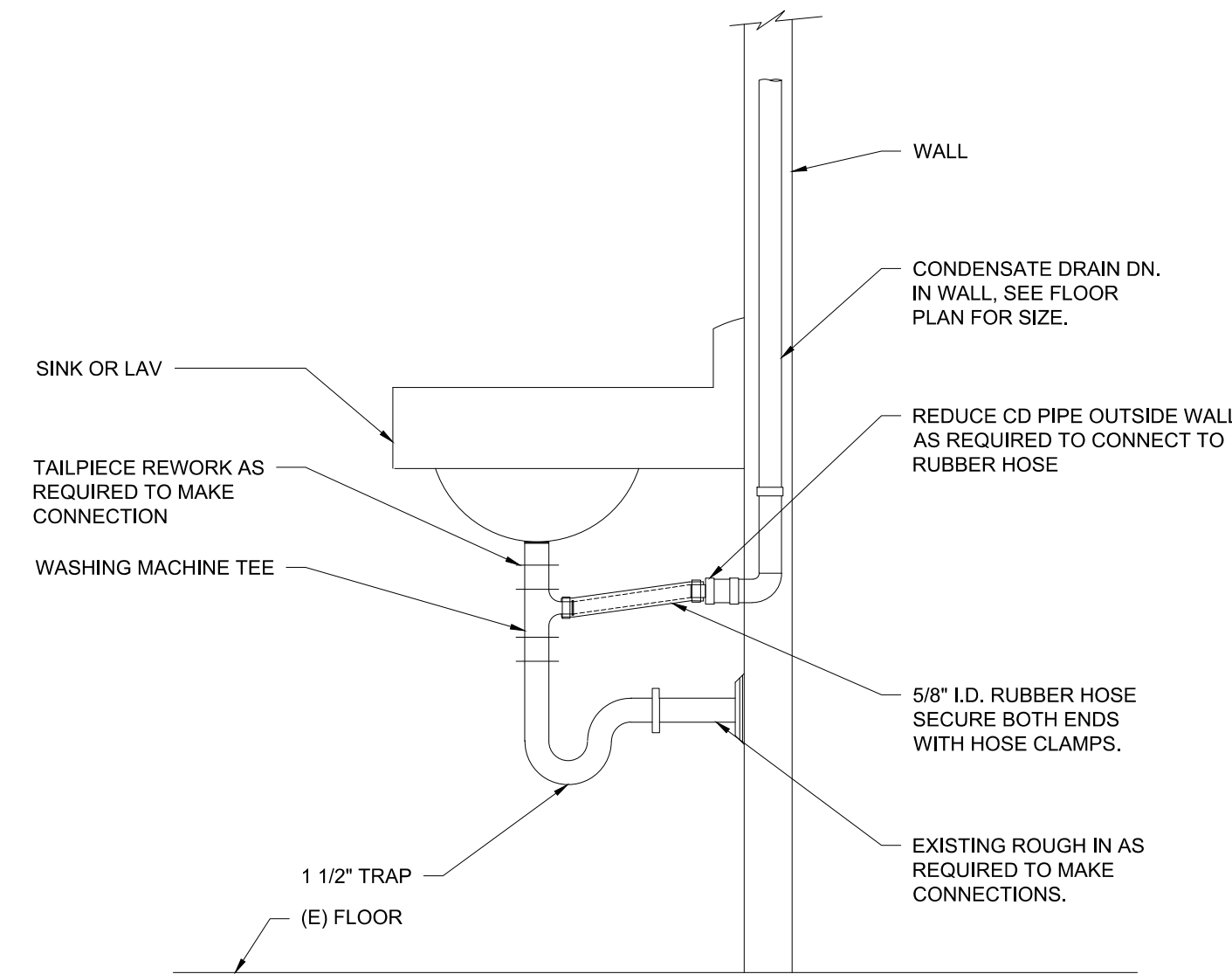


VENTILATION ABBREVIATION KEY	
ABBR:	DESCRIPTION:
D	CONDENSATE
EA	EXHAUST/RELIEF AIR
EG	EXHAUST GRILLE
EF	EXHAUST FAN
HP	HEAT PUMP
L	LOUVERS
OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
SG	SUPPLY GRILLE
SS	SPLIT SYSTEM
TYP	TYPICAL
UH	UNIT HEATER

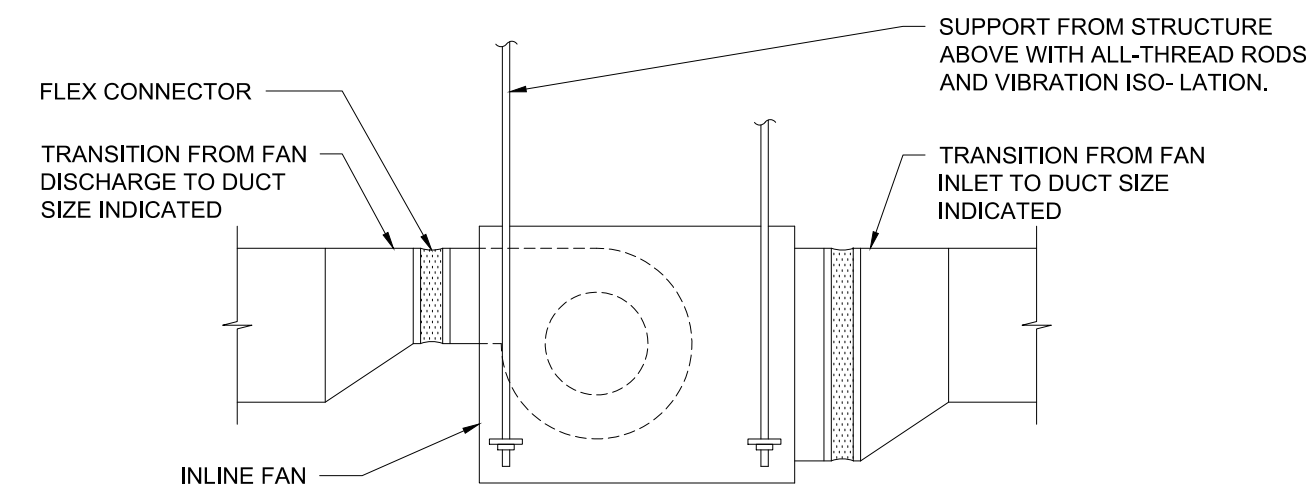
VENTILATION SYMBOL LIST	
NOT ALL SYMBOLS MAY APPLY.	
SYMBOL:	DESCRIPTION:
	MANUAL VOLUME DAMPER
	MOTORIZED DAMPER
	DUCT DOWN
	DUCT UP
	SUPPLY/OUTSIDE AIR DUCT SECTION
	RETURN AIR DUCT SECTION
	EXHAUST/RELIEF AIR DUCT SECTION
SG-1 6/115	AIR TERMINAL PROPERTIES SYMBOL NECK SIZE/CFM
	THERMOSTAT/SENSOR

MECHANICAL GENERAL NOTES:-

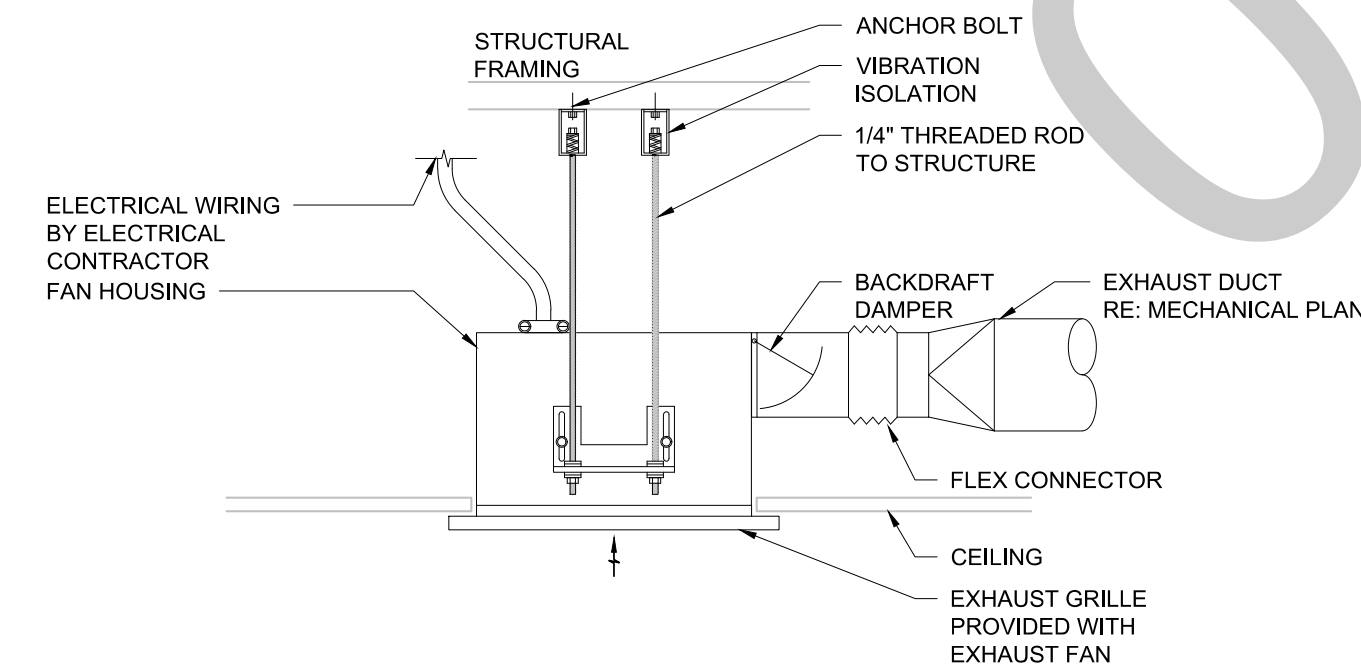
- ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES WHEN IN CLOSE PROXIMITY TO EACH OTHER.
- REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND PROVIDE PROPER ACCESS AND CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE.
- SEAL ALL FLOOR, WALL AND ROOF PENETRATIONS AIRTIGHT WHERE DUCT PENETRATE.
- EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, DUCTWORK ETC.
- MANUFACTURER SHOWN IN SCHEDULE IS BASIS OF DESIGN.
- DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARD.
- COORDINATE DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND EQUIPMENT OF ALL TRADES.
- ALL DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- DAMPERS AND INSIDES OF DUCT VISIBLE THROUGH GRILLES, REGISTERS AND DIFFUSERS SHALL BE PAINTED FLAT BLACK.
- CONDENSATE DRAIN FROM ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED FOR PROPER DRAINAGE TO SUIT EQUIPMENT FURNISHED.
- ALL DUCTWORK SHOWN ARE SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS ETC, TO ALLOW SMOOTH FLOWS.
- VERIFY FINISH WITH ARCHITECT PRIOR TO PURCHASING GRILLES, REGISTERS, DIFFUSER AND OTHER AIR DISTRIBUTION DEVICES.
- ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
- EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
- REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAIL AS APPLICABLE TO THE HVAC SYSTEM.
- BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS NOTED OTHERWISE.



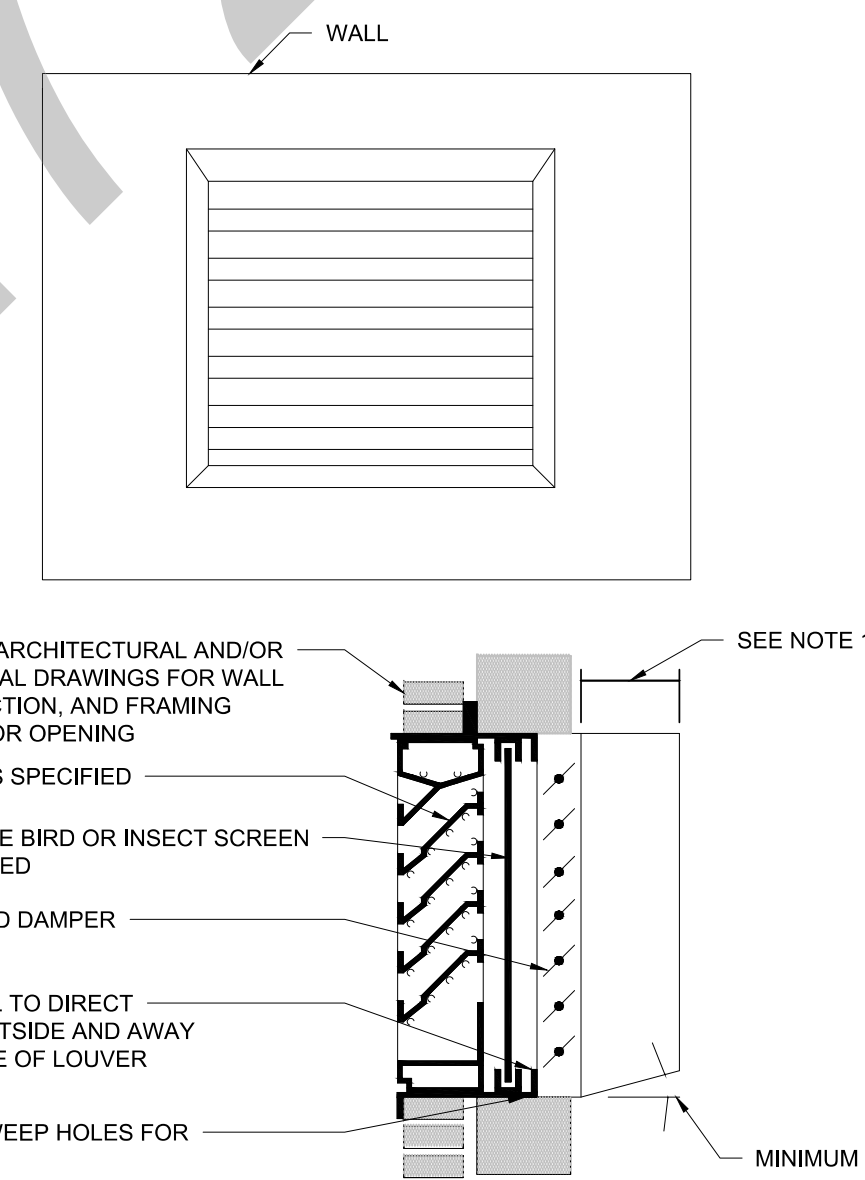
1 CONDENSATE DRAIN CONNECTION TO TAILPIECE
M100 SCALE: NTS



2 INLINE FAN DETAIL
M100 SCALE: NTS



3 CEILING MOUNT EXHAUST FAN DETAIL
M100 SCALE: NTS



- NOTES:
1. MINIMUM DEPTH OF PLENUM SHALL BE 2\"/>

4 AIR INTAKE LOUVER DETAIL
M100 SCALE: NTS

APPLICABLE CODES	
EDITION	CODES
2018	INTERNATIONAL MECHANICAL CODE (IMC)
2018	INTERNATIONAL PLUMBING CODES (IPC)
2018	INTERNATIONAL ENERGY CONSERVATION CODE (IECC)

MECHANICAL SHEET INDEX	
SHEET NUMBER	SHEET NAME
M100	MECHANICAL COVER SHEET AND DETAILS
M101	FIRST FLOOR - MECHANICAL PLAN
M102	SECOND FLOOR - MECHANICAL PLAN
M201	MECHANICAL SCHEDULES

SEAL & SIGNATURE:

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REV.	DATE	DESCRIPTION
0	03/26/2021	ISSUED FOR APPROVAL

CLIENT:

PROJECT:
CANINE TRAINING

ADDRESS:
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COUNTY OF ADAMS,
STATE OF COLORADO

