minimum general aggregate of \$2,000,000. The Insurance Services Office (ISO) Commercial General Liability occurrence coverage form CG 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. Claims-made form is unacceptable.

3. Automobile Liability

Automobile Liability Insurance shall have a minimum combined single limit per occurrence of \$1,000,000. ISO form number CA 00 01 (current form approved for use in Louisiana), or equivalent, is to be used in the policy. This insurance shall include third-party bodily injury and property damage liability for owned, hired and non-owned automobiles.

B. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to and accepted by the Agency. The Contractor shall be responsible for all deductibles and self-insured retentions.

C. OTHER INSURANCE PROVISIONS

The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverage

- a. The Agency, its officers, agents, employees and volunteers shall be named as an additional insured as regards negligence by the contractor. ISO Form CG 20 10 (current form approved for use in Louisiana), or equivalent, is to be used when applicable. The coverage shall contain no special limitations on the scope of protection afforded to the Agency.
- b. The Contractor's insurance shall be primary as respects the Agency, its officers, agents, employees and volunteers. Any insurance or self-insurance maintained by the Agency shall be excess and non-contributory of the Contractor's insurance.
- c. Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the Agency, its officers, agents, employees and volunteers.
- d. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the policy limits.

2. Workers Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the Agency, its officers, agents, employees and volunteers for losses arising from work performed by the Contractor for the Agency.

3. All Coverage

- a. Coverage shall not be canceled, suspended, or voided by either party (the Contractor or the insurer) or reduced in coverage or in limits except after 30 days written notice has been given to the Agency. Ten-day written notice of cancellation is acceptable for non-payment of premium. Notifications shall comply with the standard cancellation provisions in the Contractor's policy.
- b. Neither the acceptance of the completed work nor the payment thereof shall release the Contractor from the obligations of the insurance requirements or indemnification agreement.
- c.

The insurance companies issuing the policies shall have no recourse against the Agency for payment of premiums or for assessments under any form of the policies.

- d. Any failure of the Contractor to comply with reporting provisions of the policy shall not affect coverage provided to the Agency, its officers, agents, employees and volunteers.

D. ACCEPTABILITY OF INSURERS

All required insurance shall be provided by a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located. Insurance shall be placed with insurers with a A.M. Best's rating of **A-:VI or higher**. This rating requirement may be waived for workers compensation coverage only.

If at any time an insurer issuing any such policy does not meet the minimum A.M. Best rating, the Contractor shall obtain a policy with an insurer that meets the A.M. Best rating and shall submit another Certificate of Insurance as required in the contract.

E. VERIFICATION OF COVERAGE

Contractor shall furnish the Agency with Certificates of insurance reflecting proof of required coverage. The Certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The Certificates are to be received and approved by the Agency before work commences and upon any contract renewal thereafter.

In addition to the Certificates, Contractor shall submit the declarations page and the cancellation provision endorsement for each insurance policy. The Agency reserves the right to request complete certified copies of all required insurance policies at any time.

Upon failure of the Contractor to furnish, deliver and maintain such insurance as above provided, this contract, at the election of the Agency, may be suspended, discontinued or terminated. Failure of the Contractor to purchase and/or maintain any required insurance shall not relieve the Contractor from any liability or indemnification under the contract.

F. SUBCONTRACTORS

Contractor shall include all subcontractors as insureds under its policies OR shall be responsible for verifying and maintaining the Certificates provided by each subcontractor. Subcontractors shall be subject to all of the requirements stated herein. The Agency reserves the right to request copies of subcontractor's Certificates at any time.

G. WORKERS COMPENSATION INDEMNITY

In the event Contractor is not required to provide or elects not to provide workers compensation coverage, the parties hereby agree that Contractor, its owners, agents and employees will have no cause of action against, and will not assert a claim against, the State of Louisiana, its departments, agencies, agents and employees as an employer, whether pursuant to the Louisiana Workers Compensation Act or otherwise, under any circumstance. The parties also hereby agree that the State of Louisiana, its departments, agencies, agents and employees shall in no circumstance be, or considered as, the employer or statutory employer of Contractor, its owners, agents and employees. The parties further agree that Contractor is a wholly independent contractor and is exclusively responsible for its employees, owners, and agents. Contractor hereby agrees to protect, defend, indemnify and hold the State of Louisiana, its departments, agencies, agents and employees harmless from any such assertion or claim that may arise from the performance of this contract.

Maritime (Jones Act and LHWCA) needed when work is performed over navigable bodies of water

H. INDEMNIFICATION/HOLD HARMLESS AGREEMENT

Contractor agrees to protect, defend, indemnify, save, and hold harmless, the State of Louisiana, all State Departments, Agencies, Boards and Commissions, its officers, agents, servants, employees, and volunteers, from and against any and all claims, damages, expenses, and liability arising out of injury or death to any person or the damage, loss or destruction of any property which may occur, or in any way grow out of, any act or omission of Contractor, its agents, servants, and employees, or any and all costs, expenses and/or attorney fees incurred by Contractor as a result of any claims, demands, suits or causes of action, except those claims, demands, suits, or causes of action arising out of the negligence of the State of Louisiana, all State Departments, Agencies, Boards, Commissions, its officers, agents, servants, employees and volunteers.

Contractor agrees to investigate, handle, respond to, provide defense for and defend any such claims, demands, suits, or causes of action at its sole expense and agrees to bear all other costs and expenses related thereto, even if the claims, demands, suits, or causes of action are groundless, false or fraudulent.

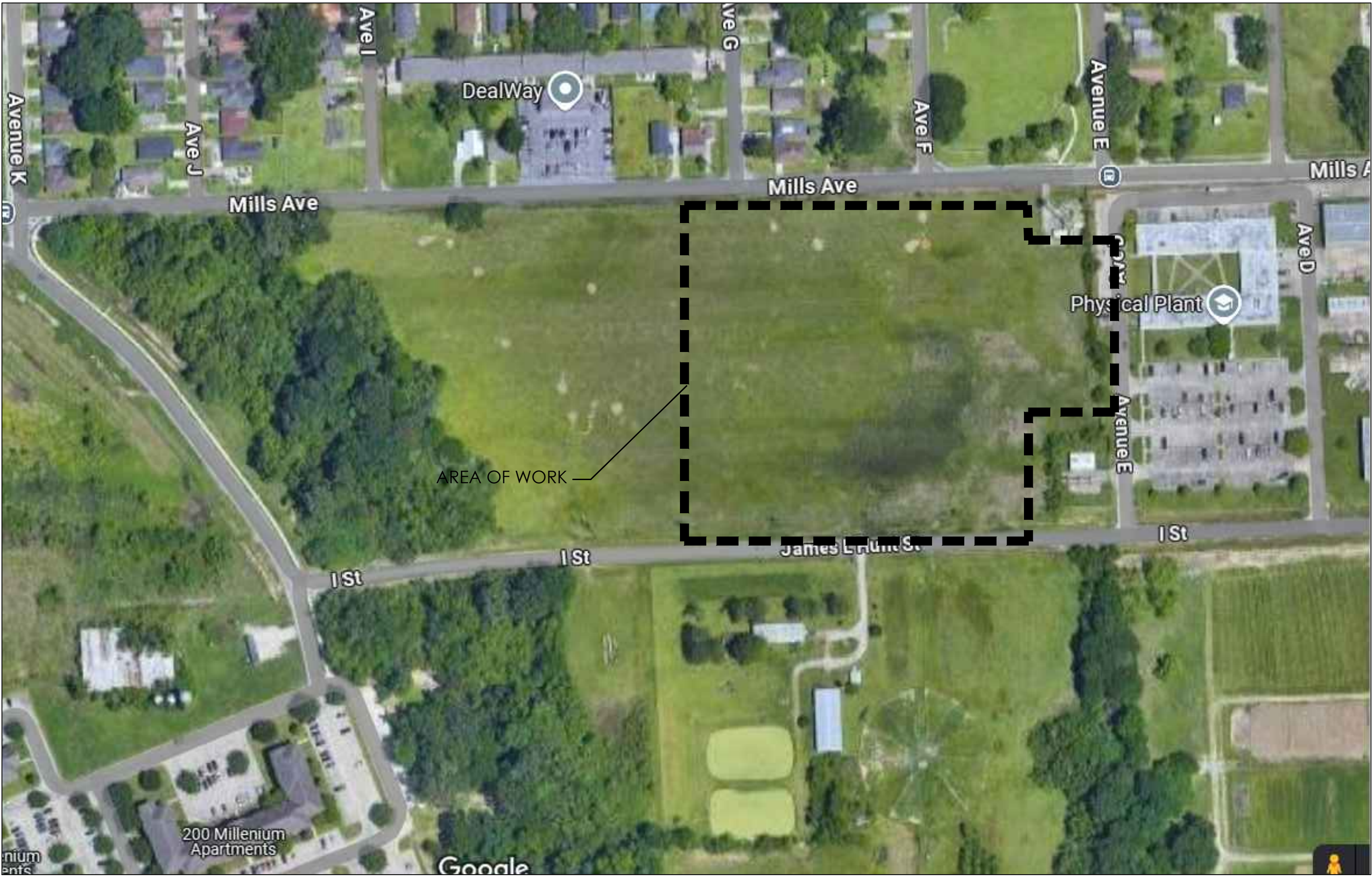
Note: Successful bidder will be required to submit a certificate of insurance with Southern University as the certificate holder.

BID DOCUMENT DRAWINGS

SOUTHERN UNIVERSITY
VITICULTURE FIELDS

BATON ROUGE, LOUISIANA

VICINITY MAP



PREPARED BY:

THOMPSON LUKE & ASSOCIATES, LLC

10705 Rieger Road
Baton Rouge, Louisiana 70809
Phone: (225) 293-9474

JULY 2, 2025

TLA PROJECT NO. 24-131

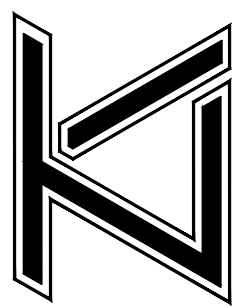
PROJECT INDEX

CIVIL

- C1.0 Drainage & Grading Plan
- C1.1 Drainage & Surface Details
- C2.0 Erosion Control Plan
- C2.1 Erosion Control Details

PLUMBING

- P1.0 Plumbing Plan
- P1.1 Fence Plan



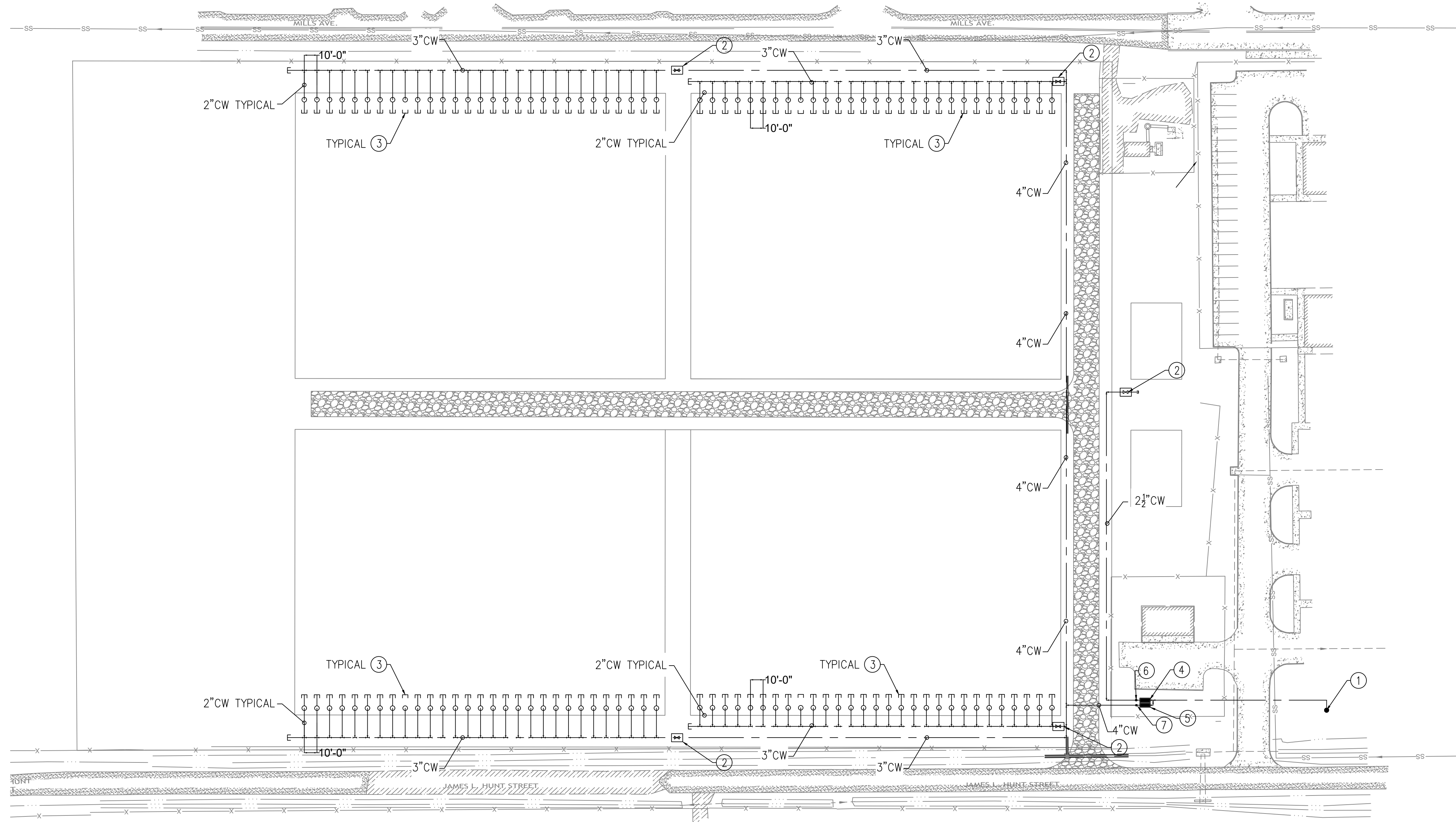
THOMPSON LUKE & ASSOCIATES, L.L.C.
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BATON ROUGE, LA 70809
PHONE 225-293-9474

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70813 JAMES L HUNT ST



REVISIONS:
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DRAWN: SMW
CHECKED: FST

SHEET NO:
C.S.



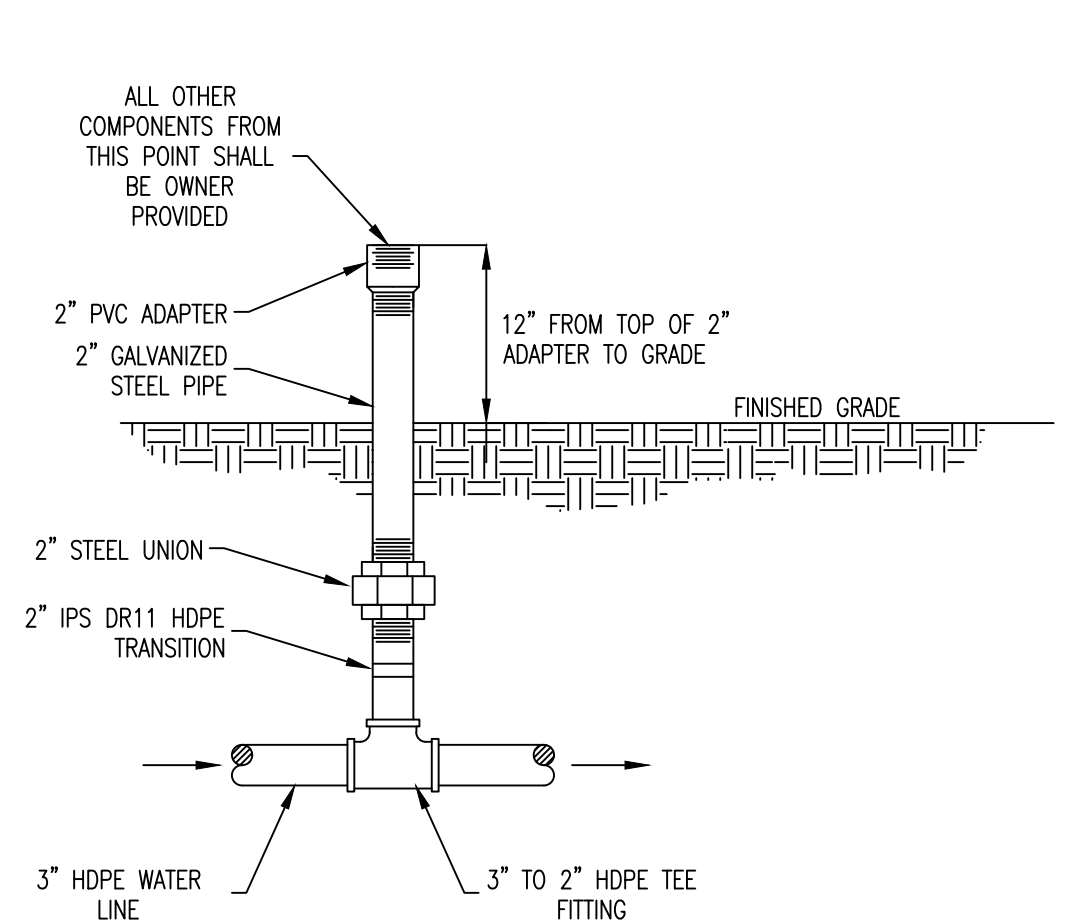
PLUMBING PLAN NOTES:

- CONNECT NEW 4" WATER LINE TO CITY WATER LINE. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO INSTALLATION. COORDINATE WITH LOCAL WATER COMPANY FOR NEW WATER LINE EXTENSION. CONTRACTOR IS RESPONSIBLE FOR ALL FEES AND PERMITS.
- PROVIDE NEW IN GROUND SHUT OFF VALVE BOX.
- 2" VERTICAL GALVANIZED STEEL PIPE RISER, REFER TO DETAIL #1 ON SHEET P1.0 FOR MORE DETAILS. TRANSITION AS REQUIRED FROM 3" HDPE TRUNK TO 2" GALVANIZED STEEL PIPE. TOP OF STEEL PIPE AND PVC FITTING SHALL BE 12" ABOVE GRADE. CONTRACTOR SHALL PACK DIRT AROUND VERTICAL PIPE RISER. VERTICAL RISERS SHALL BE SPACED 10FT APART FROM ONE ANOTHER, TYPICAL ALL PIPE RISERS.
- CONTRACTOR SHALL FURNISH AND INSTALL NEW 2.5" BACKFLOW PREVENTER. CONTRACTOR SHALL PROVIDE INSULATED STAINLESS STEEL BACK FLOW PREVENTER ENCLOSURE AND INSULATE ANY EXPOSED PIPING WITH 2" FOAMGLASS INSULATION AND WRAP IN ALUMINUM JACKET.
- CONTRACTOR SHALL FURNISH AND INSTALL NEW 4" BACKFLOW PREVENTER. CONTRACTOR SHALL PROVIDE INSULATED STAINLESS STEEL BACK FLOW PREVENTER ENCLOSURE AND INSULATE ANY EXPOSED PIPING WITH 2" FOAMGLASS INSULATION AND WRAP IN ALUMINUM JACKET.
- CONTRACTOR SHALL FURNISH AND INSTALL AND IN-GROUND VALVE BOX FOR FUTURE WATER METER.
- CONTRACTOR SHALL FURNISH AND INSTALL NEW IRRIGATION WATER METER AND IN-GROUND VALVE BOX. COORDINATE WITH LOCAL WATER COMPANY. CONTRACTOR IS RESPONSIBLE FOR ALL FEES AND PERMITS.

