



CITY OF WACO

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Date: 10/25/2022
RFP No: 2022-084
Commodity: Cameron Park Zoo Education Center & Vet Hospital
Purchasing Agent: Mr. Kasey Gamblin

Closing Time: 2:00 P.M. CST, Friday, November 18, 2022
Opening Time: 2:01 P.M. CST, Friday, November 18, 2022

RFP Opening Location: Operations Center, Purchasing Services Office, 1415 N. 4th St.,
 Waco, TX 76707

Addendum No: 1

The above-mentioned RFP invitation has been changed in the following manner. **Sign and return addendum to the Purchasing Office by the closing time and date with your RFP response.** Returning this page signed by your authorized agent will serve to acknowledge this change. All other requirements of the invitation remain unchanged. If you have any questions, please call or stop by the Purchasing Office at the above address.

Firm: _____

Address _____

Signature of Person

Authorized to Sign Bid: _____

Signor's Name and Title

(print or type): _____

E-mail Address: _____

Date: _____ Telephone: _____ Fax: _____

Perkins&Will

Addendum #1

To: Bidders

Date of Issuance: 10.25.2022

From: Perkins&Will

Project Name: Cameron Park Zoo: Education Center & Vet Hospital

Owner: City of Waco

Project Number: 185236.000

☒ Architect ☒ Owner ☐ Contractor ☐ Field ☐ Consultant ☒ Other (explain): Bidders

This is an Addendum providing information for Bidder's incorporation into bids. The documents listed below provide additions, deletions, clarifications, or corrections to originally issued documents and are intended to replace or supplement original documents.

Description:

Civil: 4 sheets

C1.1: Domestic water meter vault removed from scope of project

C1.2: Domestic water meter vault removed from scope of project

C1.3: Domestic water meter vault removed from scope of project

C2.1: Domestic water meter vault removed from scope of project

Architecture: 3 sheets

A01-01: Domestic water meter vault removed from scope of project

A10-01: Clarification provided for catering prep 132 sink responsibility and grease interceptor requirements.

A17-01: Clarification provided for catering prep 132 sink responsibility and grease interceptor requirements.

Structure: 1 sheet

S60-10: Clarification provided for restroom countertop support

1001 McKinney Street, Suite 1300
Houston, Texas 77002

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Addendum

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Date: 10/25/2022

Plumbing: 4 sheets

P10-01: Clarification provided for grease interceptor requirements in Catering prep 132

P61-50: Clarification provided for grease interceptor requirements in Catering prep 132. Clarification provided for underfloor piping support requirements.

P62-01: Clarification provided for grease interceptor requirements.

PU10-01: Modifications to accommodate future grease interceptor. Modifications to coordinate with structural grade beams.

Attachments:

(12) Drawing sheets, listed above

(1) Specification section: 22 14 00 Grease Waste and Vent System

End of Addendum

PROJECT MANUAL

Addendum #1

25 October 2022

CAMERON PARK ZOO EDUCATION CENTER & VET HOSPITAL

WACO, TEXAS

Perkins&Will Project Number: 185236.000

Perkins&Will

1001 McKinney St., Suite 1300 Houston, Texas 77002 | 713.366.4000

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PROFESSIONAL SEALS PAGE

The following Specification Sections have been prepared by or under the direct supervision of the Mechanical Engineer:

MECHANICAL ENGINEER
Affiliated Engineers, Inc.
One Greenway Plaza #150
Houston, Texas 77046

SPECIFICATIONS

DIVISION 22 – PLUMBING

22 14 00 Grease Waste and Vent System



END OF DOCUMENT

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SECTION 22 14 00

GREASE WASTE AND VENT SYSTEM

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This Section includes materials and methods for grease waste and vent piping within building and including piping to point of use grease interceptor inside building.

1.2 RELATED WORK

- A. Section 20 0553 - Mechanical Systems Identification
- B. Section 22 2114 - Plumbing Specialties
- C. Section 22 4000 - Plumbing Fixtures

1.3 REFERENCE

- A. Work under this Section is subject to requirements of Contract Documents including General Conditions, Supplementary Conditions, and sections under Division 01 General Requirements.

1.4 QUALITY ASSURANCE

- A. Order piping with each length marked with manufacturer's name or trademark and type of pipe; with each shipping unit marked with purchase order number, metal or alloy designation, temper, size, and supplier's name.
- B. Installed material not meeting specification requirements must be replaced with material that meets these specifications without additional cost to Owner.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Promptly inspect shipments to ensure material is undamaged and complies with Specifications.
- B. Cover pipe to prevent corrosion or deterioration while allowing sufficient ventilation to avoid condensation. Do not store materials directly on grade. Protect pipe, tube, and fitting ends from damage. End caps shall remain in place. Protect fittings by storage inside or by durable, waterproof, above ground packaging.
- C. Offsite storage agreements will not relieve Contractor from using proper storage techniques.
- D. Storage and protection methods must allow inspection to verify products.

1.6 SUBMITTALS

- A. Manufacturer's technical data for the following:
 - 1. Pipe and fittings
 - 2. Joints

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3. Cleanouts
4. Traps
5. Grease Interceptor

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Materials herein specified shall be new, unless otherwise noted.

2.2 PIPE, FITTINGS, AND JOINTS

- A. Interior Above Ground (Vent Pipe):

1. Cast Iron
 - a. Pipe: Hubless cast iron pipe, ASTM A-888, CISPI 301, NSF certified with material test reports from marked with collective trademark of Cast Iron Soil Pipe Institute or receive prior approval by Engineer
 - b. Fittings: Hubless cast iron fittings, ASTM A-888, CISPI 301, NSF certified with material test reports from marked with collective trademark of Cast Iron Soil Pipe Institute or receive prior approval by Engineer.
 - c. Joints: Heavyweight Couplings: No-hub couplings with (0.060") thick stainless-steel clamps, FM 1680 Class 1, ASTM Standard C-1540 Mission Heavyweight, Husky Series 4000, Ideal Tridon "HD", or Clamp-All Hi-Torq 125.

- B. Adaptor Couplings for Joining Dissimilar Pipe Materials:

1. Acceptable Manufacturers: Fernco, Mission
2. (1" through 6") diameter: Fernco Proflex 3000 Series shielded coupling with neoprene gasket, stainless steel shield, and stainless-steel clamping bands. Adaptor couplings shall be specifically designed for pipe materials being joined.
3. (8" through 10") diameter: Fernco 1000 Series flexible coupling with elastomeric PVC or neoprene gasket and stainless-steel clamping bands. Adaptor couplings shall be specifically designed for pipe materials being joined.

2.3 CLEANOUTS

- A. Blucher, Josam, Smith, or Zurn, equal to number listed in Drains and Cleanout Schedule.
- B. Cleanout material shall be similar to pipe material.

2.4 TRAPS

- A. Same material as pipe or fittings unless specified with fixtures. Refer to Section 22 4000 - Plumbing Fixtures. Provide (17 ga) brass, chrome plated traps for exposed traps.

2.5 POINT OF USE HYDO-MECHANICAL GREASE INTERCEPTOR (OFOI)

- A. Acceptable Manufacturers: Jay R. Smith MGF. Co., Zurn, and MiFab
- B. Description: Steel interceptor with gray duco coating inside and outside with flow control fitting. Grease interceptor will be floor mounted and owner furnished, owner installed

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- C. Basis of design is JR Smith model # 8025 capable of accepting 25 gpm and holding 50 lbs of grease.

PART 3 - EXECUTION

3.1 INSTALLATION - GENERAL

- A. Install pipe and fittings in accordance with reference standards, manufacturer's recommendations, and recognized industry practices.
- B. Provide rigid bracing to resist movement of upstream pipe for horizontal pipes (4") and larger with changes in direction greater than 45 degrees.
- C. Avoid cleanout plugs in ceiling cavities. Where cleanouts are required, extend pipe to floor cleanouts in slab above.
- D. Connect piping to fixtures, each piece of equipment, and drains. Install required piping as shown on drawings.
- E. Grade horizontal lines with minimum of (1/8" per ft), except piping (2") diameter or smaller which shall be run at (1/4" per ft) slope.
- F. Grade horizontal lines with minimum of (1/4" per ft), except piping (4") diameter or larger which may be run at (1/8" per ft) slope with approval of local authority.
- G. Install piping parallel with building lines and at heights, which do not obstruct any portion of window, doorway, stairway, or passageway, except, as may be shown on plans. Install overhead piping as high as possible.
- H. Grade vent pipe for complete drainage by gravity to soil or waste pipes. Vent terminations shall be set true and level. Locate vent piping at least (10 ft) away from window, door or intake openings. Coordinate closely with roofing contractor to prevent damage to roofing membrane. Flashing shall be in accordance with requirements of roofing manufacturer.
- I. Where interferences develop, offset, or reroute piping as required to clear interferences. Coordinate locations of plumbing piping with piping, ductwork, conduit, and equipment of other trades to allow sufficient clearances. Consult drawings for exact location of pipe spaces, ceiling heights, door and window openings, or other architectural details before installing piping.
- J. Provide protective sleeve covering of elastomeric pipe insulation, where piping and/or fittings are embedded in masonry or concrete.
- K. Maintain piping in clean condition internally during construction.
- L. Mitered ells, notched tees, and orange peel reducers are not allowed. Bushings are not allowed on threaded piping.
- M. Do not route piping through transformer vaults or above transformers, panelboards, or switchboards, including required service space for this equipment, unless piping is serving this equipment.
- N. Set cleanouts true and level and protect properly throughout construction.

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- O. Set floor drains true and level and protect properly throughout construction. Weep holes shall be filled with removable material and kept free from concrete and other debris during construction. Weep holes shall be cleaned out for final working order. Provide safing for floor drains installed in elevated slabs.
- P. Provide plugs or caps for pipe openings during construction to prevent debris from entering pipe. Temporary plug shall be plastic cap or equivalent.

3.2 UNDERGROUND WARNING TAPE

- A. Provide warning tape for exterior buried sewers per Section 20 0553.

3.3 STAINLESS STEEL PIPE

- A. Install stainless steel pipe and fittings as recommended by the manufacturer.
- B. Clean pipe end, bell, gasket seat and gasket of dirt or debris. Coat end of pipe and gasket with gasket lubricant. Use adhesive lubricant per manufacturers' recommendations on all piping larger than 4". Ensure pipe is supported off ground so lubricant does not pick up dirt. Push spigot end into end of gasket bell with levered pipe joining tool recommended by pipe manufacturer. Insert to fully seated position or to reference mark on pipe.
- C. Support piping at every coupling and at base of all stacks. Locate hanger within (18") of coupling.
- D. Installations with multiple joints within a (4 ft) developed length shall be supported at every second joint.
- E. Secure the base of risers with thrust restraints to prevent joint separation.
- F. Provide restraints for piping (5") and larger at all changes in direction and at all pipe size changes greater than 2 pipe sizes.

3.4 CAST IRON PIPE

- A. Install cast iron pipe and fittings as recommended by CISPI in their publication "Installation of Cast Iron Soil Pipe and Fittings".
- B. No-hub Piping: Place gasket on end of one pipe or fitting and clamp assembly on end of other pipe or fitting. Firmly seat pipe or fittings ends against integrally molded shoulder inside neoprene gasket. Slide clamp assembly into position over gasket. Tighten fasteners to manufacturer's recommended torque.
- C. Support piping at every coupling and at base of all stacks. Locate hanger within (18") of coupling.
- D. Installations with multiple joints within a (4 ft) developed length shall be supported at every second joint.
- E. Provide restraints for piping (5") and larger at all changes in direction and at all pipe size changes greater than 2 pipe sizes.
- F. Brace horizontal piping (5") and larger to prevent horizontal movement. Install bracing at every branch connection and every change of direction in accordance with CISPI recommendations.

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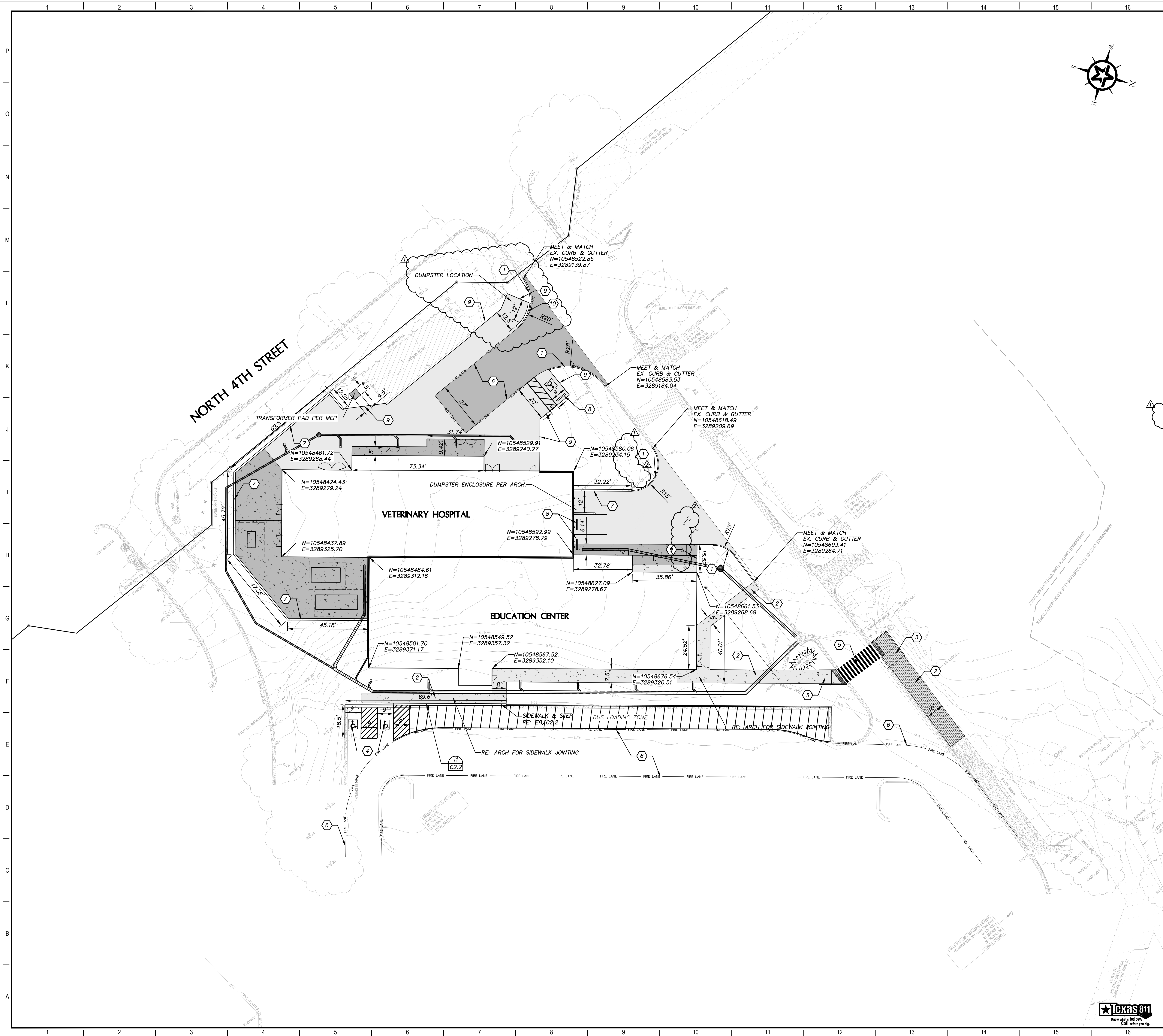
3.5 THREADED PIPE

- A. Make joints for threaded pipe by cutting pipe square and reaming inside. Threads shall be cut so that end of pipe extends to shoulder of fitting.
- B. Exposed threads shall not exceed 3 in number and shall be painted with heavy coat of corrosion inhibiting material.
- C. Use only approved joint compounds, thread lubricant, or Teflon tape sparingly and only on outer threads.

3.6 TESTING

- A. Refer to Testing paragraph of Section 20 0000 - General Mechanical Requirements.
- B. Water test may be applied to system either in its entirety or in sections. Piping shall be tightly plugged and submitted to (10 ft) head of water located at highest point. Provide separate standpipe above highest point being tested or extend system to obtain required (10 ft) head of water. Head shall be maintained for at least 30 minutes before inspection starts.
- C. Defective work or material shall be replaced or repaired as necessary and inspection and test repeated. Repairs shall be made with new materials. No caulking of threaded joints or holes will be allowed.
- D. Do not backfill pipe until successfully tested.
- E. Testing with air will not be allowed.

