PLUMBING LEGEND (not all may apply)

GENERAL ABBREVIATIONS:

AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ANT	ACID NEUTRALIZING TANK
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT(URAL)
AUTO	AUTOMATIC
AVG	AVERAGE
AW	ACID WASTE
B	BUBBLER
BE	BOTTOM ELEVATION
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BOP	BOTTOM OF PIPE
BOT	BOTTOM
BP	BOOSTER PUMP
BRS	BREAK ROOM SINK
BTU	BRITISH THERMAL UNIT
BTUH	BTU'S PER HOUR
BV	BALL VALVE
BWV	BACKWATER VALVE
CA	COMPRESSED AIR
CB	CATCH BASIN
CHV	CHECK VALVE
CI	CAST IRON
CO	CLEANOUT
COL	COLUMN
CONN	CONNECTION
CU FT	CUBIC FEET
CU IN	CUBIC INCH
DCW	DOMESTIC COLD WATER
DET	DETAIL
DF	DRINKING FOUNTAIN
DHW	DOMESTIC HOT WATER
DHWR	DOMESTIC HOT WATER RETURN
DIA	DIAMETER
DN	DOWN
DR	DRAIN
DS	DOWNSPOUT
DB	DOWNSPOUT BOOT
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
ECO	EXTERIOR CLEANOUT
EL	ELEVATION
ELEC	ELECTRIC/ELECTRICAL
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ES	EMERGENCY SHOWER
EWSS	EMERGENCY SHOWER/EYE WASH
ET	EXPANSION TANK
EW	EYE WASH
EWC	ELECTRIC WATER COOLER
EXCL	EXCLUDING
EXIST	EXISTING
F	DEGREE FAHRENHEIT
FCO	FLOOR CLEANOUT
FL	FLOOR
FPC	FIRE PROTECTION CONTRACTOR
FS	FLOOR SINK
FU	FIXTURE UNIT
G	GAS
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIBB
HD	HUB DRAIN
HORIZ	HORIZONTAL
HR	HOUR
HT	HEAT TRACE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
IE	INVERT ELEVATION
IN	INCH
INT	INTERCEPTOR (SOLID, GREASE, OIL, SAND, ETC.)
INV	INVERT
IW	INDIRECT WASTE
KEC	KITCHEN EQUIPMENT CONTRACTOR
KW	KITCHEN WASTE
KS	KITCHEN SINK
LAV	LAVATORY
LB	POUND
LW	LAB WASTE
MAX	MAXIMUM
MBH	BTU'S PER HOUR, THOUSAND
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFG/MFGR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MMV	MASTER MIXING VALVE
MS	MOP SINK
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OVERFLOW DRAIN
OPG	OPENING
OS&Y	OUTSIDE SCREW AND YOKE
OZ	OUNCE
PC	PLUMBING CONTRACTOR
PERIM	PERIMETER
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSI	POUND PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
RP	RECIRCULATION PUMP
RD	ROOF DRAIN
REF	REFERENCE
REQ'D	REQUIRED
REV	REVISE(D) (ION)
HYD	HYDRANT
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
S	SINK
SAN	SANITARY
SCHED	SCHEDULE
SECT	SECTION
SH	SHOWER
SHT	SHEET
SP	SUMP PUMP
SPEC	SPECIFICATIONS
SQ	SQUARE
SQ FT/SF	SQUARE FOOT (FEET)
SQ IN	SQUARE INCHES
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STM	STORM
STRUCT	STRUCTURAL
SW	SOFT WATER
TD	TRENCH DRAIN
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TYP	TYPICAL
TW	TEMPERED WATER
UG,UDG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
US	UTILITY SINK
V	SANITARY VENT
VAC	VACUUM
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VOL	VOLUME
VTR	VENT THROUGH ROOF
W	WASTE
WB	WASHER BOX
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WMO	WASH MACHINE OUTLET
WS	WALL SCUPPER
W&V	WASTE AND VENT
WW	WATER WORKS
YD	YARD DRAIN
YH	YARD HYDRANT

PLUMBING SYMBOLS:

	GAS REGULATING VALVE
	BALL VALVE
	CHECK VALVE
	GATE VALVE
	BUTTERFLY VALVE
	GAS SHUT-OFF VALVE
	PRESSURE REDUCING VALVE
	BALANCING VALVE
	BACK FLOW PREVENTOR
	END CAP
	UNION
	REDUCER
	PUMP
CO	FLOOR CLEANOUT
CO	WALL MTD. CLEANOUT
ECO	EXTERIOR CLEANOUT TO GRADE
RD	ROOF DRAIN
OD	OVERFLOW ROOF DRAIN
	ELBOW UP
	RISE OR DROP
	ELBOW DOWN
	BRANCH BOTTOM CONNECTION
WH	WALL HYDRANT
HB	HOSE BIBB
VTR #	VENT THROUGH ROOF WITH RISER NUMBER
	THERMOMETER
P	PRESSURE GAUGE
	WATER HAMMER ARRESTOR
	FLOOR DRAIN
	FLOOR SINK
	HUB DRAIN
POC	POINT OF CONNECTION
POR	POINT OF REMOVAL
F.F.E.	FINISHED FLOOR ELEVATION
S	SANITARY PIPING ABOVE GRADE
S	SANITARY PIPING UNDER SLAB
V	VENT PIPING
	DOMESTIC COLD WATER
	HOT WATER SUPPLY
	HOT WATER RETURN
ST	STORM DRAIN BELOW FLOOR
ST	STORM DRAIN ABOVE GRADE
G	GAS PIPING
TW	TEMPERED WATER (TW)
AW	ACID WASTE (AW)
AV	ACID VENT (AV)
120°	HOT WATER (120°)
140°	HOT WATER (140°)

PIPING MATERIAL

Underground DWV
PVC PIPE AND FITTINGS
A. Solid Wall PVC Pipe: ASTM D 2665, ASTM D 1784, and F 891 drain, waste, and vent.
B. PVC Socket Fittings: ASTM D 2665, made to ASTM D 2665, drain, waste, and vent patterns and to fit Schedule 40 pipe.
C. Adhesive & Primer: ASTM F 656

Aboveground DWV
PVC PIPE AND FITTINGS
A. Solid Wall PVC Pipe: ASTM D 2665, ASTM D 1784, and F 891 drain, waste, and vent.
B. PVC Socket Fittings: ASTM D 2665, made to ASTM D 2665, drain, waste, and vent patterns and to fit Schedule 40 pipe.
C. Adhesive & Primer: ASTM F 656

Aboveground Domestic water piping:

PEX Uponor 1906 (UNITS) $\frac{1}{2}$"–1"

A. PEX–a (Engel–Method Crosslinked Polyethylene) Piping: ASTM F 876 and F877 (CAN/CSA–B137.5) by Uponor.

B. PEX–a Fittings: elbows, adapters, couplings, plugs, tees and multi–port tees ($1/2$ inch through 1 inch nominal pipe size): ASTM F1960 cold–expansion fitting manufactured from the following material types:
1. UNS No. C69300 Lead–free (LF) Brass.
2. UNS No. C27453 Lead–free (LF) Brass.
3. 20% glass–filled polysulfone as specified in ASTM D 6394.
4. Unreinforced polysulfone (group 01, class 1, grade 2) as specified in ASTM D 6394.
5. Polyphenylsulfone (group 03, class 1, grade 2) as specified in ASTM D 6394.
6. Blend of polyphenylsulfone (55–80%) and unreinforced polysulfone (rem.) as specified in ASTM D 6394.
7. Reinforcing cold–expansion rings shall be manufactured from the same source as PEX–a piping manufacturer and marked "F1960".

C. Pre–Sleeved Piping ($1/2$ inch (16mm) through $3/4$ inch (20mm) nominal pipe size): PEX–a piping, with a high–density polyethylene (HDPE) corrugated sleeve.

D. Pre–Insulated Piping ($1/2$ inch (16mm) through 2 inch (50mm) nominal pipe size): PEX–a piping, with a closed–cell polyethylene foam insulation.

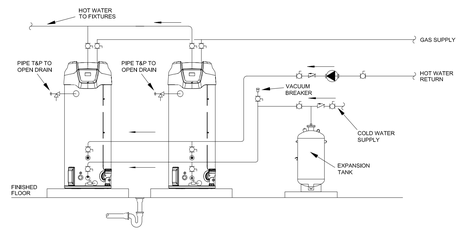
E. Multi–Port Tees: Multiple–outlet fitting complying with ASTM F 877 (CAN/CSA B137.5); with ASTM F 1960 inlets and outlets.
1. Engineered polymer branch multi–port tee.
2. Engineered polymer flow–through multi–port tee.
3. Engineered polymer commercial branch multi–port tee.
4. Engineered polymer commercial branch multi–port elbow.
5. Engineered polymer commercial flow–through multi–port tee.

