

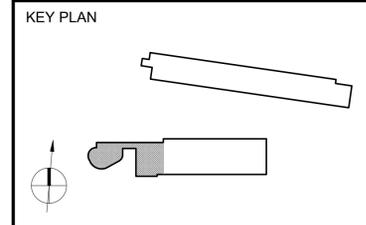
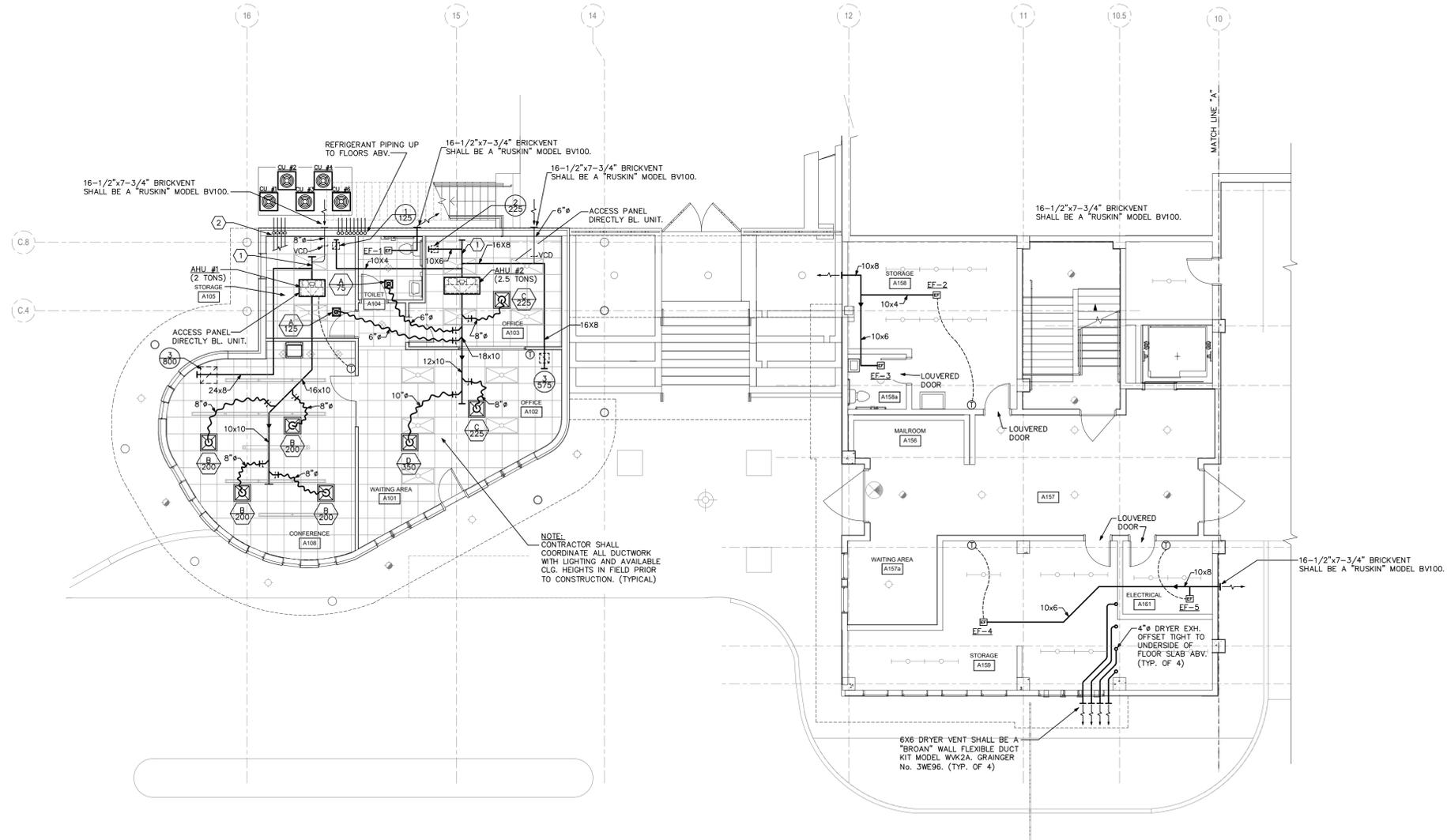
SUPPLY DIFFUSER SCHEDULE				
DESIGNATES LABEL FOR DIFFUSER TYPE		ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
DESIGNATES CFM QUANTITY FOR DIFFUSER				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS TDC-AA	6"ø	0 - 125	12X12 LOUVERED FACE
B	TITUS TDC-AA	6"ø	0 - 125	24X24 LOUVERED FACE
C	TITUS TDC-AA	10"ø	205 - 325	24X24 LOUVERED FACE
D	TITUS TDC-AA	12"ø	330 - 450	24X24 LOUVERED FACE

RETURN GRILLE SCHEDULE				
DESIGNATES LABEL FOR GRILLE TYPE		FILTER SHALL BE PROVIDED AT UNIT.		
DESIGNATES CFM QUANTITY FOR GRILLE				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	10X10	0 - 400	LOUVER FACE
2	TITUS 355FL	12X12	400 - 600	LOUVER FACE
3	TITUS 355FL	24X24	605 - 1500	LOUVER FACE

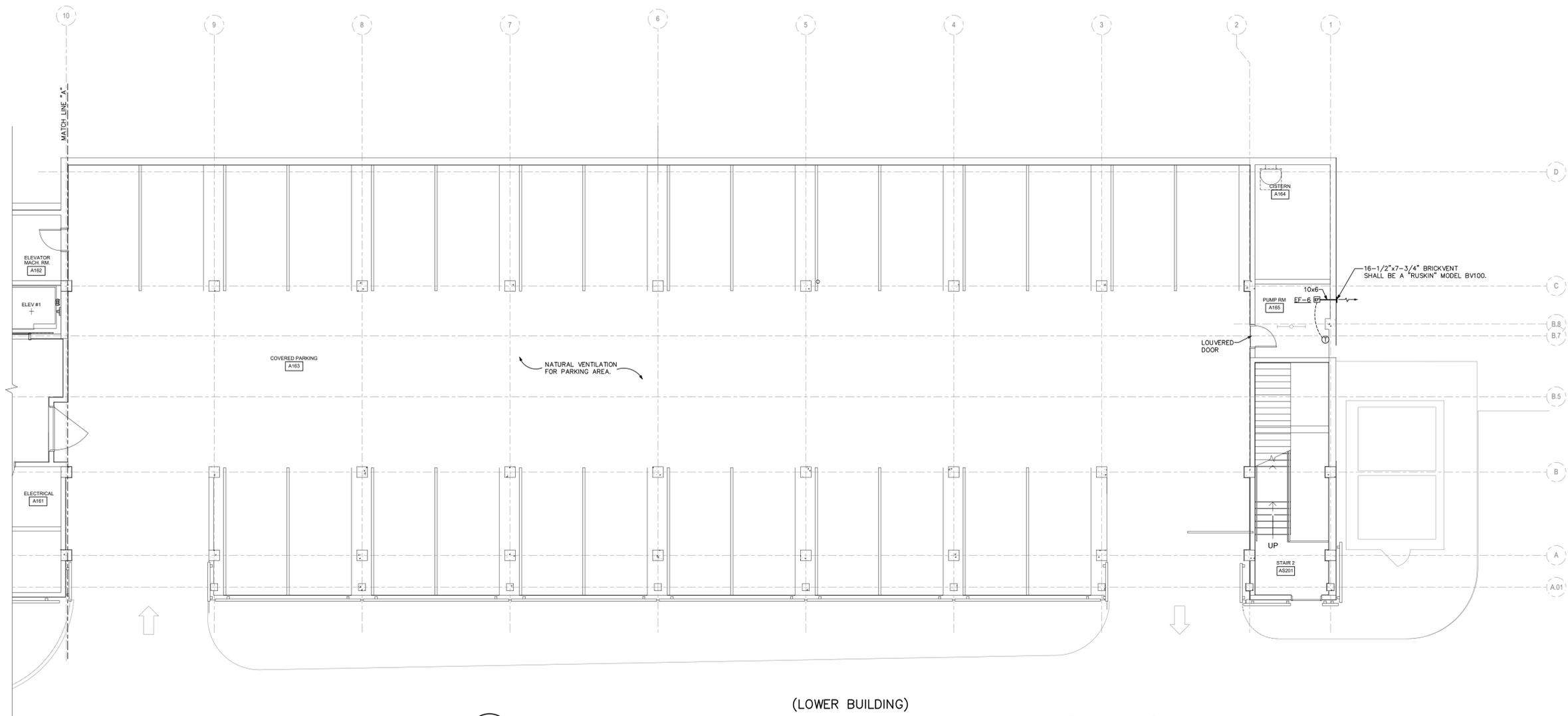
H.V.A.C. ABBREVIATION LEGEND		
A/C	AIR CONDITIONER	REV. REVISION
DN.	DOWN	N.T.S. NOT TO SCALE
EXH.	EXHAUST	MFR. MANUFACTURER
EXT.	EXTERIOR	R/A RETURN AIR
E.F.	EXHAUST FAN	GR. GRILLE
A.F.F.	ABOVE FINISH FLOOR	C.D. CEILING DIFFUSER
F.F.	FINISH FLOOR	REG. REGISTER
TYP.	TYPICAL	C.U. CONDENSING UNIT
A.H.U.	AIR HANDLING UNIT	D.G. DOOR GRILLE
F.I.D.	FIRE DAMPER	DISP. DISPOSABLE
V.C.D.	VOLUME CONTROL DAMPER	F/A FRESH AIR
S.P.	SAFE PAN	CD. CONDENSATE DRAIN

SUPPLY DIFFUSER SCHEDULE	
1	RETURN AIR DUCT PLENUM SHALL BE FULL SIZE OF AHU RETURN AIR OPENING.
2	REFRIGERANT PIPE SHALL ROUTE UP IN WALL OFFSET ABOVE CEILING TO AHU'S AS REQUIRED.

HVAC SYMBOLS LEGEND	
	THERMOSTAT, MTD +60" AFF
	EXHAUST FAN
	SECTION "A"-"A"
	REMOTE BULB SENSOR
	DUCT SMOKE DETECTOR
	TRANSITION
	TURNING VANE
	45° BRANCH DUCT TAKE-OFF
	FIRE DAMPER
	VOLUME CONTROL DAMPER
	RETURN REGISTER
	SUPPLY DIFFUSER
	RETURN AIR GRILLE
	SUPPLY REGISTER
	AIR FLOW DIRECTION
	ROOF MTD. EXH. FAN
	DUCT TURN DOWN
	DUCT TURN UP
	FLEXIBLE DUCT

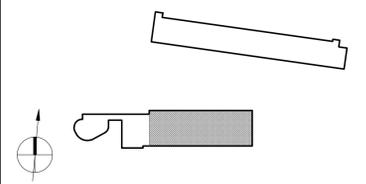


(LOWER BUILDING)  
**1 A - LEVEL 1 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"



(LOWER BUILDING)  
**1 A - LEVEL 1 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

KEY PLAN



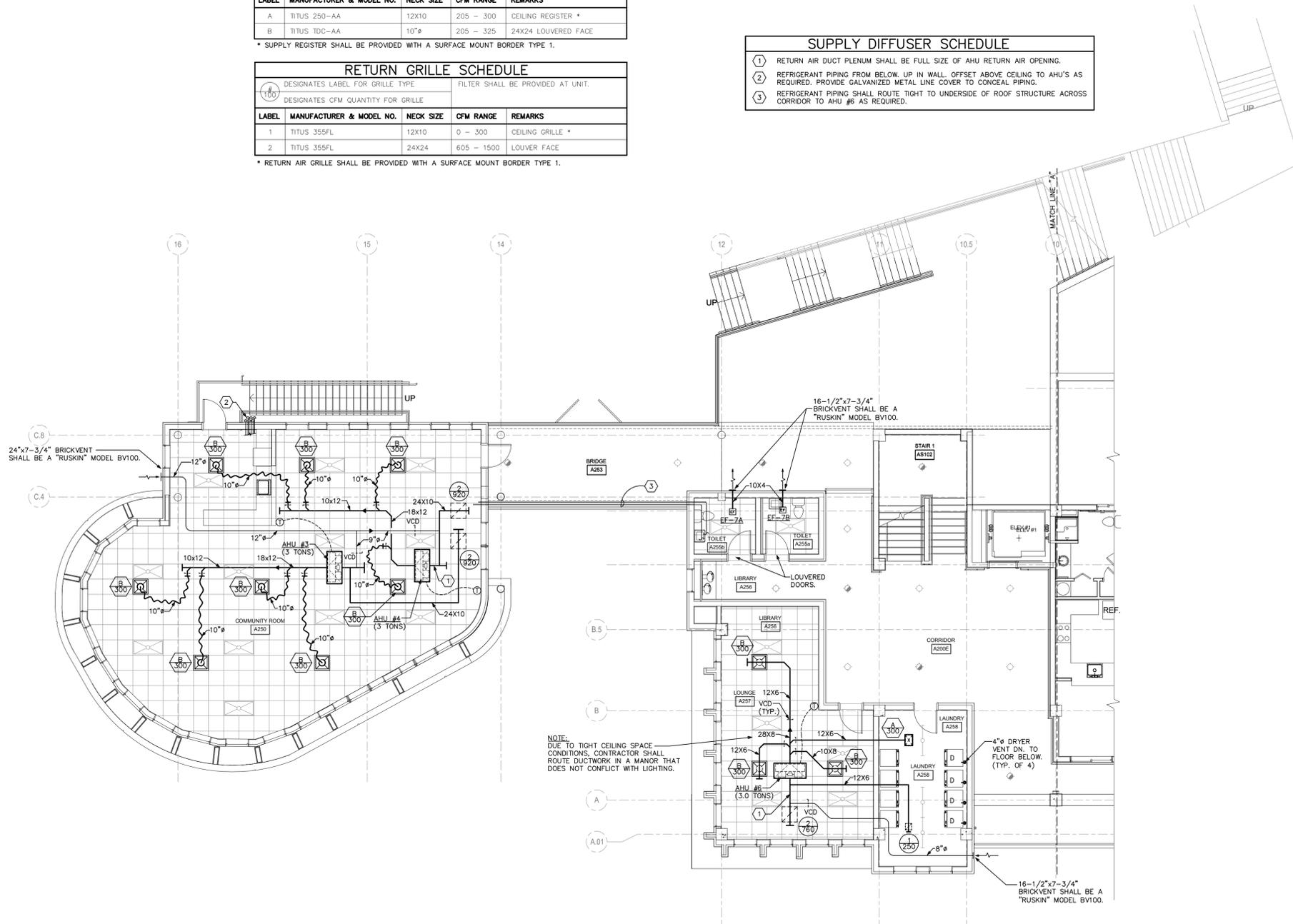
SUPPLY DIFFUSER SCHEDULE				
A 100	DESIGNATES LABEL FOR DIFFUSER TYPE	ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
	DESIGNATES CFM QUANTITY FOR DIFFUSER			
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS 250-AA	12X10	205 - 300	CEILING REGISTER *
B	TITUS TDC-AA	10"ø	205 - 325	24X24 LOUVERED FACE

\* SUPPLY REGISTER SHALL BE PROVIDED WITH A SURFACE MOUNT BORDER TYPE 1.

RETURN GRILLE SCHEDULE				
100	DESIGNATES LABEL FOR GRILLE TYPE	FILTER SHALL BE PROVIDED AT UNIT.		
	DESIGNATES CFM QUANTITY FOR GRILLE			
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	12X10	0 - 300	CEILING GRILLE *
2	TITUS 355FL	24X24	605 - 1500	LOUVER FACE

\* RETURN AIR GRILLE SHALL BE PROVIDED WITH A SURFACE MOUNT BORDER TYPE 1.

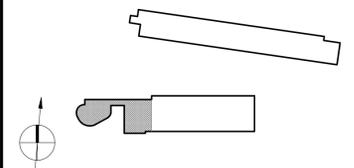
SUPPLY DIFFUSER SCHEDULE	
①	RETURN AIR DUCT PLENUM SHALL BE FULL SIZE OF AHU RETURN AIR OPENING.
②	REFRIGERANT PIPING FROM BELOW, UP IN WALL, OFFSET ABOVE CEILING TO AHU'S AS REQUIRED. PROVIDE GALVANIZED METAL LINE COVER TO CONCEAL PIPING.
③	REFRIGERANT PIPING SHALL ROUTE TIGHT TO UNDERSIDE OF ROOF STRUCTURE ACROSS CORRIDOR TO AHU #6 AS REQUIRED.



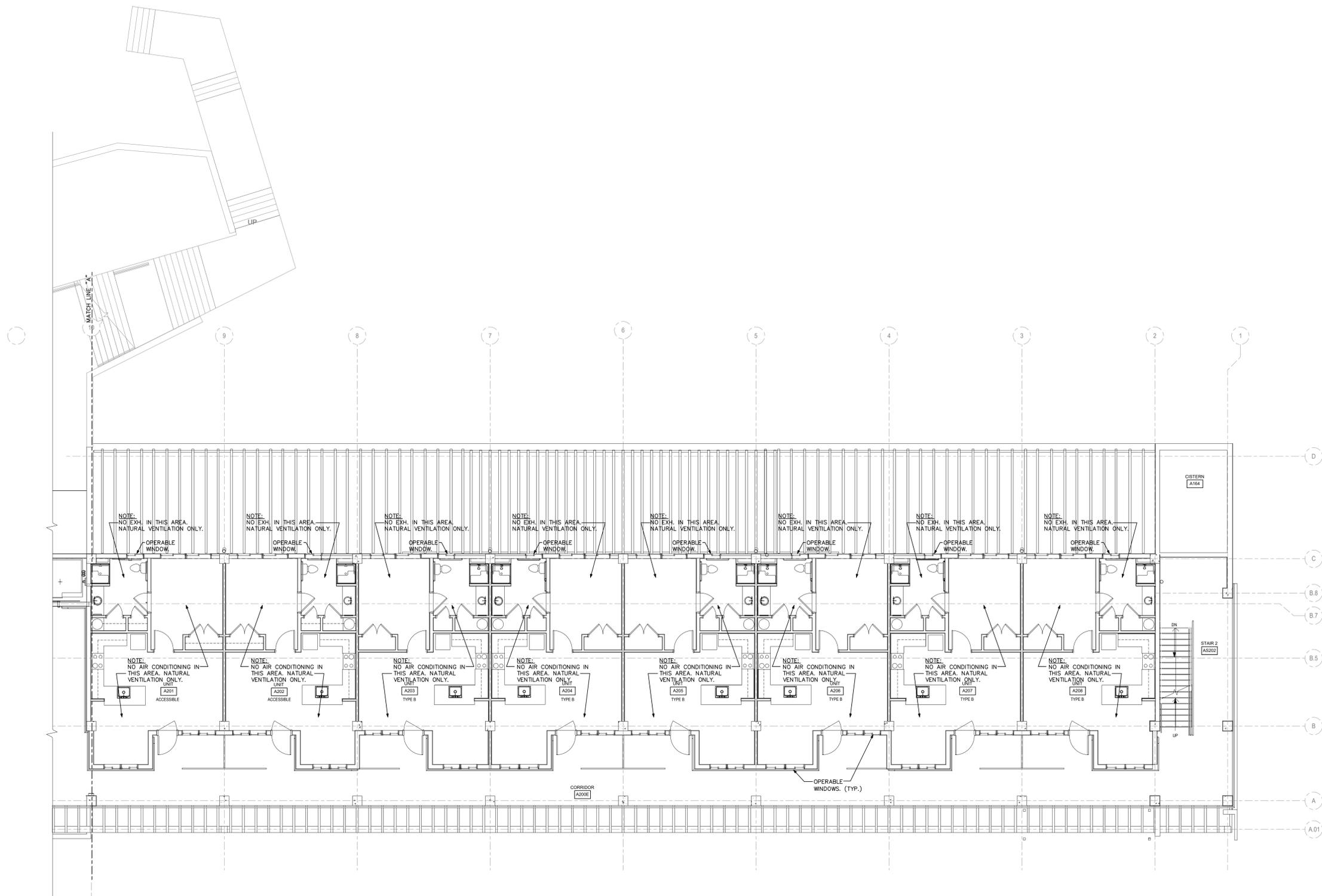
(LOWER BUILDING)

**1 A - LEVEL 2 PARTIAL FLOOR PLAN - MECHANICAL**  
SCALE: 1/8"=1'-0"

KEY PLAN

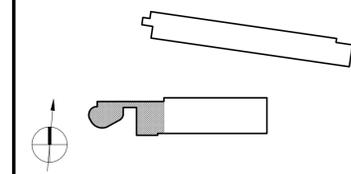


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(LOWER BUILDING)  
**1 A - LEVEL 2 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

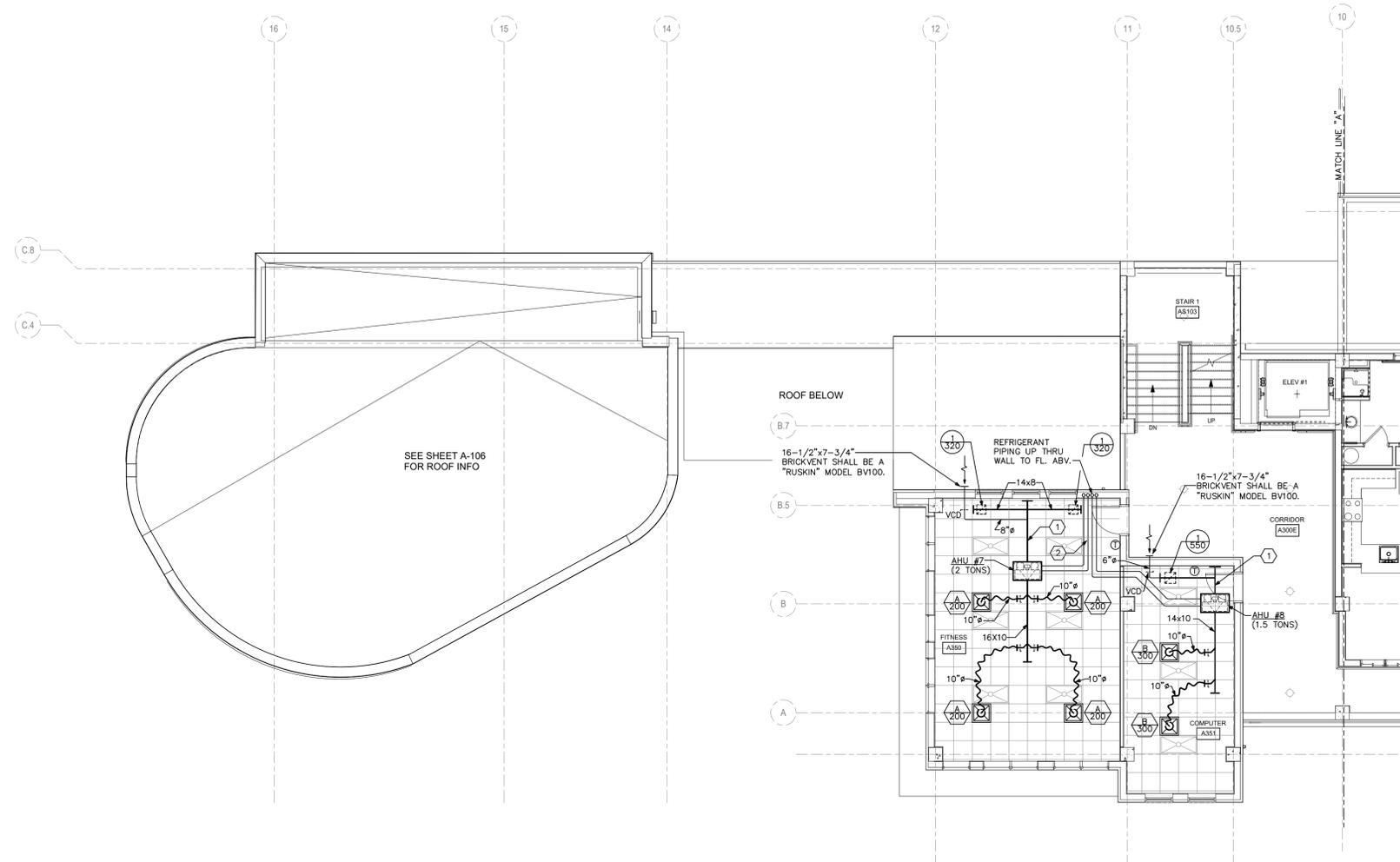
KEY PLAN



SUPPLY DIFFUSER SCHEDULE				
DESIGNATES LABEL FOR DIFFUSER TYPE		ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
DESIGNATES CFM QUANTITY FOR DIFFUSER				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS TDC-AA	8"ø	0 - 200	24X24 LOUVERED FACE
B	TITUS TDC-AA	10"ø	205 - 325	24X24 LOUVERED FACE

RETURN GRILLE SCHEDULE				
DESIGNATES LABEL FOR GRILLE TYPE		FILTER SHALL BE PROVIDED AT UNIT.		
DESIGNATES CFM QUANTITY FOR GRILLE				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	10X10	0 - 400	LOUVER FACE

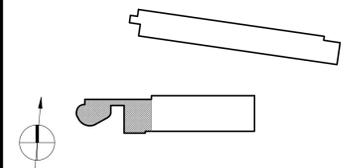
SUPPLY DIFFUSER SCHEDULE	
①	RETURN AIR DUCT PLENUM SHALL BE FULL SIZE OF AHU RETURN AIR OPENING.
②	REFRIGERANT PIPING SHALL OFFSET ABOVE CEILING TO AHU'S AS REQUIRED.



