GENERAL NOTES

I. CODES AND SPECIFICATIONS

A. GENERAL BUILDING CODE
1. International Building Code 2021 with Louisiana Amendments
2. ASCE 7-05 & 7-22 – Minimum Design Loads for Buildings and Other Structures

B. CONCRETE CODES
1. ACI 318-19 – Building Code Requirements for Structural Concrete
2. ACI 301-20 – Specifications for Structural Concrete
3. ACI 315 – Details and Detailing of Concrete Reinforcement
4. AWS D1.4-18 – Structural Welding Code: Reinforcing Steel
5. CRSI – Manual of Standard Practice

C. STRUCTURAL STEEL CODES
1. AISC 360-16 – Specifications for Structural Steel Buildings
2. AISC 303-16 – Code of Standard Practice for Steel Buildings and Bridges
3. AWS D1.1-15 – Structural Welding Code: Steel
4. AWS D1.3-18 – Structural Welding Code: Sheet Steel
5. Research Council on Structural Connections – Specification for Structural Joints using High-Strength Bolts
6. AISC 341-16 – Seismic Provisions for Structural Steel Buildings

D. MASONRY CODES
1. TMS 402 – Building Code Requirements for Masonry Structures
2. TMS 602 – Specification for Masonry Structures

E. CONFLICTS IN STRUCTURAL REQUIREMENTS
1. Where conflict exists between the various publications as specified herein, the strictest requirements of the various publications shall govern unless noted otherwise. Where conflict exists among the various parts of the Structural Contract Documents, (Structural Drawings, General Notes, Specifications) the strictest requirements shall govern.

All Codes and Specifications listed above shall include all amendments and addenda for the editions referenced in the International Building Code version listed in GENERAL BUILDING CODES, Paragraph I. A., as per Section 102.4. Otherwise, the latest edition of the Code or Specification shall be used.

II. TYPICAL DETAILS

A. Details labeled “Typical Details” on the Drawings shall apply to all situations on the Project that are the same or similar to those specifically detailed. Such details shall apply whether or not they are keyed in at each location. Questions regarding applicability of typical details shall be determined by the Engineer.

III. DESIGN CRITERIA

A. GENERAL
1. Project Design Basis and Criteria:
C2-000000-STR-DES-WOR-00001 Structural Design Criteria
C2-000000-STR-BOD-VGL-00001 Project Wind Load Design Basis
C2-000000-STR-BOD-VGL-00002 Project Seismic Load Design Basis
2. Dead loads: Dead load materials assumed in the design are shown on the Architectural and Structural Drawings. Any changes in construction materials from those shown on the Architectural or Structural Drawings shall be reported by the General Contractor to the Structural Engineer for verification of load carrying capacity of the structure.

B. LIVE LOADS

CATEGORY	UNIFORM LOAD (PSF)	CONCENTRATED LOAD (#)
Roof	20	300
Grab Bars (Restrooms)	N/A	250
Guard Rails & Hand Rails	50 plf or 200 lbs. applied at top rail in any direction. Intermediate rails = 25 plf.	
Storage - Area	400	NA

Live loads have been reduced on any member based on the Code cited in CODES AND SPECIFICATIONS, Paragraph I. A.

C. WIND LOADS (per ASCE 7-22)
1. Wind pressure based on the requirements of Code cited in CODES AND SPECIFICATIONS, Paragraph I. A.
a. V = 183 mph
b. Exposure: C
c. Risk Category IV

D. TORNADO LOADS
1. Effective Plan Area
a. MRI = 10,000 Years
b. Ae = 125,00 ft ²
c. V$_T$ = 114 mph

E. SNOW LOADS
a. Ground Snow Load, pg = 10 psf

F. ICE LOADS (per ASCE 7-22)
a. Ice Thickness = 0.78 in
b. Vc = 31 mph

G. RAIN LOADS
a. 15-min Precipitation Intersity = 8.55 in./hr
b. 60-min Precipitation Intensity = 4.91 in./hr

H. SEISMIC LOADS (per ASCE 7-05)

a. Site classification	E
b. Seismic importance factor	1.25
c. Occupancy category	III
d. Mapped spectral response accelerations	Ss = 0.0822
	S1 = 0.0544
e. Spectral response coefficients	Sds= 0.137
	Sd1 = 0.127
2. Seismic design category	B

IV. FOUNDATION - GENERAL

A. GEOTECHNICAL DIRECTIVES
1. Geotechnical Report:
Foundation design is based on the following geotechnical reports:
Proposed “Calcasieu Pass LNG 2 – Administration Buildings”
Prepared by: Furgo USA Land, Inc
Report No. 184434-LR5 Version 3 - Final Report_23-12.07
Dated: December 5th, 2023
2. Specification for Concrete ad Foundation Design C2-000000-STR-SPC-WOR-00006.
3. Clarifications on Structural Design Requirements
Prepared by Pinnacle Structural Engineers
Dated: January 12, 2024

All recommendations therein that relate to the work shown on these drawings shall be followed.

B. FOUNDATION APPROVAL AND INSPECTION BY AUTHORIZED INSPECTOR
1. Unless authorized otherwise by the Owner or Architect, the General Contractor shall notify the Geotechnical Engineer or other authorized inspector for review of foundation bearing surface, inspection of foundation installation, and foundation installation methods (including construction dewatering methods where required) and shall not place concrete prior to inspector's approval.

C. FOUNDATION REINFORCING STEEL INSPECTION BY STRUCTURAL ENGINEER
1. The Contractor shall notify the Engineer or authorized inspector 24 hours in advance of any major foundation pour.
2. The Contractor shall not pour any foundation concrete without inspection and approval of all reinforcing steel placement by the Structural Engineer or authorized inspector.

D. GRADE BEAMS
1. Grade Beam Side Forms.
a. Both sides of all grade beams shall be formed for full beam depth.
2. Grade beam bottom steel shall be chaired at 5 foot maximum centers using beam bolsters providing 3 inch bottom cover to reinforcing steel. Beam bolsters used shall be intended for support on soil.
3. Bottom bars of grade beam shall be spliced (where required) at footings only. Top bars shall be spliced (where required) at the midspan of the grade beams. Lap shall be class B laps unless specified otherwise. Provide corner bars to match top and bottom steel.
4. Void forms under grade beams shall be capable of supporting the wet weight of concrete over it.

E. SLAB CONSTRUCTION
1. Slab construction shall follow the recommendations of Guide for Concrete Floor and Slab Construction ACI 302.1R and ACI 302.2R.

F. VAPOR RETARDER
1. Vapor retarder shall: have no more than 0.01 perms when tested in accordance with ASTM E-96; meet or exceed the requirements of ASTM E-1745, Class A; (U.N.O.) in accordance with ACI 302.2R. Acceptable products include:
a. Stego Wrap, 15 mils, by Stego Industries LLC
b. Husky Yellow Guard, 15 mils, by Poly-America
c. Approved equal conforming to performance requirements
2. All seams shall be overlapped a minimum of 6 inches and taped with polyethylene tape. All penetrations, block-outs, and openings shall be sealed using a combination of the vapor retarder and polyethylene tape. Tape shall be provided by vapor retarder vendor.
3. Review of the installed product by a representative of the supplier is recommended.

G. VOID FORMS
1. Void forms are to be installed as indicated per geotechnical report.
2. Void space beneath the structural floor slab, including exterior and interior grade beams to be formed with carton forms.
a. Void forms under slab shall be 6” thick.
b. Void forms under grade beams shall be 6” thick.
3. Carton forms to be able to withstand weight of concrete to be poured above without collapsing.
4. Rigid protective shielding (retainers) to be installed on both sides of grade beams. Retainers to be provided by void supplier.

V. SQUARE PRE-CAST CONCRETE PILES (SPCP)

A. GENERAL
1. Pile driving contractor shall have a minimum of five years experience in the successful installation of driven concrete piles.
2. Comply with all requirements stated in the geotechnical report.

B. LOCATION TOLERANCE
1. All finished piles shall be within 2” of the plan location on the drawings. Deviation from vertical shall not exceed 2% or 2”, whichever is less. Piles can be no more than 2% out of plumb. Tops of piles shall be within 1/2” of the required elevation. Pile bottoms shall be within 4” of the required elevation.

C. SPECIFICATION AND MATERIALS
Piles shall be Severe Exposure Pre-cast prestressed concrete piles, and contain the following:
1. Concrete shall conform to ASTM C94/C94M.
2. Portland Cement – ASTM Type II.
3. Pozzolan – Approved flyash, ASTM C618.
4. Rust inhibiting admixture
5. f’c = 6000 psi (min)
6. 3” clear distance to spiral hooping
7. Strands shall be inside of hooping
8. Slump tests shall be made according to ASTM C143/C143M

D. INSTALLATION
1. Install piles in locations noted on plan, to minimum depths indicated on the drawings and in the geotechnical report.
2. Piles driving shall be started when the pile is truly vertical. Piles shall not be aligned after driving has commenced.
3. Guides shall be used as determined by the pile driving contractor to prevent lateral buckling of the pile during the driving process.
4. Templates and / or predrilled staring holes shall be used to accurately position the piles.

E. TESTING
1. Refer to C2-000000-STR-SPC-WOR-00003 Specification for Square Pre-cast Prestressed Concrete Piles for pile concrete and load test requirements.
2. Refer to C2-000000-STR-SPC-WOR-00008 Specification for Static and Dynamic Testing of Concrete and Steel Piles.
3. Refer to C2-000000-STR-SPC-WOR-00009 Square Pre-cast Prestressed Concrete Pile Test Scope of Work.

F. ATTACHMENT OF HARDWARE
1. Welding: Precautions shall be taken to insulate concrete from thermal stresses caused by welding.

G. SUBMITTALS
1. Piles shall be designed by the precaster for the loads shown on the drawings. Shop drawings shall be sealed by a Professional Engineer in the state of Louisiana, representing the precaster.

H. PILE CAPS
1. Refer to drawings for all pile cap requirements.

VI. CONCRETE

A. SPECIFICATIONS
1. Specification for Concrete and Foundation Design shall be per C2-000000-STR-SPC-WOR-00006, unless noted otherwise in the drawings. Where conflict exists, the strictest requirements shall govern unless noted otherwise.
2. Concrete shall comply with the requirements of ACI 318 and ACI 301.
3. Type II Portland Cement conforming to ASTM C150 shall be used.
4. Fly ash conforming to ASTM C618, Type F may be used. The maximum amount of fly ash shall be 25% of the total cementitious material by weight.
5. Aggregates shall conform to ASTM C33 for normal-weight concrete and ASTM C330 for lightweight concrete.
6. Water used in mixing concrete shall conform to ASTM C94.

B. CLASSES OF CONCRETE
1. All concrete shall conform to the requirements as specified in the table below unless noted otherwise on the Drawings:

USAGE	28 DAY COMP. CONC. STRENGTH (PSI)	TYPE	NOMINAL MAX. AGGREGATE SIZE
Grade Beams	4500	NW	1 1/2”
Structural Slab	4500	NW	1 1/2”
Precast Piles	6000	NW	3/4”
Pile Caps	4500	NW	1 1/2”

Note: NW = Normal-weight concrete

2. Concrete shall have a maximum water-cement ratio of 0.4.
3. Admixtures used shall be compatible with floor treatments.
4. Concrete shall not have air-entraining admixtures.
5. There shall be no horizontal cold joint in any concrete pour.

C. CONCRETE MIX DESIGNS
1. Concrete mix designs must be submitted a minimum of 15 days prior to the start of the work for Engineer and Owner’s testing laboratory approval prior to placement of concrete in the field.
2. Any adjustments in approved mix designs including changes in admixtures must be submitted in writing to the Engineer and Owner’s testing laboratory for approval prior to use in the field.
3. Concrete designed to be pumped shall be noted so on the mix designs and shall have mix proportions compatible with the pumping process.
4. Mix designs shall be proportioned based upon trial batching or experience as required by ACI 318.

D. EPOXY ADHESIVES
1. Typical epoxy adhesive for drilling and setting reinforcing into previously-cast, or existing, concrete shall be Hilti HY 200 system, or approved equivalent. Reference manufacturer specifications for installation procedures.

VII. REINFORCING STEEL

A. SPECIFICATION
1. Specification for Concrete Reinforcement shall be per C2-000000-STR-SPC-WOR-00007, unless noted otherwise in the drawings. Where conflict exists, the strictest requirements shall govern unless noted otherwise.
2. Reinforcement shall comply with the requirements of ACI 315 and ACI 318.
3. All steel reinforcement shall conform to ASTM A615, Grade 60.
4. All welded reinforcing steel shall conform to ASTM A706.
5. All welded smooth wire fabric shall conform to ASTM A1064 (Yield strength = 65,000 psi).
6. All welded deformed wire fabric shall conform to ASTM A1064 (Yield strength = 70,000 psi).
7. All welded wire fabric shall be furnished in flat sheets only.
8. Welding shall comply with the requirements of AWS D1.4.

B. DETAILING AND BAR SUPPORTS
1. Detailing of and bar supports for reinforcing steel shall be in accordance with the ACI Standard Details and Detailing of Concrete Reinforcement as reported by ACI Committee 315. All continuous reinforcing steel shall be lapped using a Class B lap splice, unless specified otherwise.

C. MANUAL OF CONCRETE PRACTICE
1. Unless noted otherwise, methods of estimating, detailing, fabricating, placing and contracting for reinforcing materials shall follow the Manual of Standard Practice as published by the Concrete Reinforcing Steel Institute.

D. PLACEMENT OF WELDED WIRE FABRIC
1. Welded wire fabric shall be continuous across the entire concrete surface and not be interrupted by beams or girders and properly lapped one cross wire spacing plus 2 inches.

E. REINFORCING STEEL COVERAGE
Reinforcing steel coverage should conform to the requirements specified below. The reinforcing steel detailer shall adjust reinforcing steel cage sizes at intersecting structural members as required to allow clearance for intersecting reinforcing bar layers maintaining minimum specified cover. Cover in structural members not specified below shall conform to the requirements of ACI 318 Section 7.7 unless specified otherwise on the drawings.
1. Foundation Members

a. Grade Beams	1 1/2” top (2” if exposed to weather), 3” bottom, 2” sides (3” sides if cast against soil)
b. Structural slabs on Grade Beams	2” top cover, 3” bottom cover
c. Sump Walls, Pit Walls	2” both faces

VIII. POST-INSTALLED ANCHORS

A. GENERAL
1. Specification for Concrete and Foundation Design shall be per C2-000000-STR-SPC-WOR-00006
2. Except where indicated on the drawings, post-installed anchors shall consist of the following anchor types as provided by Hilti, Inc. or approved equal.

B. ANCHORAGE TO CONCRETE
1. Adhesive Anchors
a. Adhesive anchors for cracked and uncracked concrete use:
i. Hilti HIT-HY 200 V3 Safe Set System with the Hilti HIT-Z rod per ICC ESR-4868 or approved equal
ii. Hilti HIT-HY 200 V3 Safe Set System with Hilti hollow drill bit and VC 150/300 with Hilti HAS threaded rod per ICC ESR-4868 or approved equal
iii. Hilti HIT-RE 500 V3 Safe Set System with Hilti hollow drill bit and VC 150/300 with Hilti HAS threaded rod per ICC ESR-3814 or approved equal
iv. Hilti HIT-RE 500 V3 Safe Set System with Hilti HIT-RT roughening tool with Hilti HAS threaded rod per ICC ESR-3814 for diamond cored holes or approved equal
b. Basis of design includes the following design parameters:
i. Cracked concrete
ii. Water-saturated concrete
iii. Base material temperature of 23 to 104 degrees Fahrenheit
iv. Allowable with hammer-drill, hollow drill bit system, and core drilling methods
2. Mechanical Anchors
a. Medium duty mechanical anchors for cracked and uncracked concrete use:
i. Hilti Kwik Bolt-TZ2 expansion anchors Safe Set System with hollow drill bit and VC 150/300 and SI-AT-A22 Adaptive Torque Module per ICC ESR-4266 or approved equal
ii. Hilti Kwik Bolt 3 expansion anchors safe set system with hollow drill bit and VC 150/300 and SI-AT-A22 with adaptive torque (uncracked concrete only) per ICC ESR-3027 or approved equal
iii. Hilti Kwik HUS EZ and Kwik HUS-EZ-I/E screw anchors Safe Set System with hollow drill bit and VC 150/300 per ICC ESR-3027 or approved equal
b. Heavy duty mechanical anchors for cracked and uncracked concrete use:
i. Hilti HDA undercut anchors per ICC ESR-1546 or approved equal
ii. Hilti HSL-3 expansion anchors per ICC ESR-1545 or approved equal
c. Mechanical anchors specified as carbon steel may only be used in dry hole conditions. It is the responsibility of the contractor to provide dry hole conditions for installation, or they shall contact the engineer of record for a stainless steel anchor alternative.

C. GENERAL REQUIREMENTS
1. Anchor capacity used in design shall be based on the technical data published by Hilti or such other method as approved by the structural engineer of record. Substitution requests for alternate products must be approved in writing by the structural engineer of record prior to use. Contractor shall provide calculations that have been sealed by another licensed engineer demonstrating that the substituted product is capable of meeting the performance of the specified product. Substitutions will be evaluated by their having an ICC ESR showing compliance with the relevant building code for seismic uses, load resistance, installation category, and availability of comprehensive installation instructions. Adhesive anchor evaluation will also consider creep, in-service temperature, installation temperature, moisture condition of concrete, and drilling methods.
2. Install anchors per the Manufacturer Printed Installation Instructions (MPII), as included in the anchor packaging.
3. Adhesive anchors in upwardly-inclined orientation and/or embedment depths greater than 10 inches must be installed using the Hilti Profis Piston Plug System.
4. The contractor shall arrange an anchor manufacturer’s representative to provide onsite installation training for all of the anchoring products specified. The structural engineer of record must receive documented confirmation that all personnel who install anchors are trained prior to the commencement of anchor installation.
5. Anchor capacity is dependent upon spacing between adjacent anchors and proximity of anchors to edge of concrete. Install anchors in accordance with spacing and edge clearances indicated on the drawings.
6. Existing reinforcing bars in the concrete structure may conflict with specific anchor locations. Unless noted on the drawings that the bars can be cut, the contractor shall review the existing structural drawings and shall undertake to locate the position of the reinforcing bars at the locations of the concrete anchors by ferroscan, GPR, x-ray, or other means.
7. All hole conditions are assumed to be dry or water-saturated, unless noted otherwise. The contractor shall be responsible for removing water in order to avoid water-filled hole or submerged hole conditions before installing anchors.

IX. POST-INSTALLED REBAR

A. GENERAL
1. Except where indicated on the drawings, post-installed rebar shall use the following products as provided by Hilti, Inc. or approved equal.

B. REBAR DOWELING INTO CONCRETE
1. Adhesive Anchors
a. Adhesive anchors for cracked and uncracked concrete use:
i. Hilti HIT-HY 200 V3 Safe Set System with the Hilti hollow drill bit and VC 150/300 with continuously deformed rebar per ICC ESR-4868 or approved equal
ii. Hilti HIT-RE 500 V3 Safe Set System with Hilti hollow drill bit and VC 150/300 with continuously deformed rebar per ICC ESR-3814 or approved equal
iii. Hilti HIT-RE 500 V3 Safe Set System with Hilti HIT-RT roughening tool with continuously deformed rebar per ICC ESR-3814 in diamond cored holes or approved equal
b. Basis of design includes the following design parameters:
i. Cracked concrete
ii. Water-saturated concrete
iii. Base material temperature of 23 to 104 degrees Fahrenheit
iv. Allowable with hammer-drill, hollow drill bit system, and core drilling methods
v. Current ICC-ES report with approval for development of bar using ACI provisions for embedment depths greater than 20 bar diameters

C. GENERAL REQUIREMENTS
1. Anchor capacity used in design shall be based on the technical data published by Hilti or such other method as approved by the structural engineer of record. Substitution requests for alternate products must be approved in writing by the structural engineer of record prior to use. Contractor shall provide calculations that have been sealed by another licensed engineer demonstrating that the substituted product is capable of meeting the performance of the specified product. Substitutions will be evaluated by their having an ICC ESR showing compliance with the relevant building code for seismic uses, load resistance, installation category, and availability of comprehensive installation instructions. Adhesive anchor evaluation will also consider creep, in-service temperature, installation temperature, moisture condition of concrete, and drilling methods.
2. Install anchors per the Manufacturer Printed Installation Instructions (MPII), as included in the anchor packaging.
3. Adhesive anchors in upwardly-inclined orientation and/or embedment depths greater than 10 inches must be installed using the Hilti Profis Piston Plug System.
4. The contractor shall arrange an anchor manufacturer's representative to provide onsite installation training for all of the anchoring products specified. The structural engineer of record must receive documented confirmation that all personnel who install anchors are trained prior to the commencement of anchor installation.
5. Anchor capacity is dependent upon spacing between adjacent anchors and proximity of anchors to edge of concrete. Install anchors in accordance with spacing and edge clearances indicated on the drawings.
6. Existing reinforcing bars in the concrete structure may conflict with specific anchor locations. Unless noted on the drawings that the bars can be cut, the contractor shall review the existing structural drawings and shall undertake to locate the position of the reinforcing bars at the locations of the concrete anchors by ferroscan, GPR, x-ray, or other means.
7. All hole conditions are assumed to be dry or water-saturated, unless noted otherwise. The contractor shall be responsible for removing water in order to avoid water-filled hole or submerged hole conditions before installing anchors.

X. CONCRETE FORMWORK

A. RESPONSIBILITY
1. The design, construction, and safety of all formwork shall be the responsibility of the General Contractor. All forms, shores, backshores, falsework, bracing, and other temporary supports shall be engineered to support all loads imposed including the wet weight of concrete, construction equipment, live loads, lateral loads due to wind and wet concrete imbalance. The Contractor shall also be responsible for determining when temporary supports, shores, backshores, and other bracing may be safely removed.

B. SUBMITTALS
1. The General Contractor shall submit for Owner's record only, formwork shop drawings. Formwork shop drawings shall include all items described in Paragraph A, including calculations. Formwork shop drawings shall be sealed by a registered Engineer in the state that the project is located.

XI. NON-SHRINK GROUT FOR BASE PLATES AND BEARING PLATES

A. SPECIFICATIONS
1. All specifications shall be as noted below, unless noted otherwise in the drawings.
2. Non-shrink grout shall conform to Corps of Engineers Specification for Non-Shrink Grout, CE-CRD-C621.
3. Twenty-eight day compressive strength shall be 5,000 psi, as determined by grout cube tests.
4. Minimum thickness of grout under all base plates and bearing plates shall be 1 inch.

B. TYPE
1. Grout for base plates and bearing plates shall be a non-metallic, shrinkage resistant, premixed, non-corrosive, non-staining product containing Portland cement, silica sands, shrinkage compensating agents, and fluidity improving compounds.

C. PLACEMENT
1. Grout shall be placed in a fluid, flowable state under base plates that have a form built around them for grout confinement.
2. Grout shall be cured according to manufacturer’s recommendations.

XII. STRUCTURAL BOLTS AND THREADED FASTENERS

A. SPECIFICATION
1. All bolts shall conform to ASTM F3125, Grade A325, Type 1, unless noted otherwise in the drawings.
2. All nuts shall conform to ASTM A563.
3. All washers shall conform to ASTM F436.

B. DESIGN
1. Minimum bolt diameter shall be 3/4 inch.
2. Connection Type: Unless noted otherwise on the Drawings or in these General Notes, all bolted connections shall be bearing type connections using standard holes (hole diameter nominally 1/16 inch in excess of nominal bolt diameter with) threads included in the shear planes.

C. INSTALLATION
1. Fastener Tension: High strength bearing bolts shall be tightened using an impact wrench to a snug tight condition. The snug tight condition is defined as the tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench.
2. All bolts shall be new and shall not be re-used.

XIII. WELDING OF STRUCTURAL STEEL

A. WELDER CERTIFICATION
1. All shop and field welders shall be certified according to AWS procedures for the welding process and welding position used.

B. MINIMUM SIZE AND STRENGTH
1. Fillet Welds: Minimum size of fillet welds shall be as specified in the AISC Manual.
2. Partial Penetration Groove Welds: The minimum effective throat thickness of partial penetration groove welds shall be as specified in the AISC Manual.
3. Minimum Strength of Welded Connections: Unless noted otherwise on the drawings, all shop and field welds shall develop the full tensile strength of the member or elements jointed.
a. All connections designated in the documents as moment connections shall be designed to develop the full flexural capacity of the member that has the lesser flexural capacity of the members at the connection, unless noted otherwise in the Drawings. In cases where multiple beams are moment connected to a single column, each beam-to-column interface must be designed for the full flexural capacity of the member that has the lesser flexural capacity, unless noted otherwise in the Drawings.
4. Connection of all miscellaneous steel shall consist of 1/4” fillet welds all-around (minimum) if no other connection information is provided on the structural drawings.
5. At slotted connections, and anywhere a gap may exist between base metal and connecting material, weld size shall be increased to account for gap width (per AWS recommendations).

C. FILLER METAL REQUIREMENTS
1. Strength: Weld shall be as specified in the AISC Manual.
2. Electrodes. Electrodes for various welding processes shall be as specified below:
a. SMAW: E70XX low hydrogen
b. SAW: F7X-EXXX

D. WELDING
1. All welding shall comply with the requirements of AWS.
2. All full penetration welds shall be tested to verify compliance, unless noted otherwise.
3. All fillet welds shall be visually inspected, unless noted otherwise.

XIV. SUBMITTALS

A. SHOP DRAWINGS
1. The General Contractor shall submit for Engineer review shop drawings for the following items:
a. Concrete Mix Designs
b. Reinforcing Steel
c. Miscellaneous Steel
d. Guard Rails and Hand Rails (*)
e. Light-gage steel (*,#)
f. Concrete Masonry Product Data
g. Pre-engineered Metal Building (*,#)

Items marked (*) shall have shop drawings sealed by a registered engineer in the state where the project is located. Items marked (#) shall be submitted to Engineer for Owner's record only and will not have Engineer's shop drawing stamp.

2. All shop drawings must be reviewed and sealed by the General Contractor prior to submittal.
3. The omission from the shop drawings of any material required by the Contract Documents to be furnished shall not relieve the contractor of the responsibility of furnishing and installing such materials, regardless of whether the shop drawings have been reviewed and approved.

B. MANUFACTURER'S LITERATURE
1. Submit manufacturer's literature for all materials and products used in construction on the project.

C. REPRODUCTION
1. The use of reproductions of these Contract Documents by any contractor, subcontractor, erector, fabricator, or material supplier in lieu of preparation of shop drawings signifies his acceptance of all information shown herein as correct, and obligates himself to any job expense, real or implied, arising due to any errors that may occur hereon.

XV. MISCELLANEOUS

A. CONTRACT DOCUMENTS
1. It is the responsibility of the General Contractor to obtain all Contract Documents and latest addenda and to submit such documents to all subcontractors and material suppliers prior to the submittal of shop drawings, fabrication of any structural members, and erection in the field.

B. DRAWING CONFLICTS
1. The General Contractor shall compare the Architectural and Structural drawings and report any discrepancy between each set of drawings and within each set of drawings to the Architect and Engineer prior to the fabrication and installation of any structural members.

C. EXISTING CONDITIONS
1. The General Contractor shall verify all dimensions and existing conditions at the job site and report any discrepancies from assumed conditions shown on the drawings to the Architect and Engineer prior to the fabrication and erection of any members.

D. RESPONSIBILITY OF THE CONTRACTOR FOR STABILITY OF THE STRUCTURE DURING CONSTRUCTION
1. All structural elements of the project have been designed by the Structural Engineer to resist the required code vertical and lateral forces that could occur in the final completed structure only. It is the responsibility of the Contractor to provide all required bracing during construction to maintain the stability and safety of all structural elements during the construction process until the structure is tied together and completed.

E. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS
1. There shall be no horizontal construction joints in any concrete pours unless shown on the drawings. All deviations or additional joints shall be approved in writing by the Architect/Engineer.

F. OPENING PROTECTION
1. All glazing exposed to external wind pressure located in the lower 60’ of the structure shall be impact resistant glazing or shall be protected using an impact resistant covering.

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PINNACLE STRUCTURAL ENGINEERS
3120 Southwest Freeway, Suite 410
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STATE OF LOUISIANA
ADAM CRYER
LICENSE No. 36248
PROFESSIONAL ENGINEER

DIGITALLY SIGNED: 03/04/2025

VG CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	03/04/2025	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24052
ARCHITECT:
LICENSE #:

GENERAL NOTES

S-001

SECURITY CLASS: COMPANY USE
C2-099700-STR-NOT-ENA-00002-001

XVI. SITE OBSERVATION BY THE STRUCTURAL ENGINEER

A. GENERAL
1. The contract structural drawings and specifications represent the finished structure, and except where specifically shown, do not indicate the method or means of construction. The Contractor shall supervise and direct the work and shall be solely responsible for all construction means, methods, and procedures, techniques, and sequence.
2. The Engineer shall not have control or charge of, and shall not be responsible for, construction means, methods, techniques, sequences, or procedures, for safety precautions and programs in connection with the work, for the acts or omission of the Contractor, Subcontractor, or any other persons performing any of the work, or for the failure of any of them to carry out the work in accordance with the contract documents.
3. Periodic site observation by field representatives are solely for the purpose of determining if the work of the Contractor is proceeding in accordance with the structural contract documents. This limited site observation should not be construed as exhaustive or continuous to check the quality or quantity of the work, but rather periodic in an effort to guard the Owner against defects or deficiencies in the work of the Contractor.

XVII. SPECIAL INSPECTION

A. GENERAL
1. Special inspection is required per Chapter 17 of the International Building Code (IBC).
2. The special inspector shall be a qualified person who shall demonstrate competence to the building official for inspection of the particular type of construction requiring special inspection.
3. Prior to the start of construction, a pre-construction meeting with the architect, engineer, building official, contractor, and special inspectors shall be called to review the special inspection requirements.

B. DUTIES OF THE SPECIAL INSPECTOR
1. Abide by the special inspection and testing agreement provided by the local jurisdiction.
2. Observe the work for conformance with the approved construction documents. All discrepancies shall be brought to the attention of the contractor for correction. Then, if left uncorrected by the contractor, discrepancies shall be brought to the structural engineer, architect, and building department (if required).
3. Furnish inspection reports for each inspection to the building official, architect, engineer, contractor and other designated parties, in a timely manner, as established at the pre-construction meeting.
4. Submit a final report documenting required special inspections and correction of any discrepancies noted in the inspections. The final report shall be signed and sealed by a Professional Engineer responsible for the special inspections.

C. DUTIES OF THE CONTRACTOR
1. Notify the special inspector that the work is ready for inspection at least 24 hours before inspection.
2. The construction or work for which special inspection is required shall remain accessible and exposed for special inspection purposes until completion of the required special inspections.
3. Provide the special inspector with access to approved construction documents at the jobsite.
4. Keep records of all special inspection reports at the jobsite.

D. DEFINITIONS
1. Continuous special inspection – Special inspection by the special inspector who is continuously present when and where the work to be inspected is being performed.
2. Periodic special inspection – Special inspection by the special inspector who is intermittently present where the work to be inspected has been or is being performed.