PROJECT NUMBER:
AE# 1282
PAPER SIZE: 24X36
DESIGNED BY: DEE
DRAWN BY: DEE
CHECKED BY: DEE

DRAWING TITLE:
MECHANICAL COVER SHEET AND DETAILS

DRAWING NO:
M100

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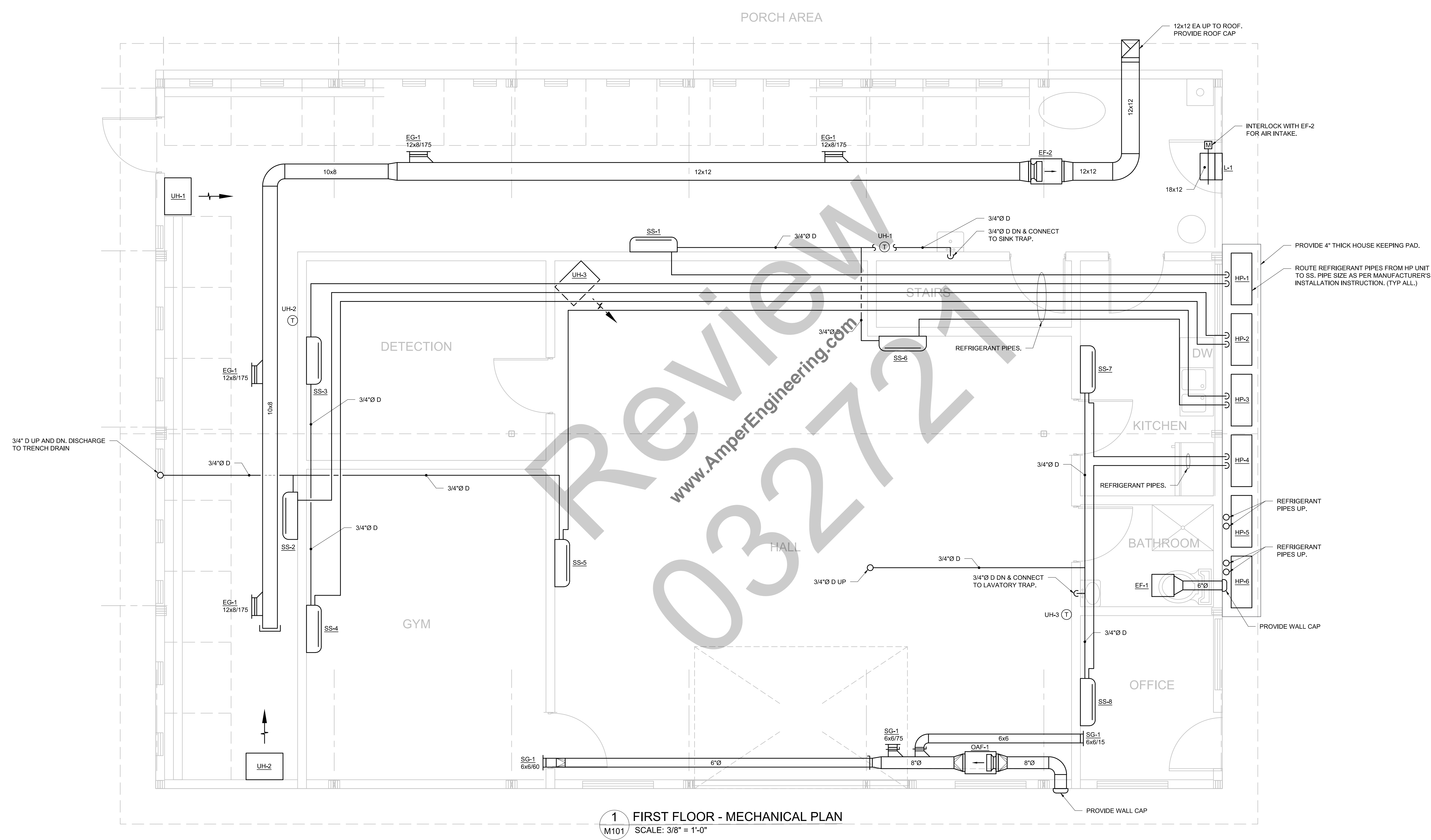
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DRAWING TITLE:
FIRST FLOOR - MECHANICAL PLAN

DRAWING NO:
M101



1 FIRST FLOOR - MECHANICAL PLAN
 M101 SCALE: 3/8" = 1'-0"

SEAL & SIGNATURE:

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 PROFESSIONAL ENGINEER.

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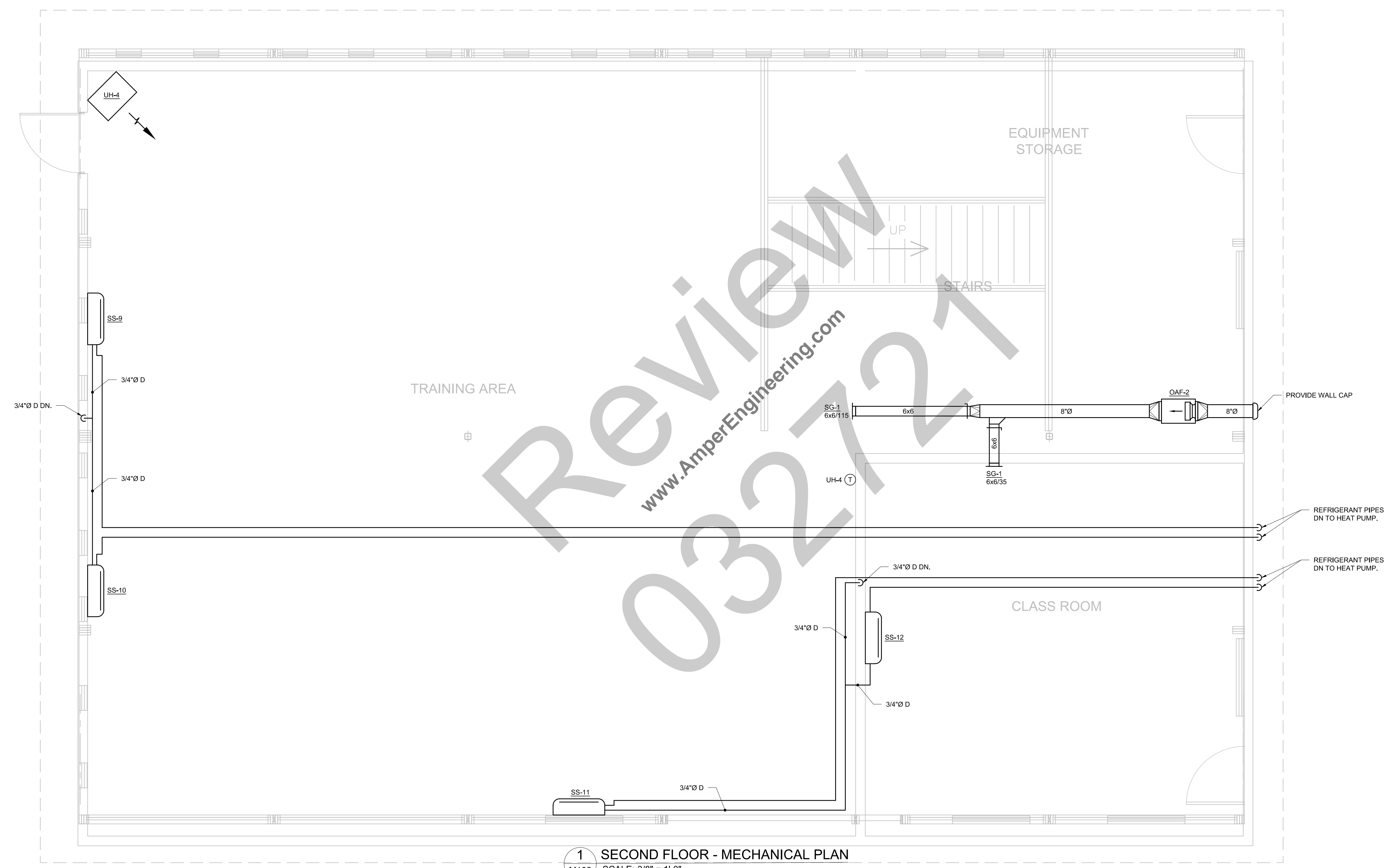
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 AE# 1282

PAPER SIZE: 24X36	DRAWN BY: DEE
DESIGNED BY: DEE	CHECKED BY: DEE

DRAWING TITLE:
**SECOND FLOOR -
 MECHANICAL PLAN**

DRAWING NO:
M102



Review
 032721
 www.AmperEngineering.com

1 SECOND FLOOR - MECHANICAL PLAN
 M102 SCALE: 3/8" = 1'-0"

FAN SCHEDULE										
SYMBOL	MANUFACTURER	MODEL	SERVICE LOCATION	CFM	S.P. IN. W.C.	FAN RPM	ELECTRICAL			
							MHP	WATT	VOLT-PHASE	DISCONNECT BY
EF-1	GREENHECK	SP-B110	BATHROOM	75	0.5	801	-	80	115-1	MFR
EF-2	GREENHECK	SQ-100-VG	KENNEL AREA	700	0.5	1276	0.25	-	115-1	MFR
OAF-1	GREENHECK	SQ-97-VG	GYM	150	0.5	1395	0.25	-	115-1	MFR
OAF-2	GREENHECK	SQ-97-VG	TRAINING	150	0.5	1395	0.25	-	115-1	MFR

LOUVER SCHEDULE										
SYMBOL	MANUFACTURER	MODEL	SIZE (W"xH")	CFM	FREE AREA VEL. (FPM)	MIN.FREE AREA (SF)	FINISH	MAX. VEL. (FPM)	MAX. P.D. (IN.W.C.)	NOTES
L-1	RUSKIN	ELF375DFL	24x12	500	675	0.56	TYPE-1	900	0.18	

FINISH TYPE:
 TYPE-1 ANODIZED. COLOR SELECTION BY ARCHITECT.
 TYPE-2 DURANODIC BRONZE. COLOR SELECTION BY ARCHITECT.
 TYPE-3 PVDF. COLOR SELECTION BY ARCHITECT.

GRILLES REGISTERS & DIFFUSERS SCHEDULE								
SYMBOL	MANUFACTURER	MODEL	MATERIAL	INLET SIZE (INCH)	FACE SIZE	MOUNTING LOCATION	FACE TYPE	NOTES
EG-1	TITUS	350R	STEEL	SEE DWG.	INLET +2	DUCT	35° DEFLECTION	1
SG-1	TITUS	350R	STEEL	SEE DWG.	INLET +2	DUCT	35° DEFLECTION	1

NOTES:
 1. ALL RUN OUT DUCTWORK TO DIFFUSERS SHALL BE NECK SIZE UNLESS OTHERWISE NOTED.

HEAT PUMP SCHEDULE								
TAG	SERVICE	MANUFACTURER	MODEL	TON	ELECTRICAL			
					VOLT-PH	MCA	MOC	MOC
HP-1	SS-1, SS-3	DAIKIN	MXZ-2C20NA2	1.5	208-1	17.2	20	20
HP-2	SS-2, SS-4	DAIKIN	MXZ-2C20NA2	1.5	208-1	17.2	20	20
HP-3	SS-5, SS-6	DAIKIN	MXZ-2C20NA2	1.5	208-1	17.2	20	20
HP-4	SS-7, SS-8	DAIKIN	MXZ-2C20NA2	1.5	208-1	17.2	20	20
HP-5	SS-9, SS-10	DAIKIN	MXZ-2C20NA2	1.5	208-1	17.2	20	20
HP-6	SS-11, SS-12	DAIKIN	MXZ-2C20NA2	1.5	208-1	17.2	20	20

SPLIT SYSTEM SCHEDULE								
TAG	MANUFACTURER	MODEL	BTU	CFM	AMBIENT TEMP (°F)	ELECTRICAL		
						VOLT-PH	MCA	MOC
SS-1	DAIKIN	MSZ-GL15NA-U1	14000	533	95	208-1	1	1
SS-2	DAIKIN	MSZ-GL15NA-U1	14000	533	95	208-1	1	1
SS-3	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-4	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-5	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-6	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-7	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-8	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-9	DAIKIN	MSZ-GL15NA-U1	14000	533	95	208-1	1	1
SS-10	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-11	DAIKIN	MSZ-GL09NA-U1	9000	399	95	208-1	1	1
SS-12	DAIKIN	MSZ-GL15NA-U1	14000	533	95	208-1	1	1

UNIT HEATER SCHEDULE								
TAG	MANUFACTURER	MODEL	MBH	CFM	TEMP. RISE	ELECTRICAL		
						VOLT-PH	MCA	MOC
UH-1	LENNOX	LF25-60	60	1,950	62	115-1	5	15
UH-2	LENNOX	LF25-60	60	1,950	62	115-1	5	15
UH-3	LENNOX	LF25-60	60	1,950	62	115-1	5	15
UH-4	LENNOX	LF25-60	60	1,950	62	115-1	5	15

NOTES:
 1. DIRECT PLUG-IN TYPE.

OUTSIDE AIR CAL - 2018							
ROOM NAME	SQ.FT	PEOPLE	CFM/SQFT	CFM/PERSON	TOTAL CFM/SQFT	TOTAL CFM/PERSON	TOTAL CFM
KENNEL AREA	773	8	0.18	7.5	139.14	60	199.14
TOTAL OUTSIDE AIR REQUIRED							199.14
TOTAL OUTSIDE AIR PROVIDED							500

OUTSIDE AIR CAL - 2018							
ROOM NAME	SQ.FT	PEOPLE	CFM/SQFT	CFM/PERSON	TOTAL CFM/SQFT	TOTAL CFM/PERSON	TOTAL CFM
GYM	237	2	0.18	7.5	42.66	15	57.66
OFFICE	71	1	0.06	5	4.26	5	9.26
HALL	805	0	0.06	0	48.3	0	48.3
TOTAL OUTSIDE AIR REQUIRED							115.22
TOTAL OUTSIDE AIR PROVIDED							150

OUTSIDE AIR CAL - 2018							
ROOM NAME	SQ.FT	PEOPLE	CFM/SQFT	CFM/PERSON	TOTAL CFM/SQFT	TOTAL CFM/PERSON	TOTAL CFM
TRAINING ROOM	1558	4	0.06	5	93.48	20	113.48
CLASSROOM	376	2	0.06	5	22.56	10	32.56
TOTAL OUTSIDE AIR REQUIRED							146.04
TOTAL OUTSIDE AIR PROVIDED							150

