THE COUNTY OF GALVESTON

RUFUS G. CROWDER, CPPO, CPPB
PURCHASING AGENT

COUNTY COURTHOUSE
722 Moody (21st Street)
Fifth (5th) Floor
GALVESTON, TEXAS 77550

October 12, 2023

PROJECT NAME: **Demolition & Remediation for Mental Health Crisis Center**

SOLICITATION NO: **RFP #B231034**

RE: **ADDENDUM #2**

To All Prospective Proposers:

The following information is being provided to aid in the preparation of your RFP submittal(s):

Question #1: ***The RFP says to leave roof mounted mechanical equipment. Drawing MD-102 says to remove equipment. Please clarify the correct scope.***

Response: Roof mounted mechanical equipment is to remain.

Question #2: ***The county representatives said we could schedule another walk through of the building after we received the drawings? How do we schedule this?***

Response: A second project site visit has been scheduled for Wednesday, October 18, 2023 @ 9:00 a.m.

Question #3: ***Will you be requiring independent air testing from a separate entity that performed the removal after the project is over or will the company that performed the initial test be handling that?***

Response: Air monitoring will be performed by an independent party directly contracted with the County.

Question #4: ***Is there anyway we can get higher resolution copies of the prints these are eligible when zoomed in on any amount.***

Response: Please see attached updated drawings to include Issue for Construction revisions and improved legibility.

Question #5: ***Do we need to have a licensed electrician and plumber and HVAC person to do the removal of electric lines and water lines and the AC and heating units.***

Response: Because of the nature of the demo, it is recommended that licensed individuals in specific trades be required.

Question #6: ***Are all the rooms in the building going to be removed, if so, will the roof collapse when all the load bearing walls are removed.***

Response: The intent is to remove all interior walls of the facility, exterior walls are to remain, including steel studs. Roof is supported by structural steel system (Columns & Beams). The only interior CMU is around mechanical rooms. Those walls will be assessed closer after adjacent finishes are removed. Contact Owner prior to demolition of mechanical room walls.

If you have any further questions regarding this bid, please address them to the representative listed below, via e-mail at purchasing.bids@co.galveston.tx.us, or contact the Purchasing Department at (409) 770-5371.

Rufus G. Crowder, CPPO CPPB
Galveston County Purchasing Agent
722 Moody, Fifth (5th) Floor
Galveston, Texas 77550
E-mail: purchasing.bids@co.galveston.tx.us

Please excuse us for any inconvenience that this may have caused.

Sincerely,

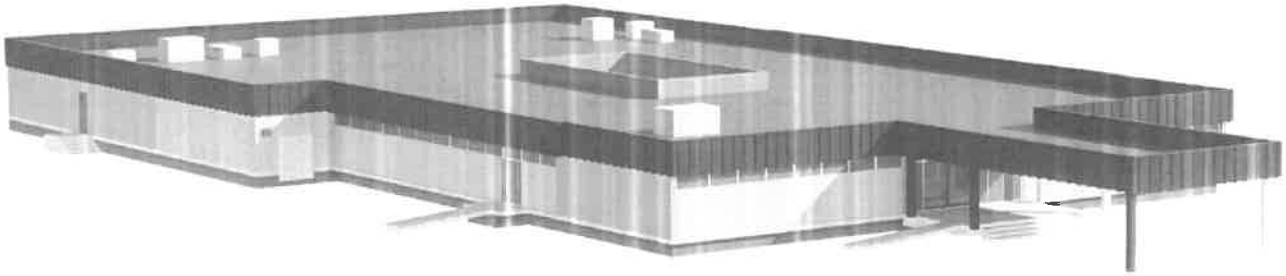
Rufus G. Crowder, CPPO CPPB
Purchasing Agent
Galveston County

MENTAL HEALTH EXTENDED OBSERVATION UNIT

PROJECT NO.
R316595.01

CONSULTANTS

1. MEP & LOW VOLTAGE CONSULTANTS
EBC ENGINEERS & CONSULTANTS INC.
1010 Lamar St., Suite 650
Houston, TX 77002
CONTACT: Lane a McKnight
713.580.8800



ISSUED FOR PERMIT AND CONSTRUCTION SUBMITTAL

GALVESTON COUNTY
10/03/2023

HUITT ZOLLARS
1001 FANNIN ST, SUITE 4040
HOUSTON, TX 77002 713-622-1180
WWW.HUITT-ZOLLARS.COM

Autodesk Docs://Mental Health Extended Observation Unit/R316595.01 Mental Health Extended Observation
10/03/2023 2:27 PM

STANDARD ABBREVIATIONS

SHEET INDEX

SHEET NUMBER	SHEET TITLE
GENERAL	
G-000	COVER SHEET
G-001	PROJECT INFORMATION
ARCHITECTURE	
AS-101	ARCHITECTURAL SITE PLAN
AD-101	DEMOLITION PLAN
[illegible]	SPECIFICATIONS
MECHANICAL	
MD-000	MECHANICAL SYMBOLS AND ABBREVIATIONS
MD-101	MECHANICAL DEMOLITION FLOOR PLAN LEVEL 1
MD-102	MECHANICAL DEMOLITION FLOOR PLAN - ROOF
ELECTRICAL	
ED-000	ELECTRICAL SYMBOLS AND ABBREVIATIONS
ED-101	ELECTRICAL DEMOLITION PLAN [illegible]
PLUMBING	
P-000	PLUMBING SYMBOLS AND ABBREVIATIONS
PD-101	PLUMBING DEMOLITION PLAN
TOTAL: 12	

GRAPHIC SYMBOLS

GENERAL NOTES

DESIGN CRITERIA

PROJECT LOCATION MAP

MATERIAL LEGEND

DESIGN CRITERIA

PROJECT NAME: GALVESTON COUNTY MENTAL HEALTH EXTENDED OBSERVATION UNIT

OWNER'S ADDRESS: 722 MOODY AVE., GALVESTON TX 77550

PROJECT LOCATION: 1207 S OAK STREET, LA MARQUE TX 77568

OWNER'S CONTACT: TYLER DRUMMOND

ARCHITECT'S CONTACT: JOEL COLWELL

PROJECT SUMMARY: THE PROJECT CONSISTS OF THE INTERIOR DEMOLITION OF A 21,200 SF EXISTING BUILDING THAT WAS USED AS COMMUNITY HEALTH CENTER. THE RENOVATION WILL CONVERT THE BUILDING INTO A MENTAL HEALTH OBSERVATION UNIT THAT HOUSES 20 BEDS. THE RENOVATION INCLUDES STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL AND PLUMBING

BUILDING AREAS: 21,200 BGSF
(APPROXIMATE)

APPLICABLE CODES

2018 INTERNATIONAL BUILDING CODE, INCLUDING APPENDICES C, E, F, G AND J.
2018 INTERNATIONAL RESIDENTIAL CODE, INCLUDING APPENDICES A THROUGH K, AND M THROUGH S
2018 INTERNATIONAL ENERGY CONSERVATION CODE.
2018 INTERNATION FUEL GAS CODE.
2017 NATIONAL ELECTRIC CODE
2018 INTERNATIONAL MECHANICAL CODE, INCLUDING APPENDIX A.
2018 INTERNATIONAL PLUMBING CODE, INCLUDING APPENDICES B THROUGH E.
2018 INTERNATIONAL PROPERTY MAINTENANCE CODE.
2018 INTERNATIONAL EXISTING BUILDING CODE
2018 INTERNATIONAL PRIVATE SEWAGE DISPOSAL CODE.

ARCHITECT / ENGINEER

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ADVANCEDESIGN™

CONSULTANTS
1. MEP & LOW VOLTAGE CONSULTANTS
F&G ENGINEERS & CONSULTANTS INC
1010 Lamar St., Suite 650
Houston TX 770[illegible]
CONTACT: Lance McKnight
713 580 8800

GALVESTON COUNTY
722 Moody Ave, Galveston, TX 77550

PROJECT

MENTAL HEALTH EXTENDED OBSERVATION UNIT

PROJECT ADDRESS
1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISIONS LOG

PROJECT NO:	R310595.01
DRAWN BY:	Author
REVIEWED BY:	Checker
APPROVED BY:	Approver

SHEET TITLE
PROJECT INFORMATION

SHEET NUMBER
G-001

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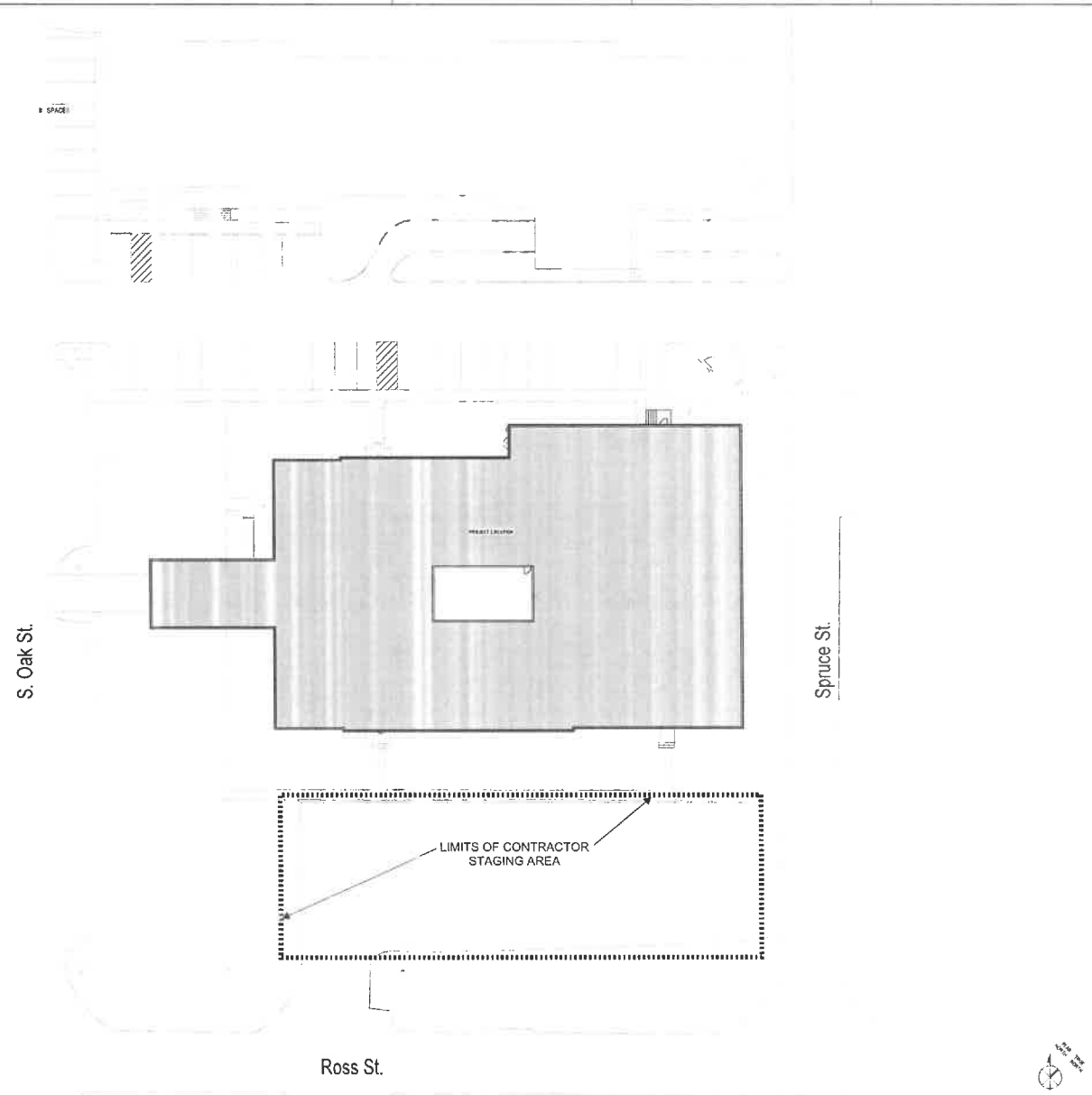

A1 SITE PLAN
1/16" = 1'-0"

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1010 Lamar St., Suite 650
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CONTACT: Lance McKenzie
713 590 8800

PROFESSIONAL SEAL:

OWNER:

GALVESTON COUNTY
722 Moody Ave, Galveston, TX 77550

MENTAL HEALTH EXTENDED OBSERVATION UNIT

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISIONS LOG:

MRF #	DATE	DESCRIPTION
	4/28/2023	PERMIT SUBMITTED
	10/27/2023	CITY OF LA MARQUE PERMIT TO CONSTRUCT

PROJECT NO:	R318595.01
DRAWN BY:	Author
REVIEWED BY:	Checker
APPROVED BY:	Approver

SHEET TITLE:

ARCHITECTURAL SITE PLAN

SHEET NUMBER:

AS-101

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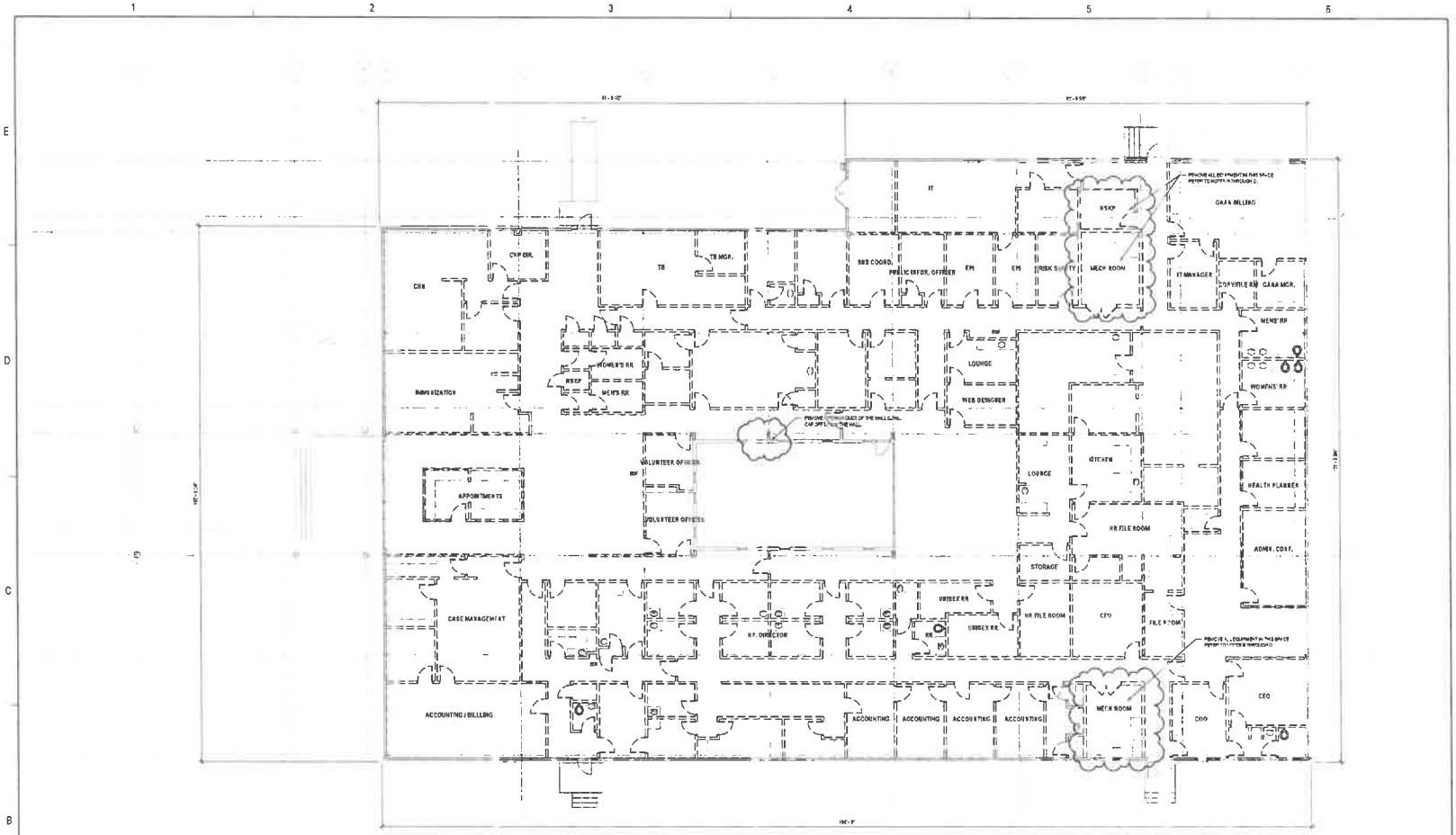

B1 LEVEL 1 DEMOLITION PLAN
1/8" = 1'-0"

DEMOLITION GRAPHIC LEGEND

- NOT IN SCOPE
- EXISTING STRUCTURAL COLUMN
- EXISTING TO REMAIN
- TO BE DEMOLISHED

GENERAL NOTES - DEMOLITION

A. GENERAL CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO PRICING AND DEMOLITION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT.