(LOWER BUILDING)

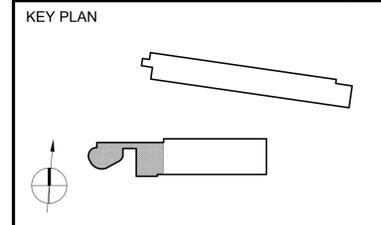
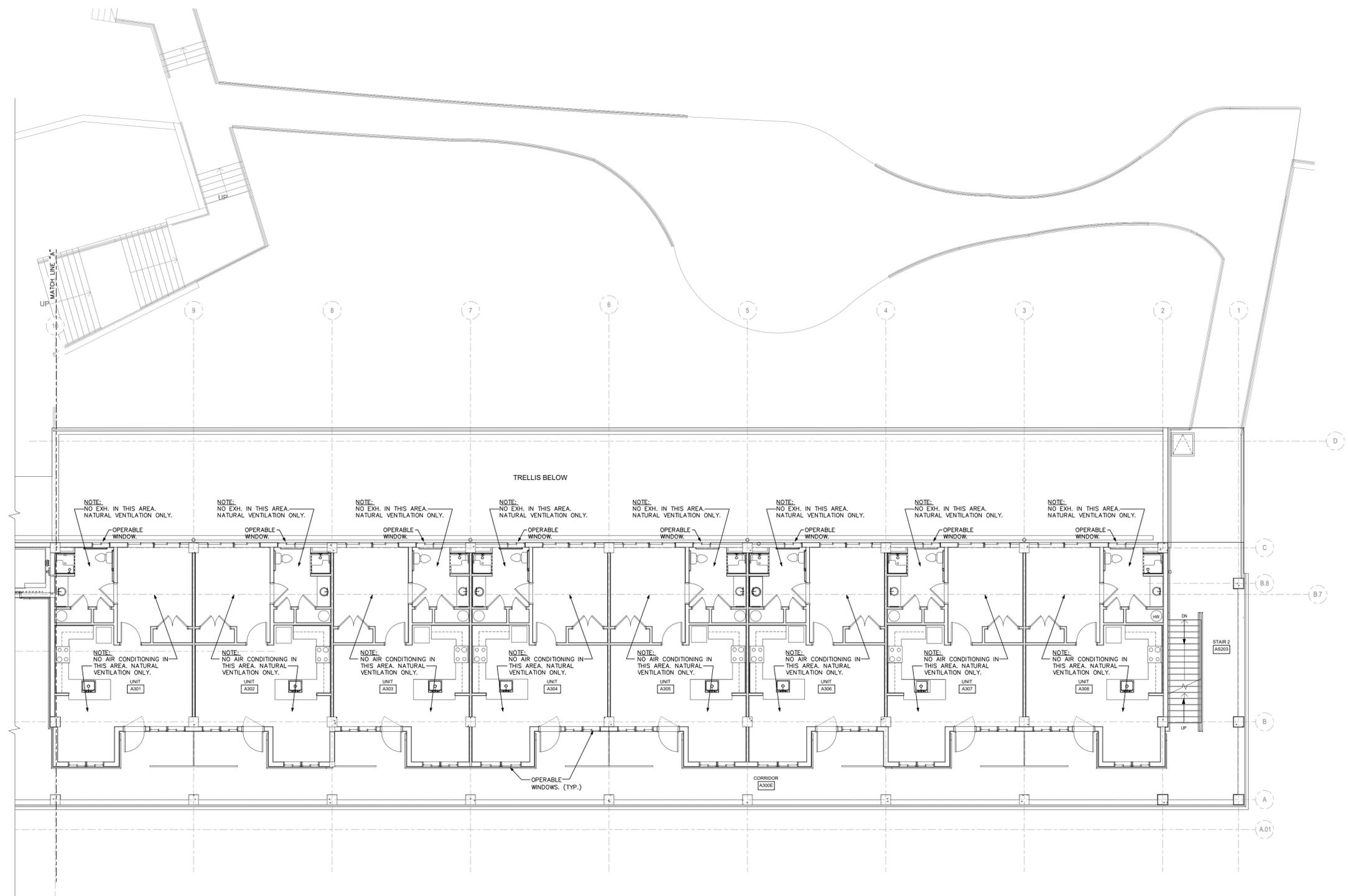
**1 A - LEVEL 3 PARTIAL FLOOR PLAN - MECHANICAL**  
SCALE: 1/8"=1'-0"

KEY PLAN



ISSUE

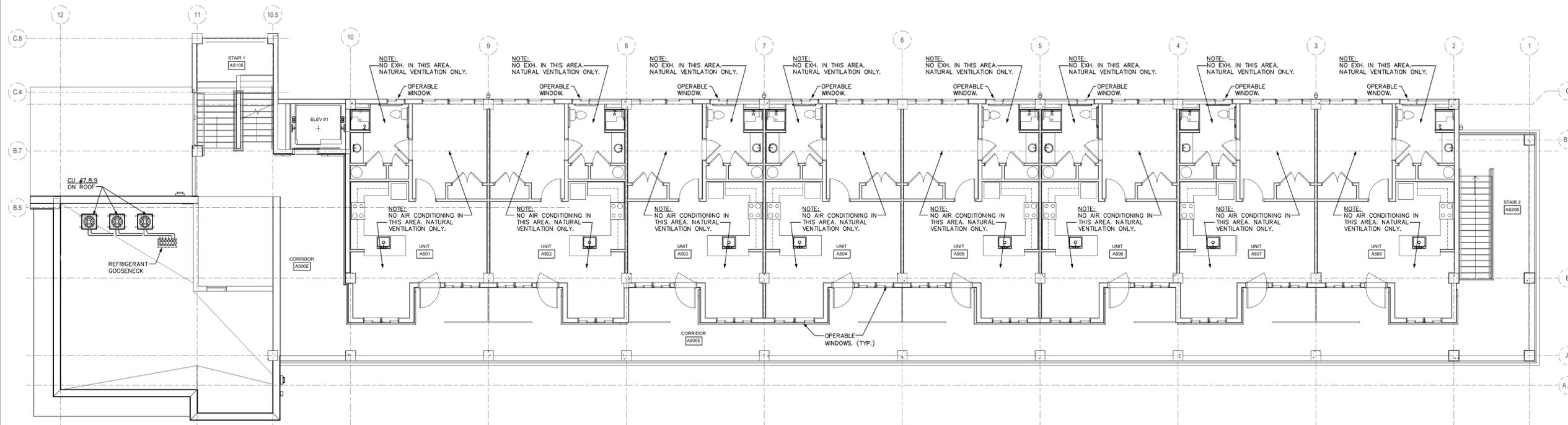
M-105



ISSUE

(LOWER BUILDING)  
**1 A - LEVEL 3 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

M-106

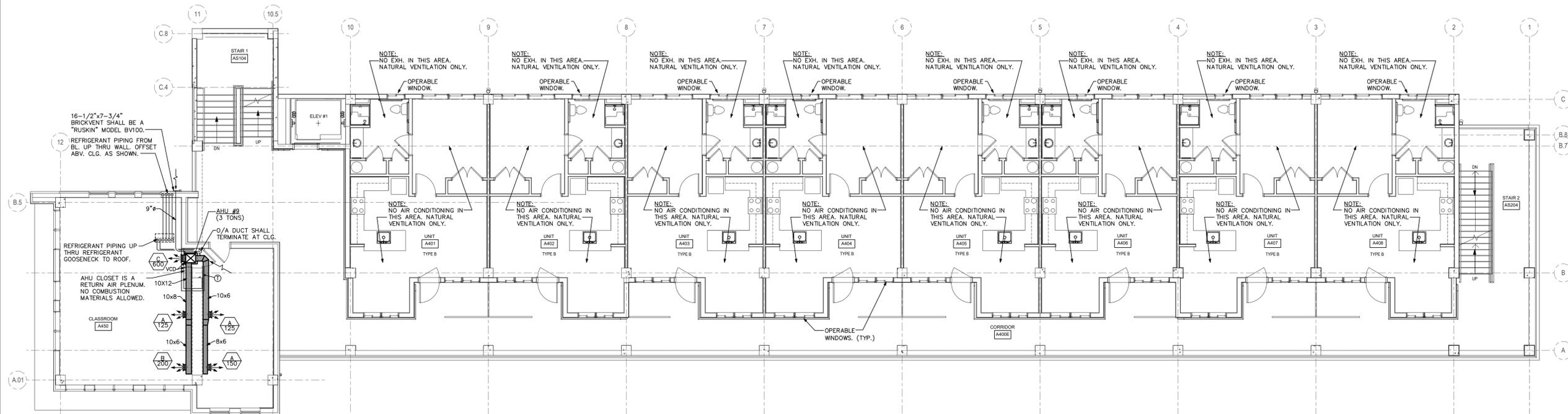
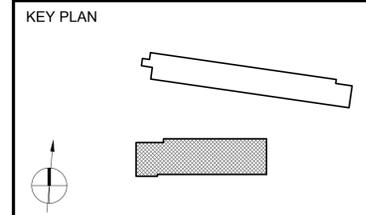


(LOWER BUILDING)  
**2 A - LEVEL 5 FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

SUPPLY DIFFUSER SCHEDULE				
DESIGNATES LABEL FOR DIFFUSER TYPE		ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS.		
DESIGNATES CFM QUANTITY FOR DIFFUSER				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS 300RL	8x6	0 - 150	SIDEWALL REGISTER
B	TITUS 300RL	10x6	155 - 200	SIDEWALL REGISTER
C	TITUS 300RL	12x12	405 - 650	SIDEWALL REGISTER

RETURN GRILLE SCHEDULE				
DESIGNATES LABEL FOR GRILLE TYPE		FILTER SHALL BE PROVIDED AT UNIT.		
DESIGNATES CFM QUANTITY FOR GRILLE				
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	12x12	0 - 600	LOUVER FACE

SUPPLY DIFFUSER SCHEDULE	
1	RETURN AIR DUCT PLENUM SHALL BE FULL SIZE OF AHU RETURN AIR OPENING.

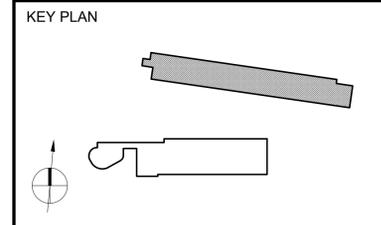
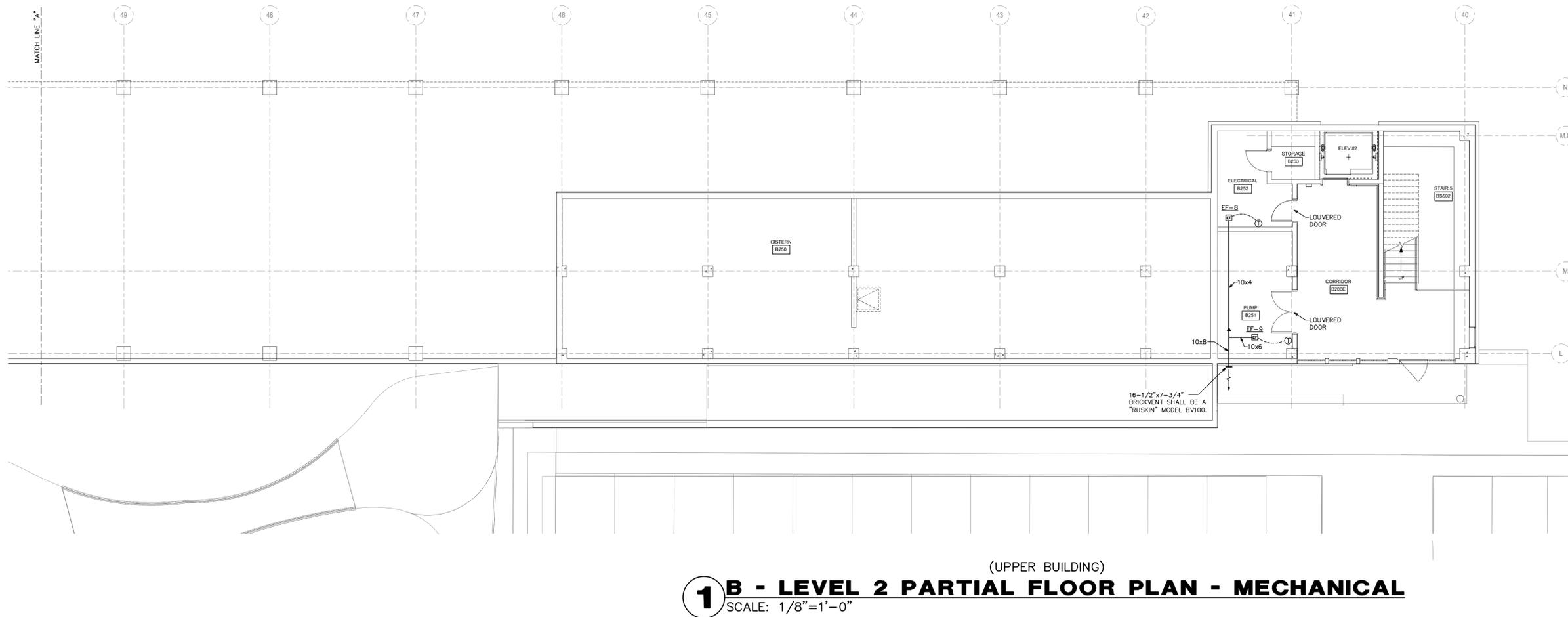
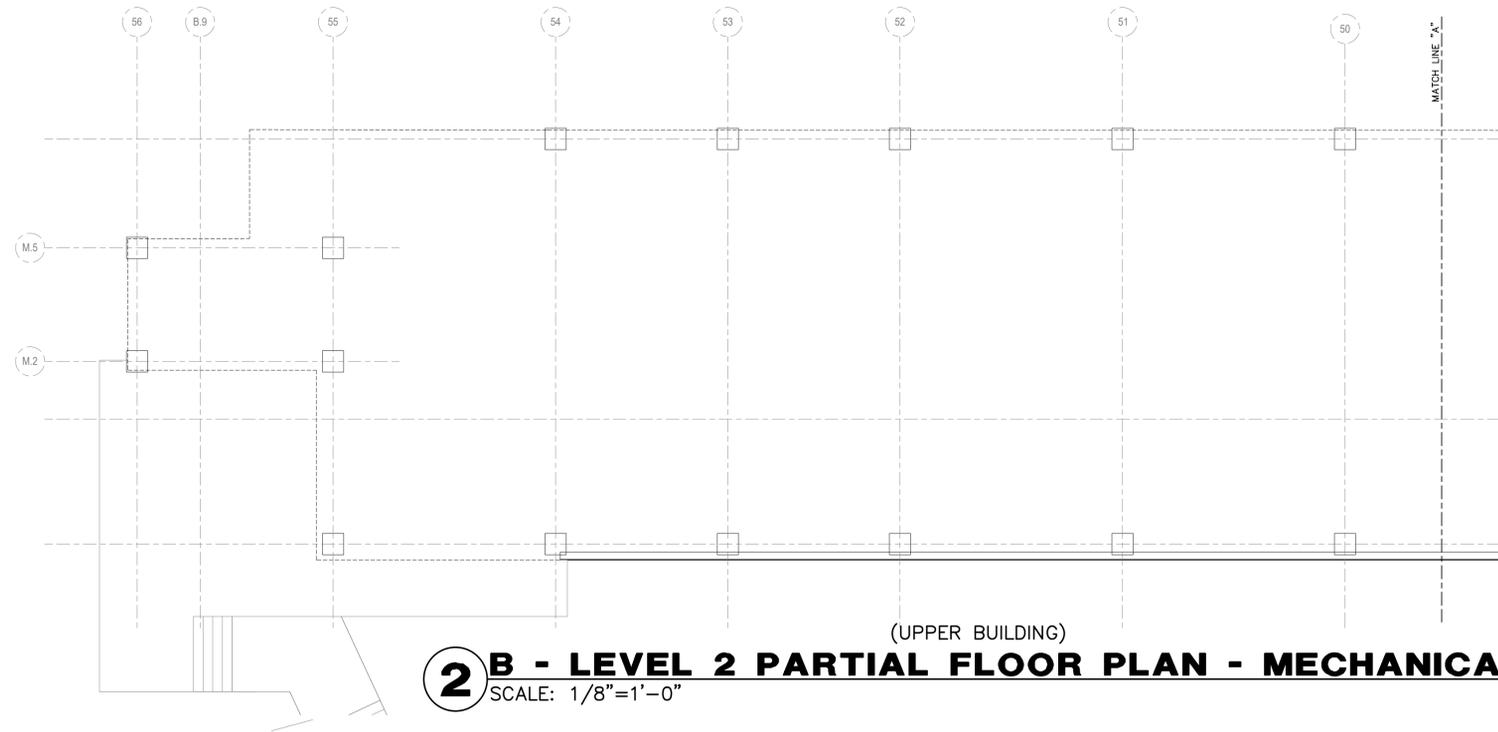


(LOWER BUILDING)  
**1 A - LEVEL 4 FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

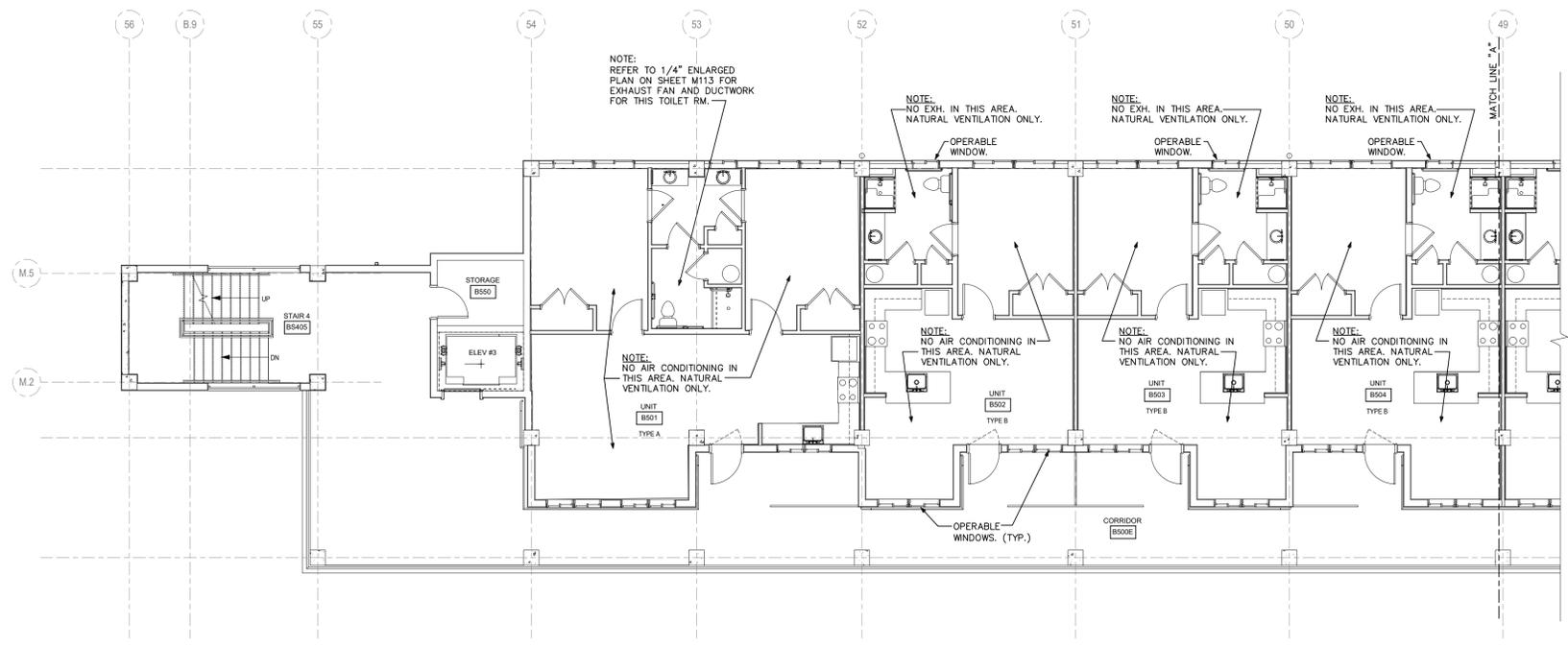
TCA JOB #12072  
 TO THE BEST OF MY KNOWLEDGE, THE PLANS AND SPECIFICATIONS SUBMITTED HERewith COMPLY WITH EXISTING INTERPRETATIONS AND PROVISIONS OF THE APPLICABLE BUILDING CODES. THIS DRAWING IS THE PROPERTY OF TODD W. CAREY, PROFESSIONAL ENGINEER, AND IS AN INSTRUMENT OF SERVICE NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF TODD W. CAREY.  
 U.S. VIRGIN ISLANDS REG. NO. 766-E  
 429 CANVASBACK ROAD, MOORESVILLE, N.C. 28117  
 TELEPHONE: (704) 864-9824 FAX: (704) 863-1044  
 EMAIL: TODD@TODDCAREY.COM  
 WEB SITE: HTTP://WWW.TODDCAREY.COM



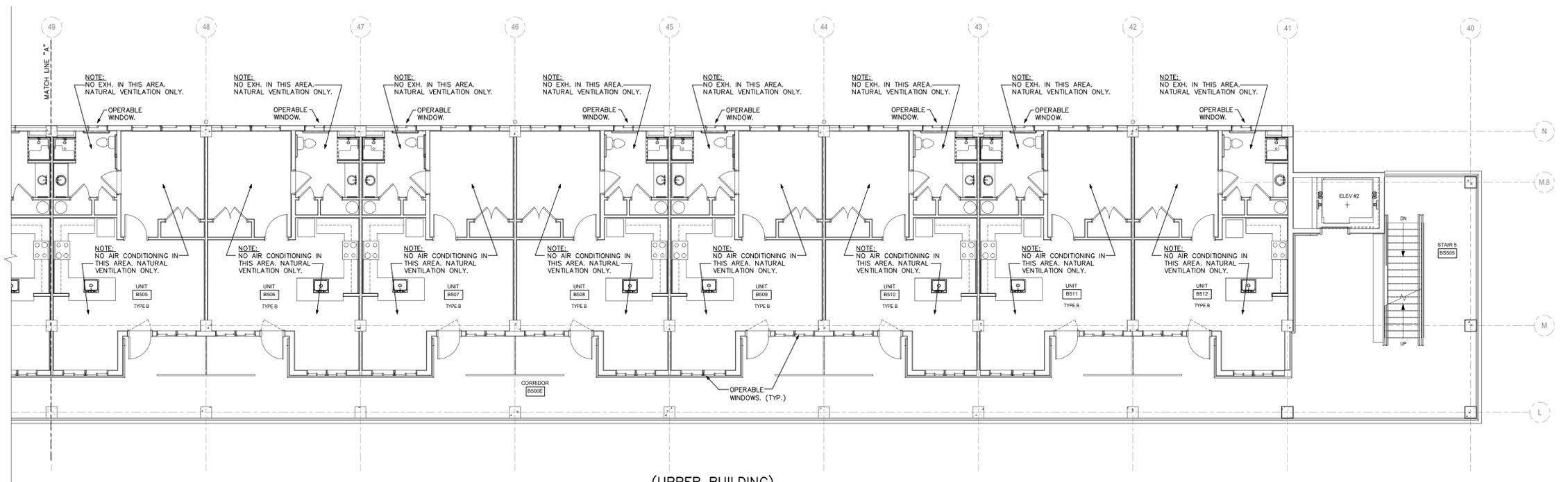
M-107







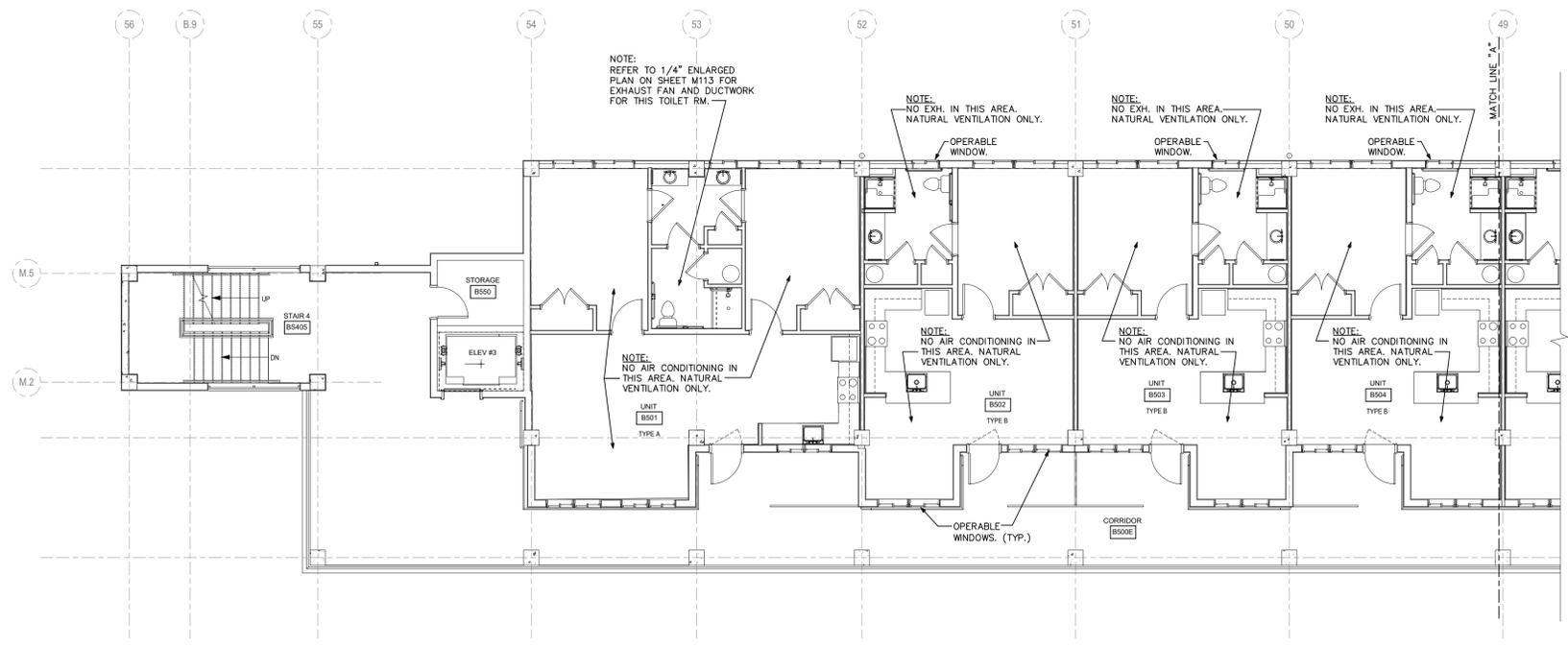
(UPPER BUILDING)  
**1B - LEVEL 4 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"