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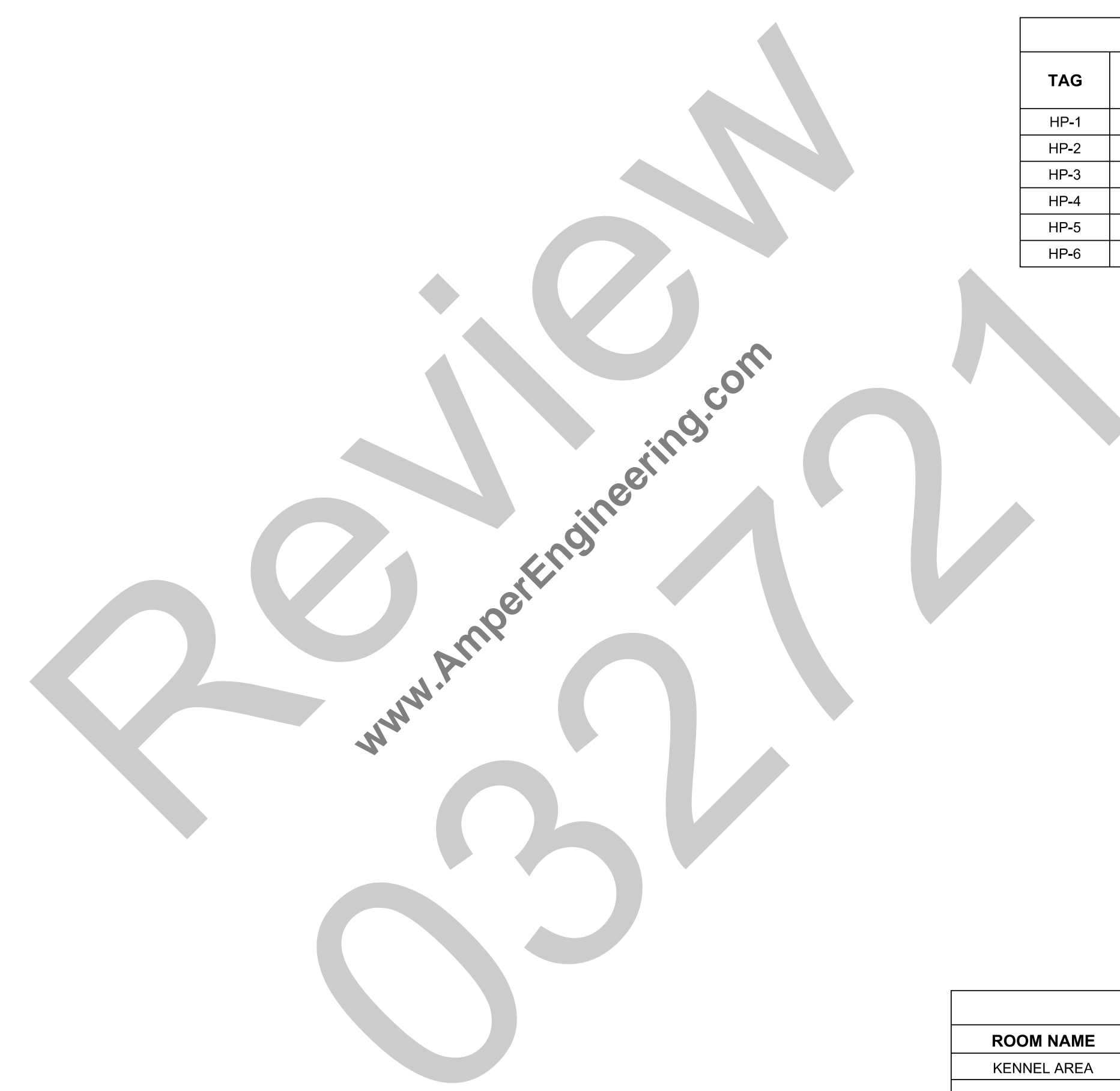
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MECHANICAL SCHEDULE

DRAWING NO:
M201



GENERAL NOTES:

- THIS DESIGN MAY BE USED FOR SECURING PERMITS, BID, PLANNING, THE COMPANY'S REVIEW OR SOME OTHER GOAL. THIS DESIGN DOES NOT GUARANTEE THESE APPROVALS, NOR ARE THESE APPROVALS A REQUIREMENT FOR SERVICES OR THE COMPLETION OF THIS WORK.
- THIS DESIGN IS NOT A COMPLETE SET OF CONSTRUCTION DRAWING OR SHOP DRAWINGS. THIS DESIGN REPRESENTS DIAGRAMMATIC REPRESENTATION OF INTENTED SCOPE OF WORK.
- THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE, NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
- ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE NATIONAL ELECTRICAL CODE, IECC, LIFE SAFETY CODE, LOCAL BUILDING CODE, OSHA REGULATIONS, OCAI, STATE, FEDERAL AND AUTHORITY HAVING JURISDICTION CODES APPLICABLE AT THE TIME OF THE CONSTRUCTION.
- GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1 STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION (ANSI)
- ALL MATERIALS PROVIDED BY THE CONTRACTOR SHALL BE NEW AND FREE OF DEFECTS, LISTED/LABELED FOR THE INTENDED PURPOSE BY UNDERWRITERS (UL) OR OTHER ORGANIZATION THAT IS ACCEPTABLE TO THE AHJ.
- THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS ARE INTENDED TO DESCRIBE AND ILLUSTRATE SYSTEMS WHICH WILL NOT INTERFERE WITH THE STRUCTURE OF THE BUILDING AND WHICH WILL FIT INTO THE AVAILABLE SPACES. THE CONTRACTOR IS RESPONSIBLE FOR CAREFULLY LAYING OUT ALL WORK TO CONFORM TO NATIONAL ELECTRICAL CODE CLEARANCES, ARCHITECTURAL, STRUCTURAL, MECHANICAL AND SITE CONDITIONS. TO AVOID OBSTRUCTIONS AND TO ALLOW THE PROPER INSTALLATION OF EACH ITEM.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE WITH DRAWINGS OF OTHER TRADES TO FIT THE ACTUAL SPACE CONDITIONS, HEADROOM AND SPACE CONDITION TO BE MAINTAINED.
- THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATION AND DETAILS OF THE WORK TO BE INSTALLED.
- UPON THE COMPLETION OF THE WORK, THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED AND SHALL BE SHOWN TO BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL SYSTEM READY FOR OPERATION AND INSPECTION BY AHJ.
- TEST AND INSPECT ALL WIRING AND EQUIPMENT INSTALLED UNDER THIS SECTION OF SPECIFICATIONS. ALL WIRING MUST BE FREE SHORTS AND BROKEN WIRE. LEAVE ALL MATERIALS AND APPARATUS IN PROPER AND SATISFACTORY WORKING CONDITIONS.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CORRECT PHASE SEQUENCE OF ALL THREE-PHASE FEEDERS AND BRANCH CIRCUITS. VERIFY PROPER ROTATION OF ALL MOTORS.
- CONDUIT RUNS WHEN SHOWN ARE DIAGRAMMATIC. FINAL LOCATION AND ROUTING SHALL BE ESTABLISHED BY THE CONTRACTOR BASED ON THE INSTALLATION CONDITIONS AND SHALL BE REFLECTED IN THE FIELD. ALL CONDUIT TYPES AND INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONDUIT RUNS SHALL BE PARALLEL WITH OR AT RIGHT ANGLES TO WALLS AND CEILING. CONDUIT SHALL BE SUPPORTED BY APPROVED MEANS. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A DRAG WIRE.
- PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.
- THE USE OF FLEXIBLE CONDUIT FROM LIGHTING FIXTURES TO JUNCTION BOX IS PERMITTED ONLY WHEN A SEPARATE GROUND WIRE IS INSTALLED WITH THE CONDUCTORS INSIDE FLEXIBLE CONDUIT. THE GROUND WIRE MUST BOND THE FIXTURE HOUSING TO THE JUNCTION BOX. MAXIMUM LENGTH SHALL BE 6'-0".
- FLEXIBLE CONDUIT INSTALLED OUT OF DOORS, IN ANY MECHANICAL EQUIPMENT ROOMS, OR IN NORMALLY WET AREAS SHALL BE LIQUID TIGHT FLEX WITH SUITABLE FITTINGS.
- PROVIDE CONDUIT, WIRING, CIRCUITING AND REQUIRED CONNECTIONS TO ALL DEVICES, FIXTURES AND EQUIPMENT. CONNECT TO CIRCUITS AS INDICATED. CIRCUIT NUMBERS ARE FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED IN THE PANEL SCHEDULE DIRECTORY AND ON THE AS-BUILT DRAWINGS.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL MOUNTING HEIGHTS OF ALL DEVICES MOUNTED IN CASEWORK OR IN ABOVE COUNTERS WITH EXISTING EQUIPMENT.
- UNLESS SPECIFICALLY DIRECTED OTHERWISE, FURNISH AND INSTALL EACH AND EVERY ITEM CONTAINED IN AND ASSOCIATED WITH, THE WORK INVOLVED AS SHOWN ON THE DRAWINGS AND/OR DESCRIBED IN THE ACCOMPANYING SPECIFICATIONS. TOGETHER WITH ALL APPURTENANCES, COMPONENTS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. CONTRACTOR SHALL PROVIDE CONDUIT, WIRING AND CABLE TO ALL DEVICES, FIXTURES AND ETC. FOR A COMPLETE WORKING SYSTEM BASED ON THE CIRCUITS NOTED.
- PROVIDE INDEPENDENT SUPPORT FOR DISCONNECT SWITCHES, CONTROL STATIONS, BOXES, PANELS, ETC. WHERE NO WALLS OR OTHER STRUCTURAL SURFACE EXISTS.
- EQUIPMENT SIZED AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT FURNISHED.
- PROVIDE BRANCH CIRCUIT WIRING TO ALL ITEMS REQUIRING ELECTRICAL CONNECTIONS. WHERE BRANCH CIRCUIT WIRING IS NOT SHOWN, CONNECT ITEMS TO CIRCUITS INDICATED. THE CONTRACTOR SHALL DETERMINE EXACT ROUTING OF CONDUITS AND WIRING. UNLESS INDICATED OTHERWISE, ALL BRANCH CIRCUITS SHALL BE MINIMUM #12 AWG.
- PROVIDE JUNCTION BOX FOR ANY DEVICE WITH PIG TAIL SUCH AS SOLENOID VALVES, LIMIT SWITCHES, SMOKE DETECTORS AND ETC. FOR PROPER ELECTRICAL CONNECTION. PROVIDE ALL HARDWARE FOR MOUNTING OF JUNCTION BOX.
- EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS. COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTORS.
- WHEREVER THE INSTALLATION OF ELECTRICAL EQUIPMENT AS SHOWN ON THE DRAWINGS IS IMPRACTICAL DUE TO LOCAL INTERFERENCE OR UNFORESEEN FIELD CONDITIONS, THE CONTRACTOR SHALL INSTALL THE EQUIPMENT AT NEW LOCATIONS AS DIRECTED BY THE ENGINEER.
- DESIGN IS BASED ON ALL CONDUCTORS TO BE THHN COPPER AND NO MORE THAN 4 CURRENT CARRYING CONDUCTORS IN THE SAME RACEWAY OR CONDUIT, UNLESS OTHERWISE NOTED.
- WHEN EQUIPMENT IS BEING REMOVED/DEMO FROM THE FIELD, ALL WIRING ASSOCIATED WITH THE LOAD MUST BE REMOVED FROM THE JUNCTION BOX OR THE CIRCUIT BREAKER. DO NOT LEAVE UNUSED CONDUCTORS IN THE FIELD WITH ENDS TAPED WITH TAPE OR WIRE NUTS.
- PROVIDE DISCONNECT SWITCHES FOR ELECTRICAL HEATER, HVAC EQUIPMENT AND EXHAUST FANS WITHIN EYE SIGHT OF THE EQUIPMENT.
- PROVIDE SERVICE RECEPTACLE WITHIN 25 FEET OF EACH HVAC EQUIPMENT.

<p>TYPICAL FOR ALL RECEPTACLES, OUTLETS, JUNCTION BOXES AND EQUIPMENT. NUMBER DENOTES PANEL CIRCUIT NUMBER.</p> <p>AFCI - ARC FAULT CIRCUIT INTERRUPTER GFCI - GROUND FAULT INTERRUPTER SS - SURGE SUPPRESSION TYPE IG - ISOLATED GROUND TYPE. WP - WEATHERPROOF</p> <p> FLOOR JUNCTION BOX</p> <p> WALL MOUNTED JUNCTION BOX</p> <p> JUNCTION BOX, SIZE AND MOUNT AS REQUIRED</p> <p> ELECTRIC MOTOR NUMBER INDICATES HORSEPOWER</p> <p> SURFACE PANELBOARD LETTERS & NUMERALS INDICATE EQUIPMENT TAG</p> <p> RECESSED PANELBOARD LETTERS & NUMERALS INDICATE EQUIPMENT TAG</p> <p> ELECTRICAL PANEL LETTERS AND NUMBERS INDICATE PANELBOARD IDENTIFICATION TAG SEE PANEL SCHEDULE FOR DETAILS.</p> <p> HOMERUN CIRCUITS TO PANELBOARD, NUMBER OF ARROWS INDICATES NUMBER OF CIRCUIT HOMERUNS. 1 PH 120V</p> <p> FEEDER TAG WITH CONDUIT AND WIRE SIZE AND DATA</p> <p>INDICATES NEW EQUIPMENT/CONDUIT</p> <p>INDICATES EXISTING EQUIPMENT/CONDUIT</p> <p>INDICATES EXISTING EQUIPMENT/CONDUIT TO BE DEMOLISHED AND/OR REMOVED</p> <p> SWITCHED DUPLEX RECEPTACLE - ONE OUTLET SWITCHED LOWER CASE LETTER DENOTES DUPLEX RECEPTACLE</p> <p> SINGLE RECEPTACLE</p> <p> SPECIAL RECEPTACLE AMPERE AND VOLTAGE RATING AS INDICATED ON DRAWING</p> <p> DUPLEX RECEPTACLE - FLOOR MOUNTED</p> <p> QUAD RECEPTACLE - FLOOR MOUNTED</p> <p> CEILING MOUNTED DUPLEX RECEPTACLE</p> <p> UTILITY COMPANY METER AND METER PAN AS REQUIRED</p> <p> LED COMMERCIAL DOWNLIGHT</p> <p> EMERGENCY LIGHT</p>	<p>FOR ALL DISTRIBUTION EQUIPMENT.</p> <p>GFP - GROUND FAULT PROTECTION ST - SHUNT TRIP LSIG - LONG TIME, SHORT TIME INSTANTANEOUS AND GROUND FAULT PROTECTION FUNCTIONS 100% - 100% RATED EQUIPMENT.</p> <p> ELECTRIC OPERATED DEVICE</p> <p> ELECTRONIC TRIP TYPE DEVICE</p> <p> CIRCUIT BREAKER</p> <p> THERMAL MAGNETIC CIRCUIT BREAKER TOP NUMBER DENOTES TRIP AMPERE RATING BOTTOM NUMBER DENOTES FRAME SIZE AMPERE RATING #P - DENOTES NUMBER OF POLES</p> <p> UNFUSED DISCONNECT SWITCH, NUMBER DENOTES SWITCH AMPERE RATING #P - DENOTES NUMBER OF POLES</p> <p> FUSED DISCONNECT SWITCH TOP OR FIRST NUMBER DENOTES SWITCH AMPERE RATING BOTTOM OR SECOND NUMBER DENOTES AMPERE FUSE RATING #P - DENOTES NUMBER OF POLES</p> <p><u>LIGHTING:</u></p> <p>TYPICAL FOR ALL LIGHTING FIXTURES. CAPITAL LETTER DENOTES FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION, TYPE, AND DETAILS.</p> <p>NUMBER DENOTES BRANCH CIRCUIT NUMBER AT RESPECTIVE LIGHTING PANELBOARD, LOWER CASE LETTER DENOTES SWITCHED CIRCUIT.</p> <p> SINGLE POLE SWITCH</p> <p> DOUBLE POLE SWITCH</p> <p> THREE-WAY SWITCH</p> <p> FOUR-WAY SWITCH</p> <p> SINGLE POLE KEY SWITCH</p> <p> THREE WAY KEY SWITCH</p> <p> SINGLE POLE SWITCH WITH PILOT LIGHT</p> <p> DIMMING SWITCH</p> <p> OCCUPANCY SENSOR TYPE SWITCH</p> <p> THREE WAY DIMMING SWITCH</p> <p> MANUAL MOTOR TOGGLE TYPE STARTER WITH INTEGRAL THERMAL OVERLOAD HEATER</p> <p> EXIT LIGHT</p> <p> EXIT SIGN</p> <p> MOTION SENSOR</p> <p> PHOTOCELL</p> <p> OCCUPANCY SENSOR</p> <p> TIME CLOCK</p> <p> LIGHTING CONTACTOR, NUMBER DENOTES CONTACTOR IDENTIFICATION TAG. SEE CONTACTOR SCHEDULE FOR NUMBER OF POLES AND DETAILS.</p> <p> GENERATOR REMOTE ANNUNCIATOR</p> <p> PADDLE FAN</p>	<p><u>ABBREVIATIONS:</u></p> <table border="0"> <tr><td>A</td><td>AMPERE</td><td>FXKT</td><td>FIXTURE</td><td>PP</td><td>POWER PANEL</td></tr> <tr><td>AFF</td><td>ABOVE FINISHED FLOOR</td><td>FL</td><td>FLOOR</td><td>PWR</td><td>POWER</td></tr> <tr><td>AFG</td><td>ABOVE FINISHED GRADE</td><td>FVNR</td><td>FULL VOLTAGE NON-REVERSING</td><td>RECEP</td><td>RECEPTACLE</td></tr> <tr><td>AFI</td><td>ARC FLASH INTERRUPTER</td><td>G</td><td>GROUND</td><td>REL</td><td>EXISTING TO BE RELOCATED</td></tr> <tr><td>AFCI</td><td>ARC FLASH CIRCUIT INTERRUPTER</td><td>GEN</td><td>GENERATOR</td><td>RVNR</td><td>REDUCED VOLTAGE, NON REVERSING</td></tr> <tr><td>ASYM</td><td>ASYMMETRICAL</td><td>GFCI</td><td>GROUND FAULT CIRCUIT INTERRUPTER</td><td>SH</td><td>SHIELDED CABLE</td></tr> <tr><td>ATS</td><td>AUTOMATIC TRANSFER SWITCH</td><td>GFI</td><td>GROUND FAULT INTERRUPTER</td><td>SP</td><td>SPARE</td></tr> <tr><td>AWG</td><td>AMERICAN WIRE GAUGE</td><td>HID</td><td>HIGH INTENSITY DISCHARGE</td><td>SS</td><td>SURGE SUPPRESSION</td></tr> <tr><td>BIL</td><td>BASIC IMPULSE LEVEL</td><td>HP</td><td>HORSE POWER</td><td>SWBD</td><td>SWITCHBOARD</td></tr> <tr><td>BKR</td><td>BREAKER BLDG BUILDING</td><td>IC</td><td>INTERERRUPTING CAPACITY</td><td>SWGR</td><td>SWITCHGEAR</td></tr> <tr><td>CAT</td><td>CATALOG</td><td>JB</td><td>JUNCTION BOX</td><td>SYM</td><td>SYMMETRICAL</td></tr> <tr><td>CB</td><td>CIRCUIT BREAKER</td><td>KV</td><td>KILOVOLT</td><td>TYP</td><td>TYPICAL</td></tr> <tr><td>CCTV</td><td>CLOSED CIRCUIT TELEVISION</td><td>KVA</td><td>KILOVOLT AMPERE</td><td>UNON</td><td>UNLESS OTHERWISE NOTED</td></tr> <tr><td>CKT</td><td>CIRCUIT</td><td>KW</td><td>KILOWATT</td><td>V</td><td>VOLT OR VOLTAGE</td></tr> <tr><td>CL</td><td>CENTER LINE</td><td>KWH</td><td>KILOWATT HOUR</td><td>VA</td><td>VOLT AMPERE</td></tr> 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CIRCUIT TELEVISION	KVA	KILOVOLT AMPERE	UNON	UNLESS OTHERWISE NOTED	CKT	CIRCUIT	KW	KILOWATT	V	VOLT OR VOLTAGE	CL	CENTER LINE	KWH	KILOWATT HOUR	VA	VOLT AMPERE	CLG	CEILING	LCP	LOCAL CONTROL PANEL	VFD	VARIABLE FREQUENCY DRIVE	CNTL	CONTROL	LIS	LOAD INTERRUPTER SWITCH	WHM	WATT HOUR METER	CO	CONDUIT ONLY	LP	LIGHTING PANEL	WP	WEATHERPROOF	CPT	CONTROL POWER TRANSFORMER	LTG	LIGHTING	WW	WIREWAY	CT	CURRENT TRANSFORMER	MAX	MAXIMUM	XFMR	TRANSFORMER	CU	COPPER	MCC	MOTOR CONTROL CENTER			CUH	CABINET UNIT HEATER	MCS	MOLDED CASE SWITCH			D	DEMOLISH	MDP	MAIN DISTRIBUTION PANEL			DIA	DIAMETER	MIN	MINIMUM			DISC	DISCONNECT	MSB	MAIN SWITCHBOARD			DN	DOWN	MSG	MAIN SWITCHGEAR			DP	DISTRIBUTION PANEL BOARD	MTS	MANUAL TRANSFER SWITCH			DWG	DRAWING	NA	NON-AUTOMATIC			EC	EMPTY CONDUIT	NC	NORMALLY CLOSED			EL	ELEVATION	NEC	NATIONAL ELECTRIC CODE			ELEC	ELECTRICAL	NIC	NOT IN CONTRACT			EQUIP	EQUIPMENT	NO	NORMALLY OPEN			ER	EXISTING TO REMAIN	NTS	NOT TO SCALE			EXIST	EXISTING	P	POLE			FA	FIRE 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SEAL & SIGNATURE:

NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

0 03/26/2021 ISSUED FOR APPROVAL
 REV. DATE DESCRIPTION

CLIENT:

PROJECT:

CANINE TRAINING

ADDRESS:
 P
 COUNTY OF ADAMS,
 STATE OF COLORADO

PROJECT NUMBER:
AE# 1282

PAPER SIZE: 24X36	DRAWN BY: DEE
DESIGNED BY: DEE	CHECKED BY: DEE

DRAWING TITLE:
ELECTRICAL COVER SHEET

DRAWING NO:
E000

SEAL & SIGNATURE:

NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

REV.	DATE	DESCRIPTION
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PROJECT:
CANINE TRAINING

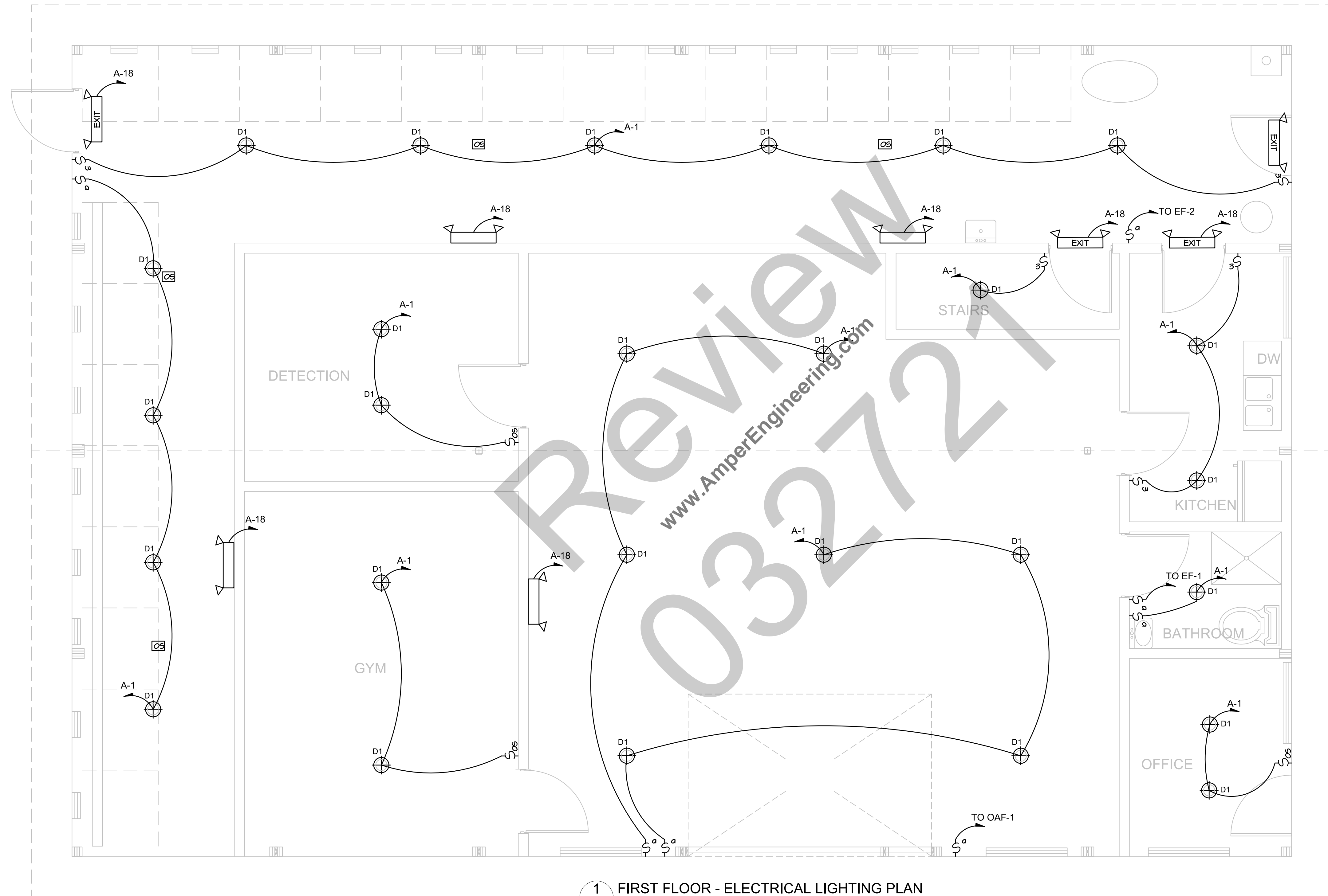
ADDRESS:
 P
 COUNTY OF ADAMS,
 STATE OF COLORADO

PROJECT NUMBER:
 AE# 1282

PAPER SIZE: 24X36	DRAWN BY: DEE
DESIGNED BY: DEE	CHECKED BY: DEE

DRAWING TITLE:
FIRST FLOOR - ELECTRICAL LIGHTING PLAN

DRAWING NO:
E101



1 FIRST FLOOR - ELECTRICAL LIGHTING PLAN
 E101 SCALE: 3/8" = 1'-0"

SEAL & SIGNATURE:

NO ALTERATION PERMITTED
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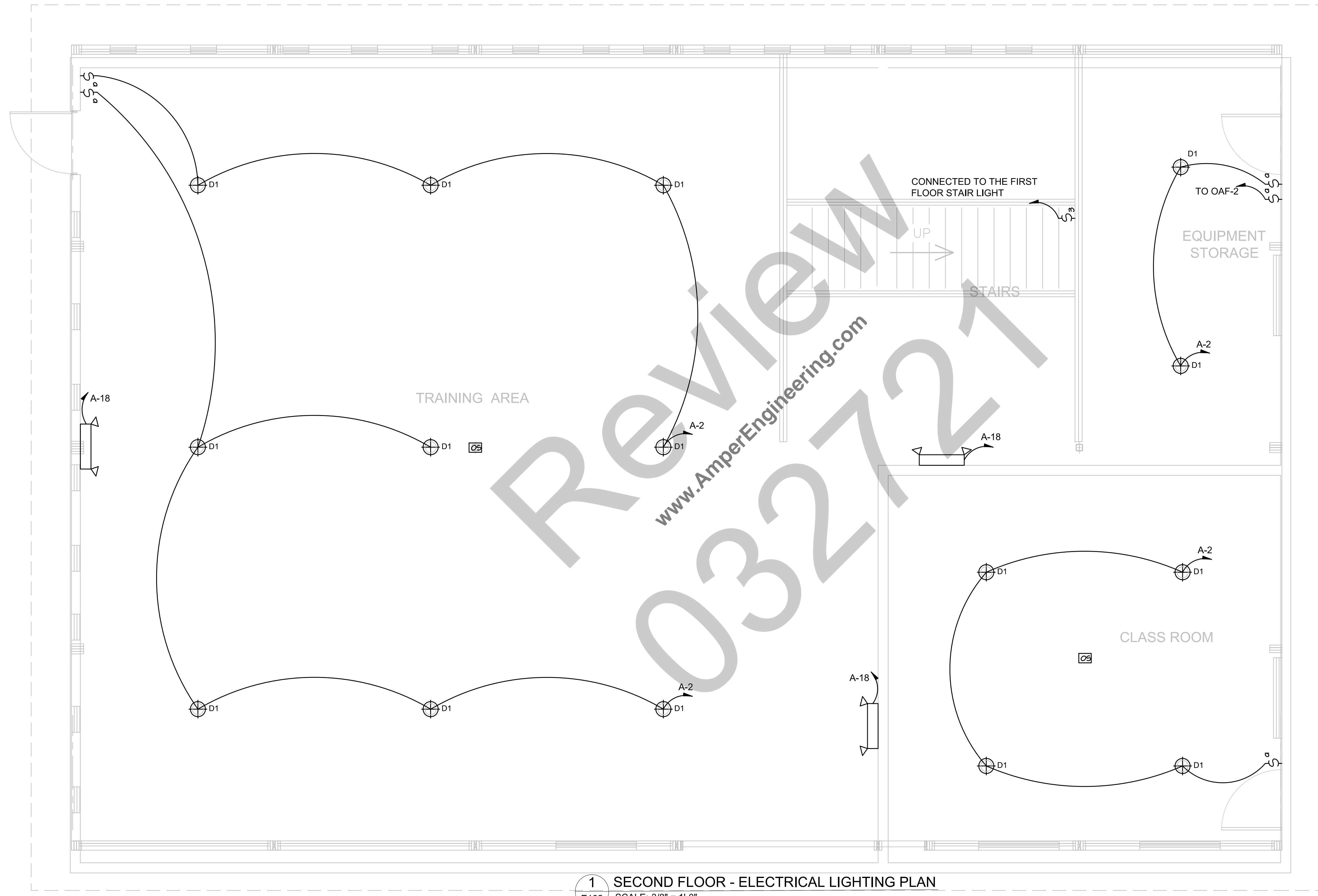
PROJECT NUMBER:
 AE# 1282

PAPER SIZE: 24X36	DRAWN BY: DEE
DESIGNED BY: DEE	CHECKED BY: DEE

DRAWING TITLE:
**SECOND FLOOR -
 ELECTRICAL LIGHTING
 PLAN**

DRAWING NO.:

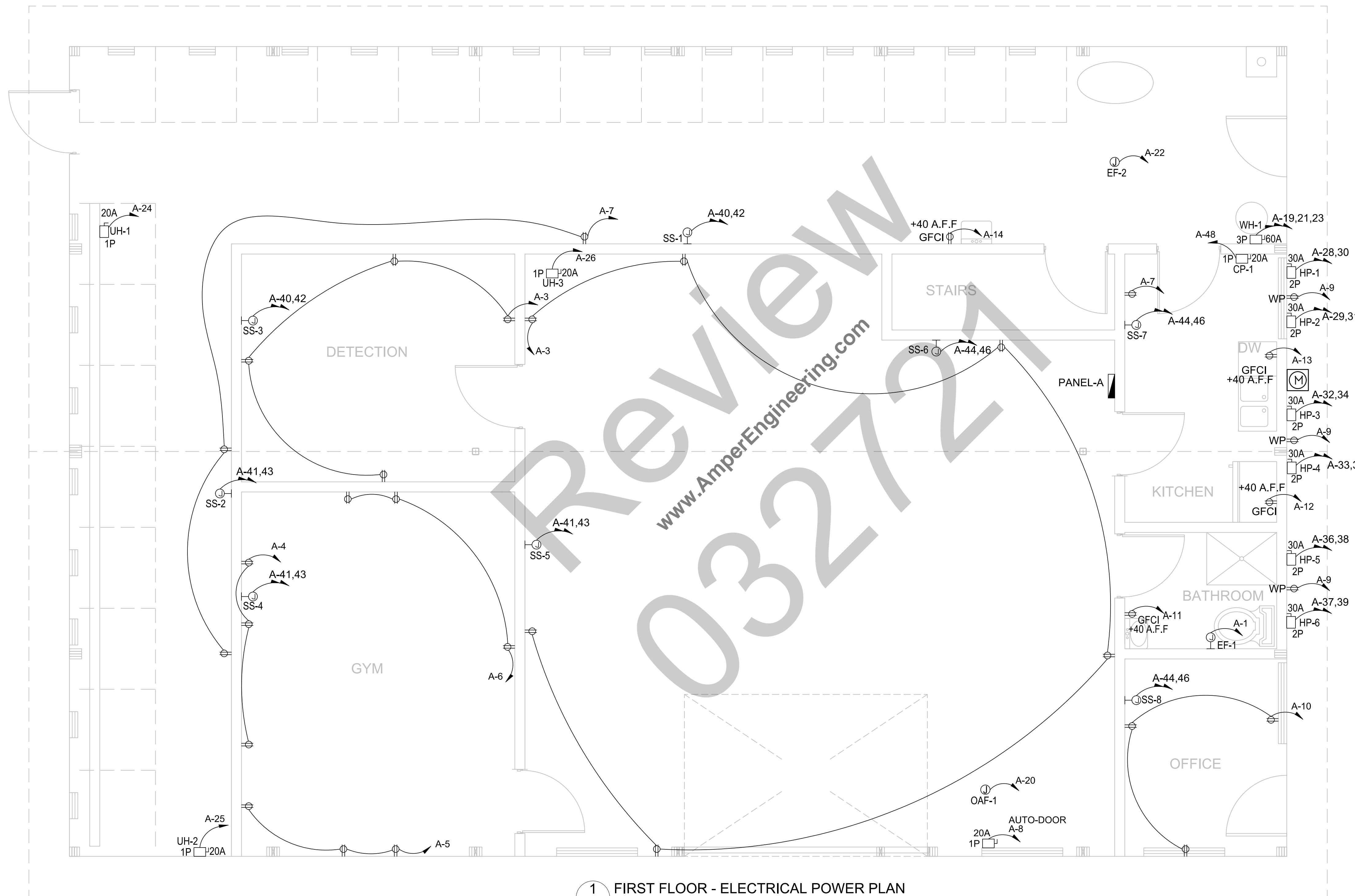
E102



1 SECOND FLOOR - ELECTRICAL LIGHTING PLAN
 E102 SCALE: 3/8" = 1'-0"

GENERAL NOTES: #

1. CONTRACTOR TO PROVIDE MINIATURE OCPD OR DISCONNECT SWITCH TO ISOLATE SS.



1 FIRST FLOOR - ELECTRICAL POWER PLAN
E201 SCALE: 3/8" = 1'-0"

SEAL & SIGNATURE:

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0 03/26/2021 ISSUED FOR APPROVAL
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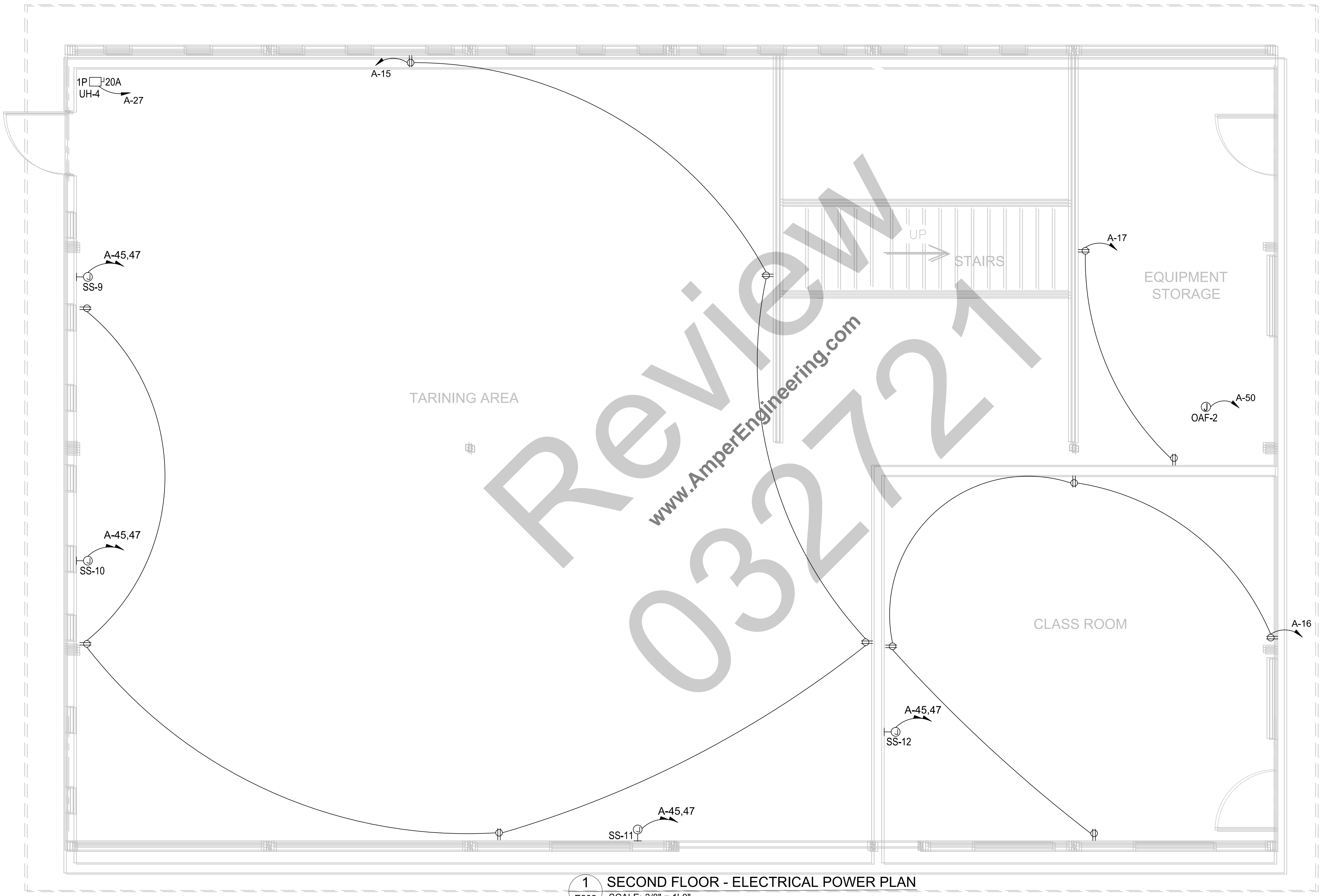
PROJECT NUMBER:
 AE# 1282
 PAPER SIZE: 24X36
 DESIGNED BY: DEE
 DRAWN BY: DEE
 CHECKED BY: DEE

DRAWING TITLE:
FIRST FLOOR - ELECTRICAL POWER PLAN

DRAWING NO:
E201

GENERAL NOTES: #

1. CONTRACTOR TO PROVIDE MINIATURE OCPD OR DISCONNECT SWITCH TO ISOLATE SS.



1 SECOND FLOOR - ELECTRICAL POWER PLAN
E202 SCALE: 3/8" = 1'-0"

SEAL & SIGNATURE:

NO ALTERATION PERMITTED
 EXCEPT AS PROVIDED UNDER
 DIRECTION OF A LICENSED
 PROFESSIONAL ENGINEER.

REV.	DATE	DESCRIPTION
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CLIENT:

PROJECT:
CANINE TRAINING
 ADDRESS:
 P
 COUNTY OF ADAMS,
 STATE OF COLORADO

PROJECT NUMBER:
 AE# 1282
 PAPER SIZE: 24X36
 DESIGNED BY: DEE
 DRAWN BY: DEE
 CHECKED BY: DEE

DRAWING TITLE:
**SECOND FLOOR -
 ELECTRICAL POWER
 PLAN**

DRAWING NO:
E202

SEAL & SIGNATURE:

NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

REV.	DATE	DESCRIPTION
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PROJECT:
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ADDRESS:
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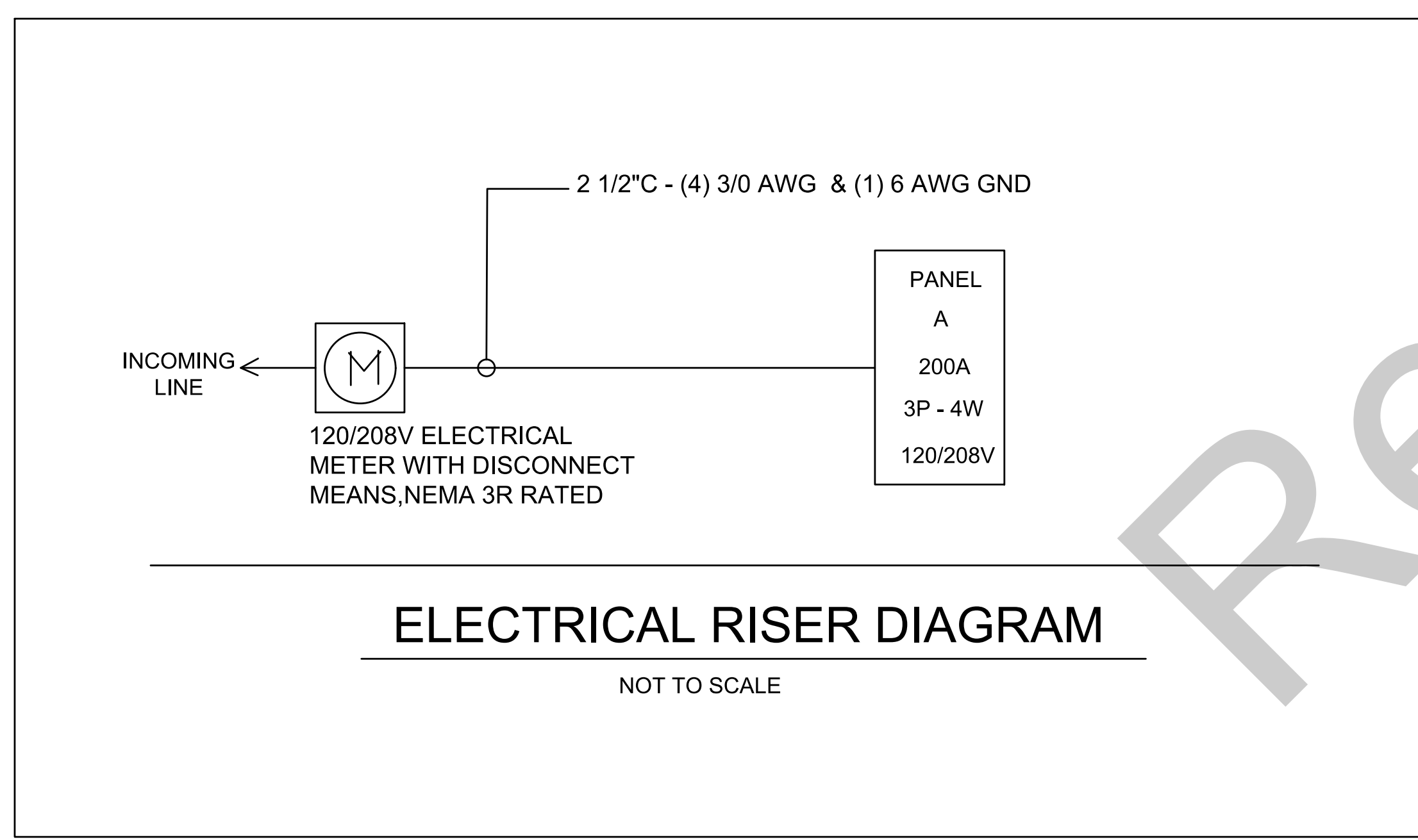
PROJECT NUMBER:
AE# 1282

PAPER SIZE: 24X36	DRAWN BY: DEE
DESIGNED BY: DEE	CHECKED BY: DEE

DRAWING TITLE:
ELECTRICAL LIGHTING FIXTURE SCHEDULE & RISER DIAGRAM

DRAWING NO:
E301

THE HILLS EXPERIENCE - LIGHTING FIXTURE SCHEDULE										
SYMBOL	TYPE	DESCRIPTION	LOCATION	LAMP/POWER	WATT	REMARKS	1st Floor	MEZZ. Floor	Total	TOTAL WATT
⊕ D1		COMMERCIAL DOWN LIGHT	CONSULT ROOM, BOUTIQUE ROOM, MANICURE, HAIR WASHING, WAXING ROOM, OFFICE	23W MAX LED	20		27	15	42	840
EXIT		EXIT SIGN		5 W MAX LED	5	WITH EMERGENCY BATTERY PACK WHERE REQUIRED	4	00	04	20
		EMERGENCY LIGHT		5 W MAX LED	5	WITH EMERGENCY BATTERY PACK WHERE REQUIRED	5	4	09	45
TOTAL										905



Review

032721

www.AmperEngineering.com

MANUFACTURER: _____ BUS RATING: 200A
 TYPE/MODEL: _____ MAIN: MCB 200A
 MOUNTING: SURFACE PANEL ID: **A** VOLTAGE: 208/120V
 ENCLOSURE: NEMA 1 WIRING: 3 PH 4W
 LOCATION: OUTSIDE KITCHEN FEEDER SIZE: 200A
 TYPE: _____ FEEDER AMPACITY: 200A
 TYPE: _____ AIC: 42 KAIC
 FED FROM: INCOMING SERVICE

CKT NO:	LOAD DESCRIPTION	NO. POLES	CB AMPS	CONDUCTOR TYPE	LOAD KVA	KVA PER PHASE			LOAD KVA	CONDUCTOR TYPE	CB AMPS	NO. POLES	LOAD DESCRIPTION	CKT NO:
						A	B	C						
1	FIRST FLOOR LIGHTING	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.54	0.84			0.30	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	SECOND FLOOR LIGHTING	2
3	DETECTION ROOM RECEPTACLES	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.72		1.26		0.54	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	GYM ROOM EQUIPMENT RECEPTACLES	4
5	GYM ROOM EQUIPMENT RECEPTACLES	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.54			1.08	0.54	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	GYM ROOM EQUIPMENT RECEPTACLES	6
7	CORRIDOR RECEPTACLES	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.54	1.14			0.60	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	AUTO DOOR	8
9	EXTERIOR MAINTENANCE RECEPTACLE	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.54		1.08		0.54	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	OFFICE RECEPTACLES	10
11	BATHROOM GFCI RECEPTACLE	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.18			1.18	1.00	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	REFRIGERATOR	12
13	DISHWASHER	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	1.00	1.18			0.18	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	DRINKING FOUNTAIN	14
15	TRAINING ROOM RECEPTACLES	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	1.08		1.80		0.72	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	CLASS ROOM RECEPTACLE	16
17	EQUIPMENT STORAGE	1	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.36			0.43	0.07	(2) #12 AWG CU & (1) #12 AWG CU GND	20	1	EXIT LIGHTING	18
19	WH-1	3	35	(3) #8 AWG CU & (1) #10 AWG CU GND	3.00	3.67			0.67	(2) #12 AWG CU & (1) #12 AWG CU GND	15	1	OAF-1	20
21	X	X	X	X	3.00		3.67		0.67	(2) #12 AWG CU & (1) #12 AWG CU GND	15	1	EF-2	22
23	X	X	X	X	3.00		3.60		0.60	(2) #12 AWG CU & (1) #12 AWG CU GND	15	1	UH-1	24
25	UH-2	1	15	(2) #12 AWG CU & (1) #12 AWG CU GND	0.60	1.20			0.60	(2) #12 AWG CU & (1) #12 AWG CU GND	15	1	UH-3	26
27	UH-4	1	15	(2) #12 AWG CU & (1) #12 AWG CU GND	0.60		2.38		1.78	(2) #12 AWG CU & (1) #12 AWG CU GND	20	2	HP-1	28
29	HP-2	2	20	(2) #12 AWG CU & (1) #12 AWG CU GND	1.78			3.56	1.78	X	X	X	X	30
31	X	X	X	X	1.78	3.56			1.78	(2) #12 AWG CU & (1) #12 AWG CU GND	20	2	HP-3	32
33	HP-4	2	20	(2) #12 AWG CU & (1) #12 AWG CU GND	1.78		3.56		1.78	X	X	X	X	34
35	X	X	X	X	1.78		3.56		1.78	(2) #12 AWG CU & (1) #12 AWG CU GND	20	2	HP-5	36
37	HP-6	2	20	(2) #12 AWG CU & (1) #12 AWG CU GND	1.78	3.56			1.78	X	X	X	X	38
39	X	X	X	X	1.78		1.99		0.21	(2) #12 AWG CU & (1) #12 AWG CU GND	20	2	SS-1 & SS-3	40
41	SS-2, SS-4 & SS-5	2	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.31			0.52	0.21	X	X	X	X	42
43	X	X	X	X	0.31	0.62			0.31	(2) #12 AWG CU & (1) #12 AWG CU GND	20	2	SS-6, SS-7 & SS-8	44
45	SS-9, SS-10, SS-11 & SS-12	2	20	(2) #12 AWG CU & (1) #12 AWG CU GND	0.42		0.73		0.31	X	X	X	X	46
47	X	X	X	X	0.42			0.62	0.20	(2) #12 AWG CU & (1) #12 AWG CU GND	15	1	CP-1	48
49	SPARE	1	20		0.00	0.67			0.67	(2) #12 AWG CU & (1) #12 AWG CU GND	15	1	OAF-2	50
51	SPARE	1	20		0.00		0.00		0.00		20	1	SPARE	52
53	SPARE	1	20		0.00			0.00	0.00		20	1	SPARE	54
						16.4	16.5	14.5						