B. REMOVE ALL EXISTING INTERIOR PLUMBING FIXTURES, PLUMBING EQUIPMENT AND PIPINGS. SAW CUT PIPING AT THE FLOOR, CUT AND CAP. REMOVE GAS LINE TO METER AND CAP.

C. REMOVE ALL EXISTING INTERIOR MECHANICAL EQUIPMENT AND ASSOCIATED DUCTWORK, WHICH INCLUDES AIR RETURN AND DIFFUSE, PATCH AND REPAIR ANY OPENING IN THE EVENT OF PUNCTURE TO THE ROOF OR EXTERIOR WALL.

D. REMOVE ALL EXISTING INTERIOR ELECTRICAL EQUIPMENT, WHICH INCLUDES LIGHT FIXTURES, ELECTRICAL PANELS, EMT PIPING, POWER OUTLETS, LIGHT SWITCHES, AND ASSOCIATED CONDUITS.

E. REMOVE ALL EXISTING CEILINGS, WHICH INCLUDES ACOUSTICAL TILES AND GRID, GYPSUM BOARD CEILINGS AND STUCCO.

F. REMOVE ALL EXISTING INTERIOR WALLS, WHICH ALSO INCLUDES DOOR AND DOOR FRAMES, INTERIOR WINDOWS, BASE CABINETS AND WALL CABINETS. STRUCTURE TO REMAIN. DO NOT DAMAGE STRUCTURAL COLUMNS.

G. REMOVE INTERIOR GYPSUM BOARD / STUCCO AT ALL EXTERIOR WALLS. REMOVE BATT INSULATION. DO NOT DAMAGE METAL STUDS OR EXTERIOR SUBSTRATE. (EXTERIOR STUDS TO REMAIN)

H. REMOVE ALL INTERIOR FLOOR FINISHES TO BARE CONCRETE.

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PROFESSIONAL SEAL

OWNER

GALVESTON COUNTY
722 Moody Ave. Galveston, TX 77550

PROJECT

MENTAL HEALTH EXTENDED OBSERVATION UNIT

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISION LOG

NO.	DATE	DESCRIPTION
	10/09/23	100% SD PERMIT SET
	04/17/24	100% DD PERMIT SET

PROJECT NO.	R3195595.01
DRAWN BY	Author
REVIEWED BY	Checker
APPROVED BY	Approver

SHEET TITLE

DEMOLITION PLAN

SHEET NUMBER

AD-101

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SECTION 02 41 19 selective demolition

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.

2. Salvage of existing items to be reused or recycled. Confirm and coordinate with Galveston County any items that are to be discarded.

1.03 REFERENCES

A. The latest published edition of a reference shall be applicable to the Project unless identified by a specific edition date.

B. Reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.

C. Materials, installation, and workmanship shall comply with all applicable requirements and standards.

1.04 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse, as required.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.05 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor. [illegible] with Galveston County.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.06 PREINSTALLATION MEETINGS

A. Pre-Demolition Conference: Conduct conference at Project site.

1. [illegible]

2. [illegible]

3. [illegible]

4. [illegible]

5. [illegible]

1.07 SUBMITTALS

A. Record Documents:

1. [illegible]

a. [illegible]

b. [illegible]

2. [illegible]

1.08 PROJECT CONDITIONS

A. [illegible]

1. [illegible]

B. Hazardous Materials: [illegible]

1. [illegible]

2. [illegible]

C. Hazardous Materials: [illegible]

1. [illegible]

D. [illegible]

E. [illegible]

1. [illegible]

F. [illegible]

G. [illegible]

1. [illegible]

1.09 WARRANTY

A. Existing Warranties: [illegible]

B. [illegible]

1.10 COORDINATION

A. [illegible]

B. [illegible]

C. [illegible]

PART 2 - PRODUCTS

2.01 GENERAL

A. Materials that meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of authorities having jurisdiction.

2.02 PERFORMANCE REQUIREMENTS

A. REGULATORY REQUIREMENTS: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. STANDARDS: Comply with ANSI/ASSE A10.6 and NFPA 241. [illegible]

C. PREPARATION: [illegible]

D. POLLUTION CONTROLS: Under the authority of Section 112 of the Clean Air Act, as amended [illegible]

E. DEMOLITION

A. Building Demolition: [illegible]

B. [illegible]

C. [illegible]

D. [illegible]

E. [illegible]

F. [illegible]

3.05 MATERIAL OWNERSHIP

A. [illegible]

B. [illegible]

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. [illegible]

C. [illegible]

D. [illegible]

E. [illegible]

1. [illegible]

F. [illegible]

1. [illegible]

3.02 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. [illegible]

1. Building is currently vacant, and Contractor required to shut off indicated services/systems.

2. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.

a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.

b. Equipment to Be Removed: Disconnect and cap services and remove equipment.

D. Refrigerant: Remove refrigerant from mechanical equipment to be selectively demolished according to 40 CFR 82 and regulations of authorities having jurisdiction.

3.03 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.

2. [illegible]

C. Temporary Shoring: [illegible]

1. Strengthen or add new supports when required during progress of selective demolition.

3.04 SELECTIVE DEMOLITION, GENERAL

A. General: [illegible]

1. [illegible]

2. [illegible]

3. [illegible]

4. [illegible]

5. [illegible]

6. [illegible]

7. [illegible]

A. Existing Items to Remain: [illegible]

3.05 INSTALLATION

A. [illegible]

B. [illegible]

3.06 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. [illegible]

1. [illegible]

2. [illegible]

3. [illegible]

4. [illegible]

5. [illegible]

3.07 DISPOSAL OF DEMOLISHED MATERIALS

A. [illegible]

1. [illegible]

2. [illegible]

3. [illegible]

B. Burning: Do not burn demolished materials.

C. [illegible]

3.08 CLEANUP AND REPAIR

A. [illegible]

1. [illegible]

END OF SECTION 02 41 19

ARCHITECT / ENGINEER

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PROFESSIONAL SEALS

OWNER

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722 Moody Ave, Galveston, TX 77550

PROJECT

MENTAL HEALTH EXTENDED OBSERVATION UNIT

PROJECT ADDRESS

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISION LOG

MARK	DATE	DESCRIPTION
	9/20/2023	INTERIOR DEMOLITION — ISSUED FOR PERMIT / CONSTRUCTION

PROJECT NO	R318595.01
DRAWN BY	Author
REVIEWED BY	Checker
APPROVED BY	Approver

SHEET TITLE

SPECIFICATIONS

SHEET NUMBER

ASP-101

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ABBREVIATIONS

A AMPS, AIR (COMPRESSED)
AAP AREA ALARM PANEL
ABV ABOVE
AC ALTERNATING CURRENT, AIR COMPRESSOR
A/C AIR CONDITIONING
ACC AIR COOLED CHILLER
ACCU AIR COOLED CONDENSING UNIT
AD ACCESS DOOR, AIR DRYER
ADJ ADJUSTABLE
AF AIR FILTER
AFC ABOVE FINISHED CEILING
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AHU AIR HANDLING UNIT
AIC AMPERES INTERRUPTING CAPACITY
AL ALUMINUM
ALT ALTERNATE
AMB AMBIENT
ANOD ANODIZED
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
AP ACCESS PANEL, ALARM PANEL
APD AIR PRESSURE DROP
ARCH ARCHITECT, ARCHITECTURAL
ARI AMERICAN REFRIGERATION INSTITUTE
AS AIR SEPARATOR
ASHRAE AMERICAN SOCIETY OF HEATING AND REFRIGERATION AND AIR CONDITIONING ENGINEERS
ASME AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATP AUTOMATIC TRAP PRIMER
ATS AUTOMATIC TRANSFER SWITCH
ATT(S) ATTENUATOR(S)
AUTO AUTOMATIC
AUX AUXILIARY
AV AREA VALVE, ACID VENT
AVG AVERAGE
AVTR ACID VENT THRU ROOF
AW ACID WASTE
AWS AMERICAN WELDING SOCIETY
AWWA AMERICAN WATER WORKS ASSOCIATION

BC BELOW COUNTER
BFD BOILER FEED DEAREATOR
BFP BOILER FEED PUMP, BACKFLOW PREVENTER
BFV BOILER FEED VALVE
BFW BOILER FEED WATER
BH BOX HYDRANT
BLDG BUILDING
BM BEAM, BENCH MARK
BOB BOTTOM OF BEAM
BOF BOTTOM OF FOOTING
BOH BOTTOM OF HUB
BOP BOTTOM OF PIPE
BOS BOTTOM OF STRUCTURE
BOT BOTTOM
BKT BRACKET
BS BLACK STEEL
BSMT BASEMENT
BT BATH TUB, BREAK TANK
BV BUTTERFLY VALVE, BALL VALVE, BALANCING VALVE
BWV BACKWATER VALVE

C CELSIUS, CONDUIT
CA CONTROL AIR, COMPRESSED AIR
CAB CABINET
CB CATCH BASIN
CC CENTER TO CENTER
CD CEILING DIFFUSER
CDP CONDENSER WATER PUMP
CDR CONDENSER WATER RETURN
CDS CONDENSER WATER SUPPLY
CFH CUBIC FEET PER HOUR
CFM CUBIC FEET PER MINUTE
CFS CUBIC FEET PER SECOND
CG CEILING GRILL
CH CHILLER
CHP CHILLED WATER PUMP
CHS CHILLED WATER SUPPLY
CHV CHECK VALVE
CI CAST IRON
CIP CAST IN PLACE
CIRC CIRCULATING
CL CENTER LINE
CLG CEILING
CMP CORRUGATED METAL PIPE
CMU CONCRETE MASONRY UNIT
CO CLEANOUT
CHR CHILLED WATER RETURN
COL COLUMN
COMB COMBINATION
COMP COMPRESSOR
CONC CONCRETE, CONCENTRIC
COND CONDENSER, CONDENSATE
CONN CONNECTION
CONST CONSTRUCTION
CONT CONTINUOUS, CONTROLLER, CONTINUATION
CONTR CONTRACTOR
CONV CONVERTER
CORR CORRIDOR
CO2 CARBON DIOXIDE
CPI CAST IRON PIPE INSTITUTE
CPVC CHLORINATED POLYVINYL CHLORIDE
CPUC CPU CHILLER
CR CONSTANT VOLUME REHEAT, CONDENSATE RETURN
CRAC COMPUTER ROOM A/C UNIT
CRT CATHODE RAY TUBE
CRU CONDENSATE RETURN UNIT
CSS CLINICAL SERVICE SINK
CT COOLING TOWER
CTR CENTER
CU COPPER
CU FT CUBIC FEET
CV CAPACITY INDEX
CV CONTROL VALVE, CHECK VALVE
CW COLD WATER
CVRH CONSTANT VOLUME REHEAT

D DEPTH, DRAIN
Db DECIBEL
DB DRY BULB
DBL DOUBLE
DC DIRECT CURRENT, DOUBLE DUCT CONSTANT VOLUME
DD DECK DRAIN, DOUBLE DUCT
DDC DIRECT DIGITAL CONTROL
DEG DEGREE
DEP DEIONIZED WATER PUMP
DEPT DEPARTMENT
DESIG DESIGNATION
DET DETAIL
DF DRINKING FOUNTAIN
DI DUCTILE IRON, DRAIN INLET, DEIONIZED WATER
DIA DIAMETER
DIFF DIFFUSER
DIM DIMENSION
DIR DEIONIZED WATER RETURN
DIS DEIONIZED WATER SUPPLY
DISC DISCONNECT
DIST DISTRIBUTION
DIV DIVISION
DL DOOR LOUVER
DMH DRAIN MANHOLE
DN DOWN
DP DIFFERENTIAL PRESSURE
DPR DAMPER
DS DOUBLE SUCTION, DOWN SPOUT
DV DOUBLE DUCT VAV
DW DISHWASHER, DISTILLED WATER
DWC DRINKING WATER COOLER
DWG DRAWING
DWH DOMESTIC WATER HEATER
DWP DOMESTIC WATER PUMP
DWR DRINKING WATER RETURN
DWS DRINKING WATER SUPPLY
DX DIRECT EXPANSION
DXFC DIRECT EXPANSION FAN COIL UNIT

E EAST
(E) EXISTING
EA EACH
EAT ENTERING AIR TEMPERATURE
EC ELECTRICAL CONTRACTOR
ECC ECCENTRIC
EDB ENTERING DRY BULB
EF EXHAUST FAN
EJ EXPANSION JOINT
EL ELEVATION, EXPANSION LOOP
ELEC ELECTRIC, ELECTRICAL
ELEV ELEVATOR
EMER EMERGENCY
ENCL ENCLOSURE
ENGR ENGINEER
EPA ENVIRONMENTAL PROTECTION AGENCY
EQ EQUAL
EQUIP EQUIPMENT
EQUIV EQUIVALENT