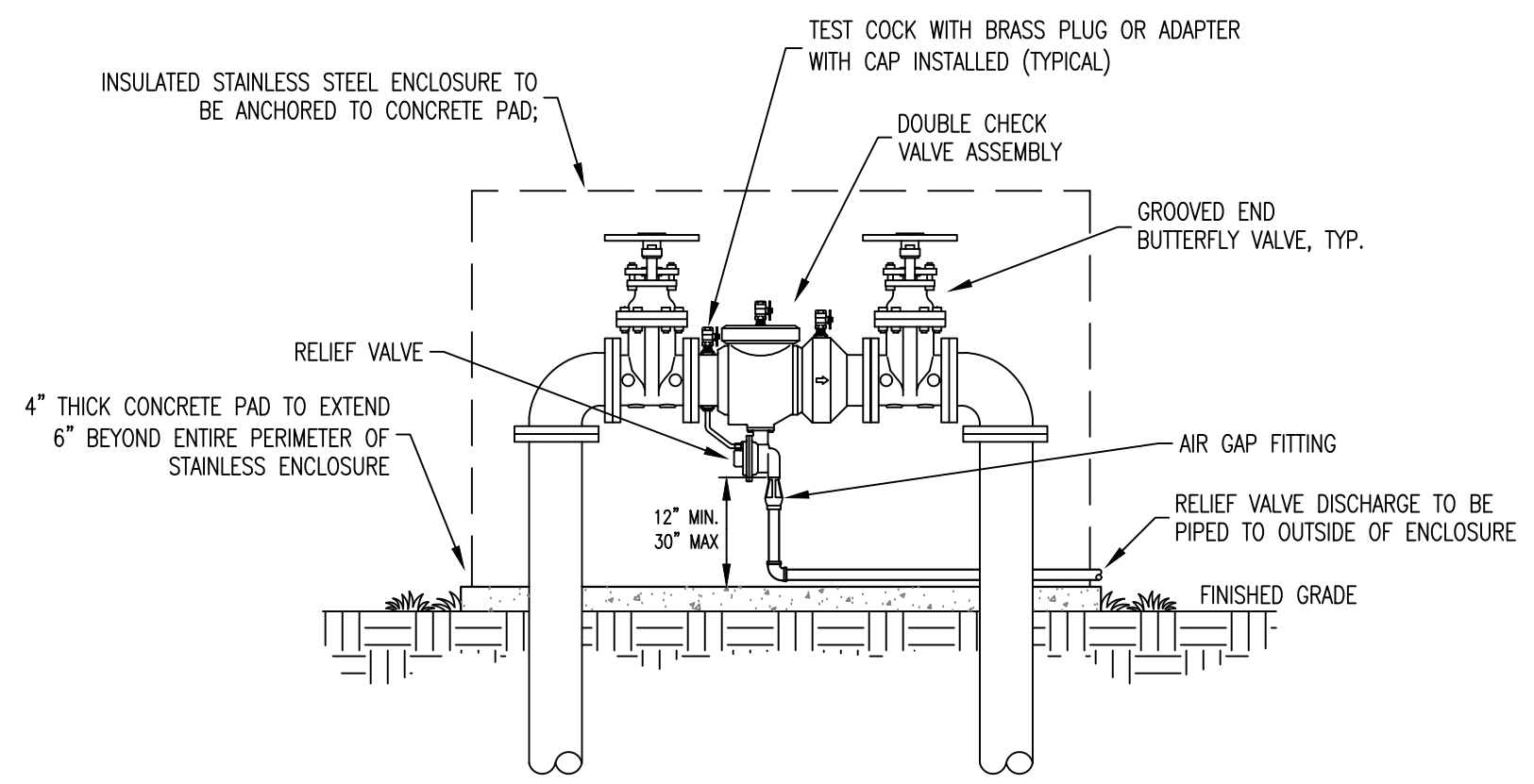
1 PLUMBING PLAN - DOMESTIC WATER
SCALE: 1" = 50'-0"

WILKINS MODEL 375
OUTDOOR HORIZONTAL INSTALLATION
(2 1/2" THROUGH 10")

1 | DETAIL- TYPICAL IRRIGATION RISER
SCALE: N.T.S.

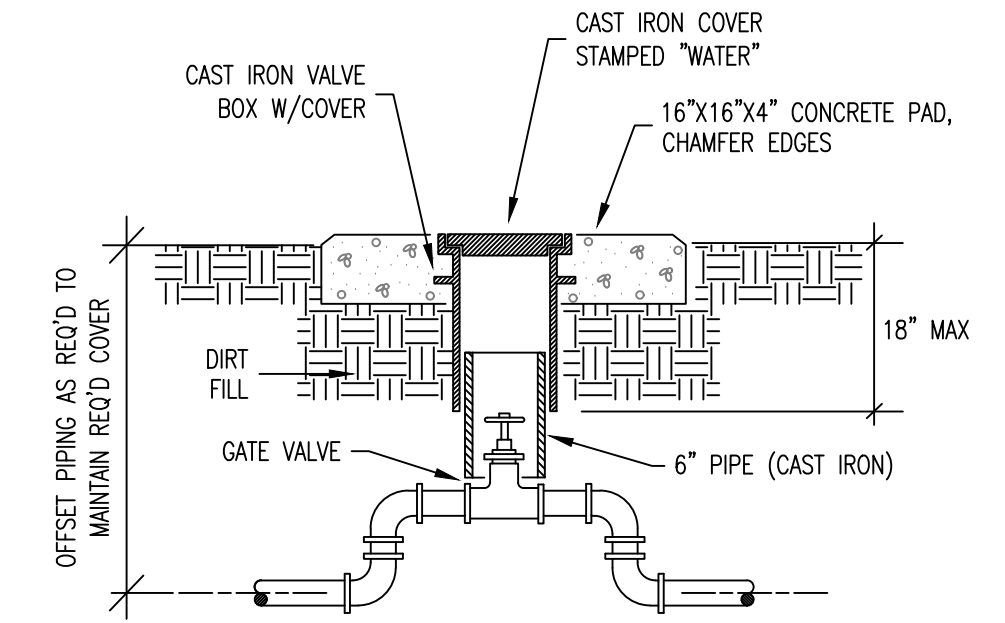


2 | DETAIL- REDUCED PRESSURE ASSEMBLY
SCALE: N.T.S.

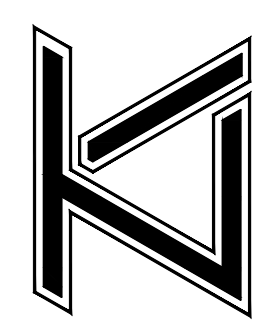


- GENERAL NOTES:
- THE ABOVE BACKFLOW PREVENTER IS A REDUCED PRESSURE PRINCIPLE ASSEMBLY WITH A DOUBLE CHECK VALVE ASSEMBLY. THIS CONFIGURATION IS FOR USE ON 2-1/2" THRU 10" WATER MAINS. BACKFLOW ASSEMBLY TO BE OF DUCTILE IRON CONSTRUCTION.
 - BACKFLOW ASSEMBLIES MUST BE TESTED BY A CERTIFIED TESTING AGENT.
 - BACKFLOW ASSEMBLIES ON FIRE LINES REQUIRE TAMPER SWITCHES ON SHUT OFF VALVES.
 - BACKFLOW ASSEMBLIES MUST HAVE SEAL OF APPROVAL FROM THE AMERICAN SOCIETY OF SANITATION ENGINEERS. BACKFLOW ASSEMBLIES ON FIRE SUPPRESSION SYSTEMS MUST ALSO HAVE APPROVAL FROM UNDERWRITERS LABORATORIES AND/OR FACTORY MUTUAL RESEARCH CORPORATION.

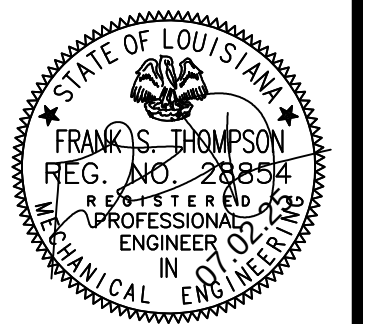
3 | DETAIL-IN GROUND VALVE BOX
SCALE: N.T.S.



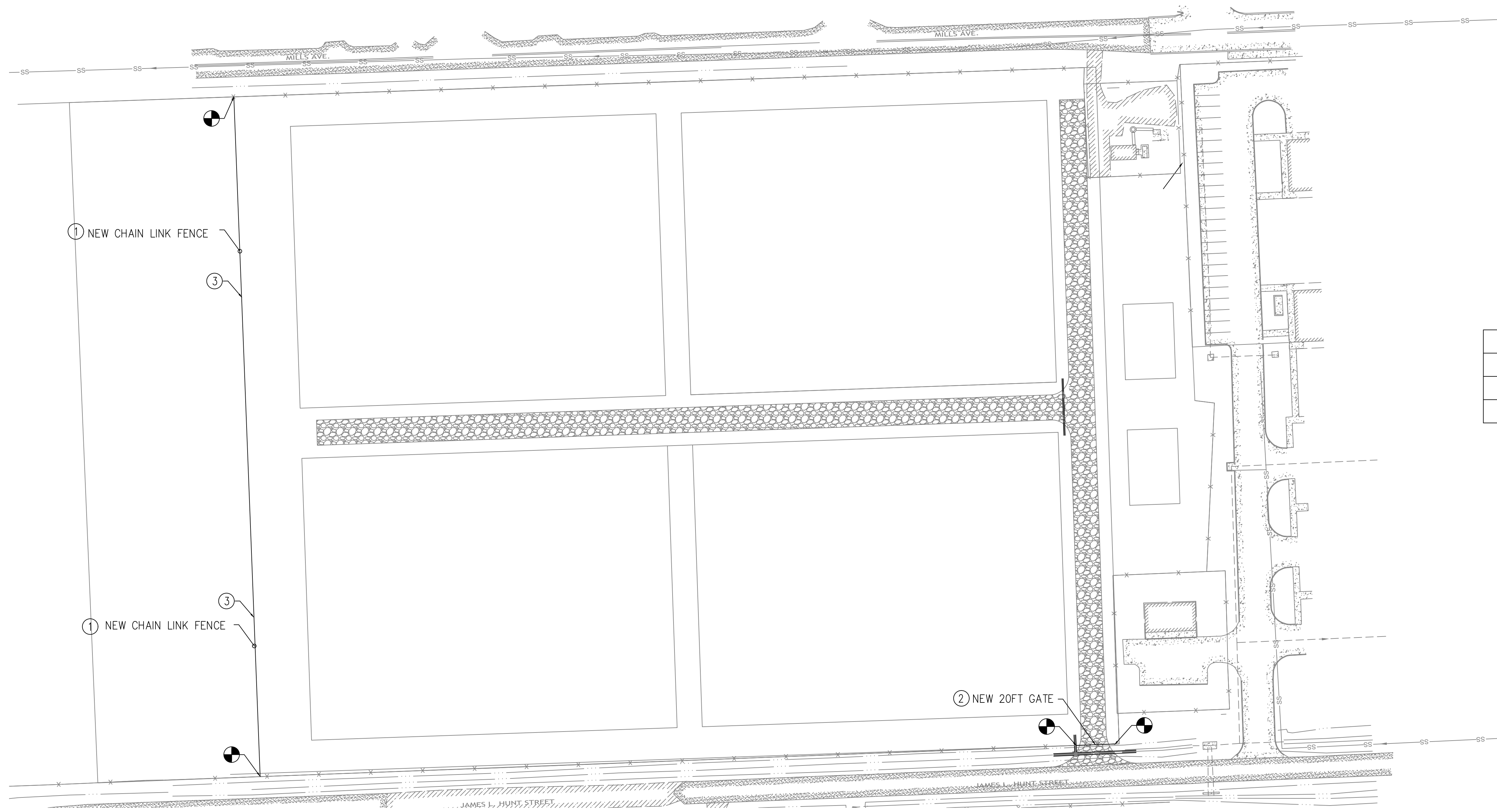
THOMPSON LUKE & ASSOCIATES, L.L.C.
10705 RIEGER ROAD, SUITE 101
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PHONE 225-293-9474



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P1.0



FENCE PLAN NOTES:

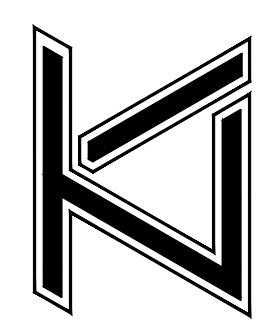
- ① CONTRACTOR SHALL INSTALL NEW 6FT FENCE. CONNECT TO EXISTING FENCE AS SHOWN. CONTRACTOR SHALL MAINTAIN FENCE POST 8FT ON CENTER. PROVIDE CONCRETE BACKFILL IN FOR ALL FENCE POST. FENCE SHALL BE IRONCRAFT EURO COLOR BLACK OR APPROVED EQUAL.
- ② CONTRACTOR SHALL INSTALL NEW 20FT DOUBLE GATE. CONTRACTOR SHALL REMOVE EXISTING FENCE TO ACCOMMODATE NEW GATE. CONNECT TO EXISTING FENCE AS SHOWN. GATE SHALL MATCH IRONCRAFT EURO FENCING.
- ③ NEW FENCE SHALL BE 10FT AWAY FROM NEW DRAINAGE DITCH. COORDINATE WITH CIVIL PLANS.TYPICAL FOR ENTIRE FENCE.

LEGEND

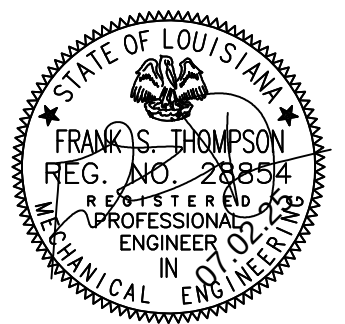
SYMBOL	ABBREVIATION	DECRYPTION
	POC	POINT OF CONNECTION
	-	PLAN NOTE

1 FENCING PLAN
SCALE: 1" = 50'-0"

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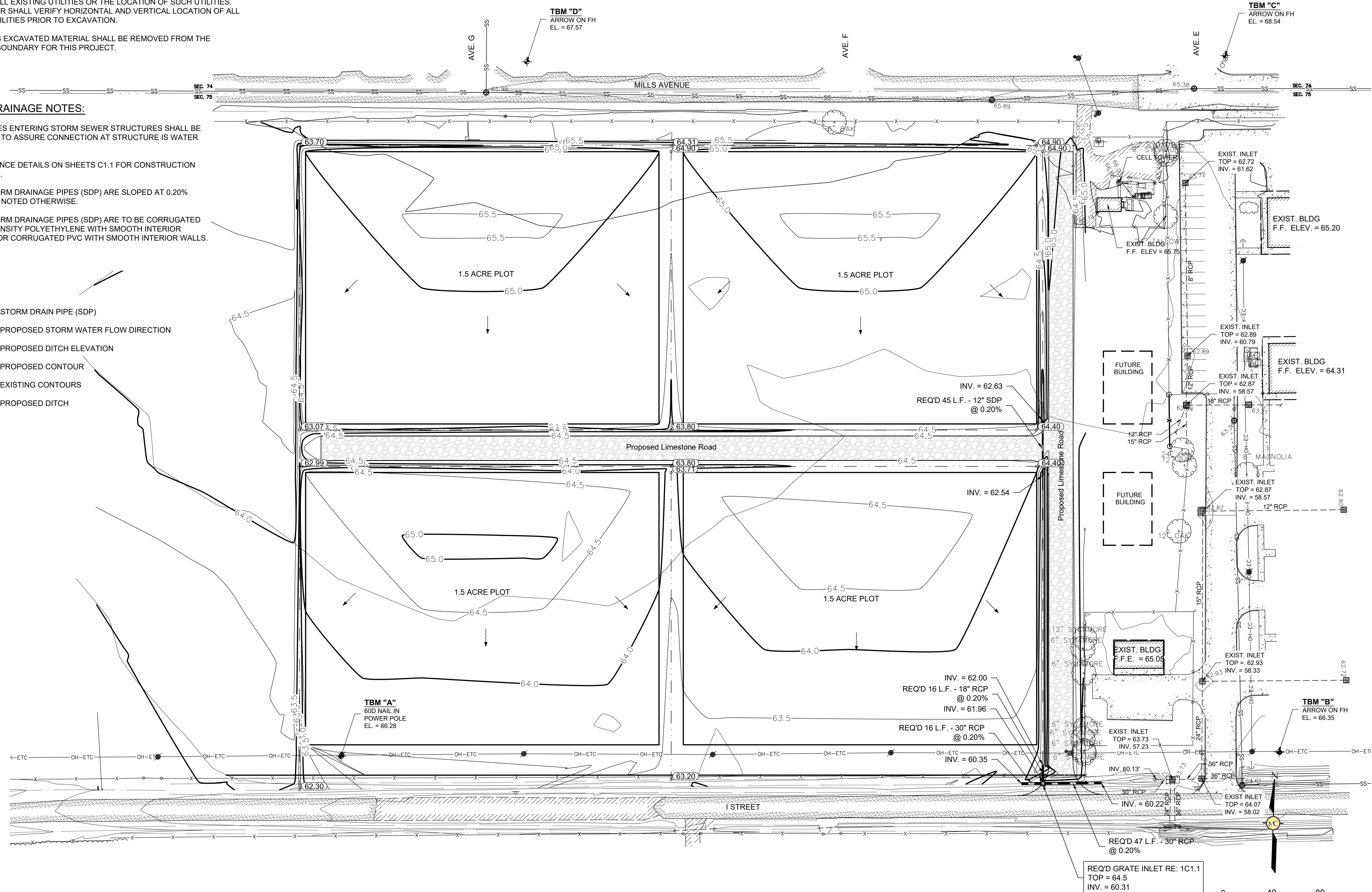
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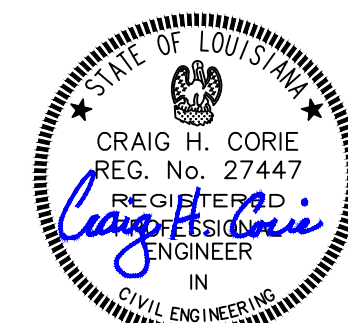
1. GRADES SHOWN ARE FINISHED GRADES.
2. MONROE & CORIE, INC. DOES NOT WARRANT THAT THE UTILITIES SHOWN COMPRISE ALL EXISTING UTILITIES OR THE LOCATION OF SUCH UTILITIES. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
3. ANY EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE PROPERTY BOUNDARY FOR THIS PROJECT.