END OF SECTION



LEGEND

	CONCRETE SIDEWALK 5" THICK 3,000 PSI CONCRETE No. 3 REBAR @ 18" O.C.E.W. 12" SELECT FILL
	CONCRETE FLATWORK 5" THICK 3,000 PSI CONCRETE No. 3 REBAR @ 18" O.C.E.W. 12" SELECT FILL
	HEAVY DUTY CONCRETE PAVEMENT 6" THICK 4,000 PSI CONCRETE No. 4 REBAR @ 12" O.C.E.W. 6" CRUSHED LIMESTONE BASE
	LIGHT DUTY CONCRETE PAVEMENT 5" THICK 4,000 PSI CONCRETE No. 4 REBAR @ 12" O.C.E.W. 6" CRUSHED LIMESTONE BASE
	BRICK PATTERN CONC. SIDEWALK 5" THICK 3,000 PSI CONCRETE No. 3 REBAR @ 18" O.C.E.W. 12" SELECT FILL
	FIRE LANE
	FIRE LANE STRIPING

KEY NOTES

- 1 CURB AND GUTTER (TYP)
- 2 SIDEWALK
- 3 ADA RAMP
- 4 HANDICAP PARKING STRIPING (TYP)
- 5 (W)24"(SLD) - TY II (CROSSWALK)
- 6 FIRE LANE STRIPING (TYP)
- 7 RETAINING WALL
- 8 WHEEL STOP (RE:M8/C2.2)
- 9 THICKENED CONCRETE EDGE (RE:A11/C2.2)
- 10 RETAINING WALL @ DUMPSTER PAD (RE:A4/C2.2)

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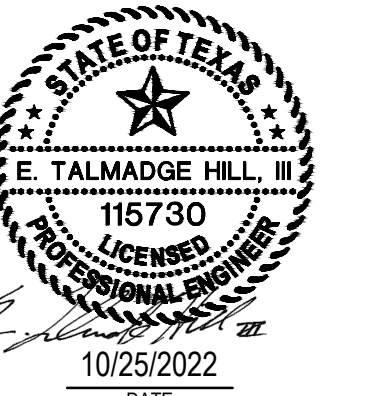
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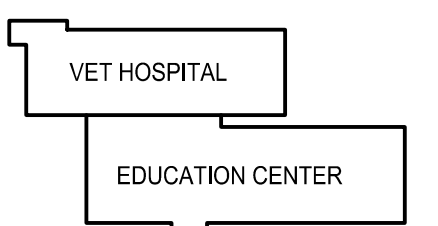
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KEYPLAN

TRUE NORTH
ISSUE CHART

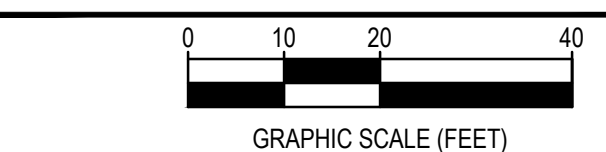
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1	PERMIT RESPONSE - CIVIL	10/25/22
0	ISSUE	DATE
Job Number	185236.000	
TITLE		

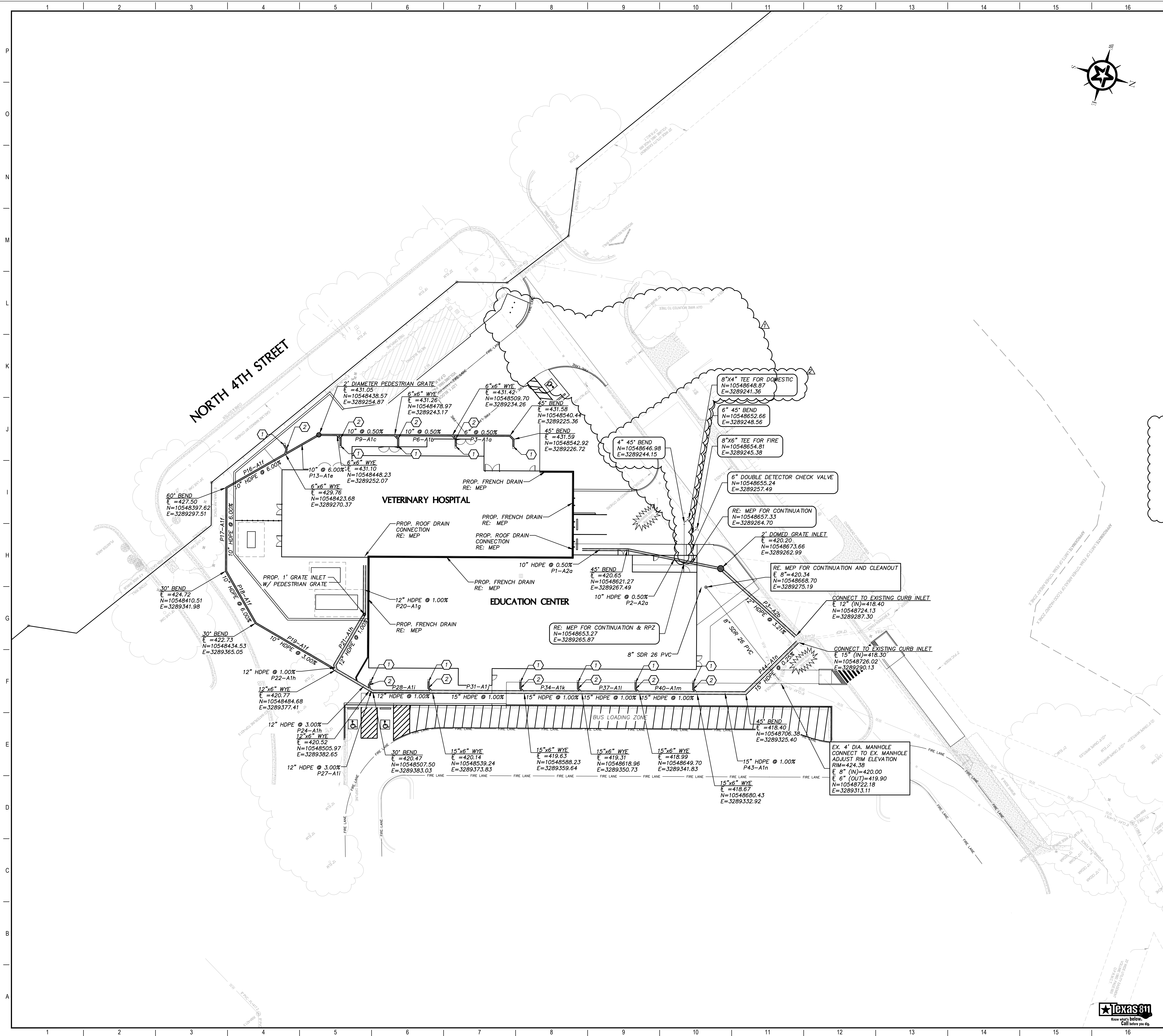
OVERALL SITE
PLAN

SHEET NUMBER

C1.1

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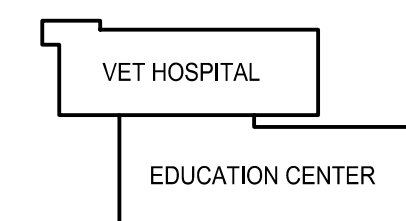
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KEYPLAN



TRUE NORTH

ISSUE CHART

2	ADDENDUM #1	10/25/22
1	PERMIT RESPONSE, CO.	09/29/22
1	ISSUE	04/01/22
Job Number	185236.000	

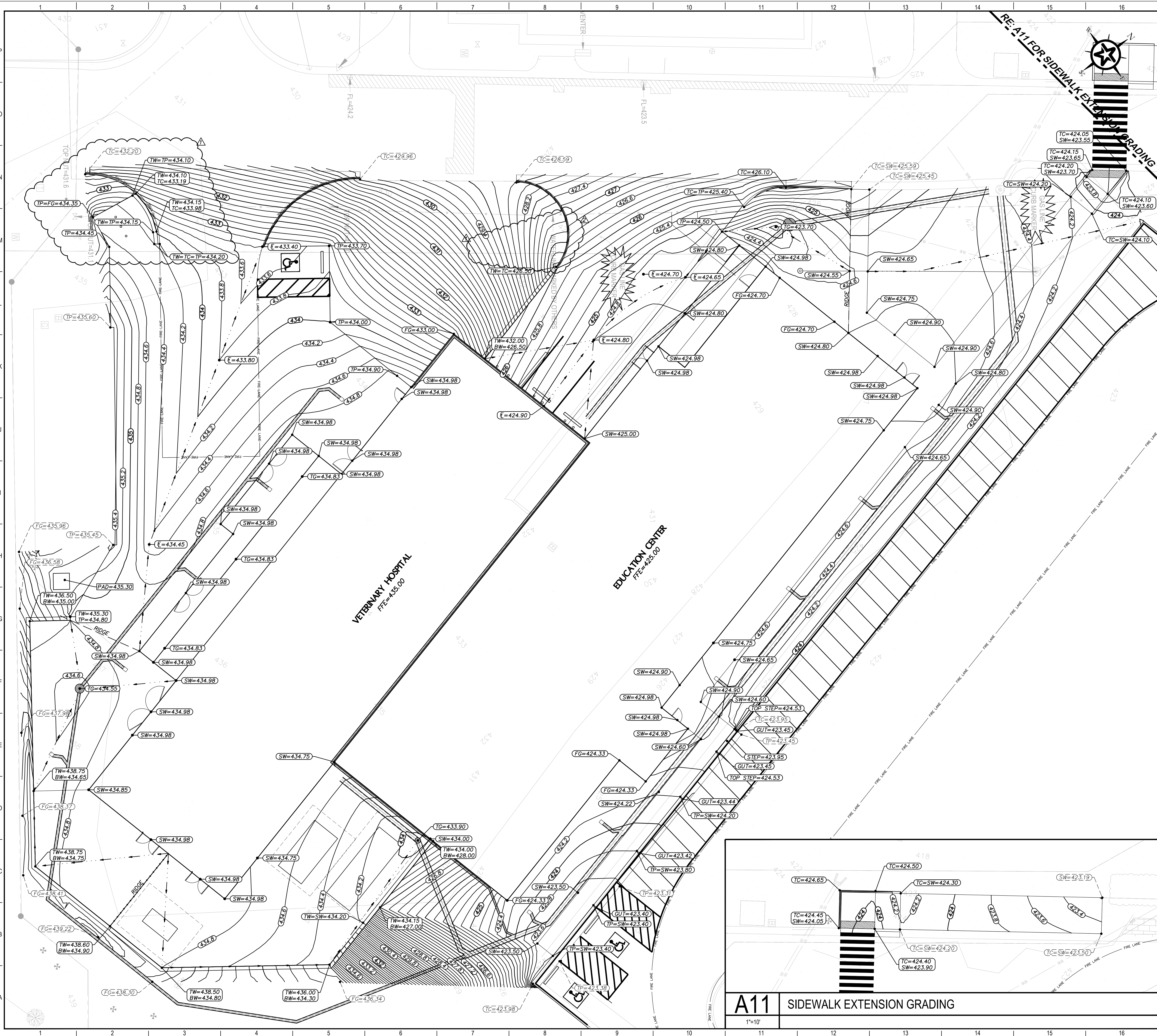
TITLE

UTILITY PLAN

SHEET NUMBER

C1.2

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GRADING LEGEND

- x 520.79 EXISTING GRADE
 TP=519.64 PROPOSED GRADE
 TC=522.95 EXISTING GRADE - VERIFY
 --- EXISTING CONTOUR
 --- PROPOSED CONTOUR
 --- GRADE BREAK
 --- FLOWLINE
 TP TOP OF PAVEMENT
 TC TOP OF CURB
 TG TOP OF GRATE
 HP HIGH POINT
 LP LOW POINT

GRADING NOTES

- ALL ACCESSIBLE ROUTES, RAMPS, CURB RAMPS, AND ACCESSIBLE PARKING SPACES SHALL COMPLY WITH TEXAS ACCESSIBILITY STANDARDS (T.A.S.), LATEST EDITION.
- CROSS SLOPE ON ALL ACCESSIBLE ROUTES, RAMPS, AND CURB RAMPS SHALL NOT EXCEED 2%.
- SLOPES WITHIN ACCESSIBLE PARKING STALLS AND ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.
- RUNNING SLOPE ON ALL ACCESSIBLE ROUTES SHALL NOT EXCEED 5%.
- RUNNING SLOPE ON RAMPS AND CURB RAMPS SHALL NOT EXCEED 8.33%. RAMPS (AS DISTINGUISHED FROM CURB RAMPS) SHALL NOT EXCEED 2.5 FEET IN ELEVATION CHANGE AND SHALL HAVE HANDRAILS IF ELEVATION CHANGE EXCEEDS 6 INCHES.
- LANDINGS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF ALL RAMPS (MIN 5' LONG X RAMP WIDTH), STAIRS (MIN 5' LONG X STAIR WIDTH), CHANGES IN DIRECTION (MIN 5' X 5'), AND AT ALL ACCESSIBLE BUILDING EXITS (MIN 5' LONG X DOOR WIDTH). LANDINGS SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION.
- VERTICAL CHANGE IN GRADE SHALL BE LIMITED TO 1/4 INCH MAXIMUM AT DOORWAYS AND ALONG ACCESSIBLE ROUTES.
- OPENINGS WITHIN ACCESSIBLE ROUTES (I.E. STORM DRAIN GRATES) SHALL NOT EXCEED 1/2 INCH IN THE DOMINANT DIRECTION OF TRAVEL. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL.
- CONTRACTOR SHALL VERIFY FORMWORK IN FIELD TO ENSURE THAT PROPOSED GRADES COMPLY WITH T.A.S. PRIOR TO PLACING PERMANENT FEATURES. NOTIFY ENGINEER OF ANY FIELD DISCREPANCIES THAT MAY REQUIRE REVISIONS.

CONTOUR NOTES

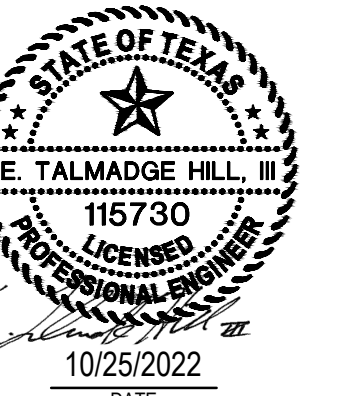
CONTOURS ARE SHOWN AT 0.2' INTERVALS

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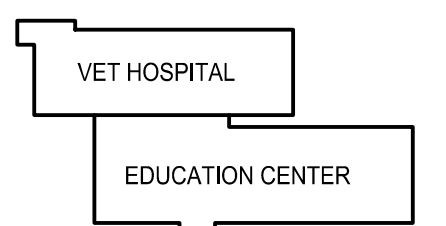
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KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
1	ISSUE	10/25/2022
2	REVISION	10/25/2022
3	REVISION	10/25/2022
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GRADING PLAN

SHEET NUMBER

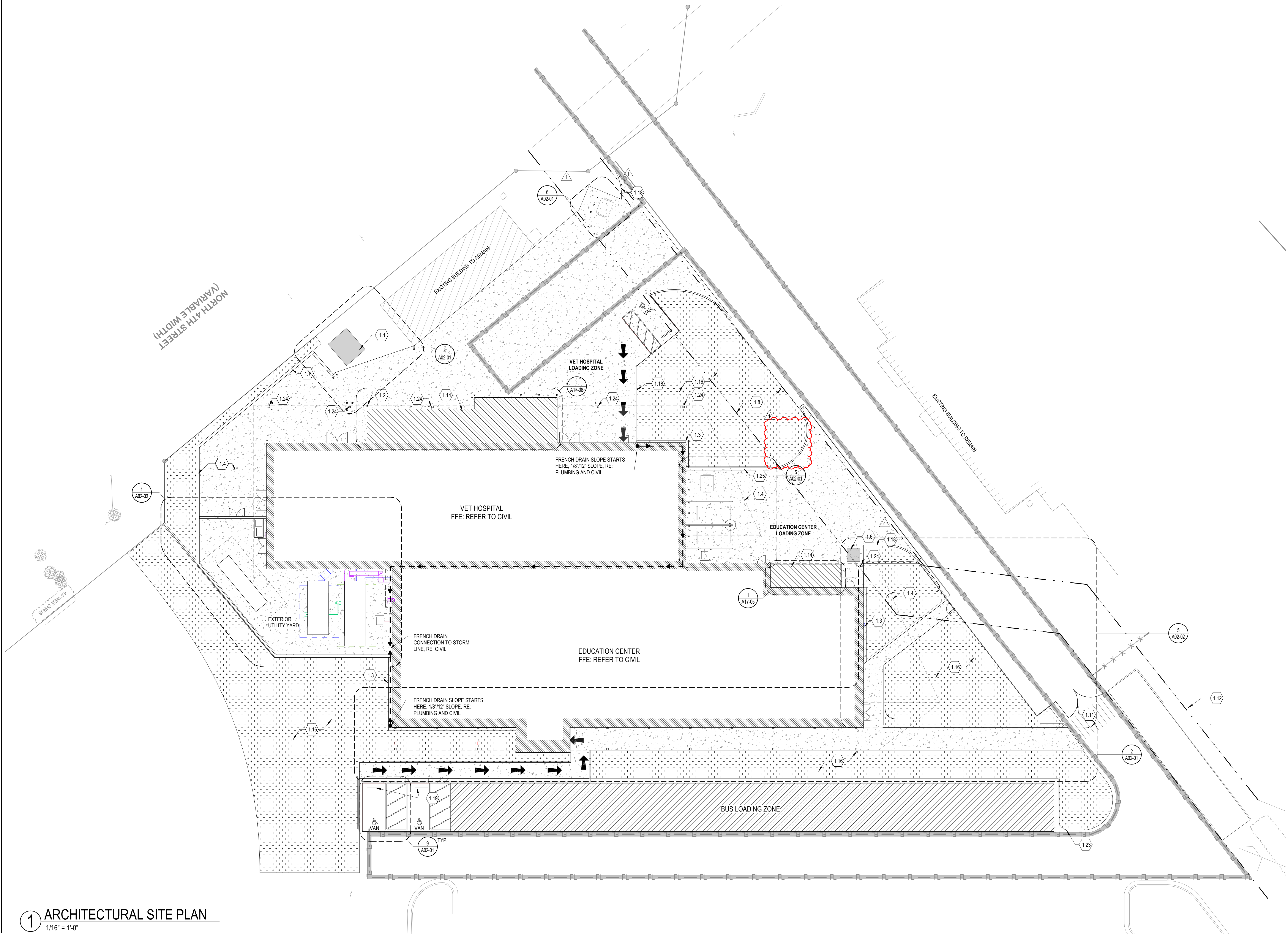
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[illegible]