E. WORK THAT REQUIRES SPECIAL INSPECTION

ITEM	REMARKS
Grading, Excavations, Fill	Refer to Geotechnical Report
Bearing Stratum Verification	Refer to Geotechnical Report
Driven Piles	Continuous
Concrete - Verify Proper Mix Design	Periodic
Concrete - Concrete Placement	Continuous
Concrete - Rebar Placement	Inspect Final Placement
Concrete - Rebar Welding	Periodic
Concrete - Anchor Bolts and Plates	Inspect Final Placement
Concrete - Expansion Anchors	Periodic
Concrete - Epoxy	Periodic
Concrete - Formwork	Periodic
Masonry - Grout Placement	Continuous
Masonry - Unit & Reinforcement Placement	Periodic
Steel - Verify Cold-Formed Deck Material	Periodic
Steel - Deck & Reinforcement Welding	Periodic
Structural Steel - Fillet Welds (Visual Inspection of All Welded Joints)	Periodic
Structural Steel - Partial or Full Penetration Welds (Non Destructive Testing of All Welded Joints)	Periodic
Structural Steel - Bearing Bolts	Periodic
Structural Steel - Composite Shear Studs	Periodic
Structural Steel - Size and Location of Structural Elements	Periodic
Structural Steel - Slip Critical Connections	Periodic
Structural Steel - Inspection of Frame Joint Details for Compliance with Approved Construction Documents	Periodic

XVIII. CONCRETE MASONRY

A. SPECIFICATION
1. All specifications shall be as noted below, unless noted otherwise in the drawings.
2. All masonry materials and construction shall conform to the recommendations of the Brick Institute of America (BIA) and National Concrete Masonry Association (NCMA) and masonry codes noted in these general notes.
3. All concrete masonry units (CMU) shall conform to ASTM C90, Type 1, Grade N.
   a. CMU shall be medium weight or light weight (less than 125 PCF, oven dry weight).
   b. Masonry units shall have a minimum compressive strength of 2,800 psi on the net area at 28 days.
   c. The minimum net area compressive strength of masonry (f'm) shall be 2,000 psi as determined by the unit strength method or by the prism test method.
   d. All masonry units shall be placed in running bond.
4. All mortars and materials therein shall conform to ASTM C270, Type S except for masonry in contact with earth which shall be Type M.
   a. Mortar shall have minimum average compressive strength of 1,800 psi for Type S, or 2,500 psi for Type M.
5. Grout shall conform to ASTM C476.
   a. Grout shall attain a minimum 28 days compressive strength of 2,000 psi.
   b. All grout shall be fine grout containing sand, Portland cement, and lime (optional) for grout spaces less than 2 inches in any horizontal direction, unless specified otherwise.
6. Control Joints shall be located per Architectural drawings and specifications and at a maximum spacing of 40 feet on centers unless noted otherwise in the architectural drawings. Control joints shall not be located over or through lintels.

B. REINFORCEMENT
1. Provide horizontal reinforcing (truss or ladder type, 9 gauge) at 16 inches on center for all CMU walls. Reinforcement shall conform to ASTM A1064 and shall be hot dip galvanized.
2. All horizontal reinforcing steel in bond beams and lintel block units shall be continuous. Units shall be solidly grouted. Provide 48 times bar diameter lap for horizontal reinforcing in bond beams. No splices shall be provided for horizontal reinforcing in block lintels.
3. Grout cells solid where vertical bars are shown on the drawings. Vertical bars shall extend from bottom to the top of the wall. Provide 48 times bar diameter splice for vertical bars where required and/or shown on the Drawings.
4. All reinforced masonry walls with openings up to four (4) feet wide, shall have one vertical bar minimum at each side of openings. For openings larger than 4 feet wide, provide two (2) vertical bars at each side of openings. Reinforcing at edges of opening shall match typical vertical wall reinforcing (unless noted otherwise) and shall extend to the top of wall.
5. All reinforced masonry wall corners and intersections shall have one vertical bar (minimum) in grouted cell. Reinforcing shall match typical wall vertical reinforcement.
6. Provide one vertical bar (minimum) in the first cell each side of control joints. Reinforcing shall match typical vertical wall reinforcing (unless noted otherwise) and shall extend to the top of wall.
7. Provide a bond beam at the top of all CMU walls reinforced with (2) - #5 continuous unless noted otherwise.

C. INTERIOR (NON-LOAD BEARING) CMU WALL REINFORCING
1. See typical details for interior wall height, bracings and reinforcing requirements.

XIX. PRE-ENGINEERED BUILDING

A. GENERAL
1. All roof components including purlins and building frame shall be designed by metal frame supplier. All other steel members shall be designed by the metal building supplier, unless shown on the structural construction documents.
2. All designs shall conform to AISC, AISI and MBMA standards (latest edition).
3. All roof deck systems shall conform to the UL wind-uplift rating of Class 90.
4. All building frames shall be designed for a maximum horizontal deflection of **H/200** under lateral loads specified in Section III.C (H = height of building frame).
5. Roof frame members shall be designed for a maximum deflection of **L/180** for live load and **L/120 (no ceiling)** for total load.
6. Roof purlin members shall be designed for a maximum live load deflection of **L/180**. Wall girt members shall be designed for a maximum wind load deflection of L/90.
7. Reactions of beams designed by the structural engineer are indicated on the drawings. Connections of these members shall be designed by the metal building supplier. The metal building supplier shall take these reactions into account in the design of members supporting these elements.
8. All purlins shall be designed for dead loads shown on Architectural Drawings. The minimum collateral load shall be 10 psf. **(clg + mech)**
9. Building frames shall be designed for the lateral stability of the building in both directions. See the drawings for locations of portal frames to be provided by the metal building supplier.
10. Foundation design is based on the roof loadings specified by the MBMA and any other additional loads imposed by the building use. Submit reactions from metal building frame to confirm the design of footings. General Contractor shall confirm footing sizes with the Structural Engineer after actual reactions are received from the metal building frame supplier.
11. Submit shop drawings for building metal building frames, including all connections. All shop drawings shall be sealed and signed by a Professional Engineer registered in the state where the Project is located.
12. All welding shall be in conformance with the requirements of AWS.
13. The foundation has been designed assuming that rigid frames are pinned at the base. The footings have not been designed for moments due to fixity at the base.
14. The design of the pre-engineered metal building shall consider additional loads of items supported by the structure. This includes, but is not limited to, mechanical equipment, operable partitions, curtains, sprinkler pipes, etc.
16. All pre-engineered metal building elements shall be designed to fit inside the architectural elements. For example, at building frame columns, bracing elements can only be used if they do not interfere with the architectural column covers.
17. The metal building supplier shall be responsible for the overall lateral stability of the structure.

ASCE 7-22 ROOF DESIGN WIND PRESSURE (PSF)

ZONE	EFFECTIVE WIND AREA (FT ²)						
	10	20	50	100	200	500	1000
1'	39.0	36.6	33.4	30.9	30.9	30.9	30.9
	-152.88	-142.80	-129.47	-119.38	-109.29	-95.96	-16.00
1	39.0	36.6	33.4	30.9	30.9	30.9	30.9
	-87.8	-87.8	-87.8	-87.8	-75.6	-59.4	-47.17
2	39.0	36.6	33.4	30.9	30.9	30.9	30.9
	-201.7	-188.7	-171.6	-158.6	-145.6	-128.5	-128.49
3	39.0	36.6	33.4	30.9	30.9	30.9	30.9
	-274.9	-248.9	-214.6	-188.7	-162.8	-128.5	-128.49

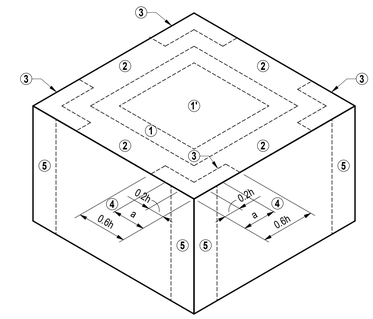
ZONE WIDTHS

a	0.6h	0.2h
11'-6"	11'-6"	3'-9"

ASCE 7-22 WALL DESIGN WIND PRESSURE (PSF)

ZONE	EFFECTIVE WIND AREA (FT ²)					
	10	20	50	100	200	500
4	87.8	84.2	79.0	74.7	71.0	65.9
	-95.1	-91.5	-86.4	-82.0	-78.3	-73.2
5	87.8	84.2	79.0	74.7	71.0	65.9
	-117.1	-109.1	-98.8	-91.5	-83.4	-73.2

NOTES:
1. ALL BUILDING COMPONENTS, CLADDING, FINISHES AND CONNECTIONS SHALL BE DESIGNED FOR WIND PRESSURES INDICATED FOR THE CORRESPONDING ZONE. CALCULATIONS AND/OR DESIGN DATA MUST BE AVAILABLE FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD IF REQUIRED.
2. POSITIVE AND NEGATIVE SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACE, RESPECTIVELY.
3. WIND PRESSURES MAY BE MULTIPLIED BY 0.6 FOR SERVICE LEVEL (ASD) LOADS.
4. LINEAR INTERPOLATION BETWEEN VALUES OF EFFECTIVE WIND AREA IS PERMISSIBLE.
5. ZONE WIDTH INCLUDES OVERHANG.
6. ALL PARAPETS SHALL BE DESIGNED IN ACCORDANCE WITH THE WIND PRESSURES DETERMINED FROM FIGURE 30.6-1 OF ASCE 7-22.
7. FOR JOIST UPLIFT DESIGN, 10 PSF DEAD LOAD SHALL BE USED FOR NET UPLIFT DETERMINATION. NET UPLIFT SHALL BE DETERMINED WITH THE FOLLOWING ASD OR LRFD LOAD COMBINATION: 0.6D+0.6W OR 0.9D+1.0W



FLAT ROOF - SLOPE < 7°
(ROOF HEIGHT LESS THAN 60 FEET)

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23075

STATE OF LOUISIANA
ADAM CRYER
LICENSE No. 35248
PROFESSIONAL ENGINEER
DIGITALLY SIGNED: 03/04/2025

VG CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

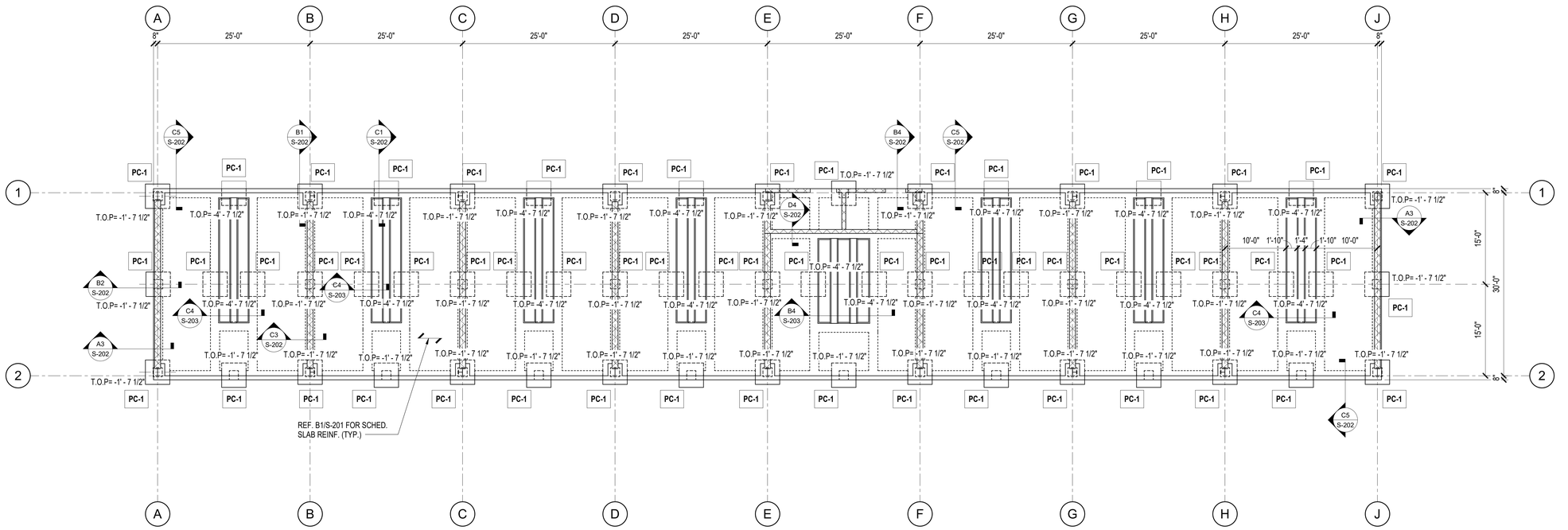
REV	DATE	DESCRIPTION
0	03/04/2025	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24052
ARCHITECT:
LICENSE #:

GENERAL NOTES

S-002

SECURITY CLASS: COMPANY USE
C2-099700-STR-NOT-ENA-00002-002



1 FOUNDATION PLAN

1/8" = 1'-0"

PLAN NOTES:

1. ALL PILE CAPS SHALL BE CENTERED UNDER COLUMN CENTERLINES, U.N.O.
2. PILE CAPS UNDER GRADE BEAMS (WITHOUT COLUMNS) SHALL BE CENTERED UNDER GRADE BEAMS.
3. LOCATIONS NOTED: PC-1 INDICATES PILE CAPS. SEE PILE CAP SCHEDULE FOR SIZE.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL FLOOR SLOPES, DEPRESSIONS, LEDGES, ETC. REF. ENLARGED PLANS 1 & 2/S-102 FOR TYPICAL SLAB F.F. ELEVATIONS AND ADDITIONAL DIMENSIONS.
5. SEE DETAILS FOR SLAB THICKNESS AND CARTON FORM INFORMATION.

LEGEND:

T.O.P. = TOP OF PILE CAP ELEVATION MEASURED FROM FINISH FLOOR ELEVATION = 0'-0".

NORTH

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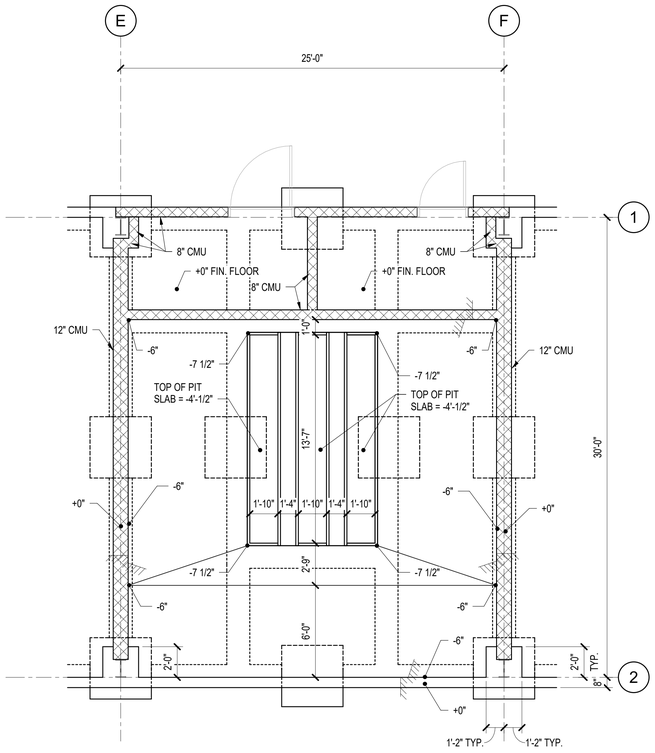
REV	DATE	DESCRIPTION
0	03/04/2025	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24052
ARCHITECT:
LICENSE #:

FOUNDATION PLAN

S-101

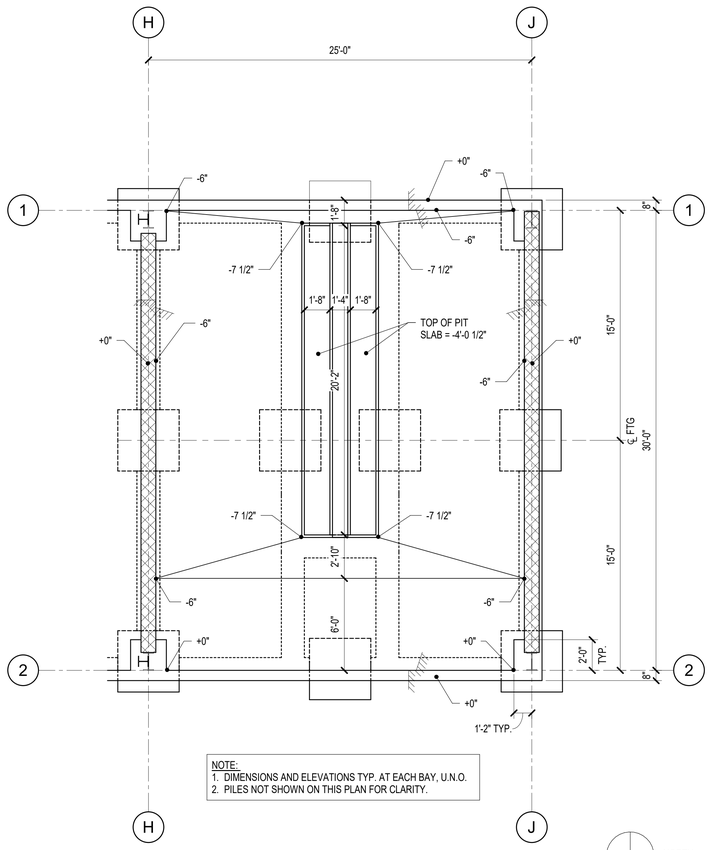
SECURITY CLASS: COMPANY USE
C2-099700-STR-BLD-ENA-00002-001



NOTE: PILES NOT SHOWN ON THIS PLAN FOR CLARITY.

NORTH

2 ENLARGED LEVEL 1 FLOOR PLAN
1/4" = 1'-0"



NOTE:
1. DIMENSIONS AND ELEVATIONS TYP. AT EACH BAY, U.N.O.
2. PILES NOT SHOWN ON THIS PLAN FOR CLARITY.

NORTH

1 ENLARGED LEVEL 1 FLOOR PLAN
1/4" = 1'-0"

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DAVIS RD.
CAMERON, LA 70631

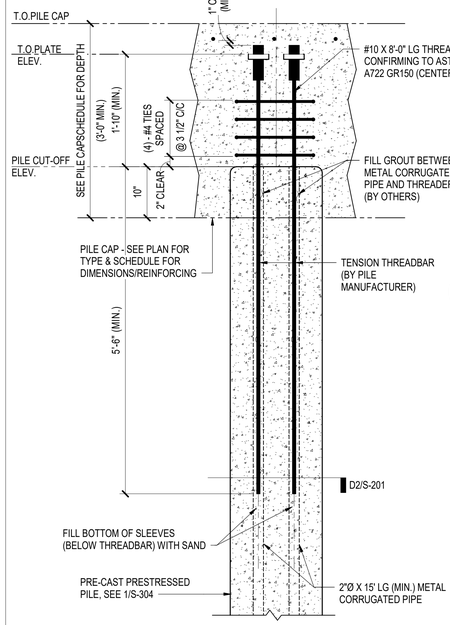
REV	DATE	DESCRIPTION
0	03/04/2025	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24052
ARCHITECT:
LICENSE #:

ENLARGED FOUNDATION PLANS

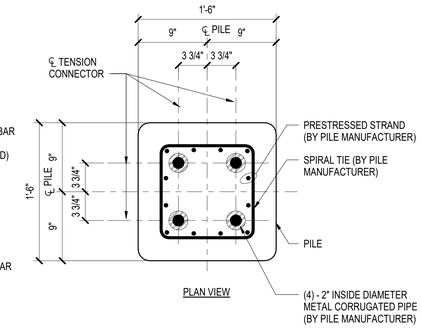
S-102

SECURITY CLASS: COMPANY USE
C2-099700-STR-BLD-ENA-00002-002



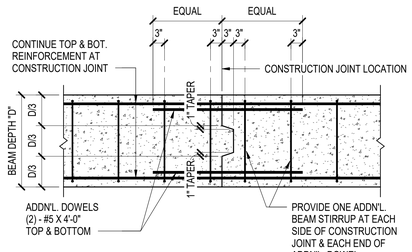
NOTE:
ANCHORAGE NOT SHOWN ON FOUNDATION DETAILS FOR CLARITY PURPOSES

C1 TYPICAL DETAIL - PRECAST PILE ANCHORAGE
1" = 1'-0"



PLAN VIEW

D2 TYPICAL DETAIL - 18" SQUARE PRE-CAST PRESTRESSED CONCRETE PILE
1 1/2" = 1'-0"



NOTES:
1. GENERAL CONTRACTOR SHALL SUBMIT DESIRED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER & ERECTOR.
3. JOINT LOCATIONS SHALL BE WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN.
4. FOR JOINT LOCATIONS OTHER THAN WITHIN TWO FEET EITHER SIDE OF BEAM MIDSPAN, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE ENGINEER ON THE SHOP DRAWINGS.

C2 TYPICAL DETAIL GRADE BEAM CONSTRUCTION JOINT
3/4" = 1'-0"

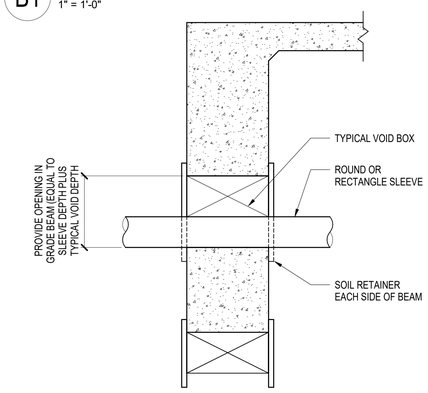
PLAN VIEW

B2 TYPICAL DETAIL VERTICAL HOLE THRU GRADE BEAM LARGER THAN 3" DIAMETER
1" = 1'-0"

CONCRETE SLAB SCHEDULE			
SLAB TYPE	SLAB THICKNESS	PRIMARY REINF. (SHORT DIRECTION)	SECONDARY REINF. (LONG DIRECTION)
VARIES (12" MIN.)		#6 @ 12" O.C. (TOP & BOT.)	#5 @ 15" O.C. (TOP & BOT.)

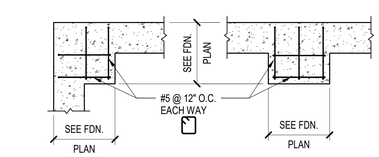
NOTES:
1. SECONDARY BARS SHALL BE CONTINUOUS OVER THE SUPPORTS. PROVIDE STANDARD HOOKS AT DISCONTINUOUS ENDS OF THE SLAB.
2. SECONDARY BARS SHALL BE SPLICED, IF REQUIRED, AT THE CENTER OF SPANS ONLY. LAP SPLICE SHALL BE CLASS B.
3. PRIMARY BARS SHALL BE CONTINUOUS IN SPAN. EXTEND ALL BOTTOM BARS 6" (MINIMUM) INTO SUPPORTING BEAMS.
4. SEE TYPICAL DETAIL FOR THE PLACEMENT OF BARS LONG & SHORT WAYS.
5. LOCATIONS SHOWN THUS: ⟋ ⟍ ON PLAN INDICATES THE DIRECTION OF SHORT WAY REINFORCING STEEL.

B1 S201-B1
1" = 1'-0"



NOTE:
NOTIFY E.O.R. FOR REINFORCEMENT REVISIONS AT PENETRATION

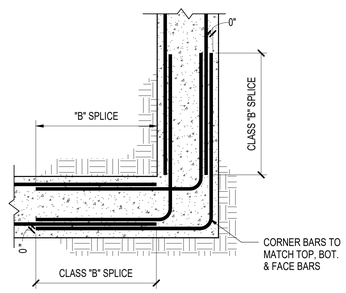
A1 TYPICAL DETAIL SLEEVE THRU GRADE BEAM
1" = 1'-0"



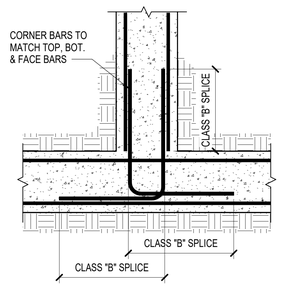
PLAN VIEW

NOTES:
1. PLAN VIEWS FOR TYPICAL WIDENED GRADE BEAMS ARE SHOWN. FOR SIMILAR CONDITIONS NOT SHOWN, PROVIDE ADDN'L. #5 TIES @ 12" O.C. (MAX.) IN WIDENED SECTION.
2. SEE DETAIL SHEETS FOR GRADE BEAM WIDTHS.

D3 TYPICAL DETAIL - ADDITIONAL BARS AT WIDENED GRADE BEAM
1/2" = 1'-0"



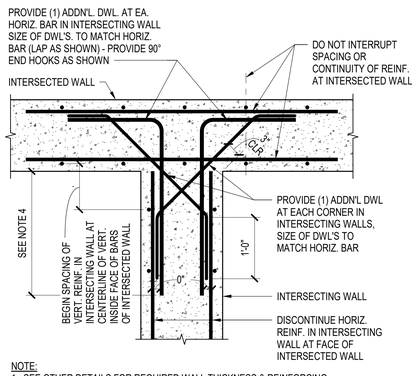
PLAN VIEW AT CORNER



PLAN VIEW AT "T" INTERSECTION

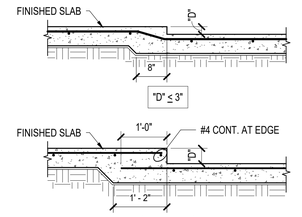
NOTE:
GRADE BEAMS SHALL BE POURED MONOLITHICALLY AT INTERSECTION. SEE TYPICAL GRADE BEAM CONSTRUCTION JOINT DETAIL FOR ACCEPTABLE CONSTRUCTION JOINT LOCATIONS.

B3 TYPICAL DETAIL GRADE BEAM "T" INTERSECTION
1" = 1'-0"



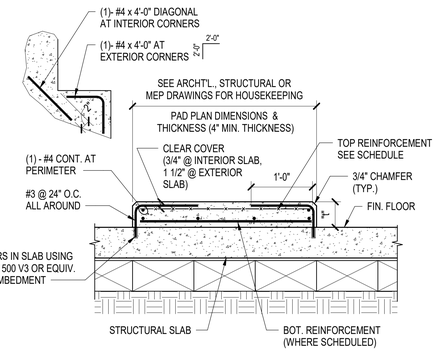
NOTE:
1. SEE OTHER DETAILS FOR REQUIRED WALL THICKNESS & REINFORCING.
2. THERE SHALL BE NO VERTICAL CONSTRUCTION JOINTS IN WALL WITHIN 5'-0" OF INTERSECTION OR PILASTERS UNLESS SPECIFICALLY DETAILED IN THE DRAWINGS.
3. UNLESS SHOWN OTHERWISE, ANGLE BETWEEN ADJACENT WALLS SHALL BE 90°. IF ANGLE IS SHOWN OTHERWISE, PROVIDE SIMILAR REINFORCING LAYOUT.
4. PROVIDE CLASS "B" LAP FOR BARS IN WALLS SPANNING HORIZONTALLY (2'-0" MIN.)

A2 TYPICAL DETAIL - CONCRETE WALL REINF. STEEL SPLICE AT "T" INTERSECTION (PLAN VIEW)
1" = 1'-0"



NOTES:
1. PROVIDE (1) - #4 X 4'-0" TOP & BOT. AT INTERIOR CORNERS OF ALL DEPRESSIONS.
2. COORDINATE DEPTH & LOCATION OF ALL FLOOR DEPRESSIONS W/ ARCHT'L. DRAWINGS.
3. SLAB DEPRESSIONS ARE TYPICALLY SHOWN THUS:

C4 TYPICAL DETAIL AT FLOOR DEPRESSIONS
3/4" = 1'-0"

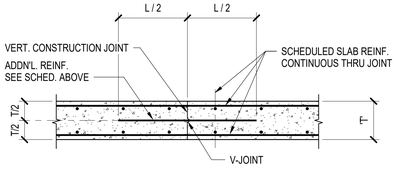


HOUSEKEEPING PAD REINF. SCHEDULE		
PAD THICKNESS	TOP REINFORCEMENT	BOT. REINFORCEMENT
t ≤ 4"	6 X 6 - W2.9 X W2.9	NONE
4 < t ≤ 6"	4 X 4 - W4.0 X W4.0	NONE
6 < t ≤ 8"	4 X 4 - W5.5 X W5.5	NONE
8 < t ≤ 12"	#4 @ 12" O.C. EACH WAY	#3 @ 18" O.C. EACH WAY
12 < t ≤ 16"	#4 @ 12" O.C. EACH WAY	#4 @ 12" O.C. EACH WAY

NOTES:
1. GENERAL CONTRACTOR TO COORDINATE WITH MECHANICAL DRAWINGS & SPECIFICATIONS TO DETERMINE REQUIREMENTS FOR HOUSEKEEPING PADS OVER SLAB-ON-GRADE & PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT. COORDINATE DIMENSIONS & OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.
2. GENERAL CONTRACTOR SHALL NOTIFY ENGINEER OF ALL HOUSEKEEPING PAD LOCATION & THICKNESS PRIOR TO INSTALLATION.

B4 TYPICAL DETAIL - CONC. ISLAND OR HOUSEKEEPING PAD SLAB-ON-GRADE
1" = 1'-0"

ADDITIONAL REINFORCEMENT SCHEDULE Fy = 60 KSI	
SLAB THICKNESS ('T')	REINFORCEMENT
T ≤ 4"	#4 @ 18" O.C. X 2'-6"
4" < T ≤ 6"	#4 @ 12" O.C. X 2'-6"
6" < T ≤ 8"	#5 @ 12" O.C. X 3'-0"
8" < T ≤ 12"	#6 @ 12" O.C. X 3'-8"



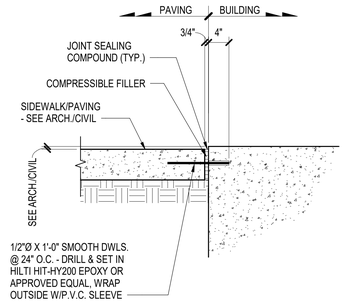
NOTES:
1. CONSTRUCTION JOINTS SHOULD BE LOCATED ON THE MIDDLE THIRD OF THE SLAB SPAN.
2. CONCRETE SURFACE AT CONSTRUCTION JOINT SHALL BE CLEAN & FREE OF LAITANCE.

A4 TYPICAL DETAIL CONSTRUCTION JOINT CONCRETE STRUCTURAL SLAB
3/4" = 1'-0"

HAIRPIN AT EXTERIOR WALL

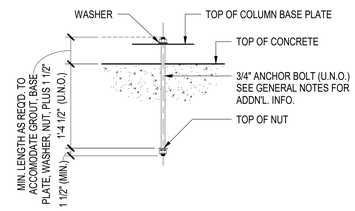
(2) - #5 HAIRPINS AT EXTERIOR PEB COLUMNS, U.N.O.

D5 TYPICAL HAIRPIN DETAILS
3/8" = 1'-0"



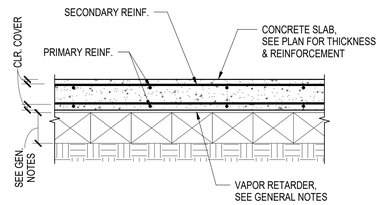
NOTE:
SMOOTH DOWELS REQUIRED ONLY WITHIN 10 FEET OF DOORS

C5 TYPICAL DETAIL - DOWELS TO FLATWORK
1" = 1'-0"



NOTES:
1. ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554, GR. 36, U.N.O.
2. VERIFY REQUIRED DIAMETER OF ANCHOR BOLTS WITH PEMB SUPPLIER
3. ANCHOR BOLTS SHALL BE GALVANIZED AT GALVANIZED PEMB FRAME COLUMNS & AT EXTERIOR CONDITIONS, COORDINATE WITH PEMB SUPPLIER

B5 TYPICAL DETAIL - ANCHOR BOLTS
1" = 1'-0"



NOTE:
UNLESS SPECIFIED ELSEWHERE, VAPOR RETARDER SHALL BE A MINIMUM OF 15 MILS THICK MEETING OR EXCEEDING ASTM E-1745, CLASS A, & HAVE NO MORE THAN 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E-96.