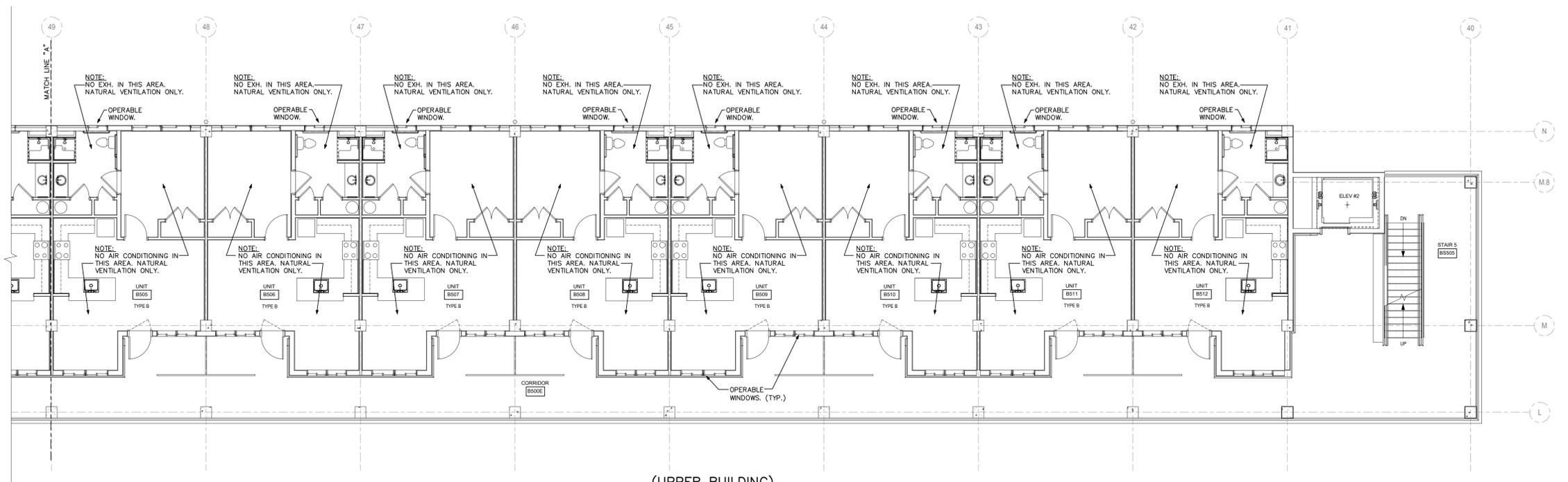
(UPPER BUILDING)  
**1B - LEVEL 4 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

KEY PLAN

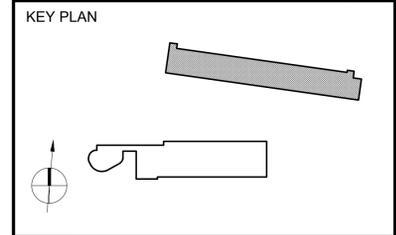
A key plan showing the location of the floor plan within the building footprint. It includes a north arrow and a shaded rectangular area representing the specific section shown in the main drawing.

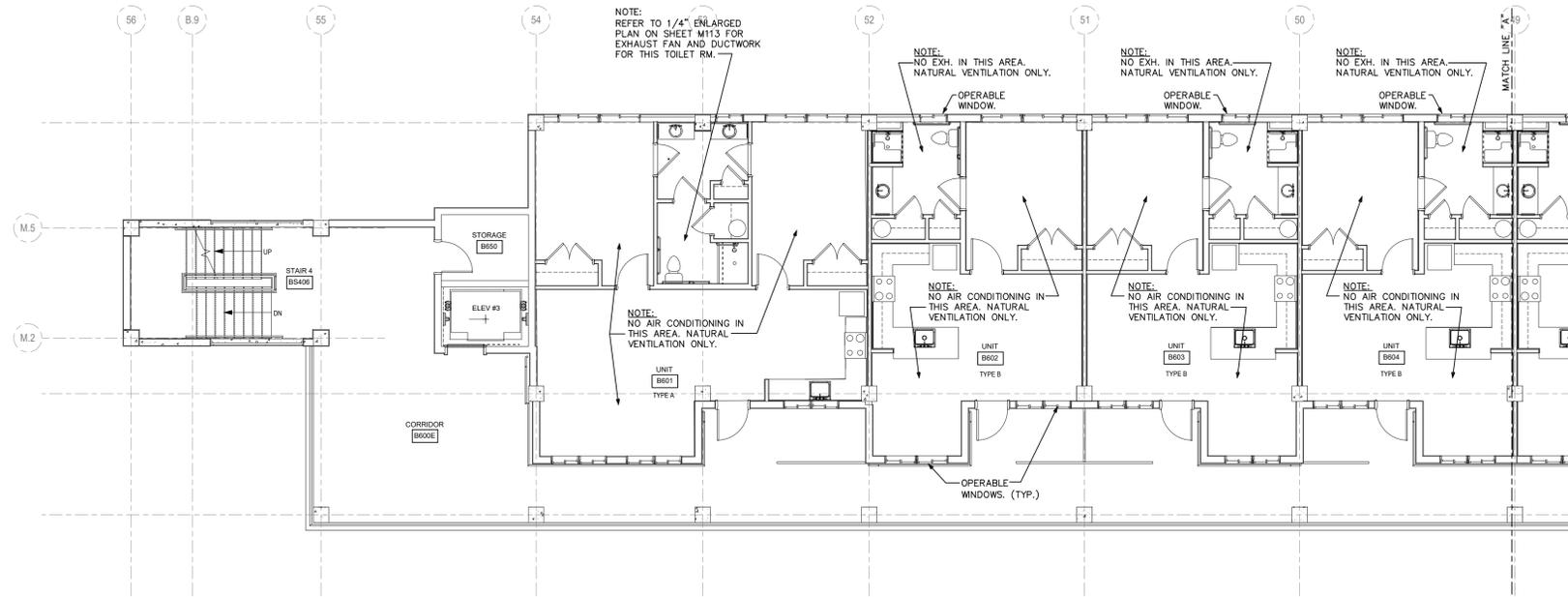


(UPPER BUILDING)  
**1 B - LEVEL 5 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

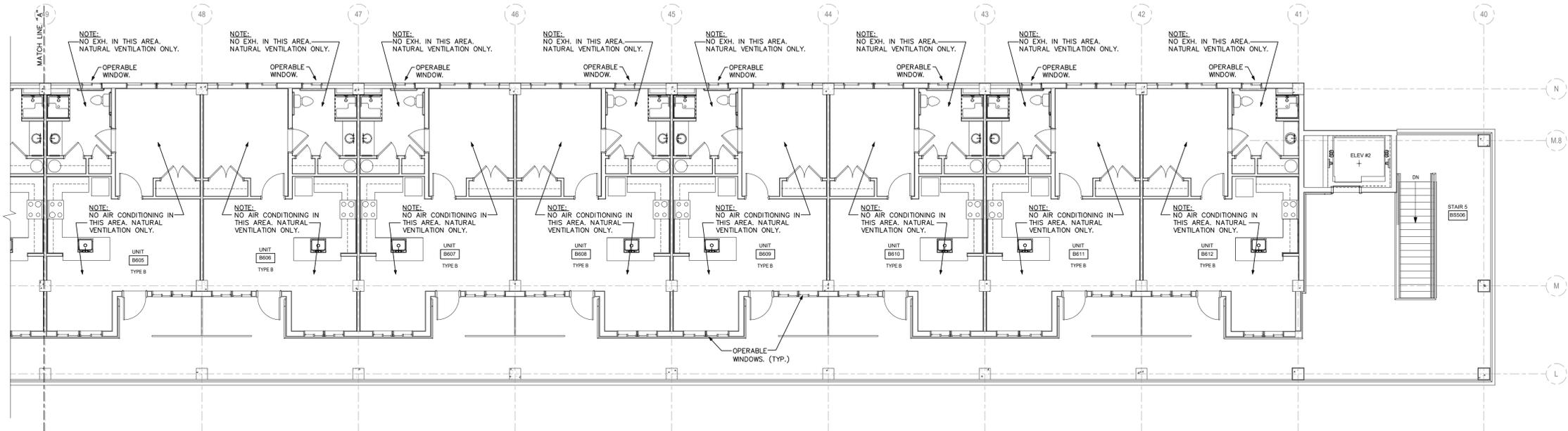
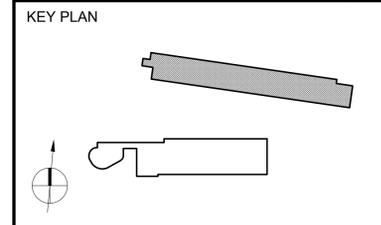


(UPPER BUILDING)  
**1 B - LEVEL 5 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"





(UPPER BUILDING)  
**2 B - LEVEL 6 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"



(UPPER BUILDING)  
**1 B - LEVEL 6 PARTIAL FLOOR PLAN - MECHANICAL**  
 SCALE: 1/8"=1'-0"

**GENERAL MECHANICAL NOTES**

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE APPLICABLE BUILDING CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST ADDITION OF THE FOLLOWING PUBLICATIONS: SWACNA, ASHRAE, NFPA 90A, 90B, 91 & ANS B-8.1 ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND SUPPORTED AS PER SWACNA STANDARDS.
- THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
- THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES TO INSURE AN ORDERLY PROGRESS OF THIS WORK.
- THE CONTRACTOR SHALL SUPPLY THE OWNER WITH ONE SET OF "AS-BUILT" DRAWINGS UPON COMPLETION OF THIS PROJECT. CONTRACTOR SHALL ALSO LEAVE FOR ONE AT LEAST ONE SET OF THE MANUFACTURER'S INSTALLATION AND OPERATIONS MANUALS FOR ALL EQUIPMENT PROVIDED ON THE PROJECT.
- ALL PROVIDED MATERIALS SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.
- CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE (5) COPIES OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT. IT IS STRONGLY PREFERRED THAT THE SUBMITTALS BE MADE IN THE FORM OF AN ELECTRONIC SUBMITTAL IN A PDF TYPE FORMAT.
- ALL AIR CONDITIONING DUCTWORK SHALL BE OF STANDARD DUTY FOIL REINFORCED FIBERGLASS BOARD WITH MANUFACTURER'S LOGO PRINTED ON VAPOR BARRIER OF ALL DUCTWORK. SUPPLY DUCTBOARD SHALL HAVE A MIN. OF R-6 INSULATION VALUE AND RETURN AIR DUCTBOARD SHALL HAVE A MIN. OF R-4.2 INSULATION VALUE. ALL FLEX DUCT SHALL BE "THERMOFLEX" OR APPROVED EQUAL AND SHALL HAVE EQUIVALENT INSULATION.
- ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.
- DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS, METALAIR, AIRGUIDE. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
- THERMOSTAT SHALL BE COMBINATION COOLING/HEATING WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES. PROVIDE PROGRAMMABLE TYPE THERMOSTAT. \* CONTRACTOR SHALL FULLY INSTRUCT OWNER ON HOW TO PROPERLY PROGRAM INSTALLED THERMOSTATS. \* PROGRAMMABLE THERMOSTAT SHALL BE BY MANUFACTURER OF INSTALLED AIR HANDLING UNIT. IT IS RECOMMENDED THAT DURING OCCUPIED HOURS, THE FANS BE SET TO "ON" IN LIEU OF "AUTO". \* THERMOSTATS SHALL BE MOUNTED A MAX. OF 48" A.F.F.
- REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL SIZED AS PER MANUFACTURER RECOMMENDATIONS.
- SPLIT SYSTEMS (IF APPLICABLE) SHALL HAVE ARMAFLEX 3/4" INSULATION (OR APPROVED EQUAL) USED FOR SUCTION LINES. INSTALLATION SHALL BE AS PER MANUFACTURERS INSTRUCTIONS. PRE-INSULATED LINES SETS ARE ACCEPTABLE.
- ALL BRANCH TAKE-OFFS TO BE PROVIDED W/MANUAL VOLUME DAMPERS AND TAPS AS PER PLANS REQUIREMENTS.
- PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY OWNER.
- PROVIDE SMOKE DETECTORS WITH ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FANS AND AHU'S SERVING A COMMON DESIGN SUPPLY OR RETURN PLENUM OF ABOVE 2000 CFM. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURER. COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.
- HVAC CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS. THE T & B SHALL BE IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLS, RETURN GRILLS, AND EXHAUST GRILLS, AND THE LEAVING AND ENTERING AIR TEMPERATURE (T) FROM SUPPLY GRILLS AND EVAPORATORS.
- THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER BEFORE INSTALLATION.
- ALL INSULATION SHALL HAVE FIRE/SMOKE RATING LESS THAN 25/50.
- MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND WIND LOADING FORCES AS REQUIRED BY LOCAL CODES. REFER TO STRUCTURAL PLANS BY OTHERS FOR STRUCTURAL DETAILS.
- PROVIDE ALL NECESSARY CONTACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING SYSTEM.
- THROUGHOUT THE COURSE OF THE WORK, MINOR CHANGES AND ADJUSTMENTS TO THE PLANS AND SPECIFICATIONS MAY BE REQUESTED BY THE TENANT. THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS WITHOUT ADDITIONAL COST TO THE TENANT, WHERE SUCH ADJUSTMENTS ARE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE SYSTEMS, AND WITHIN THE INTENT OF THE CONTRACT DOCUMENTS.
- NOTWITHSTANDING ANY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR BEARS ULTIMATE RESPONSIBILITY FOR COMPLIANCE OF THE INSTALLATION WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- IF ANY ERRORS, DISCREPANCIES OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH ERROR OR OMISSION. IN THE EVENT OF THE CONTRACTOR FAILING TO GIVE SUCH NOTICE BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS, DISCREPANCIES OR OMISSIONS AND THE COST OF RECTIFYING SAME.

**SPLIT SYSTEM AIR CONDITIONING SCHEDULE**

CONDENSING UNIT										AIR HANDLING UNIT							
CU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CAPACITY	SENSIBLE CAPACITY	COMP. RLA	FAN FLA	VOLTAGE	MOCP	EER/SEER	AHU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CFM	O/A CFM	E.S.P. BLOWER SPEED	FAN HP	HEATER KW	VOLTAGE	NOTES
CU #1	CARRIER 24ACB324A005	23,000	17,810	13.5	.75	208V/1Ø	25A	13.0	AHU #1	FIRST COMPANY 24HXO-C	800	SEE SCH.	.30"	HIGH	1/4 HP	208V/1Ø	1 THRU 5,6
CU #2	CARRIER 24ACB330A005	27,800	21,890	10.1	.75	208V/3Ø	20A	13.0	AHU #2	FIRST COMPANY 30HXO-C	1,000	SEE SCH.	.30"	HIGH	1/4 HP	208V/1Ø	1 THRU 5,7
CU #3	CARRIER 24ACB336A006	33,800	26,580	9.2	1.4	208V/3Ø	20A	13.0	AHU #3	FIRST COMPANY 36HXO-C	1,200	SEE SCH.	.25"	HIGH	1/3 HP	208V/1Ø	1 THRU 5,8
CU #4	CARRIER 24ACB336A006	33,800	26,580	9.2	1.4	208V/3Ø	20A	13.0	AHU #4	FIRST COMPANY 36HXO-C	1,200	SEE SCH.	.25"	HIGH	1/3 HP	208V/1Ø	1 THRU 5,8
CU #5	NOT USED	-	-	-	-	-	-	-	AHU #5	NOT USED	-	-	-	-	-	-	-
CU #6	CARRIER 24ACB336A006	33,800	26,580	9.2	1.4	208V/3Ø	20A	13.0	AHU #6	FIRST COMPANY 36HXO-C	1,200	SEE SCH.	.25"	HIGH	1/3 HP	208V/1Ø	1 THRU 5,8
CU #7	CARRIER 24ACB324A005	23,000	17,810	13.5	.75	208V/1Ø	25A	13.0	AHU #7	FIRST COMPANY 24HXO-C	800	SEE SCH.	.30"	HIGH	1/4 HP	208V/1Ø	1 THRU 5,6
CU #8	CARRIER 24ACB318A005	17,300	13,360	9.0	.5	208V/1Ø	20A	13.0	AHU #8	FIRST COMPANY 18HXO-C	800	SEE SCH.	.30"	HIGH	1/8 HP	208V/1Ø	1 THRU 5,6
CU #9	CARRIER 24ACB336A006	33,800	26,580	9.2	1.4	208V/3Ø	20A	13.0	AHU #9	FIRST COMPANY 36HXO-C	1,200	SEE SCH.	.25"	HIGH	1/3 HP	208V/1Ø	1 THRU 4

GENERAL NOTES:

- \* ALL RATINGS ARE AT ARI ENTERING CONDITIONS UNLESS OTHERWISE NOTED.
- \* PROVIDE VIBRATION ISOLATION FOR UNITS.
- \* EXTERNAL STATIC PRESSURE DOES NOT INCLUDE COIL OR FILTER PRESSURE DROP.

ABBREVIATION LEGEND:

- O/A - OUTSIDE AIR
- HP - HORSE POWER
- RLA - RUNNING LOAD AMPS
- FLA - FULL LOAD AMPS
- MOCP - MAX. OVERCURRENT PROTECTION (DUAL ELEMENT TYPE FUSE)
- E.S.P. - EXTERNAL STATIC PRESSURE
- EER - ENERGY EFFICIENCY RATIO
- SEER - SEASONAL ENERGY EFF. RATIO

SPECIFIC NOTES:

- SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.
- INSULATE REFRIGERANT SUCTION LINE WITH 3/4" ARMAFLEX OR APPROVED EQUAL.
- INSTALL CHEMICAL DRYER AND STRAINER IN REFRIGERANT LIQUID LINE.
- PROVIDE 5 YEAR WARRANTY ON COMPRESSOR AND 1 YEAR WARRANTY ON ALL PARTS AND LABOR.
- PROVIDE OPTIONAL INSULATED ENCLOSURE AND CAP KIT FOR INSTALLATION ABOVE SUSPENDED CEILING. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE CAP KIT PART #9PHX01.
- PROVIDE CAP KIT PART #9PHX02.
- PROVIDE CAP KIT PART #9PHX03.

**FAN SCHEDULE**

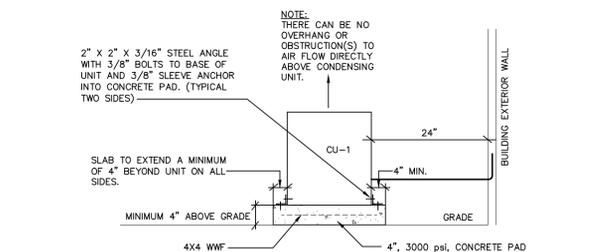
LABEL	TYPE OF UNIT - AREA SERVED	MANUFACTURER & MODEL NO.	CFM	SP	MOUNTING ARRANGEMENT	MOTOR H.P.	ENCLOSURE TYPE	RPM	VOLTAGE	NOTES
EF-1,3,5,7A,7B,8,10	CABINET FAN - REFER TO PLANS	PENN ZEPHYR Z6	90	.125"	CEILING MOUNTED	50 WATTS	OPEN DRIP PROOF	1055	115V/1Ø	1
EF-2,4,6,9	CABINET FAN - REFER TO PLANS	PENN ZEPHYR Z7	190	.125"	CEILING MOUNTED	68 WATTS	OPEN DRIP PROOF	1640	115V/1Ø	1

NOTES: 1.) REFER TO ELECTRICAL PLANS FOR CONTROL.