GENERAL NOTES	ARCHITECTURAL SITE PLAN LEGEND	NOTES BY NUMBER
1. REFER TO CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING SITE PLANS FOR UTILITY DETAILS.		<<< Indicates Sheet Keynote on Plan
2. REFER TO CIVIL SITE PLAN FOR DIMENSIONAL LAYOUTS AND GRADING PLANS. GRADING SHOWN ON ARCHITECTURAL SITE PLAN IS FOR REFERENCE ONLY.		1.1 PAD MOUNTED TRANSFORMER. RE: ELECTRICAL FOR ADDITIONAL INFORMATION
3. REFER TO STRUCTURAL DRAWINGS FOR RETAINING WALL DETAILS.		1.2 STEEL PIPE BOLLARD, PAINTED. RE: A02-01 FOR DETAILS
4. REFER TO OWNER PROVIDED SOIL AND GROUNDWATER MANAGEMENT PLAN FOR EARTHWORK REQUIREMENTS NOT CAPTURED IN THESE DOCUMENTS.		1.3 CONCRETE MOW STRIP, 1'-0" WIDE
		1.4 EXTENT OF BUILDING ROOF, ABOVE
		1.6 FIRE WATER VAULT, RE: CIVIL
		1.7 CONCRETE RETAINING WALL. RE: CIVIL FOR LOCATION AND STRUCTURE FOR DETAILS
		1.8 UTILITY EASEMENT, RE: CIVIL
		1.11 EXISTING WOODEN GATE TO REMAIN
		1.12 NEW SIDEWALK PAVING, RE: CIVIL FOR DETAILS
		1.14 OUTDOOR ANIMAL HOLDING CAGES, RE: A17 SERIES FOR DETAILS
		1.16 NEW HYDROSEED GRASS BY CONTRACTOR. ALL OTHER PLANTING, IRRIGATION, SITE FURNITURE AND SIGNAGE TO BE DESIGNED AND PROVIDED BY OWNER
		1.18 EDGE OF NEW PAVEMENT, RE: CIVIL
		1.19 WHEEL STOP, RE: CIVIL
		1.23 REFER TO CIVIL DRAWINGS FOR EXTENT OF PAVING WORK AT NEW BUS LOADING ZONE.
		1.24 BUILDING COLUMN, RE: STRUCTURAL FOR BASE CONNECTION DETAIL. RE: A10 SERIES FOR DETAILS
		1.25 CONCRETE RETAINING WALL WITH ALUMINUM RAILING SYSTEM MOUNTED TO TOP OF WALL.

	NEW CONCRETE SIDEWALK OR PAVING		AREA DEFINED TO RECEIVE CRUSHED GRANITE MOW STRIP AND INFILL LANDSCAPING.
	NEW BUILDING FOOTPRINT		
	DISTURBED CONSTRUCTION AREA TO RECEIVE NEW HYDROSEED GRASS BY CONTRACTOR, ALL OTHER LANDSCAPING BY OWNER.		
	PROPERTY LINE		
	EASEMENT, BUILDING SETBACK & R.O.W.		
	FIRE LANE		
	REQUIRED ACCESSIBLE PATH		
	NEW PARKING SPACE COUNT		



1 ARCHITECTURAL SITE PLAN
1/16" = 1'-0"

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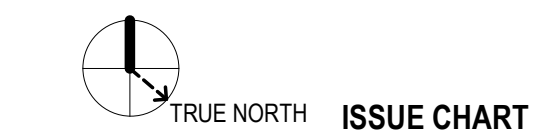
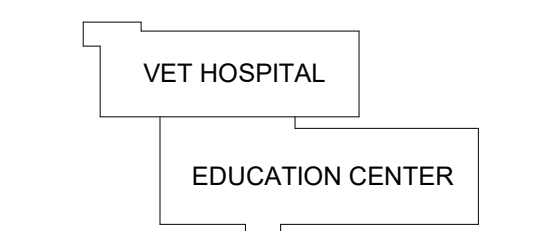
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KEYPLAN



ISSUE CHART

1	PERMIT RESPONSE_V1	9/29/2022
2	ADDENDUM 1	10/25/2022
DATE	DATE	
Job Number	185236.000	
TITLE		

ARCHITECTURAL SITE
PLAN

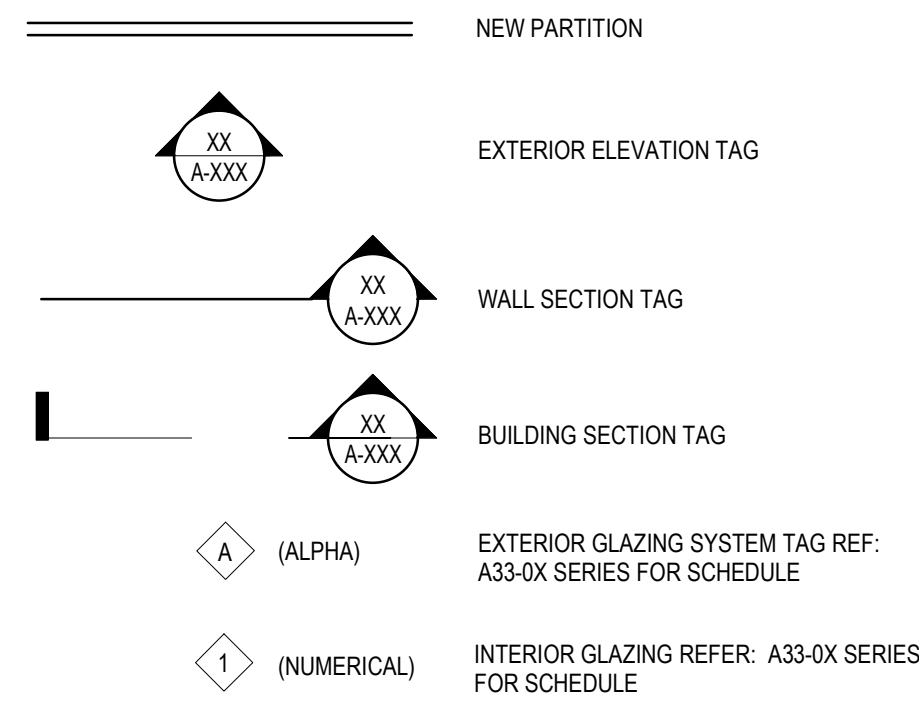
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A01-01

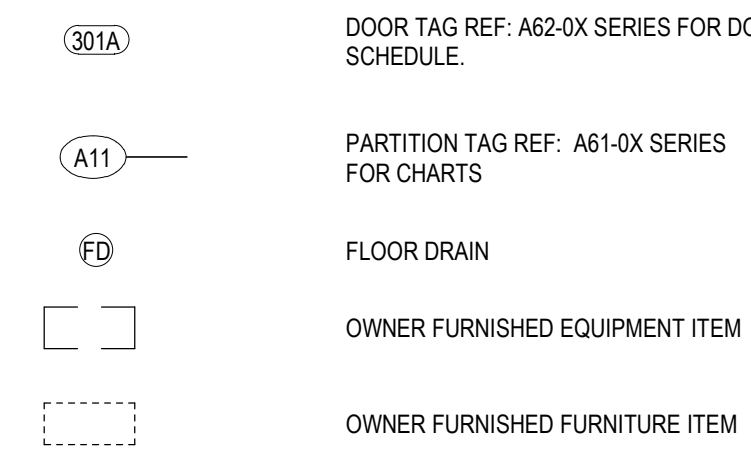
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FLOOR PLAN GENERAL NOTES

1. PARTITION TYPES ARE SCHEDULED IN THE A61 SERIES, RE-G01 SERIES "CODE COMPLIANCE PLANS" FOR GRAPHIC EXTENT OF FIRE RATED PARTITIONS. REFER TO PARTITION TYPE SCHEDULE FOR LOCATION OF SOUND ATTENUATION BLANKETS.
2. ALL PARTITIONS ARE TYPE "A81" UNLESS NOTED OTHERWISE.
3. REFER TO A17 SERIES FOR EQUIPMENT, UTILITY AND LAB CASEWORK LAYOUTS FOR ANIMAL SPACES.
4. ALL GLUE LAMINATED BEAMS AND CLT DECKING OUTSIDE OF BUILDING ENVELOPE SHALL BE PRESSURE TREATED AND SEALED.
5. ALL GLUE LAMINATED BEAMS AND CLT DECKING EXPOSED TO VIEW (INTERIOR AND EXTERIOR) SHALL BE STAINED. FINAL COLOR SELECTIONS TO BE SELECTED BY ARCHITECT AFTER RECEIVING FINISH SAMPLES.



FLOOR PLAN LEGEND



FLOOR PLAN SHEET NOTES

- <<< Indicates Sheet Keynote on Plan
 FP-1 UTILITY SINK TO BE OF-01. BELOW SINK GREASE INTERCEPTOR TO BE PROVIDED AT TIME OF SINK INSTALLATION AS REQUIRED. GREASE INTERCEPTOR TO BE OF-01. REFER TO PLUMBING FOR DETAILS.

VET HOSPITAL ABOVE, NOT SHOWN FOR CLARITY.

1 OVERALL FLOOR PLAN - LEVEL 1
1/8" = 1'-0"

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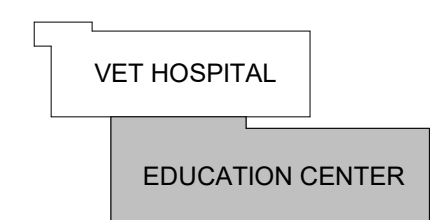
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KEYPLAN



ISSUE FOR BID & PERMIT 04/01/2022

1	ADDENDUM 1	10/25/2022
2	ISSUE	DATE
Job Number	185236.000	ISSUE

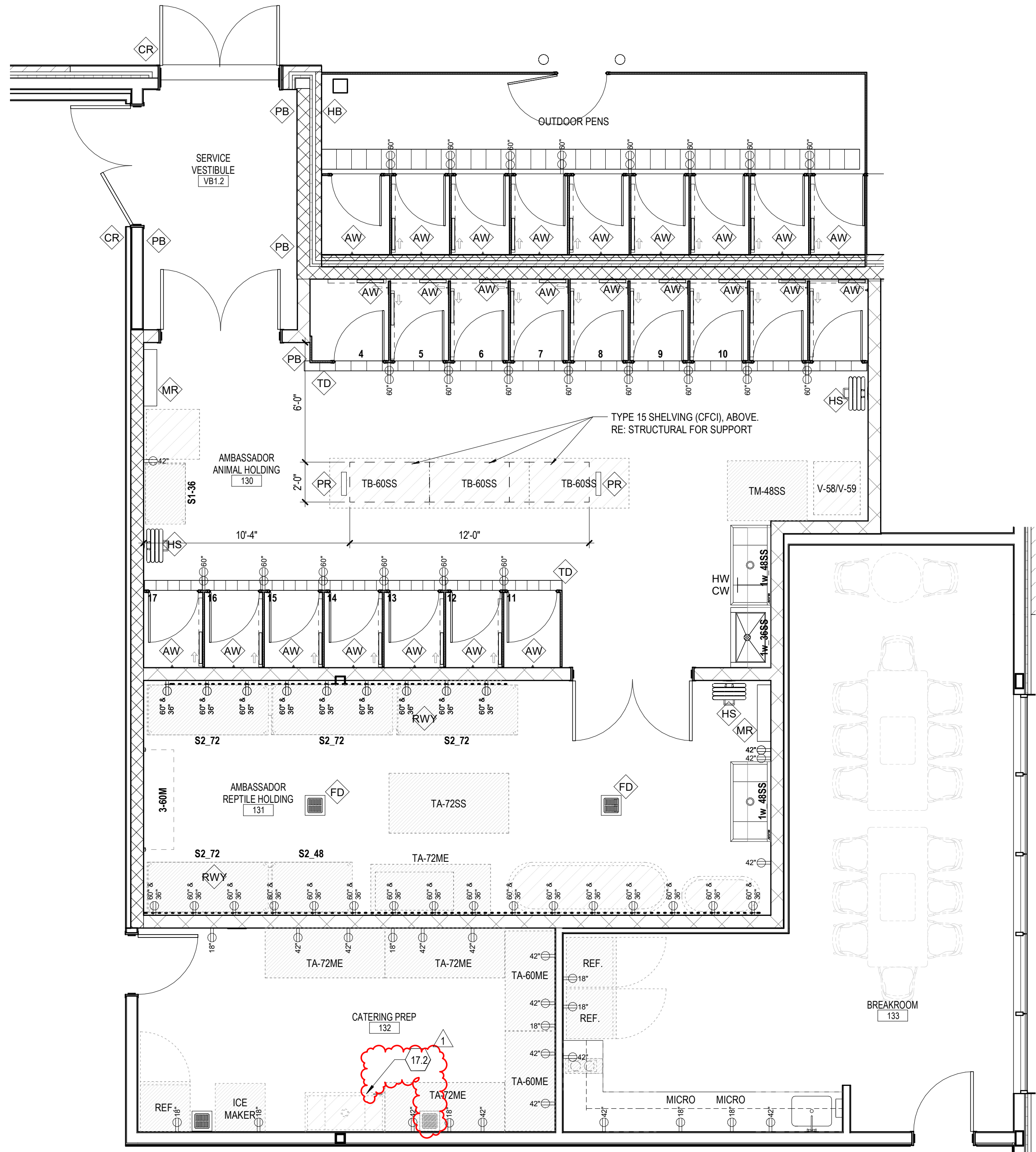
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OVERALL FLOOR
PLAN - EDUCATION
CENTER

SHEET NUMBER

A10-01

EQUIPMENT & UTILITY COORDINATION PLAN - ED CENTER - EAST
1/4" = 1'-0"



**EQUIPMENT PLAN
GENERAL NOTES**

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE CLEAR DIMENSIONS REQUIRED FOR OWNER FURNISHED EQUIPMENT THAT ARE LOCATED WITHIN OR ADJACENT TO BUILT-IN CABINETS.
2. UTILITIES SHOWN ON THESE PLANS ARE FOR DIMENSIONAL REFERENCE AND EQUIPMENT COORDINATION PURPOSES. REFER TO ELECTRICAL, PLUMBING, AND SECURITY DRAWINGS FOR DESIGN OF SYSTEM. NOT ALL RECEPTACLES ARE SHOWN ON THESE DRAWINGS. REFER TO ELECTRICAL AND TELECOM DRAWINGS FOR ADDITIONAL REQUIREMENTS.
3. CONTRACTOR SHALL SUPPLY BLOCKING FOR MOUNTING OF EQUIPMENT UNLESS MOUNTING SUPPORT IS OTHERWISE FURNISHED AS PART OF THE EQUIPMENT.
4. CONTRACTOR SHALL COORDINATE WITH THE OWNER ON THE DELIVERY AND INSTALLATION OF OWNER FURNISHED EQUIPMENT.
5. REFER TO A43 SERIES FOR MISCELLANEOUS EQUIPMENT MOUNTING HEIGHTS.
6. UTILITY ROUTING TO BE CONCEALED IN-WALL AND/OR ABOVE CEILING. EXPOSED CONDUIT NOT PERMITTED UNLESS NOTED OTHERWISE.