A5 TYPICAL DETAIL - SLAB WITH VOID FORMS (DOUBLE LAYER REINFORCEMENT)
1" = 1'-0"

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STATE OF LOUISIANA
ADAM CRYER
LICENSE No. 35248
PROFESSIONAL ENGINEER

DIGITALLY SIGNED: 03/04/2025

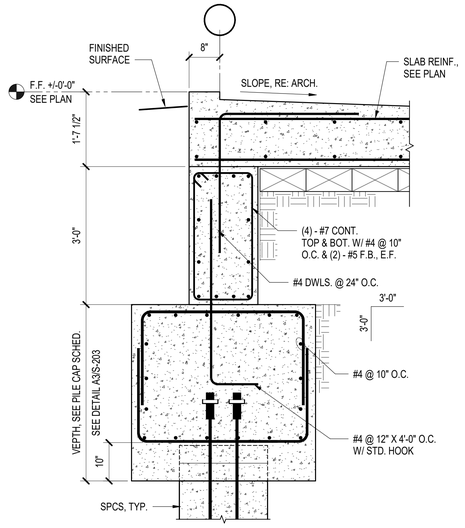
VG CP2 CHEMICAL STORAGE BUILDING
DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	03/04/2025	ISSUED FOR CONSTRUCTION

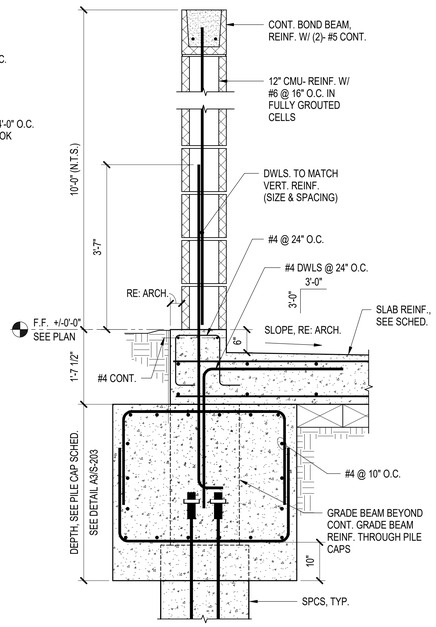
EA PROJECT NUMBER: 24052
ARCHITECT:
LICENSE #:

FOUNDATION DETAILS
S-201

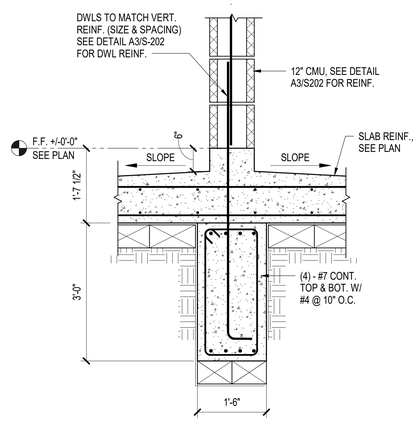
SECURITY CLASS: COMPANY USE
C2-099700-STR-DTL-ENA-00002-001



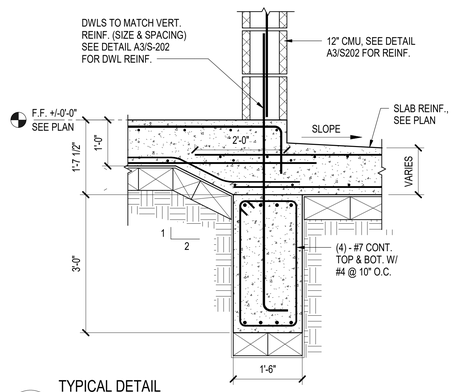
C1 TYPICAL DETAIL
EXTERIOR GRADE BEAM AT PILE CAP
3/4" = 1'-0"



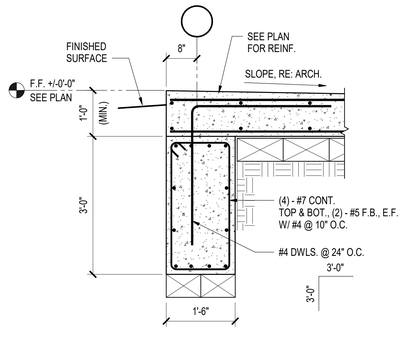
B2 TYPICAL DETAIL
EXTERIOR GRADE BEAM AT PILE CAP
3/4" = 1'-0"



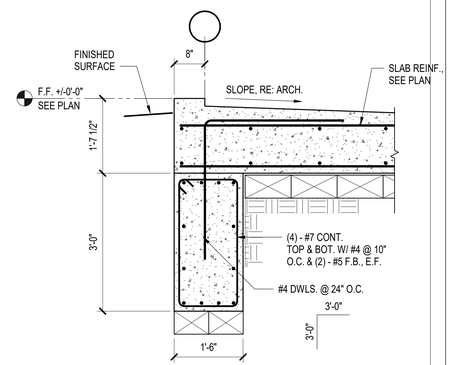
C3 TYPICAL DETAIL
INTERIOR GRADE BEAM
3/4" = 1'-0"



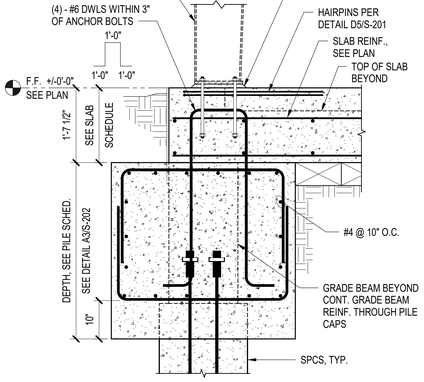
D4 TYPICAL DETAIL
INTERIOR GRADE BEAM
3/4" = 1'-0"



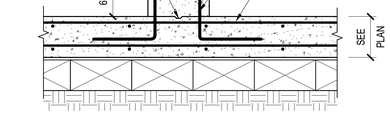
C4 TYPICAL DETAIL
EXTERIOR GRADE BEAM
3/4" = 1'-0"



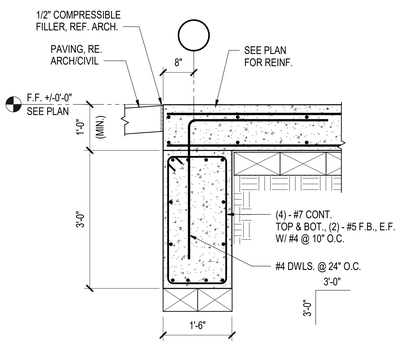
C5 TYPICAL DETAIL
EXTERIOR GRADE BEAM
3/4" = 1'-0"



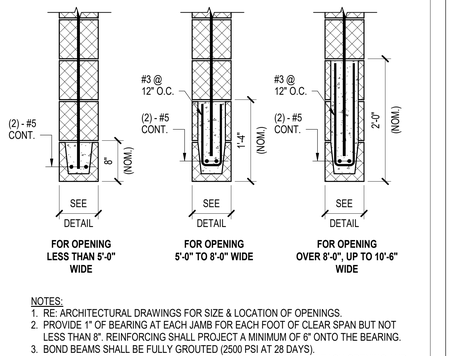
B1 TYPICAL DETAIL
WIDENED GRADE BEAM AT PEB COLUMN
3/4" = 1'-0"



B3 TYPICAL DETAIL AT CURB
1" = 1'-0"

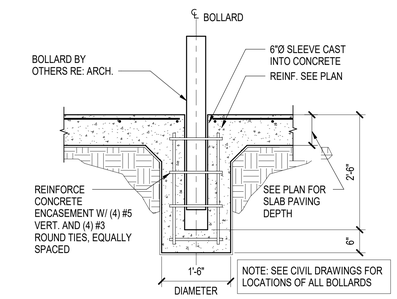


B4 TYPICAL DETAIL
EXTERIOR GRADE BEAM AT DOOR
3/4" = 1'-0"

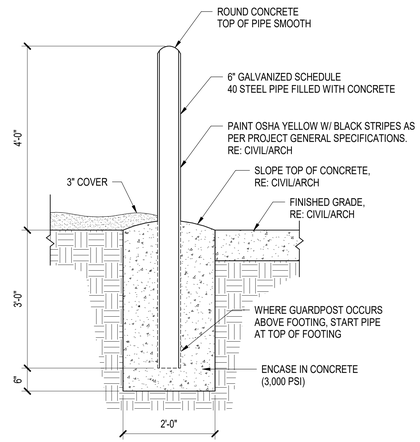


NOTES:
1. RE: ARCHITECTURAL DRAWINGS FOR SIZE & LOCATION OF OPENINGS.
2. PROVIDE 1" OF BEARING AT EACH JAMB FOR EACH FOOT OF CLEAR SPAN BUT NOT LESS THAN 8". REINFORCING SHALL PROJECT A MINIMUM OF 6" ONTO THE BEARING.
3. BOND BEAMS SHALL BE FULLY GROUTED (2500 PSI AT 28 DAYS).
4. ONE VERTICAL CMU CELL SHALL BE GROUTED ON EACH SIDE OF EACH OPENING AND REINFORCED WITH (1) VERTICAL BAR TO MATCH TYPICAL VERTICAL BAR SIZE (#5, MIN.).

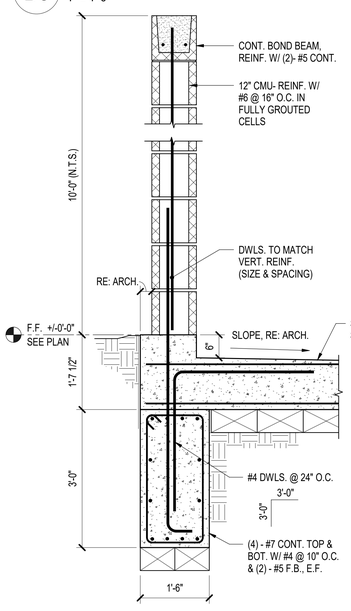
B5 TYPICAL DETAIL - BLOCK LINTEL
1" = 1'-0"



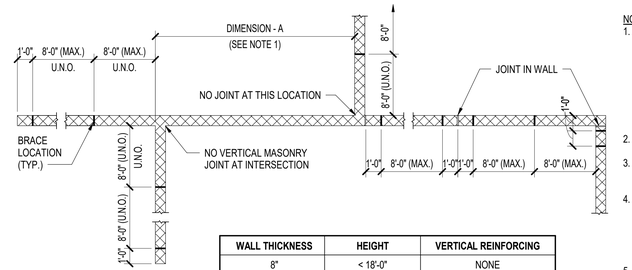
A1 DETAIL AT BOLLARD
3/4" = 1'-0"



A2 DETAIL AT BOLLARD
3/4" = 1'-0"



A3 TYPICAL DETAIL
EXTERIOR GRADE BEAM AT CMU SCREEN WALL
3/4" = 1'-0"



WALL THICKNESS	HEIGHT	VERTICAL REINFORCING
8"	< 18'-0"	NONE
8"	18'-0" TO 24'-0"	#4 @ 48" O.C.

NOTE: ALL REINFORCED CELLS SHALL BE GROUTED SOLID

NOTES:
1. ALL INTERIOR CMU WALLS SHALL BE BRACED AT TOP IF DISTANCE BETWEEN INTERSECTING WALLS (DIMENSION A) IS MORE THAN 36 TIMES THE WALL NOMINAL THICKNESS. THERE SHALL BE NO JOINT BETWEEN WALLS AT THE INTERSECTIONS OR IN BETWEEN THE INTERSECTING WALLS. THERE SHALL BE NO DOORS OR ANY OTHER OPENINGS LARGER THAN 24 INCHES. MINIMUM LENGTH OF INTERSECTING WALLS SHALL BE 4 FEET.
2. REINFORCE VERTICALLY SPANNING CMU WALLS, SEE SCHEDULE.
3. AT BASE OF WALLS, PROVIDE DOWELS TO MATCH SIZE & SPACING OF VERTICAL BARS (AT A MINIMUM PROVIDE #4 DOWELS @ 48" O.C.).
4. SEE TYPICAL DETAILS ON STRUCTURAL / ARCHITECTURAL DRAWINGS FOR BRACING REQUIREMENTS AT THE TOP OF CMU WALLS. THIS DETAIL SHALL APPLY IF SPECIFIC REINFORCING & BRACING DETAILS ARE NOT SHOWN ON THE ARCHITECTURAL / STRUCTURAL DRAWINGS.
5. CONSULT WITH ARCHITECT / ENGINEER WHEN HEIGHT OF WALL EXCEEDS THE HEIGHT SHOWN ABOVE.
6. PROVIDE CONTINUOUS BOND BEAM AT THE TOP OF THE WALLS. REINFORCE W/ (2) - #4 UNLESS NOTED OTHERWISE.
7. SEE GENERAL NOTES FOR ADDN'L. INFORMATION.

A4 TYPICAL DETAIL - NON-LOAD BEARING INTERIOR CMU WALL BRACING AND REINFORCING STEEL
1/4" = 1'-0"

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VG CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

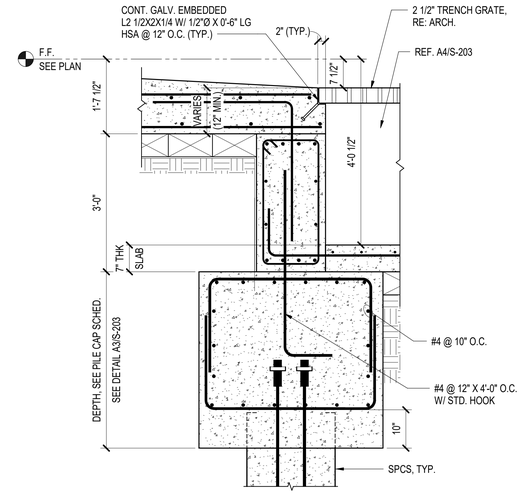
REV	DATE	DESCRIPTION
0	03/04/2025	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24052
ARCHITECT:
LICENSE #:

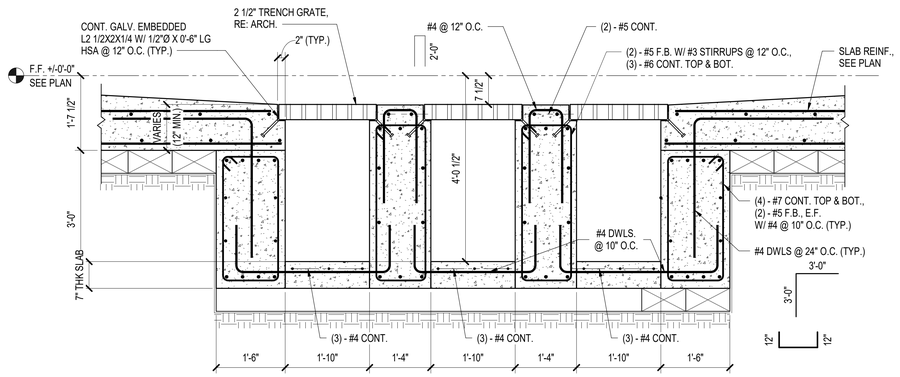
FOUNDATION DETAILS

S-202

SECURITY CLASS: COMPANY USE
C2-099700-STR-DTL-ENA-00002-002



C4 DETAIL AT TRENCH DRAIN
3/4" = 1'-0"

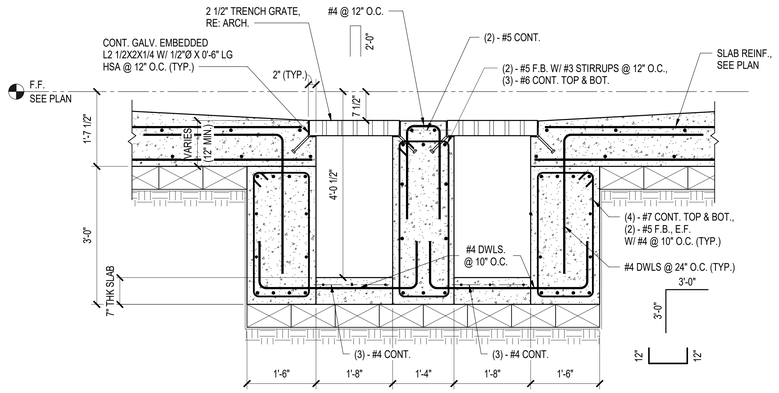


B4 DETAIL AT TRENCH DRAIN
3/4" = 1'-0"

PILE CAP SCHEDULE					
MARK	NO. OF PILES	SIZE OF PILE CAP B X L X D	TOP & BOTTOM REINFORCING		TRANSVERSE REINFORCEMENT
			LONG BARS	SHORT BARS	
PC-1	1	4'-0" X 4'-0" X 3'-10"	(9) - #6	(9) - #6	-

NOTES:
1. PROVIDE 90° HOOK IN PILE CAP LONGITUDINAL REINFORCEMENT HOOK SHALL BE 12d (MIN.) IN LENGTH
2. ALL PILES SHALL EXTEND INTO SOIL 90'-0" (MINIMUM) FROM EXISTING GRADE AT THE TIME OF GEOTECHNICAL BORINGS.
3. DESIGN OF 18" DRIVEN SQUARE PRE-CAST PRESTRESSED CONCRETE PILES (SPCP) SHALL BE BY THE SUPPLIER.
4. SIDE BARS PER DETAIL B2/S-202.

A3 PILE CAP SCHEDULE
3/4" = 1'-0"



A4 DETAIL AT TRENCH DRAIN
3/4" = 1'-0"

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DIGITALLY SIGNED: 03/04/2025

VG CP2 CHEMICAL STORAGE BUILDING
DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	03/04/2025	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24052
ARCHITECT:
LICENSE #:

FOUNDATION DETAILS
S-203

SECURITY CLASS: COMPANY USE
C2-099700-STR-DTL-ENA-00002-003

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CP2 CHEMICAL STORAGE BUILDING

VENTURE GLOBAL LNG
DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	2/13/25	ISSUED FOR CONSTRUCTION

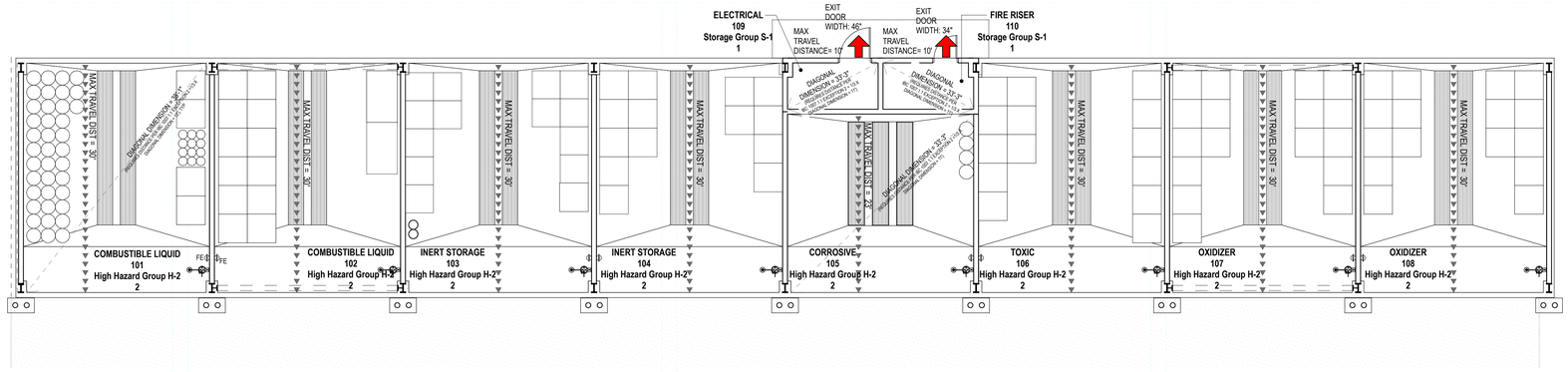
EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

2/13/2025

COVER SHEET

A-000

SECURITY CLASS: COMPANY USE
C2-099700-ARC-NOT-ENA-00002-001



A1 LIFE SAFETY PLAN
SCALE: 1/8" = 1'-0"

NORTH

LIFE SAFETY PLAN NOTES

GRAPHIC LEGEND

- FE — WALL MOUNTED FIRE EXTINGUISHER
- — ILLUMINATED EXIT SIGN, RE: RCP AND ELEC
- SD — SMOKE DETECTOR
- — PATH OF TRAVEL
- — DIAGONAL DISTANCE

HIGH HAZARD GROUP H2
2 = OCCUPANT LOAD

EXIT - XX" — EXIT DISCHARGE AND PROVIDED EGRESS WIDTH

FIRE-RATED PARTITIONS
- 1 HR RATED
- 2 HR RATED
- 3 HR RATED
- 4 HR RATED

ABBREVIATIONS

A

AB	ANCHOR BOLT
ACOUS	ACOUSTICAL
AD	ACCESS DOOR
ADJ	ADJACENT
ADJUST	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
AGG	AGGREGATE
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
AP	ACCESS PANEL
APROX	APROXIMATELY
ARCH	ARCHITECT/ARCHITECTURAL
ASPH	ASPHALT
ATN	ATTENUATION/ATTENUATING
AUTO	AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
A/C	AIR CONDITIONING
A/V	AUDIO VISUAL

B

BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BLK	BLOCK
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BSMT	BASEMENT
BTW	BETWEEN
BUR	BUILT UP ROOFING
B&B	BALLED & BURLAPPED
B-B	BACK TO BACK
BM	BENCH MARK
B/F	BOTH FACES

C

CAB	CABINET
CB	CATCH BASIN
CCTV	CLOSED CIRCUIT TELEVISION
CEM	CEMENT
CER	CERAMIC
CFMF	COLD FORMED METAL FRAMING
CG	CORNER BUARD
CIP	CAST IN PLACE
CI PIPE	CAST IRON PIPE
CJ	CONTROL JOINT
CKBD	CHALKBOARD
CLG	CEILING
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
COL	COLUMN
COMP	COMPOSITION
COMPRES	COMPRESSIBLE
CONC	CONCRETE
COND	CONDITION
CONF	CONFERENCE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRIDOR
CORRU	CORRUGATED
CSMT	CASEMENT
CT	CERAMIC TILE
CTR	CENTER
CTSK	COUNTERSUNK
CU FEET	CUBIC FOOT (FEET)
CU YARD	CUBIC YARD
CW	COLD/CHILLED WATER
C-C	CENTER TO CENTER
C.O.	CASED OPENING
C.W.	COOL WHITE
C.W.X.	COOL WHITE DELUXE

D

D	DEPTH
DBL	DOUBLE
DEFL	DEFLECTION
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DISC	DISCONNECT
DISP	DISPENSER
DL	DEAD LOAD
DMPFG	DAMPPROOFING
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DWC	DRYWALL FURRING CHANNEL
DWG	DRAWING

E

EA	EACH
EFOB	EXTERIOR FACE OF BUILDING
EJ	EXPANSION JOINT
EL	ELEVATION
ELAS	ELASTIC (ELASTOMERIC)
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EP	EXPLOSION PROOF
EQ	EQUAL
EQUIP	EQUIPMENT
ESP	ELASTIC SHEET PROOFING
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED
EXPAN	EXPANSION
EXT	EXTERIOR

F

FC	FIRE CODE
FA	FIRE ALARM
FE	FIRE EXTINGUISHER
FD	FLOOR DRAIN
FH	FIRE HYDRANT
FEC	FIRE EXTINGUISHER CABINET
FIN	FINISH/FINISHED
FHC	FIRE HOSE CABINET
FL	FLOW LINE
FIXT	FIXTURE
FLRG	FLOORING
FLR	FLOOR
FLOUR	FLUORESCENT
FLASHG	FLASHING
FND	FOUNDATION
FM	FACTORY MUTUAL
FRPF	FIREPROOF(ING)
FPW	FLOOR PROTECTION WALL
FSEC	FOOD SERVICE EQUIPMENT CONTRACTOR
FS	FULL SIZE
FTG	FOOTING
FT	FOOT(FEET)
FURR	FURRED/FURRING
FURN	FURNISH
FVC	FIRE VALVE CABINET
FV	FIELD VERIFY
FWC	FABRIC WALL COVERING

G

GAL	GALLON
GA	GAUGE
GC	GENERAL CONTRACTOR
GALV	GALVANIZED
GEN	GENERAL
GD	GUARD
GL	GLASS/GLAZING
GI	GALVANIZED IRON
GR	GRADE/GRADING
GMP	GUARANTEED MAXIMUM PRICE
GYP	GYPSUM

H

HC	HOLLOW CORE
HB	HOSE BIB
HDCP	HANDICAPPED
HD	HEAD
HDWR	HARDWARE
HDWD	HARDWOOD
HM	HOLLOW METAL
HFS	HALF FULL SIZE
HP	HORSEPOWER
HORIZ	HORIZONTAL
HT	HEIGHT
HR	HOUR
HW	HOT WATER
HVAC	HEATING, VENTILATING, & AIR CONDITIONING
HYD	HYDRANT

I

IN	INCH
ID	INSIDE DIAMETER
INCL	INCLUDE
INCAND	INCANDESCENT
INSUL	INSULATION/INSULATING
INFO	INFORMATION
IPS	INSIDE PIPE SIZE
INT	INTERIOR

J

JAN	JANITOR
JST	JOIST
JT	JOINT

L

LAM	LAMINATE(D)
LAV	LAVATORY
LGTH	LENGTH
LH	LEFT HAND
LIN	LINEAR
LL	LIVE LOAD
LT	LIGHT
LV	LEVEL
LVR	LOUVER
LWT	LIGHTWEIGHT

M

m	METER
MACH	MACHINE
mm	MILLIMETER
MAS	MASONRY
MAINT	MAINTENANCE
MAX	MAXIMUM
MATL	MATERIAL
MEMB	MEMBRANE
MECH	MECHANICAL
MFR	MANUFACTURER
MEP	MECHANICAL/ELECTRICAL/PLUMBING
MIN	MINIMUM
MH	MANHOLE
ML	METAL LATH
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MLDG	MOLDING
MTD	MOUNTED
MR	MOISTURE RESISTANT
MTL	METAL
MTG	MOUNTING
MULL	MULLION

N

NO. or #	NUMBER
NRC	NOISE REDUCTION COEFFICIENT
NOM	NOMINAL
NTS	NOT TO SCALE

O

OA	OVERALL
OC	ON CENTER(S)
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED/OWNER INSTALLED
OH	OVERHEAD
OP	OPERABLE PARTITION
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
OS	OVERFLOW SCUPPER
O/A	OUTSIDE AIR

P

PART	PARTITION
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PCT	PORCELAIN CERAMIC TILE
PERF	PERFORATED
PFP	PREFINISHED PANEL
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLAST	PLASTER
PLBG	PLUMBING
PLWD	PLYWOOD
PNL	PANEL
POL	POLISHED
PR	PAIR
PRKG	PARKING
PSF	POUNDS PER SQUARE FOOT
PSI	POUND PER SQUARE INCH
PTD	PAINTED
PVC	POLYVINYL CHLORIDE
PVG	PAVING
PVMT	PAVEMENT
P/C	PRECAST

Q

QT	QUARRY TILE

R

R	RISER
RAD	RADIUS
RD	ROOF DRAIN
RE	REFER TO
REBAR	REINFORCING BAR
REC	RECESSED
RECEPT	RECEPTION
RECEP	RECEPTACLE
RECOM	RECOMMENDATION
REG	REGULATION
REINF	REINFORCED
REQD	REQUIRED
RES	RESILIENT
RET	RETURN
REV	REVISION
RFG	ROOFING
RH	RIGHT HAND
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
R/AG	RETURN AIR GRILLE
R/A	RETURN AIR

S

SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SHLV	SHELVES/SHELVING
SHT	SHEET
SHTHG	SHEATHING
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SSTL	STAINLESS STEEL
STA	STATION
STAB	STABILIZE(D)
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE/STRUCTURAL
SUSP	SUSPENDED
SW	SWITCH
SYN	SYNTHETIC
S/AD	SUPPLY AIR DIFFUSER

T

T	TREAD
TCOC	TEXTURED COATING ON CONCRETE
TC	TOP OF CURB
TEMP	TEMPERED
TEL	TELEPHONE
THRES	THRESHOLD
THK	THICK(NESS)
TOS	TOP OF STEEL
TKBD	TACKBOARD
TRANS	TRANSFORMER
TOSS	TOP OF STRUCTURAL SLAB
TTC	TELEPHONE TERMINAL CABINET
TRZO	TERRAZZO
TYP	TYPICAL
TV	TELEVISION

U

UNO	UNLESS NOTED OTHERWISE
UL	UNDERWRITERS LABORATORY
UR	URINAL

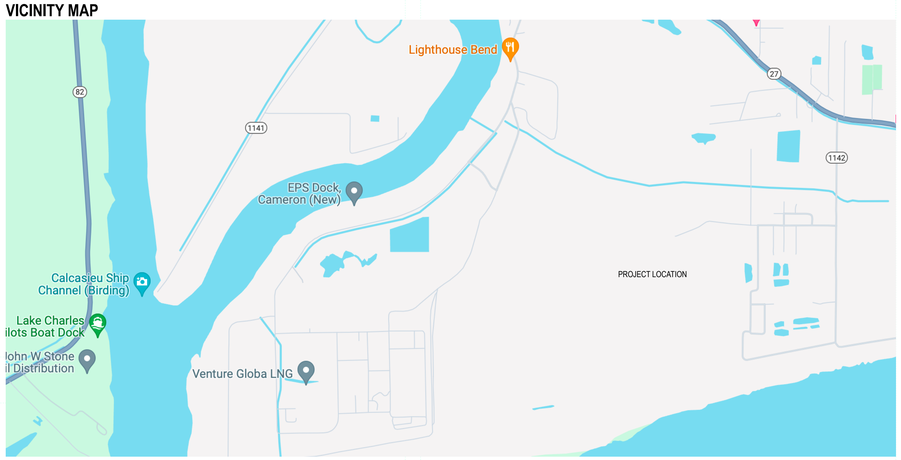
V

VAC	VACCUUM
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VWC	VINYL WALLCOVERING

W

WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WH	WALL HUNG
WI	WROUGHT IRON
WP	WATERPROOF(ING)
WR	WATER RESISTANT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W.P.	WORK POINT
W.W.	WARM WHITE
W.W.X.	WARM WHITE DELUXE
W/I	WITHIN
W/O	WITHOUT
W/	WITH

VICINITY MAP



SHEET INDEX

STRUCTURAL

S-000	*STRUCTURAL PLACEHOLDER*

ARCHITECTURAL

A-001	GENERAL INFO, SHEET INDEX AND LIFE SAFETY PLAN
A-002	CODE SUMMARY
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MECHANICAL

M000	HVAC COVERSHEET
M201	LEVEL 01 PLAN - HVAC
M400	HVAC DETAILS
M500	HVAC DIAGRAMS
M600	HVAC SCHEDULES

PLUMBING

P000	PLUMBING COVERSHEET
P201	LEVEL 01 PLAN - PLUMBING
P400	PLUMBING DETAILS
P600	PLUMBING SCHEDULES

ELECTRICAL

E000	ELECTRICAL COVERSHEET
E201	LEVEL 01 PLAN - ELECTRICAL
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FIRE PROTECTION

F000	FIRE PROTECTION COVERSHEET
F201	LEVEL 01 PLAN - FIRE PROTECTION
F400	FIRE PROTECTION DETAILS
F600	FIRE PROTECTION SCHEDULES

ENERGYARCHITECTURE
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CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	2/13/25	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

ALAN CREECH REG NO. 9820 REGISTERED ARCHITECT STATE OF LOUISIANA
2/13/2025

GENERAL INFO, SHEET INDEX AND LIFE SAFETY PLAN

A-001

SECURITY CLASS: COMPANY USE
C2-099700-ARC-NOT-ENA-00002-002

CODE SUMMARY

2021 IBC

PROJECT DESCRIPTION

PROJECT CONSISTS OF APPROXIMATELY 6,398 SF OF STORAGE. THERE ARE 8 SEPARATE BAYS TO STOARE HAZARDOUS MATERIAL.