ES END SUCTION
ET EXPANSION TANK
ETR EXISTING TO REMAIN
EVAC EVACUATION PUMP
EUH ELECTRIC UNIT HEATER
EVAP EVAPORATOR
EW EACH WAY
EWB ENTERING WET BULB
EWC ELECTRIC WATER COOLER
EWT ENTERING WATER TEMPERATURE
EX EXPLOSION PROOF
EXCV EXCAVATE, EXCAVATION
EXH EXHAUST
EXIST EXISTING
EXP EXPANSION
EXPO EXPOSED
EXT EXTERNAL

F FAHRENHEIT, FAN, FIRE, FEMALE
F to F FACE TO FACE
F & E FURNITURE & EQUIPMENT
FA FIRE ALARM
FAB(D) FABRICATE(D)
FACP FIRE ALARM CONTROL PANEL
FBO FURNISHED BY OTHERS
FCO FLOOR CLEAN OUT
FCS FLOOR CONTROL STATION
FCU FAN COIL UNIT
FCVA FLOOR CONTROL VALVE ASSEMBLY
FD FIRE DAMPER, FLOOR DRAIN
FDC FIRE DEPARTMENT CONNECTION
FDN FOUNDATION
FDS FIRE DEPARTMENT SIAMESE
FDV FIRE DEPARTMENT VALVE
FE FIRE EXTINGUISHER
FEC FIRE EXTINGUISHER CABINET
FF FINAL FILTER, FINISHED FLOOR
FFE FINISHED FLOOR ELEVATION
FG FINISHED GRADE
FH FIRE HYDRANT
FHC FIRE HOSE CABINET
FHR FIRE HOSE RACK
FHV FIRE HOSE VALVE
FIN FINISH
FIXT FIXTURE
FL FLOW LINE
FLA FULL LOAD AMPERES
FLEX FLEXIBLE
FLR FLOOR
FM FACTORY MUTUAL
FO FUEL OIL
FOP FUEL OIL PUMP
FOR FUEL OIL RETURN
FOS FUEL OIL SUPPLY
FOV FUEL OIL VALVE
FP FAN POWERED MIXING BOX, FIRE PUMP
FPC FIRE PUMP CONTROLLER
FPT FEMALE PIPE THREAD
FR FLOOR REGISTER
FRM FRAME
FRZR FREEZER
FS FUSED SWITCH, FLOW SWITCH, FIRE SPRINKLER, FLOOR SINK
FSCP FIRE SUPPRESSION CONTROL PANEL
FT FOOT, FEET
FTG FOOTING
FTR FINNED TUBE RADIATION
FURN FURNITURE
FURND FURNISHED
FUT FUTURE
FVC FIRE VALVE CABINET
FVNR FULL-VOLTAGE, NON-REVERSING
FVR FULL-VOLTAGE, REVERSING

G GAS
GA GAGE
GAL GALLON
GALV GALVANIZED
GB GRADE BEAM
GC GENERAL CONTRACTOR
GCO GRADE CLEAN OUT
GEN GENERATOR
GKT GASKET
GL GLASS
GLV GLOBE VALVE
GND GROUND
GOVT GOVERNMENT
GPD GALLONS PER DAY
GPH GALLONS PER HOUR
GPM GALLONS PER MINUTE
GR GRILLE
GRD GRADE
GRV GRAVITY ROOF VENT
GSH GRAND SENSIBLE HEAT
GTH GRAND TOTAL HEAT
GV GATE VALVE
GW GREASE WASTE

H HIGH, HEIGHT, HUMIDIFIER
H-O-A HAND-OFF-AUTOMATIC
H STAT HUMIDISTAT/SENSOR
HB HOSE BIBB
HC HEATING COIL
HD HEAD, HUB DRAIN, HEAT DETECTOR
HE HEAT EXCHANGER
HGR HANGER
HKP HOUSEKEEPING PAD
HND D HAND DRYER
HORIZ HORIZONTAL
HP HORSEPOWER, HIGH PRESSURE
HPT HIGH POINT
HR HOUR, HOT WATER RETURN
HS HOT WATER SUPPLY
HSC HORIZONTAL SPLIT CASE
HSTM HIGH PRESSURE STEAM
HSZBT HORIZONTAL, SINGLE-ZONE, BLOW-THRU
HSZDT HORIZONTAL, SINGLE-ZONE, DRAW-THRU
HT HEIGHT
HTG HEATING
HTR HEATER
HUH HOT WATER/GAS UNIT HEATER
HVAC HEATING, VENTILATING & AIR CONDITIONING
HVU HEATING AND VENTILATING UNIT
HW HOT WATER
HWB HOT WATER BOILER
HWC HOT WATER CIRCULATOR
HWP HEATING WATER PUMP
HWR HOT WATER RETURN
HWS HOT WATER SUPPLY
HZ HERTZ

ID INSIDE DIAMETER
IE INVERT ELEVATION
IG IRRIGATION
IF INTERMITTENT FAN VAV
IN INCH
INCAND INCANDESCENT
INC INCLUDE, INCLUSIVE
INSUL INSULATE, INSULATION
INT INTERNAL, INTERIOR
INV INVERT
IPS IRON PIPE SIZE
JAN JANITOR
JB JUNCTION BOX
JP JOCKEY PUMP
JPC JOCKEY PUMP CONTROLLER
JS JANITOR SINK
JST JOIST
JT JOINT

KEC KITCHEN EQUIPMENT CONTRACTOR
KIT KITCHEN
KO KNOCKOUT
KVA KILOVOLT-AMPS
KW KILOWATTS
KWH KILOWATT-HOUR

L LENGTH, LONG, LAVATORY
LA LAB AIR
LAC LAB AIR COMPRESSOR
LAB LABORATORY
LAV LAVATORY
LAT LEAVING AIR TEMPERATURES, LATENT
LB(S) POUND(S)
LCD LIQUID CRYSTAL DISPLAY
LD LINEAR DIFFUSER
LDB LEAVING DRY BULB
LED LIGHT EMITTING DIODE
LF LINEAR FEET
LG LAB GAS OUTLET
LH LEFT HAND
LOC LOCATION, LIMIT OF CONSTRUCTION
LP LOW PRESSURE
LPT LOW POINT
LRA LOCKED ROTOR AMPS
LSTM LOW PRESSURE STEAM
LTG LIGHTING
LV LAB VACUUM
LVL LEVEL

LVP LABORATORY VACUUM PUMP
LW LAUNDRY LINT WASTE
LWB LEAVING WET BULB
LWCO LOW WATER CUT OFF
LWT LEAVING WATER TEMPERATURE

M METER, MALE, MEN
MA MEDICAL AIR
MAC MEDICAL AIR COMPRESSOR
MAP MASTER ALARM PANEL
MAX MAXIMUM
MBH THOUSANDS OF BTU'S
MC MECHANICAL CONTRACTOR
MCB MAIN CIRCUIT BREAKER
MCC MOTOR CONTROL CENTER
MDP MAIN DISTRIBUTION PANEL
MECH MECHANICAL
MED MEDIUM
MEMB MEMBRANE
M/E/P MECHANICAL/ ELECTRICAL/ PLUMBING
MEZZ MEZZANINE
MFGR MANUFACTURER
MG MEDICAL GAS OUTLET
MH MANHOLE
MI MALLEABLE IRON
MIN MINIMUM
MISC MISCELLANEOUS
ML MATCH LINE
MON MONITOR SWITCH
MP MEDIUM PRESSURE
MPT MALE PIPE THREAD
MS MONITOR SWITCH
MSB MAIN SWITCHBOARD
MSGR MAIN SWITCHGEAR
MSTM MEDIUM PRESSURE STEAM
MTD MOUNTED
MTG MOUNTING
MU MAKE-UP
MV MEDICAL VACUUM
MVA MEGA VOLT-AMPS
MVD MANUAL VOLUME DAMPER
MVP MEDICAL VACUUM PUMP
MZU MULTI-ZONE UNIT

N NORTH, NITROGEN
(N) NEW
NA NOT ACCEPTABLE
NAT NATURAL
NC NOISE CRITERIA
N.C. NORMALLY CLOSED
NEC NATIONAL ELECTRICAL CODE
NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFPA NATIONAL FIRE PROTECTION ASSOCIATION
NF NON-FUSED
NFS NON-FUSED SWITCH
NIC NOT IN CONTRACT
NO NUMBER
N.O. NORMALLY OPEN
NOM NOMINAL
NTS NOT TO SCALE

O OXYGEN
OA OUTSIDE AIR
OAF OUTSIDE AIR FAN
OBD OPPOSED BLADE DAMPER
OC ON CENTER
OCEW ON CENTER EACH WAY
OD OUTSIDE DIAMETER
OFF OFFICE
OH OVERHEAD
OPH OPPOSITE HAND
OPNG OPENING
OPP OPPOSITE
OS&Y OUTSIDE STEM & YOKE
OZ OUNCE

P PUMP, POLE, PLUMBING EQUIPMENT
PB PUSH-BUTTON
PC PLUMBING CONTRACTOR, PERSONAL COMPUTER
PCR PUMPED CONDENSATE RETURN
PCHP PRIMARY CHILLED WATER PUMP
PCHR PRIMARY CHILLED WATER RETURN
PCHS PRIMARY CHILLED WATER SUPPLY
PCW PUMPED COLD WATER
PD PRESSURE DROP
PEND PENDANT
PERF PERFORATED
PH PHASE
PHWP PRIMARY HEATING WATER PUMP
PHWR PRIMARY HEATING WATER RETURN
PHWS PRIMARY HEATING WATER SUPPLY
PIV POST INDICATOR VALVE
PKG PACKAGE, PARKING
PL PILOT LIGHT
PLUMB PLUMBING
PNEU PNEUMATIC
PNL PANEL
PNTH PENTHOUSE
PP POLY PROPYLENE
PPM PARTS PER MILLION
PR PAIR, PRINTER
PRES PRESSURE
PRI PRIMARY
PROJ PROJECT
PROP PROPERTY
PRS PRESSURE REDUCING STATION
PRV PRESSURE REDUCING VALVE
PS PRESSURE SWITCH
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PSIG POUNDS PER SQUARE INCH GAUGE
PT PLUMBING TRIM
PV PLUG VALVE
PVC POLYVINYL CHLORIDE
PVDF POLYVINYLIDENE FLUORIDE
PVMT PAVEMENT
PW PROCESS WASTE
PWR POWER

QTY QUANTITY

R RISER
(R) RELOCATE
R&D REMOVE & DISPOSE
RA RETURN AIR
RAD REFRIGERATED AIR DRYER
RAF RETURN AIR FAN
RAG RETURN AIR GRILLE
RCP REFLECTED CEILING PLAN
RD ROOF DRAIN
REF REFERENCE, REFER
REC RECESSED
RECIRC RECIRCULATE, RECIRCULATING
RECPT RECEPTACLE
RED REDUCER
REFR REFRIGERATOR
REG REGISTER
REINF REINFORCED, REINFORCING
REQD REQUIRED
REV REVISION, REVISED
RH RELATIVE HUMIDITY
RHG REFRIGERANT HOT GAS
RIC ROUGH-IN AND CONNECT
RIO ROUGH-IN ONLY
RKVA RUNNING KVA
RKW RUNNING KW
RL REFRIGERANT LIQUID
RLA RUNNING LOAD AMPS
RM REFRIGERATION MACHINE ROOM
RND ROUND
RO ROUGH OPENING, REVERSE OSMOSIS
ROW RIGHT OF WAY
RPM REVOLUTIONS PER MINUTE
RS REFRIGERANT SUCTION
RTAH ROOFTOP AIR HANDLING UNIT
RTU ROOFTOP UNIT
RV RELIEF VALVE
RVNR REDUCED-VOLTAGE, NON-REVERSING
RVS REVERSE

S SOUTH, SUPPLY, SINK
SA SUPPLY AIR, SHOP AIR, SOUND ATTENUATOR
SAD SUPPLY AIR DIFFUSER
SAF SUPPLY AIR FAN
SC STEAM CONVERTER
SCHED SCHEDULE(D)
SCHP SECONDARY CHILLED WATER PUMP
SCHR SECONDARY CHILLED WATER RETURN
SCHS SECONDARY CHILLED WATER SUPPLY
SCR SILICON CONTROLLED RECTIFIER
SCW SOFTENED COLD WATER
SD SMOKE DETECTOR
SE SMOKE EXHAUST
SEC SECONDARY
SECT SECTION
SENS SENSIBLE
SERV SERVICE
SF SQUARE FEET
SFCS SPRINKLER FLOOR CONTROL STATION

SH SHOWER
SHR SHOWER
SHT SHEET
SHWP SECONDARY HEATING WATER PUMP
SHWR SECONDARY HEATING WATER RETURN
SHWS SECONDARY HEATING WATER SUPPLY
SIM SIMILAR
SK SINK
SL SLOPE
SKVA STARTING KVA
SKW STARTING KW
SP STATIC PRESSURE, SUMP PUMP
SPEC SPECIFICATION, SPECIFIED
SPF STAIR PRESSURIZATION FAN
SPKLK SPRINKLER
SQ SQUARE
SQ IN SQUARE INCHES
SRF SMOKE REMOVAL FAN
SS STOP-START PUSH-BUTTON, STAINLESS STEEL
SSSC SOLID STATE SPEED CONTROL
SSD SUBSURFACE DRAIN
SST STAINLESS STEEL
ST SOUND TRAP, STEAM TRAP, SURGE TANK
STA STATION
STAP SURGE TANK ALARM PANEL
STB STEAM BOILER
STC SOUND TRANSMISSION CLASS
STD STANDARD
STL STEEL
STM STEAM
STOR STORAGE
STR STRAINER
STRUC STRUCTURE, STRUCTURAL
SURF SURFACE
SUSP SUSPENDED
SV SANITARY VENT
SW SWITCH, SOFTENED WATER
SWBD SWITCHBOARD
SWGR SWITCHGEAR
SWR SIDE WALL REGISTER
SYM SYMMETRICAL
SYS SYSTEM

T&P TEMPERATURE & PRESSURE
T STAT THERMOSTAT/SENSOR
TC TEMPERATURE CONTROL
TCC TEMPERATURE CONTROL COMPRESSOR
TD TRENCH DRAIN
TDH TOTAL DYNAMIC HEAD
TF TRANSFER FAN
TEMP TEMPORARY
TH BLK THRUST BLOCK
THK THICK
TK TANK
TOC TOP OF CURB
TOF TOP OF FOOTING
TOL TOILET
TOS TOP OF SLAB
TOT TOTAL
TP TRAP PRIMER, TOTAL PRESSURE
TR TRENCH
TRD THREAD, THREADED
TS TAMPER SWITCH
TU TERMINAL UNIT
TW TREATED WATER, TEMPERED WATER
TXV THERMAL EXPANSION VALVE
TYP TYPICAL
2S-1W TWO-SPEED, ONE WINDING
2S-2W TWO-SPEED, TWO WINDING