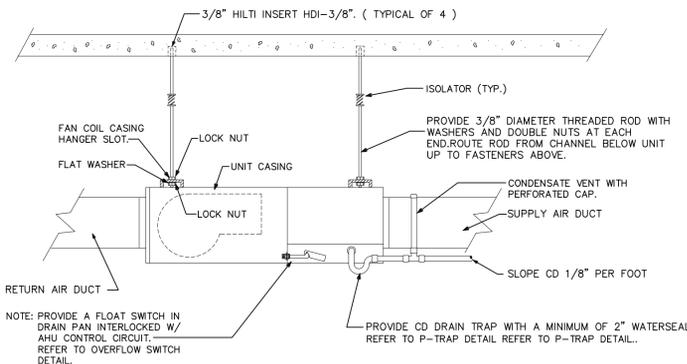
**OUTSIDE AIR CALCULATIONS**

THE FOLLOWING IS BASED ON ASHRAE STANDARD 62.1-2007 FOR OUTSIDE AIR REQUIREMENTS

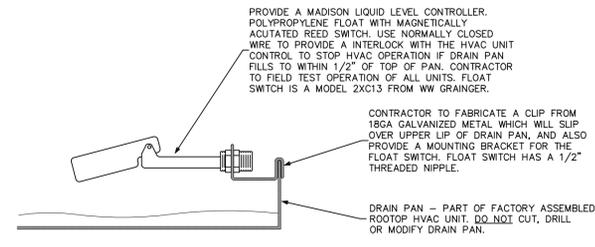
UNIT LABEL	OCCUPANCY CATEGORY	AREA	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)	E <sub>z</sub>	TOTAL
AHU #1	CONFERENCE	450	50 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	( 23 X 5 ) + ( 450 X .06 ) = 142 PEOPLE AREA TOTAL	0.8	142/0.8 = 178
AHU #2	OFFICE	675	5 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	( 4 X 5 ) + ( 675 X .06 ) = 61 PEOPLE AREA TOTAL	0.8	61/0.8 = 76
AHU #2	STORAGE	130	0.06 CFM PER SQ. FT.	( N/A ) + ( 130 X .06 ) = 8 PEOPLE AREA TOTAL	0.8	8/0.8 = 10
				AHU #2 TOTAL = 69	0.8	69/0.8 = 87
AHU #3&4	CONFERENCE	1450	50 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	( 72 X 5 ) + ( 1450 X .06 ) = 447 PEOPLE AREA TOTAL	0.8	447/0.8 = 558
AHU #5	NO USED	-	-	-	-	-
AHU #6	CONFERENCE/MEETING	490	50 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	( 25 X 5 ) + ( 490 X .06 ) = 155 PEOPLE AREA TOTAL	0.8	155/0.8 = 194
AHU #7	HEALTH CLUB/WEIGHT ROOM	500	10 PEOPLE PER 1,000 S.F./20 CFM PER PERSON	( 5 X 20 ) + ( 500 X .06 ) = 130 PEOPLE AREA TOTAL	0.8	130/0.8 = 163
AHU #8	OFFICE	285	5 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	( 2 X 5 ) + ( 285 X .06 ) = 28 PEOPLE AREA TOTAL	0.8	28/0.8 = 35
AHU #9	CONFERENCE	790	50 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	( 40 X 5 ) + ( 790 X .06 ) = 248 PEOPLE AREA TOTAL	0.8	248/0.8 = 310



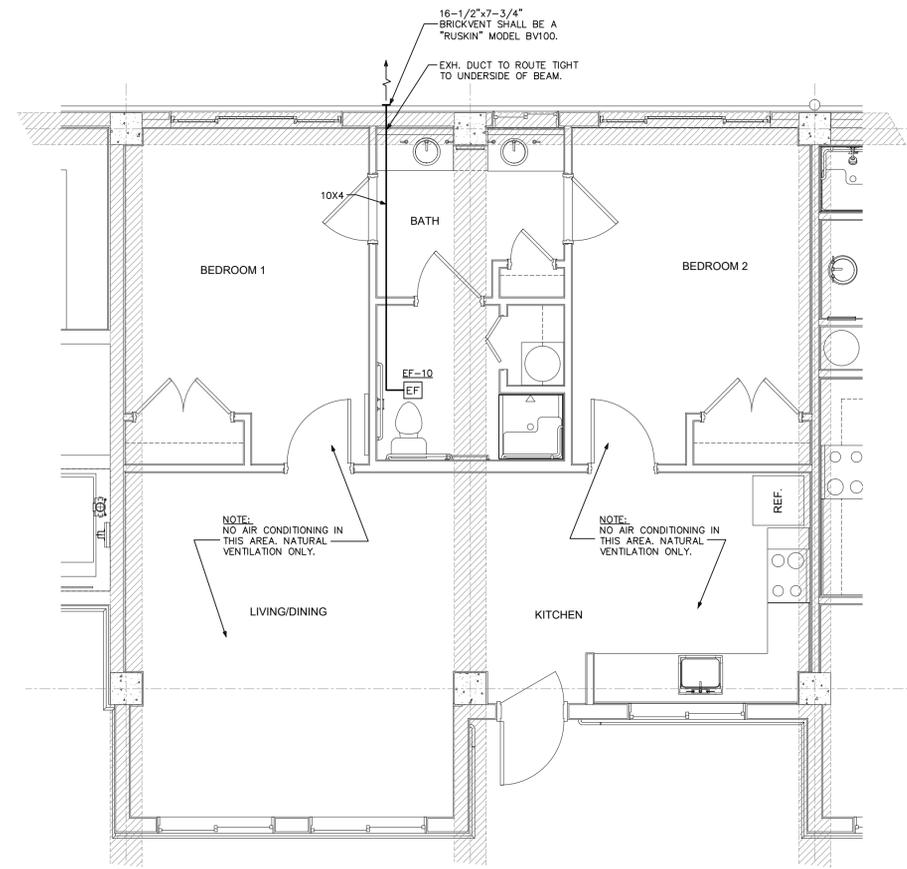
**2 COND. UNIT MTG. DETAIL**  
NO SCALE



**4 AHU MOUNTING DETAIL**  
NO SCALE



**3 OVERFLOW SWITCH DETAIL**  
NO SCALE



**1 UNIT PLAN 2 BEDROOM TYPE A&B**  
SCALE: 1/4"=1'-0"

## GENERAL PLUMBING NOTES

- DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL PLUMBING FIXTURES, EQUIPMENT, ETC.. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE AND ACCEPTABLE WORKING INSTALLATION. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL FIXTURES AND EQUIPMENT IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THIS REQUIREMENT IS TO SUPERSEDE ANY DETAILS OR INFORMATION CONTAINED ON THESE DRAWINGS.
- ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL STATE, AND ALL LOCAL CODES AND ORDINANCES HAVING JURISDICTION.
- THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS. ALL EXECUTION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
- ALL MATERIAL SHALL BE NEW.
- ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
- ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OR PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- THE PLUMBING CONTRACTOR SHALL SECURE AND PAY ALL PERMIT FEES, INSPECTIONS, AND TESTS.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) ONE YEAR FROM DATE OF ACCEPTANCE. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- VERIFY LOCATION, SIZE AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. ADVISE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- ALL FIXTURES SHALL BE PROVIDED WITH READILY ACCESSIBLE STOPS.
- ALL BELOW FLOOR SLAB WATER PIPING SHALL BE FLEXIBLE "TEMPRITE PEX (CROSS-LINKED POLYETHYLENE)" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.LUBRIZOL.COM. ALL ABOVE SLAB WATER PIPING SHALL BE "FLOWGUARD GOLD CPVC" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.FLOWGUARDGOLD.COM. ALL WATER PIPING AS SPECIFIED. ALL WATER PIPING LARGER THAN 1" SHALL BE CPVC.
- SOIL, WASTES AND VENT PIPING SHALL BE PVC #40 D.M.V. WASTE AND VENT PIPING ABOVE SLAB SHALL BE PVC. IF APPROVED BY LOCAL AUTHORITIES HAVING JURISDICTION, OTHERWISE CAST IRON. PVC SHALL NOT BE INSTALLED IN A/C RETURN AIR PLENUM OR PENETRATE FIRE RATED WALLS OR FLOORS.
- AIR CONDITIONING CONDENSATE DRAIN PIPING SHALL BE PVC #40 OR COPPER DRAIN WASTE AND BENT PIPE AND FITTINGS. INSULATE ALL CONDENSATE PIPING EXCEPT EXTERIOR PIPING. INSTALL ALL CONDENSATE PIPING FOR AIR CONDITIONING UNITS AS REQUIRED PER LOCAL CODES.
- FURNISH AND INSTALL APPROVED WATER HAMMER ARRESTORS AT EACH GROUP OF FIXTURES. INSTALLATION OF WATER HAMMER ARRESTORS SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE AND INSTALL AN APPROVED WATER HAMMER ARRESTOR AT EACH FIXTURE OR DEVICE THAT HAS A SOLENOID WATER CONTROL VALVE.
- PROVIDE CHROME PLATED COMBINATION COVERED PLATE AND CLEANOUT PLUG FOR ALL WALL CLEANOUTS, JOSAM 58890.

## PLUMBING FIXTURE SCHEDULE

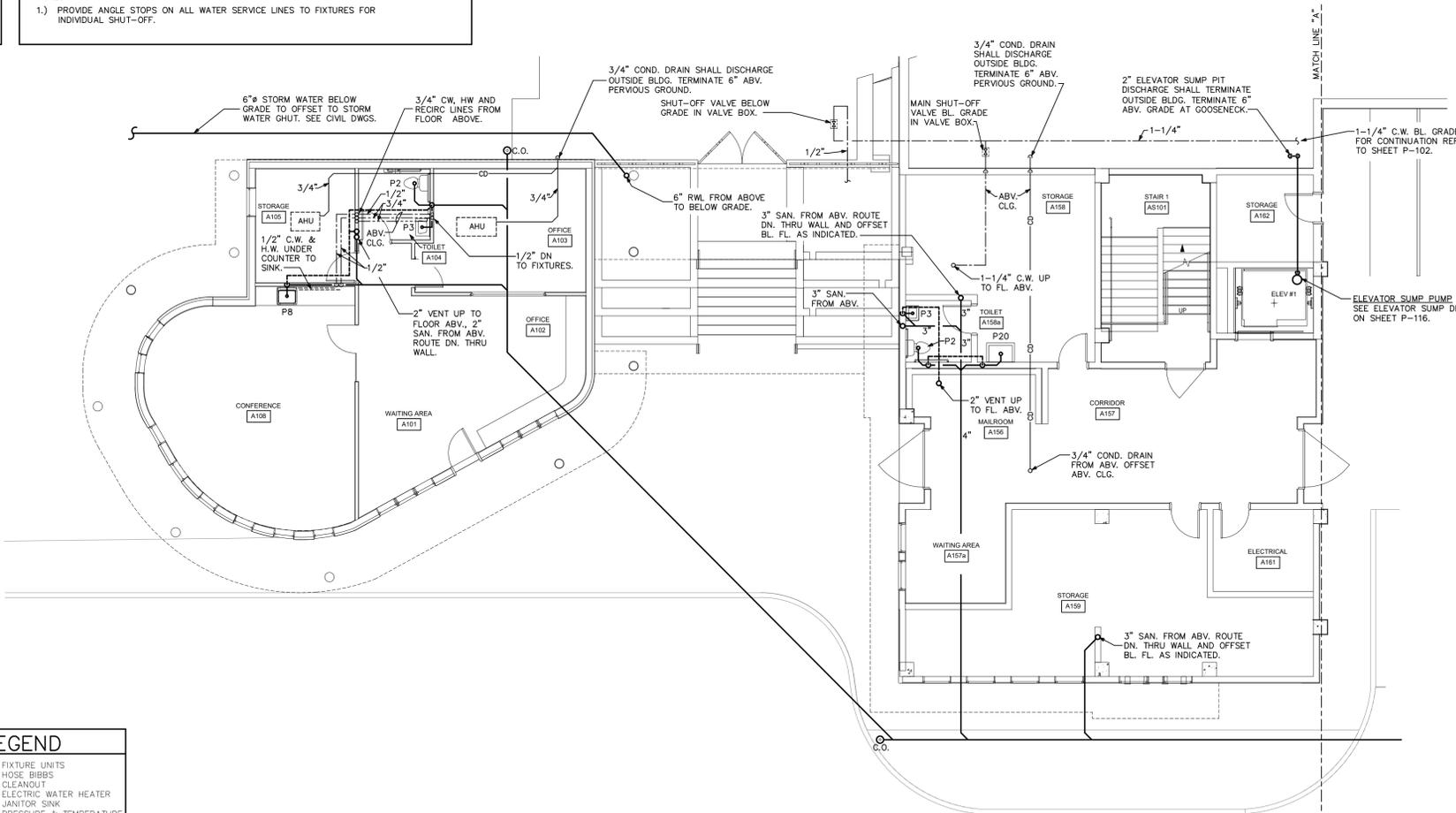
<p><b>P-1 (FLOOR MOUNTED FLUSH TANK WATER CLOSET)</b> SHALL BE A "NIAORA CONSERVATION" MODEL N7714 ROUND BOWL WITH N7714 TANK. 0.8 GALLONS PER FLUSH (0.8 GPF). * <a href="http://go.gi/1rJwFq">http://go.gi/1rJwFq</a></p>	<p><b>P-9 (HOSE BIBB - NARROW WALL HYDRANT - MODERATE CLIMATE)</b> SHALL BE A ZURN Z1350 ENGASED MODERATE CLIMATE WALL HYDRANT FOR NARROW WALL INSTALLATION. COMPLETE WITH BRONZE BODY, ALL BRONZE INTERIOR PARTS, REPLACEABLE SEAT WASHER, SCREWDRIVER OPERATED STOP VALVE IN SUPPLY, KEY OPERATED CONTROL VALVE, AND 3/4" IP FEMALE INLET AND 3/4" MALE HOSE CONNECTION STANDARD. STAINLESS STEEL BOX AND HINGED COVER WITH CYLINDER LOCK AND "WATER" STAMPED ON COVER. *NOTE: CAULKING OF INSIDE JOINTS BY OTHERS. * <a href="http://www.zurn.com/operations/specdraw/pdfs/specsheets/58877.pdf">http://www.zurn.com/operations/specdraw/pdfs/specsheets/58877.pdf</a></p>	<p><b>P-16 (POTABLE WATER BOOSTER PUMP SYSTEM)</b> HIGH FLOW MODEL TVM-100-C-S4-V10-NSF TRIPLEX BOOSTER PUMP SYSTEM WITH VARIABLE FREQUENCY DRIVE. DESIGNED TO DELIVER 210 GPM @ 90 PSI. WHEN SUPPLIED WITH A MINIMUM SUCTION PRESSURE OF 0.5 PSI. SYSTEM IS PRE-WIRED AND PRE-PIPED. 4" 304 STAINLESS STEEL SUCTION/DISCHARGE MANIFOLD. FACTORY ASSEMBLED SYSTEM ON A PAINTED STEEL BASE. (INCLUDES: 4" 304 STAINLESS STEEL 22.5' VERTICAL MULTISTAGE STAINLESS STEEL FITTED CENTRIFUGAL PUMPS SIZED TO DELIVER 105 GPM @ 210 TDH (EACH PUMP). SUPPLY VOLTAGE TO BE 208V. 3PH. ALSO INCLUDES: TIGERS EYE MARK V NEMA 4 CONTROL PANEL WITH INTERNAL SUB-MICRO DRIVES, ALARM PACKAGE, AND CONTROL PANEL FEATURING A MOTOR MOUNTED PLC SYSTEM TO PROVIDE CONSTANT PRESSURE REGARDLESS OF FLOW, AND PUMP ROTATION. 132 GALLON ASME BLADDER TANK IS INCLUDED. SYSTEM IS UL LISTED, AND NSF/ANSI-61 CERTIFIED. * SEE PUMP SYSTEM DETAIL ON SHEET P108.</p>
<p><b>P-2 (HANDICAPPED FLOOR MOUNTED FLUSH TANK WATER CLOSET)</b> SHALL BE AN AMERICAN STANDARD MODEL CADET RIGHT HEIGHT 16-1/2" 2377.100 ELONGATED 1.6 GPF. VITREOUS CHINA, PRESSURE-ASSISTED SIPHON ACTION BOWL, CLOSE-COUPLED TANK, FLOOR MOUNTED FLOOR OUTLET, SPEED CONNECT TANK/BOWL COUPLING SYSTEM, WITH AMERICAN STANDARD FRONT SEAT WITH COVER MODEL 5325.024. * <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1096.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1096.pdf</a></p>	<p><b>P-10 (WATER CONNECTION BOX)</b> SHALL BE A HIGH QUALITY CONNECTION BOX AS SPECIFIED ON PLUMBINGSUPPLY.COM LOCATED ON THIS PAGE "http://www.plumbingsupply.com/cemcrker-outlet-boxes.html" SHALL INCLUDE 2 SUPPORT BRACKETS, HIGH IMPACT POLYSTYRENE, 1/4" BRASS BALL VALVE WITH 1/2" SWEAT CONNECTION.</p>	<p><b>P-17 (HOT WATER RECIRCULATING PUMP)</b> SHALL BE A "BELL &amp; GOSSETT" MODEL #BL-36B, GRAINGER STOCK #5JPC3, INLINE CIRCULATOR PUMP, OPEN LOOP SYSTEM, 1/6 HP, 1 PHASE, VOLTAGE 115, INLET/OUTLET FLANGED, HOUSING MATERIAL BRONZE, MAX. TEMP. 225 F. MAX. WORKING PRESSURE 150 PSI. SHUT-OFF 37 FT. 3300 RPM, IMPELLER MATERIAL NYLON, THERMAL PROTECTION, MECHANICAL SEAL CARBON/SILICON CARBIDE, ADDITIONAL FEATURES MAINTENANCE-FREE, WARRANTY LENGTH 3 YEARS. * <a href="http://www.grainger.com/Grainger/BELL-GOSSETT-Circulator-Pump-5JPC3?Pid=search">http://www.grainger.com/Grainger/BELL-GOSSETT-Circulator-Pump-5JPC3?Pid=search</a> THE SOLAR CIRCULATION PUMP SHALL BE CONTROLLED BY A "STECA" MODEL TR0201 DIFFERENTIAL TEMPERATURE CONTROLLER. PROVIDE 120 VOLT MODEL CONTROLLER SHALL COMPARE SOLAR COLLECTOR TEMP TO HOT WATER TANK TEMP. PROVIDE ALL WRING BETWEEN CONTROLLER AND REMOTE SENSOR ON ROOF.</p>
<p><b>P-3 (HANDICAPPED WALL HUNG LAVATORY)</b> SHALL BE AN AMERICAN STANDARD MISSOURI LAVATORY MODEL 0436.004US, VITREOUS CHINA, WALL MOUNT WITH CONCEALED ARMS SUPPORTS. PROVIDE AN AMERICAN STANDARD MONTEREY MODEL 6531.170 CENTERSET FAUCET WITH 4" WRIST BLADE HANDLES. FAUCET PROVIDED WITH 0.5 GPM AERATOR. WATER PIPING AND P-TRAP SHALL BE COVERED WITH AN UNDERSINK PROTECTIVE PIPE COVER KIT BY TRUEBRO (HTTP://WWW.TRUEBRO.COM). * <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf</a> * <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_426.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_426.pdf</a></p>	<p><b>P-11 (SHOWER HEAD AND MIXING VALVE)</b> SHALL BE A SPEAKMAN MODEL #SM-5010-E15, SPEAKMAN SENTINELPRO CONCEALED ANTI-SCALD THERMOSTATIC/PRESSURE BALANCED SHOWER VALVE COMBINATION WITH CERTIFICATION TO MEET ASSE 1016 AT 1.5 GPM. CHROME PLATED BRASS WALL PLATE WITH METAL INDEX. CHROME PLATED METAL LEVER HANDLE. ADJUSTABLE TEMPERATURE LIMIT STOP (T.L.S.) FACTORY SET @ 110 F. BRASS BODY WITH INTEGRAL SPRING CHECK STOPS. DUAL ELEMENT THERMOSTATIC/PRESSURE BALANCING CARTRIDGE, WITH 1.5 GPM SHOWER HEAD, SHOWER STALL COORDINATE FINAL SPECIFICATIONS OF SHOWER STALL WITH ARCHITECT/OWNER PRIOR TO BID.</p>	<p><b>P-18 (3" FLOOR DRAIN WITH TRAP SEAL)</b> SHALL BE A JOSAM 3000-WT SERIES COATED CAST IRON FLOOR DRAIN. TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WE.LOC INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET, INSIDE CAULK CONNECTION AND ADJUSTABLE SATIN NIKALOY ROUND SUPER-FLO STRAINER. * <a href="http://www.josam.com/images/josamkkt/sbmt/s06_3000-WT-A.pdf">http://www.josam.com/images/josamkkt/sbmt/s06_3000-WT-A.pdf</a> FLOOR DRAIN TRAP SEAL "SURE SEAL" MODEL S53000 PREASSEMBLED INLINE FLOOR DRAIN TRAP SEALER. 5 PIECES: COMMERCIAL GRADE ABS PLASTIC HOUSING AND KEEPER PIN, PROPRIETARY NEOPRENE RUBBER DIAPHRAGM, WITH 2 SOFT RUBBER SEALING GASKETS. FLOOR RATING ASSE-1072 AF-0W. * <a href="http://www.thesureseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf">http://www.thesureseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf</a></p>
<p><b>P-4 (COUNTER TOP LAVATORY)</b> SHALL BE AN AMERICAN STANDARD MODEL CADET MODEL 0419.888 VITREOUS CHINA SELF-RIMMING. FAUCET SHALL BE AN AMERICAN STANDARD HERITAGE MODEL 7831.000 W/NON-HANDICAPPED HANDLES MODEL 352H. FAUCET PROVIDED WITH 0.5 GPM AERATOR. * <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_95.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_95.pdf</a> * <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1313.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1313.pdf</a></p>	<p><b>P-12 (HANDICAPPED SHOWER MIXING VALVE)</b> SHOWER SHALL INCLUDE AN SPEAKMAN MODEL VS-2272-E15, SENTINELPRO SHOWER SYSTEM INCLUDES SENTINELPRO CONCEALED ANTI-SCALD THERMOSTATIC/PRESSURE BALANCING SHOWER VALVE &amp; COMBINATION WITH CERTIFICATION TO MEET ASSE 1016 AT 1.5 GPM. CHROME PLATED BRASS WALL PLATE, CHROME PLATED METAL LEVER HANDLE. ADJUSTABLE TEMPERATURE LIMIT STOP (T.L.S.), FACTORY SET @ 110 F. BRASS BODY WITH INTEGRAL SPRING CHECK STOPS. DUAL ELEMENT THERMOSTATIC/PRESSURE BALANCING CARTRIDGE, FOUR PORT VALVE WITH 1/2" FEMALE COPPER SWEAT INLETS AND SHOWER OUTLET, 1/2" NPT FEMALE TUB OUTLET. FURNISHED WITH 1/2" P-PIPE PLUG. CHROME PLATED BRASS SUPPLY ELL WITH WALL FLANGE. 69" SQUARE LOCK STAINLESS STEEL HOSE WITH RUBBER LINER. SWIVEL CONNECTOR, IN-LINE VACUUM BREAKER, 30" CHROME PLATED BRASS SLIDE BAR WITH MOUNTING BRACKETS. SPEAKMAN VS-2272-E15 HANDSHOWER WITH FLOW CONTROL DEVICE REDUCES FLOW TO 1.5 GPM. SHOWER STALL COORDINATE FINAL SPECIFICATIONS OF SHOWER STALL WITH ARCHITECT/OWNER PRIOR TO BID.</p>	<p><b>P-19 (CISTERN WATER FILTRATION SYSTEM)</b> SHALL BE A FLORESTONE #MSR-2424 24X24X10" MOLDED MOP BASIN WITH 3" OUTLET. PROVIDE WITH MR-370 FAUCET WITH WALL BRACE, PAIL HOOK AND APPROVED VACUUM BREAKER, MR-370 HOSE &amp; HOSE BRACKET, MR-372 MOP HANGER, MR-373 BUMPER GUARDS AND MR-377 STAINLESS TEE WALL GUARD. * <a href="http://www.florestone.com/mop_sinks/model_50-70.html">http://www.florestone.com/mop_sinks/model_50-70.html</a> * <a href="http://www.florestone.com/mop_sinks/ms_accessories.html">http://www.florestone.com/mop_sinks/ms_accessories.html</a></p>
<p><b>P-5 (HANDICAPPED COUNTER TOP LAVATORY)</b> SHALL BE AN AMERICAN STANDARD MODEL RONALYN MODEL 0490.011 VITREOUS CHINA SELF-RIMMING. PROVIDE AN AMERICAN STANDARD HERITAGE CENTERSET FAUCET WITH 4" WRIST BLADE HANDLES MODEL 6530.170. WATER PIPING AND P-TRAP SHALL BE COVERED WITH AN UNDERSINK PROTECTIVE PIPE COVER KIT BY TRUEBRO (HTTP://WWW.TRUEBRO.COM). FAUCET PROVIDED WITH 0.5 GPM AERATOR. * <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_90.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_90.pdf</a></p>	<p><b>P-13 (HYBRID ELECTRIC WATER HEATER)</b> SHALL BE A "GEOSPRING" MODEL GEH500EEDSR, 50 GALLON HYBRID ELECTRIC WATER HEATER, WITH (2) - 4.5 KW ELECTRIC ELEMENTS WIRED FOR NON-CONCURRENT INDEPENDENT OPERATION AT 208 VOLTS, SINGLE PHASE INCOMING POWER AND HEAT PUMP. DEDICATED 30 AMP. WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE STANDARD 90-80A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION. * <a href="http://products.geappliances.com/appliance/geo-specs/GEH500EEDSR">http://products.geappliances.com/appliance/geo-specs/GEH500EEDSR</a></p>	<p><b>P-8 (CISTERN WATER FILTER TANK)</b> WATER FILTER SYSTEM SHALL CONSIST OF (3) "APPLIED MEMBRANES" MODEL W-C4872ET CARBON FILTER TANK WITH AUTOMATIC ELECTRONIC BACKWASH VALVE AND DIGITAL METER (COORDINATE PRESETS WITH OWNER). TANK HAS A FLOW RATE OF 60 - 188 GPM. TANK SHALL BE PROVIDED WITH AN ELECTRIC BACKWASH SYSTEM WITH A FLOW RATE OF 120 GPM. * COORDINATE INSTALLATION AND ALL REQUIREMENTS OF FILTER AND FILTER BACKWASH SYSTEM/OPERATION WITH MANUFACTURER PRIOR TO CONSTRUCTION. <a href="http://appliedmembranes.com/carbon11.htm">http://appliedmembranes.com/carbon11.htm</a></p>
<p><b>P-6 (HANDICAPPED ELECTRIC WATER COOLER COMBINATION H/L/O)</b> SHALL BE AN ELKAY MODEL EMABFTLBC, SPLT LEVEL TWO STATION WATER COOLER WITH BARRIER FREE ACCESS. MODEL EMABFTLBC, 8.8 GPH, 4.0 FLA AT 120 VOLT. * <a href="http://www.elkayusa.com/cps/rde/xbcr/elkay/12-538_EMABFTLBC_EMABFTLDDC.pdf">http://www.elkayusa.com/cps/rde/xbcr/elkay/12-538_EMABFTLBC_EMABFTLDDC.pdf</a></p>	<p><b>P-14 (HYBRID ELECTRIC WATER HEATER)</b> SHALL BE A "GEOSPRING" MODEL GEH500EEDSR, 50 GALLON HYBRID ELECTRIC WATER HEATER, WITH (2) - 4.5 KW ELECTRIC ELEMENTS WIRED FOR NON-CONCURRENT INDEPENDENT OPERATION AT 208 VOLTS, SINGLE PHASE INCOMING POWER AND HEAT PUMP. DEDICATED 30 AMP. WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE STANDARD 90-80A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION. * <a href="http://products.geappliances.com/appliance/geo-specs/GEH500EEDSR">http://products.geappliances.com/appliance/geo-specs/GEH500EEDSR</a></p>	<p><b>P-20 (FLOOR MOUNTED MOP RECEPTOR)</b> SHALL BE A FLORESTONE #MSR-2424 24X24X10" MOLDED MOP BASIN WITH 3" OUTLET. PROVIDE WITH MR-370 FAUCET WITH WALL BRACE, PAIL HOOK AND APPROVED VACUUM BREAKER, MR-370 HOSE &amp; HOSE BRACKET, MR-372 MOP HANGER, MR-373 BUMPER GUARDS AND MR-377 STAINLESS TEE WALL GUARD. * <a href="http://www.florestone.com/mop_sinks/model_50-70.html">http://www.florestone.com/mop_sinks/model_50-70.html</a> * <a href="http://www.florestone.com/mop_sinks/ms_accessories.html">http://www.florestone.com/mop_sinks/ms_accessories.html</a></p>
<p><b>P-7 (SINGLE BOWL STAINLESS STEEL SINK)</b> SHALL BE A "JUST" MODEL SLF-2125-A-GR, 21"X35"X8" SEAMLESS DIE-DRAWN CONSTRUCTION OF TYPE 304-18-8 STAINLESS STEEL. INTERIOR AND TOP SURFACES POLISHED TO A NONPOROUS HAND-BLENDED JUST FINISH WITH HIGHLIGHTED BOWL RIM. FULLY COATED UNDERSIDE INSULATED FOR SOUND AND REDUCES CONDENSATION. STRAIGHT-SIDED COMPARTMENT WITH RADIUS CORNERS PROVIDES GREATER CAPACITY. SELF-RIMMING TOP MOUNT GRP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS. CONFORMS TO ASME/ANSI A112.19.3M, CERTIFIED CONFORMANCE WITH ASME A112.19.3/CSA B45.4. FAUCET SHALL BE A "JUST" MODEL JWF-201. FAUCET PROVIDED WITH 0.5 GPM AERATOR. * <a href="http://www.justmfg.com/PDF/SLF2125A.pdf">http://www.justmfg.com/PDF/SLF2125A.pdf</a> * <a href="http://www.justmfg.com/PDF/J-119.pdf">http://www.justmfg.com/PDF/J-119.pdf</a></p>	<p><b>P-15 (2" SHOWER DRAIN)</b> SHALL BE A JOSAM 3000-WT SERIES COATED CAST IRON 2" FLOOR DRAIN. TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WE.LOC INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET, INSIDE CAULK CONNECTION AND ADJUSTABLE SATIN NIKALOY ROUND SUPER-FLO STRAINER. * <a href="http://www.josam.com/images/josamkkt/sbmt/s06_3000-WT-A.pdf">http://www.josam.com/images/josamkkt/sbmt/s06_3000-WT-A.pdf</a></p>	<p><b>P-8 (CISTERN WATER FILTER TANK)</b> WATER FILTER SYSTEM SHALL CONSIST OF (3) "APPLIED MEMBRANES" MODEL W-C4872ET CARBON FILTER TANK WITH AUTOMATIC ELECTRONIC BACKWASH VALVE AND DIGITAL METER (COORDINATE PRESETS WITH OWNER). TANK HAS A FLOW RATE OF 60 - 188 GPM. TANK SHALL BE PROVIDED WITH AN ELECTRIC BACKWASH SYSTEM WITH A FLOW RATE OF 120 GPM. * COORDINATE INSTALLATION AND ALL REQUIREMENTS OF FILTER AND FILTER BACKWASH SYSTEM/OPERATION WITH MANUFACTURER PRIOR TO CONSTRUCTION. <a href="http://appliedmembranes.com/carbon11.htm">http://appliedmembranes.com/carbon11.htm</a></p>
<p><b>P-8 (HANDICAPPED SINGLE BOWL STAINLESS STEEL SINK)</b> SHALL BE A "JUST" MODEL SL-ADA-17519-A-GR, 17-1/2"X19"X6-1/2" SINGLE BOWL, SEAMLESS DIE-DRAWN CONSTRUCTION OF TYPE 304-18-8 STAINLESS STEEL. INTERIOR AND TOP SURFACES POLISHED TO A NONPOROUS HAND-BLENDED JUST FINISH WITH HIGHLIGHTED BOWL RIM. FULLY COATED UNDERSIDE INSULATED FOR SOUND AND REDUCES CONDENSATION. STRAIGHT-SIDED COMPARTMENT WITH RADIUS CORNERS PROVIDES GREATER CAPACITY. SELF-RIMMING TOP MOUNT GRP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS. CONFORMS TO ASME/ANSI A112.19.3M, CERTIFIED CONFORMANCE WITH ASME A112.19.3/CSA B45.4. FAUCET SHALL BE A "JUST" MODEL J-1174-KS WITH 4" WRIST BLADE HANDLES. FAUCET PROVIDED WITH 0.5 GPM AERATOR. * <a href="http://www.justmfg.com/PDF/SLAD17519A.pdf">http://www.justmfg.com/PDF/SLAD17519A.pdf</a> * <a href="http://www.justmfg.com/PDF/J-29.pdf">http://www.justmfg.com/PDF/J-29.pdf</a></p>	<p><b>NOTES:</b> 1.) PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.</p>	<p><b>P-19 (CISTERN WATER FILTRATION SYSTEM)</b> SHALL BE A FLORESTONE #MSR-2424 24X24X10" MOLDED MOP BASIN WITH 3" CAMBER SERIES COMMERCIAL ULTRAVIOLET WATER STERILIZER SYSTEM RATED FOR 50 GPM TO 225 GPM FLOWS. SYSTEM INCLUDES A UV MONITOR AND MODEL CU-4-1 UV CONTROLLER. PROVIDE A MODEL BK-120 120 VOLT BALLAST KIT. * INSTALL AS PER MANUFACTURERS RECOMMENDATIONS. <a href="http://appliedmembranes.com/uv3_commercial_uv_systems.htm">http://appliedmembranes.com/uv3_commercial_uv_systems.htm</a></p>