CURRENT BUILDING CODES

LOUISIANA STATE UNIFORM CONSTRUCTION CODE LATEST
2021 (IBC) INTERNATIONAL BUILDING CODE
2021 (IFC) INTERNATIONAL FIRE CODE
2021 (IECC) INTERNATIONAL ENERGY COMPLIANCE CODE
2021 (IBC) INTERNATIONAL PLUMBING CODE
2021 (IBC) INTERNATIONAL MECHANICAL CODE
2020 (NEC) NATIONAL ELECTRICAL CODE
2012 (ADA) ACCESSIBILITY GUIDELINES

USE AND OCCUPANCY CLASSIFICATION — CHAPTER 3

SECTION 304.1

☐ A-1	☐ B	☐ H-1	☐ I-1	☐ R-1	● S-1
☐ A-2	☐ E	● H-2	☐ I-2	☐ R-2	☐ S-2
☐ A-3	☐ F-1	☐ H-3	☐ I-3	☐ R-3	☐ U
☐ A-4	☐ F-2	☐ H-4	☐ I-4	☐ R-4	
☐ A-5		☐ H-5	☐ M		

GENERAL BUILDING HEIGHTS AND AREAS — CHAPTER 5

ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE
TABLE 504.3

HEIGHT IN FEET ALLOWED, H2, SPRINKLERED 55'-0"
ACTUAL HEIGHT: 19'-10 1/2"

SECTION 506 BUILDING AREA
TABLE 506.2
ALLOWABLE AREA FACTOR IN SQUARE FEET

OCCUPANCY CLASSIFICATION	SEE FOOT NOTES	TYPE OF CONSTRUCTION TYPE II A	B
H-2	S1	11,000	7,000
S-1	S1	104,000	156,000

S1 = BUILDING A MAXIMUM OF ONE STORY ABOVE GRADE PLANE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1.

(C) NEW H OCCUPANCIES ARE REQUIRED TO BE PROTECTED BY AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH SECTION 9 903.2.5.

TYPES OF CONSTRUCTION — CHAPTER 6

FIRE-RESISTANT RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS)
TABLE 601

TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
A	B	A	B	A	B	HT	A	B
☐	☐	☐	●	☐	☐	☐	☐	☐

	0-HR	1-HR	2-HR	3-HR
PRIMARY STRUCTURAL FRAME	●	☐	☐	☐
BEARING WALLS	●	☐	☐	☐
NONBEARING WALLS/ PARTITIONS (EXTERIOR)	●	☐	☐	☐
NONBEARING WALLS/ PARTITIONS (INTERIOR)	●	☐	☐	☐
FLOOR CONSTRUCTION	●	☐	☐	☐
ROOF CONSTRUCTION	●	☐	☐	☐

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
TABLE 705.5

X < 5'-0"	☐
5 < X > 10	☐
10 < X > 30	☐
X > 30	●

EXTERIOR WALL RATING REQUIRED: 0 HR

FIRE AND SMOKE PROTECTION FEATURES — CHAPTER 7

MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION
TABLE 705.8

FIRE SEPARATION DISTANCE (FEET): 30 OR GREATER
DEGREE OF OPENING PROTECTION: UPROTECTED, SPRINKLERED
ALLOWABLE AREA: NO LIMIT

	YES / NO	WALL	DOOR
SECTION 705.11 PARAPET REQUIRED	☐	●	☐	☐
SECTION 706 FIRE WALLS	☐	●	☐	☐
SECTION 707 FIRE BARRIERS	☐	●	☐	☐
SECTION 708 FIRE PARTITIONS	☐	●	☐	☐
SECTION 709 SMOKE BARRIERS	☐	●	☐	☐
SECTION 710 SMOKE PARTITIONS	☐	●	☐	☐

CONTAINMENT AREA CALCULATION

CALCULATION ROUND UP TO NEAREST WHOLE NUMBER

CONTAINMENT AREA RAINFALL:
5,859SF X RAINFALL 1.167 FT = 6,837 CU FT

LARGEST VESSEL:
275 GALLONS X SAFETY FACTOR 110% (1.10) = 303 GALLONS
GALLONS TO CUBIC FEET= 303 GALLONS / 7.48 GALLONS / CU FT= 40.5CU FT (41 CU FT)

FIRE SUPPRESSION: .65 PM/SF X 300# X 20 MIN.= 36,000 GALLONS
36,000 GALLONS / 7.48 GALLONS/CU FT = 4,813 CU FT

TRENCHES: A) ONE TRENCH (1.75' X 3' X20' = 105 CU FT)
105 CU FT X 14 TRENCHES = 1,470 CU FT
B) ONE TRENCH (2' X2' X13.5' = 54 CU FT)
54 CU FT X 3 TRENCHES = 162 CUB FT

TOTAL ALL TRENCHES 1,470 CU FT + 162 CU FT= 1.662 CU FT

CONTAINMENT REQUIRED:
4,813 CU FT + 41 CU FT - 1,632 CU FT= 3,222 CU FT

3,222 CU FT / 5,859 SF = 0.54"
HEIGHT OF FREEBOARD= (6") CONCRETE CURB AT PERIMETER OF BUILDING

FIRE PROTECTION SYSTEMS — CHAPTER 9

SUMMARY OF OCCUPANCY-RELATED AUTOMATIC SPRINKLER THRESHOLDS
FIGURE 903.2

	YES	NO
FIRE SUPPRESSION SYSTEM REQUIRED	●	☐
FIRE SUPPRESSION SYSTEM PROVIDED	●	☐

STANDPIPE SYSTEMS
SECTION 905

STANDPIPE SYSTEM REQUIRED	●	☐
STANDPIPE SYSTEM PROVIDED	●	☐

PORTABLE FIRE EXTINGUISHERS
SECTION 906

PORTABLE FIRE EXTINGUISHERS REQUIRED	●	☐
PORTABLE FIRE EXTINGUISHERS PROVIDED	●	☐

MEANS OF EGRESS — CHAPTER 10

MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT
TABLE 1004.5

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR
WAREHOUSES	500 GROSS
ACCESSORY, STORAGE AREAS, MECHANICAL EQUIPMENT ROOM	300 GROSS

S-1 OCCUPANCY:
FIRE RISER ROOM
69 SF @ 300 GROSS = 1 OCCUPANTS

ELECTRICAL ROOM
69 SF @ 300 GROSS = 1 OCCUPANTS

H-2 OCCUPANCY:
WAREHOUSE
6,260 SF @ 500 GROSS = 16

TOTAL OCC LOAD = 18

OTHER EGRESS COMPONENTS
SECTION 1005.3.2

EXIT REQUIREMENTS (SPRINKLERED)
OCCUPANT LOAD X FACTOR 0.02 INCHES
EXIT WIDTH REQ'D
18 X 0.2 = 3.6"

EXIT WIDTH PROVIDED
1 DOOR AT 36" = 36"
1 DOOR AT 48" = 48'
TOTAL PROVIDED 84"

SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY
TABLE 1006.2.1

OCCUPANCY: H2
MAXIMUM OCCUPANT LOAD OF SPACE: 3 OCCUPANTS
MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (FT)
W/ SPRINKLER SYSTEM: 25FT

OCCUPANCY: S1
MAXIMUM OCCUPANT LOAD OF SPACE: 29 OCCUPANTS
MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (FT)
W/ SPRINKLER SYSTEM: 100FT

CHECK: OCCUPANT LOAD IS , <THAN 49, ONE EXIT REQUIRED.
ACTUAL: ONE EXIT IS PROVIDED.

MEANS OF EGRESS CONT. — CHAPTER 10

EMERGENCY POWER FOR ILLUMINATION
SECTION 1008.2

THE MEANS OF EGRESS SERVING A ROOM OR SPACE SHALL BE ILLUMINATED AT ALL TIMES THAT THE ROOM OR SPACE IS OCCUPIED.

EXIT ACCESS TRAVEL DISTANCE
TABLE 1017.2

OCCUPANCY: H2
EXIT ACCESS TRAVEL DISTANCE REQUIRED, SPRINKLERED (FEET): <100FT
EXIT ACCESS TRAVEL DISTANCE PROVIDED, SPRINKLERED (FEET): <30FT

OCCUPANCY: S-1
EXIT ACCESS TRAVEL DISTANCE REQUIRED, SPRINKLERED (FEET): <250FT
EXIT ACCESS TRAVEL DISTANCE PROVIDED, SPRINKLERED (FEET): <10FT

CORRIDOR FIRE-RESISTANCE RATING
TABLE 1020.2

OCCUPANCY: S-1
OCCUPANT LOAD SERVED BY CORRIDOR: GREATER THAN 30
REQUIRED FIRE RESISTANCE RATING: 0HR (SPRINKLED)

OCCUPANCY: H-2
OCCUPANT LOAD SERVED BY CORRIDOR: ALL
REQUIRED FIRE RESISTANCE RATING: 1 HR (SPRINKLED)

MINIMUM CORRIDOR WIDTH
TABLE 1020.3

OCCUPANCY: ANY FACILITY NOT LISTED IN TABLE 1020.3
MINIMUM WIDTH (INCHES): 44 INCHES
ACTUAL AVERAGE (INCHES): 36 INCHES

DEAD ENDS
SECTION 1020.5

OCCUPANCY: H-2 & S-1 (NOT APPICABLE IN THIS PROJECT)

INTERNATIONAL FIRE CODE 2021

TABLE 5003.1.1(4)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A HEALTH HAZARD IN AN OUTDOOR CONTROL AREA[a, b, c, f]

MATERIAL	STORAGE: Solid pounds	STORAGE: Liquid gallons (pounds)	STORAGE: Gas cubic feet at NTP (pounds)	USE-CLOSED SYSTEMS: Solid pounds	USE-CLOSED SYSTEMS: Liquid gallons (pounds)	USE-CLOSED SYSTEMS: Gas cubic feet at NTP (pounds)	USE-OPEN SYSTEMS: Solid pounds	USE-OPEN SYSTEMS: Liquid gallons (pounds)
Corrosives	20,000	2,000	Gaseous 1,620 Liquefied (300)	10,000	1,000	Gaseous 810 Liquefied (150)	1,000	100
Highly toxics	20	(20)	Gaseous 40[d] Liquefied (8)[d]	10	(10)	Gaseous 20[d] Liquefied (4)[d]	3	(3)
Toxics	1,000	8,000[d]	Gaseous 1,620 Liquefied (300)	500	50[d]	Gaseous 810 Liquefied (150)	125	(125)[d]

For SI:1 cubic foot = 0.02832 m^3, 1 pound = 0.454 kg, 1 gallon = 3.785 L, 1 pound per square inch absolute = 6.895 kPa,°C = (°F – 32)/1.8.

a. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2.
b. The aggregate quantities in storage and use shall not exceed the quantity listed for storage.
c. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials allowed in outdoor storage per single property under the same ownership or control used for retail or wholesale sales is allowed to exceed the maximum allowable quantity per control area where such storage is in accordance with Section 5003.11.
d. Allowed only where used in approved exhausted gas cabinets, exhausted enclosures or under fume hoods.
e. The maximum allowable quantity per control area for toxic liquids with vapor pressures in excess of 1 psia at 77°F shall be the maximum allowable quantity per control area listed for highly toxic liquids.
f. Quantities in parentheses indicate quantity units in parentheses at the head of each column.

STORAGE
LIQUIDS GALLONS

CORROSIVE

ROOM A107
1. # 22 (CORRSHIELD NT 4202) -COMBUSTIBLE LIQUID IIIB = 2 DRUMS AT 55 GALLONS EACH = 110 GALLONS
2. #26 (SPECTRUS NS 1106) - = 2 DRUMS AT 55 GALLONS EACH = 110 GALLONS
TOTAL GALLONS PROVIDED= 220 GALLONS

SECTION 6003
HIGHLY TOXIC AND TOXIC SOLIDS AND LIQUIDS

6003.2 OUTDOOR STORAGE AND USE.

6003.2.4 OUTDOOR STORAGE PILES
OUTDOOR STORAGE PILES OF HIGHLY TOXIC AND TOXIC SOLIDS AND LIQUIDS SHALL BE SEPARATED INTO PILE NOT LARGER THAN 2,500 CUBIC FEET (71 M(3)). AISLE WIDTHS BETWEEN PILES SHALL NOT BE LESS THAN HALF THE HEIGHT OF THE PILE OR 10 FEET (3048 mm), WHICHEVER IS GREATER.

ROOM A108
1ST PILE OF TOTES
1. #30 4 TOTES =275 GALLONS X 4= 1,100 GALLONS
2. #31 4 TOTES =275 GALLONS X 4 = 1,100 GALLONS
3. #32 2 TOTES =275 GALLONS X 2 = 550 GALLONS
4. #33 6 TOTES =275 GALLONS X 6 =1,650 GALLONS
TOTAL GALLONS= 4,400 GALLONS
CUBIC FEET= 1,049.6 CUBIC FEET

2ND PILE OF TOTES
1. #27 4 TOTES = 275 GALLONS X 4= 1,100 GALLONS
2. #28 2 TOTES =275 GALLONS X 2= 550 GALLONS
3. #31 6 TOTES =275 GALLONS X 6 =1,650 GALLONS
TOTAL GALLONS - 3,300 GALLONS
CUBIC FEET =787.2 CUBIC FEET

TOTAL = 1,049.6 + 787.2 = 1,836.8 CUBIC FEET
TOTAL PILE PROVIDED IS LESS THAN THE ALLOWABLE 2,500 CUBIC FEET PER PILE

NFPA 400 HAZARDOUS MATERIAL CODE

TABLE 5003.1.1(1)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[a, j, m, n, p]

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[b]: Solid pounds (cubic feet)	STORAGE[b]: Liquid gallons (pounds)	STORAGE[b]: Gas (cubic feet at NTP)	USE-CLOSED SYSTEMS[b]: Solid pounds (cubic feet)	USE-CLOSED SYSTEMS[b]: Liquid gallons (pounds)	USE-CLOSED SYSTEMS[b]: Gas (cubic feet at NTP)	USE-OPEN SYSTEMS[b]: Solid pounds (cubic feet)	USE-OPEN SYSTEMS[b]: Liquid gallons (pounds)
Oxidizer	4	H-1	1[i]	(1)[i, g]		0.25[i]	(0.25)[i]		0.25[i]	(0.25)[i]
	3[k]	H-2 or H-3	10[i, k]	(10)[i, g, k]		2[i]	(2)[i]		2[i]	(2)[i]
	2	H-3	250[i, g]	(250)[i, g]	NA	250[i]	(250)[i]	NA	50[i]	(50)[i]
	1	NA	4,000[i, l]	(4,000)[i, g, l]		4,000[i]	(4,000)[i]		1,000[i]	(1,000)[i]

For SI: 1 cubic foot = 0.02832 m^3, 1 pound = 0.454 kg, 1 gallon = 3.785 L.
NA = Not Applicable, NL = Not Limited, UD = Undiscalfied Deterrable.

a. For use of control areas, see Section 5003.8.3.
b. The aggregate quantities in use and storage shall not exceed the quantity listed for storage.
c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited providing the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuff or consumer products and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.
d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e applies, the increase for both notes shall be applied accumulatively.
e. Maximum allowable quantities shall be increased 100 percent where stored in approved storage cabinets, day rooms, gas rooms, gas cabinets, exhausted enclosures or in listed safety cans in accordance with Section 5003.9.10. Where Note d applies, the increase for both notes shall be applied accumulatively.
f. Maximum allowable quantities shall be increased 100 percent in buildings equipped with a sprinkler system in accordance with Section 903.3.1.1.
g. Allowed only in buildings equipped throughout with an approved automatic sprinkler system.
h. Containing not more than the maximum allowable quantity per control area of Class IA, Class IB or Class IC flammable liquids.
i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 605.4.2.
j. Quantities in parenthesis indicate quantity units in parenthesis at the head of each column.
k. A maximum quantity of 200 pounds of solid or 20 gallons of liquid Class 3 oxidizers is allowed where such materials are necessary for maintenance purposes, operation or sanitation of equipment where the storage containers and the manner of storage are approved.
l. Net weight of pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks including packaging shall be used.
m. For SI: 1 pound = 0.454 kg. Table values in pounds by 10 in accordance with Section 5003.1.2.
n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 5003.11, see Table 5003.11.1.
o. Densely-packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.
p. The following shall not be included in determining the maximum allowable quantities:
   1. Liquid or gaseous fuel in fuel tanks on vehicles.
   2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with this code.
   3. Gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code*.
   4. Liquid fuels in piping systems and fixed appliances regulated by the *International Mechanical Code*.
   5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents.
q. Where hazardous materials generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.8.2.

OXIDIZER
CLASS I
STORAGE
LIQUID GALLONS(POUNDS)

ROOM 109
#21 - (34) 275 GALLONS PER TOTE = 9,350 GALLONS

ROOM A110
#21- (32) 275 GALLONS PER TOTE = 8,800 GALLONS

TOTAL GALLONS PROVIDED = 18,150 GALLONS
UNLIMITED QUANTITY: WHEN BUILDING IS EQUIPPED WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM.

NFPA 30 FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE 2021

Δ Table 15.3 Storage Limitations for Outside Storage

Liquid Class	Containers: Maximum Quantity per Pile (gal)[a,b,c]	Containers: Maximum Storage Height (ft)	Portable Tanks and Metal IBCs: Maximum Quantity per Pile (gal)	Portable Tanks and Metal IBCs: Maximum Storage Height (ft)	Rigid Plastic and Composite IBCs: Maximum Quantity per Pile (gal)[a,c]	Rigid Plastic and Composite IBCs: Maximum Storage Height (ft)	Minimum Separation Distance (ft): Between Piles or Rack Sections	Minimum Separation Distance (ft): To Property Line That Is or Can Be Built Upon[a,d]	Minimum Separation Distance (ft): To Street, Alley, or Public Way[a]
IA	1,100	10	2,200	7	NP	NP	5	50	10
IB	2,200	12	4,400	14	NP	NP	5	50	10
IC	4,400	12	8,800	14	NP	NP	5	50	10
II	8,800	12	17,600	14	8,800	14	5	25	5
III	22,000	18	44,000	14	22,000	18	5	10	5

For SI units, 1 ft = 0.3 m; 1 gal = 3.8 L.
NP: Not permitted.
[a]See 15.3.1 regarding mixed-class storage.
[b]See 15.3.4 for smaller pile sizes.
[c]For storage in racks, the quantity limits per pile do not apply, but the rack arrangements should be limited to a maximum of 50 ft (15 m) in length and two rows or 9 ft (2.7 m) in depth.
[d]See 15.3.5 regarding protection for exposures.

FLAMMABLE LIQUIDS
CLASS III
PORTABLE TANKS AND METAI IBCs
MAXIMUM QUANTITY PER PILE (gal)
44,000 GALLONS

ROOM A101

#2 - 5 GALLON PAIL X 3 PAILS = 15 GALLONS
#3 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#5 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#6 - 5 GALLON PAIL X 3 PAILS = 15 GALLONS
#7 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#8 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#9 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#10 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#11 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#12 - 5 GALLON PAIL X 3 DRUMS = 15 GALLONS
#13 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#14 - 5 GALLON PAIL X 3 PAILS = 15 GALLONS
#15 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#16 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#17 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#18 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#19 - 55 GALLON DRUM X 3 DRUMS = 165 GALLONS
#20 - 3 TOTES AT 275 GALLONS = 825 GALLONS
#23 - 4 TOTES AT 275 GALLONS = 1,100 GALLONS

TOTAL GALLONS PROVIDED = 4,130 GALLONS

ROOM A102

#1 - 16 TOTES AT 274 GALLONS = 4,400 GALLONS
#24- 8 TOTES AT 275 GALLONS = 2,200 GALLONS
#4- 3 SUPER TOTES AT 550 GALLONS = 1,650 GALLONS

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CP2 CHEMICAL STORAGE BUILDING
DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	2/13/25	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

ALAN CREECH REG NO. 9820 ARCHITECT STATE OF LOUISIANA
2/13/2025

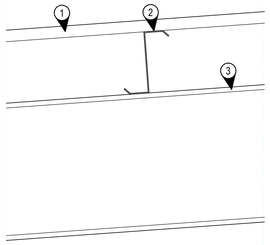
CODE SUMMARY
A-002

SECURITY CLASS: COMPANY USE
C2-099700-ARC-NOT-ENA-00002-003

ROOF ASSEMBLIES

RA-1

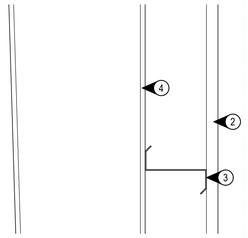
1. STANDING SEAM METAL ROOF
2. PURLINS
3. PRE-ENGINEERED METAL BUILDING FRAMING



WALL ASSEMBLIES

XWA-1

1. R-PANEL METAL WALL PANEL
2. ZEE GIRTS
3. PRE-ENGINEERED METAL BUILDING FRAMING

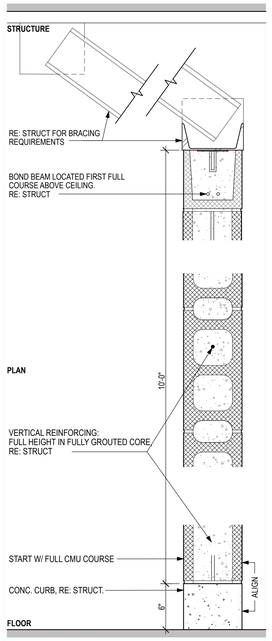


MC

7 5/8" CONCRETE MASONRY UNIT NOT TO DECK

TYPE	FRAMING MEMBER	PARTITION WIDTH	STC (INSULATED)
MC12	-	11 5/8"	N/A

-

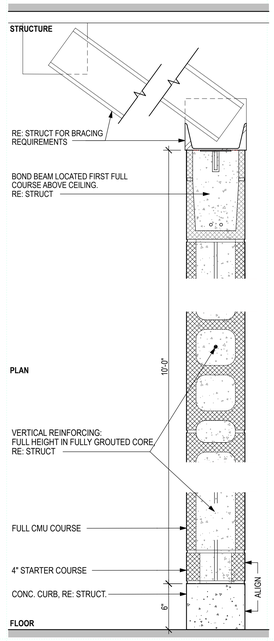


MCS

7 5/8" CONCRETE MASONRY UNIT NOT TO DECK

TYPE	FRAMING MEMBER	PARTITION WIDTH	STC (INSULATED)
MC12	-	11 5/8"	N/A

-



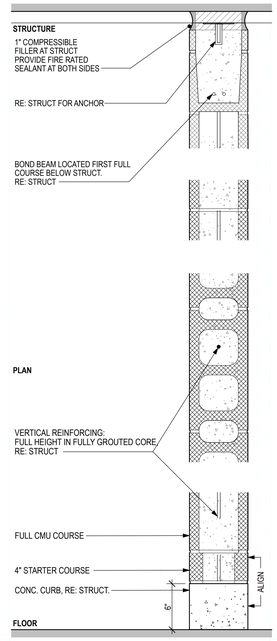
MCR

7 5/8" CONCRETE MASONRY UNIT TO DECK

MIN 1 HR RATED PARTITION PER 2021 IBC TABLE 721.1(2)

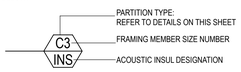
TYPE	FRAMING MEMBER	PARTITION WIDTH	STC (INSULATED)
MCR12	-	11 5/8"	N/A

-

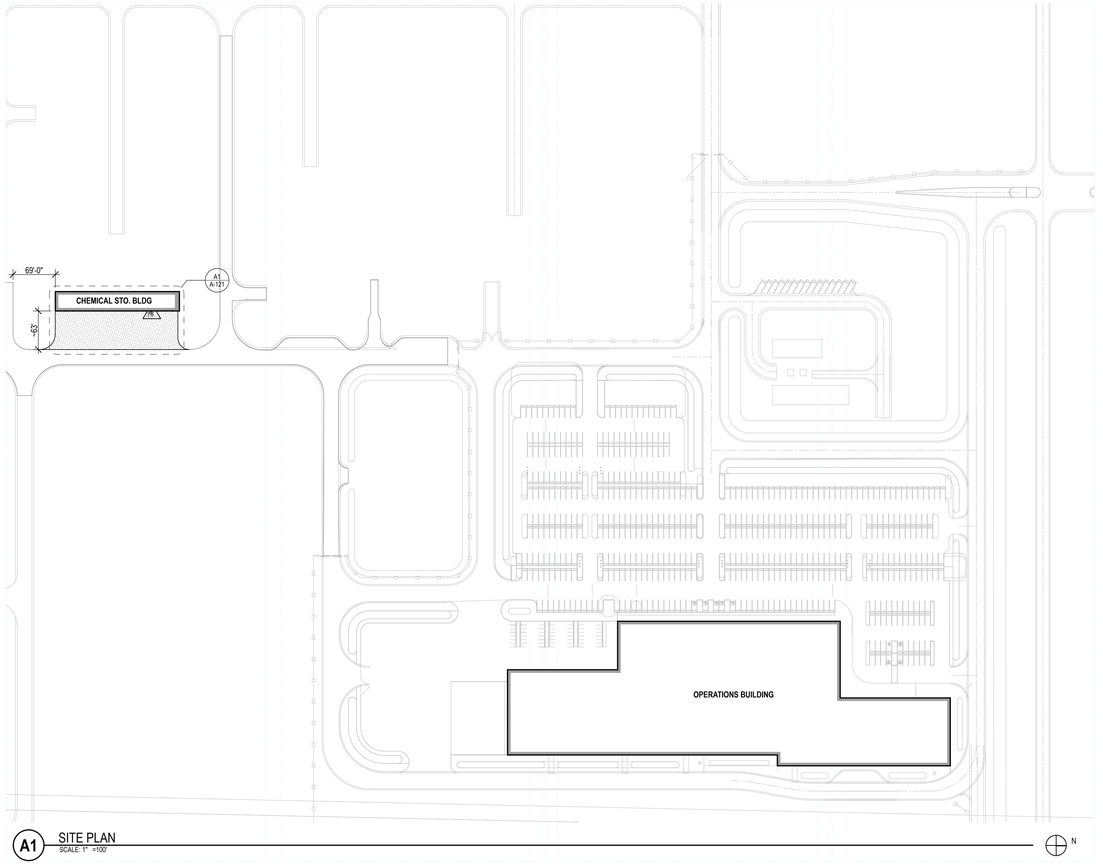


PARTITION GENERAL NOTES

1. PROVIDE COMPLETE CONSTRUCTION ASSEMBLIES COMPLYING WITH APPLICABLE LOCAL CODES, ASTM C645, ASTM C754, AND OTHER STANDARDS AS REFERENCED BY THE CONTRACT DOCUMENTS.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL REFERENCE STANDARDS, PRODUCT INFORMATION, AND EXECUTION REQUIREMENTS.
3. REFER TO FLOOR PLANS FOR LOCATION AND EXTENTS OF PARTITIONS. PARTITION TYPES ARE INDICATED WITH THE SYMBOL DESCRIBED BELOW:



4. NOT ALL PARTITION TYPES INDICATED ON THIS SHEET MAY BE USED ON THIS SPECIFIC PHASE OF THE PROJECT.
5. IDENTIFY FIRE AND SMOKE PARTITIONS WITHIN ACCESSIBLE CONCEALED SPACES PER APPLICABLE LOCAL CODES.



A1 SITE PLAN
SCALE: 1" =100'

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Houston, TX 77019
713.487.3400
www.energyarch.com

CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
1	2/23/25	ISSUED FOR CONSTRUCTION
0	2/13/25	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

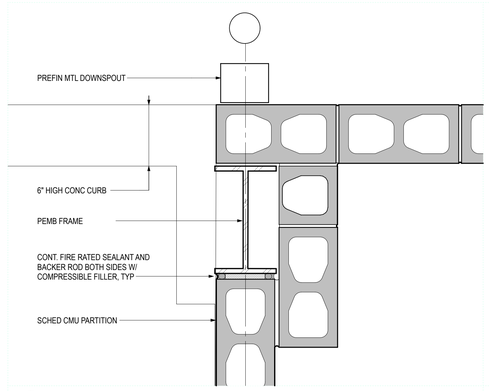
ALAN CREECH REG NO. 9820 REGISTERED ARCHITECT STATE OF LOUISIANA

2/13/2025

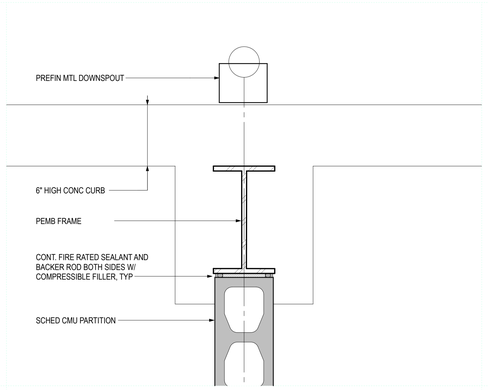
EXTERIOR WALL ASSEMBLIES AND SITE PLAN

A-003

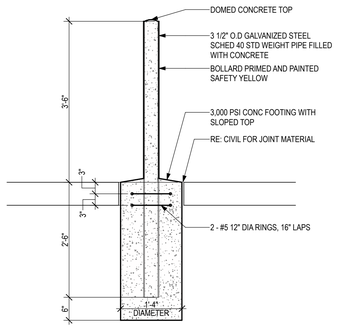
SECURITY CLASS: COMPANY USE
C2-099700-ARC-NOT-ENA-00002-004



D1 ENLARGED PLAN DETAILS
SCALE: 1 1/2" = 1'-0"



D2 ENLARGED PLAN DETAILS
SCALE: 1 1/2" = 1'-0"

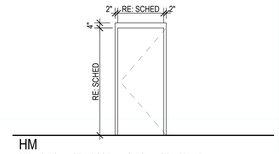


D3 BOLLARD DETAIL
SCALE: 3/4" = 1'-0"

ID	WIDTH	HEIGHT	TYPE	HW SET	NOTES
109	4'-0"	8'-0"	HM	1.0	
110	3'-0"	8'-0"	HM	1.0	

HARDWARE SET

3 EA	HEAVY WEIGHT BB HINGE	T4A3786	MCKINNEY
1 EA	LEVER SET (ENTRANCE)	DG1 10XG04 LMD 26D	SARGENT
1 EA	ELECTRIC STRIKE	1500C-630-LM	HESS
1 EA	CLOSER	4040XP	LCN
1 EA	THRESHOLD	2005AT	PEMKO
1 EA	SEALS		BY DOOR MANUF
1 EA	SWEEP	3452AV	PEMKO



HM
PTD HOLLOW METAL DOOR IN HOLLOW METAL FRAME

FLOOR PLAN NOTES

GRAPHIC LEGEND

ROOM NAME 101 — ROOM IDENTIFICATION

PARTITIONS
REFER TO INTERIOR PARTITION TYPES A-000 SERIES

PARTITION TYPE
1 HR RATED
2 HR RATED
3 HR RATED
4 HR RATED
FIRE-RATED PARTITIONS

OPENINGS
101 — DOOR ID, A-610 SERIES
F — FRAMED OPENING TYPE, A-600 SERIES

ELEVATION, SECTION, DETAIL MARKERS
ITEM / SHEET — BUILDING ELEVATIONS
ITEM / SHEET ITEM / SHEET — BUILDING SECTIONS
ITEM / SHEET — WALL SECTIONS
ITEM / SHEET — INTERIOR ELEVATIONS
ITEM SHEET — ENLARGED DETAIL

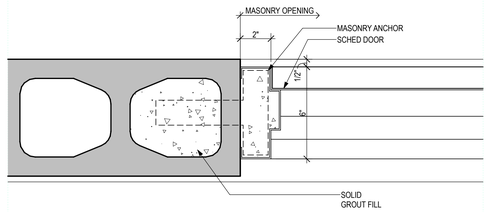
GENERAL NOTES

A. ALL EXPOSED CONCRETE SLAB AND CURBS TO RECEIVE STONHARD STONCHEM 300 LINING SYSTEM IN LIGHT GRAY.

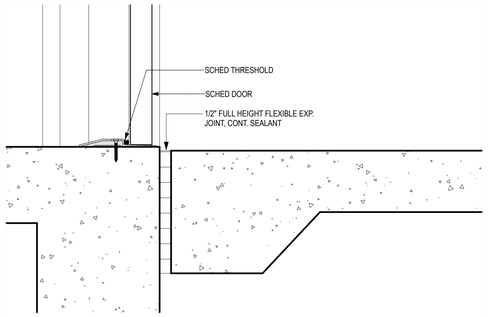
B. CMU WALLS TO RECEVIE HIGH BUILD, WATER BASED TEXTURED COATING SYSTEM FOR MASONRY TO MATCH COATING SYSTEM AT OPERATIONS BUILDING.