U/F UNDERFLOOR
U/S UNDERSLAB
UG UNDERGROUND
UH UNIT HEATER
UL UNDERWRITER'S LABORATORIES, INC.
UON UNLESS OTHERWISE NOTED
UPS UNINTERRUPTIBLE POWER SUPPLY

V VOLT, VENT
V/D VOICE/DATA
VA VOLT-AMPERE, VARIABLE
VAC VACUUM, VOLTS AC
VAV VARIABLE AIR VOLUME
VB VACUUM BREAKER
VD VOLUME DAMPER
VEL VELOCITY
VERT VERTICAL
VEST VESTIBULE
VFD VARIABLE FREQUENCY DRIVE
VOL VOLUME
VP VACUUM PUMP
VR VARIABLE AIR VOLUME REHEAT
VSZBT VERTICAL SINGLE ZONE BLOW THRU
VSZDT VERTICAL SINGLE ZONE DRAW THRU

W WATT, WIDTH, WASTE, WEST, WIRE, WOMEN
W/ WITH
W/O WITHOUT
WB WET BULB
WC WATER CLOSET
WCO WALL CLEANOUT
WH WATER HEATER, WALL HYDRANT
WM WATER METER
WP WEATHERPROOF
WPD WATER PRESSURE DROP
WS WATER SOFTENER
WT WATERTIGHT, WEIGHT
WWF WELDED WIRE FABRIC

XFMR TRANSFORMER
XP EXPLOSION PROOF

Z ZONE
ZV ZONE VALVE

MECHANICAL SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

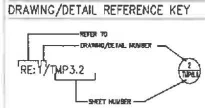
PIPING TYPES

— CDS — CONDENSER WATER SUPPLY
— CDR — CONDENSER WATER RETURN
— CHS — CHILLED WATER SUPPLY
— CHR — CHILLED WATER RETURN
— HWS — HEATING HOT WATER SUPPLY
— HWR — HEATING HOT WATER RETURN
— RHG — REFRIGERANT HOT GAS LINE
— RS — REFRIGERANT SUCTION LINE
— RL — REFRIGERANT LIQUID LINE
— D — DRAIN LINE
— EXISTING PIPE, "ooo" DENOTES TYPE
— GR — GLYCOL RETURN
— GS — GLYCOL SUPPLY
— p — PUMPED CONDENSATE

PIPING SYMBOLS

ELBOW UP
ELBOW DOWN
VALVE IN DROP
VALVE IN RISE
DIRECTION OF FLOW
DIRECTION OF SLOPE DOWN
CONCENTRIC REDUCER
ECCENTRIC REDUCER
TEE OUTLET UP
TEE OUTLET DOWN
UNION
PIPE ANCHOR
EXPANSION JOINT
STRAINER WITH BLOWDOWN VALVE
GATE VALVE, HVAC BALANCING/STOP VALVE
GLOBE VALVE
BALL VALVE
BALANCING VALVE WITH DIFFERENTIAL PRESSURE TAPS
OS&Y VALVE
CHECK VALVE
TWO POSITION CONTROL VALVE
TWO-WAY MODULATING CONTROL VALVE
THREE-WAY MODULATING CONTROL VALVE
PRESSURE REDUCING VALVE
MANUAL AIR VENT
AUTOMATIC AIR VENT
T&P RELIEF VALVE
VACUUM BREAKER
LINE CLEANOUT
PRESSURE GAUGE WITH GAUGE COCK
THERMOMETER
WATER METER
FLEXIBLE CONNECTION
PRESSURE AND TEMPERATURE TAP
FLOW VENTURI
AUTOMATIC PUMP TRAP
FLOAT AND THERMOSTATIC TRAP

DRAWING/DETAIL REFERENCE KEY



MISCELLANEOUS

FLOOR DRAIN
POINT OF NEW CONNECTION TO EXISTING
DRAWING NOTE REFERENCE
OWNER OR CONTRACTOR FURNISHED EQUIPMENT REFERENCE
MECHANICAL EQUIPMENT REFERENCE. "ooo" DENOTES TYPE. "bb" DENOTES NUMBER.
AIR DISTRIBUTION DEVICE REFERENCE. "a" DENOTES TYPE, "bbb" DENOTES CFM, "cddd" DENOTES NECK SIZE
HVAC TERMINAL UNIT REFERENCE. "ooo" DENOTES TYPE, "bbb" DENOTES CFM, "ccc KW" DENOTES HEATING KW WHERE APPLICABLE
FLOW SWITCH
VALVE SUPERVISORY SWITCH
THERMOSTAT (COMBINATION THERMOSTAT/HUMIDISTAT WHERE SPECIFIED)
HUMIDISTAT
FIRESTAT
DUCT SMOKE DETECTOR. "SA" DENOTES SUPPLY AIR, "RA" DENOTES RETURN AIR
FLOW SWITCH
PNEUMATIC TUBING OR CONTROL WIRING
PRESSURE SENSOR
TEMPERATURE SENSOR
FLOW METER OUTPUT SENSOR
DELTA PRESSURE SENSOR
SURGERY ROOM SMOKE EVAC MANUAL PUSH BUTTON
POTENTIOMETER
LABORATORY CONTROL PANEL SYMBOLOGY
RISER SYMBOLOGY
ROOM OFFSET PRESSURIZATION (CFM DOOR UNDERCUT)
CARBON MONOXIDE DETECTOR
VARIABLE SPEED DRIVE
DIRECT DIGITAL HVAC CONTROL PANEL
ACTIVE ROOM PRESSURE MONITOR (MEASURE DIFFERENTIAL FROM ROOM "A" TO ROOM "B")

DUCTWORK

SUPPLY AIR DIFFUSER
RETURN AIR OR EXHAUST GRILL
SUPPLY / EXHAUST AIR SLOT
NEW RECTANGULAR OR ROUND SUPPLY DUCTWORK
NEW RECTANGULAR OR ROUND EXHAUST DUCTWORK
NEW RECTANGULAR OR ROUND RETURN DUCTWORK
EXISTING DUCTWORK
EXISTING DUCTWORK TO BE DEMOLISHED
EXISTING DUCTWORK TO REMAIN
NEW FLEXIBLE DUCT
SUPPLY OR OUTSIDE AIR DUCT
RETURN, RELIEF OR EXHAUST AIR DUCT
FLEXIBLE DUCT CONNECTION
INCLINED RISE IN DUCT (MULTIPLE 90 OR 45 FITTINGS)
INCLINED DROP IN DUCT (MULTIPLE 90 OR 45 FITTINGS)
TURNING VANES
DUCT MOUNTED HEATING COIL W/ TRANSITIONS AS REQUIRED
DUCT MOUNTED FILTER, RE: FILTER HOUSING DETAIL
BRANCH DUCT CAPPED WITH METAL CAP MATCHING DUCT SCREWS AND MASTIC CAP
SINGLE DUCT HVAC TERMINAL UNIT
VAV TERMINAL WITH HEATING COIL (VERTICAL)
FIRE DAMPER
SMOKE DAMPER
FIRE/SMOKE DAMPER
MANUAL BALANCING DAMPER
GRAVITY BACKDRAFT DAMPER
MOTORIZED DAMPER

GENERAL NOTES

A. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR MECHANICAL CONSTRUCTION.
B. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.
C. REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS. WHERE THE ARCHITECT HAS DRAWN SUCH ELEVATIONS FOR THE LOCATION OF ALL WALL MOUNTED DEVICES.
D. ALL DUCTWORK SIZES SHOWN ARE FREE AIR STREAM DIMENSIONS.
E. ALL PENETRATIONS THRU THE ROOF TO MECHANICAL EQUIPMENT SHALL BE WITH EQUIPMENT ROOF CURBS. COORDINATE THE EXACT LOCATION OF ALL PENETRATIONS WITH THE BUILDING STRUCTURE.
F. COORDINATE ALL SLAB PENETRATIONS AND SLEEVES WITH THE GENERAL CONTRACTOR PRIOR TO EACH CONCRETE POUR.
G. FURNISH ACCESS DOORS FOR INSTALLATION BY THE GENERAL CONTRACTOR IN WALLS AND CEILINGS WHERE ACCESS IS REQUIRED TO CONCEALED MECHANICAL EQUIPMENT, VALVES, CONTROLS AND OTHER DEVICES.
H. ALL DUCTWORK SHALL BE INSTALLED A MINIMUM OF 8 INCHES TO THE BOTTOM OF INSULATION ABOVE THE FINISHED CEILING TO PROVIDE CLEARANCE FOR PIPING, ELECTRICAL CONDUIT AND LIGHTING FIXTURES.
I. ALL SUPPLY AIR DIFFUSERS ARE 4-WAY THROW OR HEMISPHERICAL UNLESS OTHERWISE NOTED ON THE DRAWINGS WITH FLOW ARROWS.
J. ALL MECHANICAL WORK SHALL COMPLY WITH APPLICABLE STATE AND LOCAL BUILDING CODES AND REQUIREMENTS. REFER TO SPECIFICATIONS FOR APPLICABLE CODES.
K. REFER TO THE SPECS FOR SUBMITTAL REQUIREMENTS.
L. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION OF DUCTWORK AND PIPING WITH OTHER TRADES AND PROVIDING OFFSETS IN DUCTWORK AND PIPING AS REQUIRED. WHERE NOTED REFER TO SECTIONS AND DETAILS FOR MINIMUM OFFSETS.
M. ALL REQUIRED HVAC CONTROL WIRING & EQUIPMENT SHALL BE COORDINATED BY THE MECHANICAL CONTRACTOR AND PROVIDED BY THE CONTROLS CONTRACTOR.
N. NO NEW ASBESTOS CONTAINING MATERIALS MAY BE USED IN THIS BUILDING.
O. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE DUCTWORK FABRICATION DRAWINGS WITH THE FIRE, SMOKE AND FIRE/SMOKE PARTITIONS SHOWN ON THE ARCHITECTURAL DRAWINGS. FIRE AND SMOKE DAMPERS SHALL BE PROVIDED AS SHOWN ON THESE DRAWINGS AND AS REQUIRED BY CODE, EVEN IF THEY ARE NOT SHOWN ON THE MECHANICAL DRAWINGS.
P. ALL PIPING SHALL BE INSTALLED A MINIMUM OF 8 INCHES TO THE BOTTOM OF PIPE ABOVE FINISHED CEILING TO PROVIDE CLEARANCE FOR ELECTRICAL CONDUIT AND LIGHTING FIXTURES, UNLESS NOTED OR SHOWN OTHERWISE ON THE DRAWINGS. ALLOW A MINIMUM OF 50 OFFSETS PER FLOOR BEYOND THOSE SHOWN TO ACCOMMODATE UNFORESEEN INTERFERENCE.
Q. THE CONTRACTOR SHALL INCLUDE $10.00 PER BADGE IN HIS PROPOSAL AND ALL CONTRACTOR PERSONNEL SHALL BE BADGED BEFORE ENTERING THE SITE.
R. THE CONTRACTOR WILL CONDUCT SAFETY TRAINING FOR ALL CONTRACTOR PERSONNEL.
S. OWNER WILL HANDLE TAR UNDER OWNER DRIVEN CONTRACT.

DRAWING LIST

MD-000 MECHANICAL SYMBOLS AND ABBREVIATIONS
MD-101 MECHANICAL DEMOLITION FLOORPLAN – LEVEL 1
MD-103 MECHANICAL DEMOLITION FLOOR PLAN – ROOF

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ADVANCEDESIGN™

E&C

Galveston County
100 Client St, Client City, ST 00000

MENTAL HEALTH EXTENDED OBSERVATION UNIT

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISIONS LOG

MARK	DATE	DESCRIPTION
1	9/09/2023	INTERIOR DEMOLITION
2	11/05/2023	ISSUED FOR PERMIT AND CONSTRUCTION

PROJECT NO.:	4175.00
DRAWN BY:	JS
REVIEWED BY:	AG
APPROVED BY:	AG

SHEET TITLE

MECHANICAL SYMBOLS AND ABBREVIATIONS

SHEET NUMBER

MD-000

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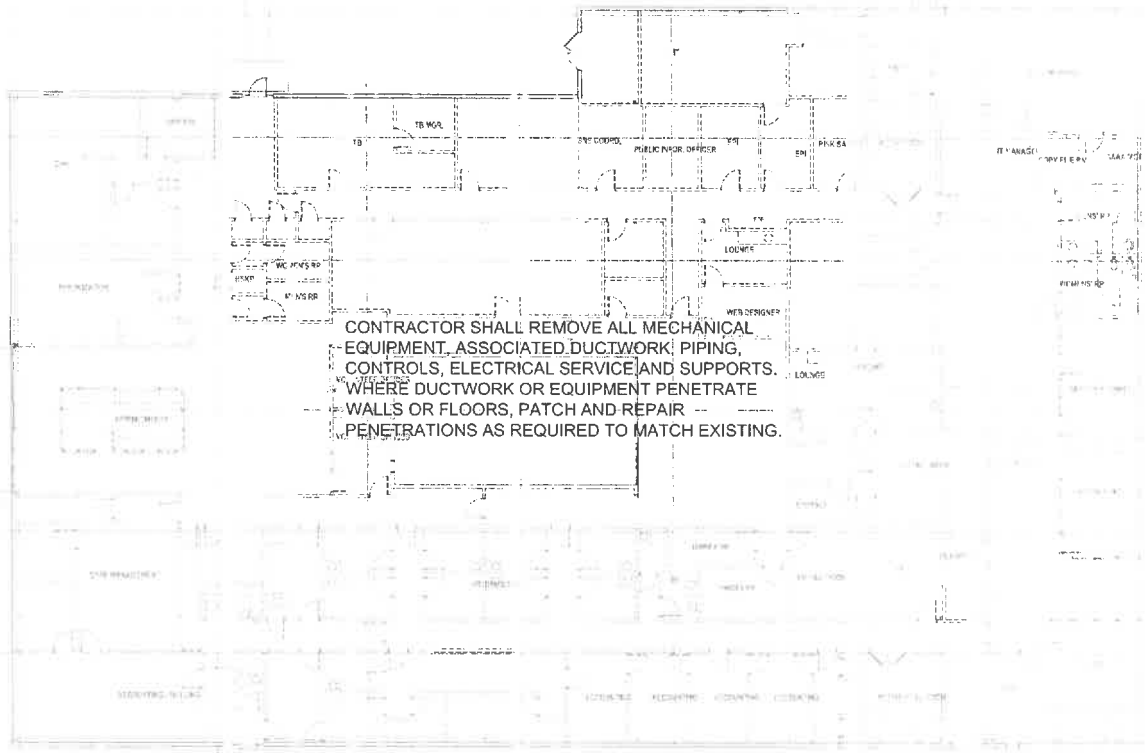

01 MECHANICAL DEMOLITION FLOOR PLAN - LEVEL 1
SCALE: 1/8"=1'-0"

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ADVANCEDESIGN™

CONSULTANTS:

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PROFESSIONAL SEALS

STATE OF TEXAS
ANAMIKA GHOSH
144109
PROFESSIONAL ENGINEER

Anamika Ghosh
2023.11.03
14:14:41-05'00'

OWNER:

THE STATE OF TEXAS
COUNTY OF GALVESTON

Galveston County
100 Client St, Client City, ST 00000

MENTAL HEALTH EXTENDED OBSERVATION UNIT

PROJECT ADDRESS:

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISIONS LOG:

MARK	DATE	DESCRIPTION
	9/25/2023	INTERIM DEMOLITION
	10/03/2023	ISSUED FOR PERMIT AND CONSTRUCTION

PROJECT NO.:	4175.00
DRAWN BY:	JS
REVIEWED BY:	AG
APPROVED BY:	AG

SHEET TITLE:

MECHANICAL DEMOLITION FLOOR PLAN

SHEET NUMBER:

MD-101

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CONTRACTOR SHALL REMOVE ALL ROOF MOUNTED MECHANICAL EQUIPMENT, ASSOCIATED DUCTWORK, PIPING, CONTROLS, ELECTRICAL SERVICE, SUPPORTS AND CURBS. WHERE DUCTWORK OR EQUIPMENT PENETRATES THE ROOF, PATCH AND REPAIR PENETRATIONS AS REQUIRED TO MATCH EXISTING.