1. ALL PIPES ENTERING STORM SEWER STRUCTURES SHALL BE SEALED TO ASSURE CONNECTION AT STRUCTURE IS WATER TIGHT.
2. REFERENCE DETAILS ON SHEETS C.1.1 FOR CONSTRUCTION DETAILS.
3. ALL STORM DRAINAGE PIPES (SDP) ARE SLOPED AT 0.20% UNLESS NOTED OTHERWISE.
4. ALL STORM DRAINAGE PIPES (SDP) ARE TO BE CORRUGATED HIGH DENSITY POLYETHYLENE WITH SMOOTH INTERIOR WALLS OR CORRUGATED PVC WITH SMOOTH INTERIOR WALLS.

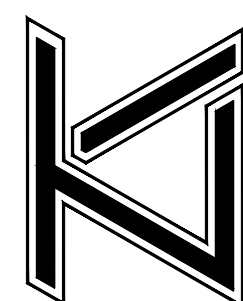
 STORM DRAIN PIPE (SDP)
 PROPOSED STORM WATER FLOW DIRECTION
 PROPOSED DITCH ELEVATION
 PROPOSED CONTOUR
 EXISTING CONTOURS
 PROPOSED DITCH



 **MONROE & CORIE, INC.**
CONSULTING ENGINEERS
11325 Pennywood Avenue
Baton Rouge, Louisiana 70809
Tel. (225) 293-1905 Fax (225) 293-1941

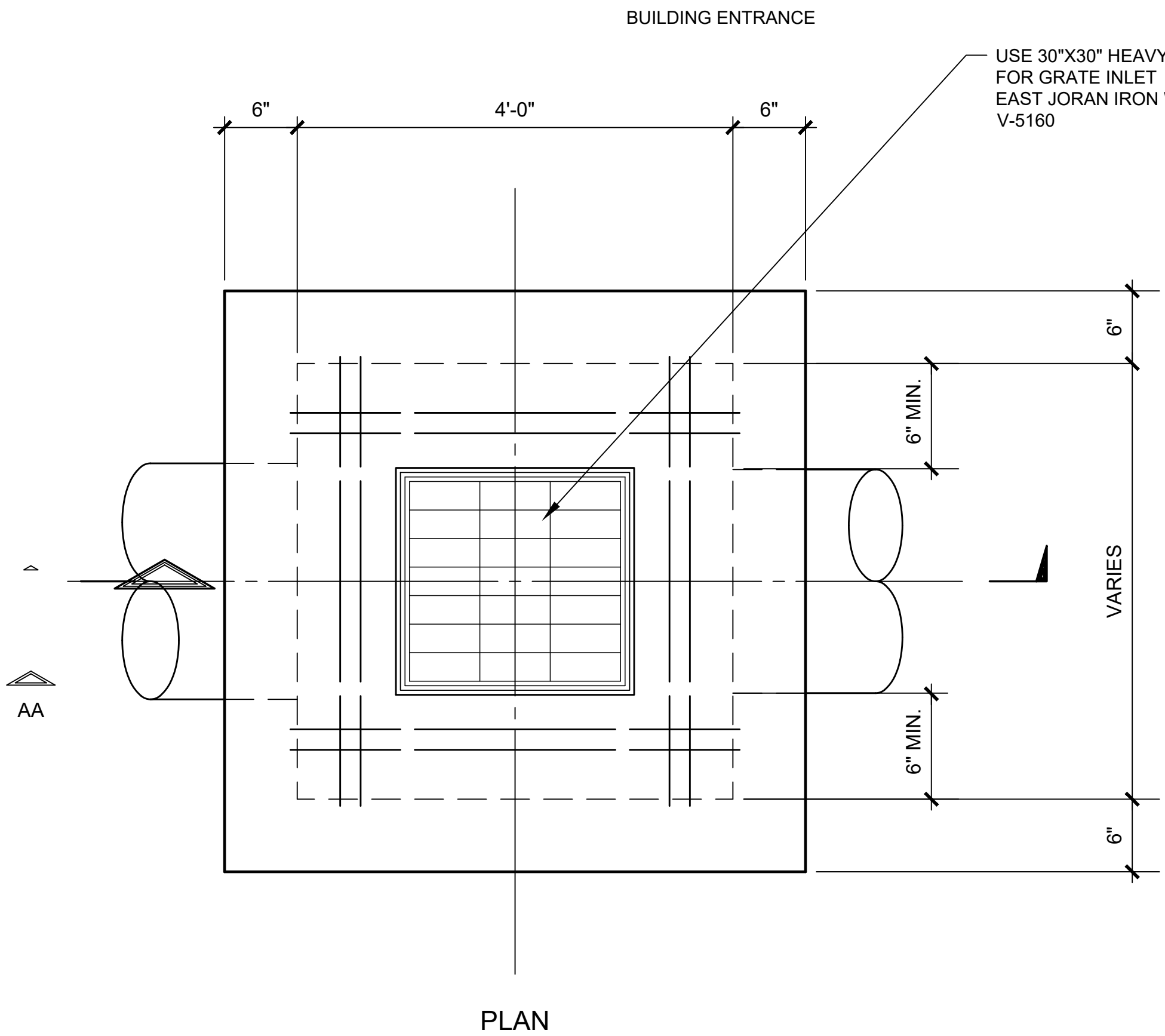


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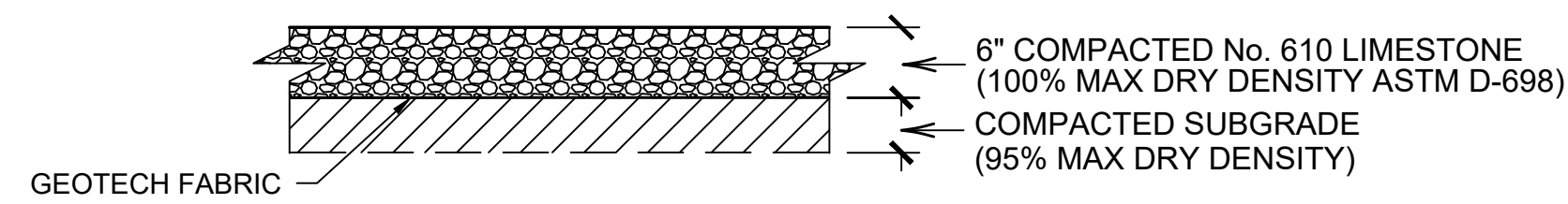


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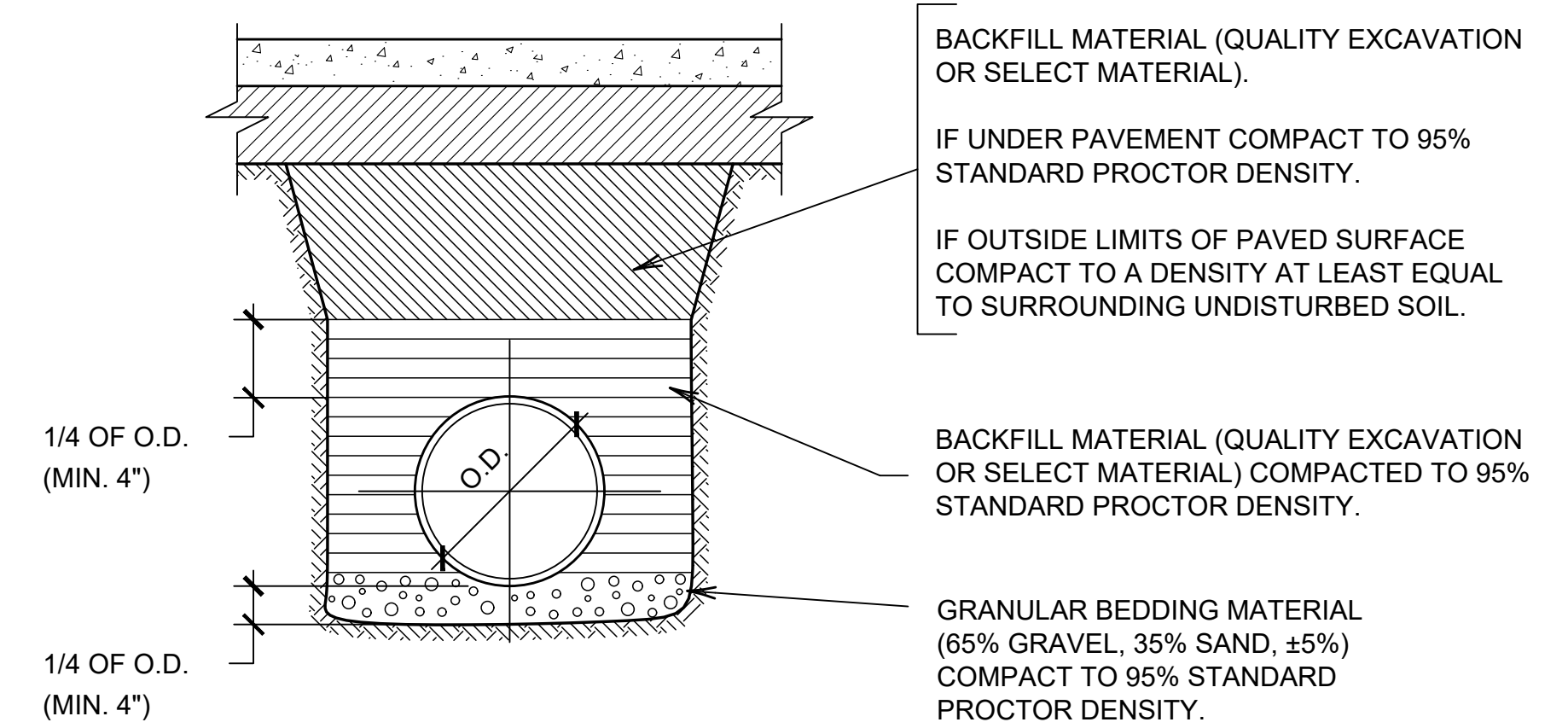
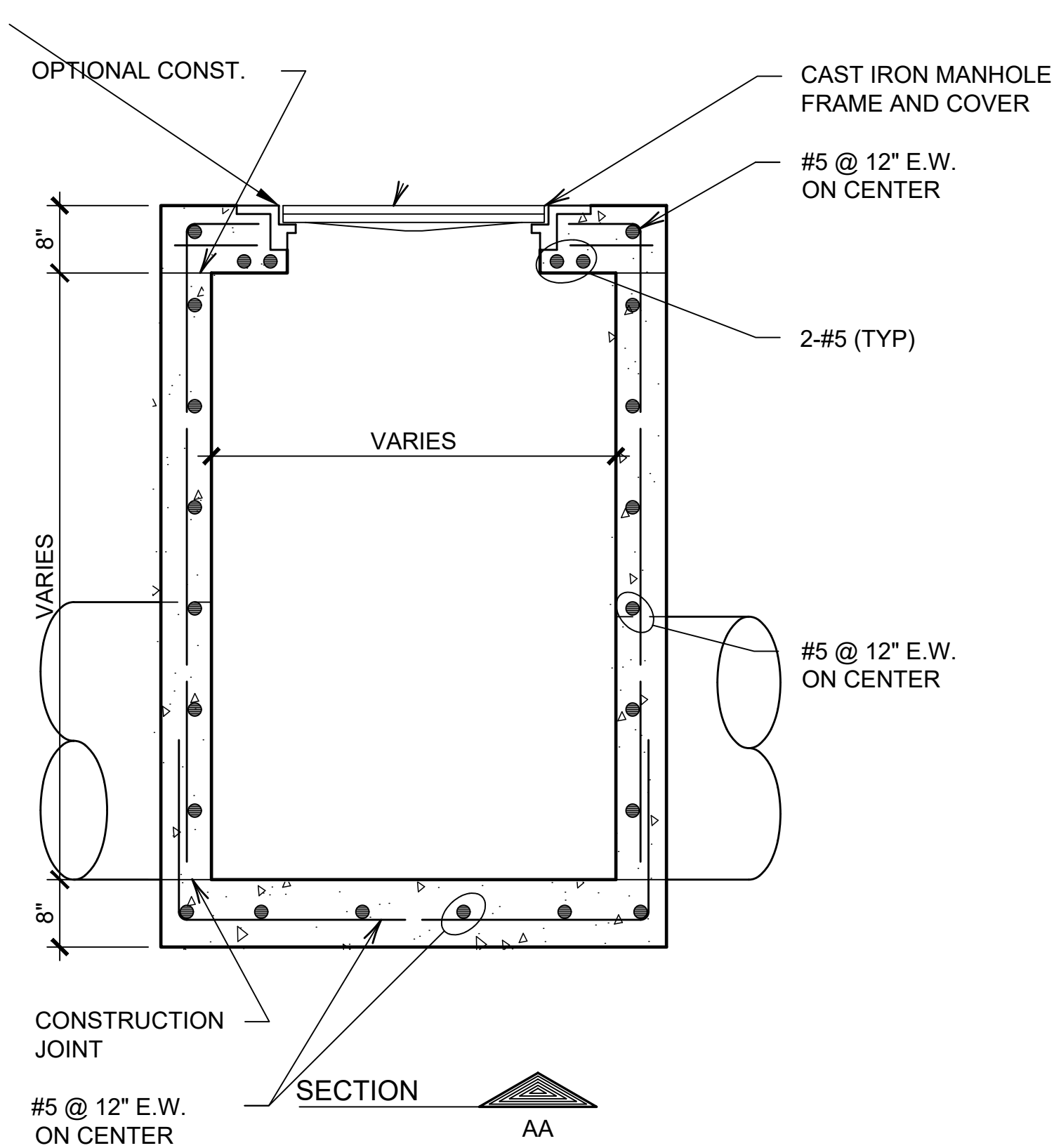
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SHEET NO:
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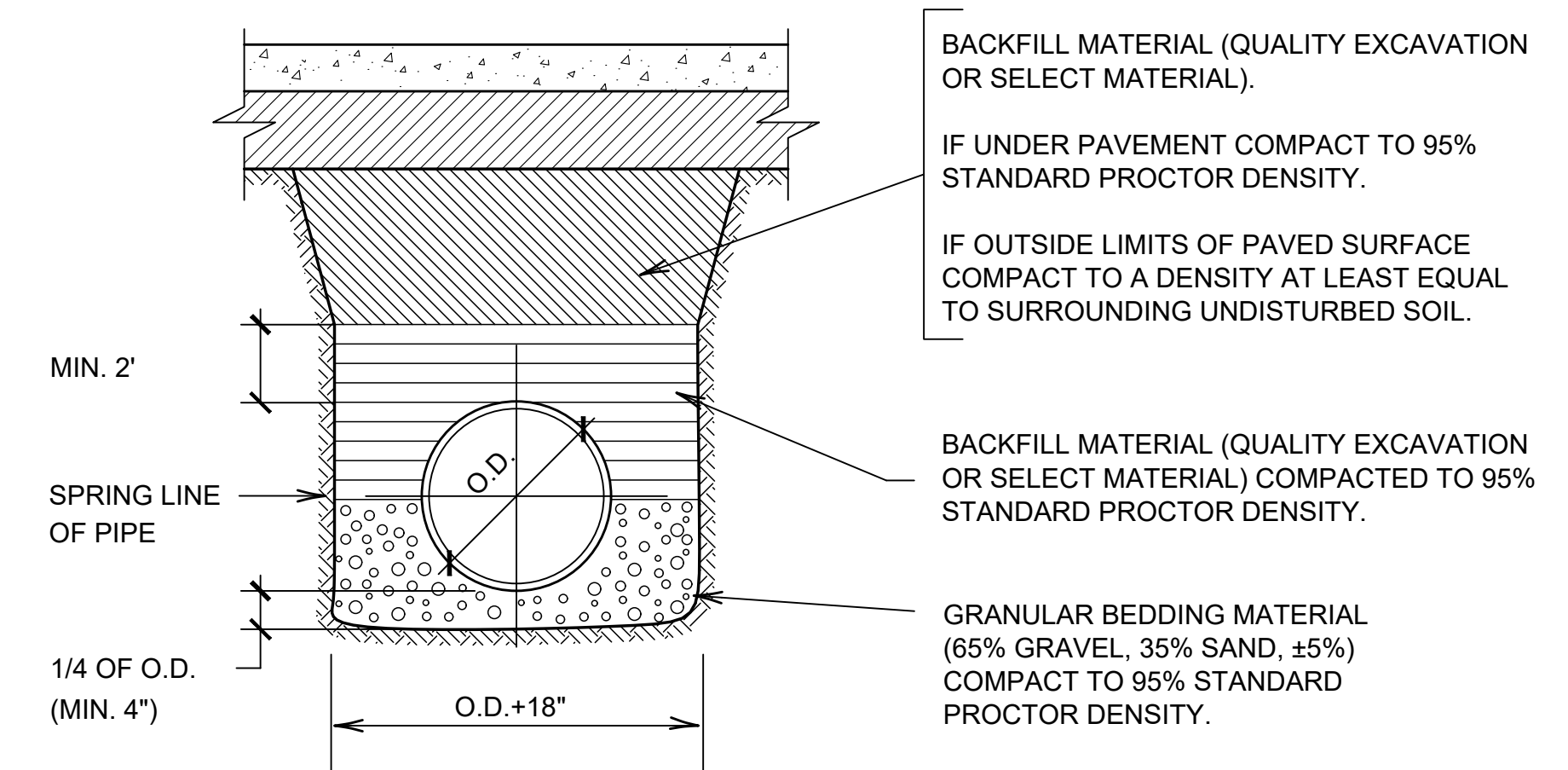
1 GRATE INLET DETAILS
N.T.S.
RE: C1.0