KEYED NOTES

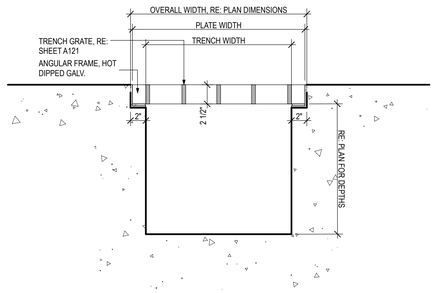
1. EMERGENCY ACCESIBLE EYEWASH / SHOWER, RE: PLUMBING
2. HEAVY DUTY TRENCH GRATE - 2 1/2" x 3/8" (19-W-2), CB CENTERS 2" CC W/ MIN OPEN AREA OF 58% AS MANUF BY GRATING SYSTEMS.COM, REI C3/A-201
3. PEMB PORTAL FRAME BRACING IN THIS BAY
4. CONC FILLED STEEL BOLLARD, RE: DETAILS



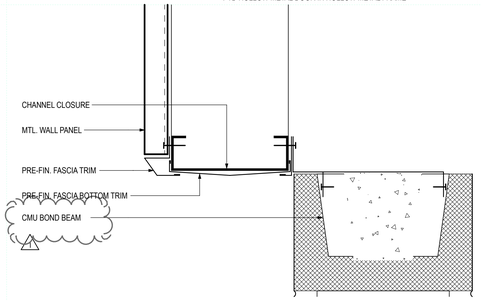
C1 ENLARGED PLAN DETAILS 3"
SCALE: 3" = 1'-0"



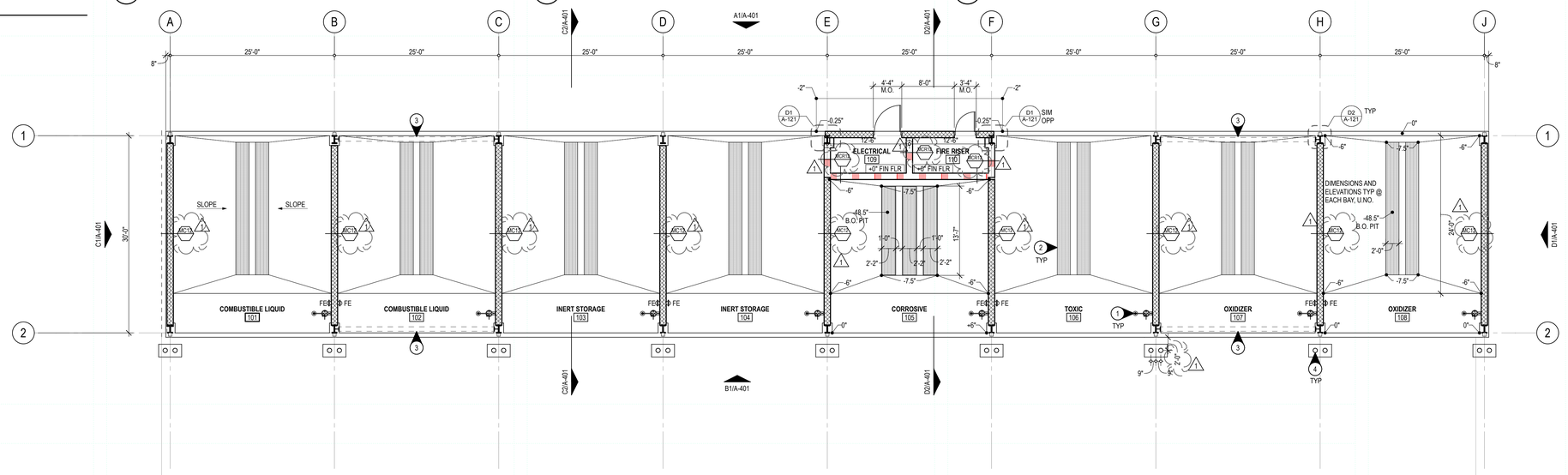
C4 ENLARGED PLAN DETAILS 3"
SCALE: 3" = 1'-0"



C3 TRENCH DRAIN DETAIL
SCALE: 1 1/2" = 1'-0"



C4 WALL - MTL TRIM COVER @ CMU
SCALE: 3" = 1'-0"



A1 1ST FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
1	2/23/25	ISSUED FOR CONSTRUCTION
0	2/13/25	ISSUED FOR CONSTRUCTION

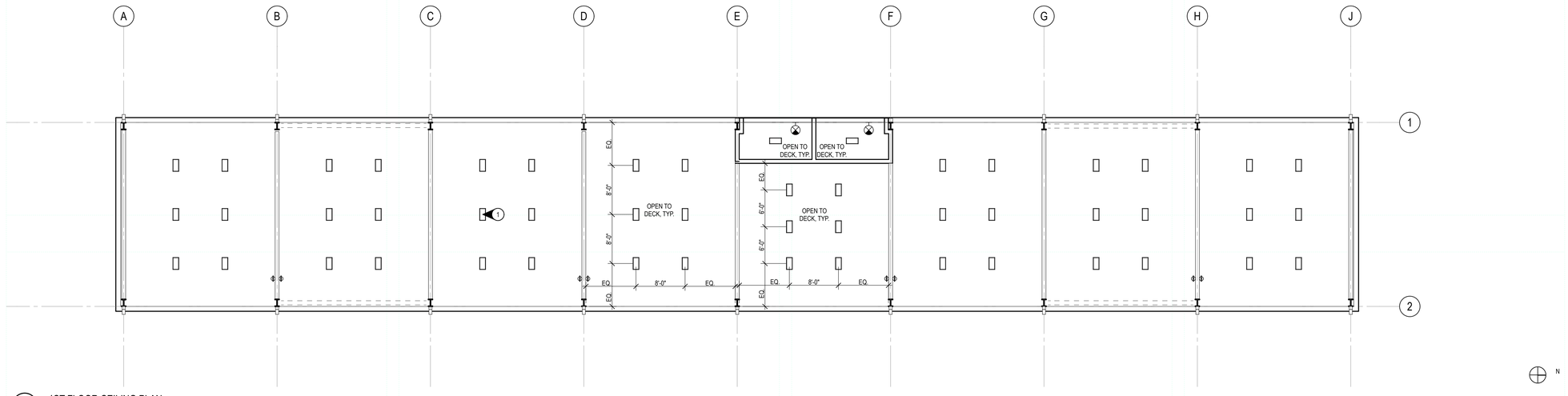
EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

ALAN CREECH REG NO. 9820 REGISTERED ARCHITECT STATE OF LOUISIANA
2/13/2025

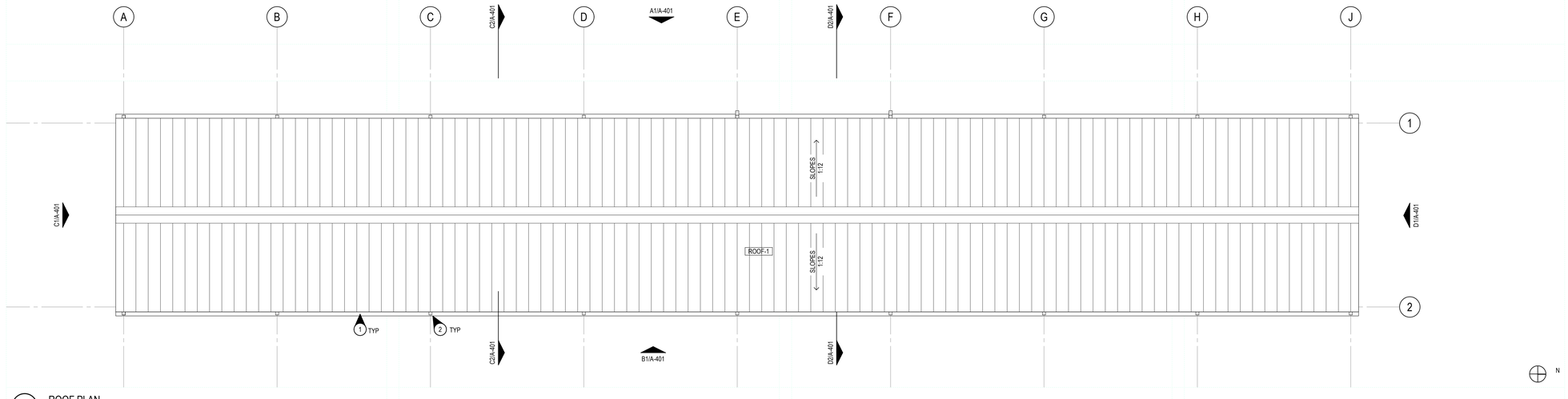
FLOOR PLAN AND DETAILS

A-121

SECURITY CLASS: COMPANY USE
C2-099700-ARC-BLD-ENA-00002-001



B1 1ST FLOOR CEILING PLAN
SCALE: 1/8" = 1'-0"



A1 ROOF PLAN
SCALE: 1/8" = 1'-0"

CEILING PLAN NOTES

GRAPHIC LEGEND

CONT PARTITION TO DECK/STRUCTURE

GENERAL NOTES

A. DEVICES AND FIXTURES INDICATED ON ARCHITECTURAL CEILING PLAN ILLUSTRATE DESIGN INTENT FOR LOCATIONS AND ALIGNMENTS. REFER TO ELECTRICAL FOR CIRCUITING, DEVICE INFORMATION, AND ADDITIONAL REQUIREMENTS

KEYED NOTES

(1) LIGHT FIXTURES, TYP. RE: ELEC DWGS

ROOF PLAN NOTES

REFER TO EXTERIOR ASSEMBLIES FOR ITEMS DESIGNATED THUS:

ROOF-X ROOF ASSEMBLY

GENERAL NOTES

A.

KEYED NOTES

(01) PREFIN MTL GUTTER

(02) PREFIN MTL DOWNSPOUT

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REV	DATE	DESCRIPTION
0	2/13/25	ISSUED FOR CONSTRUCTION

EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

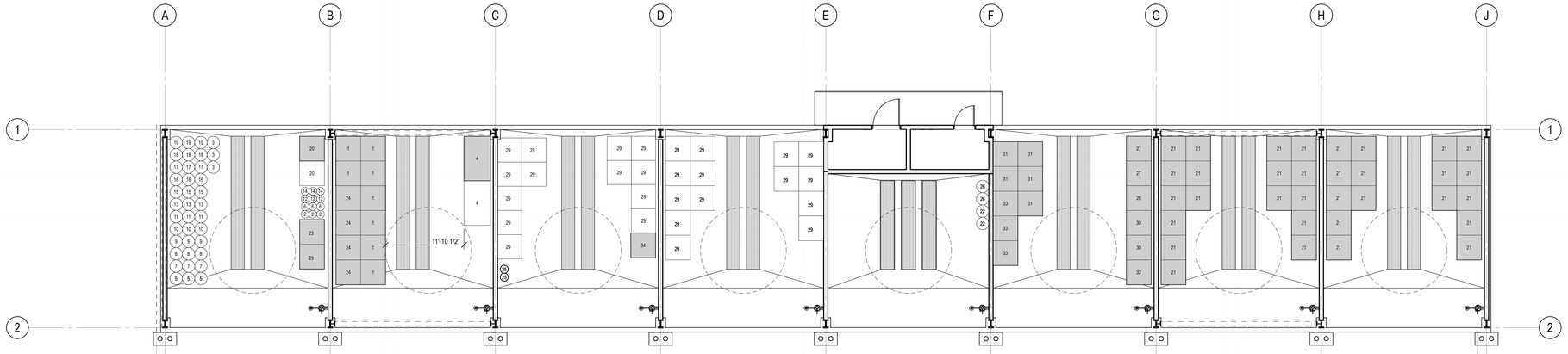
ALAN CREECH REG NO. 9820 REGISTERED ARCHITECT STATE OF LOUISIANA
2/13/2025

ROOF, CEILING PLAN AND DETAILS

A-131

SECURITY CLASS: COMPANY USE
C2-099700-ARC-BLD-ENA-00002-002

ID	MATERIAL
1	ANTI FOAM
2	OIL, JAX BIO-GUARD GEAR OIL 150
3	OIL, JAX BIO-GUARD HYDRAULIC ISO 32
4	OIL, JAX COMPRESYN HFC ISO 220
5	OIL, JAX COMPRESYN VFV HD 32
6	OIL, JAX PREMIUM R-P OIL
7	OIL, JAX PYRO-FLOW EHC 46
8	OIL, MOBIL 630
9	OIL, MOBIL 632
10	OIL, MOBIL 732
11	OIL, MOBIL DELVAC 1300 SUPER, 15W40, DIESEL ENGINE OIL
12	OIL, MOBIL DTE 10 EXCEL 46
13	OIL, MOBIL DTE EXTRA HEAVY
14	OIL, MOBIL DTE MEDIUM
15	OIL, MOBIL JET OIL 254
16	OIL, MOBIL NUTO H 46
17	OIL, MOBIL SHC 624
18	OIL, MOBIL SYNTURIN 6, BARRIER FLUID
19	OIL, MOBIL SHC 626
20	UCARSOL GT-8715
21	BIOTROL 12.5
22	CORRSHIELD NT4202
23	FIRE FIGHTING FOAM
24	KURIVERTER IK110
25	PROPANE
26	SPECTRUS NS 1106
27	ALKA PRO 20M
28	ALKA PRO 50M
29	CALGON SGL8X30
30	DECHLOR 104
31	K BAC 7015
32	PROCLEAN 200
33	PROCORR 2000
34	RO 503



COMBUSTIBLE LIQUID A101		COMBUSTIBLE LIQUID A102		INERT STORAGE A103		INERT STORAGE A104		CORROSIVE A107	TOXIC A108		OXIDIZER A109		OXIDIZER A110	
# 3, 5, 7, 8, 9, 10, 11, 13 15, 16, 17, 18, AND 19 = 55 GALLON DRUM 13 X 3 = 39 DRUMS AT 55 GALLONS = 2,145 GALLONS TOTAL	# 2, 6, 12, AND 14 = 5 GALLON PALES 4 X 3 =12 PALES AT 5 GALLONS = 60 GALLONS TOTAL # 20, 23 = 275 GALLON TOTE 7 TOTES AT 275 GALLONS = 1,925 GALLONS	# 1 AND 24 = 275 GALLON TOTES 24 TOTES AT 275 GALLONS = 6,600 GALLONS	# 4 = 550 GALLON SUPERTOTES 3 SUPERTOTES AT 550 GALLONS = 1,650 GALLONS TOTAL	# 29 = 275 GALLON TOTE ????? 7 TOTES AT 275???? GALLONS = 1,925 GALLONS # 25 = 5 GALLON PALES 2 PALES AT 5 GALLONS = 10 GALLONS TOTAL	# 29 = 275 GALLON TOTE ????? 6 TOTES AT 275 ???? GALLONS = 1,650 GALLONS # 34 = 275 GALLON TOTE 2 TOTES AT 275 GALLONS = 550 GALLONS	# 29 = 275 GALLON TOTE ????? 8 TOTES AT 275 ???? GALLONS = 2,200 GALLONS	# 29 = 275 GALLON TOTE ????? 6 TOTES AT 275 ???? GALLONS = 1,650 GALLONS	# 22 AND 26 = 55 GALLON DRUM 2 X 2 =4 DRUMS AT 55 GALLONS = 220 GALLONS TOTAL	# 31 AND 33 = 65.625 CU FT TOTE 16 TOTES X 65.625 CU FT TOTE = 1049.92 CU FT TOTAL	# 27, 28, 30 AND 32 = 65.625 CU FT TOTE 12 TOTES X 65.625 CU FT TOTE = 787.44 CU FT TOTAL	# 21 = 275 GALLONS TOTES 18 TOTES X 275 GALLONS = 4,950 GALLONS TOTAL	# 21 = 275 GALLONS TOTES 16 TOTES X 275 GALLONS = 4,400 GALLONS TOTAL	# 21 = 275 GALLONS TOTES 16 TOTES X 275 GALLONS = 4,400 GALLONS TOTAL	# 21 = 275 GALLONS TOTES 16 TOTES X 275 GALLONS = 4,400 GALLONS TOTAL

A1 HAZARDOUS MATERIAL PLAN
SCALE: 1/8" = 1'-0"

N

HAZARDOUS MATERIAL PLAN NOTES

GRAPHIC LEGEND

HAZARDOUS MATERIAL ID

SINGLE STACK

DOUBLE STACK

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CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	2/13/25	ISSUED FOR CONSTRUCTION

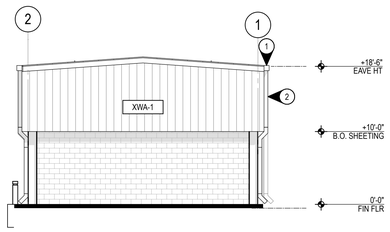
EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

ALAN CREECH
REG NO. 9820
REGISTERED ARCHITECT
STATE OF LOUISIANA
2/13/2025

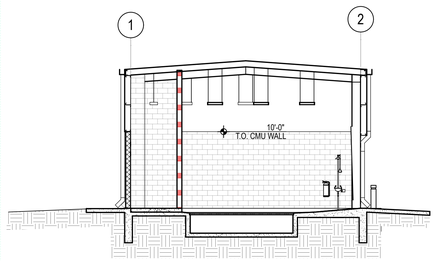
HAZARDOUS MATERIAL PLAN

A-161

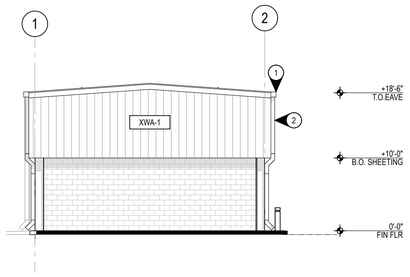
SECURITY CLASS: COMPANY USE
C2-099700-ARC-BLD-ENA-00002-004



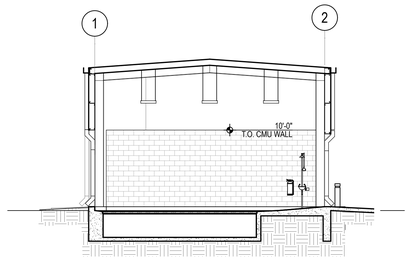
D1 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



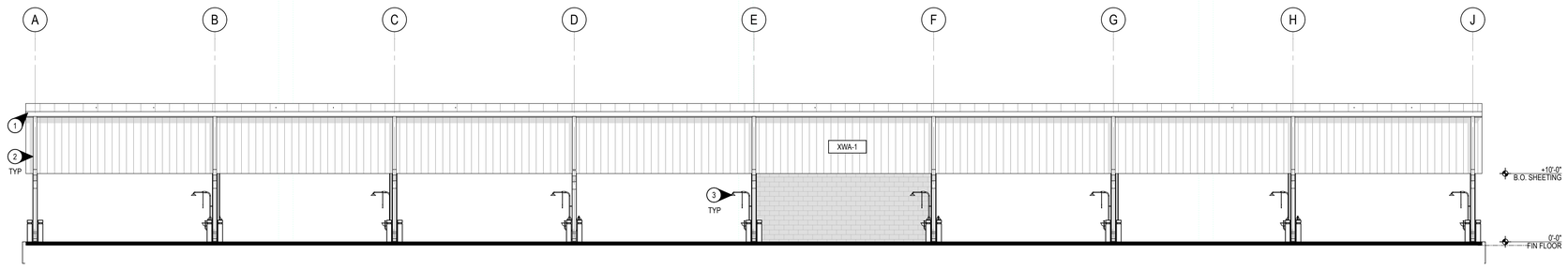
D2 BUILDING SECTION
SCALE: 1/8" = 1'-0"



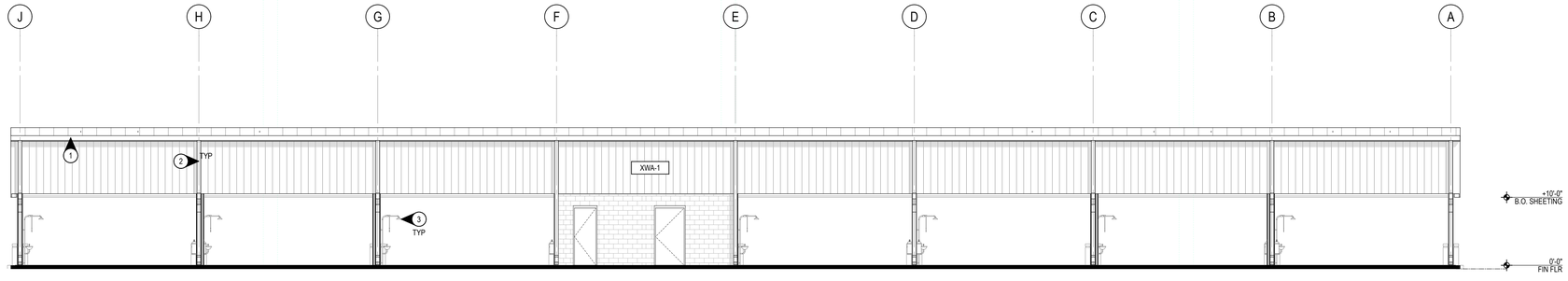
C1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



C2 BUILDING SECTION
SCALE: 1/8" = 1'-0"



B1 EAST ELEVATION
SCALE: 1/8" = 1'-0"



A1 WEST ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION/SECTION NOTES

GRAPHIC LEGEND

REFER TO EXTERIOR ASSEMBLIES FOR ITEMS DESIGNATED THUS:

- XWA- EXTERIOR WALL ASSEMBLY
- ROOF- ROOF ASSEMBLY
- ITEM / SHEET — ENLARGED DETAIL A-500 SERIES
- CONCRETE MASONRY UNIT WITH ELASTOMETRIC COATING XP-1

KEYED NOTES

01 PREFINISHED METAL GUTTER

02 PREFINISHED METAL DOWNSPOUT

03 EMERGENCY ACCESSIBLE SHOWER AND EYE WASH STATION RE: PLUMBING

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REV	DATE	DESCRIPTION
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EA PROJECT NUMBER: 24013
ARCHITECT: ALAN A CREECH
LICENSE #: 9820

ALAN CREECH
REG NO. 9820
REGISTERED ARCHITECT
STATE OF LOUISIANA
2/13/2025

EXTERIOR ELEVATIONS AND DETAILS

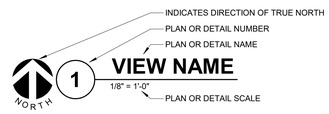
A-401

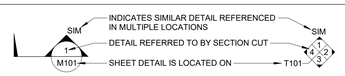
SECURITY CLASS: COMPANY USE
C2-099700-ARC-ELV-ENA-00002-001

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — KEYNOTE: INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
——— NEW
- - - - - - - - EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
— — — NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
——— EXISTING
- - - - - - - - EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
— — — EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG-1 — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

APPLICABLE CODES

CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES AND LOCAL AMENDMENTS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

BUILDING CODE:	IBC 2021 EDITION
PLUMBING CODE:	IPC 2021 EDITION
MECHANICAL CODE:	IMC 2021 EDITION
ELECTRICAL CODE:	NFPA 70 (NEC) 2020 EDITION
ENERGY CONSERVATION CODE:	IECC 2021
LOCAL BUILDING CODE:	LOUISIANA STATE UNIFORM CONSTRUCTION CODE

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

HVAC ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
C	COMMON
CO	CLEANOUT
CFSD	CONTROL/FIRE/SMOKE DAMPER
DN	DOWN
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)
DPS	DIFFERENTIAL PRESSURE SWITCH
EP	ELECTRICAL TO PNEUMATIC VALVE
FD	FIRE DAMPER
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FSD	FIRE/SMOKE DAMPER
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
PS	PRESSURE SWITCH
SCCR	SHORT CIRCUIT CURRENT RATING
SD	SMOKE DAMPER
TAB	TERMINAL AIR BOX
TD	TRANSFER DUCT
TYP	TYPICAL
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)
UON	UNLESS OTHERWISE NOTED

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
2. CATALOG AND MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DESCRIPTION OF MATERIAL SCHEDULED ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL AND SCHEDULED PERFORMANCE TAKES PRECEDENCE OVER THE MODEL NUMBER. THE FIRST MANUFACTURER SCHEDULED IS THE BASIS OF DESIGN.
3. DETERMINATION OF QUANTITIES OF MATERIAL AND EQUIPMENT REQUIRED SHALL BE MADE BY THE CONTRACTOR FROM THE DOCUMENTS. WHERE MATERIAL AND/OR QUANTITY DISCREPANCIES ARISE BETWEEN DRAWINGS, SCHEDULES AND/OR SPECIFICATIONS, THE HIGHER QUALITY/ GREATER NUMBER SHALL GOVERN.
4. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
5. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
6. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS.
7. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
8. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
10. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
11. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
12. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC.
13. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS.
14. MAINTAIN THE DEDICATED ELECTRICAL EQUIPMENT SPACE DEFINED BY THE WIDTH / DEPTH OF ELECTRICAL EQUIPMENT MEASURED FROM THE FLOOR TO A HEIGHT 6'-0" ABOVE THE EQUIPMENT OR THE STRUCTURAL CEILING, WHICHEVER IS LOWER. SYSTEMS FOREIGN TO THE ELECTRICAL DISTRIBUTION SYSTEM ARE NOT ALLOWED IN THE DEDICATED ELECTRICAL SPACE INCLUDING: DUCTWORK, PIPING, ETC.

HVAC SHEET INDEX

M-000	HVAC COVERSHEET - PP, V
M-201	LEVEL 01 PLAN - HVAC
M-400	HVAC DETAILS
M-500	HVAC DIAGRAMS
M-600	HVAC SCHEDULES
GRAND TOTAL: 5	

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PROJECT #240043600.00

VG CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

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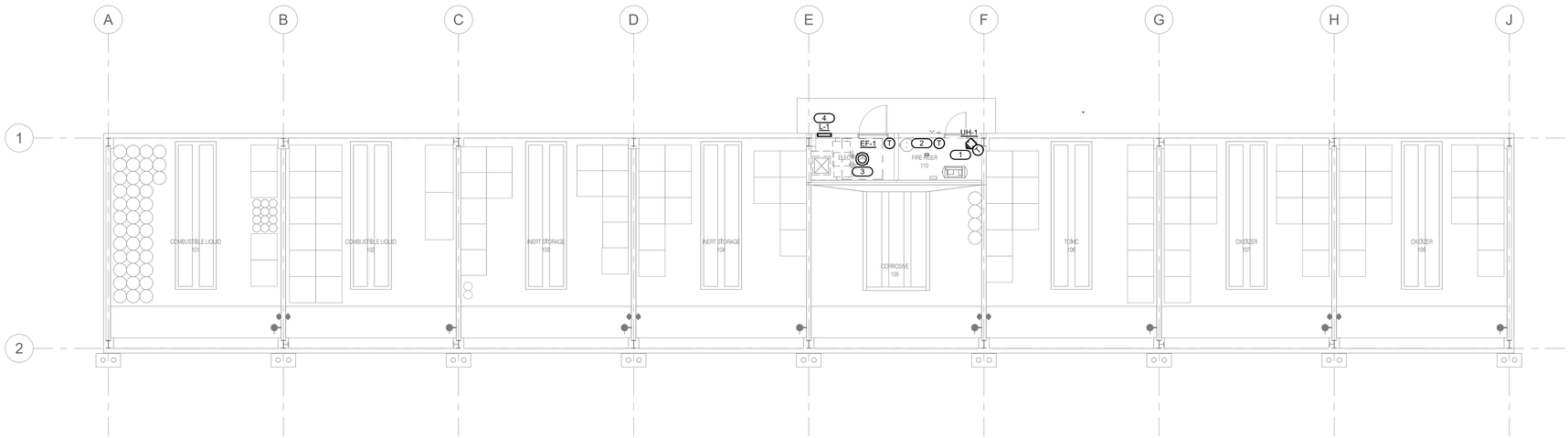
0 1 2 3
REF. SCALE IN INCHES

PROJECT #240043600.00

HVAC COVERSHEET - PP, V

M-000

SECURITY CLASS: COMPANY USE
C2-099700-HVC-NOT-ENA-00002-001



KEYNOTES:

1. THERMOSTAT INTERNAL TO UNIT HEATER.
2. THERMOSTAT FOR SPACE TEMPERATURE MONITORING.
3. INSTALL EXHAUST FAN ON ROOF.
4. INSTALL LOUVER IN WALL 18" ABOVE FINISHED FLOOR TO ALLOW AIRFLOW INTO SPACE.

NORTH

1 LEVEL 01 PLAN - HVAC

1/8" = 1'-0"

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STATE OF LOUISIANA
DAVID WAYNE BICKNISCHATZ
License No. 0046587
PROFESSIONAL ENGINEER
IN
MECHANICAL ENGINEERING

02.13.2025
EXP,09.30.2026

LEVEL 01 PLAN - HVAC

M-201

SECURITY CLASS: COMPANY USE
C2-099700-HVC-BLD-ENA-00002-001

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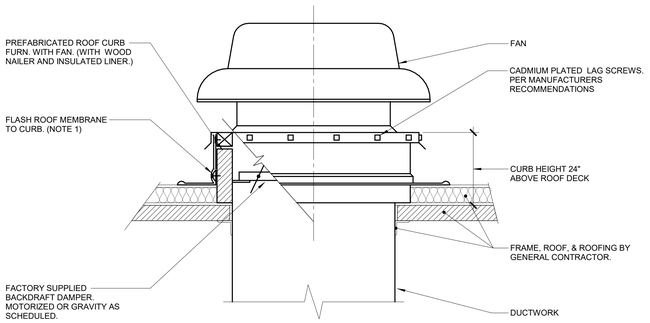
0 1 2 3

REF. SCALE IN INCHES

PROJECT #24004360.00



1 ROOF FAN/HOOD CURB

NO SCALE

NOTES:

1. ALL ROOF FLASHING SHALL BE PER ROOFING MANUFACTURERS RECOMMENDATIONS.

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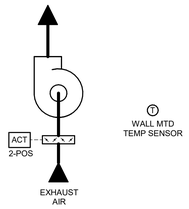
02.13.2025
EXP, 09.30.2026

HVAC DETAILS

M-400

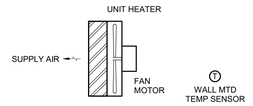
SECURITY CLASS: COMPANY USE
C2-099700-HVC-DTL-ENA-00002-001



SEQUENCE OF OPERATION:
EXHAUST FAN SHALL BE CONTROLLED BY A WALL MOUNTED SPACE TEMPERATURE SENSOR TO MAINTAIN A SETPOINT OF 80°F (ADJ.).

2-POSITION DAMPER SHALL FULLY OPEN WHEN FAN IS ENERGIZED. WHEN FAN IS DE-ENERGIZED, 2-POSITION DAMPER SHALL FULLY CLOSE.

1 EXHAUST FAN (EF-1)
NO SCALE



SEQUENCE OF OPERATION:

WHEN THE SPACE TEMPERATURE DROPS BELOW 45°F, THE UNIT HEATER SHALL BE ACTIVATED THROUGH THE SPACE WALL MOUNTED THERMOSTAT. WHEN THE SPACE TEMPERATURE IS ABOVE 50°F, THE UNIT HEATER SHALL BE DE-ENERGIZED.