EQUIPMENT PLAN LEGEND

- OWNER FURNISHED EQUIPMENT DESIGNATION. REFER TO OWNER EQUIPMENT MANUAL FOR SPECIFICATION.
- TOILET ACCESSORY TAG. REFER TO A43-01 FOR LEGEND.
- OWNER FURNISHED OWNER INSTALLED CASEWORK
- OWNER FURNISHED OWNER INSTALLED EQUIPMENT ITEM
- ELECTRICAL RECEPTACLE, RE: ELECTRICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS
MOUNTING HEIGHT A.F.F.

**EQUIPMENT PLAN
NOTES BY NUMBER**

- <<< Indicates Sheet Keynote on Plan
- UTILITY SINK TO BE OF-OL. BELOW SINK GREASE INTERCEPTOR TO BE PROVIDED AT TIME OF SINK INSTALLATION AS REQUIRED. GREASE INTERCEPTOR TO BE OF-OL. REFER TO PLUMBING FOR DETAILS.

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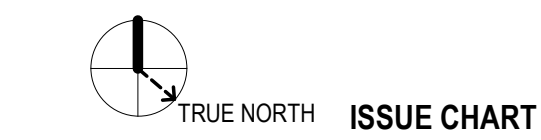
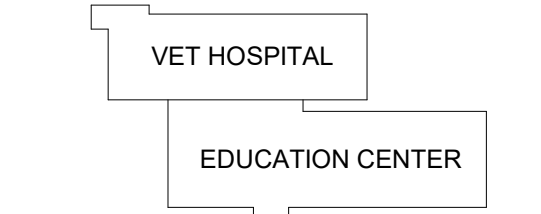
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TRUE NORTH ISSUE CHART

ADDENDUM 1
DATE 10/25/2022
ISSUE

Job Number 185236.000

**EQ, CASEWORK & UTILITY
COORDINATION PLAN
- ANIMAL
AMBASSADOR**
SHEET NUMBER

A17-01

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WHERE STRUCTURAL STEEL SHAPES ARE INDICATED ON ARCHITECTURAL OR STRUCTURAL DETAILS, AND/OR NO SIZE IS SHOWN EITHER ON PLAN OR ON THE DETAILS, USE THE FOLLOWING MEMBER WEIGHTS FOR BIDDING PURPOSES:	
MISCELLANEOUS STEEL SCHEDULE	
ANGLES	17 PLF
LOOSE LINTELS	18 PLF
CHANNELS	20.7 PLF
WIDE FLANGE BEAMS	40 PLF
WIDE FLANGE COLUMNS	75 PLF
HSS BEAMS	30 PLF
HSS COLUMNS	30 PLF
PIPE COLUMNS	30 PLF
BASE PLATES	155 LB
NOTE: THE GENERAL CONTRACTOR SHALL VERIFY AND CONFIRM ACTUAL MEMBER SIZES WITH THE PROJECT ARCHITECT AND ENGINEER PRIOR TO FABRICATION.	

NOMINAL HOLE DIMENSIONS (BASED ON AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION, TABLE J3.3)				
BOLT DIAMETER (d)	STANDARD HOLE DIAMETER SIZE	OVERSIZED HOLE DIAMETER SIZE	SHORT-SLOTTED HOLE SIZE	LONG-SLOTTED HOLE SIZE
1/2"	9/16"	5/8"	9/16" x 1 1/16"	9/16" x 1 1/4"
5/8"	1 1/16"	13/16"	1 1/16" x 7/8"	1 1/16" x 1 9/16"
3/4"	13/16"	15/16"	13/16" x 1"	13/16" x 1 7/8"
7/8"	15/16"	1 1/16"	15/16" x 1 1/8"	15/16" x 2 3/16"
1"	1 1/8"	1 1/4"	1 1/8" x 1 5/16"	1 1/8" x 2 1/2"
≥ 1 1/8"	d + 1/8"	d + 5/16"	(d + 1/8") x (d + 3/8")	(d + 1/8") x (2.5sd)

NOTES:

- THE DISTANCE BETWEEN CENTERS OF STANDARD, OVERSIZED, OR SLOTTED HOLES SHALL NOT BE LESS THAN (2 2/3) TIMES THE NOMINAL DIAMETER 'd' OF THE FASTENER.
- THE CLEAR DISTANCE BETWEEN BOLT HOLES OR SLOTS SHALL NOT BE LESS THAN 'd'.

MINIMUM FILLET WELD SIZE (BASED ON AISC STEEL CONSTRUCTION MANUAL, 15TH EDITION, TABLE J2.4)	
MATERIAL THICKNESS OF THINNER PART JOINED (INCHES)	MINIMUM SIZE OF FILLET WELD (INCHES)
TO 1/4" INCLUSIVE	3/16"
OVER 1/4" TO 1/2"	3/8"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4"	5/16"

NOTES:

- UNLESS NOTED OTHERWISE, ALL WELDED PARTS SHALL BE WELDED ALL AROUND, ALL ACCESSIBLE SIDES.
- THE MINIMUM SIZE OF FILLET WELD SHALL NOT BE LESS THAN THE SIZE REQUIRED TO TRANSMIT CALCULATED FORCES, NOR THE SIZE SHOWN ABOVE. THESE REVISIONS DO NOT APPLY TO FILLET WELD REINFORCEMENTS OF PJP OR CJP GROOVE WELDS.
- THE MAXIMUM SIZE OF FILLET WELDS OF CONNECTED PARTS SHALL BE:
 - ALONG EDGES OF MATERIAL LESS THAN 1/4" THICK, NOT GREATER THAN THE THICKNESS OF MATERIAL.
 - ALONG EDGES OF MATERIAL 1/4" OR MORE IN THICKNESS, NOT GREATER THAN THE THICKNESS OF THE MATERIAL, MINUS 1/16". UNLESS NOTED OTHERWISE, IN THE AS-WELDED CONDITION, THE DISTANCE BETWEEN THE EDGE OF THE BASE METAL AND THE TOE OF THE WELD IS PERMITTED TO BE LESS THAN 1/16" PROVIDED THE WELD IS CLEARLY VERIFIABLE.

MASONRY OPENING	SIZE	DETAIL
LESS THAN 4'-0"	L 8 x 4 x 1/2" (LLH)	
4'-0" BUT LESS THAN 5'-0"	L 8 x 4 x 1/2" (LLH)	
5'-0" BUT LESS THAN 6'-0"	L 8 x 4 x 1/2" (LLH)	
6'-0" BUT LESS THAN 7'-0"	L 8 x 4 x 1/2" (LLH)	
7'-0" BUT LESS THAN 8'-0"	L 8 x 4 x 1/2" (LLH)	
8'-0" BUT LESS THAN 10'-0"	L 8 x 4 x 1/2" (LLH)	
10'-0" AND UP TO 20'-0"	WT12x31	

NOTES:

- PROVIDE 8" MINIMUM BEARING EACH END FOR STEEL LOOSE LINTELS. ONE ANGLE SHALL BE PROVIDED FOR EACH WYTHE OF BRICK. SEE ARCHITECTURAL DRAWINGS FOR LOCATION. EXTERIOR LINTELS SHALL BE HOT DIPPED GALVANIZED.
- LOOSE LINTELS SHALL NOT BE USED FOR ANCHORAGE OR SUPPORT OF WINDOWS, WALL SYSTEMS, OR OTHER MEASURES.

22 STANDARD MISCELLANEOUS STEEL SCHEDULE - WEIGHT

SCALE: NOT TO SCALE

21 STANDARD BOLTED CONNECTION REQUIREMENTS

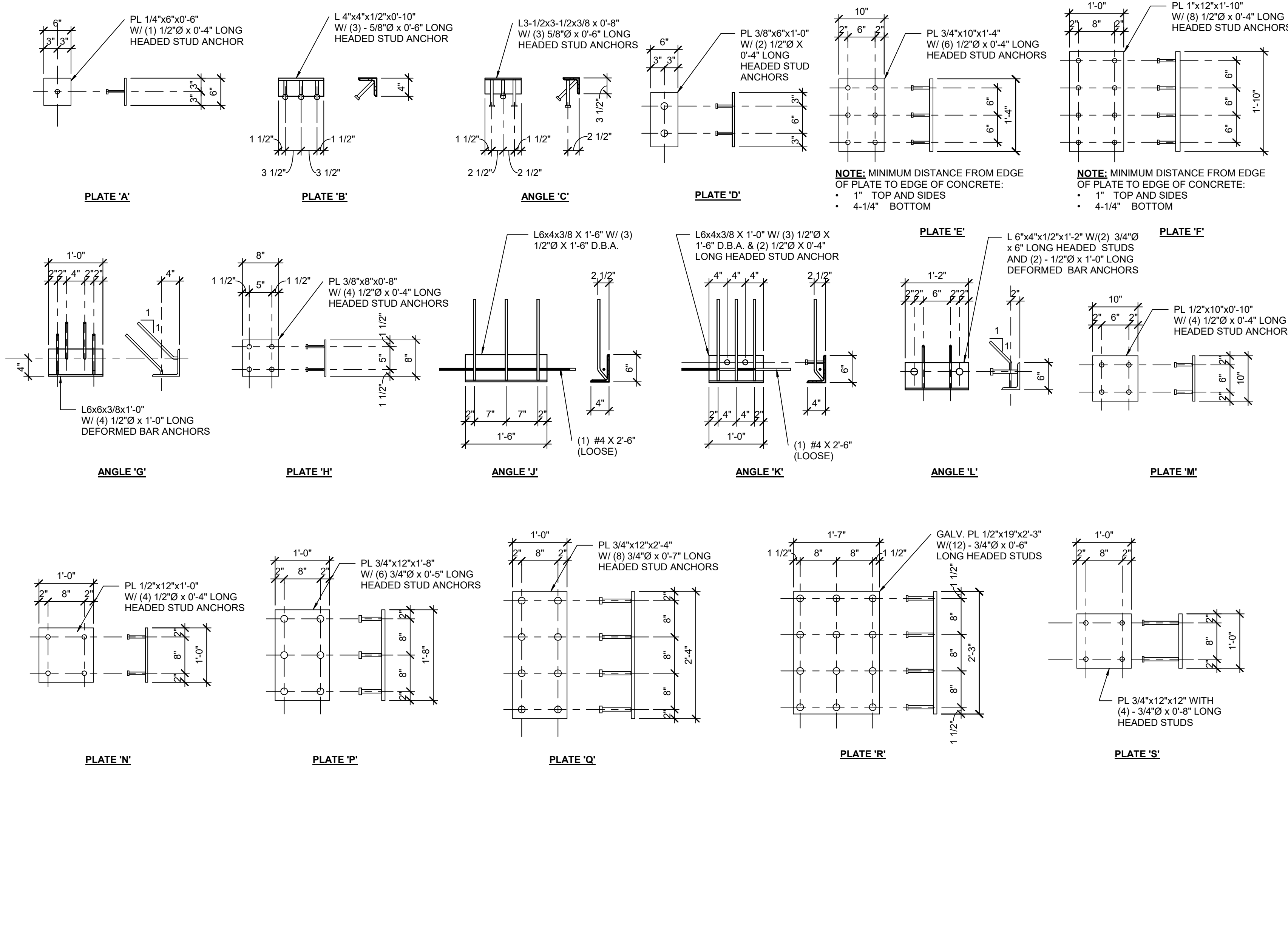
SCALE: NOT TO SCALE

20 STANDARD MINIMUM FILLET WELD DETAIL

SCALE: NOT TO SCALE

19 STANDARD STEEL LINTEL SCHEDULE

SCALE: NOT TO SCALE



10 COUNTERTOP LAVATORY SUPPORT

SCALE: NOT TO SCALE

09 TYPICAL EMBEDDED PLATES AND ANGLES

SCALE: NOT TO SCALE

THIS CONNECTION SHALL ONLY BE USED WHERE SPECIFICALLY NOTED OR ALLOWED ON THE STRUCTURAL DOCUMENTS

- DESIGN CHECKS SHALL INCLUDE:
 - BOLT GROUP REQUIRED FOR BOLT SHEAR AND BOLT BEARING WITH ECCENTRICITY.
 - MAXIMUM PLATE THICKNESS.
 - PLATE LIMIT STATES OF SHEAR YIELDING, SHEAR RUPTURE, AND BLOCK SHEAR RUPTURE.
 - PLATE LIMIT STATES OF SHEAR YIELDING SHEAR BUCKLING AND YIELDING DUE TO FLEXURE.
 - PLATE LIMIT STATE OF BUCKLING.
 - SUPPORTED BEAM BRACING.
 - REQUIREMENT FOR STABILIZER PLATES.

NOTES:

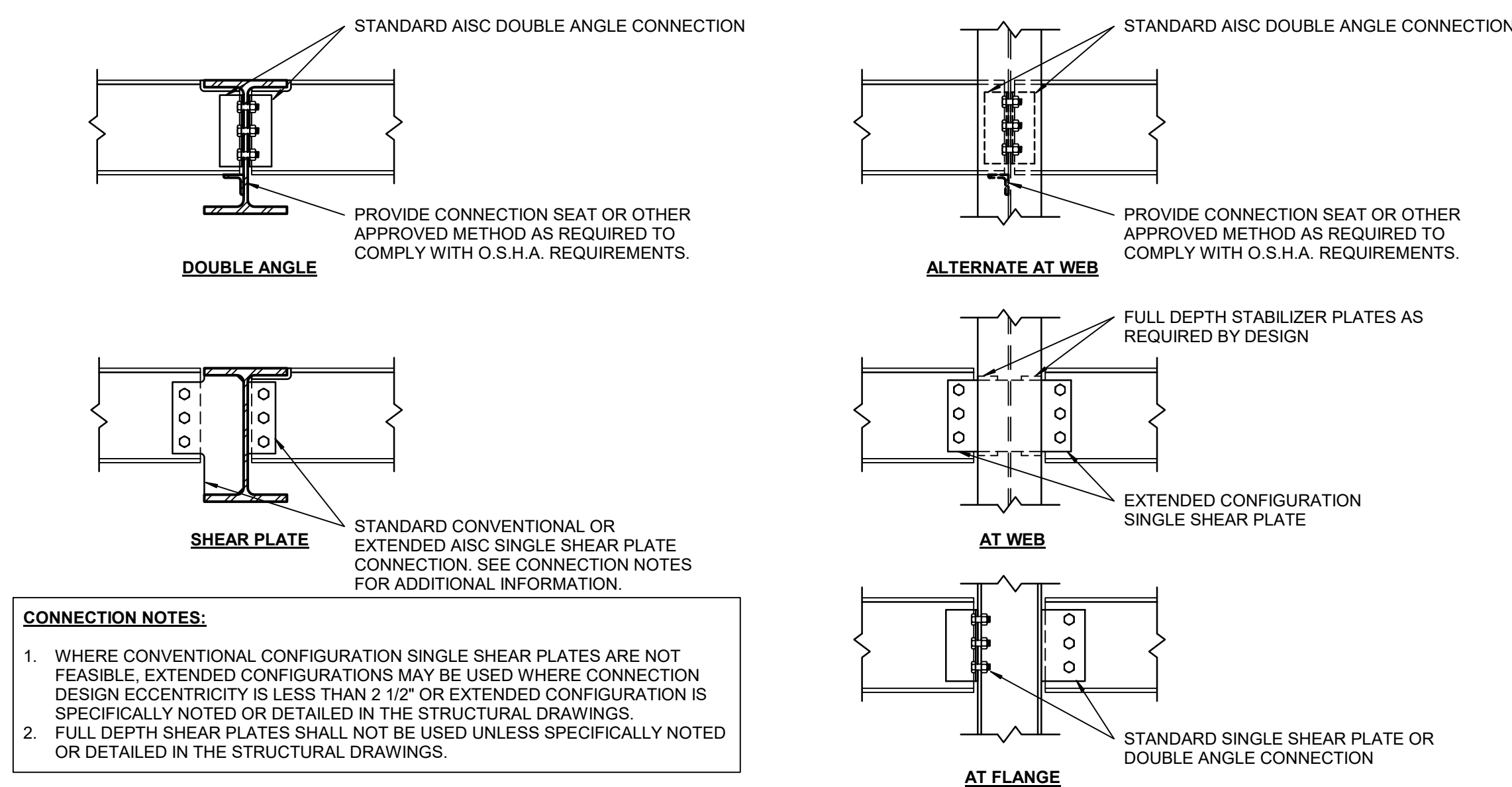
- CONNECTION DESIGN SHALL BE IN ACCORDANCE WITH AISC-MANUAL OF STEEL CONSTRUCTION PART 10, EXTENDED CONFIGURATION.
- REFER TO AISC-MANUAL OF STEEL CONSTRUCTION (PART 1)
- THE SUPPORTING MEMBER CAPACITY OF BOLTED CONNECTIONS SHALL BE DETERMINED FROM AISC-MANUAL OF STEEL CONSTRUCTION PART 7.
- FOR CORDED BEAM CONNECTIONS, THE CAPACITY OF THE NET SHEAR AREA OF THE WEB SHALL BE VERIFIED.
- THE CAPACITY OF THE CONNECTION SHALL BE THE LESSER VALUE OF THE ALLOWABLE BOLT CAPACITY, ALLOWABLE WELD CAPACITY, SUPPORTING PLATE CAPACITY OR THE WEB NET SHEAR CAPACITY.
- THE MINIMUM NUMBER OF ROWS OF BOLTS SHALL BE AS FOLLOWS:

• W8, W10, & W12	2 ROWS
• W14 & W16	3 ROWS
• W18, W21, & W24	4 ROWS
• W27 & W30	5 ROWS
• W33 & W36	6 ROWS

NOTES:

- CONNECTION DESIGN SHALL BE IN ACCORDANCE WITH AISC-MANUAL OF STEEL CONSTRUCTION PART 10, TABLE 10-10 FOR CONVENTIONAL CONFIGURATION ONLY.
- REFER TO AISC-MANUAL OF STEEL CONSTRUCTION (PART 1)
- ONLY A SINGLE ROW OF BOLTS IS PERMITTED. THE NUMBER OF BOLTS IN CONNECTION, N, MUST BE BETWEEN 2 AND 12.
- HOLES IN PLATE MAY BE STANDARD HOLES (STD) OR SHORT-SLOTTED HOLES (SSLT) TRANSVERSE TO THE DIRECTION OF THE SUPPORTED MEMBER.
- EITHER PLATE THICKNESS OR BEAM WEB THICKNESS MUST SATISFY THE MAXIMUM THICKNESS REQUIREMENT OF AISC-MANUAL OF STEEL CONSTRUCTION TABLE 10-9.
- THE SUPPORTING MEMBER, BOLTS, AND PLATE CAPACITY OF BOLTED CONNECTIONS SHALL BE DETERMINED FROM AISC-MANUAL OF STEEL CONSTRUCTION PART 7.
- BOLTS AND PLATE MUST BE CHECKED FOR REQUIRED SHEAR WITH AN ECCENTRICITY PER AISC-MANUAL OF STEEL CONSTRUCTION TABLE 10-9.
- FOR CORDED BEAM CONNECTIONS, THE CAPACITY OF THE NET SHEAR AREA OF THE WEB SHALL BE VERIFIED.
- THE CAPACITY OF THE CONNECTION SHALL BE THE LESSER VALUE OF THE ALLOWABLE BOLT CAPACITY, ALLOWABLE WELD CAPACITY, SUPPORTING PLATE CAPACITY OR THE WEB NET SHEAR CAPACITY.
- THE MINIMUM NUMBER OF ROWS OF BOLTS SHALL BE AS FOLLOWS:

• W8, W10, & W12	2 ROWS
• W14 & W16	3 ROWS
• W18, W21, & W24	4 ROWS
• W27 & W30	5 ROWS
• W33, W36, W40	7 ROWS



06 STANDARD BEAM TO BEAM SHEAR CONNECTION

SCALE: NOT TO SCALE

05 STANDARD BEAM TO WIDE FLANGE COLUMN CONNECTION DETAIL

SCALE: NOT TO SCALE

04 STANDARD AISC SINGLE PLATE CONNECTION DETAIL - EXTENDED CONFIGURATION

SCALE: NOT TO SCALE

02 STANDARD AISC SINGLE SHEAR PLATE CONNECTION DETAIL - CONVENTIONAL CONFIGURATION

SCALE: NOT TO SCALE

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PROJECT



CAMERON PARK ZOO: EDUCATION CENTER & VET HOSPITAL

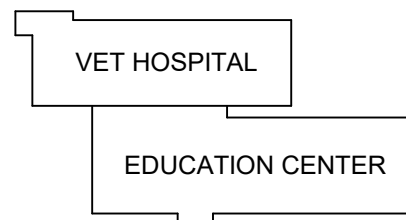
1701 N. 4TH STREET
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KEYPLAN



ISSUE CHART

NO.	DESCRIPTION	DATE
1	ADDENDUM 1	10/25/2022
18552	BASE	10/25/2022
Job Number	1855236.000	
TITLE		

STANDARD STEEL DETAILS

SHEET NUMBER

S60-10

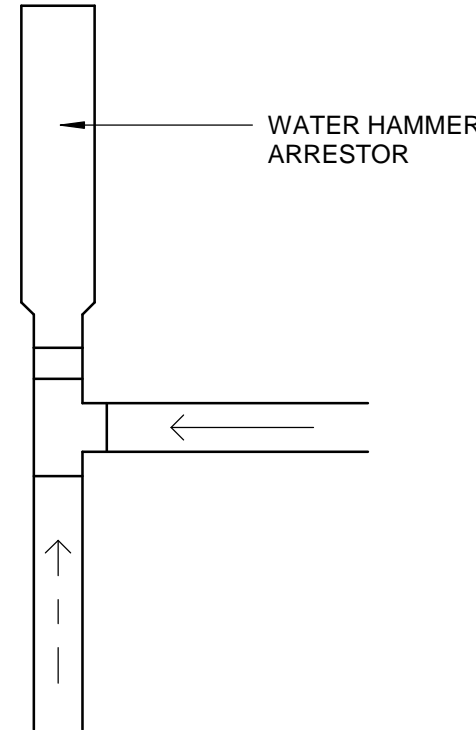
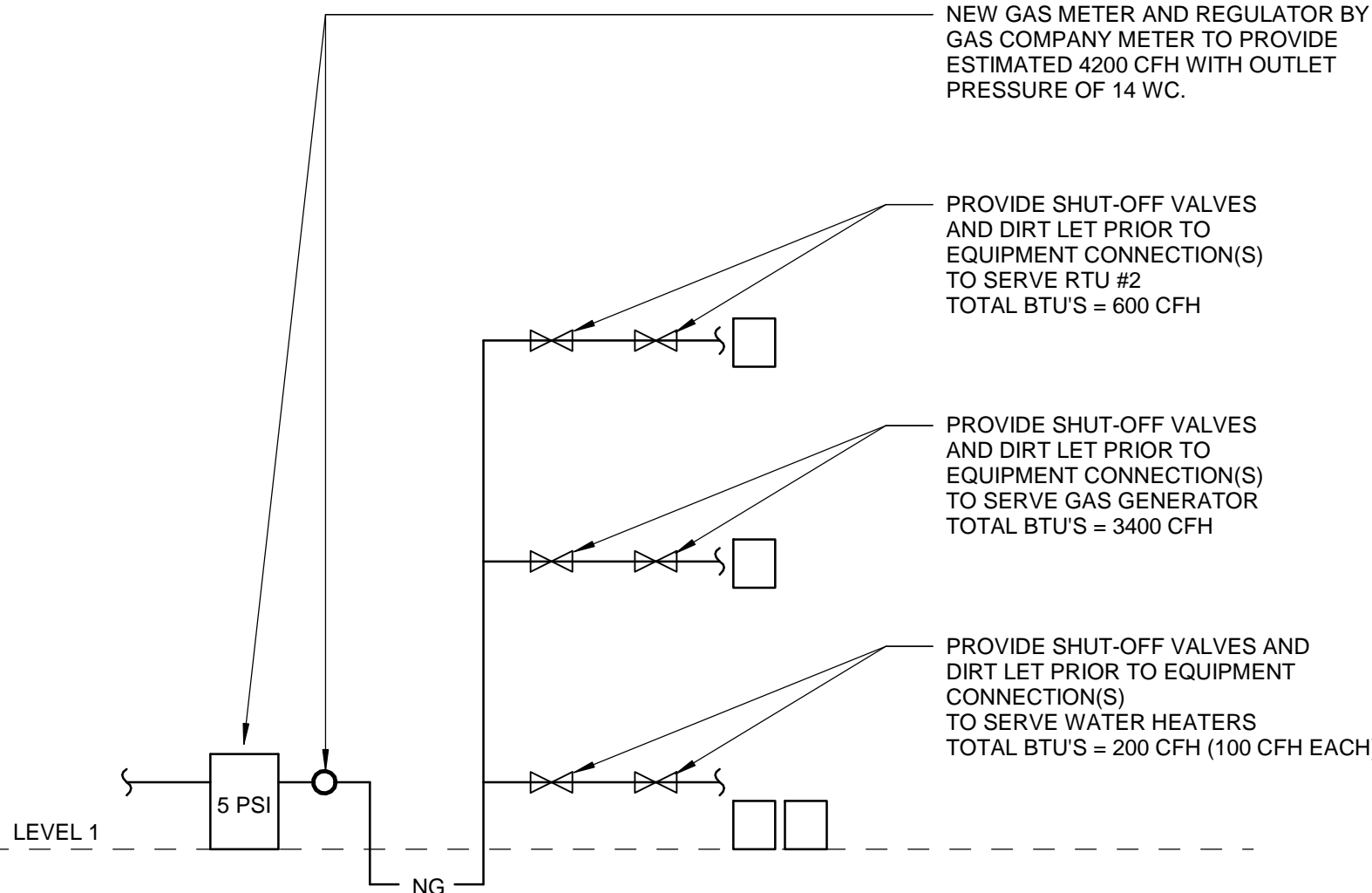
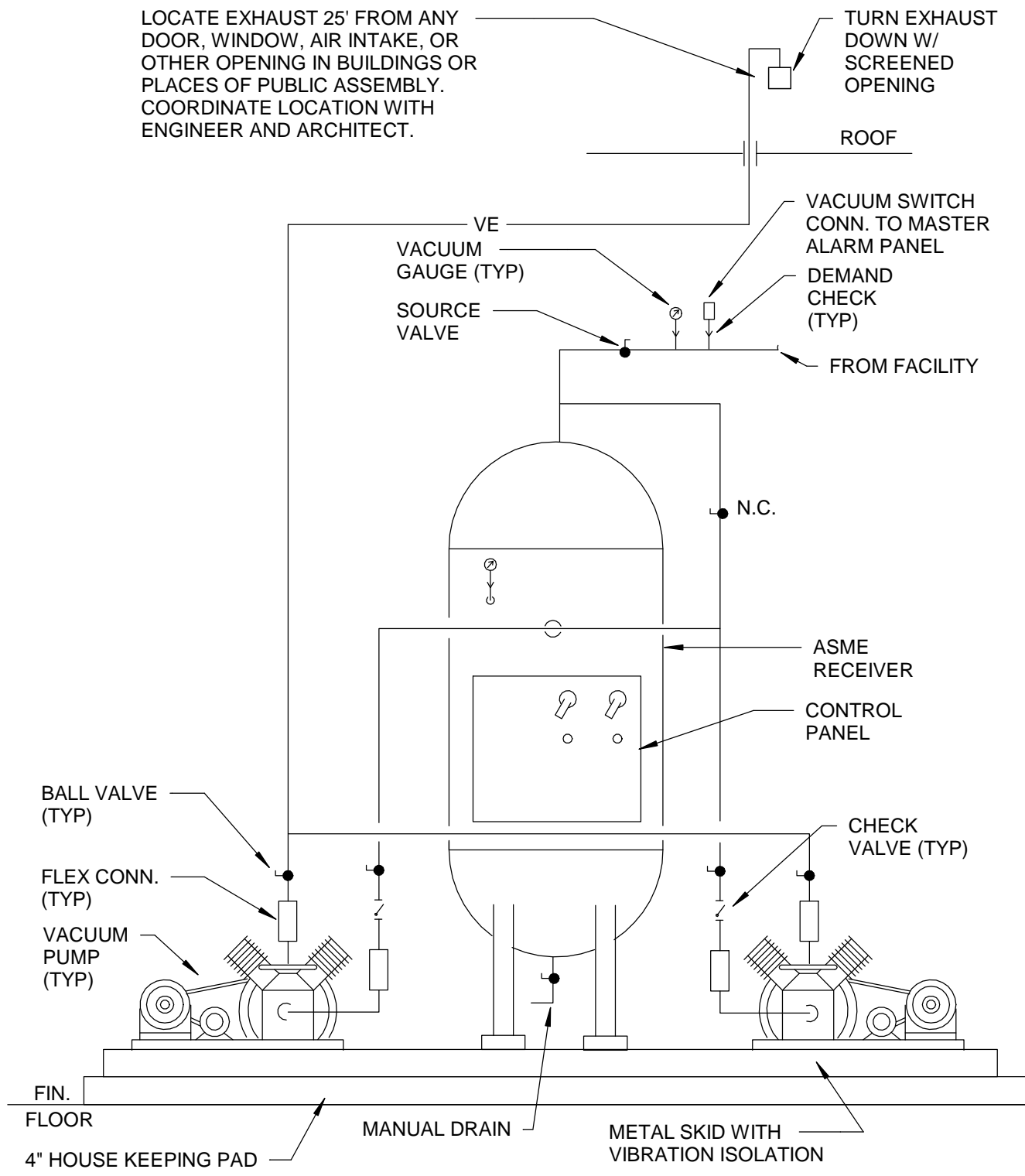


1.1

TRUE NORTH ISSUE CHART

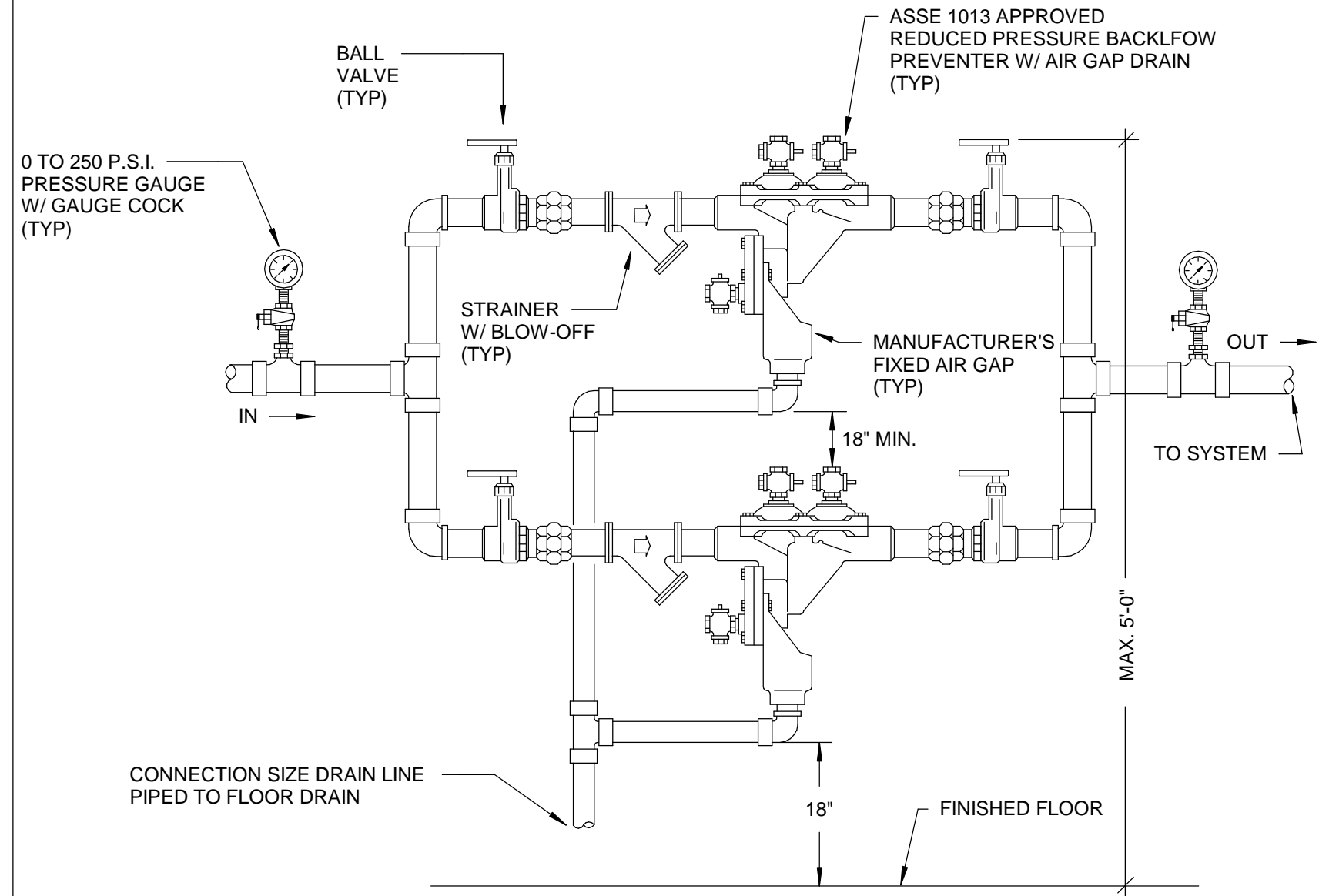
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LOCATE EXHAUST 25' FROM ANY DOOR, WINDOW, AIR INTAKE, OR OTHER OPENING IN BUILDINGS OR PLACES OF PUBLIC ASSEMBLY. COORDINATE LOCATION WITH ENGINEER AND ARCHITECT.