2 LIMESTONE DRIVE
N.T.S.
RE: 1C1.0



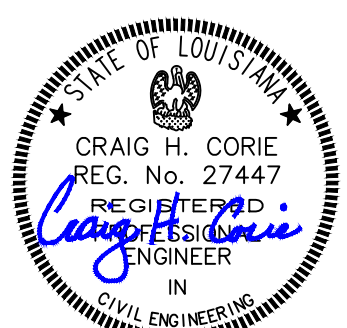
3 RIGID PIPE BEDDING DETAIL
N.T.S.
RE: C1.0



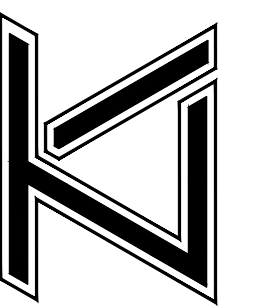
4 FLEXIBLE PIPE BEDDING DETAIL
N.T.S.
RE: C1.0

DRAINAGE & SURFACE DETAILS

MONROE & CORIE, INC.
CONSULTING ENGINEERS
11325 Pennywood Avenue
Baton Rouge, Louisiana 70809
Tel. (225) 293-1905 Fax (225) 293-1941

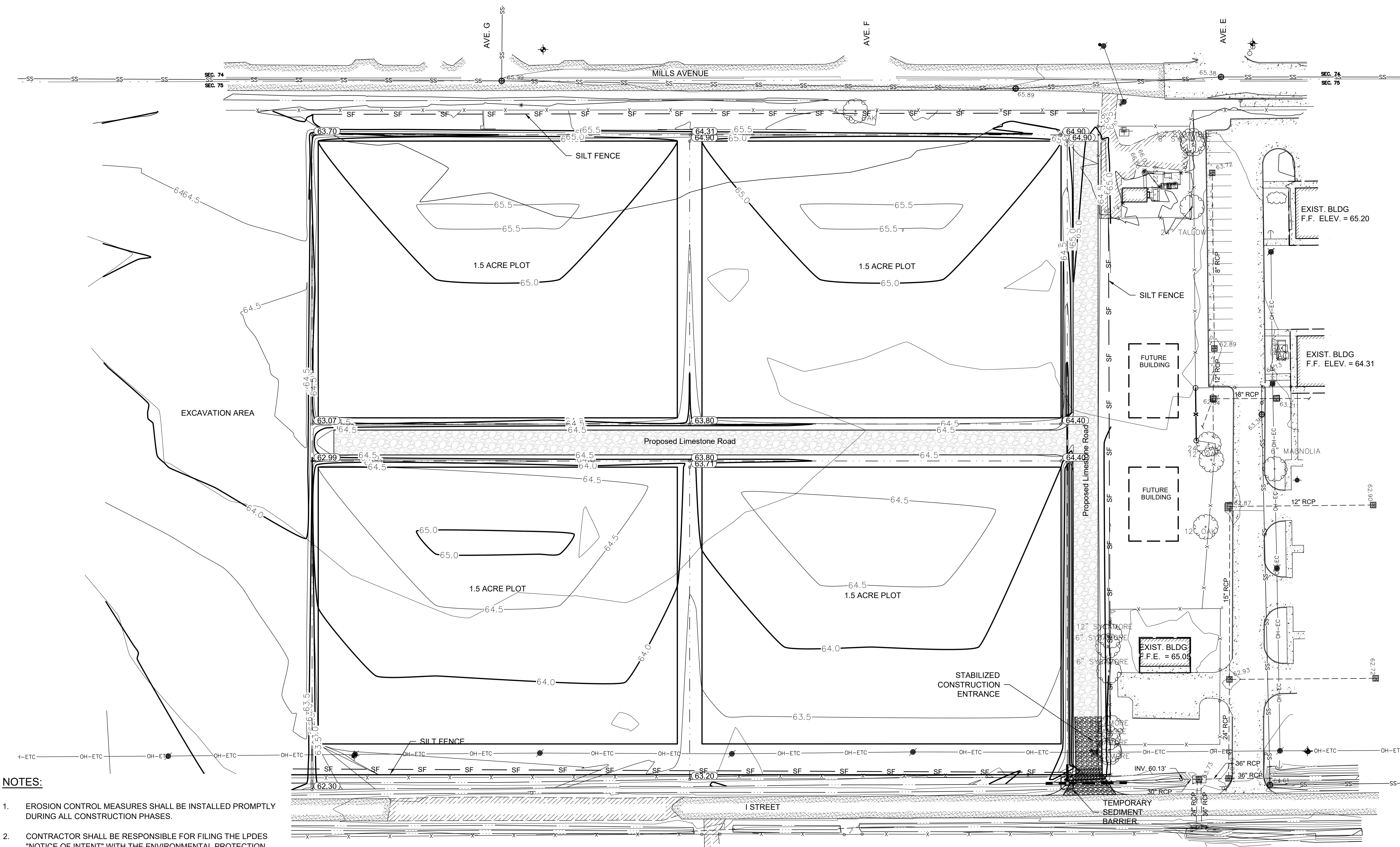


THOMPSON LUKE & ASSOCIATES, L.L.C.
10705 RIEGER ROAD, SUITE 101
BATON ROUGE, LA 70809
PHONE 225-293-9474



SOUTHERN UNIVERSITY
VITICULTURE FIELDS
BATON ROUGE, LOUISIANA
70813 JAMES L HUNT ST

REVISIONS:
DATE: 07-02-25
TLA NO: 24-131
DRAWN: CHC
CHECKED: CHC
SHEET NO:
C1.1



NOTES:

1. EROSION CONTROL MEASURES SHALL BE INSTALLED PROMPTLY DURING ALL CONSTRUCTION PHASES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR FILING THE LPDES "NOTICE OF INTENT" WITH THE ENVIRONMENTAL PROTECTION AGENCY AND SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
3. SILT FENCING SHALL BE CONSTRUCTED WHERE NECESSARY TO PREVENT SURFACE RUNOFF ONTO THE ADJACENT UNDISTURBED PROPERTY.
4. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL TAKE THE NECESSARY BEST MANAGEMENT PRACTICES TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
5. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
6. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL HAS BEEN RECEIVED FROM ALL GOVERNING AUTHORITIES.
7. SHOULD INSTALLATION OF STORM DRAIN PIPE BE INTERRUPTED DUE TO WEATHER OR NIGHTFALL, THE PIPE ENDS SHALL BE PROTECTED WITH FILTER FABRIC TO PREVENT SEDIMENT EROSION SHOULD IT RAIN.

SEEDING NOTES:

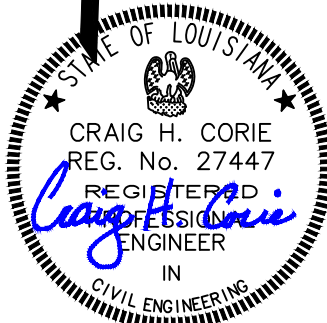
1. TEMPORARY SEEDING SHALL BE REQUIRED OF ALL AREAS FOR WHICH SOIL DISTURBING ACTIVITIES HAVE TEMPORARILY CEASED FOR A PERIOD OF MORE THAN 14 DAYS.
2. PERMENANT SEEDING AND SODING SHALL BE DONE IN ACCORDANCE WITH THE LANDSCAPE PLAN.

LEGEND:

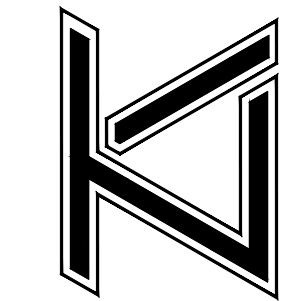
- SF — SILT FENCE RE: 2C3.1
- (X) TEMPORARY SEDIMENT BARRIERS RE: 1C3.1 OR 2C3.1
- STABILIZED CONSTRUCTION ENTRANCE 3C3.1



MONROE & CORIE, INC.
CONSULTING ENGINEERS
11325 Pennywood Avenue
Baton Rouge, Louisiana 70809
Tel. (225) 293-1905 Fax (225) 293-1941



THOMPSON LUKE & ASSOCIATES, L.L.C.
10705 RIEGER ROAD, SUITE 101
BATON ROUGE, LA 70809
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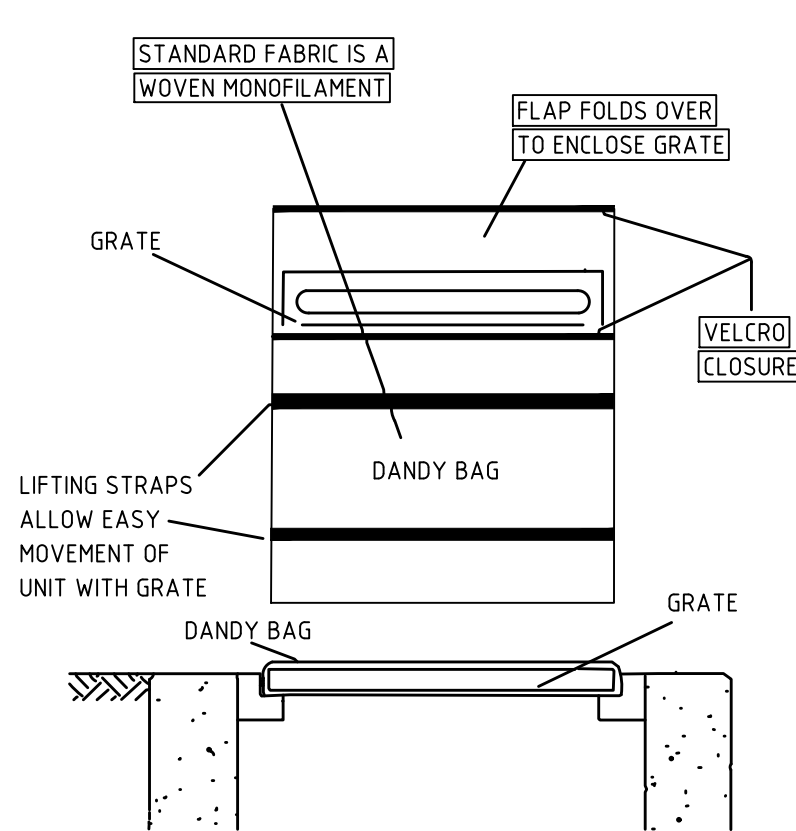
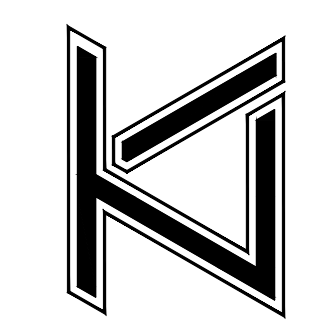
**SOUTHERN UNIVERSITY
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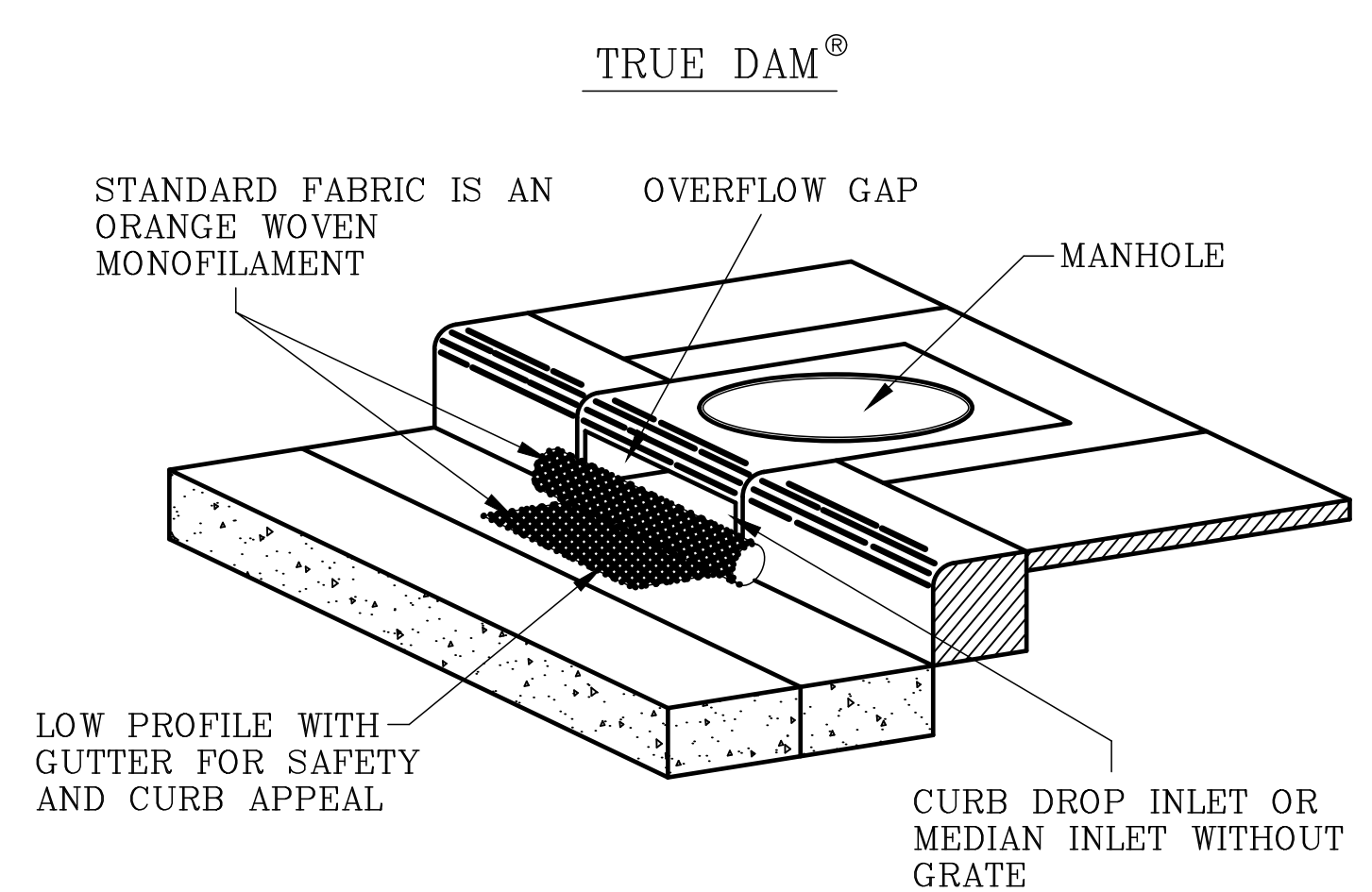


DANDY BAG[®] INSERT

Installation and Maintenance Guidelines

Installation: Stand the grate on end. Place the Dandy Bag over the grate. role the grate over so that the open end is up. Pull up the slack. tuck the flap in. Press the velcor strips together. be sure that the end of the grateing is completely covered by the flap or the Dandy Bag will not work properly. Hold the handles, carefully place the Dandy Bag with the grate inserted into the catch basin frame.

Maintenance: To insure proper operation, remove silt, sediment, and debris from the surface and the vicinity of the unit with a square point shovel or stiff bristle broom away from environmentally sensitive areas and waterways in a manner satisfactory to the engineer/inspector. remove fine material from inside Dandy Bag as needed. Dispose of Dandy Bag no longer in use at an appropriate recycling or solid waste facility.



TRUE DAM[®]

Installation and Maintenance Guidelines

Installation: Place True Dam on ground with aggregate pouch on street side near the inlet on which it will be installed. Open Velcro access pouch located on the street side edge of the unit. If using optional absorbents, place absorbent sock in pouch and push to back of pouch. Fill pouch with aggregate to a level that will keep the unit in place during a rain event and create a seal between the True Dam and the surface of the street. Reseal Velcro access. Center the unit against a curb or median inlet opening so that the curb side of the unit creates a seal with the curb and inlet structure. There should be an equal length of the True Dam overhanging on each side of the opening.