01 MECHANICAL DEMOLITION FLOOR PLAN - ROOF
SCALE: 1/8"=1'-0"

ARCHITECT / ENGINEER

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ISSUES / REVISIONS LOG

MARK	DATE	DESCRIPTION
1	9/20/2023	INTERIM DEMOLITION
2	10/20/2023	ISSUED FOR PERMIT AND BIDDING

PROJECT NO.:	4175.00
DRAWN BY:	JS
REVIEWED BY:	AG
APPROVED BY:	AG

SHEET TITLE

MECHANICAL DEMOLITION FLOOR PLAN

SHEET NUMBER

MD-102

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ABBREVIATIONS

[illegible]

ELECTRICAL SYMBOLS

(ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

ONE LINE/RISER DIAGRAMS

- TRANSFORMER, TYPE AND RATINGS AS NOTED
- SWITCH, RATING AS SHOWN
- FUSE, RATING AS SHOWN
- CIRCUIT BREAKER, RATINGS AS SHOWN 3 POLE UNLESS NOTED OTHERWISE
- DRAWOUT CIRCUIT BREAKER, RATINGS AS SHOWN 3 POLE UNLESS NOTED OTHERWISE
- SHUNT TRIP
- GROUND FAULT RELAY
- KIRK KEY INTERLOCK
- AMMETER, RANGE AS SHOWN
- AMMETER SWITCH
- VOLTMETER, RANGE AS SHOWN
- VOLTMETER SWITCH
- FULL FUNCTION METER
- CURRENT TRANSFORMER, RATED AS SHOWN
- POTENTIAL TRANSFORMER, RATING AS SHOWN
- GROUND CONNECTION
- LIGHTNING ARRESTOR
- GENERATOR SET
- AUTOMATIC TRANSFER SWITCH
- HOA OR SS AS NOTED

LIGHTING/SWITCHES

- EXIT SIGN. ARROWS AS INDICATED. LETTER DENOTES TYPE
- LIGHTING FIXTURE, LETTER DENOTES TYPE
- LIGHTING FIXTURE ON EMERGENCY / LIFE SAFETY, LETTER DENOTES TYPE
- LIGHTING FIXTURE ON CRITICAL
- WALL SWITCH
  - "3" DENOTES THREE WAY
  - "4" DENOTES FOUR WAY
  - "M" DENOTES OCCUPANCY SENSOR
  - "T" TIME CONTROL
- DIMMER WALL SWITCH
  - "M" DENOTES OCCUPANCY SENSOR
- ROOM/SPACE LIGHTING ZONE CONTROL
  - NORMAL CIRCUIT — XX-XX
  - EMERGENCY LIGHT IS NONSWITCHED UNLESS "E" SHOWN IN ROOM CONTROL
  - EMERGENCY CIRCUIT
  - 1D = # OF DIMMING RELAYS
  - 1N = # OF NON-DIMMING RELAYS
  - E = ULBM EMERGENCY POWER OVERRIDE (IF "E" NOT SHOWN IN ROOM CONTROLLER, THEN EMERGENCY FIXTURE IS NON SWITCHED)
  - NB = NETWORKED
  - TS = TIME SWITCH CONTROL

REFER TO LIGHTING CONTROL DETAIL ON E701 FOR MORE INFORMATION

- RP RELAY PACK
- PHOTOCELL
- MOTION SENSOR
- PP POWER PACK
- = SYMBOL WITH BRACKET = WALL MOUNTED DEVICE

RECEPTACLES/OUTLETS

- SIMPLEX WALL RECEPTACLE
- NEW DUPLEX WALL RECEPTACLE. DIM INDICATES ABOVE COUNTER OR AT NON-STANDARD HEIGHT. REFER TO ARCHITECTURAL ELEVATIONS
- DUPLEX WALL RECEPTACLE ON EMERGENCY CIRCUIT. RED COLOR
- DUPLEX WALL RECEPTACLE ON A CIRCUIT DEDICATED TO DATA PROCESSING. GRAY COLOR. PROVIDE ISOLATED GROUND TYPE RECEPTACLES WHERE NOTED WITH IG
- DUPLEX WALL RECEPTACLE
  - "WP" = WEATHERPROOF, "WR" = WEATHER RESISTANT
  - "TR" = TAMPER RESISTANT, "GFCI" = GFI TYPE OUTLET
- QUADPLEX WALL RECEPTACLE
- SPECIAL RECEPTACLE, NEMA CONFIGURATION AS NOTED
- DUPLEX RECEPTACLE FLUSH IN CEILING
- FLOOR OUTLET "P" = POKE-THRU, "F" = FLUSH, "A" = TYPE WHERE APPLICABLE
- MULTI-OUTLET SURFACE RACEWAY
- JUNCTION BOX
- DIRECT CONNECTION TO EQUIPMENT
- PULL BOX (OVER 4" SQUARE)

COMMUNICATIONS/SECURITY

- PAGING HORN
- PAGING SYSTEM MICROPHONE
- PATC PAGING SYSTEM TERMINAL CABINET
- CLOCK OUTLET, SIMPLEX. RE: SPECS
- IMS INTERCOM MASTER STATION
- ICS INTERCOM STAFF STATION
- ICP INTERCOM EQUIPMENT PANEL
- CEILING MOUNTED SPEAKER
- ROUGH-IN FOR SECURITY CARD READER. RE: SECURITY DRAWINGS.
- ROUGH-IN FOR SECURITY CAMERA. RE: SECURITY DRAWINGS.
- ROUGH-IN FOR DATA OUTLET. RE: TELECOM DRAWINGS
- ROUGH-IN FOR VOICE OUTLET. RE: TELECOM DRAWINGS. W = DENOTES WALL PHONE
- ROUGH-IN FOR VOICE/DATA OUTLET. RE: TELECOM DRAWINGS
- ROUGH-IN FOR WIRELESS ACCESS POINT OUTLET. RE: TELECOM DRAWINGS.

FIRE ALARM

- FACP FIRE ALARM CONTROL PANEL (FLUSH/SURFACE)
- FAAP FIRE ALARM REMOTE ANNUNCIATOR (FLUSH/SURFACE)
- FAPS FIRE ALARM POWER SUPPLY
- FIRE ALARM AUDIO VISUAL SIGNAL, WALL MOUNTED
- FIRE ALARM VISUAL SIGNAL, WALL MOUNTED
- FIRE ALARM AUDIO SIGNAL, WALL MOUNTED
- FIRE ALARM AUDIO, CEILING MOUNTED
- FIRE ALARM VISUAL STROBE, CEILING MOUNTED
- FIRE ALARM AUDIO VISUAL SIGNAL, CEILING MOUNTED
- HEAT DETECTOR
- AREA SMOKE DETECTOR
- AREA SMOKE DETECTOR WITH LOCAL ALARM
- RETURN AIR DUCT SMOKE DETECTOR
- SUPPLY AIR DUCT SMOKE DETECTOR
- SMOKE DETECTOR REMOTE INDICATOR STATION
- FIREFIGHTERS COMMUNICATION JACK
- STAIRWELL EMERGENCY TELEPHONE
- ELEVATOR LOBBY EMERGENCY SW
- FIRE ALARM MANUAL PULL STATION
- FIRE ALARM MANUAL PULL STATION WITH FIREMAN'S JACK
- SPRINKLER WATER FLOW SWITCH
- VALVE SUPERVISORY SWITCH
- MAGNETIC DOOR HOLDER
- ELECTRIC DOOR LOCK
- FIRE ALARM ADDRESSABLE INPUT MODULE
- FIRE ALARM ADDRESSABLE OUTPUT MODULE
- FIRE ALARM AUXILIARY RELAY
- HCP HALON CONTROL PANEL
- AIR SAMPLING-TYPE DETECTION SYSTEM

ELECTRICAL EQUIPMENT/CIRCUITING

- DISTRIBUTION PANEL
- SWITCHBOARD OR MOTOR CONTROL CENTER
- NEW PANELBOARD (FLUSH/SURFACE MOUNT)
- EXISTING PANELBOARD
- DRY-TYPE TRANSFORMER
- ATS AUTOMATIC TRANSFER SWITCH
- PLYWOOD TERMINAL BOARD. TYPE AS NOTED. 4'X8'X3/4", UNLESS NOTED OTHERWISE
- TERMINAL CABINET (FLUSH/SURFACE MOUNT) TYPE AS NOTED 24"X24"X6", UNLESS NOTED OTHERWISE
- BAT BATTERY/INVERTER UNIT
- CIRCUIT CONCEALED IN WALL OR CEILING
- CONDUIT CAST IN CONCRETE OR BELOW SLAB
- EXPOSED CONDUIT
- CONDUIT TURNED UP
- CONDUIT TURNED DOWN
- HASH MARKS INDICATE NUMBER OF CONDUCTORS PHASE/NEUTRAL (SWITCH) / GROUND (LEFT TO RIGHT). NO HASH MARKS INDICATES 2#12 UNLESS OTHERWISE NOTED
- HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED
- PARTIAL CIRCUIT HOMERUN TO PANEL
- COMMUNICATIONS CONDUIT OR CABLE. "V" DENOTES VOICE, "D" DENOTES DATA, "I" DENOTES INTERCOM, "PA" DENOTES PAGING, "S" DENOTES SECURITY, "FA" DENOTES FIRE ALARM
- UNDERGROUND ELECTRIC CONDUIT, 600V OR LESS
- —UGS— UNDERGROUND SECONDARY / DUCTBANK, LESS THAN 600V
- —OHS— OVERHEAD SECONDARY LINES, LESS THAN 600V
- —UGP— UNDERGROUND PRIMARY DUCTBANK, GREATER THAN 600V
- —OHP— OVERHEAD PRIMARY LINES, GREATER THAN 600V
- DENOTES EMERGENCY LIGHTING CIRCUIT
- DENOTES LOW VOLTAGE WIRING
- SINGLE OR THREE PHASE MOTOR
- ELECTRIC DUCT HEATER
- DISCONNECT (SAFETY) SWITCH "30/3/15" DENOTES AMPERES/POLE/FUSE, "NF" DENOTES NON-FUSED
- ENCLOSED CIRCUIT BREAKER
- MOTOR STARTER
- MOTOR STARTER FURNISHED WITH EQUIPMENT
- COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER. "30/3/15/1" DENOTES AMPERES/POLES/FUSE/STARTER SIZE. "NF" DENOTES NON-FUSED
- COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER FURNISHED WITH EQUIPMENT
- MANUAL MOTOR STARTING WITH THERMAL OVERLOAD
- MOTOR-RATED TOGGLE SWITCH
- PUSH BUTTON
- PUSHPLATE
- DOOR CONTACT SWITCH
- PP POWER POLE

PANEL DESIGNATIONS

N 2 H DPL -3

SYSTEM TYPE:
- "N" = NORMAL POWER
- "S" = OPTIONAL STANDBY
- "E" = EMERGENCY
- "G" = GENERATOR
- "U" = UPS

PANEL LOCATED:
- # = FLOOR OR AREA - [1,2,3,4,5,6 PH]

VOLTAGE:
- "H" = 480Y/277V
- "L" = 208Y/120V

EQUIPMENT TYPE:
- "DP" = DISTRIBUTION PANEL
- "SG" = SWITCHGEAR
- "SB" = SWITCHBOARD
- BLANK = PANELBOARD

PANEL SEQUENCE:
- # or LETTER = [1,2,3...] ['A,B,C...']

VOLTAGE DROP TABLE

Single Phase	Circuit Breaker	Distance in FEET				
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
120V	20A	12 AWG	10 AWG	8 AWG	6 AWG	4 AWG
208V	20A	12 AWG	12 AWG	10 AWG	8 AWG	6 AWG
	30A	10 AWG	10 AWG	8 AWG	6 AWG	4 AWG
277V	20A	12 AWG	12 AWG	10 AWG	10 AWG	8 AWG

Three Phase	Circuit Breaker	Distance in FEET				
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
208V	20A	12 AWG	12 AWG	10 AWG	8 AWG	6 AWG
	30A	10 AWG	10 AWG	8 AWG	8 AWG	6 AWG
480V	20A	12 AWG	12 AWG	12 AWG	10 AWG	10 AWG
	[illegible]	10 [illegible]	10 AWG	10 [illegible]	10 AWG	8 AWG

1. Ground shall be same size as conductor.
2. Conduit shall be sized for 40% fill per the NEC.
3. Drops to equipment shall be #12AWG for 20A ckt and #10 AWG for 30A circuits. Keep drops as short as possible.
4. Refer to specification and the drawings for branch circuits not shown on this table. If the wire size is not shown on the drawings size the branch circuit per the specification requirements.

GENERAL NOTES

A. ALL ELECTRICAL WORK SHALL COMPLY WITH APPLICABLE STATE & LOCAL BUILDING CODES & REQUIREMENTS.

B. REFER TO THE SPECS FOR MATERIALS & METHODS FOR ELECTRICAL CONSTRUCTION.

C. REFER TO THE SPECS FOR SUBMITTAL REQUIREMENTS.

D. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE & FAMILIARIZE THEMSELF WITH EXISTING CONDITIONS WHICH WILL IMPACT CONSTRUCTION OF THIS PROJECT, PRIOR TO SUBMITTING BIDS.