## PLUMBING SYMBOLS LEGEND

	FLOOR DRAIN
	HOSE BIBB
	CLEANOUT
	RELIEF VALVE
	AIR CHAMBER
	SOIL OR WASTE LINE
	SANITARY VENT LINE
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC WATER RECIRCULATION
	PRESSURE & TEMP. RELIEF LINE
	CONDENSATE DRAIN LINE
	RAIN WATER LEADER
	GAS LINE
	SAFEWASTE LINE
	FIRE PROTECTION
	SHUT OFF VALVE
	SAFEPAN LINE
	FIRE SPRINKLER HEAD
	PIPE TURN UP
	PIPE TURN DOWN
	P-TRAP

## PLUMBING ABBREVIATION LEGEND

DN.	DOWN	C.C.	CENTER TO CENTER	F.U.	FIXTURE UNITS
EXT.	EXTERIOR	N.T.S.	NOT TO SCALE	H.B.	HOSE BIBBS
F.D.	FLOOR DRAIN	MFOR.	MANUFACTURER	C.O.	CLEANOUT
F.F.	FINISH FLOOR	S.O.V.	SHUT OFF VALVE	E.W.H.	ELECTRIC WATER HEATER
A.F.F.	ABOVE FINISH FLOOR	W.C.	WATER CLOSET	JAN.SK.	JANITOR SINK
V.T.R.	VENT THRU ROOF	LAV.	LAVATORY	P & T	PRESSURE & TEMPERATURE
TYP.	TYPICAL	SK	SINK	RWL.	RAIN WATER LEADER
R.D.	ROOF DRAIN	D.W.	DISH WASHER		
REV.	REVISION	E.D.F.	ELECTRIC DRINKING FOUNTAIN		
O.C.	ON CENTER	UR.	URINAL		

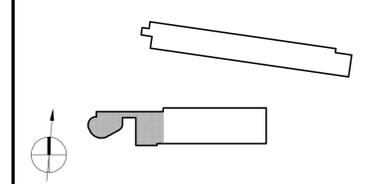


(LOWER BUILDING)

# 1 A - LEVEL 1 PARTIAL FLOOR PLAN - PLUMBING

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

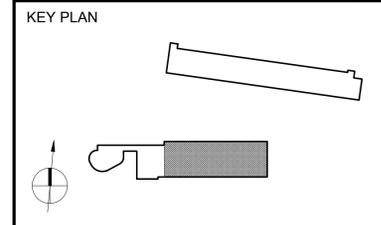
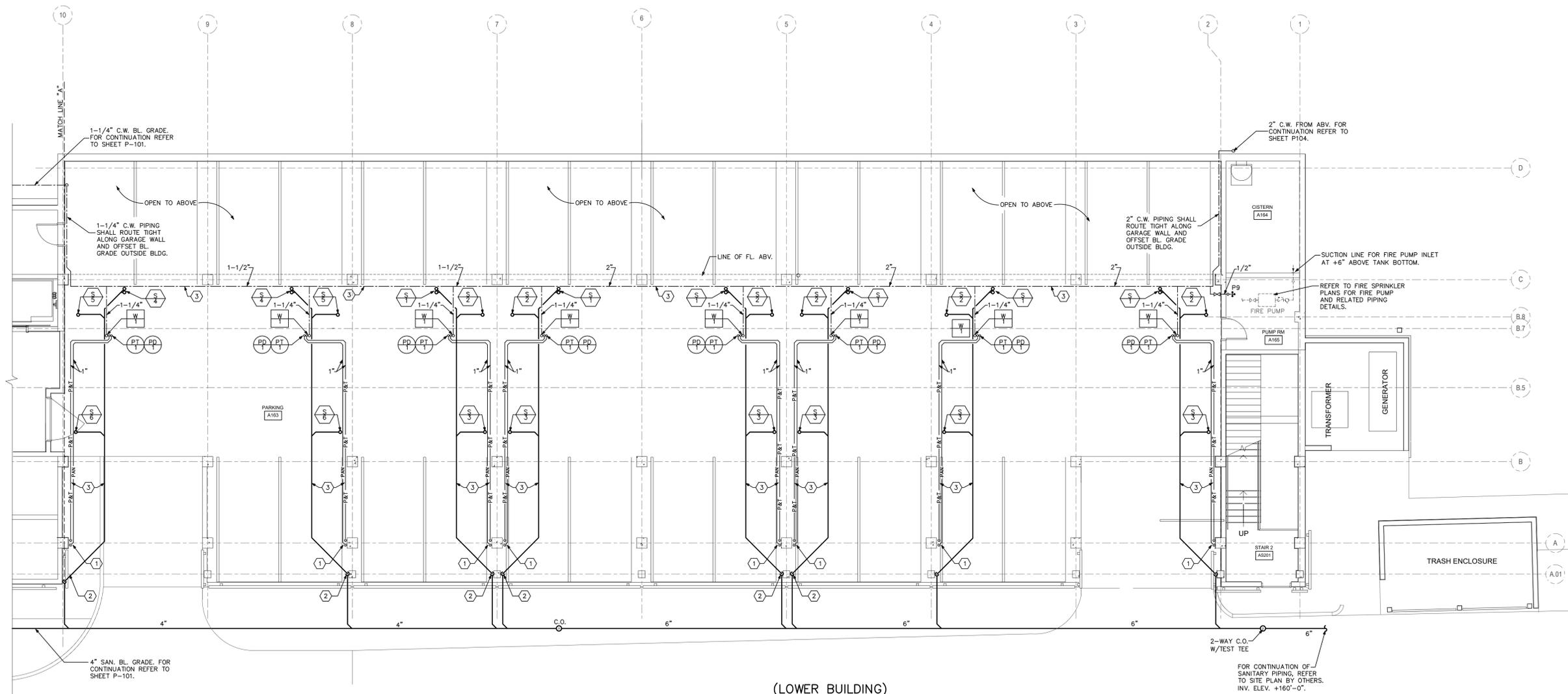
## KEY PLAN



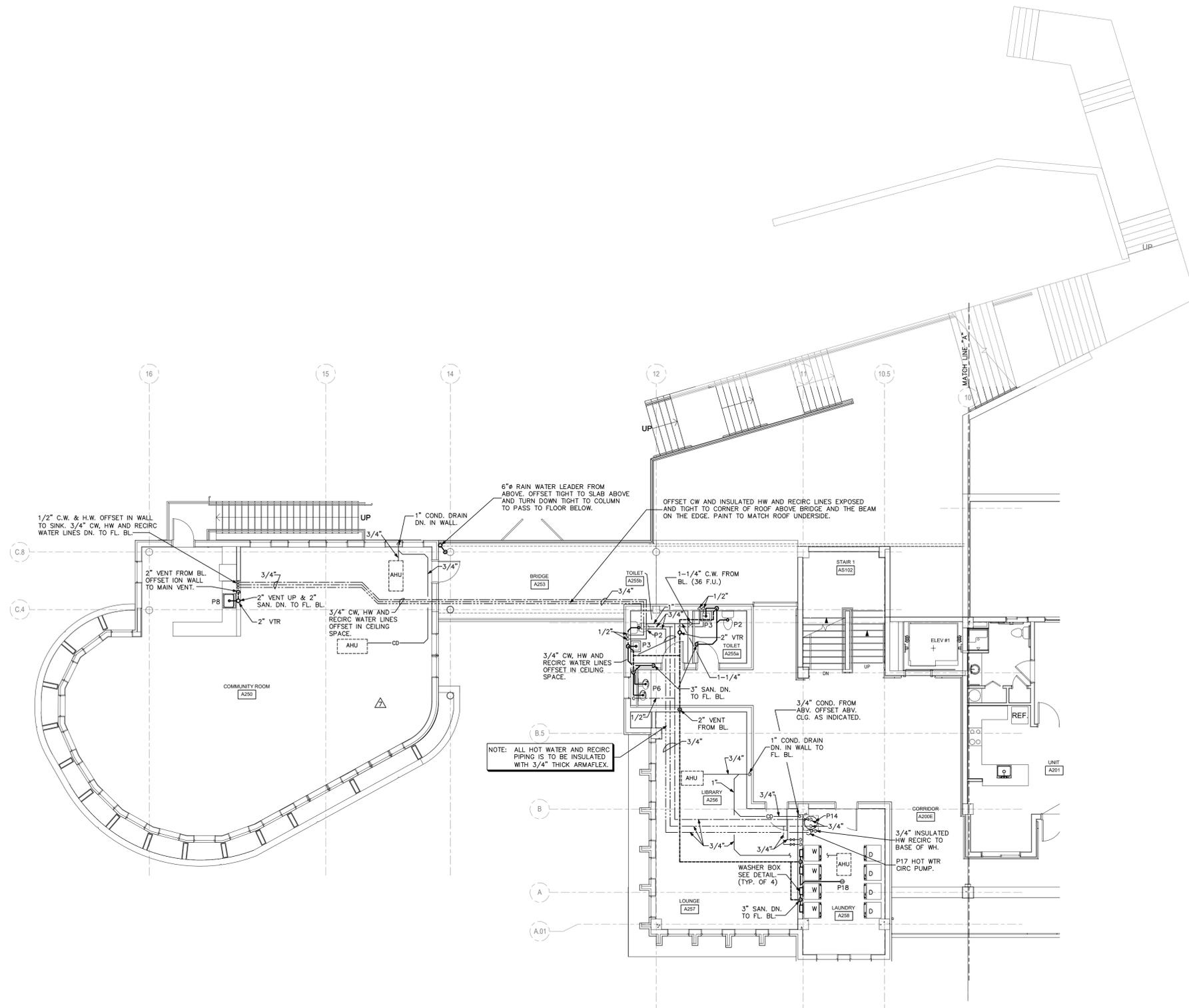
# P-101

**SPECIFIC PLUMBING NOTES**

- ① 1" P&T DRAIN AND 1" PAN DRAIN SHALL ROUTE DOWN ALONG COLUMN. DISCHARGE 12" A.F.F.
- ② 4" SANITARY PIPE DOWN ALONG COLUMN TO BELOW FLOOR. OFFSET BELOW FLOOR AS INDICATED.
- ③ PIPING SHALL ROUTE TIGHT TO UNDERSIDE OF FLOOR SLAB ABOVE.



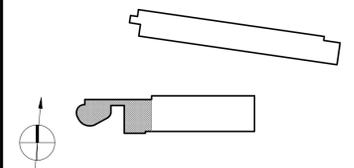
**1 A - LEVEL 1 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"



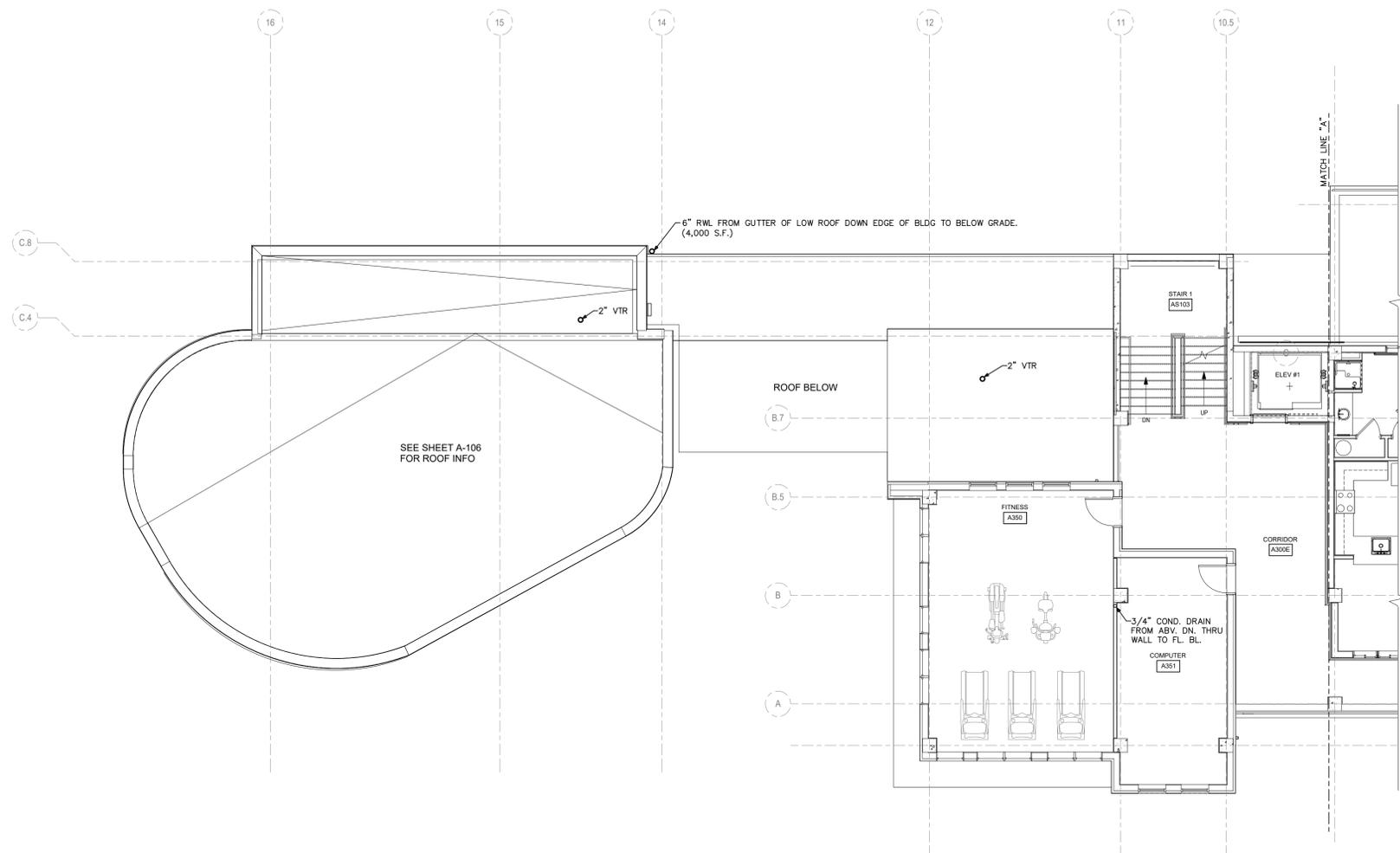
(LOWER BUILDING)

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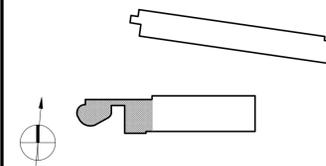
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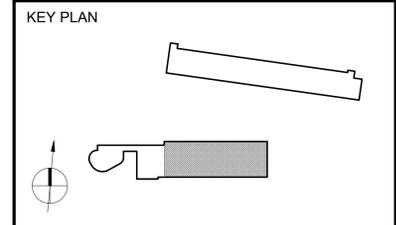
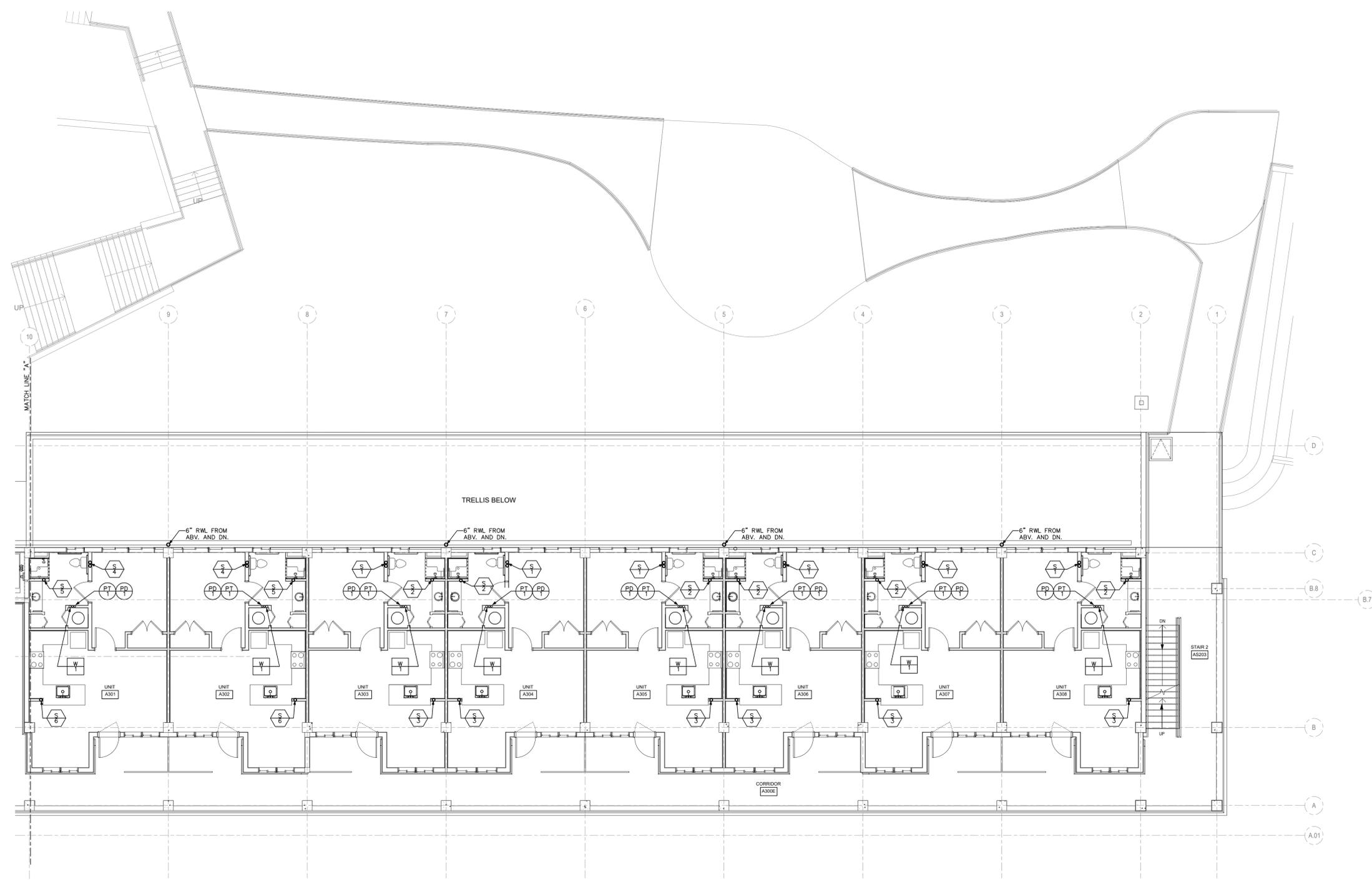