TOTAL CONNECTED LOAD KVA: **47**
 TOTAL CONNECTED AMPS: **132**
 DEMAND LOAD KVA: **52**
 DEMAND LOAD AMPS: **145**

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REV.	DATE	DESCRIPTION

CLIENT:

PROJECT:
CANINE TRAINING
 ADDRESS:

 COUNTY OF ADAMS,
 STATE OF COLORADO

PROJECT NUMBER:
AE# 1282
 PAPER SIZE: **24X36** DRAWN BY: **DEE**
 DESIGNED BY: **DEE** CHECKED BY: **DEE**

DRAWING TITLE:
**ELECTRICAL
 PANEL SCHEDULE**

DRAWING NO:
E401

SEAL & SIGNATURE:

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DRAWING TITLE:
**ELECTRICAL
 COMCHECK
 REPORT**

DRAWING NO:
E501

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032721

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EXPANSION TANK SCHEDULE						
TAG	MANUFACTURER	MODEL	SIZE	TANK VOL.	ACCEPTANCE VOL.	FACTORY PRECHARGE PRESSURE (PSI)
ET-1	AMTROL	ST-12	12" L x 18" D	6.4	2	55

ELECTRIC WATER HEATER SCHEDULE							
TAG	MANUFACTURER	MODEL	STORAGE (GALLONS)	RECOVERY @ 100 °F RISE (GPH)	ELECTRICAL		NOTE
					VOLT-PHASE	KW	
WH-1	A O SMITH	DRE-52	50	36	208-3	9	1

NOTES:
1. HARD WIRED ELECTRICAL CONNECTION.

MIXING VALVE SCHEDULE					
TAG	MANUFACTURER	MODEL	GPM @ 5 PSI DIFFERENTIAL PRESSURE	MIN. GPM	NOTES
MV-1	LEONARD	XL-LF SERIES	13	1	1,2,3

NOTES:
1. UNIT TO MIX 140 DEGREE F HOT WATER SUPPLY AND 40 DEGREE F COLD WATER SUPPLY FOR 120 DEGREE F OUTLET.
2. PROVIDE FIELD ADJUSTMENT BY FACTORY AUTHORIZED REPRESENTATIVE.
3. PROVIDE DIAL THERMOMETER ON OUTLET.

CIRCULATION PUMP SCHEDULE						
TAG	MANUFACTURER	MODEL	HEAD (FEET)	MIN. GPM	MHP	VOLT-PHASE
CP-1	BELL & GOSSETT	PL SERIES	15	1	1/12	115/1

PLUMBING ROUGH-IN SCHEDULE			
FIXTURE TYPE	DOMESTIC H.W.	SANITARY	VENT
WC	-	4"	2"
SK	1/2"	1 1/2"	1 1/2"
Washing Machine	3/4"	2"	1 1/4"
LAV	1/2"	1 1/2"	1 1/2"
SH	1/2"	1 1/2"	1 1/2"
MS	1/2"	1 1/2"	1 1/2"
Dog Wash	1/2"	2	1 1/2"
FD/FS	-	2"	1 1/2"

NOTES:
1. SANITARY RISER UP IN WALL TO FIXTURE SHALL BE A MINIMUM OF 2".
2. 1/2" CW AND HW APPLIES TO THE FINAL VERTICAL RISER-DROP TO EACH FIXTURE. BRANCH PIPING TO VERTICAL DROP SHALL BE A MINIMUM OF 3/4" UNLESS NOTED OTHERWISE.
3. SIZES SHOWN ARE MINIMUMS. SIZES SHOWN ON THE DRAWING THAT AREA LARGER THAN THE SIZE IS LISTED IN THE SCHEDULE SHALL DICTATE THE ROUGH-IN SIZE.

PLUMBING SYMBOL LIST ABBREVIATION KEY

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
	PIPE CONTINUATION
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
	UNION/FLANGE
	SHUTOFF VALVE NORMALLY OPEN
	SHUTOFF VALVE NORMALLY CLOSED
	BALANCING VALVE (NUMBER INDICATES GPM)
	CHECK VALVE
	THERMOMETER WITH WELL (DIAL TYPE)
	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
	PUMP
	METER
	FLOOR PENETRATION
	CW COLD WATER
	HW HOT WATER
	HWR HOT WATER RETURN
	SAN SANITARY DRAINING UNDER FLOOR
	V VENT
	CW COLD WATER
	CP CIRCULATION PUMP
	DFU DRAINAGE FIXTURE UNIT
	DCO DOUBLE CLEANOUT
	ET EXPANSION TANK
	FCO FLOOR CLEAN OUT
	FD FLOOR DRAIN
	HW HOT WATER
	HW 140 HOT WATER 140° F
	HWR HOT WATER RETURN
	LAV LAVATORY
	MV MIXING VALVE
	SAN SANITARY
	SK SINK
	SH SHOWER HEAD
	TD TRENCH DRAIN
	V VENT
	VTR VENT THRU ROOF
	WH WATER HEATER
	WC WATER CLOSET
	WMF WASHING MACHINE FIXTURE

PLUMBING GENERAL NOTES:-

- THE SYMBOLS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEM, WHETHER SPECIFIED OR NOT.
- REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATION FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES BEFORE INSTALLATION OR MAKE-UP OF PIPE. PLUMBING FIXTURES SHALL BE MOUNTED AT HEIGHTS SHOWN ON THE ARCHITECTURAL PLANS.
- CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
- REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO PLUMBING FIXTURE.
- FOR CLARITY, NOT ALL VALVES HAVE BEEN SHOWN. PROVIDE BALL VALVES FOR ALL WATER ISOLATION AND SUPPLY TAKEOFFS.
- COORDINATE ALL PLUMBING ROUTING WITH GENERAL CONTRACTOR AND OTHER TRADES. PROVIDE NECESSARY OFFSETS TO AVOID CONFLICTS AND TO MAINTAIN REQUIRED EQUIPMENT ACCESS AND SERVICEABILITY.
- PIPING LOCATIONS HAVE BEEN SHOWN FOR CLARITY AND DO NOT NECESSARILY REFLECT THE SPECIFIC LOCATION OF PIPE. COORDINATE ROUTING OF ALL PIPING WITH ALL OTHER TRADES BEFORE INSTALLATION.
- DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE.
- ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
- VERIFY UNDERGROUND PIPE SIZES, INVERT ELEVATIONS, AND LOCATIONS PRIOR TO BEGINNING ANY WORK.
- VALVE SHALL BE LINE SIZE UNLESS NOTED OTHERWISE.
- PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES.
- COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT INSTALL PIPING OVER ELECTRICAL PANEL.
- COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN MINIMUM 10' CLEARANCE FROM ALL AIR INTAKES. MAINTAIN MINIMUM 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
- VERIFY LOCATION AND DEPTH OF UTILITIES AT A POINT OF CONNECTION BEFORE START OF PIPING INSTALLATION.

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APPLICABLE CODES	
EDITION	CODES
2018	INTERNATIONAL MECHANICAL CODE (IMC)
2018	INTERNATIONAL PLUMBING CODES (IPC)
2018	NATIONAL ELECTRICAL CODE (NFPA 70)

PLUMBING SHEET INDEX	
SHEET NUMBER	SHEET NAME
P000	PLUMBING COVER SHEET & SCHEDULE
P101	FIRST FLOOR - SAN & VENT PLAN
P201	FIRST FLOOR - DOMESTIC WATER PLAN
P301	SAN & VENT RISERS
P302	DOMESTIC WATER RISERS
P401	PLUMBING DETAILS
P501	PLUMBING SPECIFICATION

DRAWING TITLE:
PLUMBING COVER SHEET

DRAWING NO:
P000

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AE# 1282

PAPER SIZE: 24X36

DESIGNED BY: DEE

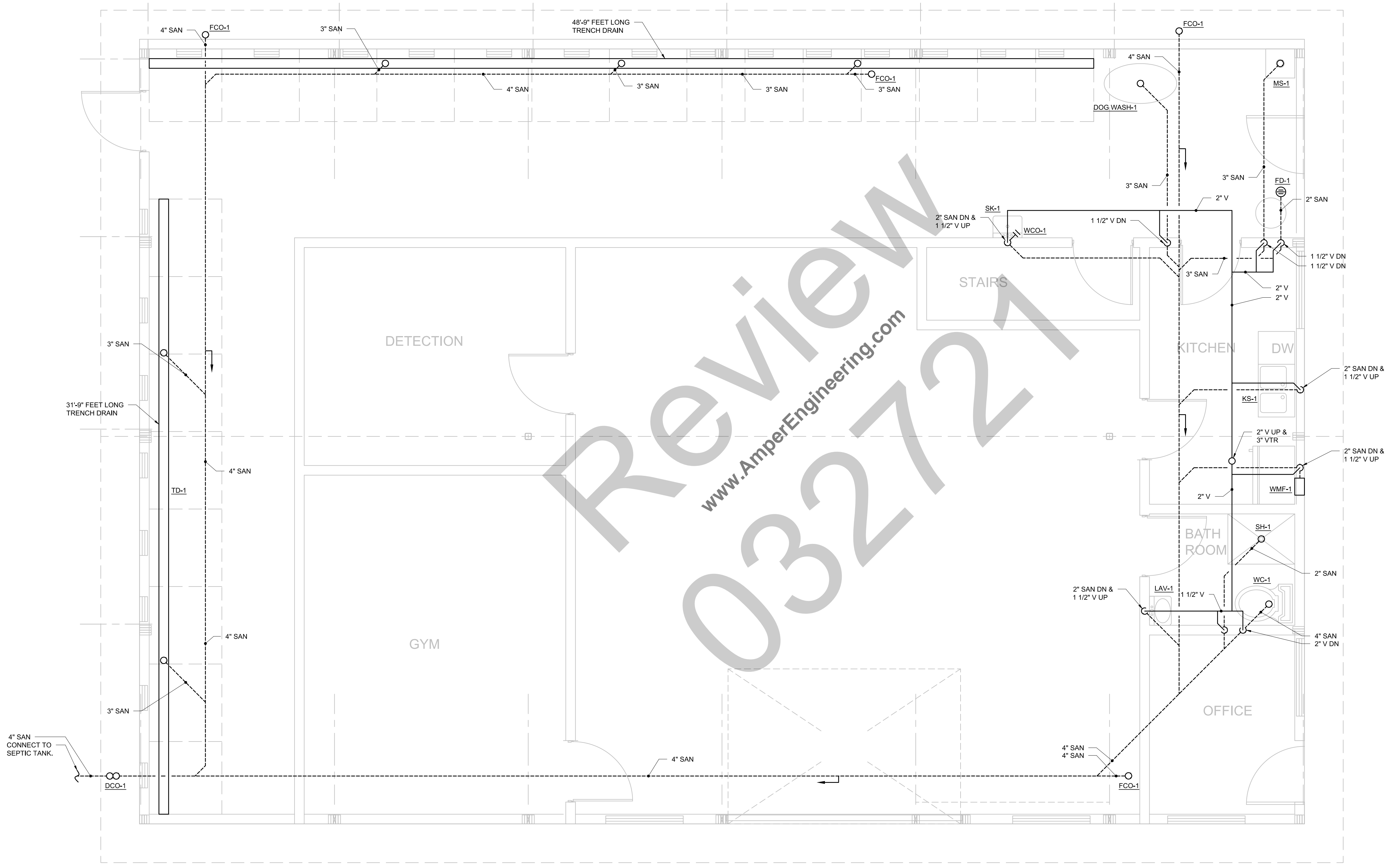
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DRAWING TITLE:

FIRST FLOOR - SAN & VENT PLAN

DRAWING NO:

P101



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1 FIRST FLOOR - SAN & VENT PLAN
 P101 SCALE: 3/8" = 1'-0"

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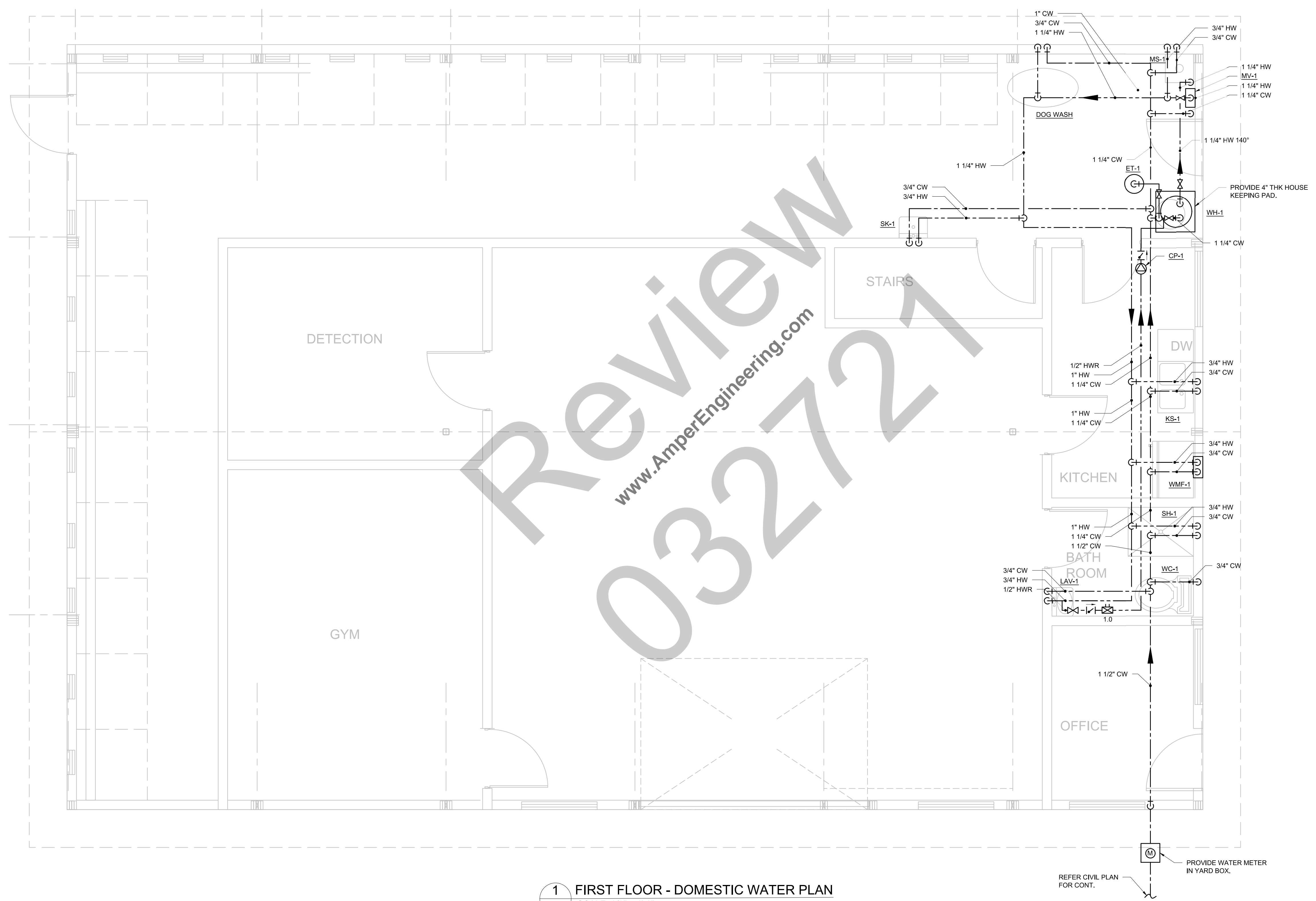
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DRAWING TITLE:
FIRST FLOOR - DOMESTIC WATER PLAN