E. RE: ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES.

F. RE: ARCHITECTURAL INTERIOR ELEVATIONS, IF PROVIDED FOR LOCATIONS OF WALL MOUNTED DEVICES.

G. FURNISH ACCESS DOORS FOR INSTALLATION BY THE GENERAL CONTRACTOR WHERE ACCESS IS REQUIRED TO CONCEALED ELECTRICAL EQUIPMENT.

H. ALL REQUIRED HVAC CONTROL WIRING & EQUIPMENT SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR.

I. ALL WIRING SHALL BE MINIMUM 2#12, 1#12G, THWN, UNLESS NOTED OR SHOWN ON THE DRAWINGS OTHERWISE. REFER TO SPECIFICATIONS FOR REQUIREMENTS TO INCREASE WIRE SIZE FOR DISTANCES OVER 50 FEET FOR 120 VOLT AND 100 FEET FOR 277 VOLT.

J. COORDINATE ALL PLAN PENETRATIONS WITH THE STRUCTURAL ENGINEER AND OBTAIN WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO CORE DRILLING. ALL RATED PARTITION PENETRATIONS SHALL BE SEALED WITH A UL-LISTED FIRE SAFING SYSTEM IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REQUIREMENTS.

K. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARLY IDENTIFYING IN ALL PANEL DIRECTORIES EACH CIRCUIT'S USE PER NEC 408.4.

LIGHTING FIXTURE CIRCUITING NOTES

A. THE LIGHTING PLANS INDICATE SWITCHING AND BRANCH CIRCUIT NUMBERS FOR ALL LIGHTING FIXTURES. LOWER CASE LETTERS AT SWITCHES AND LIGHT FIXTURES INDICATE SWITCHING WHERE THE CONTROL PATTERN IS NOT OBVIOUS. INSTALL BRANCH CIRCUIT WIRING IN A RACEWAY TO ALL RIGIDLY ATTACHED LIGHT FIXTURES AND TO JUNCTION BOXES FOR ALL LAY-IN LIGHT FIXTURES, AS REQUIRED TO PROVIDE SWITCHING AND CIRCUITING AS SHOWN ON THE DRAWINGS. RE: SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

B. CONDUITS CONTAINING BRANCH CIRCUITS SHALL BE LIMITED TO THREE PHASE CONDUCTORS (ON DIFFERENT PHASES), ONE NEUTRAL CONDUCTOR PER PHASE AND ONE GROUND CONDUCTOR. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE INSTALLED IN CONDUIT. SEPARATE NEUTRAL CONDUCTORS SHALL BE PROVIDED FOR EACH PHASE.

C. ALL LAY-IN LIGHTING FIXTURES SHALL BE CONNECTED TO A BRANCH CIRCUIT JUNCTION BOX WITH A FLEXIBLE FIXTURE TAIL, RE: SPECIFICATIONS. A MAXIMUM OF FOUR FIXTURE TAILS SHALL BE CONNECTED TO A SINGLE JUNCTION BOX. FIXTURE TO FIXTURE WIRING OF LAY-IN LIGHTING FIXTURES IS NOT PERMITTED.

POWER PLAN CIRCUITING NOTES

A. THE POWER PLANS INDICATE BRANCH CIRCUIT NUMBERS FOR ALL RECEPTACLES. WHERE BRANCH CIRCUIT WIRING IS NOT SHOWN, INSTALL BRANCH CIRCUIT WIRING IN A RACEWAY AS REQUIRED TO PROVIDE CIRCUITING AS SHOWN ON THE DRAWINGS. RE: SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

B. CONDUITS CONTAINING BRANCH CIRCUITS SHALL BE LIMITED TO THREE PHASE CONDUCTORS (ON DIFFERENT LIMITED TO THREE PHASE CONDUCTORS (ON DIFFERENT PHASES), ONE NEUTRAL CONDUCTOR PER PHASE AND ONE GROUND CONDUCTOR. ALL BRANCH CIRCUIT CONDUCTORS SHALL BE INSTALLED IN CONDUIT. SEPARATE NEUTRAL CONDUCTORS SHALL BE PROVIDED FOR EACH PHASE.

TELECOM, AV AND SECURITY NOTES

A. REFER TO APPLICABLE SERIES DRAWINGS FOR ALL REQUIRED DIVISION 28 RELATED WORK PERTAINING TO THE TELECOMMUNICATIONS, AUDIO/VIDEO AND SECURITY SYSTEM SYSTEMS. REFER TO APPLICABLE SPECIFICATIONS AS NOTED IN THESE DRAWINGS FOR ADDITIONAL REQUIRED DIVISION 26 RELATED WORK. REQUIRED DIVISION 26 WORK SHALL INCLUDE, BUT IS NOT LIMITED TO, THE INSTALLATION OF BACK BOXES, SPECIALTY BACK BOXES, VOICE/DATA OUTLET ROUGH-INS, CONDUITS, CABLE TRAYS, CONDUIT SLEEVES, FLOOR BOXES, GROUNDING SYSTEM COMPONENTS, CARD READER ROUGH-INS, DOOR POSITION SWITCH ROUGH-INS, ELECTRIC POWER TRANSFER ROUGH-INS, CAMERA ROUGH-INS, ETC. THE EXACT LOCATIONS AND REQUIREMENTS OF SUCH WORK SHALL BE COORDINATED WITH THE APPLICABLE DIVISION.

LIGHTING CONTROL FUNCTIONAL TESTING (IECC 2021 COMMISSIONING)

ALL PROJECT LIGHTING CONTROLS SHALL BE FUNCTIONALLY TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF IECC 2021 BY A THIRD-PARTY COMMISSIONING AGENT HIRED BY THE CONTRACTOR OR A MANUFACTURER'S REPRESENTATIVE OF THE LIGHTING CONTROLS SYSTEMS PROVIDED. SUBMIT SIGNED AND DATED WRITTEN DOCUMENTATION TO THE ENGINEER CERTIFYING THAT ALL CONTROLS HAVE BEEN FUNCTIONALLY TESTED AS OUTLINED BELOW AND IN ACCORDANCE WITH THE REQUIREMENTS OF IECC 2021:

OCCUPANCY SENSOR LIGHTING CONTROLS

1. CONFIRM THAT SENSORS ARE AIMED PER MANUFACTURERS INSTRUCTIONS AND PROVIDE FULL SENSING COVERAGE IN THE ROOM/SPACE SENSED.
2. IF THERE ARE LESS THAN 7 SENSORS ON THE PROJECT, THEN ALL SENSORS MUST BE TESTED. IF THERE ARE MORE THAN SEVEN SENSORS ON THE PROJECT, THEN 10 PERCENT OF EACH TYPE OF SENSOR AND EACH ROOM COMBINATION SHALL BE TESTED. IF MORE THAN 30 PERCENT OF TESTED SENSORS FAIL, THEN ALL REMAINING SENSORS SHALL BE TESTED. AT LEAST ONE SENSOR OF EACH TYPE AND EACH ROOM COMBINATION SHALL BE TESTED.
3. IF SENSORS HAVE A STATUS INDICATOR, CONFIRM THAT INDICATOR OPERATES PROPERLY.
4. VERIFY THAT LIGHT FIXTURES TURN OFF AND/OR DIM DOWN WITHIN THE SPECIFIED/REQUIRED TIME PERIOD.
5. FOR AUTO-ON SENSORS, CONFIRM THE LIGHT FIXTURES TURN ON TO THE SPECIFIED/REQUIRED LIGHT LEVEL WHEN SOMEONE ENTERS THE ROOM.
6. FOR MANUAL ON SENSORS, CONFIRM THE LIGHT FIXTURES TURN ON WHEN THE ROOM/SPACE SWITCH IS ACTIVATED.
7. CONFIRM THE LIGHTING FIXTURES ARE NOT TURNED ON BY HVAC SYSTEM OPERATION.

TIME SWITCH/TIME PROGRAM LIGHTING CONTROLS

1. CONFIRM THAT TIME SWITCH/TIME PROGRAM CONTROLS HAVE WEEKDAY, WEEKEND AND HOLIDAY SCHEDULES WITH SETTINGS AS REQUIRED BY THE TENANT.
2. PROVIDE DOCUMENTATION TO THE TENANT OF ALL PROGRAMMED LIGHTING CONTROL SETTINGS.
3. CONFIRM THAT TIME SWITCH/TIME PROGRAM CONTROLS HAVE THE CORRECT TIME AND DATE.
4. CONFIRM BATTERY BACKUP IS INSTALLED AND WORKING.
5. CONFIRM THAT THE OVERRIDE SWITCH TIME LIMIT IS SET TO 2 HOURS.
6. IN TIME SWITCH/TIME PROGRAM ON CONDITION CONFIRM AND RECORD THE FOLLOWING:
   a. THE TIME SWITCH/TIME PROGRAM OPERATES THE LIGHT FIXTURES IN THE ENCLOSED SPACE IN WHICH THEY CONTROL.
   b. CONTROLLED LIGHT FIXTURES CAN BE SWITCHED ON AND OFF BY THEIR MANUAL OVERRIDE CONTROL SWITCH AND THE CONTROLLING LIGHT SWITCH IS LOCATED IN THE ROOM/SPACE IT CONTROLS OR IS LABELED AS TO WHAT LIGHT FIXTURES IT CONTROLS.
7. IN TIME SWITCH/TIME PROGRAM OFF CONDITION, CONFIRM AND RECORD THE FOLLOWING:
   a. ALL LIGHTING CONTROLLED BY THE TIME SWITCH/TIME PROGRAM ARE OFF.
   b. IF THE MANUAL OVERRIDE CONTROL SWITCH IS ACTIVATED THE LIGHT FIXTURES CONTROLLED BY THE TIME SWITCH/TIME PROGRAM TURN ON AND ONLY STAY ON UNTIL OVERRIDE ON TIME LIMIT IS REACHED OR UNTIL THE NEXT PROGRAMMED OFF PERIOD.

DAYLIGHT LIGHTING CONTROLS

1. CONFIRM THAT PHOTOCELLS ARE PROPERLY LOCATED, CALIBRATED AND SET.
2. CONFIRM THAT DAYLIGHT CONTROLLED LOADS TURN ON/OFF/DIM IN RESPONSE TO THE AMOUNT OF AVAILABLE DAYLIGHT, AS APPLICABLE.
3. CONFIRM THAT THE ABILITY TO ADJUST THE PHOTOCELL LIGHT LEVEL IS ACCESSIBLE.

THESE REQUIREMENTS ARE IN ADDITION TO THE AS-BUILT RECORD DRAWING AND O&M MANUAL REQUIREMENTS OF THE OWNER AND SPECIFICATIONS.

DRAWING LIST

ED-000 ELECTRICAL SYMBOLS AND ABBREVIATIONS

ED-101 ELECTRICAL DEMOLITION PLAN LEVEL 1

ARCHITECT / ENGINEER:

HUITT-ZOLLARS

1001 FANNIN ST, SUITE 4040
HOUSTON, TX 77002
713-622-1180
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ADVANCEDESIGN

CONSULTANT:

E&C

PROFESSIONAL SEALS:

Lance McKnight 2023 10 03

OWNER:

Galveston County

100 Client St, Client City, ST 00000

PROJECT:

MENTAL HEALTH EXTENDED OBSERVATION UNIT

PROJECT ADDRESS:

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISIONS LOG:

MARK	DATE	DESCRIPTION
1	9/29/2023	INTERIOR DEMOLITION
2	11/03/2023	ISSUED - OR PERMIT AND [illegible]

PROJECT NO: 4175.00
DRAWN BY: ER
REVIEWED BY: LM
APPROVED BY:

SHEET TITLE

ELECTRICAL SYMBOLS AND ABBREVIATIONS

ED-000

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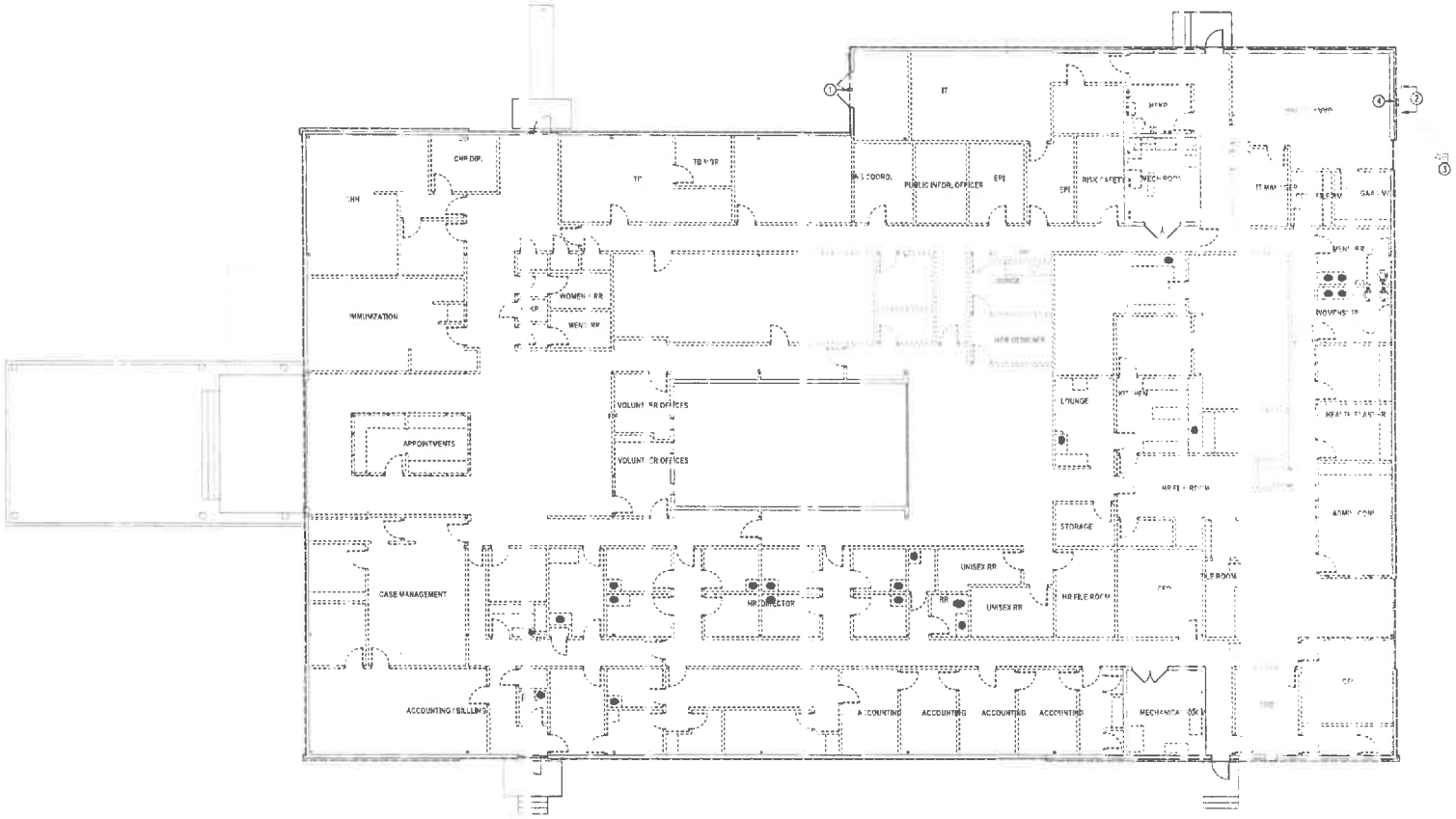

1 ELECTRICAL DEMOLITION PLAN LEVEL 1

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

GENERAL NOTES:

A. REF ED-000 FOR MORE GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS.

B. ALL EXTERIOR LIGHTING TO BE REMOVED.

DRAWING NOTES:

1. REMOVE ALL EXISTING ELECTRICAL EXCEPT EQUIPMENT NOTED AS EXISTING TO REMAIN IN DEMOLITION WALL(S), CEILING(S), INCLUDING BUT NOT LIMITED TO LIGHTING FIXTURES, SWITCHES, POWER AND COMMUNICATION OUTLETS AND FIRE ALARM DEVICES. REMOVE ALL ASSOCIATED CONDUITS/WIRES.
2. EXISTING MAIN DISCONNECT WITH ASSOCIATED JUNCTION BOX TO REMAIN.
3. EXISTING MAIN ELECTRICAL METER TO REMAIN.
4. EXISTING PANEL TO BE REMOVED.