WATER HAMMER SCHEDULE				
PPP INC. MODEL #	PIPE SIZE	SIZE	AIR CHAMBER	FIXTURE UNIT CAPACITY
SC-500	1/2"	A	60 PSIG	1 TO 11
SC-750	3/4"	B	60 PSIG	12 TO 32
SC-1000	1"	C	60 PSIG	33 TO 60
SC-1250	1 1/4"	D	60 PSIG	61 TO 113
SC-1500	1 1/2"	E	60 PSIG	114 TO 154
SC-2000	2"	F	60 PSIG	155 TO 330

WATER HAMMERS SHALL MEET A.S.S.E. 1010 AND BE SIZED PER PDI STANDARDS



- NOTES:
- SEE FLOOR PLAN FOR SIZE OF R.P.B.P. AND PIPE.
 - PROVIDE WALL OR FLOOR SUPPORTS FOR R.P.B.P.
 - VERIFY ALL DIMENSIONS SHOWN W/ LOCAL AUTHORITY HAVING JURISDICTION.

DUPLEX VACUUM PUMP

NTS

10

NATURAL GAS FLOW DIAGRAM

NTS

7

WATER HAMMER ARRESTOR

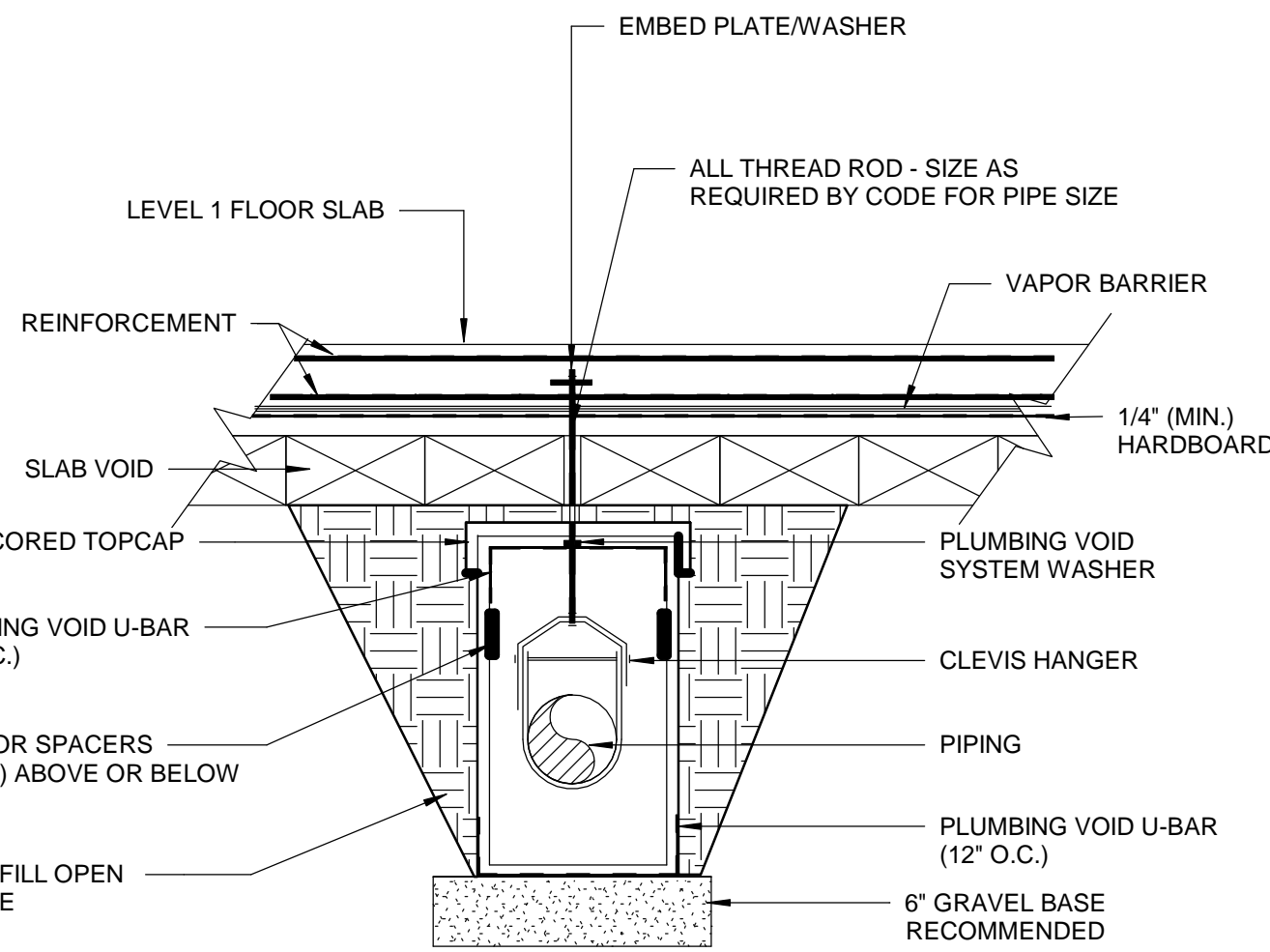
NTS

4

DUAL RED. PRESSURE BACKFLOW PREV.

NTS

1



UNDERFLOOR PIPING

NTS

11

VACUUM PUMP EXHAUST (ROOF)

NTS

8

FLOOR DRAIN WITH TRAP GUARD

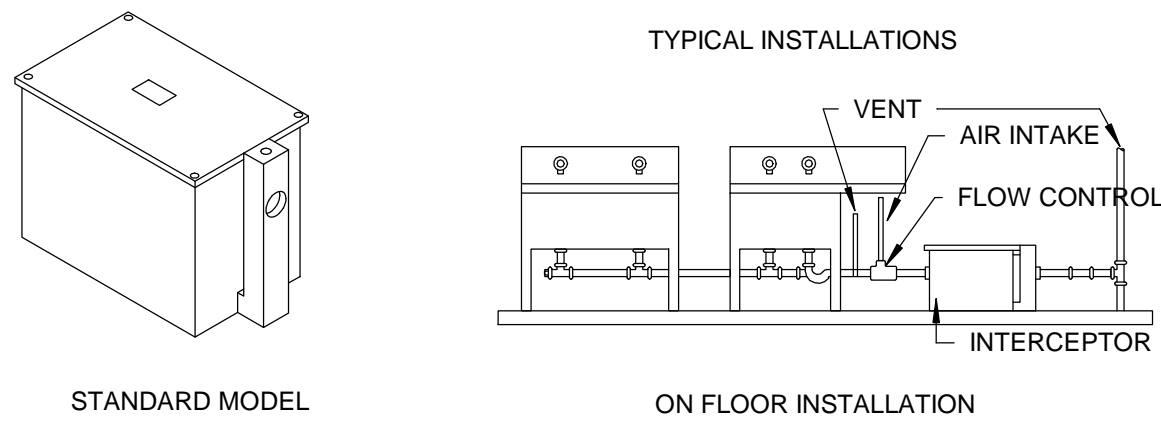
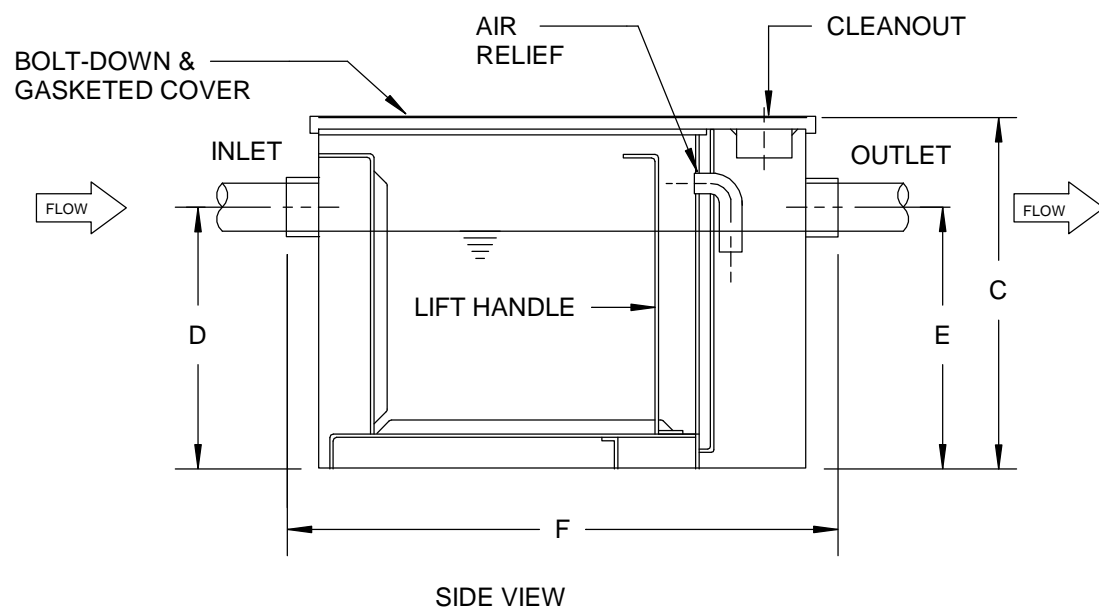
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5

CIRCULATION PUMP

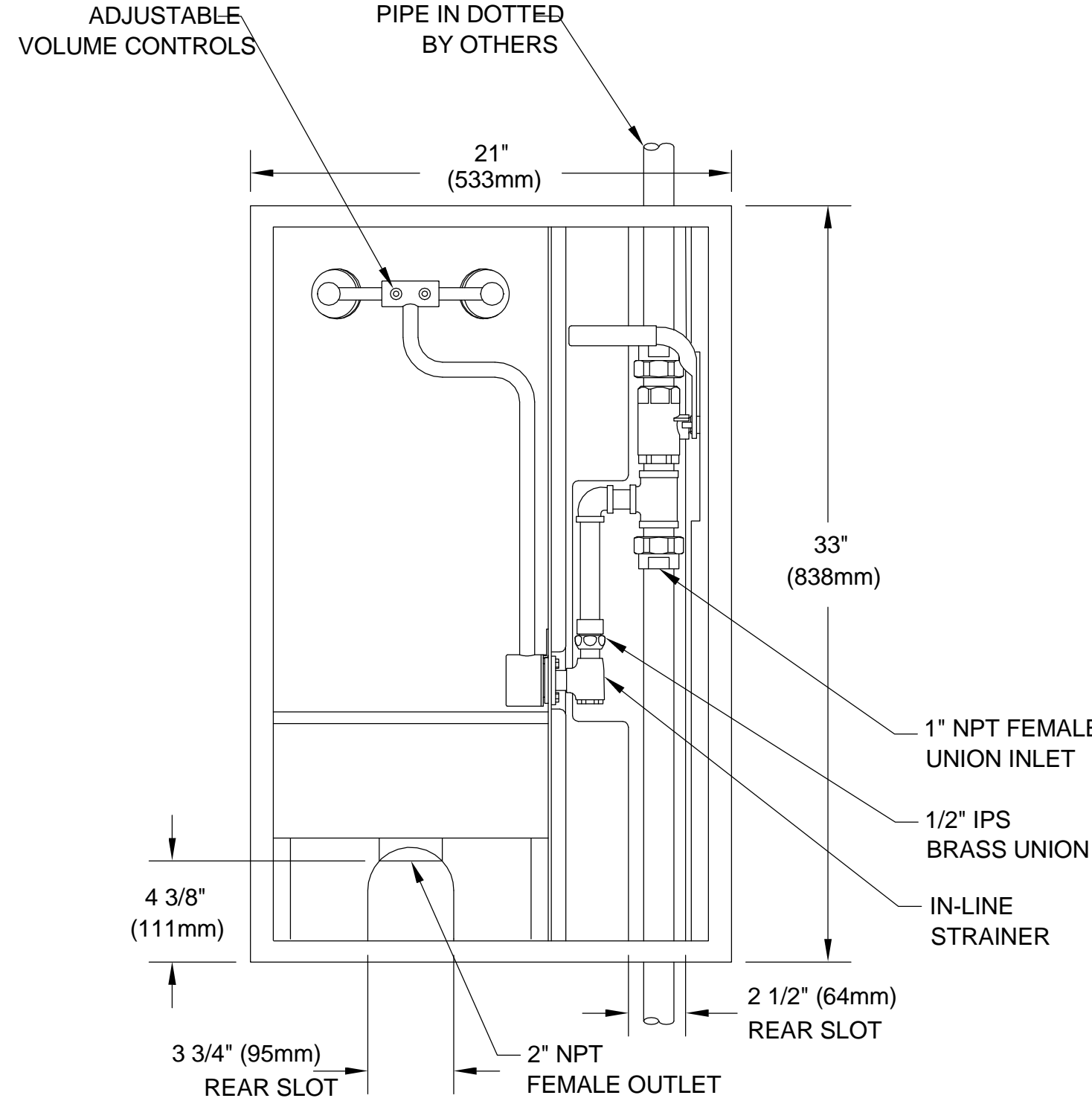
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2



DIMENSIONAL DATA						
MODEL	FLOW RATE G.P.M.	GREASE CAPACITY LBS.	C	D	E	F
8025	25	50	24-1/4"	17-1/2"	17-1/2"	35-1/2"

** PROVIDE JAY R. SMITH MODEL NO. 8000 SERIES OR APPROVED EQUAL



EMERGENCY SHOWER MIXING VALVE

NTS

9

TRENCH DRAIN

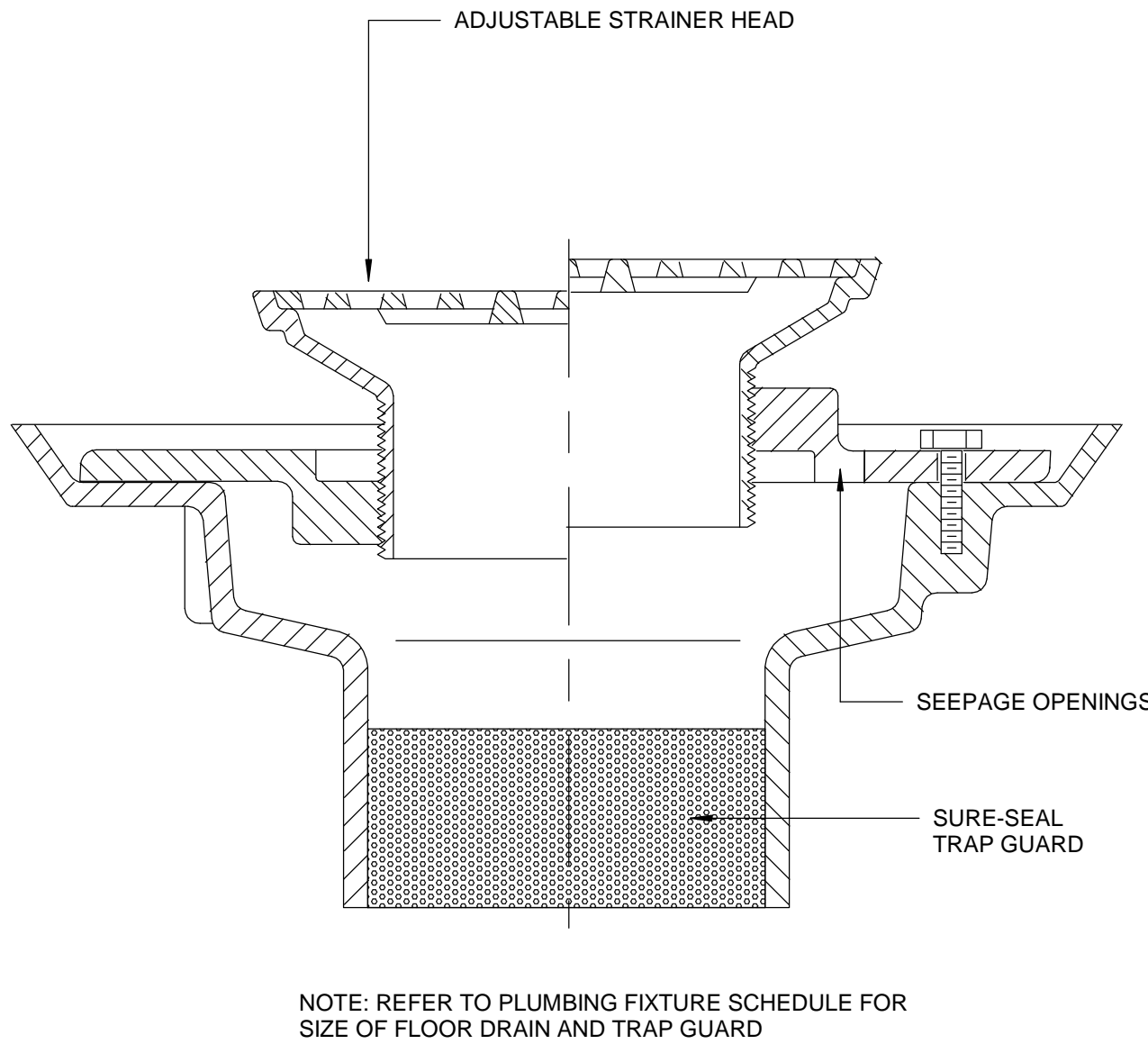
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6