2 UNIT HEATER CONTROL - ELECTRIC
NO SCALE

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HVAC DIAGRAMS

M-500

SECURITY CLASS: COMPANY USE
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0 1 2 3
REF. SCALE IN INCHES

PROJECT #24004360.00

UNIT HEATER SCHEDULE - ELECTRIC

NOTES:
1. PROVIDE WITH UNIT MOUNTED THERMOSTAT. INITIAL SETPOINT SHALL BE 45°F.

TAG NAME	AREA SERVED	CONFIGURATION	CFM	HEATING ELEMENT			ELECTRICAL						CONTROL	MANUFACTURER	MODEL	NOTES
					TOTAL KW (QTY * KW)				DISCONNECT		CONTROLLER/ STARTER					
				NUMBER OF STAGES	QTY	KW	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	SCCR				
UH-1	110 FIRE RISER	HORIZONTAL	380	1	1	5	208	3	EC	NF	MFR	5000	THERMOSTAT	MODINE	HER50	NOTE 1

FAN SCHEDULE

NOTES:
1. PROVIDE SHAFT GROUNDING AS REQUIRED IN THE MOTOR SPECIFICATION 23 05 13.
2. PROVIDE UNIT WITH WALL MOUNTED THERMOSTAT.

TAG NAME	AREA SERVED	CFM	S.P. IN. W.C.	FAN RPM (NOTE F)	DRIVE TYPE	MAX. AMCA SONES	CURB TYPE (NOTE G)	ELECTRICAL (NOTE 1)									WEIGHT	MANUFACTURER	MODEL	NOTES
								BHP (NOTE E)	MHP (NOTE E)	VOLTAGE	PHASES	DISCONNECT		CONTROLLER/ STARTER						
												BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	SCCR				
EF-1	109 ELECTRICAL	300	0.26	1071	DIRECT	4.3	MFR	0.03	0.1	120	1	MFR	NF	MFR	ECM	5000	28	GREENHECK	G-095-VG	

LOUVER SCHEDULE

NOTES:
1. COORDINATE FINISH WITH ARCHITECT.

TAG NAME	AREA SERVED	CFM	SIZE (INCHES)		FREE AREA VELOCITY	S.P. IN. W.C.	FINISH	MANUFACTURER	MODEL	NOTES
			WIDTH	HEIGHT						
L-1	109 ELECTRICAL	300	24	12	583	0.13	NOTE 1	GREENHECK	EHV-550	

SCHEDULE GENERAL NOTES:

A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANUFACTURER
EC = ELECTRICAL CONTRACTOR.
MC = FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
MFR/EC = FURNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL CONTRACTOR.
TCC = TEMPERATURE CONTROL CONTRACTOR

B. DISCONNECT TYPE:
CB = CIRCUIT BREAKER
F = FUSED
NF = NON-FUSED
PLUG = PLUG AND CORD

C. CONTROLLER STARTER TYPE:
FV = FULL VOLTAGE
WYE = WYE-DELTA
SS = SOLID STATE (SOFT START)
MS = MANUAL STARTER
VFD = VARIABLE FREQUENCY DRIVE
VFD/B = VARIABLE FREQUENCY DRIVE WITH BYPASS
YD = WYE - DELTA
ECM = ELECTRONICALLY COMMUTATED MOTOR

D. FAN RPM SHALL NOT EXCEED 110% OF SCHEDULED VALUE. WITH THE SCHEDULED WHEEL TYPE. SUBSTITUTION OF BI OR BIA FANS FOR FC IS ACCEPTABLE IF EFFICIENCY IS NOT LOWER.

E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE RATING.

F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM.

G. CURB TYPE:
MFR = STANDARD CURB BY MANUFACTURER
GC = BY GENERAL CONTRACTOR
SAC = SOUND ATTENUATOR CURB

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0 1 2 3
REF. SCALE IN INCHES

PROJECT #24004360.00

HVAC SCHEDULES

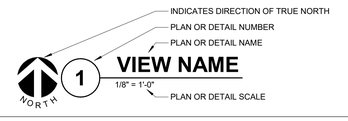
M-600

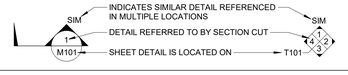
SECURITY CLASS: COMPANY USE
C2-099700-HVC-SCH-ENA-00002-001

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — KEYNOTE: INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
———— NEW
- - - - - - EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
— — — NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
———— EXISTING
- - - - - - EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
— — — EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG-1 — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

APPLICABLE CODES

CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES AND LOCAL AMENDMENTS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

BUILDING CODE:	IBC 2021 EDITION
PLUMBING CODE:	IPC 2021 EDITION
MECHANICAL CODE:	IMC 2021 EDITION
ELECTRICAL CODE:	NFPA 70 (NEC) 2020 EDITION
ENERGY CONSERVATION CODE:	IECC 2021
LOCAL BUILDING CODE:	LOUISIANA STATE UNIFORM CONSTRUCTION CODE

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

PLUMBING SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
—AV—	ACID VENT
—AW—	ACID WASTE
—CA—	COMPRESSED AIR
—CW—	COLD WATER - POTABLE
—D—	DRAIN
—DI—	DEIONIZED WATER
—DT—	DRAIN TILE
—FOR—	FUEL OIL RETURN
—FOS—	FUEL OIL SUPPLY
—G—	NATURAL GAS
—GRV—	GAS REGULATOR VENT
—GSAN—	SANITARY DRAINAGE (GREASE SANITARY DRAINAGE)
—GV—	GREASE VENT
—HW—	HOT WATER - POTABLE
—HWC—	HOT WATER CIRCULATING - POTABLE
—HW140—	HOT WATER - POTABLE NUMBER INDICATES TEMP
—HWC140—	HOT WATER CIRC. - POTABLE NUMBER INDICATES TEMP
—IA—	INSTRUMENT AIR
—MA—	MEDICAL AIR
—MPG—	MEDIUM PRESSURE GAS
—MV—	MEDICAL VACUUM
—N—	NITROGEN
—NCW—	NON-POTABLE COLD WATER
—NHW—	NON-POTABLE HOT WATER
—NO—	NITROUS OXIDE
—O—	OXYGEN
—P—	PROPANE GAS
—PCWS/PCWR—	PROCESS COOLING WATER SUPPLY/RETURN
—PD—	PUMPED DISCHARGE
—PW—	PURE WATER
—RO—	REVERSE OSMOSIS WATER
—SAN—	SANITARY DRAINAGE
—SCW—	SOFT COLD WATER
—SHW—	SOFT HOT WATER
—ST(1,000)—	STORM DRAINAGE (ROOF SQUARE FOOTAGE)
—STS—	STORM DRAINAGE (SECONDARY)
—STW—	SOFT TEMPERED WATER
—TW—	TEMPERED WATER
—V—	VENT
—VAC—	LAB VACUUM
—W—	SERVICE WATER - POTABLE
—WAGD—	WASTE ANETHESIA GAS DISPOSAL
	PIPE CONTINUATION
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
FD	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
	ROUTE TO DRAIN
RD-1 6"(1000)	ROOF DRAIN PROPERTIES SYMBOL SIZE (ROOF SQ. FT.)
	DIELECTRIC CONNECTION
	UNION/FLANGE
	SHUTOFF VALVE NORMALLY OPEN
	SHUTOFF VALVE NORMALLY CLOSED
GPM	BALANCING VALVE (NUMBER INDICATES GPM)
	CHECK VALVE
	BACKFLOW PREVENTER
	SOLENOID VALVE
	SAFETY/RELIEF VALVE
	SAFETY RELIEF VALVE W/ DRIP PAN ELBOW
	VACUUM BREAKER
P	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
P	PRESSURE SENSOR (FURNISHED WITH BALL VALVE)
T	TEMPERATURE SENSOR WITH WELL
T	THERMOMETER WITH WELL (DIAL TYPE)
	THERMOMETER WITH WELL (FILLED TYPE)
	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
	PRESSURE REDUCING VALVE (LIQUID/GAS)
	PUMP
M	METER
	ALIGNMENT GUIDE
	PIPE ANCHOR
EJ-# (#.#")	EXPANSION JOINT #.#" IS THE EXPANSION TRAVEL INCHES
	AIR ADMITTANCE VALVE

PLUMBING ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BT	BATHTUB
CB	CATCH BASIN
CI	CAST IRON
CO	CLEANOUT
CS	CLINICAL SINK
DB	DIALYSIS BOX
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
DN	DOWN
E	EXISTING
EE	EMERGENCY EYEWASH
ES	EMERGENCY SHOWER
ESE	EMERGENCY SHOWER/EYEWASH
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FM	FLOW METER
FS	FLOOR SINK
GD	GARBAGE DISPOSER
GI	GREASE INTERCEPTOR
HB	HOSE BIBB
I.E.	INVERT ELEVATION (FOR REFERENCE ONLY)
L or LAV	LAVATORY
MB	MOP BASIN
MH	MANHOLE
MV	MIXING VALVE
NIC	NOT IN CONTRACT
NT	NEUTRALIZATION TANK
OS	OIL SEPARATOR
RD	ROOF DRAIN
SCCR	SHORT CIRCUIT CURRENT RATING
SH	SHOWER
SK	SINK
SS	SERVICE SINK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WATER HEATER
WMF	WASHING MACHINE FIXTURE
WM	WATER METER
WS	WATER SOFTENER
UB	UTILITY BOX
UON	UNLESS OTHERWISE NOTED
YCO	YARD CLEANOUT

PLUMBING GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.
3. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
4. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
5. INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY ALL ELEVATIONS BEFORE BEGINNING WORK.
6. VERIFY UNDERGROUND PIPE SIZES, INVERT ELEVATIONS, AND LOCATIONS PRIOR TO BEGINNING ANY WORK.
7. REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO PLUMBING FIXTURES.
8.

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
2. CATALOG AND MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DESCRIPTION OF MATERIAL SCHEDULED ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL AND SCHEDULED PERFORMANCE TAKES PRECEDENCE OVER THE MODEL NUMBER. THE FIRST MANUFACTURER SCHEDULED IS THE BASIS OF DESIGN.
3. DETERMINATION OF QUANTITIES OF MATERIAL AND EQUIPMENT REQUIRED SHALL BE MADE BY THE CONTRACTOR FROM THE DOCUMENTS. WHERE MATERIAL AND/OR QUANTITY DISCREPANCIES ARISE BETWEEN DRAWINGS, SCHEDULES AND/OR SPECIFICATIONS, THE HIGHER QUALITY/ GREATER NUMBER SHALL GOVERN.
4. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
5. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
6. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS.
7. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
8. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
10. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
11. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
12. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC.
13. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS.
14. MAINTAIN THE DEDICATED ELECTRICAL EQUIPMENT SPACE DEFINED BY THE WIDTH / DEPTH OF ELECTRICAL EQUIPMENT MEASURED FROM THE FLOOR TO A HEIGHT 6'-0" ABOVE THE EQUIPMENT OR THE STRUCTURAL CEILING, WHICHEVER IS LOWER. SYSTEMS FOREIGN TO THE ELECTRICAL DISTRIBUTION SYSTEM ARE NOT ALLOWED IN THE DEDICATED ELECTRICAL SPACE INCLUDING: DUCTWORK, PIPING, ETC.

PLUMBING ROUGH-IN SCHEDULE

NOTES: (APPLIES TO ALL PLUMBING FIXTURES LISTED BELOW)
1) SIZES SHOWN ARE MINIMUMS. LARGER SIZES SHOWN ON THE DRAWING SHALL DICTATE THE ROUGH-IN SIZE.

TAG NAME	DESCRIPTION	TEMPERED WATER	HWC
ESE-1	EMERGENCY SHOWER EYE/FACE WASH	1 1/2"	1

PLUMBING SHEET INDEX

P-000	PLUMBING COVERSHEET
P-201	LEVEL 01 PLAN - PLUMBING
P-400	PLUMBING DETAILS & SCHEDULES
P-600	PLUMBING SCHEDULES
GRAND TOTAL: 4	

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PROJECT #24004360.00

VG CP2 CHEMICAL STORAGE BUILDING

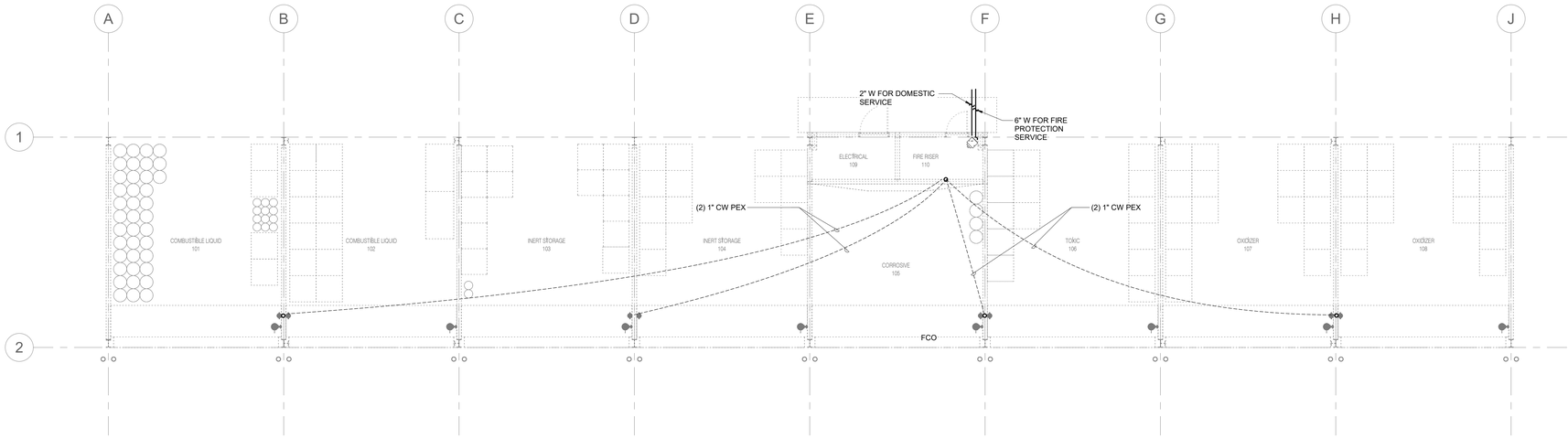
DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

PLUMBING COVERSHEET

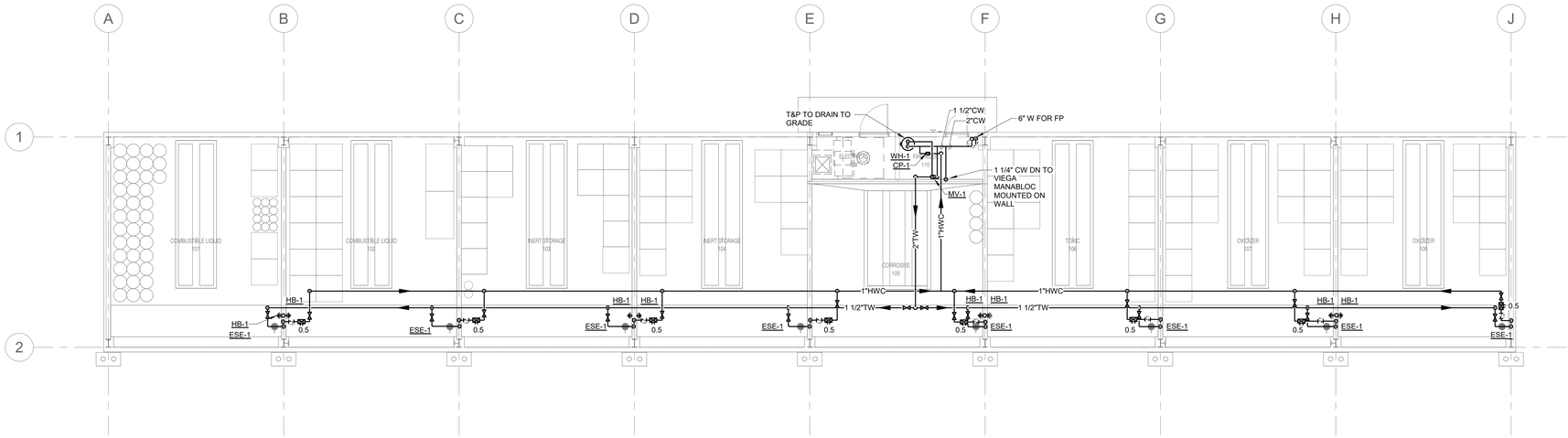
P-000

SECURITY CLASS: COMPANY USE
C2-099700-MEC-NOT-ENA-00002-001



1 UNDERFLOOR PLAN - PLUMBING

1/8" = 1'-0"



2 LEVEL 01 PLAN - PLUMBING

1/8" = 1'-0"

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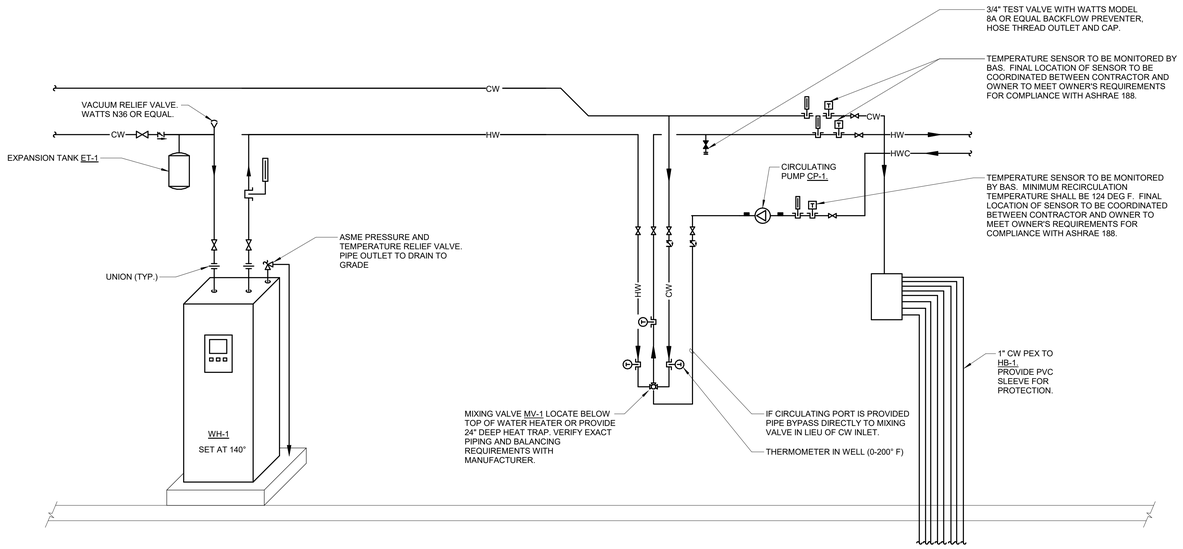
REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

02.13.2025
EXP,09.30.2026

LEVEL 01 PLAN - PLUMBING

P-201

SECURITY CLASS: COMPANY USE
C2-099700-MEC-BLD-ENA-00002-001



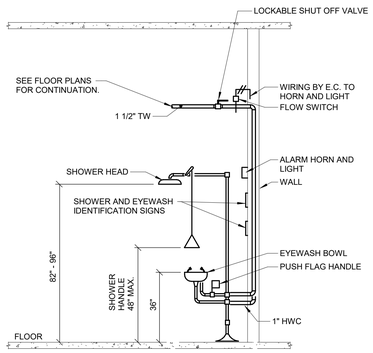
WATER HEATING

1 DOMESTIC WATER FLOW DIAGRAM

NO SCALE

PLUMBING MATERIAL LIST

TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
ESE-1	EMERGENCY SHOWER & EYE/FACE WASH - CLASS 1, DIV 1 RATED, FREEZE RESISTANT, ACCESSIBLE, COMBINATION UNIT, FREESTANDING, FLOOR MOUNTED WITH BACK INLET, STAINLESS STEEL SHOWER HEAD, BRASS/BRONZE STAY OPEN BALL VALVE, STAINLESS STEEL/ALUMINUM PULL ROD, STAINLESS STEEL BOWL WITH HINGED DUST COVER, PLASTIC SPRAY HEADS WITH CAPS AND RETAINING CHAINS/STRAPS, BRASS SUPPLY ARMS, BRASS/BRONZE STAY OPEN BALL VALVE, METAL FLAG, INTEGRAL FLOW CONTROL FITTINGS, STAINLESS STEEL SUPPLY PIPING AND FITTINGS, SELF REGULATING HEATING CABLE WITH INSULATION AND PLASTIC JACKET SYSTEM TO PREVENT WETTED COMPONENTS FROM FREEZING, ADDITIONAL 6 FOOT HEAT TRACE CABLE WHIP FOR FIELD INSTALLATION OF SUPPLY PIPING, HEAT TRACFE INDICATOR LIGHT, UNIVERSAL IDENTIFICATION SIGN, ANSI Z358.1-2004 COMPLIANT. HEATING CABLE ELECTRICAL REQUIREMENTS - 120 VOLT, 80 WATTS PEAK POWER CONSUMPTION. PROVIDE ELECTRIC ALARM UNIT IN NEMA 4X ENCLOSURE INCLUDING VISUAL AND AUDIBLE ALARM. FOR COMMUNICATION TO DDC SYSTEM, PROVIDE WATERPROOF FLOW SWITCH. SHALL BE ACTIVATED BY EITHER FLOW TO EYEWASH OR SHOWER. MINIMUM FLOW RATE OF SHOWER SHALL BE 20 GPM AT 30 PSI. MINIMUM FLOW RATE OF EYE/FACE WASH SHALL BE 3.0 GPM AT 30 PSI. ACTIVATION TIME SHALL BE 1 SECOND OR LESS. BRASS/BRONZE PIPING, FITTINGS, AND VALVES SHALL BE CHROME-PLATED OR CHEMICAL-RESISTANT POWDER COATED. MOUNT SHOWER HEAD BETWEEN 82"-96" AND PULL ROD AT MAXIMUM 69" ABOVE FINISH FLOOR. EYE/FACE WASH OUTLET HEADS SHALL BE 33-45" ABOVE FINISH FLOOR.	EMERGENCY SHOWER - GUARDIAN (GFR3200 SERIES), BRADLEY (S19-304GA SERIES), ACORN SAFETY, HAWS, SPEAKMAN, ENCON
HB-1	HOSE BIBB - FREEZELESS YARD HYDRANT, INTEGRAL VACUUM BREAKER, PULL DOWN DIVERTER SPOUT, AUTOMATIC DRAINING WITH SUB GRADE DRAINDOWN RESERVOIR, 3/4" MALE HOSE THREAD CONNECTION, 1" I.P.S. INLET, ONE PIECE PLUNGER, LOCKABLE HANDLE. PROVIDE WITH ASSE 1052 OR 1057 APPROVED, FIELD TESTABLE, DOUBLE CHECK VALVE BACK FLOW PREVENTER WITH 3/4" THREADED HOSE CONNECTION AT HYDRANT OUTLET. BURY AT A DEPTH OF 24" TO ASSURE PLUNGER AND RESERVOIR ARE BELOW FROST LINE.	WOODFORD (S3), FREEZE FLOW (EXECUTIVE)
MV-1	MIXING VALVE - THERMOSTATIC MIXING VALVE FOR EMERGENCY EYEWASH OR COMBINATION EYEWASH/FACEWASH FIXTURE, BRONZE BODY CONSTRUCTION, FAIL TO COLD WATER ONLY, OUTLET THERMOMETER, COMBINATION CHECK STOPS OR SEPARATE SUPPLY CHECK VALVES AND SHUT OFF VALVES, OUTLET ISOLATION VALVE, MOUNTING BRACKET. SUPPLY SHUT OFF VALVES SHALL BE LOCKED OPEN OR CONTRACTOR SHALL PROVIDE A LOCKING CABINET TO PREVENT UNAUTHORIZED CLOSURE. CABINET SHALL BE SURFACE MOUNTED 18 GAUGE STAINLESS STEEL WITH 16 GAUGE LOCKING DOOR TO ENCLOSE VALVE, INLET CHECK STOPS, OUTLET THERMOMETER, AND OUTLET VALVE. THERMOSTATIC MIXING AND PRESSURE REGULATING VALVE TO DELIVER 3 GPM OF TEMPERED WATER (60-100 DEGREE F) WITH 10 PSI PRESSURE DIFFERENTIAL. UNIT SHALL BE ASSE 1071 LISTED AND APPROVED. VALVE SHALL COMPLY WITH FEDERAL ACT S.3874.	LEONARD (EXL-800-LF)

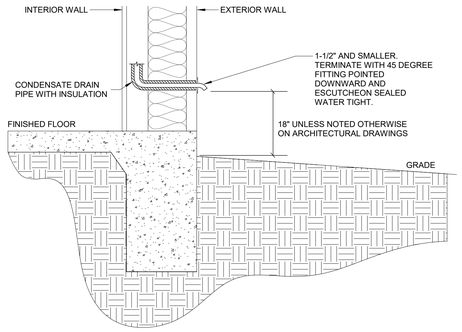


NOTES:

1. EYEWASH AND SHOWER PERFORMANCE AND ROUGH-IN SHALL MEET THE CURRENT VERSION OF ANSI Z358.1.
2. GENERAL CONTRACTOR SHALL PAINT AREA AROUND AND BEHIND SHOWER/EYEWASH A BRIGHT COLOR AS DIRECTED BY THE ARCHITECT.

2 EMERGENCY SHOWER & EYEWASH - FREE STANDING

NO SCALE



3 T&P DISCHARGE DETAIL

NO SCALE

PLUMBING (WITH POWER) MATERIAL LIST

		ELECTRICAL										
		TOTAL (QTY* KW)						DISCONNECT		CONTROLLER /STARTER		
TAG NAME	DESCRIPTION	KW	HP (NOTE E)	FLA	MCA	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	MANUFACTURER AND MODEL
CP-1	CIRCULATING PUMP - VARIABLE SPEED CONTROLLER WITH SETTINGS TO ADJUST AND MAINTAIN A CONSTANT: SPEED, FIXED PRESSURE, OR PROPORTIONAL PRESSURE. LEAD FREE BRONZE OR STAINLESS STEEL CONSTRUCTION. PERMANENTLY LUBRICATED SEALED BEARINGS, MECHANICAL SEAL, OIL LUBRICATED, ECM MOTOR WITH INTEGRATED VARIABLE SPEED CONTROL, FLANGED CONNECTIONS, RATED FOR 125 PSIG AT 225°F, UL LISTED. 4 GPM @ 15 FEET OF HEAD. ELECTRICAL REQUIREMENTS - HARD-WIRE	0	0.2	0.65	0	120	1	EC	PLUG	MFR	FV	PUMP - GRUNDFOS (ALPHA2 15-55SF/LC [ALPHA2 15-55SF]), B&G (ECOCIRC SERIES), ARMSTRONG (COMPASS 20-20 SS SERIES)
WH-1	WATER HEATER - ELECTRIC, VERTICAL, METAL CABINET, BAKED ENAMEL FINISH, GLASS-LINED ASME STAMPED WELDED STEEL TANK, 150 PSI WORKING PRESSURE, FIBERGLASS OR FOAM INSULATION, BRASS WATER CONNECTIONS AND DRAIN VALVE, ASME APPROVED T&P RELIEF VALVE, MAGNESIUM ANODE ROD, INDIVIDUAL FLANGE-MOUNTED IMMERSION HEATING ELEMENTS SHEATHED WITH CORROSION-RESISTANT METAL ALLOY, EXTERNALLY ADJUSTABLE AUTOMATIC IMMERSION WATER THERMOSTAT, MANUAL RESET HIGH TEMPERATURE CUTOFF SWITCH, ENCLOSED CONTROLS, VENTILATED CONTROL CABINET, PILOT LIGHTS INDICATING MAIN POWER AND HEATING STEPS, CONTROL CIRCUIT TOGGLE SWITCH, SEQUENCING STEP CONTROLLER, CONTROL TRANSFORMER, POWER CIRCUIT FUSES, MAGNETIC CONTACTORS, CERAMIC TERMINAL BLOCK, FACTORY ASSEMBLED AND WIRED, 3-YEAR WARRANTY, UL LISTED, NEC COMPLIANT ELECTRICAL COMPONENTS, COMPLIANT TO NAECA, ASHRAE 90.1 AND ASHRAE 90A. 120 GALLON CAPACITY, 123 GPH RECOVERY RATE AT 100°F TEMPERATURE RISE. HEATING ELEMENTS RATED FOR LESS THAN 75 WATTS PER SQUARE INCH. ELECTRICAL REQUIREMENTS - 120V CONTROL CIRCUIT. SET WATER TEMPERATURE AT 140°F.	30	0	0	0	480	3	EC	NF	0	0	WATER HEATER - A.O. SMITH (DVE), AMERICAN (ITCE31), BOCK (F SERIES), BRADFORD WHITE (M-II), RHEEM/RUUD (E SERIES), STATE (SSE), HTP (CGE SERIES HEAVY DUTY)

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PROJECT #240043600.00

VG CP2 CHEMICAL STORAGE BUILDING

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CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

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Texas Firm Registration #F-24262

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REF. SCALE IN INCHES

PROJECT #240043600.00

PLUMBING DETAILS & SCHEDULES

P-400

SECURITY CLASS: COMPANY USE
C2-099700-MEC-DTL-ENA-00002-001

PLUMBING (WITH POWER) MATERIAL LIST

TAG NAME	DESCRIPTION	ELECTRICAL										MANUFACTURER AND MODEL
		TOTAL (QTY* KW)	HP (NOTE E)	FLA	MCA	VOLTAGE	PHASES	DISCONNECT		CONTROLLER /STARTER		
		KW						BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	
CP-1	CIRCULATING PUMP - VARIABLE SPEED CONTROLLER WITH SETTINGS TO ADJUST AND MAINTAIN A CONSTANT: SPEED, FIXED PRESSURE, OR PROPORTIONAL PRESSURE. LEAD FREE BRONZE OR STAINLESS STEEL CONSTRUCTION, PERMANENTLY LUBRICATED SEALED BEARINGS, MECHANICAL SEAL. OIL LUBRICATED, ECM MOTOR WITH INTEGRATED VARIABLE SPEED CONTROL, FLANGED CONNECTIONS, RATED FOR 125 PSIG AT 225°F, UL LISTED. 4 GPM @ 15 FEET OF HEAD. ELECTRICAL REQUIREMENTS - HARD-WIRE	0	0.2	0.65	0	120	1	EC	PLUG	MFR	FV	PUMP - GRUNDFOS (ALPHA2 15-55SF/LC [ALPHA2 15-55SF]), B&G (ECOCIRC SERIES), ARMSTRONG (COMPASS 20-20 SS SERIES)
WH-1	WATER HEATER - ELECTRIC, VERTICAL, METAL CABINET, BAKED ENAMEL FINISH, GLASS-LINED ASME STAMPED WELDED STEEL TANK, 150 PSI WORKING PRESSURE, FIBERGLASS OR FOAM INSULATION, BRASS WATER CONNECTIONS AND DRAIN VALVE, ASME APPROVED T&P RELIEF VALVE, MAGNESIUM ANODE ROD, INDIVIDUAL FLANGE-MOUNTED IMMERSION HEATING ELEMENTS SHEATHED WITH CORROSION-RESISTANT METAL ALLOY, EXTERNALLY ADJUSTABLE AUTOMATIC IMMERSION WATER THERMOSTAT, MANUAL RESET HIGH TEMPERATURE CUTOFF SWITCH, ENCLOSED CONTROLS, VENTILATED CONTROL CABINET, PILOT LIGHTS INDICATING MAIN POWER AND HEATING STEPS, CONTROL CIRCUIT TOGGLE SWITCH, SEQUENCING STEP CONTROLLER, CONTROL TRANSFORMER, POWER CIRCUIT FUSES, MAGNETIC CONTACTORS, CERAMIC TERMINAL BLOCK, FACTORY ASSEMBLED AND WIRED, 3-YEAR WARRANTY, UL LISTED, NEC COMPLIANT ELECTRICAL COMPONENTS, COMPLIANT TO NAECA, ASHRAE 90.1 AND ASHRAE 90A. 120 GALLON CAPACITY, 123 GPH RECOVERY RATE AT 100°F TEMPERATURE RISE. HEATING ELEMENTS RATED FOR LESS THAN 75 WATTS PER SQUARE INCH. ELECTRICAL REQUIREMENTS - 120V CONTROL CIRCUIT. SET WATER TEMPERATURE AT 140°F.	30	0	0	0	480	3	EC	NF	0	0	WATER HEATER - A.O. SMITH (DVE), AMERICAN (ITCE31), BOCK (F SERIES), BRADFORD WHITE (M-II), RHEEMRUUD (E SERIES), STATE (SSE), HTP (CGE SERIES HEAVY DUTY)