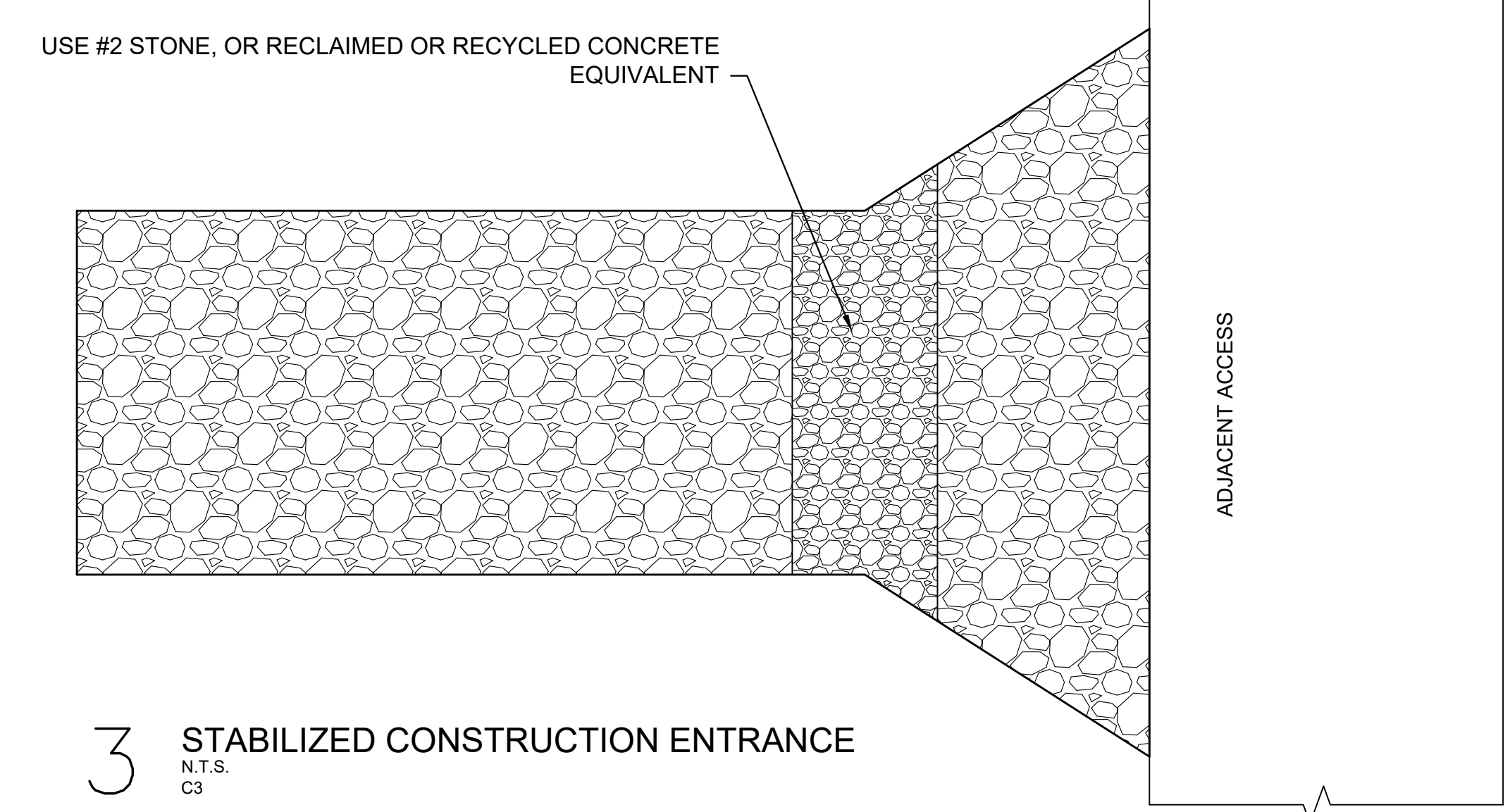
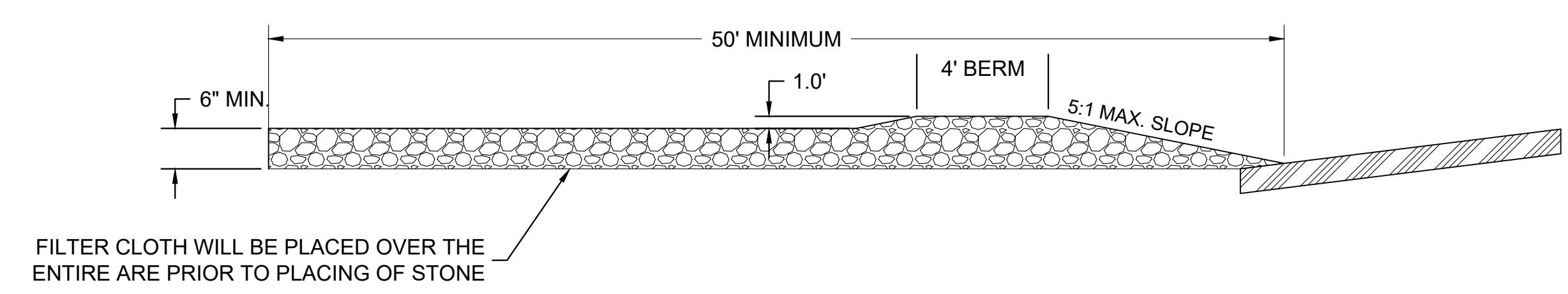
Maintenance: Remove all accumulated sediment and debris from surface and vicinity of unit after each storm event. If using optional oil absorbents; remove and replace absorbent pillow when near saturation.

NOTES:

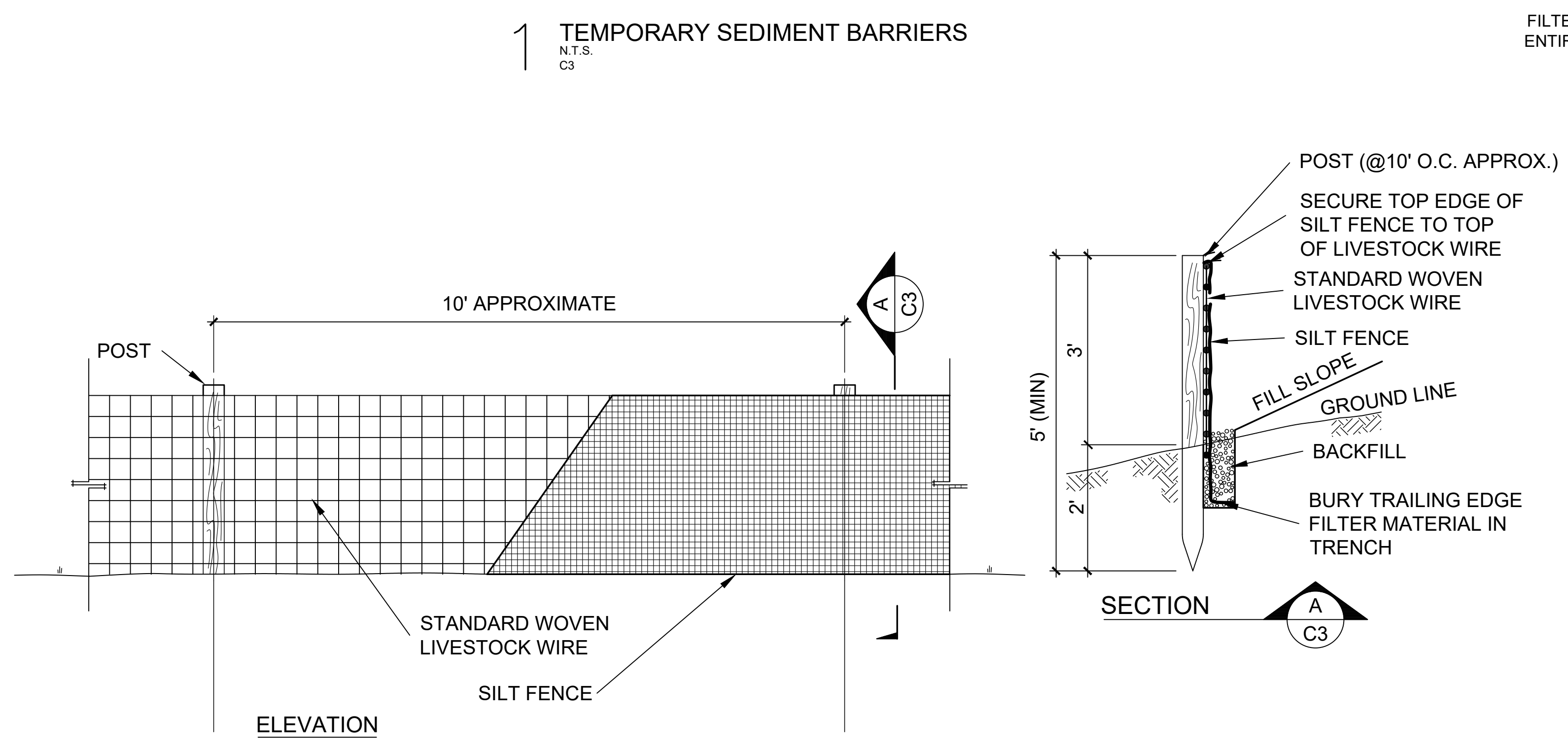
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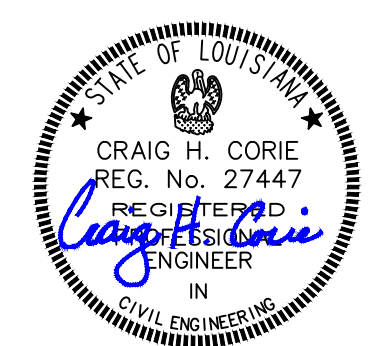


3 STABILIZED CONSTRUCTION ENTRANCE
N.T.S.
C3



2 SILT FENCE
N.T.S.
C3

EROSION CONTROL DETAILS



DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 00 50 – ADMINISTRATIVE PROVISIONS

PART 1.00 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Title of work and type of contract.
- B. Contractor use of premises.
- C. Reference Standards.
- D. Disposal of Material.

1.02 WORK COVERED UNDER THIS CONTRACT

- A. Provide all work necessary to construct the agriculture site as shown in construction documents.

1.03 CONTRACT METHOD

- A. Construct the work under a single lump sum contract for the base bid.

1.04 COORDINATION

- A. Coordinate work of the various sections of specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
- B. Verify characteristics of elements of interrelated operating equipment are compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
- C. Coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on drawings. Follow routing shown for pipes, ducts, and conduits, as closely as practicable; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for other installations, for maintenance and for repairs.
- D. Execute cutting and patching to integrate elements of work, uncover ill-timed, defective, and non-conforming work, and provide openings for penetrations through floors, walls, and ceilings.

1.05 REFERENCE STANDARDS

- A. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specific or are required by applicable codes.

- B. The date of the standard is that which is in effect as of the bid date unless noted specifically otherwise.
- C. Obtain copies of standards when required by Contract Documents. Maintain copy at jobsite during progress of the specific work.

1.06 DISPOSAL OF MATERIAL

- A. The State shall have first salvage rights to any material or equipment removed. The State shall direct the contractor as to where to store equipment.
- B. All salvable material that is not scheduled for re-use in this contract or retained by the State shall become the property of the contractor and shall be removed from the site by the contractor.

1.07 REMOVAL OF TRASH AND DEBRIS

- A. The contractor shall not permit trash and debris to accumulate in the building or the ground in the vicinity of the building. He shall establish and maintain a regular daily routine for removing trash and debris and hauling it away from the premises. The State shall have first salvage rights to any materials or equipment removed from campus buildings.
- B. Non-salvable material, debris and rubble shall be hauled to the City Disposal Area by the Contractor at his cost.

1.08 PROTECTION

- A. The contractor shall at all times be responsible for ensuring the safety of all occupants and users of the building from injury or damage resulting from any contact with the work, workmen, or equipment. He shall be further responsible for the erection of any barricades to preclude such injury or damage.

1.09 DEMOLITION

- A. The contractor shall perform all demolishing necessary or required to complete the work shown on the drawing or described in the specifications. Take special precautions to protect existing work which is to remain in place or to replace or repair any damage to such work.

1.10 ACCESS, DAMAGE TO EXISTING STRUCTURES, AND TRAFFIC RESTRICTION

- A. The contractor shall be permitted access to the site at the State's convenience. The contractor shall be responsible for any repair and/or replacement of existing lawns, ditches, concrete sidewalks or gutters, fencing or any other structures existing in the area which they shall have damaged. The contractor shall conduct a pre-construction site survey with a State representative so that any such elements then needing repair or which is already damaged in any manner may be properly identified, described, and recorded with the State. If no such damage is recorded, then any structures over which the contractor has crossed during construction which are later found to be damaged shall be considered to have been damaged

by him and shall be repaired and/or replaced by the contractor as necessary to return them to their original condition to the satisfaction of the State at no cost to the State. The State shall designate areas for material storage and parking. These areas will be within 200 feet of the site whenever practical. The construction to the free flow of traffic on the streets of the campus without the prior authority of the State.

1.11 WARRANTY PERIOD

- A. See other sections for specific warranty conditions.
- B. All workmanship, materials, and equipment shall be guaranteed for a period of one (1) year from the date of the official acceptance of the contract, unless a longer period is stated in the specification or in manufacturer's literature.
- C. When items of equipment or materials fail to perform or to give satisfactory service during this warranty period, the Owner may require that corrections be made even to the extent of installing new equipment or materials. When this becomes necessary, the warranty period shall extend for a period of one (1) year from the date of acceptance of the new installation. The extended warranty period shall apply only to those items which have not performed satisfactorily.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 01 00 – SUMMARY OF WORK

PART 1.00 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including Invitation to Bid Form, General Conditions, Modifications to the General Conditions, Supplementary Conditions, any Addenda issued during bidding, and other Division 1 Specifications Sections, apply to this section.

1.02 PROJECT DESCRIPTION

- A. All work shall take place at Southern University main campus. The work consists of civil and plumbing services associated with an agricultural site..

1.03 CONTRACTOR USE OF PREMISES

- A. General: Limit use of the premises to construction activities in areas indicated.
 - 1. Confine operations to areas within Contract limits indicated. Portions of the site beyond save areas in which construction operations are indicated are not to be disturbed.
 - 2. Disposal of Waste Materials: Waste materials shall be disposed of in a legal manner off the site in accordance with all governing laws.
- B. Contractor shall follow strict guidelines set forth by Southern University at Pre-Construction Meeting.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 02 00 – PROJECT MEETINGS

PART 1.00 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor participation in preconstruction conferences.
- B. Contractor administration of progress meetings and pre-installation conferences.

1.02 RELATED REQUIREMENTS

- A. Instruction To Bidders: Pre-Bid Conference
- B. Instructions To Bidders: Post-Bid Information
- C. Section 01 00 50 - Administrative Provisions
- D. Section 01 30 00 - Submittals: Shop drawings, product data, and samples.
- E. Section 01 40 00 - Quality Control
- F. Section 01 70 00 - Contract Closeout: Project Record Documents.

1.03 PRE-CONSTRUCTION CONFERENCES

- A. After notification that the Contract has been executed, the Engineer shall arrange with the Owner and Contractor, and conduct a pre-construction conference to be held at the project site. The Contractor shall be responsible to see that his principal subcontractors are in attendance and shall furnish to the Engineer, Owner, and User Agency, 1) the Schedule of Values, 2) list of subcontractors and material suppliers, 3) the Construction Schedule.
- B. Engineer will administer conference at project site for clarification of contractor responsibilities in use of site and for review of administrative procedures.

1.04 PROGRESS MEETINGS

- A. The designer shall establish and conduct a regular schedule of monthly meeting to be held on the job site each month throughout the construction period, and shall require attendance at the meetings by representatives of his Consultants, the Contractor and his principal subcontractors. The Owner and User Agency shall be notified of such meetings and may be represented.
- B. It shall be the principal purpose of these meetings or conferences, to effect coordination, cooperation and assistance in every practical way to the end of maintaining progress of the project on schedule and completing the project within the contract time.
- C. Contractor shall make physical arrangements for meetings, prepare agenda with copies for

participants, record minutes, and distribute copies within two days to Engineer, participants, and those affected by decision made at meetings.

1.05 PRE-INSTALLATION CONFERENCES

- A. When required in individual specification Section, convene a pre-installation conference prior to commencing work of the Section.
- B. Require attendance of entities directly affecting, or affected by, work of the Section.
- C. Review conditions of installation, preparation and installation procedures, and coordination with related work.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 04 00 – COORDINATION

PART 1.00 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Coordination of work of contract.

1.02 RELATED REQUIREMENTS

- A. Section 01 70 00 - Contract Closeout Procedures: Closeout submittals.

1.03 DESCRIPTION

- A. Coordinate scheduling, submittals and work of the various sections of specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.
- B. Coordinate sequence of work to accommodate Owner occupancy as described in the individual sections of specifications on the drawings.

1.04 MEETINGS

- A. In addition to progress meetings specified in Section 01020, hold coordination meetings and preinstallation conferences with personnel and subcontractors to assure coordination of work.

1.05 COORDINATION OF SUBMITTALS

- A. Schedule and coordinate submittals specified in Section 01 30 00.
- B. Coordinate requests for substitutions to assure compatibility of space, of operating elements, and effect on work of other sections.
- C. Coordinate requests for substitutions to assure compatibility of space, of operating elements, and effect on work of other sections.

1.06 COORDINATION OF SPACE

- A. Coordinate use of project space and sequence of installation of mechanical and electrical work which is indicated diagrammatically on drawings. Follow routings shown from pipes, ducts and conduits as closely as practicable, with due allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for other installations, for maintenance and for repairs.
- B. In finished areas, conceal pipes, ducts, and wiring in the construction. Coordinate locations for fixtures and outlets with finish elements.

1.07 COORDINATION OF CONTRACT CLOSEOUT

- A. Coordinate completion and clean up of work of separate sections in preparation for substantial completion.
- B. Assemble and coordinate closeout submittals.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 30 00 – SUBMITTALS

PART 1.00 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures.
- B. Construction Progress Schedules.
- C. Schedule of Values.
- D. Shop Drawings.
- E. Product Data.
- F. Samples.
- G. Manufacturer's Instructions.
- H. Manufacturer's Certificates.

1.02 RELATED REQUIREMENT

- A. Section 01 00 50 - Administrative Provisions
- B. General Conditions of the Contract For Construction
- C. Supplementary Conditions of the Contract For Construction.

1.03 PROCEDURES

- A. Deliver submittals to engineer at address listed on cover of Project Manual.
- B. Transmit each item under engineer-accepted form. Identify project, contractor, subcontractor, and major supplier. Identify pertinent drawing sheet and detail number, and specification section number, as appropriate. Identify deviations from Contract Documents. Provide space for contractor and engineer review stamps.
- C. Submit initial Progress Schedule and Schedule of Values in duplicate at pre-construction conference. After review by engineer, revise and resubmit as required. Submit revised schedules with each Application for Payment, reflecting changes since previous submittal.
- D. Comply with progress schedule for submittals related to work progress. Coordinate submittal of related item.
- E. After engineer review of submittal, revise and resubmit as required, identifying changes made since previous submittal.