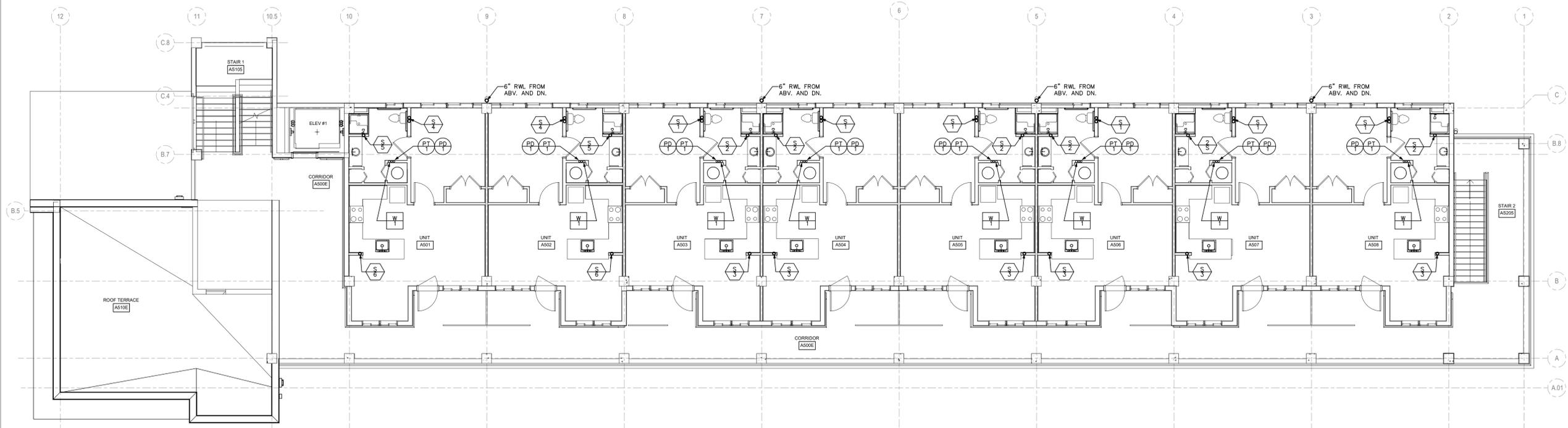
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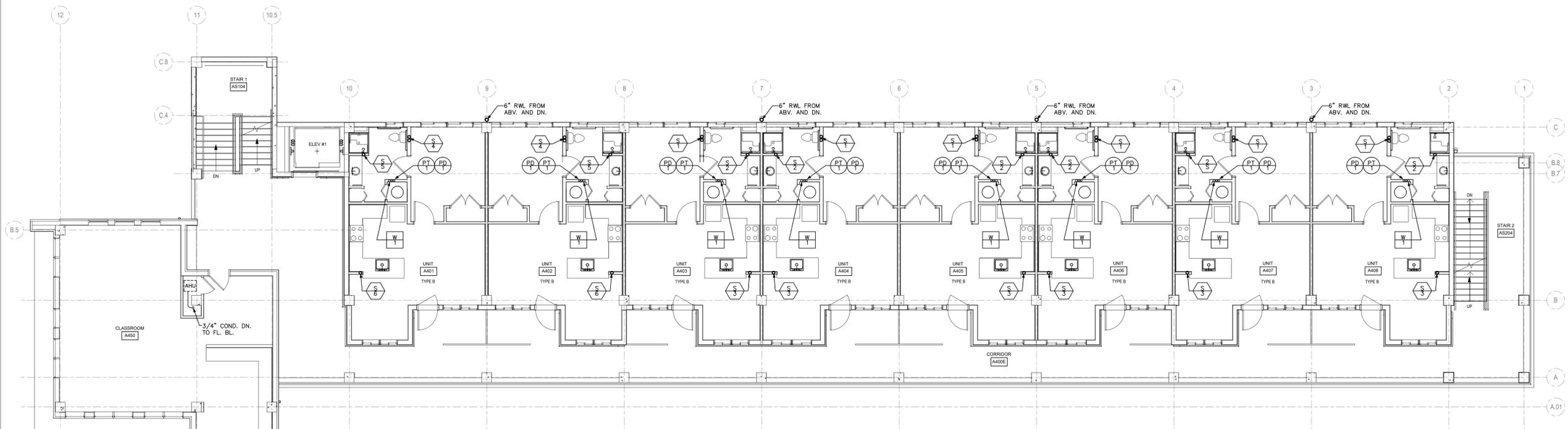
(LOWER BUILDING)  
**1 A - LEVEL 3 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"



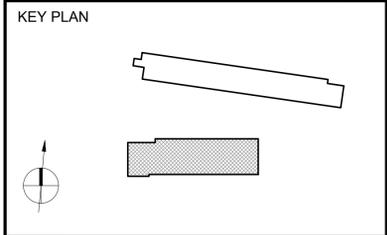
(LOWER BUILDING)  
**1 A - LEVEL 3 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"

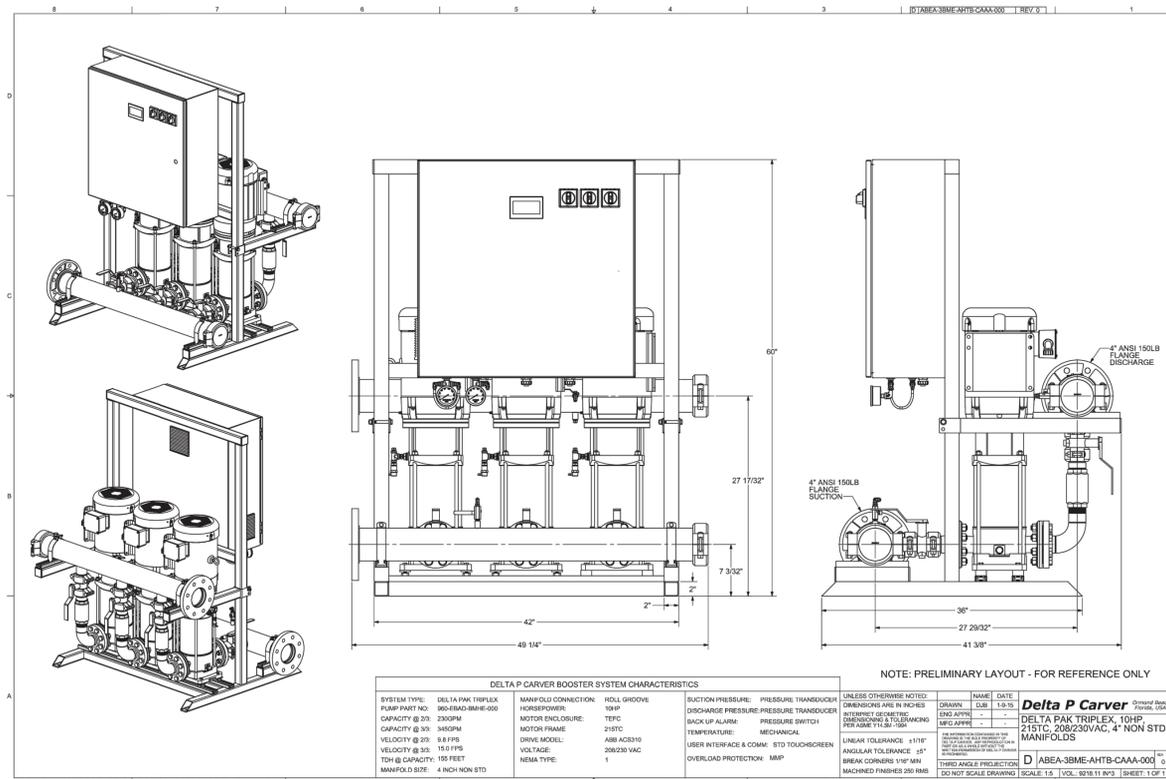


(LOWER BUILDING)  
**2 A - LEVEL 5 FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"

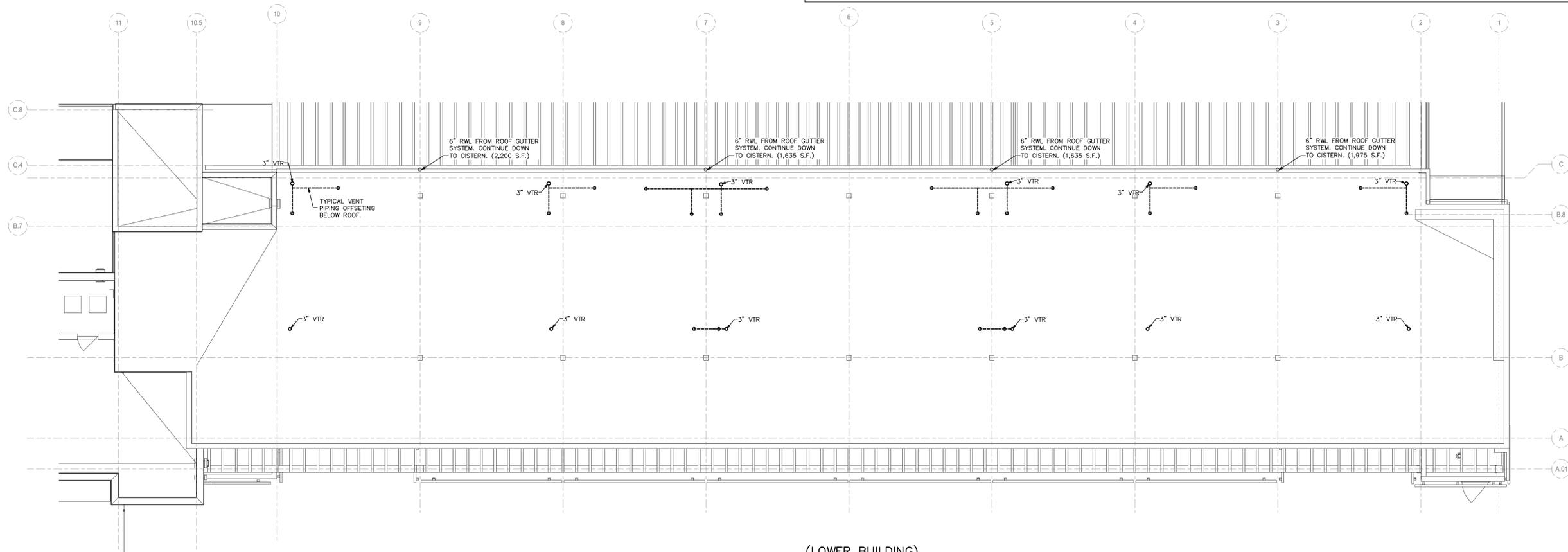


(LOWER BUILDING)  
**1 A - LEVEL 4 FLOOR PLAN - PLUMBING**  
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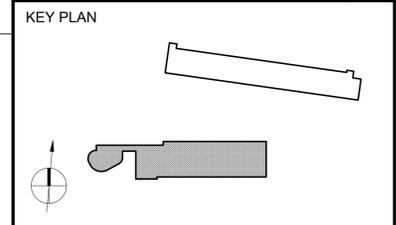




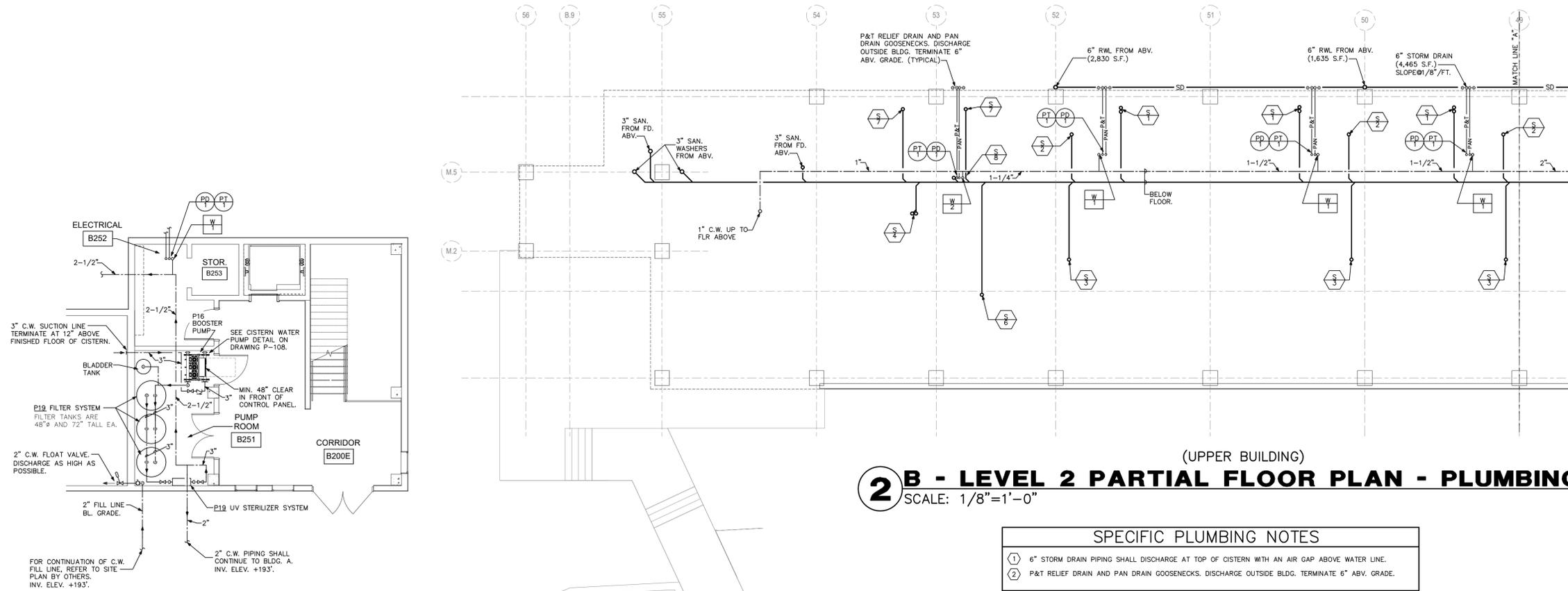
**2 CISTERN PUMP SYSTEM DETAIL**  
NO SCALE



(LOWER BUILDING)  
**1 A - ROOF PLAN (LOW) - PLUMBING**  
SCALE: 1/8"=1'-0"



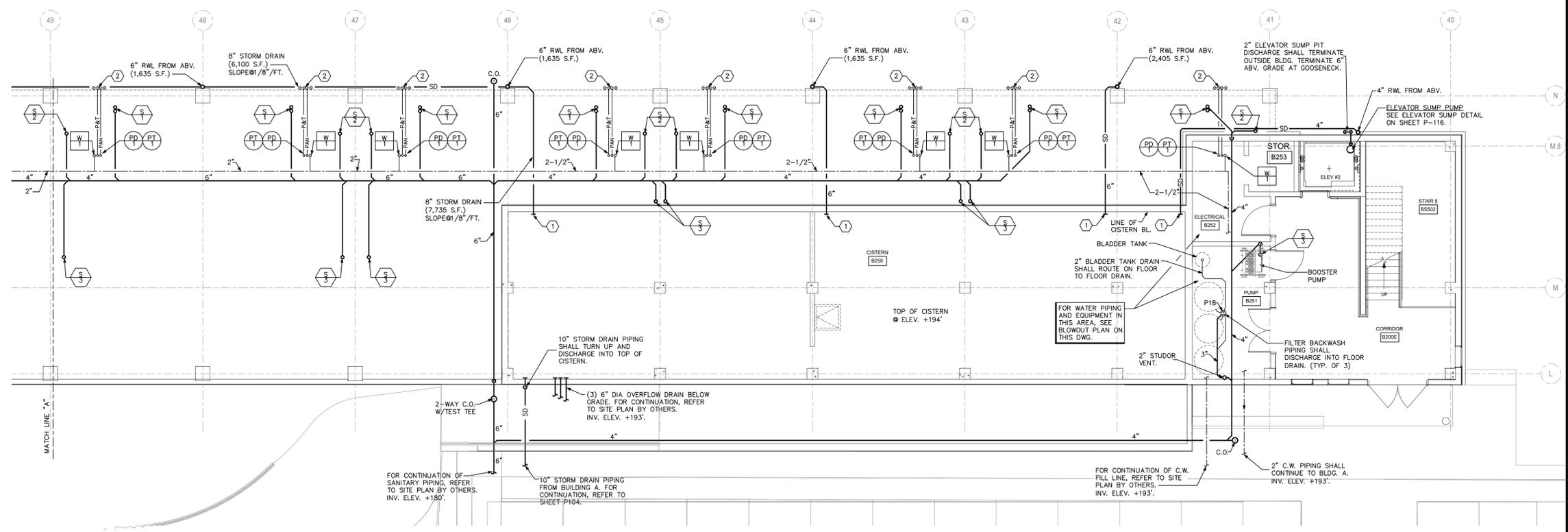
ISSUE



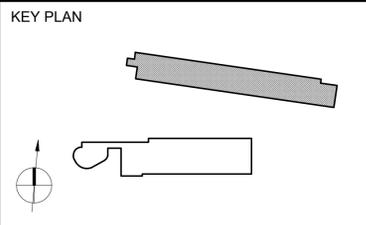
(UPPER BUILDING)  
**2 B - LEVEL 2 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"

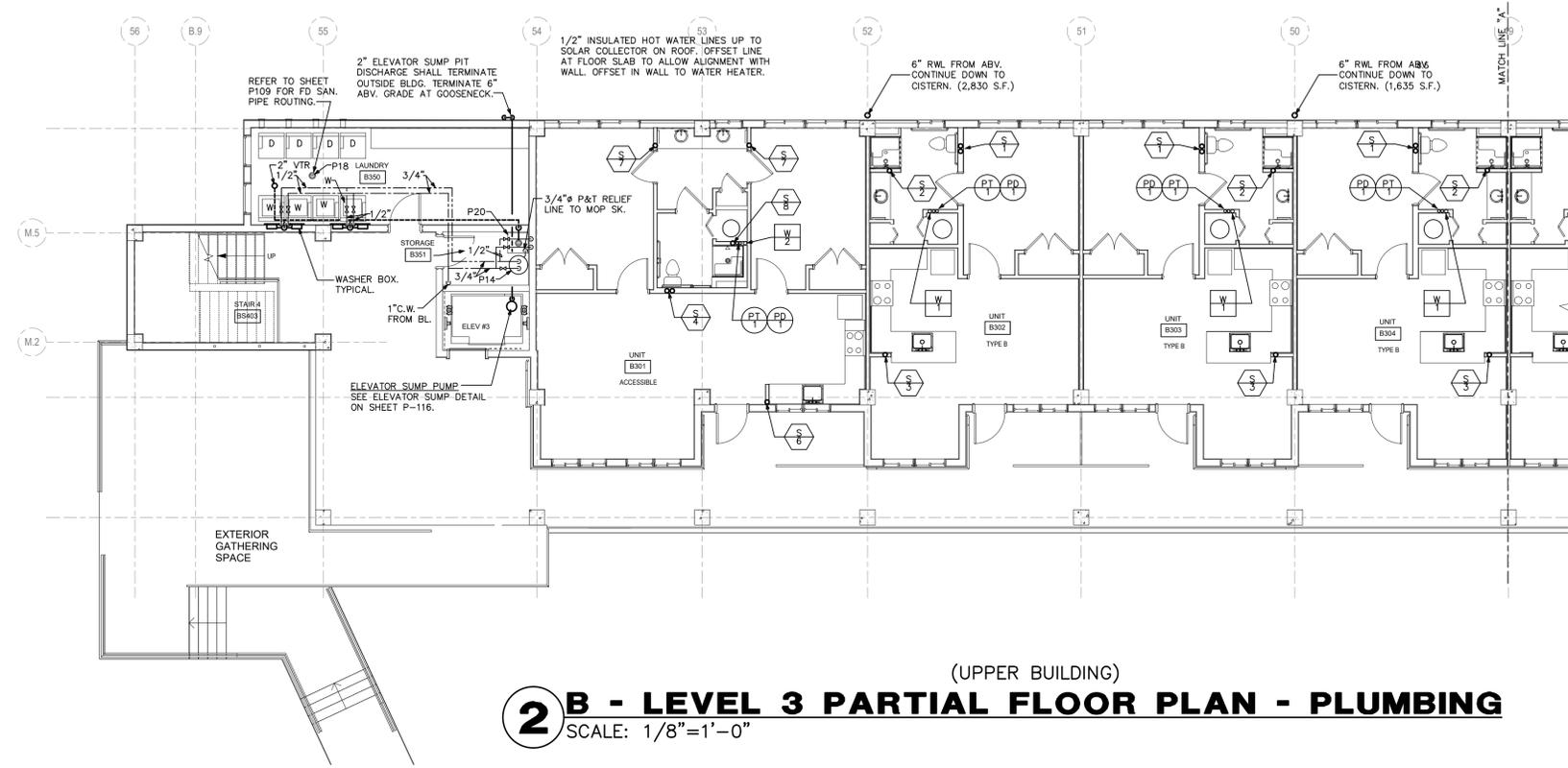
SPECIFIC PLUMBING NOTES	
①	6" STORM DRAIN PIPING SHALL DISCHARGE AT TOP OF CISTERN WITH AN AIR GAP ABOVE WATER LINE.
②	P&T RELIEF DRAIN AND PAN DRAIN GOOSENECKS. DISCHARGE OUTSIDE BLDG. TERMINATE 6" ABV. GRADE.

**3 B - LEVEL 2 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"

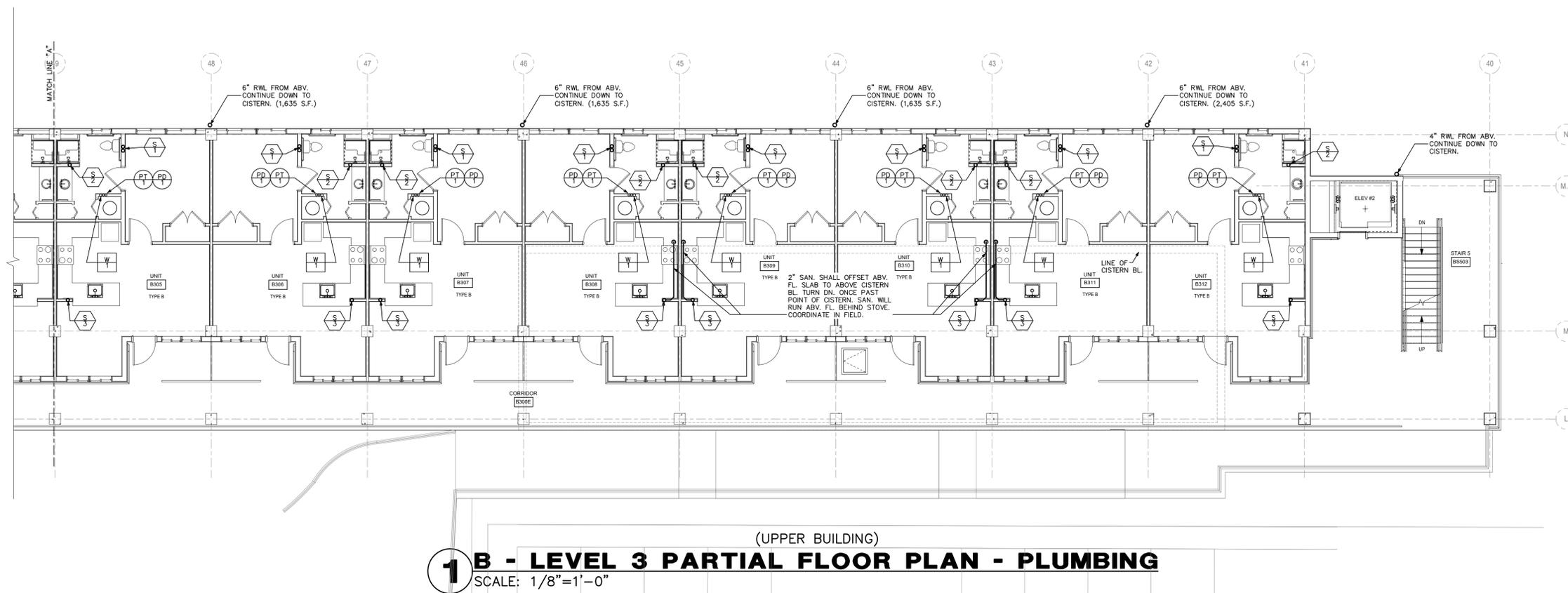
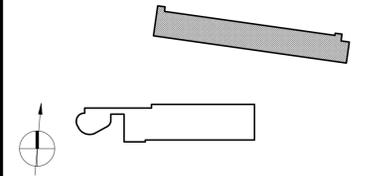