PLUMBING MATERIAL LIST

TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
ESE-1	EMERGENCY SHOWER & EYE/FACE WASH - CLASS 1, DIV 1 RATED, FREEZE RESISTANT, ACCESSIBLE, COMBINATION UNIT, FREESTANDING, FLOOR MOUNTED WITH BACK INLET, STAINLESS STEEL SHOWER HEAD, BRASS/BRONZE STAY OPEN BALL VALVE, STAINLESS STEEL/ALUMINUM PULL ROD, STAINLESS STEEL BOWL WITH HINGED DUST COVER, PLASTIC SPRAY HEADS WITH CAPS AND RETAINING CHAINS/STRAPS, BRASS SUPPLY ARMS, BRASS/BRONZE STAY OPEN BALL VALVE, METAL FLAG, INTEGRAL FLOW CONTROL FITTINGS, STAINLESS STEEL SUPPLY PIPING AND FITTINGS, SELF REGULATING HEATING CABLE WITH INSULATION AND PLASTIC JACKET SYSTEM TO PREVENT WETTED COMPONENTS FROM FREEZING, ADDITIONAL 6 FOOT HEAT TRACE CABLE WHIP FOR FIELD INSTALLATION OF SUPPLY PIPING, HEAT TRACFE INDICATOR LIGHT, UNIVERSAL IDENTIFICATION SIGN, ANSI Z358.1-2004 COMPLIANT. HEATING CABLE ELECTRICAL REQUIREMENTS - 120 VOLT, 80 WATTS PEAK POWER CONSUMPTION. PROVIDE ELECTRIC ALARM UNIT IN NEMA 4X ENCLOSURE INCLUDING VISUAL AND AUDIBLE ALARM. FOR COMMUNICATION TO DDC SYSTEM, PROVIDE WATERPROOF FLOW SWITCH. SHALL BE ACTIVATED BY EITHER FLOW TO EYEWASH OR SHOWER. MINIMUM FLOW RATE OF SHOWER SHALL BE 20 GPM AT 30 PSI. MINIMUM FLOW RATE OF EYE/FACE WASH SHALL BE 3.0 GPM AT 30 PSI. ACTIVATION TIME SHALL BE 1 SECOND OR LESS. BRASS/BRONZE PIPING, FITTINGS, AND VALVES SHALL BE CHROME-PLATED OR CHEMICAL-RESISTANT POWDER COATED. MOUNT SHOWER HEAD BETWEEN 82"-96" AND PULL ROD AT MAXIMUM 69" ABOVE FINISH FLOOR. EYE/FACE WASH OUTLET HEADS SHALL BE 33-45" ABOVE FINISH FLOOR.	EMERGENCY SHOWER - GUARDIAN (GFR3200 SERIES), BRADLEY (S19-304CA SERIES), ACORN SAFETY, HAWS, SPEAKMAN, ENCON
HB-1	HOSE BIBB - FREEZELESS YARD HYDRANT, INTEGRAL VACUUM BREAKER, PULL DOWN DIVERTER SPOUT, AUTOMATIC DRAINING WITH SUB GRADE DRAINDOWN RESERVOIR, 3/4" MALE HOSE THREAD CONNECTION, 1" I.P.S. INLET, ONE PIECE PLUNGER, LOCKABLE HANDLE. PROVIDE WITH ASSE 1052 OR 1057 APPROVED, FIELD TESTABLE, DOUBLE CHECK VALVE BACK FLOW PREVENTER WITH 3/4" THREADED HOSE CONNECTION AT HYDRANT OUTLET. BURY AT A DEPTH OF 24" TO ASSURE PLUNGER AND RESERVOIR ARE BELOW FROST LINE.	WOODFORD (S3), FREEZE FLOW (EXECUTIVE)
MV-1	MIXING VALVE - THERMOSTATIC MIXING VALVE FOR EMERGENCY EYEWASH OR COMBINATION EYEWASH/FACEWASH FIXTURE, BRONZE BODY CONSTRUCTION, FAIL TO COLD WATER ONLY, OUTLET THERMOMETER, COMBINATION CHECK STOPS OR SEPARATE SUPPLY CHECK VALVES AND SHUT OFF VALVES, OUTLET ISOLATION VALVE, MOUNTING BRACKET. SUPPLY SHUT OFF VALVES SHALL BE LOCKED OPEN OR CONTRACTOR SHALL PROVIDE A LOCKING CABINET TO PREVENT UNAUTHORIZED CLOSURE. CABINET SHALL BE SURFACE MOUNTED 18 GAUGE STAINLESS STEEL WITH 16 GAUGE LOCKING DOOR TO ENCLOSE VALVE, INLET CHECK STOPS, OUTLET THERMOMETER, AND OUTLET VALVE. THERMOSTATIC MIXING AND PRESSURE REGULATING VALVE TO DELIVER 3 GPM OF TEMPERED WATER (60-100 DEGREE F) WITH 10 PSI PRESSURE DIFFERENTIAL. UNIT SHALL BE ASSE 1071 LISTED AND APPROVED. VALVE SHALL COMPLY WITH FEDERAL ACT S.3874.	LEONARD (EXL-800-LF)

PRELIMINARY
NOT FOR
CONSTRUCTION

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PROJECT #24004360.00

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VG CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
A	07/25/2024	ISSUED FOR REVIEW

NOT FOR REGULATORY APPROVAL, PERMITTING OR CONSTRUCTION

PLUMBING SCHEDULES

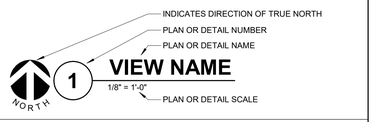
P-600

SECURITY CLASS: COMPANY USE
C2-099700-MEC-SCH-ENA-00002-001

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — KEYNOTE: INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL



LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
——— NEW
- - - - - - EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
— — — NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
——— EXISTING
- - - - - - EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
— — — EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG-1 — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

ELECTRICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
ABV	ABOVE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ASR	ARCHITECTURAL SURFACE RACEWAY
BC	BELOW COUNTER
C	CONDUIT (BRANCH CIRCUIT OR FEEDER CONTEXT)
CO	CONDUIT AND BOX ROUGH-IN ONLY (ROUGH-IN ONLY)
EG	EQUIPMENT GROUND
EGC	EQUIPMENT GROUNDING CONDUCTOR
EOL	END OF LINE
EPO	EMERGENCY POWER OFF
GFR	GROUND FAULT REMOTE
HOA	HAND/OFF/AUTO
ITR	IT RACK MOUNTED RECEPTACLE
NC	NORMALLY CLOSED
NEMA #	NEMA RATING
NIC	NOT IN CONTRACTED SCOPE
NO	NORMALLY OPEN
ROOF	EQUIPMENT LOCATED ON ROOF ABOVE
SM	SURFACE MOUNTED
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED

CONDUIT INSTALLATION SCHEDULE

THE FOLLOWING SCHEDULE SHALL BE ADHERED TO UNLESS THEY CONSTITUTE A VIOLATION OF APPLICABLE CODES OR ARE NOTED OTHERWISE ON THE DRAWINGS. THE INSTALLATION OF RMC CONDUIT WILL BE PERMITTED IN PLACE OF ALL CONDUIT SPECIFIED IN THIS SCHEDULE. REFER TO CONDUIT AND BOXES SPECIFICATION 26 05 33 FOR ADDITIONAL INFORMATION.

INSTALLATION TYPE	RMC	IMC	EMT	PVC	PVC CONCRETE ENCASED	RTRC	PVC COATED RMC	HDPE	ASR
FEEDERS: SWITCHBOARDS, DISTRIBUTION PANELS, PANELBOARDS, MOTOR CONTROL CENTERS, ETC.		X	X						
BRANCH CIRCUITS: LIGHTING, RECEPTACLES, CONTROLS, ETC.		X	X						
MECHANICAL EQUIPMENT FEEDERS: PUMPS, CHILLERS, AIR HANDLING UNITS, ETC.		X	X						
FLOOR MOUNTED EQUIPMENT FEEDERS: PUMPS, ETC. (INCLUDE NO MORE THAN 6 FEET OF LFMC TO PUMP)		X	X						
CONTROLS (LIGHTING, POWER, BUILDING AUTOMATION, ETC.)		X	X						
WET AND DAMP LOCATIONS: (CONDUIT, BOXES, FITTINGS, INSTALLED AND EQUIPPED TO PREVENT WATER ENTRY)	X					X			
CORROSIVE LOCATIONS						X	X		
INTERIOR LOCATIONS WITH FINISHED CEILING AND WALLS: CONCEALED IN WALLS AND ABOVE FINISHED CEILINGS			X						
INTERIOR LOCATIONS WITHOUT FINISHED CEILINGS: CONCEALED IN WALL, EXPOSED ABOVE CEILINGS		X	X						
EXISTING INTERIOR LOCATIONS WITH FINISHED CEILINGS AND WALLS: CONCEALED IN WALLS AND ABOVE FINISHED CEILING UNLESS OTHERWISE NOTED			X						X
UNDERGROUND / SLABS ON GRADE (IN OR UNDER SLABS ON GRADE)									
WITHIN 5' FROM THE PERIMETER OF THE BUILDING	X			X					
WITHIN 5' FROM THE PERIMETER OF THE BUILDING WHEN PASSING THROUGH THE PERIMETER OF THE BUILDING FOUNDATION:	X				X	X			
UNDERGROUND SITE CONDUITS:									
WITHIN 5' FROM THE PERIMETER OF A BUILDING FOUNDATION	X				X	X			
5' OR GREATER FROM THE PERIMETER OF A BUILDING FOUNDATION	X			X		X			
UNDER ROADS, DRIVES, AND VEHICLE TRAVELED WAYS. WHEN HDPE DIRECTIONAL BORING IS ALLOWED: PROVIDE PRESSURIZED GROUT				X	X		X	X	
DUCTBANKS (REFER TO DUCTBANK DETAILS WHEN APPLICABLE)									
REINFORCING SHALL CONSIST OF ONE-HALF INCH DEFORMED BARS SPACED 12 INCHES ON CENTER, PARALLELING THE DUCTS ON BOTTOM, WITH ONE-HALF INCH DEFORMED TIE BARS SPACED TWELVE INCHES ON CENTERS.					X	?			
BARS SHALL OVERLAP 40 DIAMETERS AND SHALL EXTEND 5' BEYOND ROADS, DRIVES, TRAVELED WAYS, ETC.					X	?			
PROVIDE MINIMUM 3" CONCRETE COVER ON ALL SIDES OF REINFORCING.					X	?			
ENTIRE DUCTBANK SHALL BE INSTALLED ON PRECAST CONCRETE PAVERS ON 3' CENTERS.					X	?			
HAZARDOUS (CLASSIFIED LOCATIONS AS DEFIED BY THE NATIONAL ELECTRICAL CODE: COMPLETE WITH SCREWED FITTINGS AND CONDUIT SEALS	X								
FIRE RATED ASSEMBLIES: FIRE RATED ASSEMBLIES LISTED WITH PHENOLIC RTRC RACEWAY						X			
DEFINITIONS:									
CONCRETE ENCASEMENT: CONDUIT WITH A MINIMUM OF 3" THICKNESS BETWEEN THE SURFACE OF THE CONCRETE AND THE NEAREST CONDUIT. CONCRETE TO BE DOWELED INTO THE FOUNDATION.									

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
GB	GB	26 05 26	GROUND BUS
IBT	IBT	26 05 26	INTERSYSTEM BONDING TERMINATION
E / E	ECONN	26 05 33	ELECTRICAL CONNECTION
J / J	JB	26 05 33	JUNCTION BOX
	PANEL '###'	26 24 16	PANELBOARD - SURFACE MOUNT
	TR-#/DTR-#	26 22 00	TRANSFORMER REFER TO TRANSFORMER SCHEDULE
	DS-#/FDS-#/DSS-#	26 28 16	DISCONNECT SWITCH FUSED DISCONNECT SWITCH INTERLOCKED RECEPTACLE DISCONNECT. REFER TO DISC/STA SCHEDULE

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
	REC-DUP	26 27 26	DUPLEX RECEPTACLE, 125V
	REC-DUP-GFI	26 27 26	DUPLEX GFI RECEPTACLE, 125V
G	REC-DUP-GFI-R	26 27 26	GROUND FAULT DEVICE
X WP	REC-DUP-XP	26 27 26	DUPLEX EXPLOSION PROOF, WEATHERPROOF RECEPTACLE 125V

ELECTRICAL SYMBOL LIST

SYMBOL:	SPEC TAG:	SPEC SECTION:	DESCRIPTION:
S ##	SW-1P SW-V SW-1P-EX	26 09 33	SWITCH SUBSCRIPTS: BLANK = SINGLE POLE V = LOW VOLTAGE ON/OFF WITH VACANCY SENSOR X = SINGLE POLE - EXPLOSION PROOF SWITCH

ELECTRICAL SYMBOL LIST

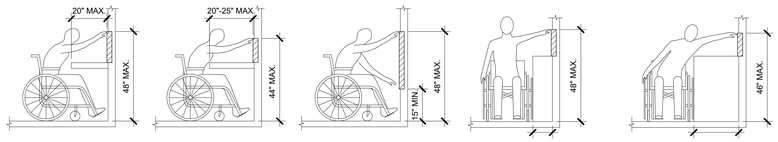
SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
	REFER TO LUMINAIRE SCHEDULE		LINEAR LUMINAIRES
			TROFFER
			WALL SCONCE LUMINAIRE
			DOWNLIGHT LUMINAIRE
			AIMABLE OR WALL WASH LUMINAIRE
			INDUSTRIAL LUMINAIRE
			WALL BRACKET LUMINAIRE
			POLE MOUNTED LUMINAIRE
			SINGLE FACE EXIT SIGN
			DOUBLE FACE EXIT SIGN
			WALL/CEILING EMERGENCY EXIT SIGN
			EMERGENCY UNIT

LUMINAIRE SHADING KEY

NORMAL BRANCH LUMINAIRE

EMERGENCY BATTERY LUMINAIRE

SHADED LUMINAIRE OR DEVICE INDICATES LUMINAIRE OR DEVICE IS CONNECTED TO AN EMERGENCY BATTERY.



ADA STANDARDS FOR ACCESSIBLE DESIGN

ELECTRICAL INSTALLATION NOTES:

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS ON THIS PAGE FOR ADDITIONAL INFORMATION.
2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
3. FLUSH MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
4. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED. MOUNT EXTERIOR LOCATED RECEPTACLES WITH WHILE-IN-USE COVERS AT +20" FROM FINISHED GRADE (CENTER DIMENSIONS) TO MAINTAIN INSTALLATION ADA COMPLIANCE.
5. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO 26 05 03 FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
6. CONNECTION FOR ELECTRIC WATER COOLERS (EWC) SHALL BE A JUNCTION BOX CONCEALED BEHIND WATER COOLER ACCESS PLATE OR BE A GFI RECEPTACLE LOCATED DIRECTLY BELOW AND CENTERED ON EWC. CONTRACTOR SHALL VERIFY TYPE OF EWC TO BE INSTALLED.
7. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
8. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
9. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. CENTER ALL DEVICES IN CEILING TILE PATTERN. SMOKE DETECTORS, CARBON MONOXIDE DETECTORS, AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE. CARBON MONOXIDE DETECTORS SHALL BE LOCATED 10 PLUS FT FROM FIRE PLACES, COOKING, AND SIMILAR FUEL-BURNING APPLIANCES.
10. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
11. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
13. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO THE WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH. **[NTD: EDIT TO MATCH SCOPE]**
14. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
15. ELECTRICAL IDENTIFICATION. REFER TO SPECIFICATION SECTION 26 05 53 FOR COLOR/LABEL REQUIREMENTS FOR CONDUIT, BOX, CABLE/WIRE, AND EQUIPMENT.

RECEPTACLE SUBSCRIPT KEY:

DEVICE KEY:

DEVICE — # = MOUNTING (IF APPLICABLE)
1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: A / 1

ELECTRICAL MOUNTING SUBSCRIPT KEY:

A	MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH
C	MOUNT AT CEILING (DEVICE OR ROUGH-IN CONTEXT)
H	MOUNT ORIENTED HORIZONTALLY
L	MOUNT IN CASEWORK
M	MOUNT IN MODULAR FURNITURE
O	WIRING DEVICE, OCCUPANCY CONTROLLED
R	MOUNT IN SURFACE RACEWAY
S	SURFACE MOUNTED
W	WEATHERPROOF WIRING DEVICE, NEMA 3R WHILE-IN-USE COVER, WR LISTED
WG	WIRE GUARD
WP	WEATHERPROOF

ELECTRICAL SHEET INDEX

E-000	ELECTRICAL COVERSHEET
E-201	LEVEL 01 PLAN - ELECTRICAL
E-300	ELECTRICAL SCHEDULES
GRAND TOTAL: 3	

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PROJECT #240043600.00

VG CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

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Texas Firm Registration #F-24262

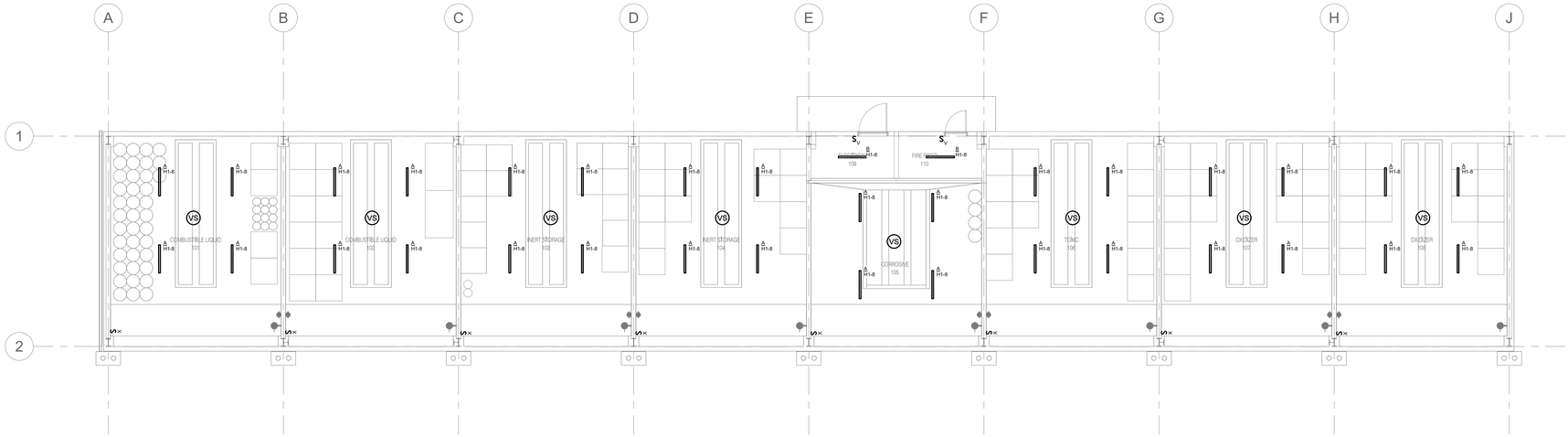
0 1 2 3
REF. SCALE IN INCHES

PROJECT #240043600.00

ELECTRICAL COVERSHEET

E-000

SECURITY CLASS: COMPANY USE
C2-099700-ELE-NOT-ENA-00002-001



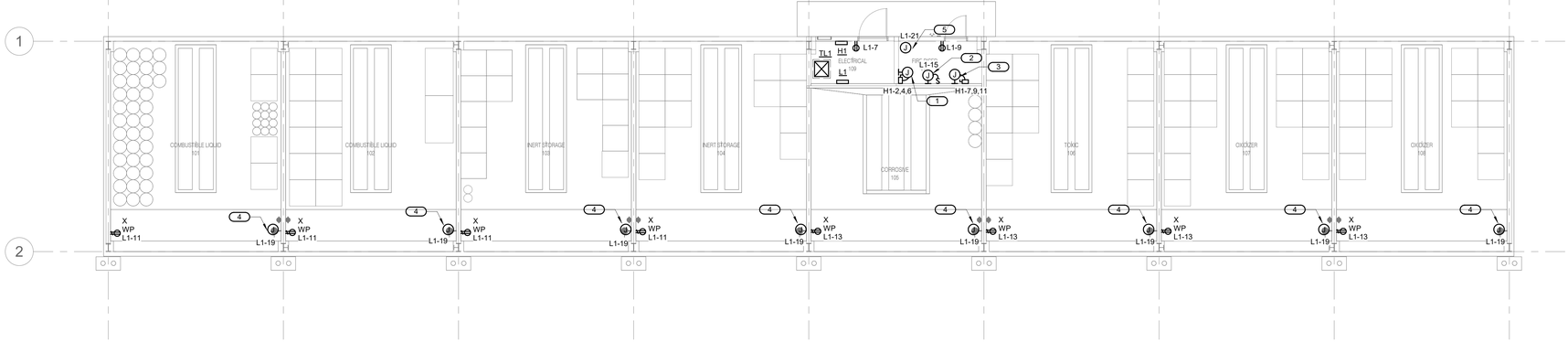
NORTH

1 LEVEL 01 PLAN - LIGHTING

1/8" = 1'-0"

LIGHTING GENERAL NOTES:

1. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OFALL LIGHT FIXTURES.
2. ALL EMERGENCY BATTERY DRIVERS AND EMERGENCY LIGHTS I.E. FIXTURES DESIGNATED WITH AN 'X' SUFFIX (SUCH AS 'AX') AND TYPE 'EM' AND EXIT SIGNS SHALL BE CIRCUITED TO UNSWITCHED HOT LEG ADJACENT LIGHTING CIRCUIT PER N.E.C ARTICLES 700 AND 701, INLESS OTHERWISE NOTED.
3. ALL DEVICES, BOXES, FIXTURES, WIRING, CONDUIT, FITTINGS, ETC IN STORAGE AREAS SHALL BE CLASS 1 DIVISION 2 RATED.
4. TYPE 'A' LIGHTS SHALL BE PENDANT MOUNTED AT 14'0" ABOVE FINISHED FLOOR TO BOTTOM OF FIXTURE.



NORTH

3 LEVEL 01 PLAN - POWER

1/8" = 1'-0"

POWER GENERAL NOTES:

1. REFER TO SHEET E000 FOR LEGEND, ABBREVIATIONS, AND PROJECT NOTES.
2. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE GENERAL EXTENT OF WORK. THE CONTRACTOR SHALL PROVIDE ALL PULL BOXES, JUNCTION BOXES, AND ALL MATERIALS AND LABOR FOR A COMPETE AND FUNCTIONAL SYSTEM.
3. REFER TO HVAC CIRCUITING SCHEDULE FOR MECHANICAL EQUIPMENT CONNECTIONS, DISCONNECT, AND BRANCH CIRCUIT REQUIREMENTS.
4. VERIFY REQUIRMENTS OF ALL MECHANICAL EQUIPMENT WITH APPROVED SHOP DRAWING SUBMITTALS PRIOR TO ROUGH-IN. NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS BETWEEN EQUIPMENT SUBMITTALS AND CONTRACT DRAWINGS.
5. CONTRACTOR SHALL DERATE CONDUCTORS AS REQUIRED BY N.E.C WHEN GROUPED IN COMMON RACEWAY.
6. ALL DEVICES WITH 'GFI' OR 'WP' SHALL BE INDEPENDENT GFI DEVICES. WIRING THROUGH IS NOT PERMITTED.
7. ALL DEVICES, BOXES, FIXTURES, WIRING, CONDUIT, FITTINGS, ETC IN STORAGE AREAS SHALL BE CLASS 1 DIVISION 2 RATED.

KEYNOTES:

1. JUNCTION BOX AND 3P/60AS/NF DISCONNECT SWITCH FOR CONNECTION TO WATER HEATER WH-1. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH PLUMBING CONTRACTOR.
2. JUNCTION BOX AND PILOT LIGHT SWITCH DISCONNECT SWITCH FOR CONNECTION TO CIRCULATION PUMP. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH PLUMBING CONTRACTOR.
3. JUNCTION BOX AND 3P/30AS/NF DISCONNECT SWITCH FOR CONNECTION TO AIR COMPRESSOR. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH PLUMBING CONTRACTOR.
4. JUNCTION BOX FOR CONNECTION TO EYEWASH STATION. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SYSTEM SUPPLIED.
5. JUNCTION BOX FOR FIRE PROTECTION SYSTEM POWER. COORDINATE LOCATION AND REQUIREMENTS WITH FIRE PROTECTION CONTRACTOR.

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PROJECT #24004360.00

VG CP2 CHEMICAL STORAGE BUILDING

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REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

STATE OF LOUISIANA
BRIAN JOSEPH LEAVITT
Lic. License No. 43680
PROFESSIONAL ENGINEER
IN
ELECTRICAL ENGINEERING

02.13.2025
EXP. 03.31.2026

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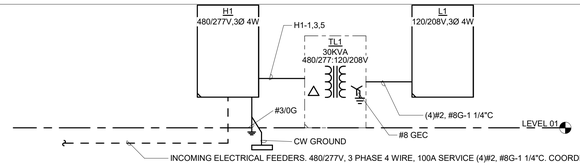
0 1 2 3
REF. SCALE IN INCHES

PROJECT #24004360.00

LEVEL 01 PLAN - ELECTRICAL

E-201

SECURITY CLASS: COMPANY USE
C2-099700-ELE-BLD-ENA-00002-001

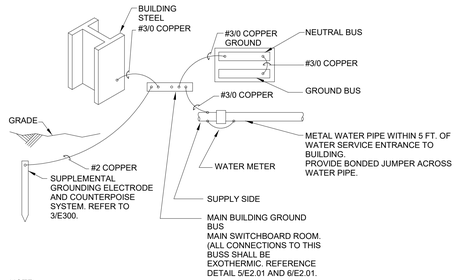


1 ELECTRICAL RISER DIAGRAM
NO SCALE

HVAC CIRCUITING SCHEDULE		
DESIGNATION	CIRCUIT	DISCONNECT
UH-1	L1-1/3/5	3P/30AS/NF
EF-1	L1-17	NOTE#2

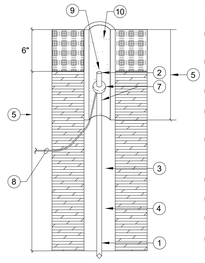
NOTES:
1. REFER TO MECHANICAL PLANS FOR EXACT LOCATION OF ALL EQUIPMENT
2. DISCONNECT SWITCH FURNISHED WITH UNIT.

LIGHTING FIXTURE SCHEDULE			
TYPE	DESCRIPTION	LAMPS	MANUFACTURER/CATALOG NUMBER
A	4'0" LED STRIP, CLASS 1 DIVISION 2 RATED, 10,000 LUMEN OUTPUT, CORROSION RESISTANT ALUMINUM HOUSING, TEMPERED GLASS LENS	67W 4000K-LED	HOLOPHANE #EMXH-L48-10000LM-FPCL-WD-MVOLT-GZ10-40K-80CRI-SBGR10
BX	4'0" LED STRIP, 5000 LUMEN OUTPUT, FROSTED ACRYLIC LENS, STEEL HOUSING, 10' ADJUSTABLE AIRCRAFT CABLE, WHITE BAKED ENAMEL FINISH, EMERGENCY...	34W 4000K-LED	LITHONIA #ZL1N-L48-SMR-5000LM-FST-MVOLT-40K-80CRI-WH-E10WLCP-ZACVHM100



NOTE:
CONNECTIONS SHALL BE FIRMLY BONDED TO NEUTRAL BUS, BUILDING STEEL, GROUNDING ROD AND WATER PIPE.

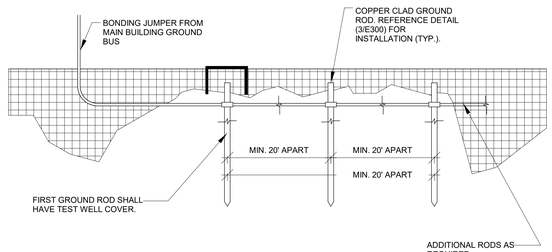
2 BUILDING GROUNDING SYSTEM DETAIL
NO SCALE



NOTE:
1. GROUND ROD. COPPER CLAD STEEL 3/4" DIA. X 10'-0". DRIVEN INTO HOLE.
2. TOP OF GROUND ROD 1'-0" BELOW TOP OF BACKFILL.
3. 4" DIA. AUGURED HOLE.
4. ESTIMATED 3 BAGS OF GEM* BACKFILL TO DENSITY OF 90 LB./CU.FT.
5. NOT LESS THAN 8 1/2' LINEAR. FT. IN CONTACT WITH GROUND ENHANCEMENT MATERIAL.
6. 4" X 12" PVC SCHEDULE 40 AS SLEEVES.
7. ERICO CADWELD EXOTHERMIC BOND.
8. GROUNDING ELECTRODE CONDUCTOR.
9. GROUND SHALL TEST BY 4-POINT SOIL RESISTIVELY TEST NOT TO EXCEED 20 OHMS OR AS REQUIRED BY SPECIFICATIONS, WHICHEVER IS MORE STRINGENT.
10. BACKFILL REMAINDER WITH SOIL REMOVED DURING AUGURING.

* GEM IS A TRADEMARK OF ERICO PRODUCTS INC.

3 GROUND ROD INSTALLATION DETAIL
NO SCALE



NOTE:
TEST RESISTANCE TO GROUND BY 3-POINT "FALL OF POTENTIAL" METHOD. RESISTANCE TO GROUND SHALL NOT EXCEED 10 OHMS. INSTALL ADDITIONAL RODS ON 20' INTERVALS UNTIL RESISTANCE REQUIREMENTS ARE MET. SUBMIT "FALL OF POTENTIAL" DATA AND GRAPHS TO ENGINEER.