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ADVANCEDESIGN™

E&C

PROFESSIONAL SEALS

STATE OF TEXAS LICENSED PROFESSIONAL ENGINEER

Galveston County
100 Client St Client City, ST 00000

PROJECT:

MENTAL HEALTH EXTENDED OBSERVATION UNIT

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISIONS LOG:

MARK	DATE	DESCRIPTION
1	8-29-2023	INTERNAL DEMOLITION
2	11-09-2023	ISSUED FOR PERMIT AND CONSTRUCTION

PROJECT NO.:	4175.00
DRAWN BY:	ER
REVIEWED BY:	LM
APPROVED BY:	

SHEET TITLE

ELECTRICAL DEMOLITION PLAN LEVEL 1

SHEET NUMBER

ED-101

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ABBREVIATIONS

A	AMPS, AIR (COMPRESSED)
AAP	AREA ALARM PANEL
ABV	ABOVE
AC	ALTERNATING CURRENT, AIR COMPRESSOR
A/C	AIR CONDITIONING
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR, AIR DRYER
ADJ	ADJUSTABLE
AF	AIR FILTER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERES INTERRUPTING CAPACITY
AL	ALUMINUM
ALT	ALTERNATE
AMB	AMBIENT
ANOD	ANODIZED
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ACCESS PANEL, ALARM PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECT, ARCHITECTURAL
ARI	AMERICAN REFRIGERATION INSTITUTE
AS	AIR SEPARATOR
ASHRAE	AMERICAN SOCIETY OF HEATING AND REFRIGERATION AND AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATP	AUTOMATIC TRAP PRIMER
ATS	AUTOMATIC TRANSFER SWITCH
ATT(S)	ATTENUATOR(S)
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AREA VALVE, ACID VENT
AVG	AVERAGE
AVTR	ACID VENT THRU ROOF
AW	ACID WASTE
AWS	AMERICAN WELDING SOCIETY
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BELOW COUNTER
BFD	BOILER FEED DEAERATOR
BFP	BOILER FEED PUMP, BACKFLOW PREVENTER
BFV	BOILER FEED VALVE
BFW	BOILER FEED WATER
BH	BOX HYDRANT
BLDG	BUILDING
BM	BEAM, BENCH MARK
BOB	BOTTOM OF BEAM
BOF	BOTTOM OF FOOTING
BOH	BOTTOM OF HUB
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
BOT	BOTTOM
BKT	BRACKET
BS	BLACK STEEL
BSMT	BASEMENT
BT	BATH TUB, BREAK TANK
BV	BUTTERFLY VALVE, BALL VALVE, BALANCING VALVE
BWV	BACKWATER VALVE
C	CELSIUS, CONDUIT
CA	CONTROL AIR, COMPRESSED AIR
CAB	CABINET
CB	CATCH BASIN
CC	CENTER TO CENTER
CD	CEILING DIFFUSER
CDP	CONDENSER WATER PUMP
CDR	CONDENSER WATER RETURN
CDS	CONDENSER WATER SUPPLY
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CG	CEILING GRILL
CH	CHILLER
CHP	CHILLED WATER PUMP
CHS	CHILLED WATER SUPPLY
CHV	CHECK VALVE
CI	CAST IRON
CIP	CAST IN PLACE
CIRC	CIRCULATING
CL	CENTER LINE
CLG	CEILING
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
CHR	CHILLED WATER RETURN
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTROLLER CONTINUATION
CONTR	CONTRACTOR
CONV	CONVERTER
CORR	CORRIDOR
CO2	CARBON DIOXIDE
CPI	CAST IRON PIPE INSTITUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CPUC	CPU CHILLER
CR	CONSTANT VOLUME REHEAT, CONDENSATE RETURN
CRAC	COMPUTER ROOM A/C UNIT
CRT	CATHODE RAY TUBE
CRU	CONDENSATE RETURN UNIT
CSS	CLINICAL SERVICE SINK
CT	COOLING TOWER
CTR	CENTER
CU	COPPER
CU FT	CUBIC FEET
CV	CAPACITY INDEX
CV	CONTROL VALVE, CHECK VALVE
CW	COLD WATER
CVRH	CONSTANT VOLUME REHEAT
D	DEPTH, DRAIN
DB	DECIBEL
DB	DRY BULB
DBL	DOUBLE
DC	DIRECT CURRENT, DOUBLE DUCT CONSTANT VOLUME
DD	DECK DRAIN, DOUBLE DUCT
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREE
DEP	DEIONIZED WATER PUMP
DEPT	DEPARTMENT
DESIG	DESIGNATION
DET	DETAIL
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON, DRAIN INLET, DEIONIZED WATER
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DIR	DEIONIZED WATER RETURN
DIS	DEIONIZED WATER SUPPLY
DISC	DISCONNECT
DIST	DISTRIBUTION
DIV	DIVISION
DL	DOOR LOUVER
DMH	DRAIN MANHOLE
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DPR	DAMPER
DS	DOUBLE SUCTION, DOWN SPOUT
DV	DOUBLE DUCT VAV
DW	DISHWASHER, DISTILLED WATER
DWC	DRINKING WATER COOLER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DWR	DRINKING WATER RETURN
DWS	DRINKING WATER SUPPLY
DX	DIRECT EXPANSION
DXFC	DIRECT EXPANSION FAN COIL UNIT
E	EAST
(E)	EXISTING
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EJ	EXPANSION JOINT
EL	ELEVATION, EXPANSION LOOP
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EPA	ENVIRONMENTAL PROTECTION AGENCY
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	END SUCTION
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EVAC	EVACUATION PUMP
EUH	ELECTRIC UNIT HEATER
EVAP	EVAPORATOR
EW	EACH WAY
EWB	ENTERING WET BULB
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EX	EXPLOSION PROOF
EXCV	EXCAVATE, EXCAVATION
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
EXPD	EXPOSED
EXT	EXTERNAL
F	FAHRENHEIT, FAN, FIRE, FEMALE
F to F	FACE TO FACE
F & E	FURNITURE & EQUIPMENT
FA	FIRE ALARM
FAB(D)	FABRICATE (D)
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEAN OUT
FCS	FLOOR CONTROL STATION
FCU	FAN COIL UNIT
FCVA	FLOOR CONTROL VALVE ASSEMBLY
FD	FIRE DAMPER, FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FDS	FIRE DEPARTMENT SIAMESE
FDV	FIRE DEPARTMENT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINAL FILTER, FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FHV	FIRE HOSE VALVE
FIN	FINISH
FIXT	FIXTURE
FL	FLOW LINE
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FLR	FLOOR
FM	FACTORY MUTUAL
FO	FUEL OIL
FOP	FUEL OIL PUMP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VALVE
FP	FAN POWERED MIXING BOX, FIRE PUMP
FPC	FIRE PUMP CONTROLLER
FPT	FEMALE PIPE THREAD
FR	FLOOR REGISTER
FRM	FRAME
FRZR	FREEZER
FS	FUSED SWITCH, FLOW SWITCH, FIRE SPRINKLER, FLOOR SINK
FSCP	FIRE SUPPRESSION CONTROL PANEL
FT	FOOT, FEET
FTG	FOOTING
FTR	FINNED TUBE RADIATION
FURN	FURNITURE
FURND	FURNISHED
FUT	FUTURE
FVC	FIRE VALVE CABINET
FVNR	FULL-VOLTAGE, NON-REVERSING
FVR	FULL-VOLTAGE, REVERSING
G	GAS
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BEAM
GC	GENERAL CONTRACTOR
GCO	GRADE CLEAN OUT
GEN	GENERATOR
GKT	GASKET
GL	GLASS
GLV	GLOBE VALVE
GND	GROUND
GOVT	GOVERNMENT
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GRILLE
GRD	GRADE
GRV	GRAVITY ROOF VENT
GSH	GRAND SENSIBLE HEAT
GTH	GRAND TOTAL HEAT
GV	GATE VALVE
GW	GREASE WASTE
H	HIGH, HEIGHT, HUMIDIFIER
H-O-A	HAND-OFF-AUTOMATIC
H STAT	HUMIDISTAT/SENSOR
HB	HOSE BIBB
HC	HEATING COIL
HD	HEAD, HUB DRAIN, HEAT DETECTOR
HE	HEAT EXCHANGER
HGR	HANGER
HKP	HOUSEKEEPING PAD
HND D	HAND DRYER
HORIZ	HORIZONTAL
HP	HORSEPOWER, HIGH PRESSURE
HPT	HIGH POINT
HR	HOUR, HOT WATER RETURN
HS	HOT WATER SUPPLY
HSC	HORIZONTAL SPLIT CASE
HSTM	HIGH PRESSURE STEAM
HSZBT	HORIZONTAL, SINGLE-ZONE, BLOW-THRU
HSZDT	HORIZONTAL, SINGLE-ZONE, DRAW-THRU
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HUH	HOT WATER/GAS UNIT HEATER
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HVU	HEATING AND VENTILATING UNIT
HW	HOT WATER
HWB	HOT WATER BOILER
HWC	HOT WATER CIRCULATOR
HWP	HEATING WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IG	IRRIGATION
IF	INTERMITTENT FAN VAV
IN	INCH
INCAND	INCANDESCENT
INC	INCLUDE, INCLUSIVE
INSUL	INSULATE, INSULATION
INT	INTERNAL, INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IW	ICE WATER
JAN	JANITOR
JB	JUNCTION BOX
JP	JOCKEY PUMP
JPC	JOCKEY PUMP CONTROLLER
JS	JANITOR SINK
JST	JOIST
JT	JOINT
KEC	KITCHEN EQUIPMENT CONTRACTOR
KIT	KITCHEN
KO	KNOCKOUT
KVA	KILOVOLT-AMPS
KW	KILOWATTS
KWH	KILOWATT-HOUR
L	LENGTH, LONG, LAVATORY
LA	LAB AIR COMPRESSOR
LAC	LAB AIR COMPRESSOR
LAB	LABORATORY
LAV	LAVATORY
LAT	LEAVING AIR TEMPERATURE, LATENT
LB(S)	POUND(S)
LCS	LIQUID CRYSTAL DISPLAY
LD	LINEAR DIFFUSER
LDB	LEAVING DRY BULB
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET
LG	LAB GAS OUTLET
LH	LEFT HAND
LOC	LOCATION, LIMIT OF CONSTRUCTION
LP	LOW PRESSURE
LPT	LOW POINT
LRA	LOCKED ROTOR AMPS
LSTM	LOW PRESSURE STEAM
LTG	LIGHTING
LV	LAB VACUUM
LVL	LEVEL
LVP	LABORATORY VACUUM PUMP
LW	LAUNDRY LINT WASTE
LWB	LEAVING WET BULB
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE
M	METER, MALE, MEN
MA	MEDICAL AIR
MAC	MEDICAL AIR COMPRESSOR
MAP	MASTER ALARM PANEL
MAX	MAXIMUM
MBH	THOUSANDS OF BTU'S
MC	MECHANICAL CONTRACTOR
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
M/E/P	MECHANICAL/ELECTRICAL/PLUMBING
MEZZ	MEZZANINE
MFGR	MANUFACTURER
MG	MEDICAL GAS OUTLET
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MISC	MISCELLANEOUS
ML	MATCH LINE
MON	MONITOR SWITCH
MP	MEDIUM PRESSURE
MPT	MALE PIPE THREAD
MS	MONITOR SWITCH
MSB	MAIN SWITCHBOARD
MSGR	MAIN SWITCHGEAR
MSTM	MEDIUM PRESSURE STEAM
MTD	MOUNTED
MTG	MOUNTING
MU	MAKE-UP
MV	MEDICAL VACUUM
MVA	MEGA VOLT-AMPS
MVD	MANUAL VOLUME DAMPER
MVP	MEDICAL VACUUM PUMP
MZU	MULTI-ZONE UNIT
N	NORTH, NITROGEN
(N)	NEW
NA	NOT ACCEPTABLE
NAT	NATURAL
NC	NOISE CRITERIA
N.C.	NORMALY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NF	NON-FUSED
NFS	NON-FUSED SWITCH
NIC	NOT IN CONTRACT
NO	NUMBER
N.O.	NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE
O	OXYGEN
OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OD	OUTSIDE DIAMETER
OFF	OFFICE
OH	OVERHEAD
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OS&Y	OUTSIDE STEM & YOKE
OZ	OUNCE
P	PUMP, POLE, PLUMBING EQUIPMENT
PB	PUSH BUTTON
PC	PLUMBING CONTRACTOR, PERSONAL COMPUTER
PCR	PUMPED CONDENSATE RETURN
PCHP	PRIMARY CHILLED WATER PUMP
PCHR	PRIMARY CHILLED WATER RETURN
PCHS	PRIMARY CHILLED WATER SUPPLY
PCW	PUMPED COLD WATER
PD	PRESSURE DROP
PEND	PENDANT
PERF	PERFORATED
PH	PHASE
PHWP	PRIMARY HEATING WATER PUMP
PHWR	PRIMARY HEATING WATER RETURN
PHWS	PRIMARY HEATING WATER SUPPLY
PIV	POST INDICATOR VALVE
PKG	PACKAGE, PARKING
PL	PILOT LIGHT
PLUMB	PLUMBING
PNEU	PNEUMATIC
PNL	PANEL
PNTH	PENTHOUSE
PP	POLY PROPYLENE
PPM	PARTS PER MILLION
PR	PAIR, PRINTER
PRES	PRESSURE
PRI	PRIMARY
PROJ	PROJECT
PROP	PROPERTY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSID	POUNDS PER SQUARE INCH GAUGE
PT	PLUMBING TRIM
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVDF	POLYVINYLIDENE FLUORIDE
PVMT	PAVEMENT
PW	PRESSURED COLD WATER
PWR	POWER
QTY	QUANTITY
R	RISER
(R)	RELOCATE
R&D	REMOVE & DISPOSE
RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILLE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFERENCE, REFER
REC	RECESSED
RECIRC	RECIRCULATE, RECIRCULATING
RECPT	RECEPTACLE
RED	REDUCER
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCED, REINFORCING
REQD	REQUIRED
REV	REVISION, REVISED
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RIC	ROUGH-IN AND CONNECT
RIO	ROUGH-IN ONLY
RKVA	RUNNING KVA
RKW	RUNNING KW
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	REFRIGERATION MACHINE, ROOM
RND	ROUND
RO	ROUGH OPENING, REVERSE OSMOSIS
ROW	RIGHT OF WAY
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTAH	ROOFTOP AIR HANDLING UNIT
RTU	ROOFTOP UNIT
RV	RELIEF VALVE
RVNR	REDUCED-VOLTAGE, NON-REVERSING
RVS	REVERSE
S	SOUTH, SUPPLY, SINK
SA	SUPPLY AIR, SHOP AIR, SOUND ATTENUATOR
SAD	SUPPLY AIR DIFFUSER
SAF	SUPPLY AIR FAN
SC	STEAM CONVERTER
SCHED	SCHEDULE(D)
SCHP	SECONDARY CHILLED WATER PUMP
SCHR	SECONDARY CHILLED WATER RETURN
SCHS	SECONDARY CHILLED WATER SUPPLY
SCR	SILICON CONTROLLED RECTIFIER
SCW	SOFTENED COLD WATER
SD	SMOKE DETECTOR
SE	SEWAGE EJECTOR
SEC	SECONDARY
SECT	SECTION
SENS	SENSIBLE
SERV	SERVICE
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHR	SHOWER
SHT	SHEET
SHWP	SECONDARY HEATING WATER PUMP
SHWR	SECONDARY HEATING WATER RETURN
SIM	SIMILAR
SK	SINK
SL	SLOPE
SKVA	STARTING KVA
SKW	STARTING KW
SP	STATIC PRESSURE, SUMP PUMP
SPEC	SPECIFICATION, SPECIFIED
SPF	STAIR PRESSURIZATION FAN
SPRLK	SPRINKLER
SQ	SQUARE
SQ IN	SQUARE INCHES
SRF	SMOKE REMOVAL FAN
SS	STOP-START PUSH-BUTTON, STAINLESS STEEL
SSSC	SOLID STATE SPEED CONTROL
SSD	SUBSURFACE DRAIN
SST	STAINLESS STEEL
ST	SOUND TRAP, STEAM TRAP, SURGE TANK
STA	STATION
STAP	SURGE TANK ALARM PANEL
STB	STEAM BOILER
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STL	STEEL
STM	STEAM
STOR	STORAGE
STR	STRAINER
STRUC	STRUCTURE, STRUCTURAL
SURF	SURFACE
SUSP	SUSPENDED
SV	SANITARY VENT
SW	SWITCH, SOFTENED WATER
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SWR	SIDE WALL REGISTER
SYM	SYMMETRICAL
SYS	SYSTEM
T&P	TEMPERATURE & PRESSURE
T STAT	THERMOSTAT/SENSOR
TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CONTROL COMPRESSOR
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TF	TRANSFER FAN
TEMP	TEMPORARY
TH BLK	THRUST BLOCK
THK	THICK
TK	TANK
TOC	TOP OF CURB
TOF	TOP OF FOOTING
TOIL	TOILET
TOS	TOP OF SLAB
TOT	TOTAL
TP	TRAP PRIMER, TOTAL PRESSURE
TR	TRENCH
TRD	THREAD, THREADED
TS	TAMPER SWITCH
TU	TERMINAL UNIT
TW	TREATED WATER, TEMPERED WATER
TXV	THERMAL EXPANSION VALVE
TYP	TYPICAL
2S-1W	TWO-SPEED, ONE WINDING
2S-2W	TWO-SPEED, TWO WINDING
UF	UNDERFLOOR
U/S	UNDERSLAB
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITER'S LABORATORIES, INC.
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT, VENT
V/D	VOICE/DATA
VA	VOLT-AMPERE, VARIABLE
VAC	VACUUM, VOLTS AC
VAV	VARIABLE AIR VOLUME
VB	VACUUM BREAKER
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VEST	VESTIBULE
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VP	VACUUM PUMP
VR	VARIABLE AIR VOLUME REHEAT
VSZBT	VERTICAL SINGLE ZONE BLOW THRU
VSZDT	VERTICAL SINGLE ZONE DRAW THRU
W	WATT, WIDTH, WASTE, WEST WIRE, WOMEN
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER, WALL HYDRANT
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WS	WATER SOFTENER
WT	WATERTIGHT, WEIGHT
WWF	WELDED WIRE FABRIC
XFMR	TRANSFORMER
XP	EXPLOSION ROOF
Z	ZONE
ZV	ZONE VALVE