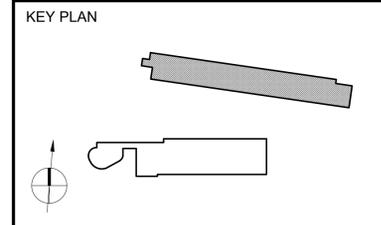
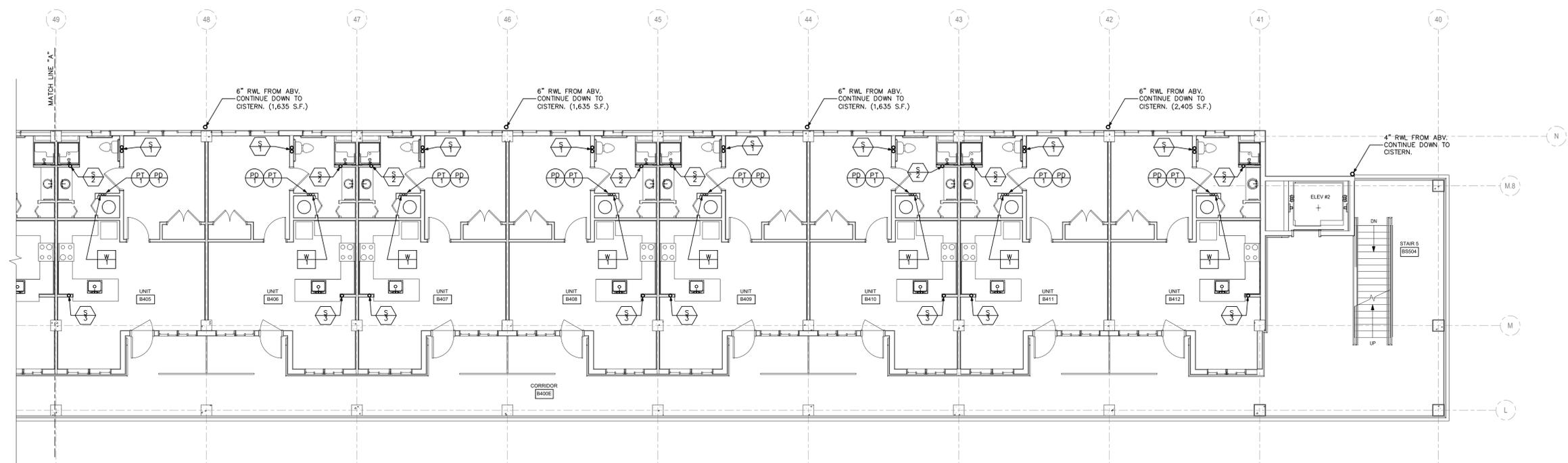
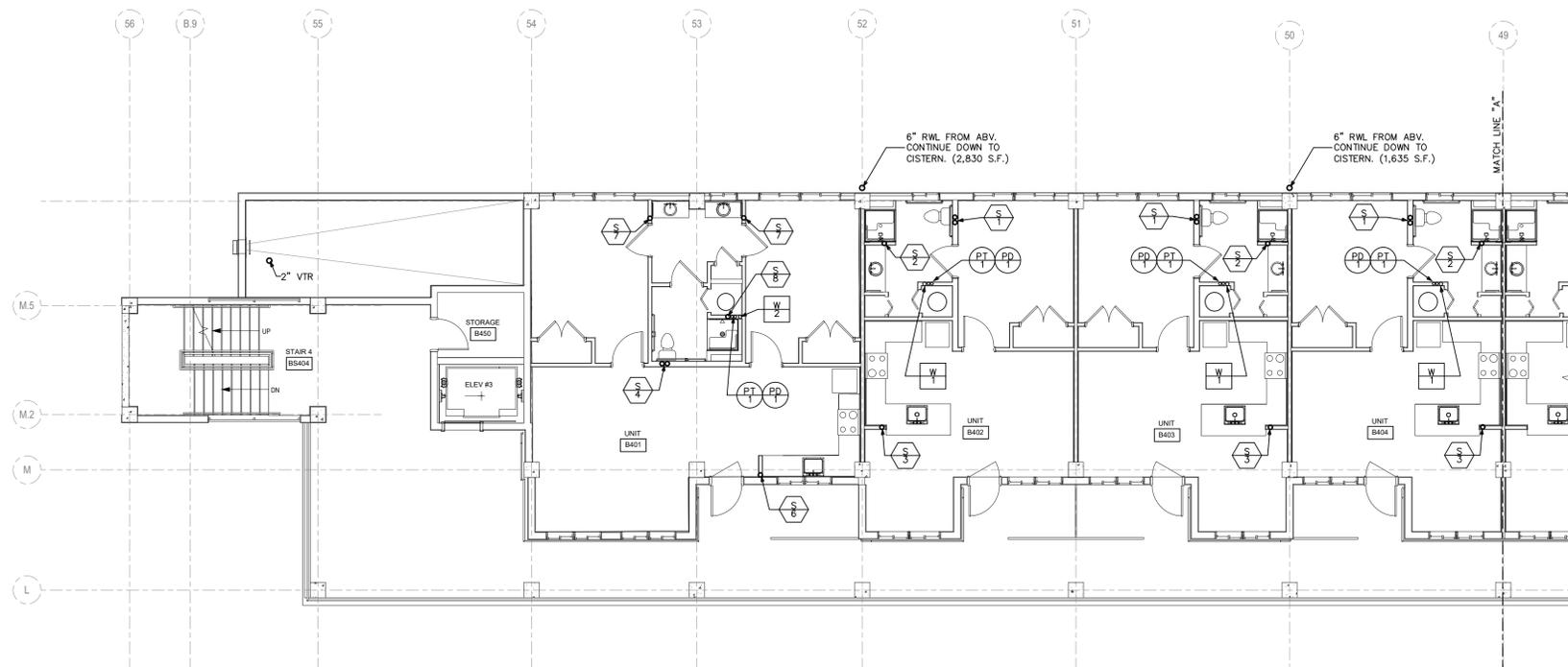
(UPPER BUILDING)  
**1 B - LEVEL 2 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"



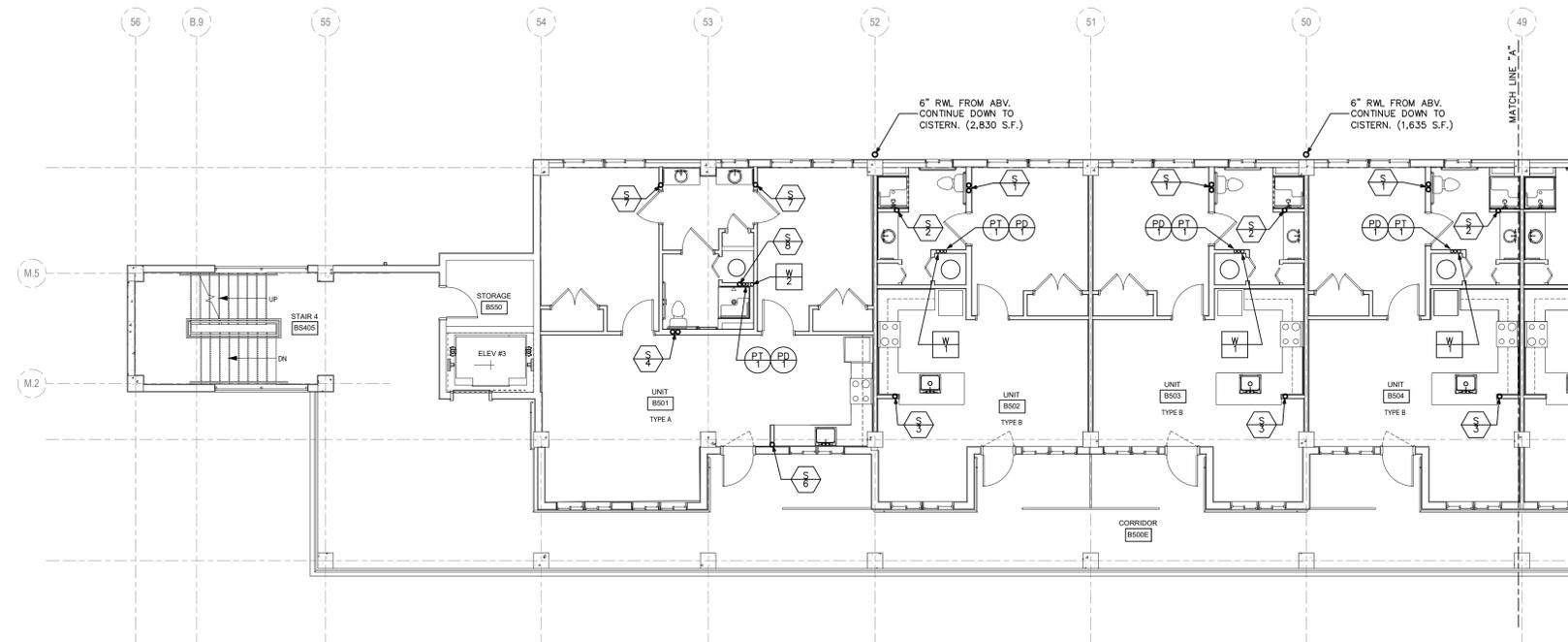


KEY PLAN

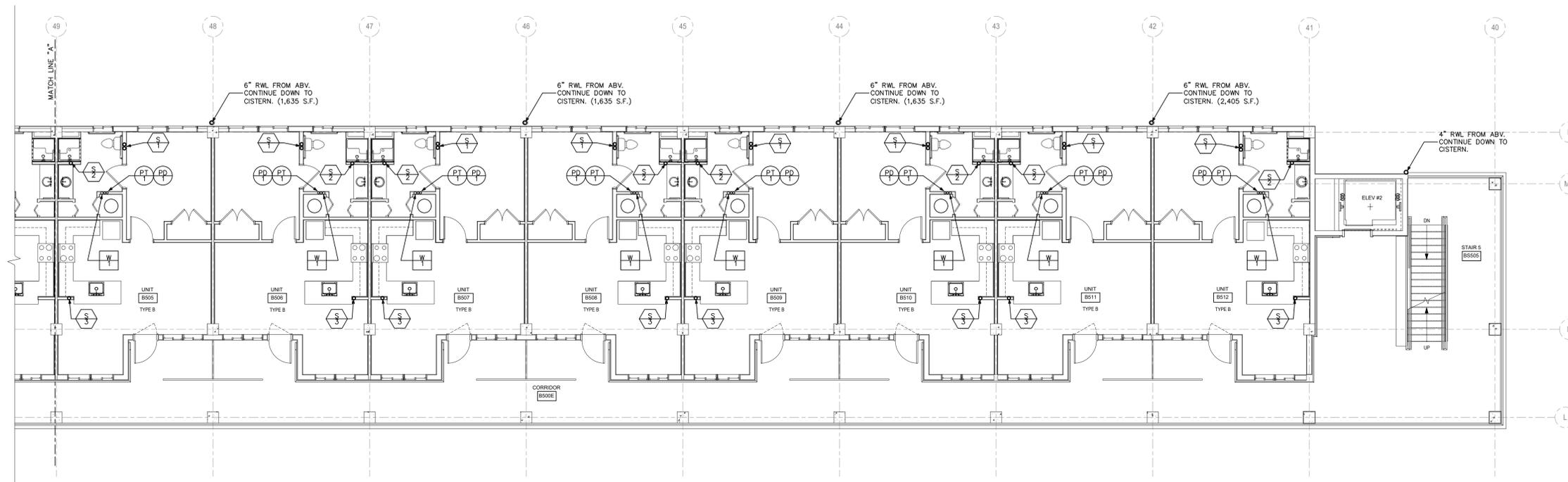




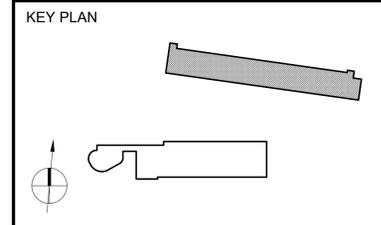
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**1 B - LEVEL 4 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"



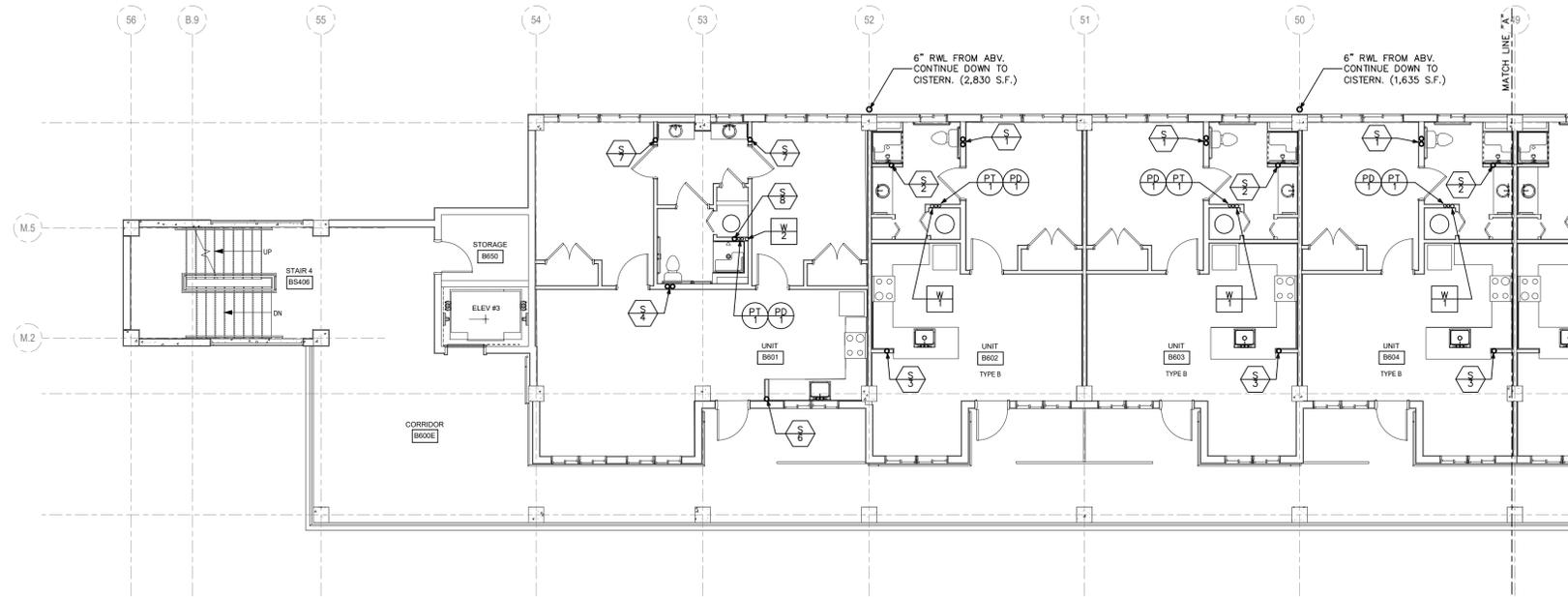
(UPPER BUILDING)  
**2 B - LEVEL 5 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"



(UPPER BUILDING)  
**1 B - LEVEL 5 PARTIAL FLOOR PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"



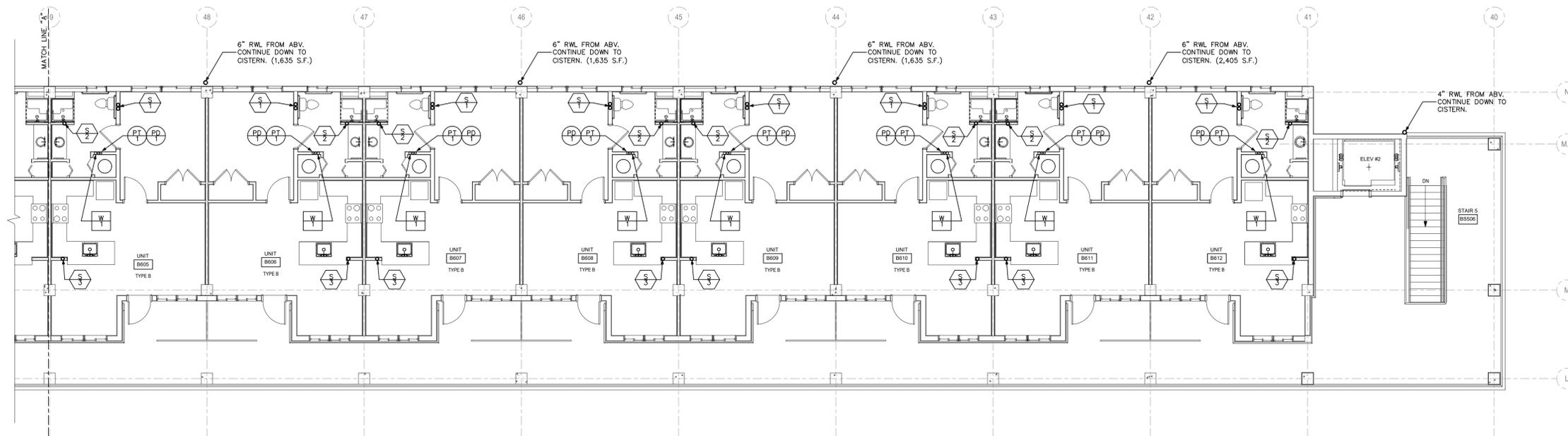
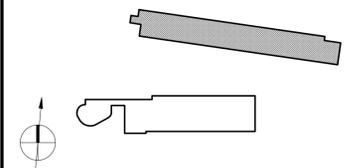
ISSUE



(UPPER BUILDING)

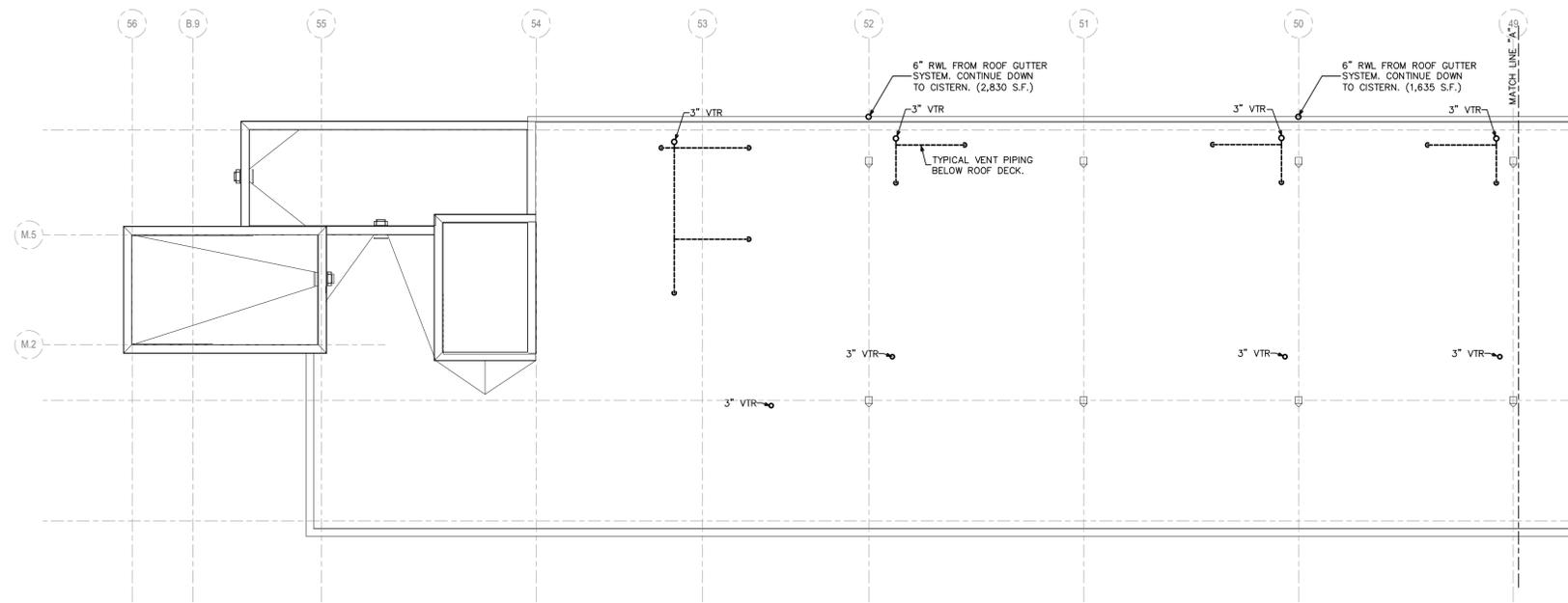
**2 B - LEVEL 6 PARTIAL FLOOR PLAN - PLUMBING**  
SCALE: 1/8"=1'-0"

KEY PLAN

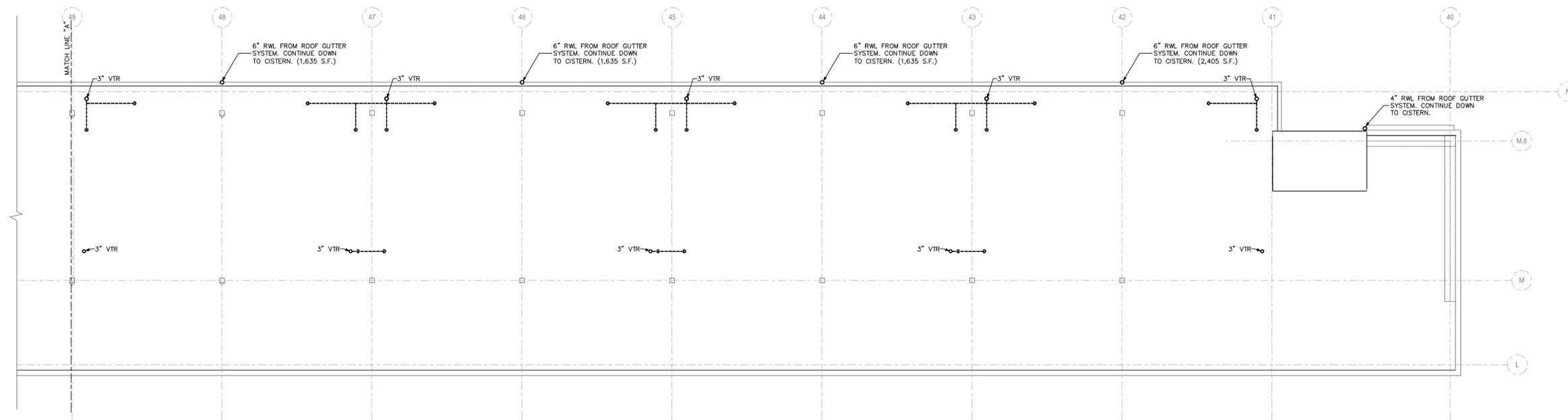


(UPPER BUILDING)

**1 B - LEVEL 6 PARTIAL FLOOR PLAN - PLUMBING**  
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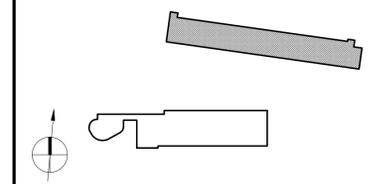


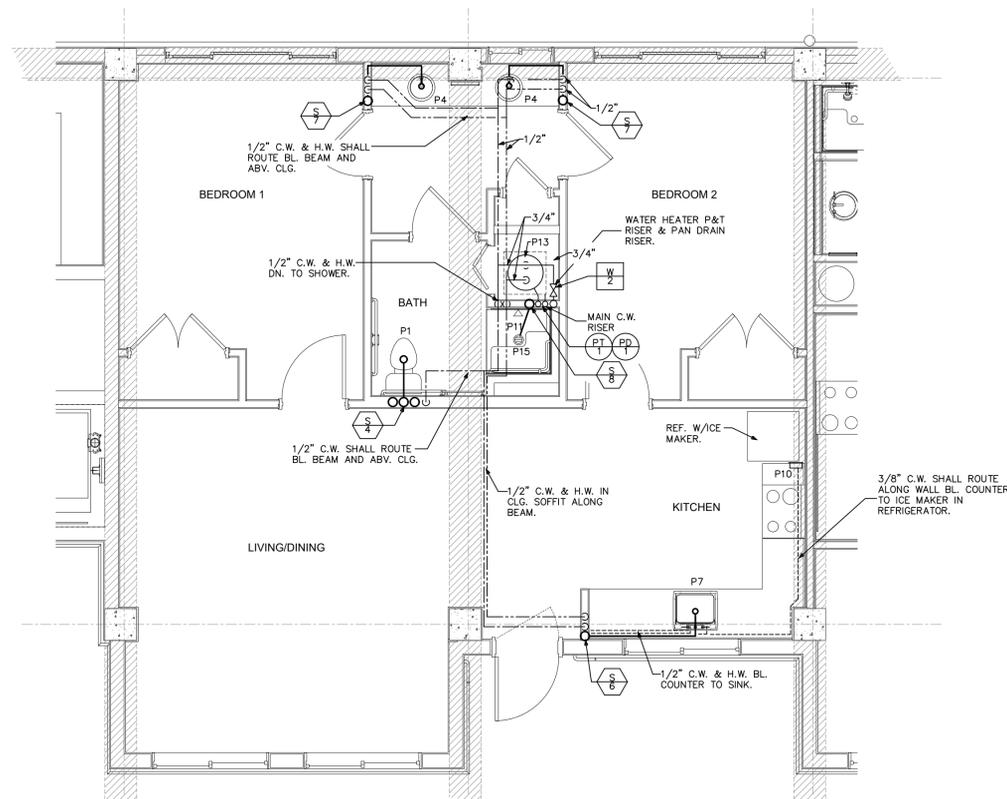
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**2 B - ROOF PLAN - PLUMBING**  
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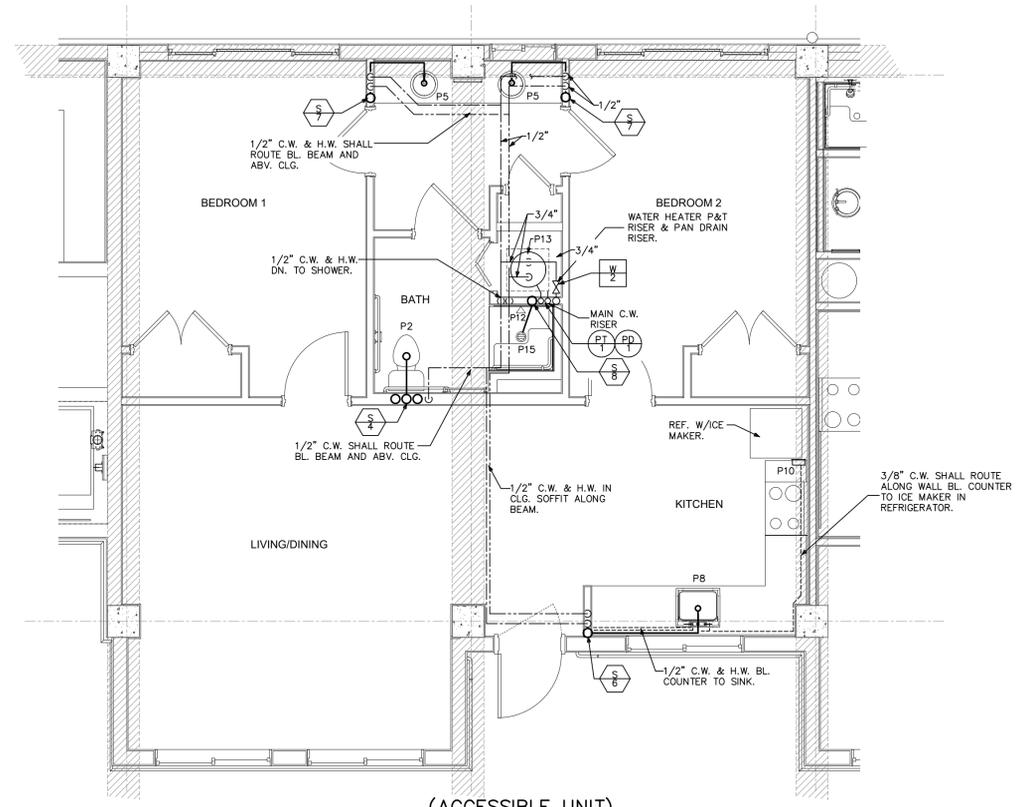
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**1 B - ROOF PLAN - PLUMBING**  
 SCALE: 1/8"=1'-0"