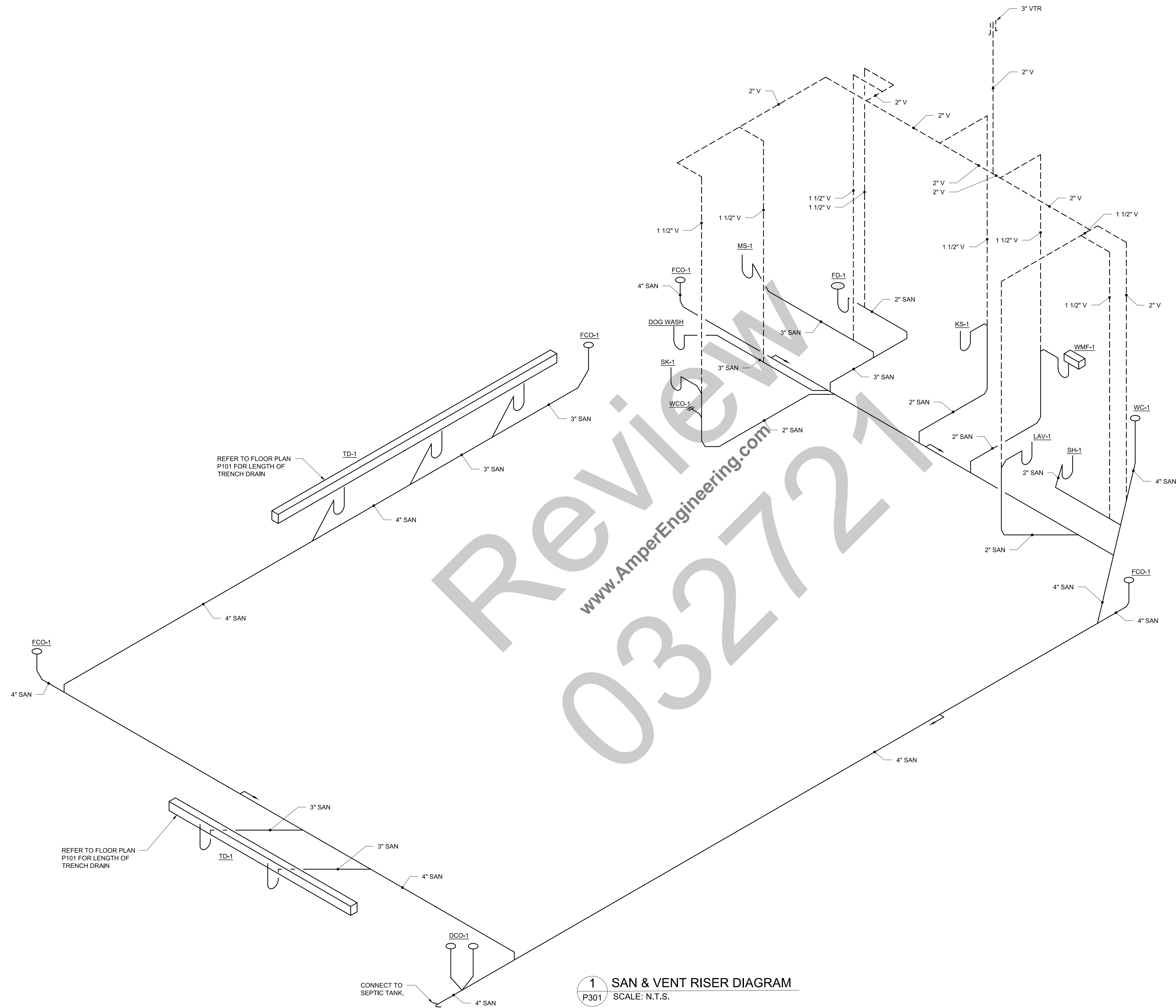
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P201



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1 FIRST FLOOR - DOMESTIC WATER PLAN
 P201 SCALE: 3/8" = 1'-0"

REFER CIVIL PLAN FOR CONT.
 PROVIDE WATER METER IN YARD BOX.



1 SAN & VENT RISER DIAGRAM
 SCALE: N.T.S.

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DRAWING TITLE:
SAN & VENT RISER

DRAWING NO:
P301

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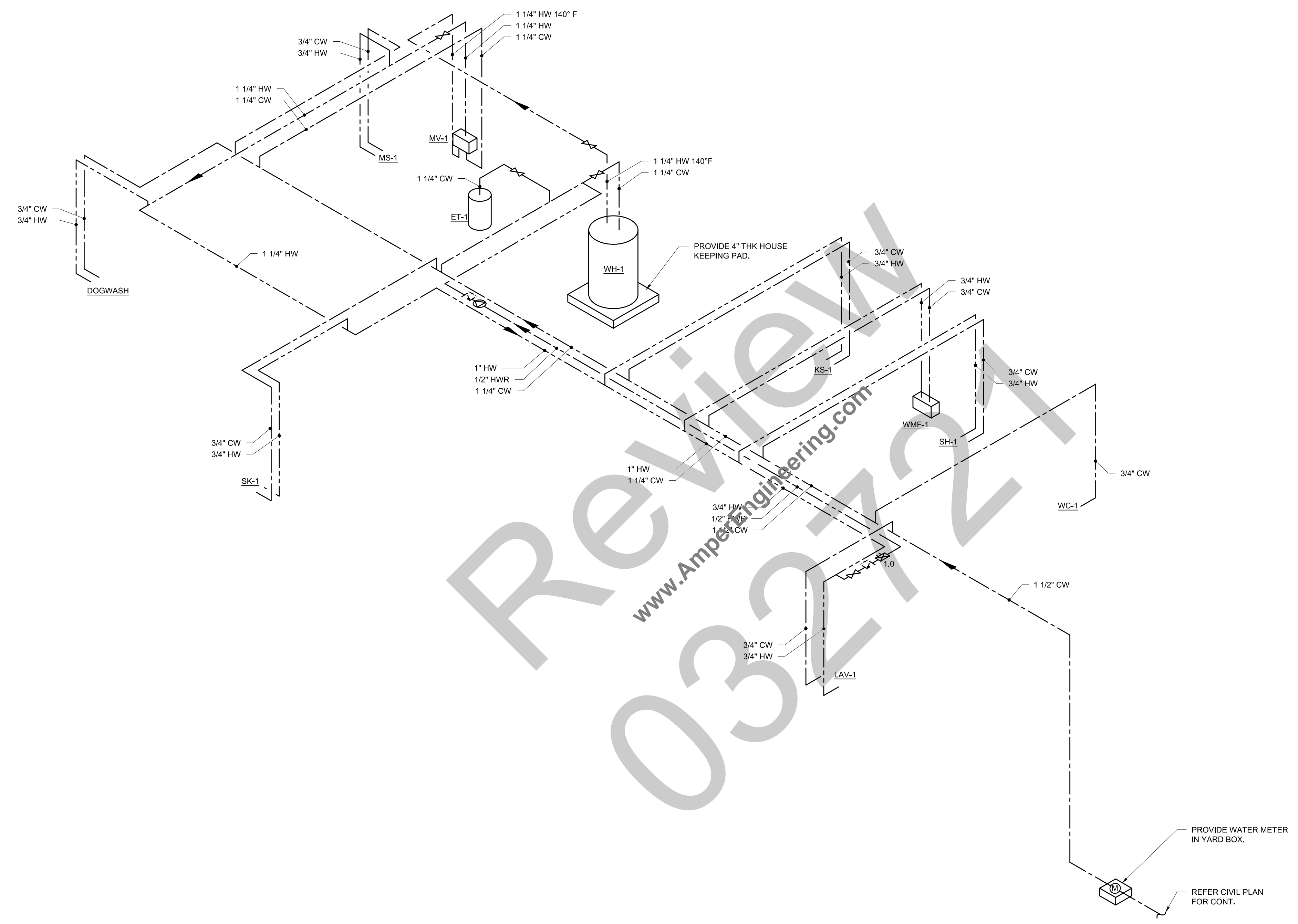
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DRAWING TITLE:
DOMESTIC WATER RISERS

DRAWING NO:
P302



1 DOMESTIC WATER RISER DIAGRAM
 SCALE: N.T.S.

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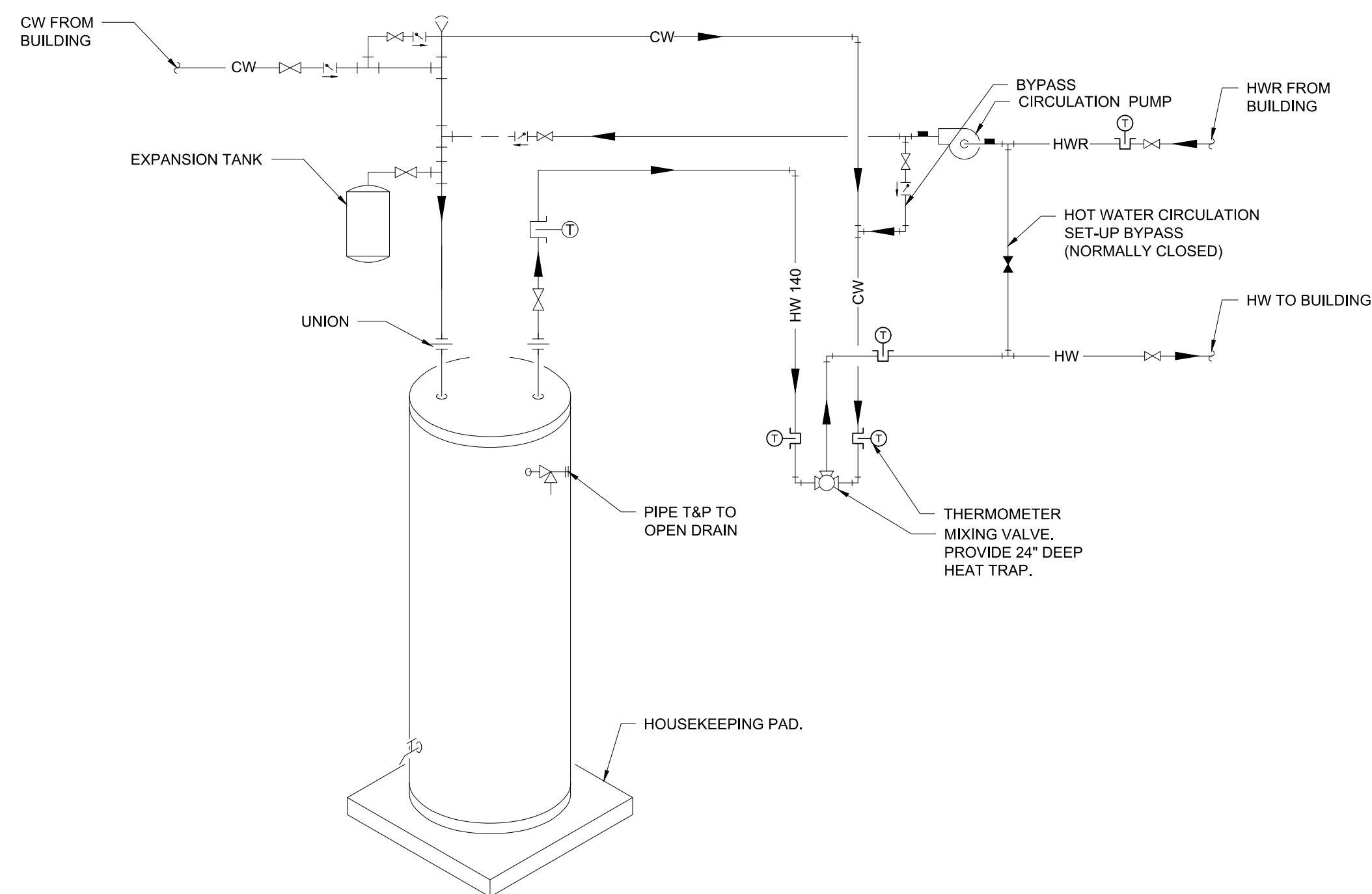
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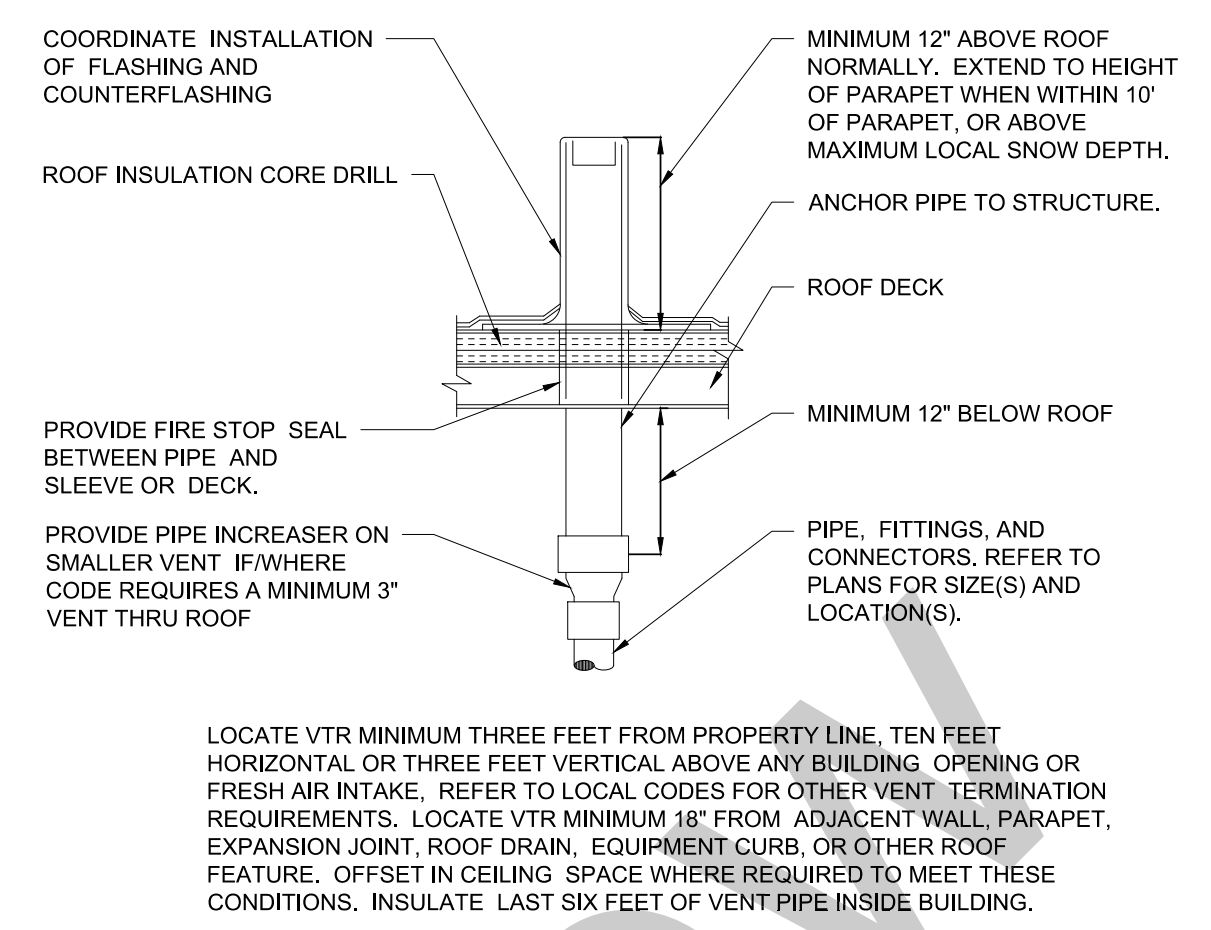
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AE# 1282
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 DESIGNED BY: **DEE** CHECKED BY: **DEE**