F. Manifolds: Multiple–outlet assembly complying with ASTM F 877 (CAN/CSA B137.5); with ASTM F 1960 outlets.
1. Engineered polymer valved manifold.
2. Engineered polymer valveless manifold.
3. Lead – free copper branch manifold.

CPVC FLowguard $\frac{1}{2}$"–2"
Pipe and fittings shall be manufactured from virgin rigid CPVC (chlorinated polyvinyl chloride) vinyl compounds with a cell class of 24448 as identified in ASTM D 1784. FlowGuard Gold CTS CPVC pipe and fittings shall conform to ASTM D 2846. Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. All pipe and fittings shall be manufactured in the United States. Pipe and fittings shall conform to National Sanitation Foundation (NSF) Standards 14 and 61.

CPVC Corzan $2\frac{1}{2}$"–4"
All CPVC Schedule 40 and schedule 80 pipe shall be manufactured from a Type IV, Grade I Chlorinated Polyvinyl Chloride (CPVC) compound with a minimum Cell Classification of 23447 per ASTM D1784. The pipe shall be manufactured in strict compliance to ASTM F441, consistently meeting the Quality Assurance test requirements of this standard with regard to material, workmanship, burst pressure, flattening, and extrusion quality. The pipe shall be produced in the USA using domestic materials, by an ISO 9001 certified
manufacturer, and shall be stored indoors after production, at the manufacturing site, until shipped from factory. This pipe shall carry the National Sanitation Foundation (NSF) seal of approval for potable water applications. The pipe shall have a Flame Spread rating 25 and a Smoke Development rating < 50 when tested and listed for Surface Burning Characteristics in accordance with CAN/ULC–S102–2–M88 or equivalent.

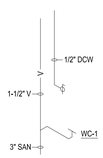
Gas Piping
$2\frac{1}{2}$" to 6"
SCHEDULE 40 CARBON STEEL ASTM A53 PIPE WITH WELDED FITTINGS
$\frac{1}{2}$" To 2"
SCHEDULE 40 CARBON STEEL ASTM A53 PIPE WITH MEGAPRESS FITTINGS



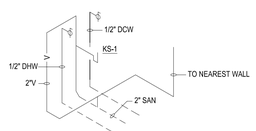
LEGEND

TEMPERATURE & PRESSURE RELIEF VALVE	TEMPERATURE CONTROL PROBE	CHECK VALVE
PRESSURE RELIEF VALVE	DRAIN	TEMPERATURE GAGE
CIRCULATING PUMP	FULL PORT BALL VALVE	WATER FLOW SWITCH

NOTES:
1. Preferred piping method.
2. The temperature and pressure relief valve setting shall not exceed pressure rating of any component in the system.
3. Service valves are shown for servicing unit. However, local codes shall govern their usage.

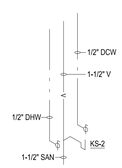


FLOOR MOUNTED WATER CLOSET
SCALE:N.T.S.
1 P000



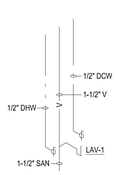
MINIMUM UNDERGROUND SANITARY OR VENT PIPING IS 2"
USE OF AN AIR ADMITTANCE VALVE ACCEPTABLE WHERE APPROVED BY CODE

ISLAND SINK
SCALE:N.T.S.
2 P000

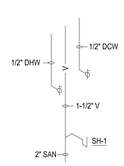


KITCHEN SINK
SCALE:N.T.S.
3 P000

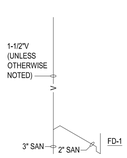
INLINE WATER HEATERS
SCALE:N.T.S.
4 P000