- F. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

1.04 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit horizontal bar chart with separate bar for each major trade or operation, identifying first work day of each week.

1.05 SCHEDULE OF VALUES

- A. Submit typed schedule of AIA Form G703, 8-1/2 x 11 inch paper.
- B. Format: Table of contents of this Project Manual. Identify each line item with number and title of the major Specification Sections.

1.06 SHOP DRAWINGS

- A. Submit the number of opaque reproductions which contractor requires, plus two copies which will be retained by engineer.

1.07 PRODUCT DATA

- A. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to the work.
- B. Submit the number of copies which contractor requires, plus two (2) copies which will be retained by engineer.

1.08 MANUFACTURER'S INSTRUCTIONS

- A. When required in individual Specification Sections, submit manufacturer's printed instructions for delivery, storage, assembly, installation start-up, adjusting, and finishing, in quantities specified for product data.

1.09 SAMPLES

- A. Submit full range of manufacturer's standard colors, textures, and patterns for engineer's selection.
- B. Submit samples to illustrate functional characteristics of the product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing work.
- C. Include identification on each sample, giving full information.
- D. Submit the number specified in respective Specification Section; one will be retained by engineer. Reviewed samples which may be used in the work are indicated in the Specification Section.

1.10 FIELD SAMPLES

- A. Provide field samples of finishes at project as required by individual Specification Sections. Install sample complete and finished. Acceptable samples in place may be retained in completed work.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1.00 GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections include the following:
 - 1. Divisions 1 through 26 Sections for specific requirements for submittals in those Sections.

1.03 DEFINITIONS

- A. Informational Submittals: Written information that does not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.04 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Engineer for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
 4. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Engineer and to Engineer's consultants, allow 15 days for review of each submittal. Submittal will be returned to Engineer before being returned to Contractor.
- E. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
 2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Engineer.
 3. Include the following information on label for processing and recording action taken:
 - a. Project name.
 - b. Date.
 - c. Name and address of Engineer.
 - d. Name and address of Contractor.
 - e. Name and address of subcontractor.
 - f. Name and address of supplier.
 - g. Name of manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
 - j. Other necessary identification.
- F. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Engineer observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Engineer.
 2. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review, received from sources other than Contractor.
1. Transmittal Form: Use AIA Document G810.
 2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.

- I. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked "Approved or Approved as Corrected from Engineer's (and Construction Manager's) action stamp."
- J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- K. Use for Construction: Use only final submittals with mark indicating "Approved or Approved as Corrected from Engineer's (and Construction Manager's) action stamp." taken by Engineer.

1.05 CONTRACTOR'S USE OF ENGINEER'S CAD FILES

- A. General: Copies of Engineer's CAD files will not be provided to Contractor for Contractor's use in connection with Project.

PART 2.00 PRODUCTS

2.01 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
 - 1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Engineer will not return copies.
 - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
- B. Coordination Drawings: Comply with requirements specified in Division 1 Section "Project Management and Coordination."
- C. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."
- D. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- E. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a

product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:

1. Preparation of substrates.
 2. Required substrate tolerances.
 3. Sequence of installation or erection.
 4. Required installation tolerances.
 5. Required adjustments.
 6. Recommendations for cleaning and protection.
- F. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- G. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Engineer, except as required in "Action Submittals" Article.
1. Engineer will not review submittals that include MSDSs and will return the entire submittal for resubmittal.

2.02 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.
1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Engineer.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a statement, signed and sealed by the responsible design professional licensed in the state of Louisiana, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3.00 EXECUTION

3.01 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.02 ENGINEER'S/ ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
- C. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- D. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 40 00 – QUALITY CONTROL

PART 1.00 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. General Quality Control.
- B. Workmanship.
- C. Manufacturer's Instructions.
- D. Manufacturer's Certificates.
- E. Mockups.
- F. Manufacturer's Field Services.

1.02 RELATED REQUIREMENTS

- A. Section 01 30 00 - Submittals

1.03 QUALITY CONTROL - GENERAL

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

1.04 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship or specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and packing.

1.05 MANUFACTURERS' INSTRUCTIONS

- A. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from engineer before proceeding.

1.06 MANUFACTURERS' CERTIFICATES

- A. When required by individual Specification Sections, submit manufacturer's certificate, in duplicate, that products meet or exceed specified requirements.

1.07 MANUFACTURERS' FIELD SERVICES

- A. When specified in respective Specification Sections, required manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to make appropriate recommendations.
- B. Representative shall submit written report to engineer listing observations and recommendations.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 60 00 - MATERIAL AND EQUIPMENT

PART 1.00 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Products.
- B. Transportation and Handling.
- C. Storage and Protection.
- D. Product Options.
- E. Products Lists.
- F. Substitutions.
- G. Systems Demonstration.

1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders: 3.3 Substitutions
- B. Section 01 00 50 - Administrative Provisions.
- C. Section 01 40 00 - Quality Control: Submittal of Manufacturers' Certificates.
- D. Section 01 60 00 - Materials and Equipment: Systems Demonstration.
- E. Section 01 70 00 - Contract Closeout: Operation and Maintenance data.

1.03 PRODUCTS

- A. Products include material, equipment, and systems.
- B. Comply with specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a specification section shall be the same, and shall be interchangeable.

1.04 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.

- C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

1.05 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

1.06 SUBSTITUTIONS

- A. The name of a certain brand, make, manufacturer, or definite specification is to denote the quality standard of the article desired but does not restrict contractor to the specific brand, make, manufacturer, or specification named unless specifically noted otherwise. It is to set forth to convey the general style, type, character, and quality of article desired.
- B. All requests for substitutions shall be in accordance with Paragraph 4.3 "SUBSTITUTIONS" on Page IB-3 of INSTRUCTIONS TO BIDDERS. No post bid substitution will be allowed.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. Request constitutes a representation that contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
 - 2. Will provide the same warranty for substitution as for specified product.
 - 3. Will coordinate installation and make other changes which may be required for work to be complete in all respects.
 - 4. Waives claims for additional costs which may subsequently become apparent.

1.07 SYSTEMS DEMONSTRATION

- A. Prior to final inspection, demonstrate operation of each system to engineer and User Agency.
- B. Instruct User's personnel in operation, adjustment, and maintenance of equipment and systems, using the operation and maintenance data as the basis of instruction.

END OF SECTION

DIVISION 01 – GENERAL REQUIREMENTS
SECTION 01 70 00 – CONTRACT CLOSEOUT

PART 1.00 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Closeout Procedures.
- B. Final Cleaning.
- C. Project Record Documents.
- D. Operation and Maintenance Data.
- E. Warranties and Bonds.
- F. Spare Parts and Maintenance Materials.

1.02 RELATED REQUIREMENTS

- A. AIA Document A201-1976 - General Conditions of the Contract For Construction.
- B. Section 01 00 50 - Administrative Provisions.

1.03 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.

1.04 FINAL CLEANING

- A. Execute prior to final inspection.
- B. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains, and foreign substances.
- C. Clean site; sweep paved areas, rake clean other surfaces.
- D. Remove waste and surplus materials, rubbish, and construction facilities from the project and from the site. Owner will provide final cleaning after final acceptance.

1.05 PROJECT RECORD DOCUMENTS

- A. Store documents separate from those used for construction.
- B. Keep documents current; do not permanently conceal any work until required information has been recorded.

- C. At contract closeout, submit documents with transmittal letter containing date, project title, contractor's name and address, list of documents, and signature of contractor.
- D. In addition to the site-maintained record copy, the designer shall prepare and furnish to the Owner, final record drawings of the completed project. Such drawings, shall describe the project as actually built and shall incorporate any changes made during construction.
- E. Final record drawings shall consist of one (1) set of reproducible film sepia and one (1) set of prints of such tracings including all sheets of the contract drawings and any shop drawings of additional details that cannot reasonably be incorporated into the contract drawings. The record drawings shall be reviewed and approved by the contractor prior to submission.

1.06 OPERATION AND MAINTENANCE DATA

- A. Provide data as described in Division 15.
- B. Provide data as described in Division 16.
- C. Other section as described.
- D. Submit three (3) sets prior to final inspection, bound in 8-1/2 x 11 inch three-ring side binders with durable plastic covers.
- E. Provide a separate volume for each system, with a table of contents and indent tabs for each volume.
- F. Part 1: Directory, listing names, addresses, and telephone numbers of: Engineer and Contractor.
- G. Part 2: Operation and maintenance instructions, arranged by system. For each system give names, addresses, and telephone numbers of subcontractors and suppliers.
 - 1. Appropriate design criteria.
 - 2. List of equipment.
 - 3. Parts lists.
 - 4. Operating instructions.
 - 5. Maintenance instructions, equipment.
 - 6. Maintenance instruction, finishes.
 - 7. Shop drawings and product data.
 - 8. Warranties.

1.07 WARRANTIES AND BONDS

- A. Provide duplicate, notarized copies. Execute contractor's submittals and assemble documents executed by subcontractors, suppliers, and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.
- B. Submit material prior to final Application for Payment.

1.08 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Provide products, spare parts, and maintenance materials in quantities specified in each section, in addition to that used for construction of work. Coordinate with Owner, deliver to project site and obtain receipt prior to final payment.

1.09 FINAL INSPECTION

- A. At the time of the final inspection, a punchlist with assigned monetary values will be compiled by the design professional in charge. If these items are not completed within the forty-five (45) day lien period, the monetary value of the item will be withheld and the item will be completed by the university.

END OF SECTION

DIVISION 22 - PLUMBING
SECTION 22 10 00 - PLUMBING PIPING

PART 1.00 GENERAL

1.01 WORK INCLUDED

- A. Pipe and Pipe Fittings
- B. Valves
- C. Domestic Water Piping system
- D. Service Connections

1.02 RELATED WORK

- A. Section 23 00 00 - General Provisions
- B. Section 22 10 10 - Plumbing Specialties

1.03 REFERENCES:

- A. ANSI/ASME B16.3 - Malleable Iron Threaded Fittings Class 150 NS 300.
- B. ANSI/ASME B16.23 - Cast Copper Alloy Solder Joint Drainage Fittings - DWV.
- C. ANSI/ASME B16.29 - Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV.
- D. ANSI/ASME Sec. 9 - Welding and Brazing Qualifications.
- E. ANSI/ASTM B32 - Solder Metal.
- F. ANSI/ASTM C443 - Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
- G. ASTM A53 - Pipe, Steel, Black and Hot-Dipped Zinc Coated, Welded and Seamless.
- H. ASTM A74 - Cast Iron Soil Pipe and Fittings.
- I. ASTM A234 - Pipe Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures.
- J. ASTM B88 - Seamless Copper Water Tube.
- K. ASTM B306 - Copper Drainage Tube (DWV).
- L. ASTM C564 - Rubber Gaskets for Cast Iron Soil Pipe and Fittings.

- M. AWS A5.8 - Brazing Filler Metal.
- N. AWWA C601 - Standard Methods for the Examination of Water and Waste Water.
- O. CISPI 301 - Cast Iron Soil Pipe and Fittings for Hubless Cast Iron Sanitary System.
- P. CISPI 310 – Standard for cast iron couplings
- Q. LSPC – The latest addition of the Louisiana State Plumbing Code.

1.04 QUALITY ASSURANCE:

- A. Valves: Manufacturer's name and pressure rating marked on valve body.
- B. Welding Materials and Procedures: Conform to ASME Code and applicable state labor regulations.
- C. Welders Certification: In accordance with ANSI/ASME Sec. 9. ANSI/AWS D 1.1.
- D. Cast iron pipe and fittings shall be marked with CISPI's collective trademark.

1.05 SUBMITTALS:

- A. Submit shop drawings and product data under provisions of Section 01 30 00.
- B. Include data on pipe material, pipe fittings, valves and accessories.

1.06 WATER PIPE AND FITTING MATERIALS STANDARD

- A. Plastic Water Pipe and Fittings
 - 1. ABS and PVC Plastic Tubular Fittings: ASTM F 409, ANSI/NSF 24, ANSI/NSF 14
 - 2. Joints for IPS PVC pipe using solvent cement: ASTM D 2672
 - 3. Chlorinated poly (vinyl chloride) (CPVC) plastic pipe, Schedule 80, 2" and under: ASTM F 441, listed
 - 4. Chlorinated poly (vinyl chloride) (CPVC) plastic pipe (SDR-PR): ASTM F 442
 - 5. CPVC Pipe and fittings: ASTM D 2846, Listed
 - 6. Cross-linked Polyethylene/Aluminum/Cross-linked Polyethylene (PEX-AL-PEX) pressure pipe and fittings: ASTM F 1281
 - 7. Cross-linked Polyethylene (PEX) plastic hot and cold water distribution system: ASTM F 877, Listed
 - 8. Cross-linked Polyethylene (PEX) tubing: ASTM F 876
 - 9. Cross-linked Polyethylene (PEX) tubing systems for pressure: CAN/CSA-B137.5M89, listed
 - 10. Flexible Elastomeric pressure joints: ASTM D 3139, See 308.8
 - 11. Metal insert fittings for PB tubing: ASTM F 1380
 - 12. Polyethylene/Aluminum/Polyethylene (PE-AL-PE) pressure pipe and fittings: ASTM F 1282
 - 13. Polyethylene pipe and tubing (PE) Number 2305, 2306, 3306, 3406, 3408: ASTM D

- 2104, ASTM D 2239, ASTM D 2737, Listed, See 303.8.2
 14. Poly (vinyl chloride) (PVC) plastic pipe fittings, Schedule 40: ASTM D 2466
 15. Pressure rated ABS-fittings: ASTM D 2468, Listed
 16. Pressure rated ABS-pipe Number 1210, 2112, 1316: ASTM D 1527, ASTM D 2282, Listed, See 303.8.2
 17. PVC injection molded gasketed fittings for pressure applications: CAN/CSA-B137.2-M89, Listed
 18. PVC Pipe, Number 1120, 1220: ASTM D 1785, ASTM D 2241, listed, See 303.8.2
 19. PVC socket-type fittings, Schedule 80: ASTM D 2467, listed
 20. Socket-type chlorinated poly (vinyl chloride) (CPVC) plastic pipe fittings, Schedule 80, 2" and under: ASTM F 439, listed
 21. Threaded chlorinated poly (vinyl chloride) (CPVC) plastic pipe fittings, Schedule 80, 2" and under: ASTM F 437, listed
- B. Ferrous Water Pipe and Fittings
1. Cast Iron fittings (threaded): ASTM A 126
 2. Cast iron pipe (threaded): ANSI A40.5
 3. Cast iron water pipe: ASTM A377
 4. Ductile-iron water pipe: ANSI/AWWA C 151/A 21.51
 5. Ductile-iron water fittings: ANSI/AWWA C 110/A 21.10
 6. Malleable iron fittings (threaded): ASTM A 197
 7. Nipples pipe (threaded): FS WW-N-351a
 8. Stainless steel water pipe Grade H: ASTM A 268, See 303.8.4
 9. Steel couplings, threaded, black and galvanized: ASTM A 865
 10. Steel pipe black and galvanized: ASTM A 53
 11. Welded and seamless steel pipe: ASTM A 53
- C. NonFerrous Pipe and Fittings
1. Cast bronze fittings for flared copper tube: ANSI B16.26
 2. Cast bronze threaded fittings: ASME B16.15
 3. Cast bronze solder-joint pressure fittings: ANSI B16.18
 4. Cast copper alloy fittings for flared copper tubes: ASME B 16.26
 5. Pipe flanges and flanged fittings: ANSI B16.5
 6. Seamless brass tube: ASTM B 135
 7. Seamless copper pipe: ASTM B 42
 8. Seamless copper tube: ASTM B 75
 9. Seamless copper water tube types K, L, & M: ASTM B 88
 10. Seamless red brass pipe: ASTM B 43
 11. Seamless and welded copper distribution tube (type D): ASTM B 641
 12. Threadless copper pipe (TP): ASTM B 302
 13. Welded brass tube: ASTM B 587
 14. Welded copper tube: ASTM B 447
 15. Welded copper alloy UNS # C21000 water tube: ASTM B 642
 16. Wrought copper and copper-alloy solder-joint pressure fittings: ASME B 16.22 for copper water tube
 17. Wrought seamless copper and rectangular copper-alloy pipe and tube: ASTM B 251, square and tubing not applicable
 18. Valves-flanged threaded, and welding end: ANSI B 16.34

- D. Backflow Prevention Devices Materials Standard
1. Air gap standards: ASME A112.1.2
 2. Backflow preventers, double check valve assembly: ASSE 1015, ANSI/AWWA C510
 3. Backflow preventers with intermediate atmospheric vent: ANSI/ASSE 1012
 4. Backflow preventers, double check detector assembly: ANSI/ASSE 1048
 5. Backflow preventers, hose connection: ANSI/ASSE 1052
 6. Backflow preventers, reduced pressure detector assembly: ANSI/ASSE 1047
 7. Backflow preventers, reduced pressure principle assembly: ANSI/AWWA C511, ASSE 1013
 8. Dual check valve type backflow preventer: ASSE 1032, for carbonated beverage dispensers-post mix type
 9. Field test procedures for backflow preventer assemblies: ASSE 5010
 10. Manual for the selection, installation, maintenance, and field testing of backflow prevention devices: CAN/CSA B64.10
 11. Vacuum breakers, Anti-Siphon, pressure type assembly (outdoor use): ASSE 1020
 12. Vacuum breakers-atmospheric pipe applied: ANSI/ASSE 1001
 13. Vacuum breakers, back siphonage, pressure type assembly (spill resistant): ANSI/ASSE 1056
 14. Vacuum breakers, hose connections: ANSI/ASSE 1011
 15. Vacuum breakers, laboratory faucet: ANSI/ASSE 1035
 16. Vacuum breaker wall hydrants, fronts resistant automatic draining: ASSE 1019
 17. Water closet flush tank fill valves (ballcocks): ASSE 1002
- E. Valves Material Standards
1. Valves, bronze gate: MSS SP-80
 2. Valves, cast iron gate: ASTM A 126
 3. Valves, ball: MSS SP-72, MSS SP-110
 4. Valves, resilient-seated gate: ANSI/AWWA C509
- F. Temperature Control Device Standards
1. Individual shower control valves, anti-scald: ASSE 1016
 2. Temperature actuated mixing valves for primary domestic use: ASSE 1017
 3. Water supply valves, mixing valves and single control mixing valves: ASSE 1029
- G. Potable Water Piping
1. All potable water pipes, pipe related products, and materials that join or seal pipes conform to ANSI/NSF 61.