DRAWING TITLE:
PLUMBING DETAILS

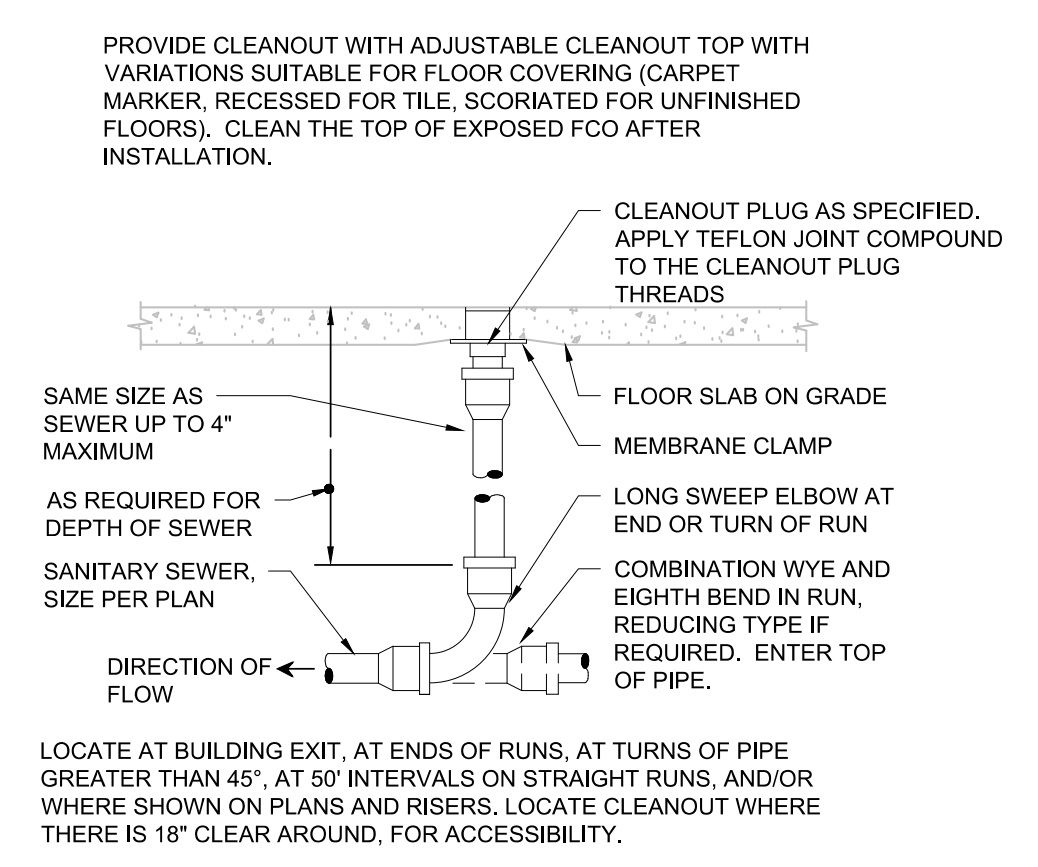
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P401



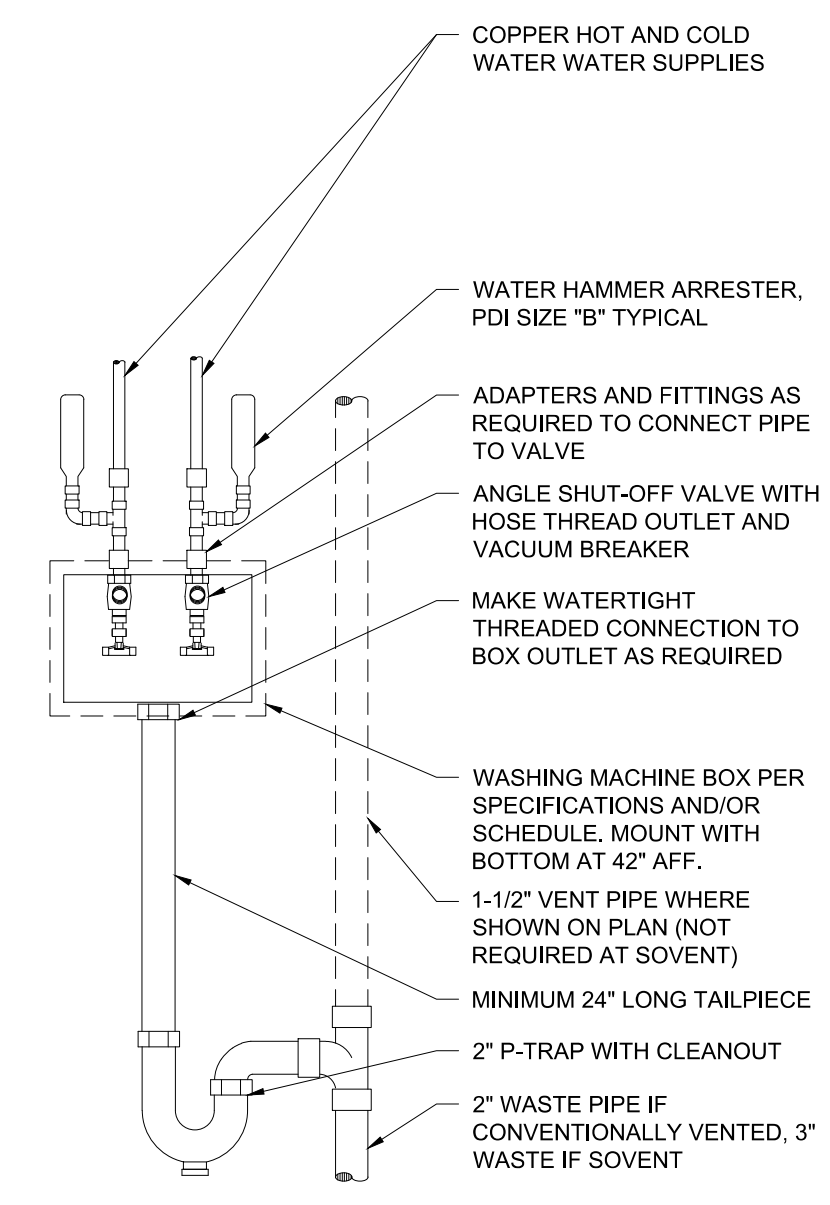
1 WATER HEATER AND MIXING VALVE PIPING DETAIL
 SCALE: N.T.S.



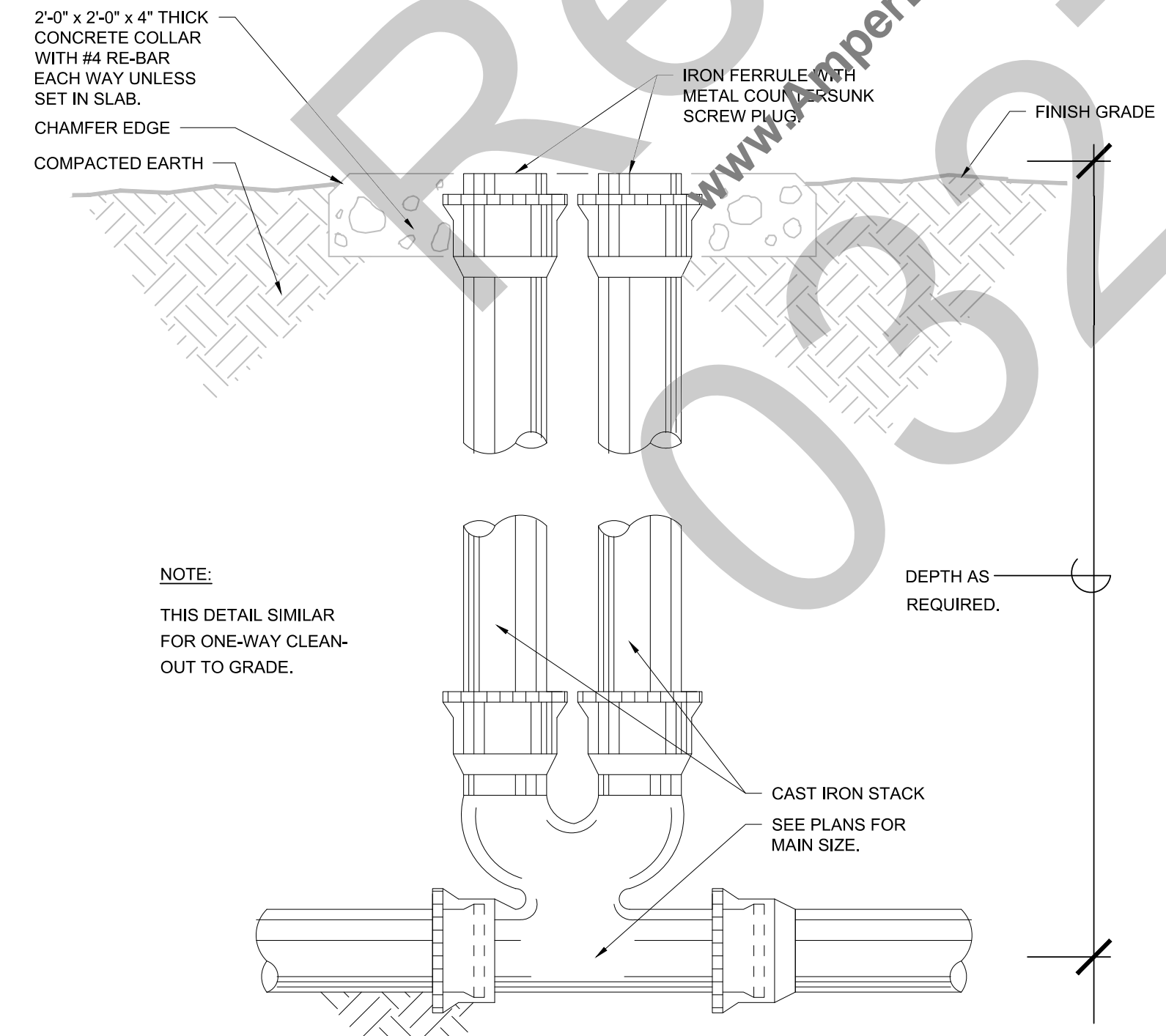
2 VENT THRU ROOF ("VTR")
 SCALE: N.T.S.



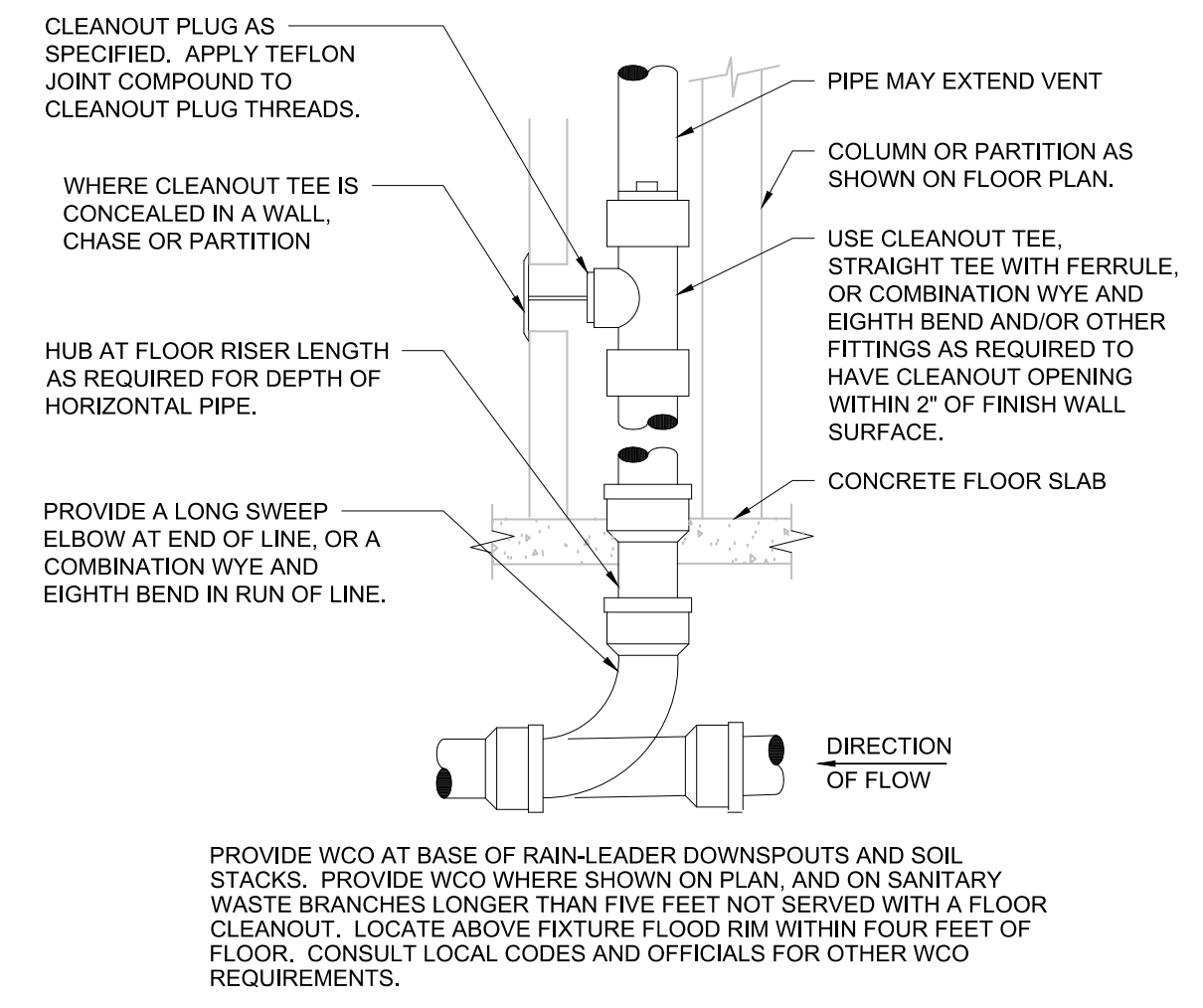
3 FLOOR CLEANOUT
 SCALE: N.T.S.



4 WASHING MACHINE BOX
 SCALE: N.T.S.



5 DOUBLE CLEANOUT DETAIL
 SCALE: N.T.S.



6 WALL CLEANOUT DETAIL
 SCALE: N.T.S.