KEY PLAN

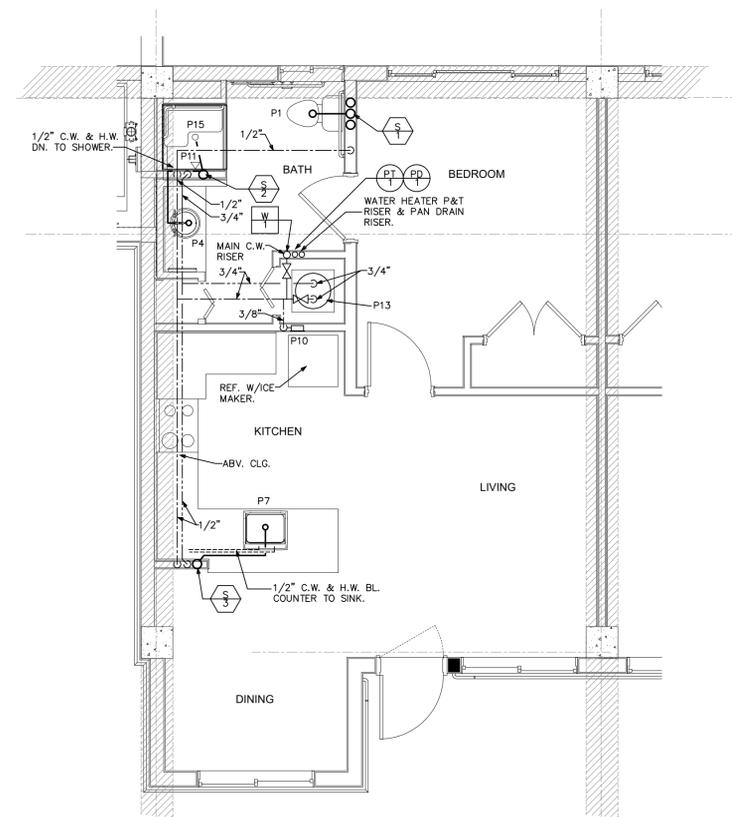




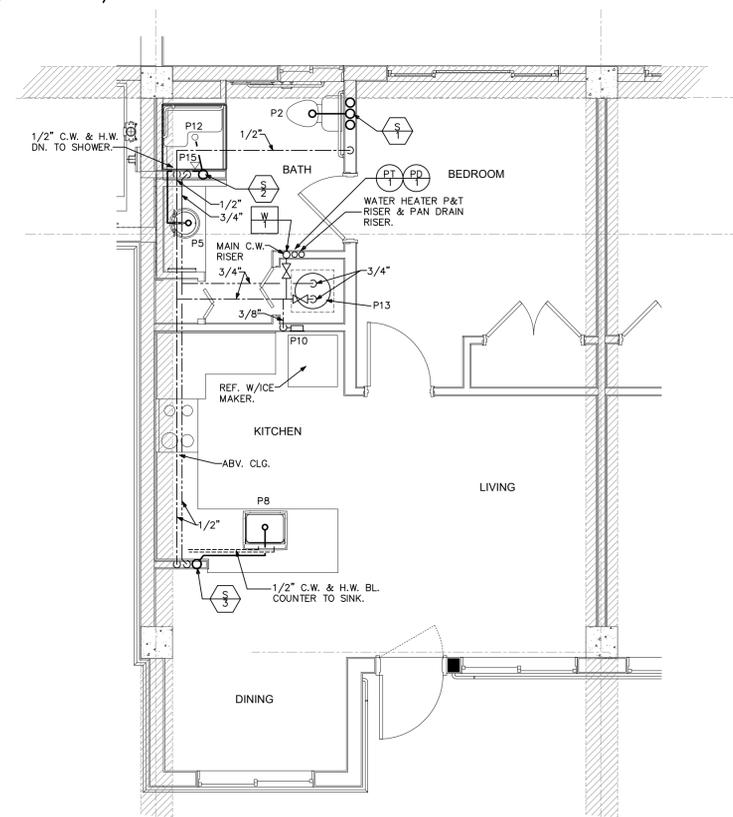
**1 UNIT PLAN 2 BEDROOM TYPE B**  
SCALE: 1/4"=1'-0"



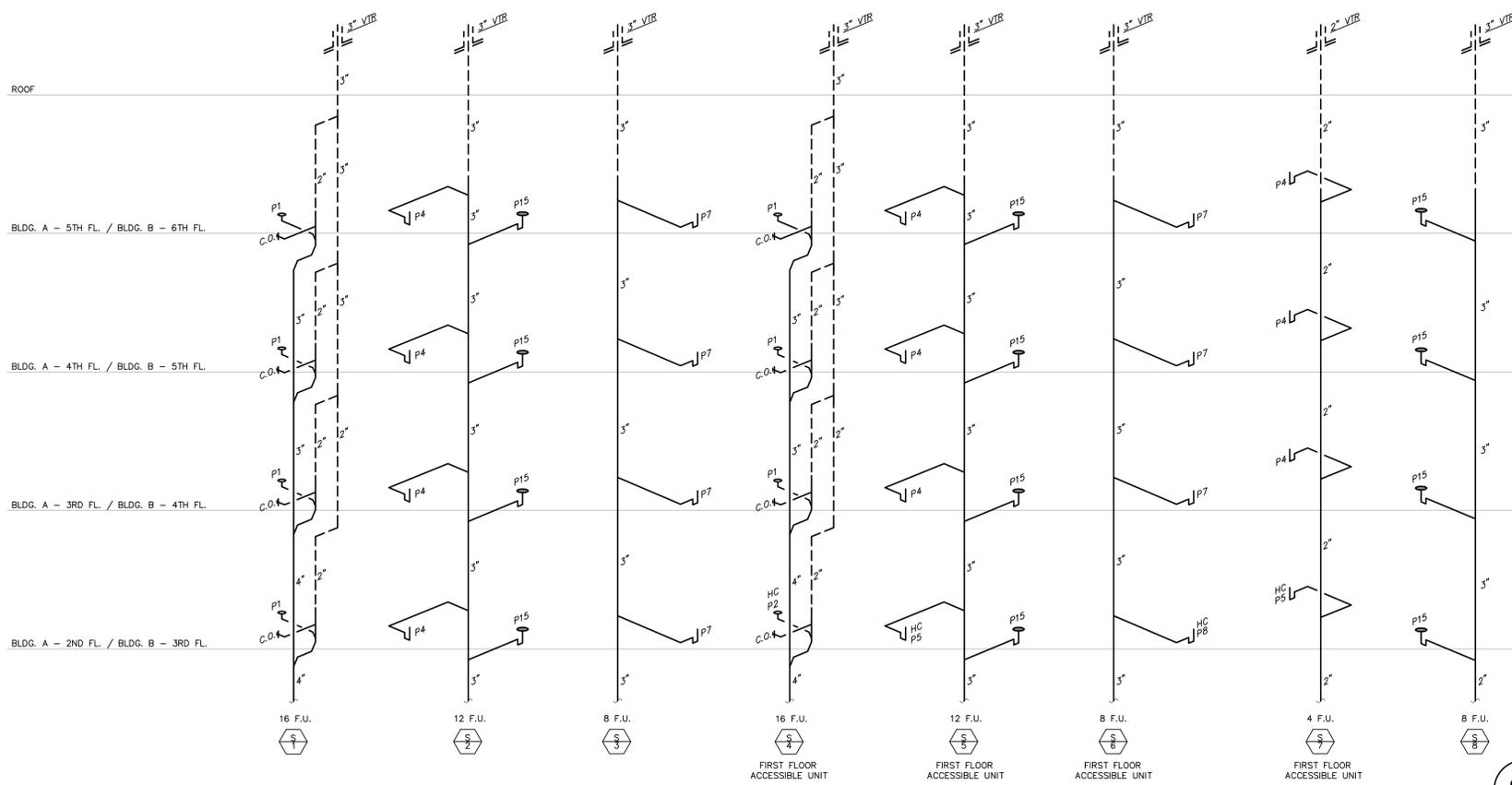
(ACCESSIBLE UNIT)  
**2 UNIT PLAN 2 BEDROOM TYPE A**  
SCALE: 1/4"=1'-0"



**3 UNIT PLAN 1 BEDROOM TYPE B**  
SCALE: 1/4"=1'-0"



(ACCESSIBLE UNIT)  
**4 UNIT PLAN 1 BEDROOM TYPE A**  
SCALE: 1/4"=1'-0"



NOTE: REFER TO SHEETS P-117 & P-118 FOR OVERALL SANITARY COLLECTION ISOMETRICS.

NOTE: CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL WALL CLEANOUTS AT BASE OF STACKS WITH OWNER/ARCHITECT PRIOR TO CONSTRUCTION.

PLUMBING FIXTURE CONNECTION SIZES			
FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE
WATER CLOSET (P1,P2)	1/2"	-	3"
LAVATORY (P3,P4,P5)	1/2"	1/2"	1-1/4"
ELECTRIC WATER COOLER (P6)	1/2"	-	1-1/4"
SINK (P7,P8)	1/2"	1/2"	1-1/2"
SHOWER (P15)	1/2"	1/2"	2"

NOTE: F.U. LOAD VALUES BASED ON UPC 2009

### 1 TYPICAL SANITARY RISERS

NO SCALE

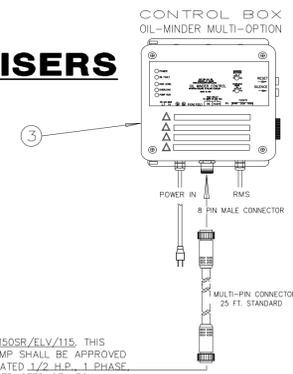
### 2 TYPICAL WTR. & COND. RISERS

NO SCALE

STANCOR STANDARD ELEVATOR OIL-MINDER SYSTEM

**PUMP INFORMATION**  
 Type: Sump Pump(s)  
 Model No: SE40  
 Rating: 50 MAX. GPM @ MAX. TDH  
 Motor: 4/10 HP 3600 RPM  
 Elec: 1 PH 60 HZ 115V  
 Elec: 5 FL AMPS

**DISCHARGE PIPE**  
 2"

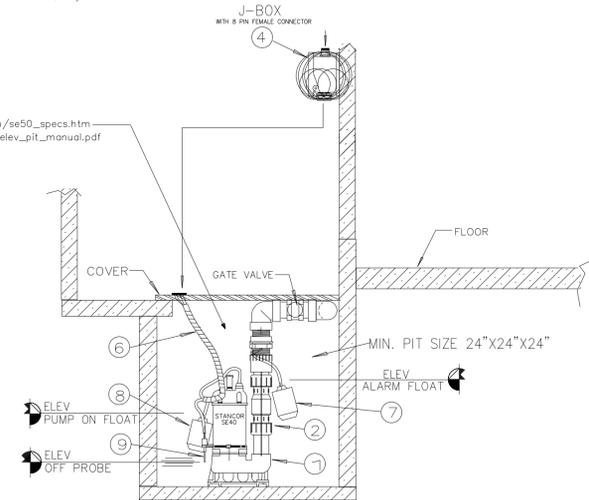


- NOTES
- STANCOR MODEL SE-40 SUBMERSIBLE EFFLUENT PUMP 4/10HP, 115 VOLT, 3600 RPM, 2" DISCHARGE CONNECTION
  - STANCOR CHECK VALVE
  - STANCOR OIL MINDER 115V, 14 CONTROL SYSTEM WITH OPTIONAL BUILT IN AUDIBLE AND VISUAL ALARM WHEN PUMP DOES NOT RUN DUE TO OIL IN PIT OR HIGH LIQUID ALARM. PROVIDE SILENCING BUTTON FOR AUDIBLE ALARM BUILT INTO PANEL. PANEL SHALL HAVE ADDITIONAL CONTACT FOR A REMOTE ALARM LOCATION. JUNCTION BOX WILL BE PROVIDED WITH MULTI-PIN CONNECTOR & CORD IN LENGTHS AS REQUIRED, 25 FT. IS STANDARD, OPTIONAL 25 FT. INCREMENTS. LIGHTS FOR OIL SPILL, POWER, HIGH LIQUID LEVEL, OVERLOAD & PUMP RUN
  - JUNCTION BOX WILL BE PROVIDED WITH MULTI-PIN CONNECTOR AND CORD IN LENGTHS AS REQUIRED; 25 FT. IS STANDARD, OPTIONAL 25 FT. INCREMENTS AVAILABLE
  - N/A
  - OIL MINDER CABLE, POWER CABLE, PROBE CABLE, HIGH LIQUID ALARM CABLE & PUMP ON FLOAT CABLE
  - HIGH LIQUID ALARM FLOAT WITH CLAMP DEVICE TO MOUNT TO PUMP DISCHARGE PIPING
  - PUMP ON FLOAT
  - OIL-MINDER PROBE
- ITEMS 1,2,3,4,6,7,8 & 9 PROVIDED BY STANCOR AS A STANDARD PACKAGE

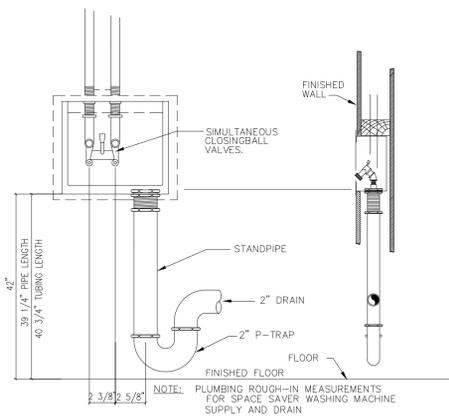
SUMP PUMP BY STANCOR									
MODEL	H.P.	VOLTAGE	RATED FLA	DISCH. SIZE	MAX. HEAD FT.	MAX. FLOW GPM	WEIGHT LBS.	HEIGHT IN.	WIDTH IN.
SE40	4/10	115	5	2"	5'	50	30.8	16.2"	9.1"

### 5 ELEVATOR SUMP PUMP DETAIL

NO SCALE

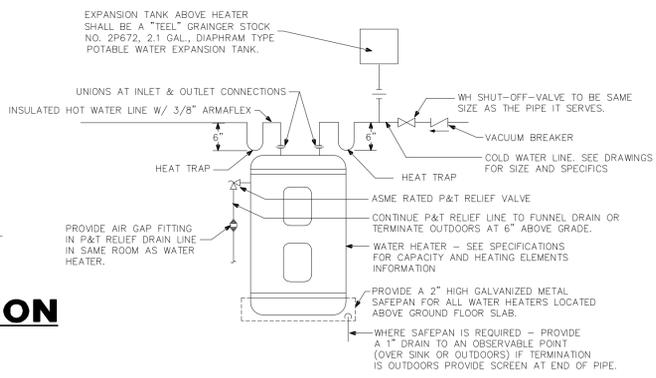


Specifications page: [http://www.stancorpumps.com/se50\\_specs.htm](http://www.stancorpumps.com/se50_specs.htm)  
 Operators Manual: [http://www.stancorpumps.com/elev\\_pit\\_manual.pdf](http://www.stancorpumps.com/elev_pit_manual.pdf)



### 3 WASHER CONNECTION BOX DETAIL

NO SCALE

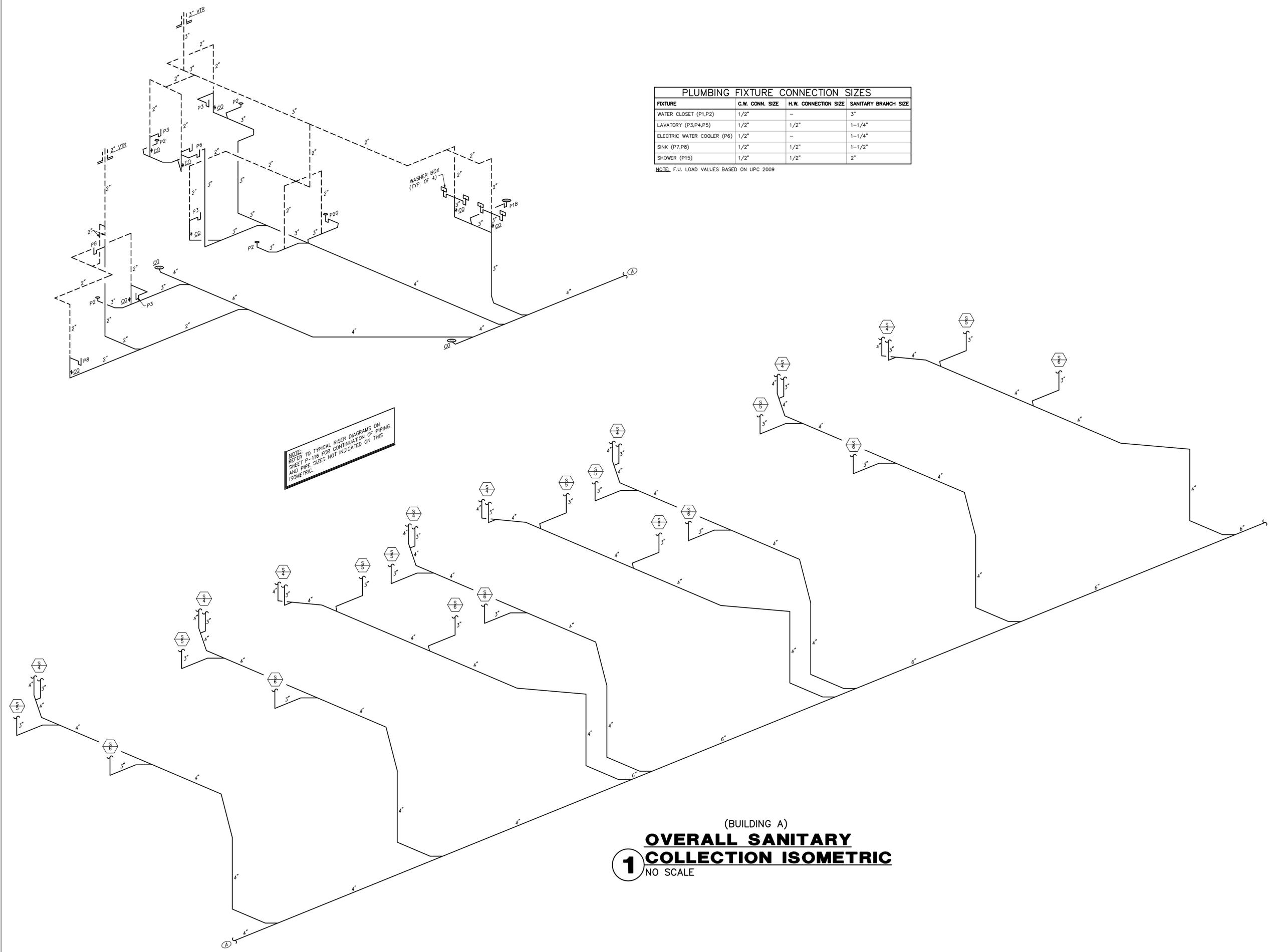


### 4 WATER HEATER DETAIL

NO SCALE

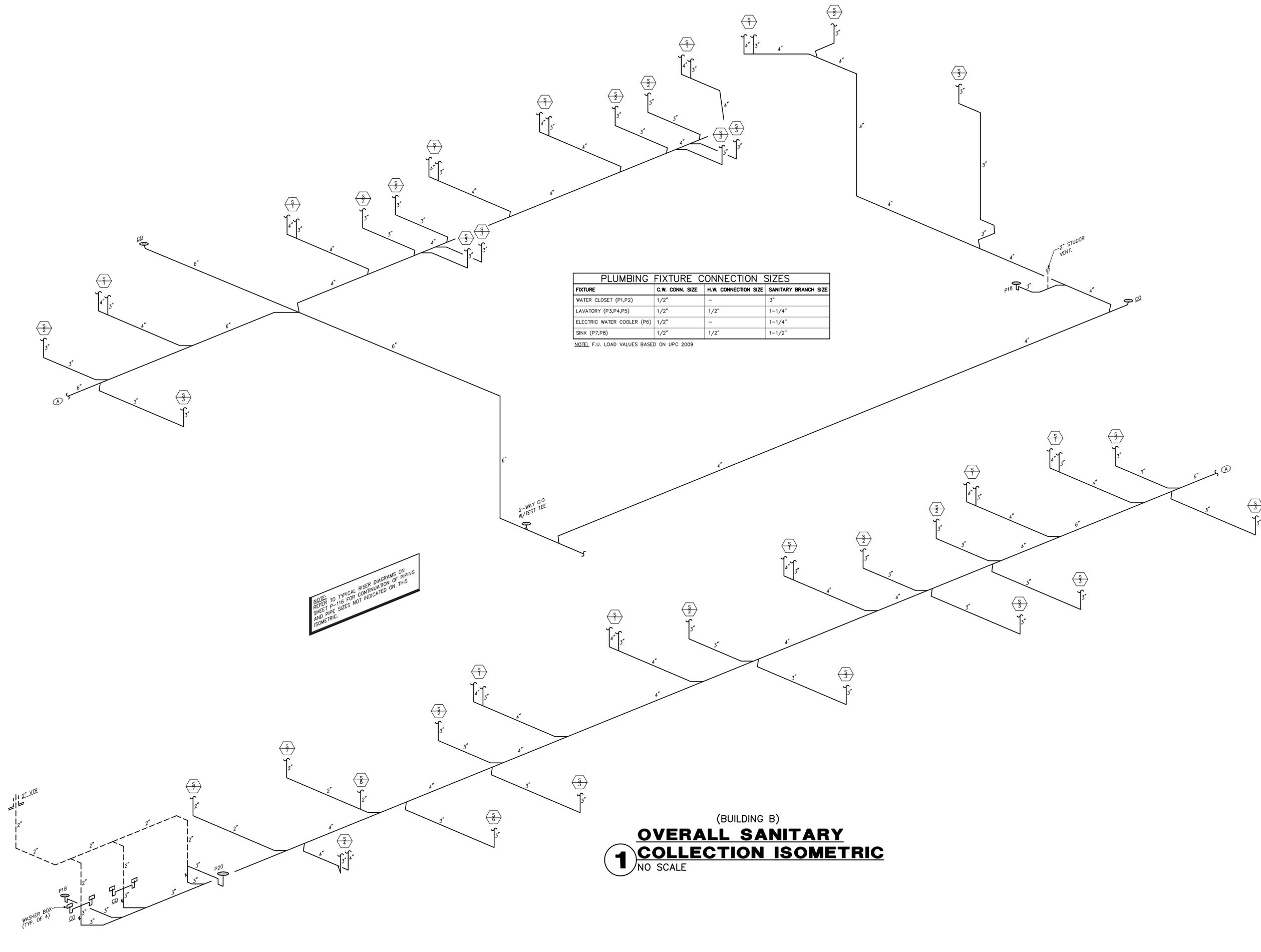
PLUMBING FIXTURE CONNECTION SIZES			
FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE
WATER CLOSET (P1,P2)	1/2"	-	3"
LAVATORY (P3,P4,P5)	1/2"	1/2"	1-1/4"
ELECTRIC WATER COOLER (P6)	1/2"	-	1-1/4"
SINK (P7,P8)	1/2"	1/2"	1-1/2"
SHOWER (P15)	1/2"	1/2"	2"

NOTE: F.U. LOAD VALUES BASED ON UPC 2009



NOTE: TO TYPICAL RISER DIAGRAMS ON SHEET P-116 FOR CONTINUATION OF PIPING AND PIPE SIZES NOT INDICATED ON THIS ISOMETRIC.

(BUILDING A)  
**OVERALL SANITARY  
 1 COLLECTION ISOMETRIC**  
 NO SCALE



PLUMBING FIXTURE CONNECTION SIZES			
FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE
WATER CLOSET (P1,P2)	1/2"	-	3"
LAVATORY (P3,P4,P5)	1/2"	1/2"	1-1/4"
ELECTRIC WATER COOLER (P6)	1/2"	-	1-1/4"
SINK (P7,P8)	1/2"	1/2"	1-1/2"

NOTE: F.U. LOAD VALUES BASED ON UPC 2009

NOTE: REFER TO TYPICAL RISER DIAGRAMS ON SHEET P-116 FOR CONTINUATION OF PIPING AND PIPE SIZES NOT INDICATED ON THIS ISOMETRIC.

(BUILDING B)  
**OVERALL SANITARY  
 COLLECTION ISOMETRIC**  
 1 NO SCALE

KEY PLAN