1.07 DRAINAGE SYSTEM MATERIALS STANDARDS

- A. NonMetallic Piping
1. Concrete drain tile: ASTM C 412
 2. Concrete perforated: ASTM C 444
 3. Concrete reinforced culverts: ASTM C 76, for storm drains only
 4. Concrete reinforced sewer pipe: ASTM C 361, for storm drains only
 5. Concrete sewer pipe: ASTM C 14, for storm drains only
 6. Sewer manholes: ASTM C 478
 7. Concrete (steel cylinder type): FS SS-P-381

- B. Plastic Pipe and Fittings
1. Coextruded composite pipe: ASTM F 1488, See 303.8.3, 303.8.5, 704.1, 1101.5, 1103.2, 1103.4
 2. Coextruded composite drain, waste, and vent pipe (DWV): ASTM F 1499, See 303.8.3, 303.8.5, 704.1, 1101.5, 1103.2, 1103.4
 3. Coextruded PVC plastic pipe: ASTM F 891, See 303.8.3, 303.8.5, 704.1, 1101.5, 1103.2, 1103.4
 4. Flexible elastomeric non-pressure joints: ASTM D 3212, See 303.8
 5. Large diameter ribbed PVC sewer pipe and fittings: CAN/CSA-B182.4
 6. Polyolefin laboratory drainage systems: CAN/CSA-B181.3
 7. PVC-DWV pipe and fittings: ASTM D 2665, listed, See 303.8.3
 8. Type PS 46 and type PS 115 sewer pipe (for outside building sewers, storm drains): ASTM F 789, See 704.1, 1101.4, 1103.2, 1103.4, ASTM D 2321, installation
 9. Type PSM PVC sewer pipe and fittings (for outside building sewers, storm drains, and storm sewers): ASTM 3034, See 704.1, 1101.5, 1103.2, 1103.4, ASTM D 2321, installation
 10. Type PSP PVC sewer pipe and fittings (for outside building sewers, storm drains, and storm sewers): ASTM D 2321, Installation
 11. All plastic piping pipes, plastic plumbing piping components and related materials shall be listed as conforming with ANSI/NSF Standard 14.
- C. Ferrous Pipe and Fittings
1. Cast iron soil pipe and fittings: ASTM A 74, CISPI HS
 2. CI NO-HUB pipe and fittings: ASTM A 888, CISPI Std. 301
 3. Ductile-iron gravity sewer pipe: ASTM A 746
 4. Hubless cast iron sanitary system: CISPI Std. 310
 5. Manhole top frames and covers: ASTM A 48
- D. NonFerrous Pipe and Fittings
1. Cast copper alloy solder-joint drainage fittings: ASME B 16.23, for plumbing drainage waste and vents
 2. Cast copper alloy solder-joint fittings for solvent drainage systems: ANSI B 16.32
 3. Copper drainage tube DWV: ASTM B 306
 4. Welded copper and copper alloy heat exchanger tube: ASTM B 543
 5. Wrought copper and wrought copper alloy solder-joint drainage fittings for plumbing drainage waste and vents: ASME B 16.29
 6. Wrought copper and wrought copper alloy solder-joint fittings for solvent drainage systems: ANSI B 16.43
- E. Glass pipe
1. Borosilicate glass pipe and fittings for DWV applications: ASTM C 1053

PART 2.00 PRODUCTS

2.01 WATER PIPING, ABOVE GRADE: Exterior water piping shall be a minimum of 3' below grade and be HDPE.

- A. PVC schedule 40 Pipe: ASTM D 1785
PVC schedule 40 fittings: ASTM 2466 socket type.

- B. All potable water pipes, pipe related products and materials that join or seal pipes and pipe related products shall be evaluated and listed as conforming with a national consensus product or material standard and ANSI/NSF Standard 61.

2.02 FLANGES, UNION, AND COUPLINGS:

- A. Pipe Size two (2) Inches and Under: 150 psig malleable iron unions for threaded ferrous piping; bronze unions for copper pipe, solder joints.
- B. Pipe Size Over two (2) Inches: 150 psig forged steel slip-on flanges for ferrous piping; bronze flanges for copper piping; neoprene gaskets for gas service.
- C. Dielectric Connections: Unions with galvanized or plated steel threaded end, copper solder end, water impervious isolation barrier.

2.03 GATE VALVES

- A. Up to two (2) Inches: Bronze body, non-rising or rising stem and handwheel, inside screw, single double wedge or disc, solder or threaded ends. Nibco Model 113 Series, Crane Model 438 Series, Powell Model 2700, Hammond 2B 617 or approved equal.
- B. Over two (2) Inches: Iron body, bronze trim, non-rising or rising stem and handwheel, OS&Y, single wedge, flanged ends. Red and White 415/421, NIBCO F619/F617, Crane 461/465 1/2 or approved equal.

2.04 GLOBE VALVES:

- A. Up to 2 Inches: Bronze body, rising stem and handwheel inside screw, renewable composition disc, solder screwed ends, with backseating capacity. Nibco Model 211 Series, Crane Model 1 Series, Powell Model 150, Hammond 1.413, Red White 211/212 or approved equal.
- B. Over 2 Inches: Iron body, bronze trim, rising stem and handwheel, OS&Y, plug-type disc, flanged ends. Red and White Fig 400 or NIBCO F718-B, Crane 351 or approved equal.

2.05 BALL VALVES:

- A. Up to 2 Inches: Bronze or stainless steel body, stainless steel ball, teflon seats and stuffing box ring, lever handle and balancing stops, solder threaded ends with union. Nibco Model 580 Series, Crane Model 2330 Series, Red White 5092/5095 or approved equal.
- B. Over 2 inches: Cast steel body, chrome plated steel ball teflon seat and stuffing box seals, lever handle or gear drive handwheel for sizes 10 inches and over, flanged.

2.06 BUTTERFLY VALVES:

- A. Iron body, bronze disc, resilient replaceable seat for service to 180-degrees F, or lug end butterfly, 10 position over handle or infinite position lever handle with memory stop.

2.07 SWING CHECK VALVES:

- A. Up to 2 inches: Bronze 45 degree swing disc, solder or screwed ends. Nibco Model 413 Series, Crane Model 37 Series, Red White 236/237 or approved equal.
- B. Over 2 inches: Iron body, bronze trim, 45 degrees swing disc, renewable disc and seat, flanged ends. Red White 435, Nibco F918, Crane 373 or approved equal.

2.08 SPRING LOADED CHECK VALVES:

- A. Iron body, bronze trim, spring loaded, bronze disc, wafer.
- B. Red White 442, Nibco W920W, Stockham W6-970 or approved equal.

PART 3.00 EXECUTION

3.01 PREPARATION:

- A. Ream pipe and tube ends. Remove burrs. Bevel end Ferrous pipe.
- B. Remove scale and dirt, on inside and outside, before assembly.
- C. Prepare piping connections to equipment with flanges or unions.

3.02 INSTALLATIONS:

- A. Provide non-conducting dielectric connections wherever jointing dissimilar metals.
- B. Route piping in orderly manner and maintain gradient.
- C. Install piping to conserve building space and not interfere with use of space.
- D. Group piping whenever practical at common elevations.
- E. Install piping to allow for expansion and contraction without stressing pipe, joints, or connected equipment.
- F. Provide clearance for installation of insulation and access to valves and fittings.
- G. Provide access where valves and fittings are not exposed.
- H. Slope water piping and arrange to drain at low points.
- I. Establish elevations of buried piping outside the building to insure not less than 3 feet of cover.
- J. Where pipe support members are welded to structural building framing, scrape, brush clean, and apply one coat of zinc rich primer to welding.

- K. Prepare pipe, fittings, supports, and accessories not prefinished, ready for finish painting.
- L. Establish invert elevations, slope all drainage piping 4 inches and larger to 1/8 inch per foot minimum. All drainage piping 3 inches and smaller shall be sloped to 1/4 inch per foot minimum.
- M. Install bell and spigot pipe with bell end upstream.
- N. Install valves with stems upright or horizontal, not inverted.
- O. Provide one plug cock wrench for every ten plug cocks sized 2 inches and smaller, minimum of one. Provide one plug cock wrench for each plug cock sized 2-1/2 inches and larger.
- P. In pipe 3 – inch nominal diameter or less, cleanouts shall be located at not more than 50ft.intervals
- Q. In pipe 4 – inches nominal diameter through 6 inches nominal diameter, cleanouts shall be located at not more than 80ft. intervals
- R. Each building drain shall be provided with a cleanout within 6ft. of the junction of the building drain and building sewer.

3.03 APPLICATION:

- A. Grooved mechanical couplings and fasteners not allowed.
- B. Install unions downstream of valves and at equipment or apparatus connections.
- C. Install brass male adapters each side of valves in copper piped system. Sweat solder adapters to pipe. All joints in potable lines to be lead free.
- D. Install gate, ball, butterfly valves for shut-off and to isolate equipment, part of systems, or vertical risers.
- E. Install globe, ball, butterfly valves for throttling, bypass, or manual flow control services.
- F. Provide spring loaded check valves on discharge of water pumps.

3.04 TEST

- A. Upon completion of the domestic water piping system, it shall be tested and proved tight under a water pressure not less than 200 psi. The water used for testing shall be obtained from a potable source of supply. This pressure test shall be performed before the disinfection of the domestic water piping system is started. This test shall conform to the Louisiana State Plumbing Code
- B. Prior to any test, the Contractor shall notify the Architect in writing a minimum of 5 business days, the date and time the test will take place. No exceptions. After the completion of the test but before the building is substantially complete the contractor shall submit a written report

with the following information for each test performed.

1. Project Name
2. Project Location
3. Plumbing Contractor Name, Address and Contact Information
4. Identification of test performed.
5. Time and Date test was started
6. Time and Date test was completed.

3.05 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM:

- A. Prior to starting work, verify system is complete, flushed and clean.
- B. Option 1: The system shall be filled with a solution containing 50 ppm of available chlorine and allowed to stand 6 hours before flushing and returning to service.
- C. Option 2: The system shall be filled with a solution containing 100 ppm of available chlorine and allowed to stand 2 hours before flushing and returning to service.
- D. Prior to the disinfection of the domestic water piping system the contractor shall inform the architect in writing the date and time the disinfection will take place. After the completion of the disinfection of the domestic water piping system but before the building is substantially completed the contractor shall submit a written report with the following information.
 1. Project Name
 2. Project Location
 3. Plumbing Contractors Name, Address, and contact information
 4. Chemicals used in the disinfection process.
 5. Time and Date disinfection process was started
 6. Time and Date disinfection process was completed

3.06 SERVICE CONNECTIONS:

- A. Tie domestic water into existing services as shown on drawings. Provide sleeve in wall for service main and support at wall with reinforced concrete bridge. Caulk enlarged sleeve and make watertight with pliable material. Provide 18-gauge galvanized sheet metal sleeve around service main to 6 inches above floor and 6 feet minimum below grade. Size for minimum of 2 inches of loose batt insulation stuffing. Contractor shall utilize and tie in existing water lines as indicated on the drawings.

END OF SECTION

DIVISION 22 - PLUMBING
SECTION 22 10 10 - PLUMBING SPECIALTIES

PART 1.00 GENERAL

1.01 WORK INCLUDED

- A. Backflow preventors

1.02 RELATED WORK

- A. Section 22 10 00 - Plumbing Piping

1.03 REFERENCES

- A. ANSI/ASSE 1012 - Backflow Preventers with immediate Atmospheric Cent.
- B. ANSI/ASSE 1011 - Hose Connection Vacuum Breakers.
- C. ANSI/ASSE 1013 - Backflow Preventers, Reduced Pressure Principle.
- D. ANSI/ASSE 1019 - Wall Hydrants, Frost Proof Automatic Draining Anti-Backflow Types.
- E. ANSI A112.21.1 - Roof Drains
- F. ANSI A112.26.1 - Water Hammer Arrestors
- G. PDI WH-201 Water Hammer Arrestors

1.04 QUALITY ASSURANCE

- A. Manufacturer: For each product specified, provide components by same manufacturer throughout.

1.05 SUBMITTALS

- A. Submit shop drawings and product data under provisions of Section 01 30 00.
- B. Include component sizes, rough-in requirements, service sizes, and finishes.

PART 2.00 PRODUCTS

2.01 BACKFLOW PREVENTERS

- A. Pressure Backflow Preventers: ANSI/ASSE 1013; bronze body with bronze and plastic internal parts and Stainless steel springs; two independently operating, spring loaded check valves; diaphragm type differential pressure relief valve located between check valves; third check valve which opens under back pressure in case of diaphragm failure; non-threaded vent outlet; assembled with two gate valves, strainer, and four test cocks.

- B. Acceptable Manufacturers
 - 1. Watts Model 909
 - 2. Wilkins Model 375
 - 3. Substitutions: Under provisions of Instructions To Bidders.

PART 3.00 EXECUTION

3.02 INSTALLATION AND APPLICATION

- A. Install specialties in accordance with manufacturer's instructions to permit intended performance.

END OF SECTION

DIVISION 23 - MECHANICAL
SECTION 23 00 00 - GENERAL MECHANICAL

PART 1.00 GENERAL CONDITIONS

1.01 WORK INCLUDED

- A. The general conditions of the general specifications are made a part of these specifications and apply the same as if attached hereto. The contractor should, before bidding, read and thoroughly understand all general conditions, priority and scheduling.

1.02 SCOPE OF WORK

- A. This section calls for the furnishing of labor, materials, equipment, and all the services, and of performing all operations required for the complete mechanical systems as hereinafter specified and/or shown on the accompanying drawings.

1.03 GENERAL REQUIREMENTS

- A. Contractor shall install his work to meet the existing conditions as found at buildings and property, and to accommodate work of other trades. This contractor shall be responsible for timely placing of sleeves in forms before concrete is poured. Cooperate with the general contractor and place pipes and ducts in floors, walls, furred spaces, etc., so there will be no delay. Sheet metal or iron pipe sleeves shall be provided for pipes passing through floors, wall or partitions.
- B. Contractor shall furnish and properly install materials, devices, equipment, insulation, controls, appurtenances, etc., mentioned in these specifications and/or shown on plans or required to make a complete and satisfactory installation in working order whether fully shown or not.
- C. Contractor should visit the site and acquaint himself thoroughly with conditions governing installation of his work.
- D. All other plans shall be checked in relation to these plans so that all conditions will be furnished and installed in this contract to provide complete and satisfactory systems.

1.04 LAWS, RULES, REGULATIONS, FEES, ETC.

- A. The entire mechanical work shall comply with rules and regulations of the local and state authorities having jurisdiction including the State Fire Marshal and the State Board of Health. All modifications required by the said authorities at any time shall be made by the mechanical contractor without additional charge. In cases where alterations to or deviations from this specification and accompanying plans are required by the authorities, contractor shall report same to the Engineer and obtain his approval before work is started.

1.05 DRAWINGS

- A. Plans and detail sketches are submitted to limit, explain, and define structural conditions, specified requirements, pipe sizes, and manner of erecting work. Structural or other conditions

may require certain deviations from manner of installation shown, and such deviations shall be made as required, but specified sizes and requirements necessary for satisfactory operation shall remain unchanged.

- B. It may be necessary to shift or to change routing of ducts and or piping and this shall be done, but such changes must be referred to Engineer for approval before proceeding. Extra charges will not be allowed for these changes.
- C. Typical details are shown on plans, and in any cases where Contractor is not certain about the method of installation of this work, he shall ask for details, lack of details will not be an excuse for improper installation.
- D. Contractor bidding on this portion of the work must be fully experienced in installations of equal size, complexity and quality. In bidding, he acknowledges that he fully understands the scope of the work and design and has the ability, for the contract price to assemble and install the equipment, piping, and ductwork shown or specified, so as to mold same into a satisfactory workable system and arrangement, without responsibility for capacities and sizes set by these documents.
- E. Contractor shall recognize that the amount of information and detail that could be provided in Contract Documents is limitless and could extend into every minute detail, step, sequence, and operation to a point where only workmen would be required, without drawing on ability experience, and ingenuity of the Contractor.

1.06 MATERIALS

- A. Where directed by the Engineer, Contractor shall submit sample for approval before proceeding.

1.07 STANDARDS

- A. In general, standards for products and workmanship shall be as described in each individual section.
- B. The standards referred to, except as modified in these specifications shall have full force and effect as though printed in these specifications. These standards are not furnished to bidders for the reason that the manufacturers and trades involved are assumed to be familiar with their requirements. The Engineer will furnish, upon request, information as to how copies of the standards referred to may be obtained.
- C. Notwithstanding any reference in this section of the specifications to any article, device, product, material, fixture, form or type of construction by name, make or catalogue number, such references shall be interpreted as establishing a standard of quality and shall not be construed limiting competition and the Contractor in such cases, may at his option, use any article, device, product, material, fixture, form or type of construction which in the judgment of the Engineer, expressed in writing, is equal to that specified.

1.08 MATERIALS SPECIFIED OR SUBSTITUTED (Prior Approvals)

- A. Refer to Instructions to Bidders.

1.09 SHOP DRAWINGS

- A. Before proceeding with the work, contractor shall make complete shop and working drawings of such apparatus or connections as directed by the Engineer and/or hereinafter specified. These drawings shall show construction details and dimensions of each piece of equipment so drawn.
- B. Engineer approval of shop drawings shall not relieve the Contractor from responsibility of incorrectly figured dimensions or any other errors in these drawings or specified even though approved by the Engineer, shall not relieve this Contractor from furnishing and erecting same.
- C. Ten (10) sets of prints of shop drawings shall be submitted to Engineer for approval. These prints shall be supplied as part of this contract. Submit all shop drawings at the same time or as soon as practical after award of the contract. No separate items will be accepted.
- D. Where laws or local regulations provide that certain accessories such as gauges, thermometers, relief valves and parts be installed on equipment, it shall be understood that such accessories shall be furnished if no specific reference to them is made in the specifications.