GAS WATER HEATER W/ MIXING VALVE

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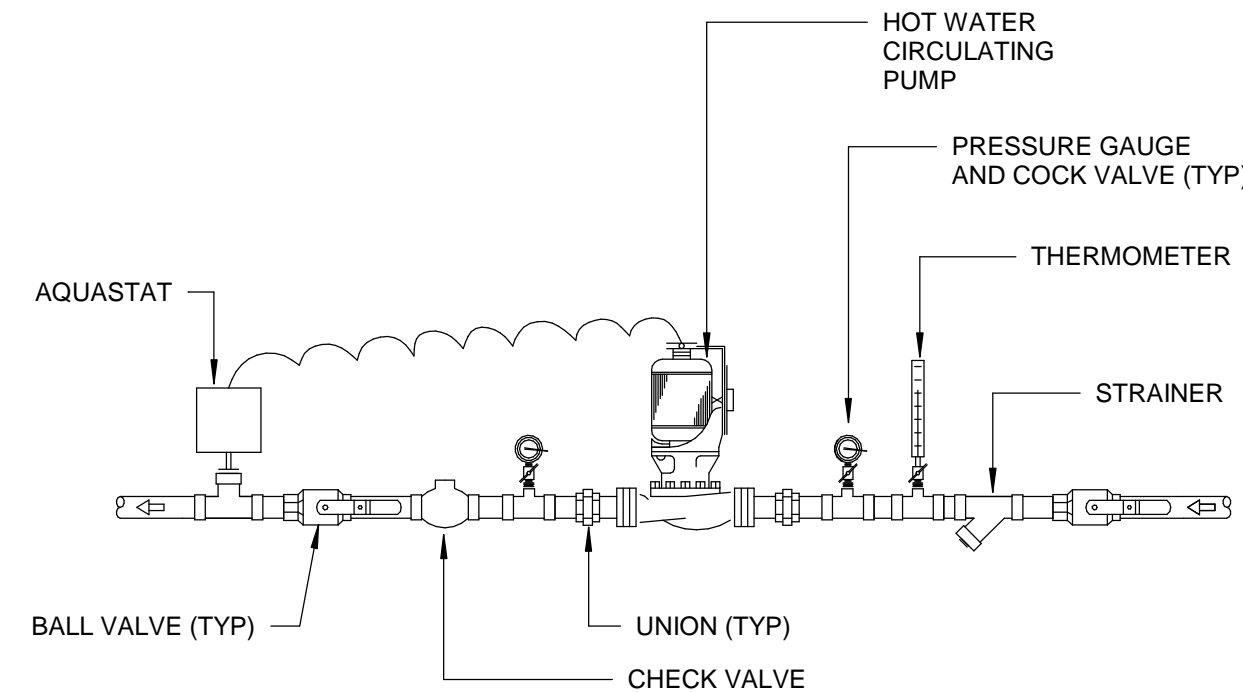
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FLOOR DRAIN WITH TRAP GUARD

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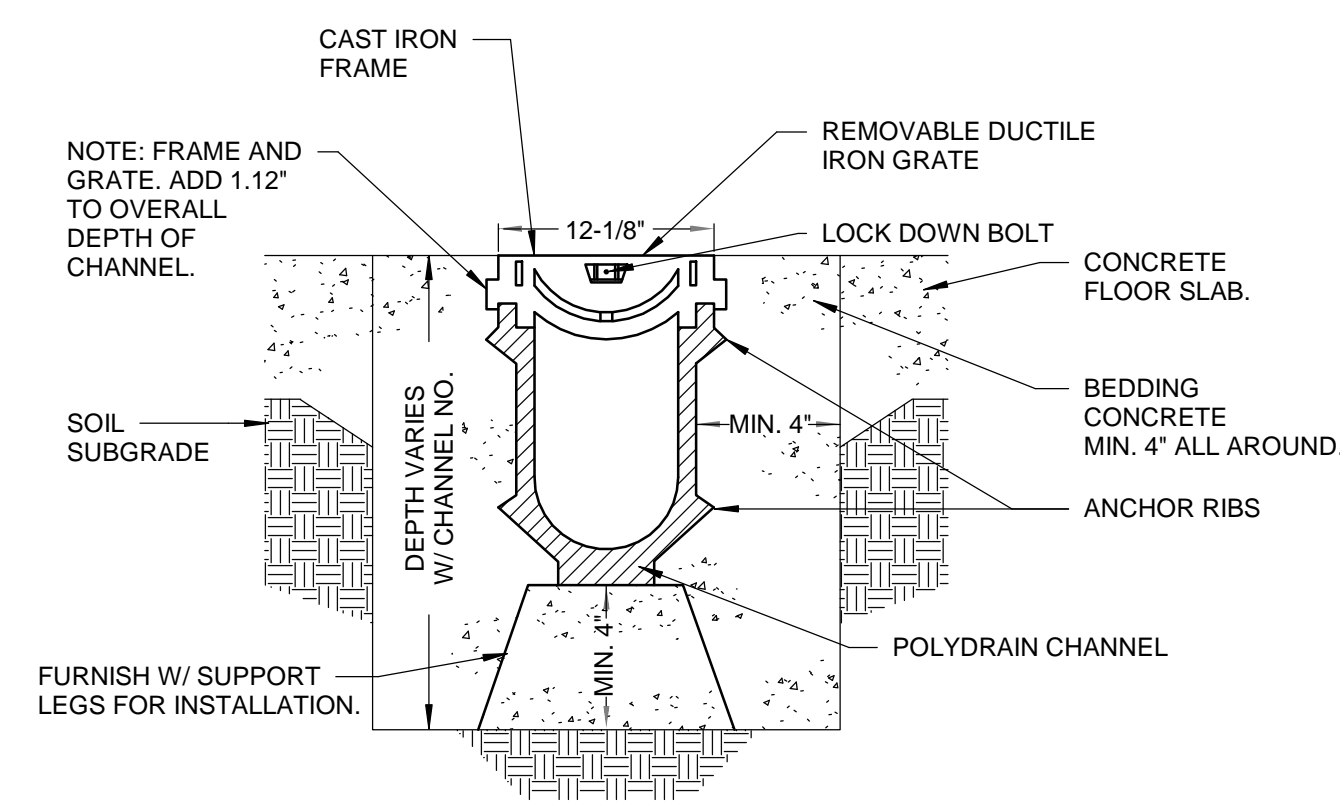
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CIRCULATION PUMP

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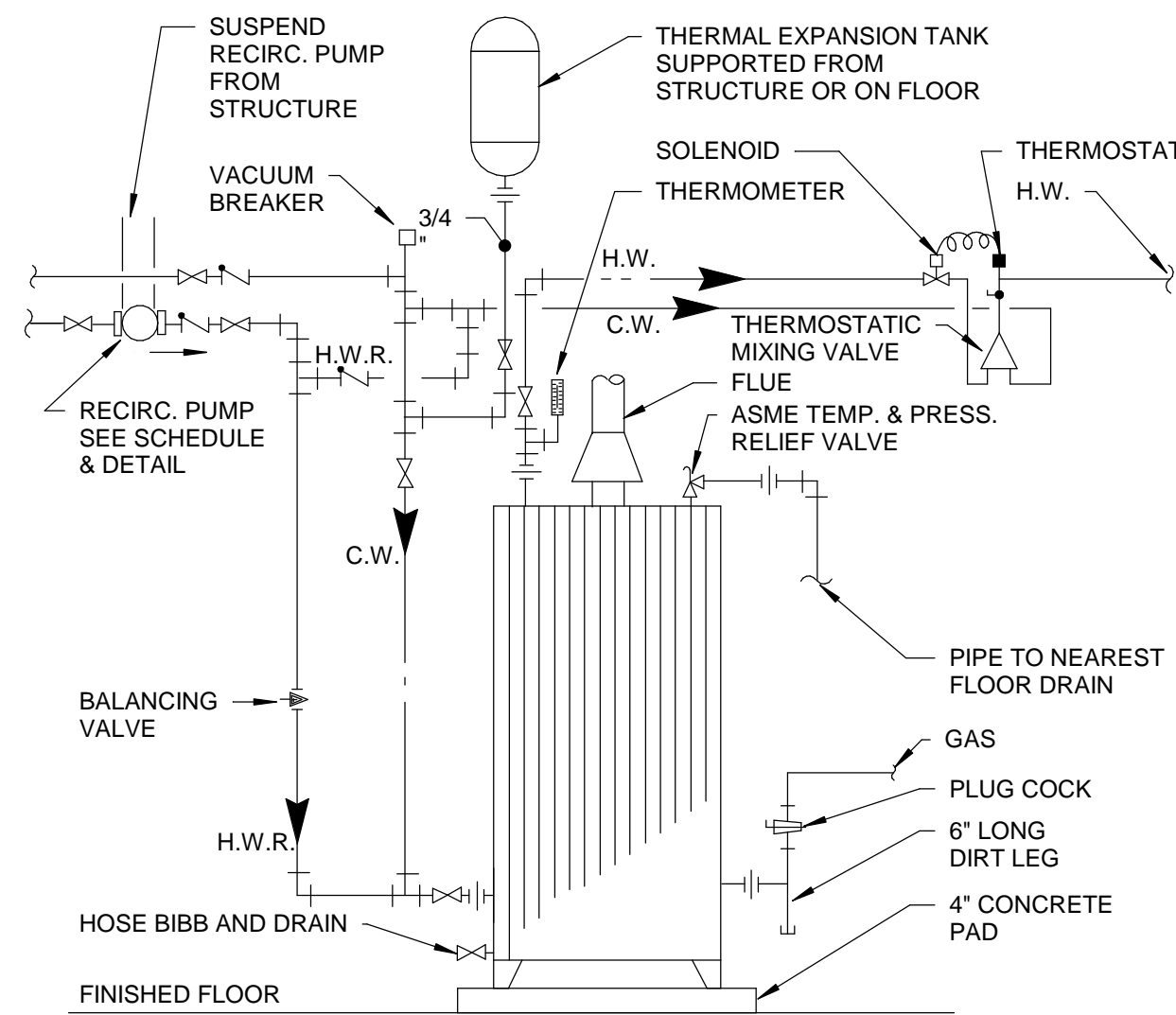
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TRENCH DRAIN

NTS

6



GAS WATER HEATER W/ MIXING VALVE

NTS

3

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Texas Registered Engineering Firm F-8301

PROJECT



CAMERON PARK ZOO:
EDUCATION CENTER &
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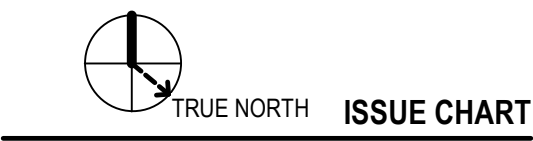
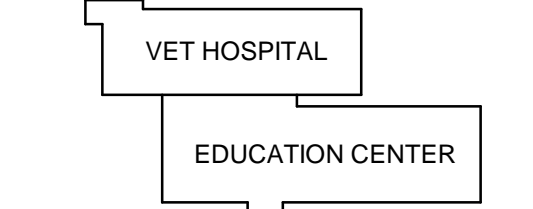
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CITY OF WACO
CAMERON PARK ZOO

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KEYPLAN



1	ADDENDUM #2	10/25/2022
100454	SSS	DATE
Job Number	185236.000	TITLE

PLUMBING DETAILS

SHEET NUMBER

P61-50

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PLUMBING FIXTURE SCHEDULES

GENERAL NOTES:

1. BRANCH CONNECTION SIZES ARE INDICATED. REFER TO FLOOR PLANS FOR MAIN PIPING SIZES.
2. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND MOUNTED ELEVATIONS.
3. INSTALL ALL FIXTURES AND ACCESSORIES APPLICABLE CODES AND/OR MANUFACTURER RECOMMENDATIONS.
4. PROVIDE POWER AND COORDINATE ALL ELECTRICAL CONNECTIONS AS REQUIRED FOR COMPLETE WORKING INSTALLATION.
5. REFER TO ARCHITECTURAL DRAWINGS FOR VET EQUIPMENT.