PLUMBING SYMBOLS (ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS)

PIPING TYPES

— RHG —	REFRIGERANT HOT GAS LINE
— RS —	REFRIGERANT SUCTION LINE
— RL —	REFRIGERANT LIQUID LINE
— — —	SANITARY DRAIN BELOW FLOOR
— SS —	SANITARY DRAIN ABOVE FLOOR
— SV —	SANITARY VENT
— GW —	GREASE (KITCHEN) WASTE
— SD —	STORM DRAIN
— OD —	OVERFLOW DRAIN
— AW —	ACID WASTE
— AV —	ACID VENT
———	COLD WATER
———	HOT WATER
———	HOT WATER RECIRCULATION
— G —	NATURAL GAS
— A —	COMPRESSED AIR
— F —	FIRE STANDPIPE, FIRE LINE
— FS —	FIRE SPRINKLER
— TP —	TRAP PRIMER
— D —	DRAIN LINE
... ooo ...	EXISTING PIPE, 'ooo' DENOTES TYPE
·X· ooo ·X·	EXISTING PIPE TO BE REMOVED, 'ooo' DENOTES TYPE

MISCELLANEOUS

- FLOOR DRAIN
- AREA DRAIN
- ROOF DRAIN OR OVERFLOW DRAIN
- HOSE BIBB
- WALL HYDRANT
- PLUMBING FIXTURES
- POINT OF NEW CONNECTION TO EXISTING
- (1) DRAWING NOTE REFERENCE
- (R620) OWNER OR CONTRACTOR FURNISHED EQUIPMENT REFERENCE
- (ooo) PLUMBING EQUIPMENT REFERENCE. 'ooo' DENOTES TYPE, 'oo' DENOTES NUMBER.
- (P/1) RISER DESIGNATION, 'P' DENOTES WASTE/VENT OR WASTE/VENT/WATER, 'W' DENOTES WATER, 'DS' DENOTES DOWNSPOUT, 'F' DENOTES FIRE.
- FS FLOW SWITCH
- VS VALVE SUPERVISORY SWITCH
- FIRE HOSE CABINET
- FIRE HOSE RACK
- FIRE DEPARTMENT SIAMESE CONNECTION

PIPING SYMBOLS

- ELBOW UP
- ELBOW DOWN
- VALVE IN DROP
- VALVE IN RISE
- DIRECTION OF FLOW
- DIRECTION OF SLOPE DOWN
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- TEE OUTLET UP
- TEE OUTLET DOWN
- UNION
- PIPE ANCHOR
- EXPANSION JOINT
- STRAINER WITH BLOWDOWN VALVE
- GATE VALVE, HVAC BALANCING/STOP VALVE
- GLOBE VALVE
- BALL VALVE
- BALANCING VALVE WITH DIFFERENTIAL PRESSURE TAPS
- OS&Y VALVE
- CHECK VALVE
- TWO POSITION CONTROL VALVE
- TWO-WAY MODULATING CONTROL VALVE
- THREE-WAY MODULATING CONTROL VALVE
- PRESSURE REDUCING VALVE
- FCS SPRINKLER FLOOR CONTROL STATION
- GAS VALVE
- MANUAL AIR VENT
- AUTOMATIC AIR VENT
- T&P RELIEF VALVE
- VACUUM BREAKER
- LINE CLEANOUT
- FLOOR CLEANOUT
- PRESSURE GAUGE WITH GAUGE COCK
- THERMOMETER
- WATER METER
- FLEXIBLE CONNECTION
- PRESSURE AND TEMPERATURE TAP
- FLOW VENTURI
- SUPERVISORY VALVE WITH FLOW/TAMPER SWITCH

DRAWING/DETAIL REFERENCE KEY

REFER TO — REF MP100 — DRAWING/DETAIL NUMBER (1 / MP100) — SHEET NUMBER

GENERAL NOTES

A. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS FOR PLUMBING CONSTRUCTION.

DRAWING LIST

P-000 - PLUMBING SYMBOLS AND ABBREVIATIONS

P-101 - PLUMBING DEMOLITION PLAN

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ADVANCEDESIGN™

CONSULTANT: E&C

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123 Client St, Client City, ST 00000

PROJECT:

MENTAL HEALTH EXTENDED OBSERVATION UNIT

1207 S Oak Street
La Marque, TX 77568

ISSUES / REVISIONS LOG:

MARK	DATE	DESCRIPTION
	9/29/2023	INTERIM DEMOLITION
2	11/03/2023	ISSUE - OR PERMIT AND

PROJECT NO.: 4175.00
DRAWN BY: GM
REVIEWED BY: GM
APPROVED BY: GM

SHEET TITLE

PLUMBING SYMBOLS AND ABBREVIATIONS

SHEET NUMBER

P-000

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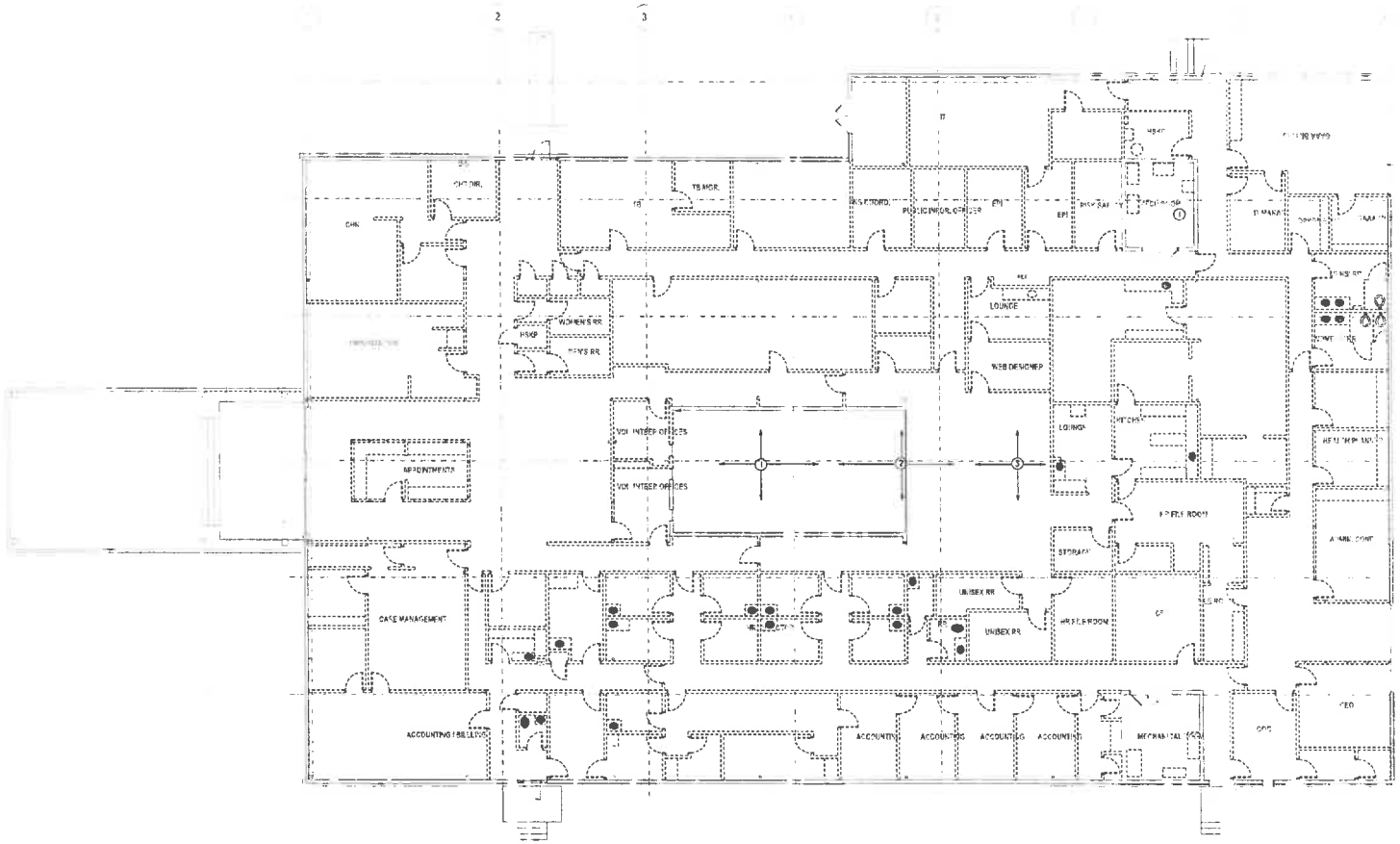

1 PLUMBING DEMOLITION PLAN LEVEL 1

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

PLUMBING DEMOLITION NOTES:

1. REMOVE PLUMBING FIXTURES WITH ALL ASSOCIATED PIPING (WASTE, VENTS, HOT AND COLD WATER).. CAP DOMESTIC COLD WATER INSIDE BUILDING AT POINT OF BUILDING ENTRY.
2. CAP WASTE FLUSHED WITH FINISHED FLOOR GAS TIGHT.
3. CAP VENTS ON ROOF WATER TIGHT.

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ISSUES / REVISIONS LOG:

MARK	DATE	DESCRIPTION
	4/20/2023	INTERIOR DEMOLITION
1	11/10/2023	ISSUED FOR PERMIT AND CONSTRUCTION

PROJECT NO.: 4175.00

DRAWN BY:

REVIEWED BY:

APPROVED BY:

SHEET TITLE

PLUMBING DEMOLITION PLAN LEVEL 1

SHEET NUMBER

PD-101

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