1.10 CUTTING AND PATCHING

- A. All cutting necessary for this work will be done by this Contractor at his own expense, but all patching shall be done by the General Contractor. No beams or joists shall be cut without prior approval of Engineer. After initial resurfacing has been done any further cutting, patching or painting shall be done at the expense of this Contractor.

1.11 INTERFERENCES

- A. The drawings are generally diagrammatic and this Contractor shall harmonize his work with that of the different trades so that interferences of the different equipment, piping, etc., shall be installed so as to function properly. In the case where interference develops, the Engineer is to state which equipment, piping, etc., is to be relocated regardless of which item was first installed.

1.12 EXCAVATION AND BACKFILL

- A. This Contractor shall do all excavating required to lay the specified services and after same have been laid, he shall do all backfilling to the satisfaction of all parties concerned and shall cart away from the premises all unnecessary dirt, rubbish, etc., as directed. Backfill shall be well tamped. All backfill shall be done according to the "Compaction And Backfill" section of these specifications.

1.13 SPACE REQUIREMENTS

- A. Contractor shall check all plans pertaining to this job so as to be fully aware of the space limitations for all various items of equipment. Equipment is not to be bid on, submitted for

preliminary approval nor placed on the job if it is so bulky and large that adequate access for proper maintenance and servicing cannot be achieved in the space provided.

1.14 FOUNDATIONS AND SUPPORTS

- A. This contractor shall furnish and install foundations and supports of concrete or steel shapes for equipment requiring same, unless specifically indicated otherwise or specified.
- B. All floor mounted mechanical equipment shall be mounted on 4" high concrete housekeeping pad unless specifically shown otherwise on plans. Refer to plans for special requirements for foundations and supports.

1.15 HANGERS, ESCUTCHEONS, ETC.

- A. See Section 23 05 29 – Supports and Anchors.
- B. Mechanical Contractor shall furnish and install all thimbles, inserts and other requirements necessary for the support of his equipment and piping. Assist and cooperate with other trades in locating and placing these items.

1.16 SIPHON PREVENTERS

- A. Furnish and install approved type siphon preventors on all equipment and fixtures in such a manner as to prevent water being siphoned back into the water supply in the event the water supply is shut off.

1.17 FLAME SPREAD PROPERTIES OF MATERIALS

- A. All materials and adhesives used for acoustical linings, jackets and insulation shall comply with requirements of NFPA 90A and 90B and UL guide # 40V.8.15. Products exceeding a flame spread rating of 25, or a smoke developed rating of 50, as determined by ASTM Test Method E-84 are prohibited. Adhesives and sealers shall be fire retardant and fire resistant when dry. Flame proofing treatments which are subject to decomposition, deterioration, or the effects of moisture are prohibited.

1.18 IRRIGATION WATER TIE-IN

- A. Contractor shall provide any necessary meters and tap fees for irrigation water tie-ins to utility companies. All irrigation water taps shall have aboveground reduced pressure back flow preventors near the tie-in point. Coordinate with Engineer exact location.
- B. All backflow preventors shall be covered with an insulated hot box with aluminum cover. Provide all power necessary to accommodate all the hotbox needs. A concrete slab shall be poured below the hotbox.

1.19 PROTECTION OF EQUIPMENT

- A. See individual sections for protection of equipment.

- B. This Contractor shall at all times take such precautions as may be necessary to properly protect his equipment from damage. Failure on the part of the Contractor to comply with the above to the entire satisfaction of the Engineer will be sufficient cause for the rejection of the particular piece of equipment in question.

1.20 TESTING

- A. All pressure lines, unless elsewhere specified, shall be tested under 150# hydrostatic pressure unless rated pressure is less for a minimum of 5 hours. Contractor shall provide valve at farthest point in line to bleed off air and for inspection.
- B. Notice shall be given the Engineer before tests are made, the test is not to be drawn off pipes and pipes are not to be covered or insulated until filled pipes have been examined and testing approved by the Engineer.
- C. In case of defects, they shall be made good to the satisfaction of the Engineer and work retested. All such work shall be done by the Contractor with no additional expense to the Owner.
- D. Contractor shall make any other such tests as may be called for by the Engineer, and all other tests so called for elsewhere in these specifications.

1.21 CLEANING AND ADJUSTING

- A. Before receiving final approval from the Engineer, the Contractor shall clean out all lines; adjust all valves, control equipment and other equipment. Clean all pipe and equipment and leave the entire installation in good working order. All heaters, fans, grilles, controls, etc., shall be adjusted to perform in correct and satisfactory manner, with sequences, etc., as called for in the specifications hereinafter specified and on plans.

1.22 PAINTING

- A. Refer to Section 09 90 00 – Painting and Coating and 230553 – Mechanical Identification for painting requirements.

1.23 PARTS LIST AND INSTRUCTION MANUAL

- A. See individual sections for specific instructions.
- B. This Contractor shall deliver to the Engineer three (3) copies of printed instructions relating to operating, proper maintenance and repair parts list indicating the various parts by name, number and diagram for each piece of equipment installed. Test and balance report shall also be included in parts list and instruction manual.
- C. The shop drawings, parts list, and maintenance and repair instructions shall be neatly bound in a canvas-covered notebook and turned over to the Engineer before acceptance of the work.

1.24 GUARANTEE

- A. Contractor shall guarantee materials, equipment and workmanship installed and performed under this contract for a period of one (1) year from date of the final completion and official acceptance of the contract.
- B. He shall furnish free of charge to the Owner all materials and labor necessary to comply with the above guarantee, which shall be based on defective materials and/or workmanship, and on such basis shall be responsible if a deficiency is found, for any adjustment, replacement, or correction which may be necessary to replace the project to first class condition. This guarantee shall include refrigerant charges, but shall not include the changing of filters.

1.25 RECORD DRAWINGS

- A. The Contractor shall maintain a set of record drawings on-site throughout the construction. The record drawings shall reflect accurate dimensional record of all underground, buried, above ceiling, or otherwise concealed work.
- B. The Contractor shall maintain these record documents and keep them up-to-date daily.

END OF SECTION

DIVISION 23 - MECHANICAL
SECTION 23 05 00 - BASIC MECHANICAL MATERIALS AND METHODS

PART 1.00 GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Piping materials and installation instructions common to most piping systems.
 - 2. Dielectric fittings.
 - 3. Mechanical sleeve seals.
 - 4. Sleeves.
 - 5. Escutcheons.
 - 6. Grout.
 - 7. Mechanical demolition.
 - 8. Equipment installation requirements common to equipment sections.
 - 9. Concrete bases.
 - 10. Supports and anchorages.

1.02 DEFINITIONS

- A. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawlspace, and tunnels.
- B. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- C. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.
- D. Concealed, Interior Installations: Concealed from view and protected from physical contact by building occupants. Examples include above ceilings and in duct shafts.
- E. Concealed, Exterior Installations: Concealed from view and protected from weather conditions and physical contact by building occupants but subject to outdoor ambient temperatures. Examples include installations within unheated shelters.

1.03 SUBMITTALS

- A. Welding certificates.

1.04 QUALITY ASSURANCE

- A. Steel Support Welding: Qualify processes and operators according to AWS D1.1, "Structural Welding Code--Steel."
- B. Steel Pipe Welding: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX, "Welding and Brazing Qualifications."

1. Comply with provisions in ASME B31 Series, "Code for Pressure Piping."
 2. Certify that each welder has passed AWS qualification tests for welding processes involved and that certification is current.
- C. Electrical Characteristics for Mechanical Equipment: Equipment of higher electrical characteristics may be furnished provided such proposed equipment is approved in writing and connecting electrical services, circuit breakers, and conduit sizes are appropriately modified. If minimum energy ratings or efficiencies are specified, equipment shall comply with requirements.

PART 2.00 PRODUCTS

2.01 PIPE, TUBE, AND FITTINGS

- A. Refer to individual Division 23 piping Sections for pipe, tube, and fitting materials and joining methods.
- B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.02 JOINING MATERIALS

- A. Refer to individual Division 23 piping Sections for special joining materials not listed below.
- B. Pipe-Flange Gasket Materials: ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch (3.2-mm) maximum thickness unless thickness or specific material is indicated.
- C. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.
- D. Solder Filler Metals: ASTM B 32, lead-free alloys. Include water-flushable flux according to ASTM B 813.
- E. Brazing Filler Metals: AWS A5.8, BCuP Series or BAg1, unless otherwise indicated.
- F. Welding Filler Metals: Comply with AWS D10.12.
- G. Solvent Cements for Joining Plastic Piping:
 1. ABS Piping: ASTM D 2235.
 2. CPVC Piping: ASTM F 493.
 3. PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.
 4. PVC to ABS Piping Transition: ASTM D 3138.

2.03 DIELECTRIC FITTINGS

- A. Description: Combination fitting of copper alloy and ferrous materials with threaded, solder-joint, plain, or weld-neck end connections that match piping system materials.
- B. Insulating Material: Suitable for system fluid, pressure, and temperature.

- C. Dielectric Unions: Factory-fabricated, union assembly, for 250-psig (1725-kPa) minimum working pressure at 180 deg F (82 deg C).
- D. Dielectric Flanges: Factory-fabricated, companion-flange assembly, for 150- or 300-psig (1035- or 2070-kPa) minimum working pressure as required to suit system pressures.
- E. Dielectric Couplings: Galvanized-steel coupling with inert and noncorrosive, thermoplastic lining; threaded ends; and 300-psig (2070-kPa) minimum working pressure at 225 deg F (107 deg C).
- F. Dielectric Nipples: Electroplated steel nipple with inert and noncorrosive, thermoplastic lining; plain, threaded, or grooved ends; and 300-psig (2070-kPa) minimum working pressure at 225 deg F (107 deg C).

2.04 MECHANICAL SLEEVE SEALS

- A. Description: Modular sealing element unit, designed for field assembly, to fill annular space between pipe and sleeve.
- B. Sealing Elements: NBR interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
- C. Pressure Plates: Carbon steel. Include two for each sealing element.
- D. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements. Include one for each sealing element.

2.05 SLEEVES

- A. Galvanized-Steel Sheet: 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint.
- B. Steel Pipe: ASTM A 53, Type E, Grade B, Schedule 40, galvanized, plain ends.
- C. Cast Iron: Cast or fabricated "wall pipe" equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.
- D. Stack Sleeve Fittings: Manufactured, cast-iron sleeve with integral clamping flange. Include clamping ring and bolts and nuts for membrane flashing.
 - 1. Underdeck Clamp: Clamping ring with set screws.
- E. Molded PVC: Permanent, with nailing flange for attaching to wooden forms.
- F. PVC Pipe: ASTM D 1785, Schedule 40.
- G. Molded PE: Reusable, PE, tapered-cup shaped, and smooth-outer surface with nailing flange for attaching to wooden forms.

2.06 ESCUTCHEONS

- A. Description: Manufactured wall and ceiling escutcheons and floor plates, with an ID to closely fit around pipe, tube, and insulation of insulated piping and an OD that completely covers opening.
- B. One-Piece, Deep-Pattern Type: Deep-drawn, box-shaped brass with polished chrome-plated finish.
- C. One-Piece, Cast-Brass Type: With set screw.
 - 1. Finish: Polished chrome-plated and rough brass.
- D. Split-Casting, Cast-Brass Type: With concealed hinge and set screw.
 - 1. Finish: Polished chrome-plated and rough brass.

2.07 GROUT

- A. Description: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
 - 1. Characteristics: Post-hardening, volume-adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
 - 2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
 - 3. Packaging: Premixed and factory packaged.

PART 3.00 EXECUTION

3.01 MECHANICAL DEMOLITION

- A. Refer to Division 1 Sections "Cutting and Patching" and "Selective Demolition" for general demolition requirements and procedures.
- B. Disconnect, demolish, and remove mechanical systems, equipment, and components indicated to be removed.
 - 1. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - 2. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
 - 3. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
 - 4. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material.
 - 5. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - 6. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - 7. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.

- C. If pipe, insulation, or equipment to remain is damaged in appearance or is unserviceable, remove damaged or unserviceable portions and replace with new products of equal capacity and quality.

3.02 PIPING SYSTEMS - COMMON REQUIREMENTS

- A. Install piping according to the following requirements and Division 23 Sections specifying piping systems.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- C. Install piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
- D. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- E. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- F. Install piping to permit valve servicing.
- G. Install piping at indicated slopes.
- H. Install piping free of sags and bends.
- I. Install fittings for changes in direction and branch connections.
- J. Install piping to allow application of insulation.
- K. Select system components with pressure rating equal to or greater than system operating pressure.
- L. Install escutcheons for penetrations of walls, ceilings, and floors.
- M. Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, and concrete floor and roof slabs.
- N. Aboveground, Exterior-Wall Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
 - 1. Install steel pipe for sleeves smaller than 6 inches (150 mm) in diameter.
 - 2. Install cast-iron "wall pipes" for sleeves 6 inches (150 mm) and larger in diameter.
 - 3. Mechanical Sleeve Seal Installation: Select type and number of sealing elements required for pipe material and size. Position pipe in center of sleeve. Assemble mechanical sleeve seals and install in annular space between pipe and sleeve.

Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

- O. Underground, Exterior-Wall Pipe Penetrations: Install cast-iron "wall pipes" for sleeves. Seal pipe penetrations using mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
 - 1. Mechanical Sleeve Seal Installation: Select type and number of sealing elements required for pipe material and size. Position pipe in center of sleeve. Assemble mechanical sleeve seals and install in annular space between pipe and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.
- P. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials. Refer to Division 7 Section "Through-Penetration Firestop Systems" for materials.
- Q. Verify final equipment locations for roughing-in.
- R. Refer to equipment specifications in other Sections of these Specifications for roughing-in requirements.

3.03 PIPING JOINT CONSTRUCTION

- A. Join pipe and fittings according to the following requirements and Division 15 Sections specifying piping systems.
- B. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- C. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- D. Soldered Joints: Apply ASTM B 813, water-flushable flux, unless otherwise indicated, to tube end. Construct joints according to ASTM B 828 or CDA's "Copper Tube Handbook," using lead-free solder alloy complying with ASTM B 32.
- E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter, using copper-phosphorus brazing filler metal complying with AWS A5.8.
- F. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- G. Welded Joints: Construct joints according to AWS D10.12, using qualified processes and welding operators according to Part 1 "Quality Assurance" Article.

- H. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.
- I. Plastic Piping Solvent-Cement Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:
 - 1. Comply with ASTM F 402, for safe-handling practice of cleaners, primers, and solvent cements.
 - 2. ABS Piping: Join according to ASTM D 2235 and ASTM D 2661 Appendixes.
 - 3. CPVC Piping: Join according to ASTM D 2846/D 2846M Appendix.
 - 4. PVC Pressure Piping: Join schedule number ASTM D 1785, PVC pipe and PVC socket fittings according to ASTM D 2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D 2855.
 - 5. PVC Nonpressure Piping: Join according to ASTM D 2855.
 - 6. PVC to ABS Nonpressure Transition Fittings: Join according to ASTM D 3138 Appendix.
- J. Plastic Pressure Piping Gasketed Joints: Join according to ASTM D 3139.
- K. Plastic Nonpressure Piping Gasketed Joints: Join according to ASTM D 3212.
- L. PE Piping Heat-Fusion Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join according to ASTM D 2657.
 - 1. Plain-End Pipe and Fittings: Use butt fusion.
 - 2. Plain-End Pipe and Socket Fittings: Use socket fusion.
- M. Fiberglass Bonded Joints: Prepare pipe ends and fittings, apply adhesive, and join according to pipe manufacturer's written instructions.

3.04 PIPING CONNECTIONS

- A. Make connections according to the following, unless otherwise indicated:
 - 1. Install unions, in piping NPS 2 (DN 50) and smaller, adjacent to each valve and at final connection to each piece of equipment.
 - 2. Install flanges, in piping NPS 2-1/2 (DN 65) and larger, adjacent to flanged valves and at final connection to each piece of equipment.
 - 3. Dry Piping Systems: Install dielectric unions and flanges to connect piping materials of dissimilar metals.
 - 4. Wet Piping Systems: Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals.

3.05 EQUIPMENT INSTALLATION - COMMON REQUIREMENTS

- A. Install equipment to allow maximum possible headroom unless specific mounting heights are not indicated.
- B. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, unless otherwise indicated.

- C. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.
- D. Install equipment to allow right of way for piping installed at required slope.

3.06 CONCRETE BASES

- A. Concrete Bases: Anchor equipment to concrete base according to equipment manufacturer's written instructions and according to seismic codes at Project.
 - 1. Construct concrete bases of dimensions indicated, but not less than 4 inches (100 mm) larger in both directions than supported unit.
 - 2. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (450-mm) centers around the full perimeter of the base.
 - 3. Install epoxy-coated anchor bolts for supported equipment that extend through concrete base, and anchor into structural concrete floor.
 - 4. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 5. Install anchor bolts to elevations required for proper attachment to supported equipment.
 - 6. Install anchor bolts according to anchor-bolt manufacturer's written instructions.
 - 7. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete and reinforcement.

3.07 ERECTION OF METAL SUPPORTS AND ANCHORAGES

- A. Refer to Division 5 Section "Metal Fabrications" for structural steel.
- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor mechanical materials and equipment.
- C. Field Welding: Comply with AWS D1.1.

3.08 ERECTION OF WOOD SUPPORTS AND ANCHORAGES

- A. Cut, fit, and place wood grounds, nailers, blocking, and anchorages to support, and anchor mechanical materials and equipment.
- B. Select fastener sizes that will not penetrate members if opposite side will be exposed to view or will receive finish materials. Tighten connections between members. Install fasteners without splitting wood members.
- C. Attach to substrates as required to support applied loads.

3.09 GROUTING

- A. Mix and install grout for mechanical equipment base bearing surfaces, pump and other equipment base plates, and anchors.
- B. Clean surfaces that will come into contact with grout.
- C. Provide forms as required for placement of grout.
- D. Avoid air entrapment during placement of grout.
- E. Place grout, completely filling equipment bases.
- F. Place grout on concrete bases and provide smooth bearing surface for equipment.
- G. Place grout around anchors.
- H. Cure placed grout.

END OF SECTION