4 SUPPLEMENTAL GROUND ROD INSTALLATION DETAIL
NO SCALE

PANEL H1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM:
LOCATION: ELEC

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 100 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 65 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A		B		C		WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	TL1	50 A	3	6	6	10	3.61	10					10	--	6	3	50 A	WATER HEATER	2	
--	3	--	--	--	--	--	--			2.48	10			--	--	--	--	--	--	4	--
--	5	--	--	--	--	--	--					3.02	10	--	--	--	--	--	--	6	--
	7	AIR COMPRESSOR	20 A	3	12	--	12	2.03	3.65					8	8	8	1	20 A	LIGHTING	8	
--	9	--	--	--	--	--	--			2.03	0			--	--	--	1	20 A	SPARE	10	--
--	11	--	--	--	--	--	--					2.03	0	--	--	--	1	20 A	SPARE	12	--
--	13	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	14	--
--	15	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	16	--
--	17	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	18	--
--	19	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	20	--
--	21	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	42	--
					Total Load:			19.29 kVA		14.51 kVA		15.05 kVA									
					Total Amps:			69.94		52.38		54.63									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
HVAC	5 kVA	100.00%	5 kVA		
Lighting	3.649 kVA	100.00%	3.649 kVA	**TOTAL CONNECTED LOAD:**	48.85 kVA
Motor	7.36 kVA	100.00%	7.36 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	48.849 kVA
Power	31.04 kVA	100.00%	31.04 kVA	**TOTAL CONNECTED AMPS:**	58.76 A
Receptacles	1.8 kVA	100.00%	1.8 kVA	**TOTAL ESTIMATED DEMAND AMPS:**	58.8 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL L1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: TL1
LOCATION: ELEC

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 100 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 KAIC

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A		B		C		WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	UH-1	20 A	3	12	--	12	1.67	--					--	--	--	1	--	SPACE	2	--
--	3	--	--	--	--	--	--			1.67	--			--	--	--	1	--	SPACE	4	--
--	5	--	--	--	--	--	--					1.67	--	--	--	--	1	--	SPACE	6	--
	7	RECEPT. ELEC	20 A	1	12	12	12	0.18	--					--	--	--	1	--	SPACE	8	--
	9	RECEPT. RISER ROOM	20 A	1	12	12	12			0.18	--			--	--	--	1	--	SPACE	10	--
	11	RECEPT. STORAGE	20 A	1	12	12	12					0.72	--	--	--	--	1	--	SPACE	12	--
	13	RECEPT. STORAGE	20 A	1	12	12	12	0.72	--					--	--	--	1	--	SPACE	14	--
	15	CIRC. PUMP	20 A	1	12	12	12			0.63	--			--	--	--	1	--	SPACE	16	--
	17	EF-1	20 A	1	12	12	12					0.63	--	--	--	--	1	--	SPACE	18	--
	19	EYE WASH STATIONS	20 A	1	12	12	12	1.04	--					--	--	--	1	--	SPACE	20	--
	21	FIRE PROTECTION	20 A	1	12	12	12			0	--			--	--	--	1	--	SPACE	22	--
--	23	SPARE	20 A	1	--	--	--					0	--	--	--	--	1	--	SPACE	24	--
--	25	SPARE	20 A	1	--	--	--	0	--					--	--	--	1	--	SPACE	26	--
--	27	SPARE	20 A	1	--	--	--			0	--			--	--	--	1	--	SPACE	28	--
--	29	SPARE	20 A	1	--	--	--					0	--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	42	--
					Total Load:			3.61 kVA		2.48 kVA		3.02 kVA									
					Total Amps:			30.75		20.64		25.83									

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
HVAC	5 kVA	100.00%	5 kVA		
Motor	1.26 kVA	100.00%	1.26 kVA	**TOTAL CONNECTED LOAD:**	9.10 kVA
Power	1.04 kVA	100.00%	1.04 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	9.1 kVA
Receptacles	1.8 kVA	100.00%	1.8 kVA	**TOTAL CONNECTED AMPS:**	25.26 A
				TOTAL ESTIMATED DEMAND AMPS:	25.3 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

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PROJECT #24004360.00

VG CP2 CHEMICAL STORAGE BUILDING
DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

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0 1 2 3
REF. SCALE IN INCHES
PROJECT #24004360.00

ELECTRICAL SCHEDULES

E-300

SECURITY CLASS: COMPANY USE
C2-099700-ELE-SCH-ENA-00002-001

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — KEYNOTE: INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL

LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG-1 — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

APPLICABLE CODES

CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES AND LOCAL AMENDMENTS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:

BUILDING CODE:	IBC 2021 EDITION
PLUMBING CODE:	IPC 2021 EDITION
MECHANICAL CODE:	IMC 2021 EDITION
ELECTRICAL CODE:	NFPA 70 (NEC) 2020 EDITION
ENERGY CONSERVATION CODE:	IECC 2021
LOCAL BUILDING CODE:	LOUISIANA STATE UNIFORM CONSTRUCTION CODE

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

FIRE PROTECTION SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
CAF	COMPRESSED AIR - FIRE PROTECTION
DFP	DRAIN
FP	FIRE PROTECTION
FPD	FIRE PROTECTION - DRY SYSTEM
W	SERVICE WATER - POTABLE
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
	UNION/FLANGE
	DIRECTION OF FLOW IN PIPE
	ROUTE TO DRAIN
	SHUTOFF VALVE NORMALLY OPEN
	AUTOMATIC DRAIN VALVE
	AIR PRESSURE MAINTENANCE DEVICE
	AIR SUPERVISORY SWITCH
	ANGLE VALVE
	BUTTERFLY VALVE WITH MONITOR SWITCH
	CHECK VALVE
	INDICATOR POST - WALL MOUNTED
	INDICATOR POST - YARD MOUNTED
	FIRE PUMP TEST CONNECTION
	FIRE DEPARTMENT CONNECTION - WALL EXPOSED
	FIRE DEPARTMENT CONNECTION - WALL FLUSH
	FIRE DEPARTMENT CONNECTION - WALL STORZ
	FIRE DEPARTMENT CONNECTION - YARD
	BACKFLOW PREVENTER
	INSPECTOR TEST AND DRAIN VALVE
	OS&Y GATE VALVE
	OS&Y GATE VALVE WITH MONITOR SWITCH
F	FLOW SWITCH
P	PRESSURE SWITCH
P	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	MONITOR SWITCH
	AREA BOUNDARY
NO HATCH	LIGHT HAZARD
	ORDINARY GROUP 1
	ORDINARY GROUP 2
	DEMOLITION
	EXTRA GROUP 1
	EXTRA GROUP 2
	SPRINKLER - WALL MOUNTED
	SPRINKLER
	SPRINKLER - CONCEALED

FIRE PROTECTION ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
I.E.	INVERT ELEVATION
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
SCCR	SHORT CIRCUIT CURRENT RATING
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED

FIRE PROTECTION GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF DESIGN.
3.
4. NEW SPRINKLERS SHALL BE QUICK RESPONSE TYPE, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT MIX STANDARD RESPONSE SPRINKLERS WITH QUICK RESPONSE SPRINKLERS IN UNPARTITIONED SPACES. PROVIDE COVERAGE ABOVE AND BELOW ALL EXPOSED DUCTWORK GREATER THAN 48" WIDE.
5.
6. FIRE PROTECTION PIPE ROUTING IS SHOWN FOR GENERAL LAYOUT. DETERMINE EXACT NUMBER OF SPRINKLERS, PIPE SIZING, AND PIPE ROUTING.
7. THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED TO MEET OWNER'S INSURANCE COMPANY STANDARDS WHERE APPLICABLE. THE MORE STRINGENT OF THE OWNER'S INSURANCE UNDERWRITER'S DESIGN CRITERIA AND THE NFPA STANDARDS SHALL BE USED.
8. ALL BUILDING AREAS SHALL BE FULLY SPRINKLERED INCLUDING CANOPIES, WALKWAYS, OVERHANGS, SOFFITS, AND BUILDING PROJECTIONS. ALL ACCESSIBLE COMBUSTIBLE CONCEALED SPACES SHALL BE FULLY PROTECTED BY THE SPRINKLER SYSTEM.
9. EACH RISER ASSEMBLY SHALL INCLUDE BUTTERFLY CONTROL VALVE INDICATING "OPEN" OR "CLOSED" POSITION, TEST INSPECTION VALVE, FLOW SWITCH AND PRESSURE GAUGES.
10. PROVIDE RISER ROOM IDENTIFICATION SIGNAGE OUTSIDE THE FIRE RISER ROOM. COORDINATE EXACT SIGN LANGUAGE WITH AHJ.
11. WHERE FEASIBLE INSTALL PIPES HIGH AS POSSIBLE TO AVOID CONFLICT WITH OTHER DISCIPLINES.
12. INSTALL SYSTEM DRAINS AT LOW POCKET AREAS CONTAINING FIVE GALLONS OF WATER OR MORE, PROVIDE WITH ISOLATION VALVE AND THREADED HOSE CONNECTION.
13. FOLLOW STRUCTURAL DETAILS WHEN PENETRATING OR PASSING THROUGH STRUCTURAL ELEMENTS. ALTERNATE DESIGNS WILL NEED TO BE APPROVED THROUGH THE STRUCTURAL ENGINEER.
14. PROVIDE INTERMEDIATE TEMPERATURE SPRINKLER HEADS WHERE REQUIRED BY NFPA 13 UNLESS OTHERWISE NOTED.
15. FINAL HEAD LOCATION, TYPE AND FINISH SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT.
16. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY THE ARCHITECT.
17. THE OWNER MUST BE NOTIFIED PRIOR TO EACH AND EVERY DRAINING OR RECHARGING OF THE SPRINKLER SYSTEM.
18. THE CONTRACTOR SHALL PREPARE A COORDINATED SET OF SHOP DRAWINGS AND SHALL OBTAIN APPROVAL FROM THE AUTHORITIES HAVING JURISDICTION AND THE LOCAL FIRE DEPARTMENT PRIOR TO ANY INSTALLATION.
19. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC. AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
20. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
2. CATALOG AND MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE DESCRIPTION OF MATERIAL SCHEDULED ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL AND SCHEDULED PERFORMANCE TAKES PRECEDENCE OVER THE MODEL NUMBER. THE FIRST MANUFACTURER SCHEDULED IS THE BASIS OF DESIGN.
3. DETERMINATION OF QUANTITIES OF MATERIAL AND EQUIPMENT REQUIRED SHALL BE MADE BY THE CONTRACTOR FROM THE DOCUMENTS. WHERE MATERIAL AND/OR QUANTITY DISCREPANCIES ARISE BETWEEN DRAWINGS, SCHEDULES AND/OR SPECIFICATIONS, THE HIGHER QUALITY/ GREATER NUMBER SHALL GOVERN.
4. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
5. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
6. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS.
7. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
8. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
10. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
11. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
12. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC.
13. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS.
14. MAINTAIN THE DEDICATED ELECTRICAL EQUIPMENT SPACE DEFINED BY THE WIDTH / DEPTH OF ELECTRICAL EQUIPMENT MEASURED FROM THE FLOOR TO A HEIGHT 6'-0" ABOVE THE EQUIPMENT OR THE STRUCTURAL CEILING, WHICHEVER IS LOWER. SYSTEMS FOREIGN TO THE ELECTRICAL DISTRIBUTION SYSTEM ARE NOT ALLOWED IN THE DEDICATED ELECTRICAL SPACE INCLUDING: DUCTWORK, PIPING, ETC.

FIRE PROTECTION SHEET INDEX

F-000	FIRE PROTECTION COVERSHEET
F-201	LEVEL 01 PLAN - FIRE PROTECTION
F-400	FIRE PROTECTION DETAILS
F-600	FIRE PROTECTION SCHEDULES
GRAND TOTAL: 4	

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PROJECT #24004360.00

VG CP2 CHEMICAL STORAGE BUILDING

DAVIS RD.
CAMERON, LA 70631

REV	DATE	DESCRIPTION
0	02/13/2025	ISSUED FOR CONSTRUCTION

STATE OF LOUISIANA
DAVID WAYNE BODENSCHATZ
License No. 0046587
PROFESSIONAL ENGINEER
IN
MECHANICAL ENGINEERING

02.13.2025
EXP, 09.30.2026

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Texas Firm Registration #F-24262

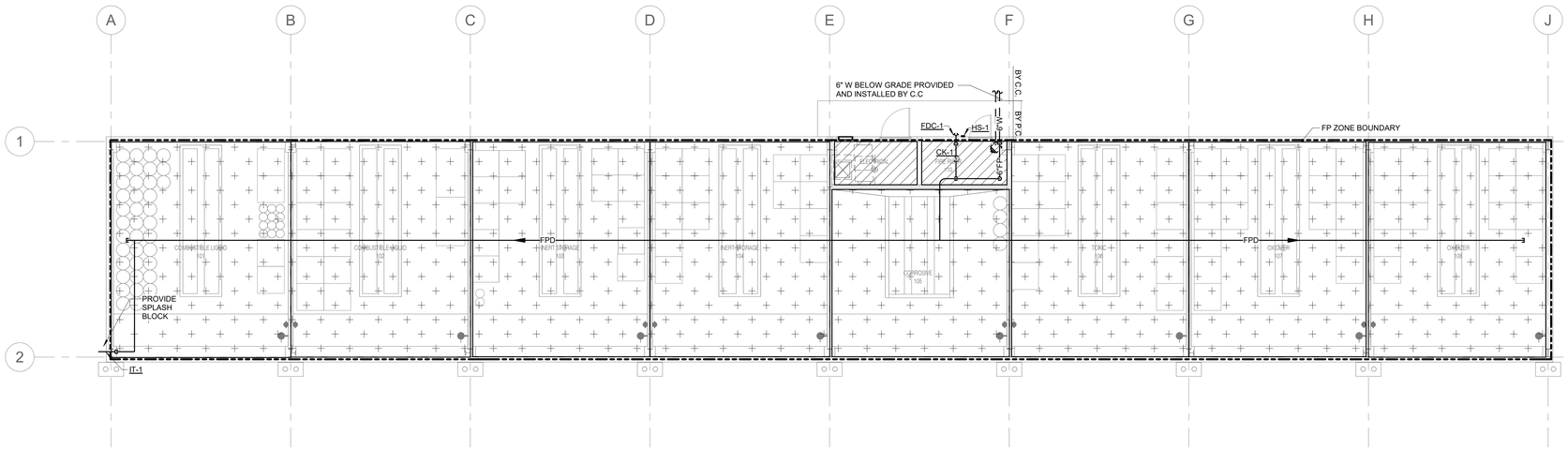
0 1 2 3
REF. SCALE IN INCHES

PROJECT #24004360.00

FIRE PROTECTION COVERSHEET

F-000

SECURITY CLASS: COMPANY USE
C2-099700-FGS-NOT-ENA-00002-001



NORTH

1 LEVEL 01 PLAN - FIRE PROTECTION

1/8" = 1'-0"

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DAVID WAYNE BICKNISCHATZ
License No. 0046587
PROFESSIONAL ENGINEER
IN
MECHANICAL ENGINEERING

02.13.2025
EXP,09.30.2026

LEVEL 01 PLAN - FIRE PROTECTION

F-201

SECURITY CLASS: COMPANY USE
C2-099700-FGS-BLD-ENA-00002-001

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0 1 2 3

REF. SCALE IN INCHES

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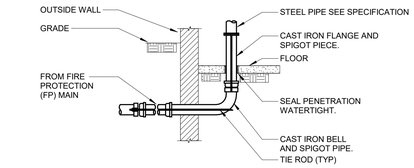
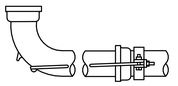
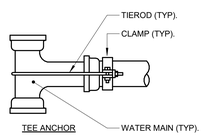


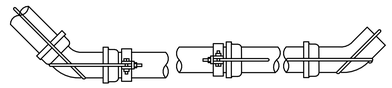
MAIN ENTERING BLDG.



ANCHOR FOR LONG SPIGOT 1/4 BEND



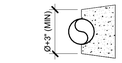
TEE ANCHOR

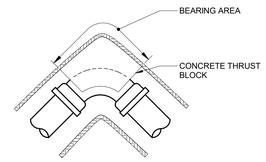


ONE-EIGHT BEND, SPIGOT TO PIPE BELL

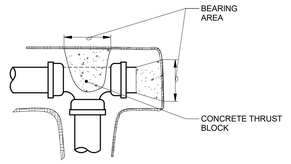
ONE-EIGHT BEND, BELL TO PIPE SPIGOT

ANCHOR RODS





ONE-QUARTER BEND



THRUST BLOCKS

ROD AND CLAMP ANCHORAGE

PIPING NOMINAL SIZE (IN.)	CLAMP SIZE (IN.)	BOLT SIZE (IN.)	WASHER (IN.)		NUMBER OF RODS AND ROD SIZE(IN.) FOR ROD AND CLAMP ANCHORAGE					
					MECHANICAL JOINT			PUSH ON JOINT		
			CAST IRON	STEEL	90° 1/4 BEND	45° 1/8 BEND	TEE, HYDRANT CAP, PLUG	90° 1/4 BEND	45° 1/8 BEND	TEE, HYDRANT CAP, PLUG
4	1/2x2	5/8	5/8x3	1/2x3	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4
6					2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4
8	5/8x 2-1/2				4 3/4	2 3/4	4 3/4	4 3/4	2 3/4	4 3/4
10		7/8			6 3/4	4 3/4	4 3/4	4 7/8	4 7/8	4 7/8
12	5/8x3	1	3/4x 3-1/2	1/2x 3-1/2	8 3/4	6 3/4	6 3/4	4 1	4 1	4 1

NOTES:

1. AFTER INSTALLATION, PROTECT TIE RODS, BOLTS, NUTS, WASHERS AND CLAMPS AGAINST CORROSION WITH A HEAVY COAT OF ASPHALT MATERIAL.
2. THE LENGTH OF THE ROD REQUIRED WILL VARY WITH THE PIPE FITTING, AND MUST BE DETERMINED BY FIELD MEASUREMENT. IF THE DISTANCE BETWEEN THE JOINTS IS LESS THAN 12 FEET, EXTEND THE ANCHORAGE TO THE SECOND BELL.

AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS

PIPING NOMINAL SIZE (IN.)	MIN. SQ. FT.		
	CAST IRON AND DUCTILE IRON		
	1/4 BEND	1/8 BEND	TEES, PLUGS, CAPS, HYDRANTS
4	3	2	3
6	7	4	5
8	11	6	8
10	17	9	12
12	24	13	17

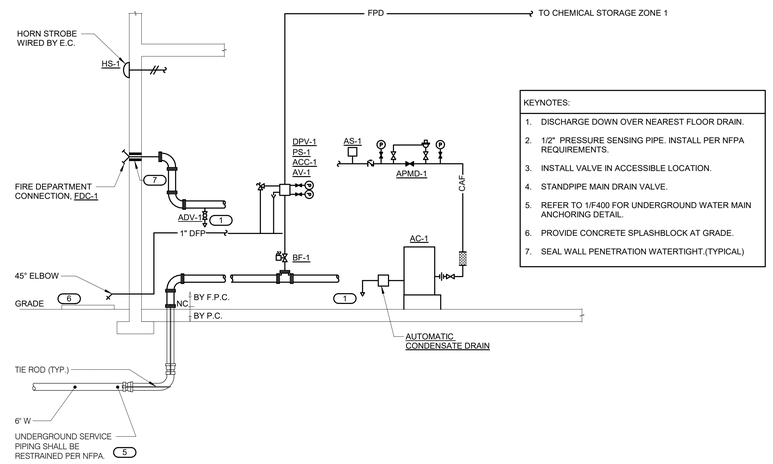
BASIS: 2,000 LB/SQ.FT. SOIL RESISTANCE.
250 PSI WATER PRESSURE.
CORRECTION FACTORS FOR OTHER SOILS:
SOFT CLAY.....4
SAND.....2
SAND&GRAVEL...1.33
SHALE.....0.4

NOTES:

1. BOTH THRUST BLOCKING AND ANCHOR RODS ARE REQUIRED.
2. REFER TO THE GOVERNING CODE AND NFPA 24 FOR ADDITIONAL REQUIREMENTS.

1 UNDERGROUND WATER MAIN ANCHORING

NO SCALE



KEYNOTES:

1. DISCHARGE DOWN OVER NEAREST FLOOR DRAIN.
2. 1/2" PRESSURE SENSING PIPE. INSTALL PER NFPA REQUIREMENTS.
3. INSTALL VALVE IN ACCESSIBLE LOCATION.
4. STANDPIPE MAIN DRAIN VALVE.
5. REFER TO 1/F400 FOR UNDERGROUND WATER MAIN ANCHORING DETAIL.
6. PROVIDE CONCRETE SPLASHBLOCK AT GRADE.
7. SEAL WALL PENETRATION WATERTIGHT.(TYPICAL)

2 FIRE PROTECTION RISER DIAGRAM

NO SCALE

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0 1 2 3
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0	02/13/2025	ISSUED FOR CONSTRUCTION

FIRE PROTECTION DETAILS

F-400

SECURITY CLASS: COMPANY USE
C2-099700-FGS-DTL-ENA-00002-001

FIRE PROTECTION (WITH POWER) MATERIAL LIST

TAG NAME	DESCRIPTION	ELECTRICAL				MANUFACTURER AND MODEL
		HP (NOTE E)	VOLTAGE	PHASES	# OF WIRES	
AC-1	RISER MOUNTED AIR COMPRESSOR, FULLY AUTOMATIC, DIRECT DRIVE, OIL LESS PISTON COMPRESSOR, SINGLE STAGE, AIR COOLED, UL LISTED FIELD ADJUSTABLE PRESSURE SWITCH, PRESSURE GAUGE, PRESSURE RELIEF VALVE, BUBBLE TIGHT CHECK VALVE, INTAKE FILTER, RISER MOUNTING BRACKET, STAINLESS STEEL FLEXIBLE HOSE, UL 1450 FOR USE WITH FIRE SPRINKLER SYSTEMS. CAPACITY: SIZED TO FILL SPRINKLER SYSTEM TO 40 PSI WITHIN 30 MINUTES PER NFPA 13 REQUIREMENTS.	2	115	1	0	GENERAL AIR PRODUCTS OIL PLUS SERIES, GAST
HS-1	FIRE SPRINKLER HORN/STROBE - RATED FOR INDOOR OR OUTDOOR USE, WEATHERPROOF RED HOUSING AND BACKBOX, WHITE LETTERING "SPRINKLER FIRE - ALARM", FIELD SELECTABLE CANDELA RATING, UL.	0	120	1	0	POTTER SASH-120, SYSTEM SENSOR P2RHK

FIRE SPRINKLER USAGE SCHEDULE

NOTES:
1. SEE FLOOR PLANS FOR ZONING REQUIREMENTS.
2. SPRINKLER SHALL HAVE COLOR CODED BULB THERMAL ELEMENT.
3. ALL SPRINKLERS SHALL BE UL LISTED.
4. CONTRACTOR TO VERIFY SPRINKLER REQUIREMENTS BASED ON ACTUAL INSTALLATION, USAGE, ARCHITECTURAL CEILING PLAN AND NFPA 13 REQUIREMENTS.
5. TAG NAME IS PRIMARILY FOR IDENTIFYING SPRINKLERS IN SUBMITTALS. IT MAY OR MAY NOT BE FOUND ELSEWHERE ON THE DRAWINGS.
CONTRACTOR TO SUBMIT ALL SPRINKLER TYPES TO BE USED.
6. AREAS ARE GENERAL IN NATURE. CONTRACTOR TO MATCH UNSCHEDULED AREAS TO SIMILAR SPACES.
7. SPRINKLERS SHALL HAVE A 3mm QUICK RESPONSE BULB.
8. SPRINKLERS SPECIFIED WITHIN FIRE SPRINKLER USAGE SCHEDULE ARE STANDARD COVERAGE TYPE. EXTENDED COVERAGE
SPRINKLERS ARE PERMITTED PROVIDED SPRINKLERS MEET THE REQUIREMENTS OF UL.

SPRINKLER						
TAG NAME (NOTE 4 & 5)	SPRINKLER TYPE	RESPONSE CATEGORY	FINISH	TEMPERATURE RATING	MANUFACTURER & MODEL	NOTES
SPR-8	DRY UPRIGHT	QUICK	ROUGH BRASS	(155), (175), (200), (286), (PER NFPA)	VIKING VK, TYCO DS-1, VICTAULIC V3602	NOTE 3, 10

FIRE PROTECTION MATERIAL LIST

TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
ADV-1	AUTOMATIC DRIP VALVE. FOR USE ON INLET SIDE OF FDC OR PUMPER CONNECTION, 175 PSI, BRASS OR BRONZE BODY, STAINLESS STEEL OR BERYLLIUM COPPER SPRING AND RETAINING RING, MIN. CLOSING PRESSURE 7 PSI WITH INCREASING PRESSURE, MIN OPENING PRESSURE 5 PSI WITH DECREASING PRESSURE, 1/2" NPT INLET AND 1/4" NPT DRAIN OUTLET. VALVE ORIENTATION SHALL BE INSTALLED ACCORDING TO MFR. RECOMMENDATIONS, UL/FM	VIKING B-1, TYCO AD-2, RELIABLE MODEL C
APMD-1	AIR PRESSURE MAINTENANCE DEVICE, 175 PSI RATED, MAIN AND BYPASS LINE BALL/GLOBE VALVES, UNION, WYE-STRAINER, PRESSURE GAUGE TEST PORT, FIELD ADJUSTABLE PRESSURE REGULATOR, RESTRICTIVE ORIFICE CHECK VALVE, UL/FM.	GENERAL AIR AMD-1, VIKING CORP. D-2, TYCO AMD-1, RELIABLE A-2
AS-1	HIGH/LOW AIR SUPERVISORY PRESSURE SWITCH, 250 PSI, 10 TO 100 PSI FIELD ADJUSTABLE PRESSURE RANGE, 2 TO 5 PSI ACTUATION DIFFERENTIAL, TWO SINGLE POLE DOUBLE THROW CONTACTS, NEMA 4 INDOOR/OUTDOOR RATED METAL HOUSING, BLEEDER VALVE, UL/FM.	POTTER PS40, SYSTEM SENSOR EPS40
AV-1	ANGLE VALVE, 1/2" TO 2", 175 PSI, RISING STEM, BRASS/BRONZE BODY, BRASS/BRONZE BONNET, INTEGRAL SEAT, SOFT DISC, HANDWHEEL, THREADED. UL.	UNITED BRASS WORKS 126SUL, NIBCO T-301-W, FPPI 06-800
BF-1	INDICATING BUTTERFLY VALVE, NORMALLY OPEN, 175 PSI WWP, GROOVED TYPE, DUCTILE IRON BODY WITH PROTECTIVE COATING, ELECTROLESS NICKEL OR EPDM COATED DUCTILE IRON DISC, STAINLESS STEEL STEM AND SCREWS, CAST OR DUCTILE IRON HANDWHEEL, EPDM SEAT, INDICATOR FLAG, FACTORY MOUNTED INTEGRAL MONITOR SWITCHES, UL/FM. LUGGED OR WAFER VALVES ARE ACCEPTABLE PROVIDED THEY HAVE THE FEATURES LISTED ABOVE.	NIBCO GD-4765-8N, VICTAULIC SERIES 705, TYCO BFV-300, KENNEDY G300, GLOBE GLR300G, REL-BFG-300
BF-2	INDICATING BUTTERFLY VALVE, NORMALLY CLOSED, 300 PSI WWP, GROOVED TYPE, DUCTILE IRON BODY WITH PROTECTIVE COATING, ELECTROLESS NICKEL OR EPDM COATED DUCTILE IRON DISC, STAINLESS STEEL STEM AND SCREWS, CAST OR DUCTILE IRON HANDWHEEL, EPDM SEAT, INDICATOR FLAG, FACTORY MOUNTED INTEGRAL MONITOR SWITCHES, UL/FM. LUGGED OR WAFER VALVES ARE ACCEPTABLE PROVIDED THEY HAVE THE FEATURES LISTED ABOVE.	NIBCO GD-4865-C-8N, VICTAULIC SERIES 766, TYCO BFV-300C
CK-1	SWING CHECK VALVE, 300 PSI WWP, GROOVED/FLANGED TYPE, DUCTILE IRON BODY, STAINLESS STEEL HINGE ASSOCIATED WITH RUBBER FACED CLAPPER, BRASS SEAT RING. ACCESS COVER, 1/2" OR 3/4" TAPPED BOSSES, VALVE LISTED FOR HORIZONTAL OR VERTICAL INSTALLATION, UL/FM. FLANGED TYPE IS ACCEPTABLE PROVIDED VALVE HAS THE FEATURES LISTED ABOVE.	VIKING G-1, TYCO CV-1F
DPV-1	DRY PIPE VALVE, LATCHING DIFFERENTIAL TYPE VALVE, GROOVED/FLANGED INLET/OUTLET, 175 PSI RATING, DUCTILE IRON BODY AND VALVE COVER, LATCHING SPRING LOADED CLAPPER ASSEMBLY, EXTERNAL RESET CAPABILITY, AIR TO WATER PRESSURE AREA DIFFERENTIAL OF APPROXIMATELY 6 TO 1, TAPPED OUTLET FOR DRAIN VALVE, UL/FM. VALVE TRIM PIPE AND FITTINGS SHALL BE GALVANIZED. PROVIDE AIR AND WATER GAUGES, ISOLATION VALVES, DRIP CUP, AND DRAIN VALVE AS REQUIRED FOR PROPER SYSTEM OPERATION.	TYCO DPV-1, VIKING G, RELIABLE DDX-LP, VICTAULIC 768N, GLOBE MODEL RCW
FDC-1	EXPOSED TWO WAY FIRE DEPT. INLET CONNECTION, CAST BRASS BODY WITH POLISHED BRASS FINISH, 4" OR 6" OUTLET WITH TWO 2-1/2" INLETS AND DROP CLAPPERS, PIN LUG SWIVELS, PLUGS AND CHAINS, WALL PLATE WITH SAME FINISH AS BODY LABELED "AUTO SPKR", UL. HOSE THREAD TYPE SHALL MATCH LOCAL FIRE DEPARTMENT REQUIREMENTS.	FDC: POTTER ROEMER 5750 SERIES, ELKHART BRASS MODEL 156, CROKER MODEL 6430/6432, GUARDIAN 6124/6126
FS-1	FLOW SWITCH - VANE TYPE, 450 PSI, FLOW SENSITIVITY OF 4-10 GPM, TWO SINGLE POLE DOUBLE THROW SWITCHES, PNEUMATIC RETARD ADJUSTABLE FROM 0-90 SECONDS WITH AUTOMATIC RESET, NEMA 4 INDOOR/OUTDOOR RATED METAL HOUSING, UL/FM.	POTTER VSR, SYSTEM SENSOR WFD
GA-1	GATE VALVE, OUTSIDE STEM AND YOKE (OS&Y), RESILIENT WEDGE, MINIMUM 200 PSI WWP, FLANGED OR GROOVED JOINTS, DUCTILE/CAST IRON BODY AND BONNET/YOKE WITH PROTECTIVE COATING, DUCTILE/CAST IRON HANDWHEEL, DUCTILE IRON ENCAPSULATED DISC, STAINLESS STEEL/BRONZE/BRASS STEM, STAINLESS STEEL BOLTS AND NUTS, ADJUSTABLE PACKING, COUNTERCLOCKWISE TO OPEN, UL/FM.	MUELLER R-2361, KENNEDY KS-RW, VICTAULIC 771, WATTS 406-RW, NIBCO F-607-RWS
IT-1	DRY SYSTEM INSPECTOR'S TEST VALVE, 300 PSI, INTEGRAL SIGHT GLASS, FURNISHED WITH TEST ORIFICE GIVING FLOW EQUIVALENT TO ONE SPRINKLER OF A TYPE HAVING THE SMALLEST ORIFICE INSTALLED ON THE SYSTEM. UL/FM.	AGF M3011, RELIABLE MODEL TD, VICTAULIC TESTMASTER, GLOBE UTD
MS-1	OS&Y SUPERVISORY SWITCH, FOR USE ON VALVES 2" TO 12" IN SIZE, TWO SINGLE POLE DOUBLE THROW CONTACTS, NEMA 3R DIE CAST ENCLOSURE WITH CORROSION RESISTANT PARTS, TAMPER RESISTANT, KNOCKOUTS FOR 1/2" CONDUIT. UL/FM.	POTTER OSYSU, SYSTEM SENSOR OSY2
PS-1	WATERFLOW PRESSURE SWITCH, 250 PSI, 4 TO 15 PSI FIELD ADJUSTABLE PRESSURE RANGE, 2 PSI ACTUATION DIFFERENTIAL, TWO SINGLE POLE DOUBLE THROW CONTACTS, NEMA 4 INDOOR/OUTDOOR RATED METAL HOUSING, BLEEDER VALVE, UL/FM.	POTTER PS10, SYSTEM SENSOR EPS10

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STATE OF LOUISIANA
DAVID WAYNE BICKNESCHATZ
License No. 0046587
PROFESSIONAL ENGINEER
IN
MECHANICAL ENGINEERING

02.13.2025
EXP, 09.30.2026

FIRE PROTECTION SCHEDULES

F-600

SECURITY CLASS: COMPANY USE
C2-099700-FGS-SCH-ENA-00002-001

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