DESIGNATION	FIXTURE DESCRIPTION	COLD WATER	HOT WATER	DRAIN	VENT
DF-1	DRINKING FOUNTAIN 1. Manufacturer: Halsey Taylor 2. Model: HTHBWF-OVLSEI-1 3. Hydroboost Bottle Filling Station & Integral OVL-II Fountain Filtered 8 gph Stainless. 4. Touchless Sensor-Activation, 115V/60Hz (Wall Mounted).	1/2"	---	2"	2"
DF-2	DRINKING FOUNTAIN 1. Manufacturer: ELKAY 2. Model: LZSWSLK 3. ELKAY EZH2O Bottle Filling Station with Single ADA Cooler, Filtered Refrigerated Light Gray, 8GPH 4. Touchless Sensor-Activation, 115V/60Hz (Wall Mounted).	1/2"	---	2"	2"
EW-1	EYE/FACE WASH SPRAY HEAD ASSEMBLY 1. Manufacturer: Guardian 2. Model: GBF2170 3. Recessed Safety Station with Drain Pan, Wall Mounted Exposed Shower Head 4. ADA Compliance	1/2"	---	2"	2"
LV-1	LAVATORY COUNTER MOUNTED 1. Lavatory: KOHLER K-20000 2. Faucet: BRADLEY VERGE FAUCET - METRO SERIES SS3-3300 3. Flow: 0.50 gpm 4. BATTERY STANDARD SENSOR	3/4"	3/4"	2"	2"
LV-2	LAVATORY WALL MOUNTED 1. Lavatory: ELKAY STAINLESS STEEL 16-3/4" X 15-1/2" X 13" SINGLE BOWL WALL HUNG HANDWASH SINK 2. Faucet: ELKAY COMMERCIAL SENSOR SCRUB/HANDWASH BATTERY POWERED DECK MOUNT FAUCET CHROME LKB721C 3. Flow: 1.50 gpm	3/4"	3/4"	2"	2"
LV-3	LAVATORY COUNTER MOUNTED 1. Lavatory: KOHLER K-20000 2. Faucet: ELKAY 4" CENTERSET WITH EXPOSED DECK LAVATORY FAUCET INTEGRAL SPOUT SINGLE CONTROL 4" WRISTBLADE HANDLE CHROME 3. Flow: 0.50 gpm	3/4"	3/4"	2"	2"
LV-4	LAVATORY COUNTER MOUNTED 1. Lavatory: ELKAY STAINLESS STEEL 25" X 19-1/2" X 10-1/2" WALL HUNG SINGLE BOWL HAND WASH SINK EWS2520FC 2. Faucet: ELKAY COMMERCIAL SENSOR SCRUB/HANDWASH BATTERY POWERED DECK MOUNT FAUCET CHROME LKB721C 3. Flow: 1.50 gpm	3/4"	3/4"	2"	2"
LV-5	LAVATORY WALL HUNG 1. Lavatory: AMERICAN STANDARD - 0321.026 2. Faucet: ELKAY 4" CENTERSET WITH EXPOSED DECK LAVATORY FAUCET INTEGRAL SPOUT SINGLE CONTROL 4" WRISTBLADE HANDLE CHROME 3. Flow: 0.50 gpm	3/4"	3/4"	2"	2"
HB-1	HOSE BIBB (MECH. EQUIP. ROOM) 1. Fixture: Zurn Z1341(2 required), integral stops, and vacuum breaker threaded outlet, mount faucet 36" A.F.F. 2. Fixture: Chicago Faucet #815-VB0CP, integral stops, and vacuum breaker threaded outlet, mount faucet 36" A.F.F.	3/4"	---	---	---
HB-2	HOSE BIBB (WITH HOT WATER) 1. LEONARD THERMOSTATIC HOSE STATION MODEL THS-25-VBD-CW (PANEL-MOUNT), WITH INLET HOT AND COLD CHECK AND STOP VALVES, OUTLET DIAL THERMOMETER, BACKFLOW PREVENTER AND A STAINLESS STEEL HOSE PACK. 2. PROVIDE COMPLETE WITH LEONARD MODEL N2-SS NOZZLE AND LEONARD MODEL 25HDH 25 FT. 3/4" HEAVY DUTY HOSE.	3/4"	3/4"	---	---
MS-1	MOP SINK 1. Manufacturer: STERN WILLIAMS + CHICAGO 2. Model: STERN WILLIAMS SB-900 + CHICAGO 897-CRCF 3. Flow: 0.50 gpm 4. Provide carrier by ZURN.	3/4"	3/4"	4"	2"
MS-2	MOP SINK 1: 26"W X 36" L X 6" D STAINLESS STEEL BASIN WITH NOTCHED FRONT ACCESS. ADVANCE TABCO CUSTOM SIZE OR SIMILAR	3/4"	3/4"	4"	2"
U-1	URINAL (HANDICAPPED) 1. Manufacturer: TOTO 2. Model: TOTO UT447E 3. Flushometer: TOTO TEU1LA120CP 4. Flow: 0.50 gpi 5. Provide carrier by ZURN.	1.1/4"	---	2"	2"
SH-1	SHOWER 1. FIXTURE: FREEDOM 40" X 39" ADA TRANSFER SHOWER LEFT VALVE WALL, APFQ3637BF3PL 2. FAUCET: MEON HANDHELD, WALL MOUNTED SHOWERHEAD KIT 2.5 GPM CHROME 3. Flow: 2.5 gpm	3/4"	3/4"	3"	2"
SK-1	SINK COUNTER MOUNTED 1. FIXTURE: ELKAY LUSTERTONE CLASSIC STAINLESS STEEL SINGLE BOWL UNDERMOUNT ADA SINK WITH PERFECT DRAIN 2. FAUCET: ELKAY AVADO SINGLE HOLE KITCHEN FAUCET WITH PULL-DOWN SPRAY AND FORWARD AND FORWARD ONLY LEVER HANDLE 3. Flow: 1.8 gpm 4. FIXTURE SIZE 21-1/2" X 18-1/2" X 5-3/8"	3/4"	3/4"	2"	2"
SK-2	SINK COUNTER MOUNTED 1. LAVATORY: ELKAY LUSTERTONE CLASSIC STAINLESS STEEL SINGLE BOWL UNDERMOUNT ADA SINK WITH PERFECT DRAIN 2. FAUCET: ELKAY SINGLE HOLE WITH CONCEALED DECK LAMINAR FLOW FAUCET WITH 5" GOOSENECK SPOUT 4" WRISTBLADE HANDLES CHROME 3. K-50 DECK MOUNTED FAUCET INCLUDED.	3/4"	3/4"	2"	2"
SK-3	SINK Refer to the Architectural Drawings LOOSE KEY SUPPLY STOPS AND P-TRAP ASSEMBLY PLUMBING CONTRACTOR TO PROVIDE ANY ADDITIONAL ACCESSORIES FOR A COMPLETE INSTLATION	3/4"	3/4"	2"	2"
SK-4	SINK 1. LAVATORY: ELKAY RNSF826BLR OR APPROVED EQUAL, BOWL SIZE 18 X 24" X 12" DEEP 16 GAUGE TYPE 304 STAINLESS STEEL, LEFT AND RIGHT DRAINBOARDS, 8" BACKSPASH. 2. FAUCET: CHICAGO FAUCET GN12ASWGJKABCP, CHROME PLATE FINISHED, SWING GOOSENECK SPOUT WITH CHICAGO FAUCET 786-TWLESSSP7ABCP WRISTBLADE HANDLES, 1.5 GPM LAMINAR FLOW IN BASE OF SPOUT. 3. FAUCET: CHICAGO FAUCET 613-ALESAB DECK MOUNTED SINGLE HOLE ADAPTA-FAUCET WITH CHICAGO FAUCET 919-SILVBACBP PRE-RINSE FITTING, RISER WITH SPRING GUIDE, AND FLEXIBLE STAINLESS STEEL HOSE WITH INSULATED HANDLES. 5. PROVIDE: CHICAGO FAUCET 834-EPABCP REMOTE SPOUTS AND VALVES, PEDAL BOX WITH EXTENDED FOOT PEDALS. 6. PROVIDE: MCGUIRE NO. H175LK 1/2" X 3/8" LOOSE KEY SUPPLY STOPS, JUST J-35-BLA-316-2 LEVER HANDLE DRAIN WITH CAST TYPE 316 STAINLESS STEEL BODY, TYPE 316 STAINLESS STEEL FLAT STRAINER, 5" DEEP SEAL TRAP 7. INSTALL FAUCET 2 IN ONE BOWL AND FAUCET 3 IN THE OTHER (WILL COORDINATE TO FIND WHICH BOWL FOR EACH FAUCET)	3/4"	3/4"	2"	2"
SK-5	SINK 1. LAVATORY: ELKAY WELDBIT STAINLESS STEEL 72" X 27-1/2" X 14" FLOOR MOUNT, SINGLE COMPARTMENT SCULLERY SINK WITH DRAINBOARD 24" X 24" BASIN 2. FAUCET: CHICAGO FAUCET GN12ASWGJKABCP, CHROME PLATE FINISHED, SWING GOOSENECK SPOUT WITH CHICAGO FAUCET 786-TWLESSSP7ABCP WRISTBLADE HANDLES, 1.5 GPM LAMINAR FLOW IN BASE OF SPOUT.	3/4"	3/4"	2"	2"
WH-1	WALL HYDRANT (NON-FREEZE) 1. Fixture: Zurn WOODFORD B65	3/4"	---	---	---
WM-1	WASHING MACHINE SUPPLY AND DRAIN BOX 1. Fixture: Water Tite Washer Box #W4700CP. Provide one McGuire #8904C P-trap in wall to serve supply Box. Mount Box 42" A.F.F. to bottom.	3/4"	3/4"	2"	2"
WC-1	WATER CLOSET WALL MOUNTED 1. Manufacturer: TOTO 2. Model: TOTO CT708U 3. Flushometer: TOTO TET1LA320CP 4. Flow: 1.28 gpi 5. Provide carrier by ZURN	1.1/4"	---	4"	2"
WC-1A	WATER CLOSET WALL MOUNTED (HANDICAPPED) 1. Manufacturer: TOTO 2. Model: TOTO CT708U 3. Flushometer: TOTO TET1LA320CP 4. Flow: 1.28 gpi 5. Provide carrier by ZURN	1.1/4"	---	4"	2"
FS-1	FLOOR SINK 1. Manufacturer: zurn 2. Model: 1901 3. Body Material: Duco Cast Iron 4. Top Cover: 8" by 8" Square 5. Grate or Strainer Material: Cast Iron 6. Duty: Medium 7. Note: Provide trap guard insert all floor drains (by pro vent manufacturer)	---	---	4"	2"
FD-1	FLOOR DRAIN (REGULAR - GENERAL PURPOSE) 1. Fixture: Zurn #ZN415-Y-P cast iron floor with sediment bucket and polished nickel bronze top, adjustable, strainer and flashing clamp device if drain is installed above slab on grade. Provide trap primer connections. Size of drain as shown on drawings.	---	---	SEE PLANS	2"
FD-2	FLOOR DRAIN (EQUIPMENT ROOMS) 1. Fixture: Zurn #ZN641-P round, cast iron, 12" diameter drain with sediment bucket, flange and clamp device if drain is installed above slab on grade. Provide trap primer connections. Size of drain as shown on drawings.	---	---	SEE PLANS	2"
TD-1	TRENCH DRAIN (HEAVY DUTY) 1. Fixture: Zurn #ZN665-VP Dura-Coated cast iron deep dump body trench drain with bottom outlet, integral seepage pan, polished stainless steel heavy duty vandal-proof secured top. 2. Provide required number of additional sections with outlets as required by length of trench drain shown on the drawings.	---	---	SEE PLANS	2"
TG-1	TRAP GUARD 1. Fixture: Prevent Systems #TG series.	-	---	SEE PLANS	2"
GH-1	GROUND HYDRANT (NON-FREEZE) 1. Fixture: Zurn Z1360 GROUND HYDRANT	3/4"	---	---	---
LF-1	LIXIT FIXTURE FOR ANIMAL WATERING 1. Fixture: LF-70 2. Non-freeze resistant for external locations	3/4"	3/4"	---	---
HB-1	OVERHEAD HOSE REAL (NECROPSY) 1. Fixture: REELCRAFT 5635 OLPWS5 - 3/8" X 35' PRE-RINSE HOSE REEL	3/4"	---	---	---

DOMESTIC WATER HEATER SCHEDULE

GENERAL NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND ACCESSORIES.
2. PROVIDE 4" THICK REINFORCED CONCRETE PAD BELOW ALL FLOOR MOUNTED EQUIPMENT.
3. PROVIDE 3" CONCENTRIC VENT, ACID NEUTRALIZATION KIT, LOW PROFILE CAP.
4. PLUMBING EQUIPMENT SHALL BE LISTED, LABELED, AND MARKED FOR USE BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC.

REMARKS:

- A. HEATER WITH BRONZE CIRCULATING PUMP(S) AND STARTER(S).
B. CONDENSATE NEUTRALIZATION KIT.
C. MODBUS COMMUNICATIONS.
D. BMS GATEWAY TO LOW OR BACNET.
E. ALARM BELL ON HEATER.
F. M7 CALIFORNIA CODE FIRING CONTROL SYSTEM.
G. CONCENTRIC VENT KIT WITH APPLICABLE WALL OR ROOF CAP.

DESIGNATION	SERVICE	MANUFACTURER	MODEL NUMBER	EWT °F	LWT °F	INPUT (BTU/h) [1000 BTU/h = 1 CFH]	CONTROL CIRCUIT			RECOVERY (GPH)	THERMAL EFFICIENCY	DIMENSIONS		
							A	V	PH			DIAM.	HEIGHT	WEIGHT
GWH-01	HOT WATER	AO SMITH	GDHE-75 Vertex	40	140	100	5	208	2	129	96%	28"	65"	382 pounds
GWH-02	HOT WATER	AO SMITH	GDHE-75 Vertex	40	140	100	5	208	2	129	96%	28"	65"	382 pounds

PUMP SCHEDULE - PLUMBING SYSTEMS

DESIGNATION	MANUFACTURER	MODEL NUMBER	GPM	TOTAL HEAD PSI	MOTOR HP	ELECTRICAL VOLTAGE/PHASE	REMARKS
RCP-1	GRUNDFOS	MAGNA1 32-60	10	9	1	208 3	B & G 60 SERIES (ECM); AUTOMATIC TIMER KIT #TC-1; AQUASTAT #AQS-3/4; THE AQUASTAT SHALL PROVIDE THERMOSTAT CONTROL TO THE RECIRC. PUMP TO TURN OFF AT 120°F WATER TEMPERATURE AND TURN ON AT 110°F WATER TEMPERATURE.

* PLUMBING EQUIPMENT SHALL BE LISTED, LABELED, AND MARKED FOR USE BY AN APPROVED THIRD-PARTY CERTIFICATION AGENCY AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEC.

DOMESTIC HOT WATER EXPANSION TANK SCHEDULE

GENERAL NOTES:

1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND ACCESSORIES.
2. PROVIDE 4" THICK REINFORCED CONCRETE PAD BELOW ALL FLOOR MOUNTED EQUIPMENT.

REMARKS:

- A. ASME RATED.

DESIGNATION	SERVICE	MANUFACTURER	MODEL NUMBER	TANK VOLUME GALLONS	INCOMING PRESSURE	REMARKS
ET-1	HOT WATER	WESSELS	TXA-1000	264	140	---
---	---	---	---	---	---	---
---	---	---	---	---	---	---

GREASE INTERCEPTOR SCHEDULE

GENERAL NOTES:

1. REFER TO DRAWINGS FOR INLET AND OUTLET INVERT ELEVATIONS.
2. INTERCEPTORS ARE TO BE PIPED IN SERIES WHERE MULTIPLE TANKS ARE TO BE PROVIDED.

REMARKS:

- A. FURNISH WITH GAS TIGHT MANHOLE ACCESS COVERS.
B. FURNISH MANHOLE EXTENSION RINGS OR COLLARS AS REQUIRED.
C. FURNISH SAMPLE WELL ON OUTLET SIDE OF INTERCEPTOR.
D. PROVIDE TRAFFIC BEARING SLAB PER MANUFACTURER RECOMMENDATIONS.
E. ALARM PANEL AND GREASE LEVEL PROBE.
F. PROVIDE ANTI-BUOYANCY SLAB AS RECOMMENDED BY MANUFACTURER.
G. SUCTION LINE FOR REMOTE PUMP OUT.

DESIGNATION	SERVICE	MANUFACTURER	MODEL NUMBER	TRAP TYPE/ LOCATION	FLOW RATE	GREASE CAPACITY	MIN. CAPACITY	APPROXIMATE DIMENSIONS	REMARKS
CATERING/PREP RM 132	GREASE WASTE	JAY R. SMITH MG	8025	FLOOR MOUNTED	25 GMP	50 GALLONS	---	28-3/8"x19-3/4"	MECHANICAL INTERCEPTOR (OFOI).
---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---

Grease Interceptor Sizing IPC

Grease interceptor capacity (Reference) IPC 2015 1003.3.4 with ASME A112.14.3 and IPDI G10.1
City of Waco, Texas, and Grease Ordinance Chapter 26, Division 4 Sec. 26271 (C) Construction

Sample Well Reserved

Fixture

Sink Size = 24 x 24 x 14 Sink One = 8064 CU IN. = 28.2 GAL. CAP. = 28.2 GPM

Sink Size = 0 x 0 x 0 Sink Two = 0 CU IN. = 0.0 GAL. CAP. = 0.0 GPM

Sink Size = 0 x 0 x 0 Sink Three = 0 CU IN. = 0.0 GAL. CAP. = 0.0 GPM

Sink Size = 0 x 0 x 0 Sink Four = 0 CU IN. = 0.0 GAL. CAP. = 0.0 GPM

Sink Size = 0 x 0 x 0 Sink Five = 0 CU IN. = 0.0 GAL. CAP. = 0.0 GPM

Floor Drain 2" x 1 Floor Drains (2" = 1 gpm 3" = 1.5 gpm 4" = 2 gpm) IPC Sec. 709.3 2015
GPM amount of drains = 0 GAL. CAP. = 0.0 GPM

Mop Sink = 0 CU IN. = 0.0 GAL. CAP. = 0.0 GPM

DISHWASHER: 0 Gallons Per Load

Total 26

Reference: ASHRAE A112.14.3 Table 1 (Standard flow rate and grease retention capacity (4 - 100 gpm))

Date: 10/20/22 Inspector: DCT

Project: 22-00438-BLDC Location: 1704 N 4th Street

Grease Trap or Interceptor size 25 GPM Hydro-mechanical

Perkins&Will

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LANDSCAPING



10/25/2022

Texas Registered Engineering Firm F-8301

PROJECT



CAMERON PARK ZOO:
EDUCATION CENTER &
VET HOSPITAL

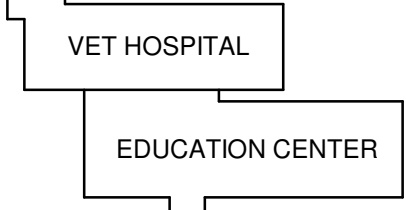
1701 N. 4TH STREET
WACO, TX 76707



CITY OF WACO
CAMERON PARK ZOO

P.O. BOX 2570, WACO, TX
76702

KEYPLAN



ISSUE CHART

1	PERMIT RESPONSE v1	9/29/2022
2	ADDENDUM #2	10/25/2022
WACR	DATE	

Job Number 185236.000

TITLE

PLUMBING
SCHEDULES

SHEET NUMBER

P62-01

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1. UNDERGROUND PIPES ARE IN COORDINATION WITH STRUCTURE, FOUNDATION, AND ARCHITECTURE PROJECTS.
2. PIPING IS REQUIRED TO BE SUSPENDED FROM SLAB AND ISOLATED FROM SOILS.

1.1

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CIVIL

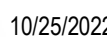
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Texas Registered Engineering Firm F-8301

PROJECT



**CAMERON PARK ZOO:
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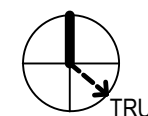
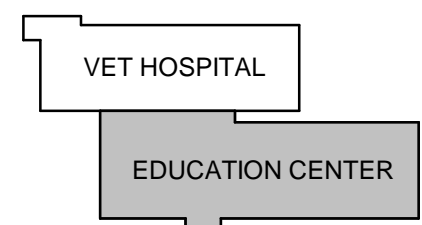


CITY OF WACO

CITY OF WACO
CAMERON PARK ZOO

P.O. BOX 2570, WACO, TX
76702

KEYPLAN



TRUE NORTH **ISSUE CHART**

1	ADDENDUM #2	10/25/2022
MARK	ISSUE	DATE

Job Number 185236.000

TITLE

PLUMBING OVERALL
FLOOR PLAN -
UNDERFLOOR -
EDUCATION CENTER

SHEET NUMBER

PU10-01