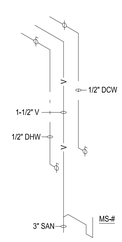
LAVATORY
SCALE:N.T.S.
5 P000



SHOWER
SCALE:N.T.S.
6 P000



FLOOR DRAIN
SCALE:N.T.S.
7 P000



MOP SINK
SCALE:N.T.S.
8 P000

LEGEND/ABBREVIATIONS
BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

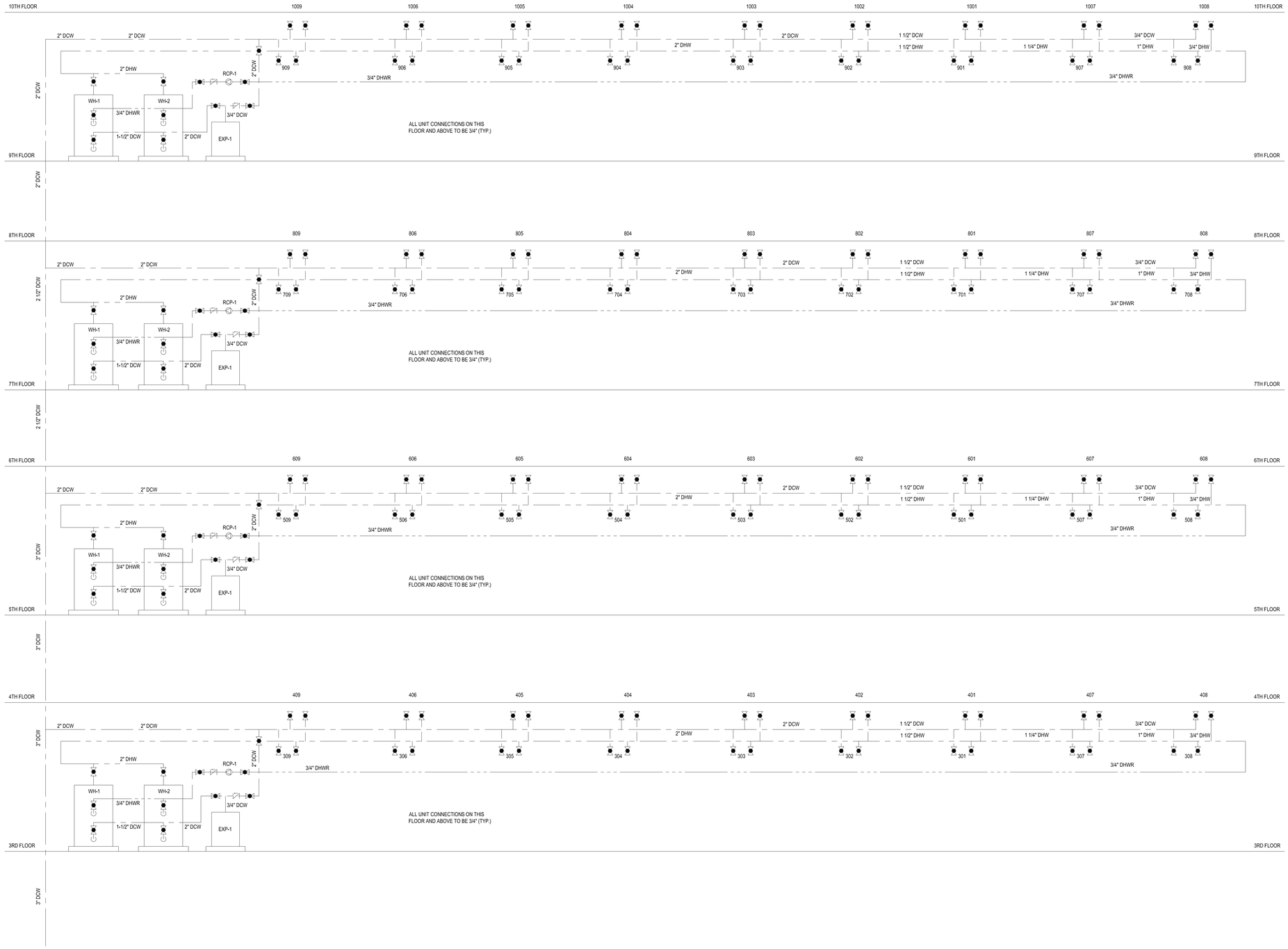
PLUMBING GENERAL INFORMATION

DRAWN:	HAS	REF DWG:	REF DWG
PROJ. MGR.	FP	JOB #:	2022.01.236
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	CHECKED	DATE:	11-29-22

P000

GENERAL INFORMATION
REV 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.236\22 PLUMBING\00 DRAWINGS\P000 | ---- | ARCH_E1 (30.00 x 42.00 inches) | 11/29/2022 10:29 AM



WATER RISER DIAGRAM

SCALE:NTS

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING WATER RISER DIAGRAM

DRAWN: HAS		REF. DWG: REF. DWG.	
PROJ. MGR: FP		JOB #: 2022.01.236	
CHECKED BY: F.PAULY		DATE: 11-29-22	
SIGNED OFF: CHECKED		DATE: 11-29-22	

P001

GENERAL INFORMATION REV: 0

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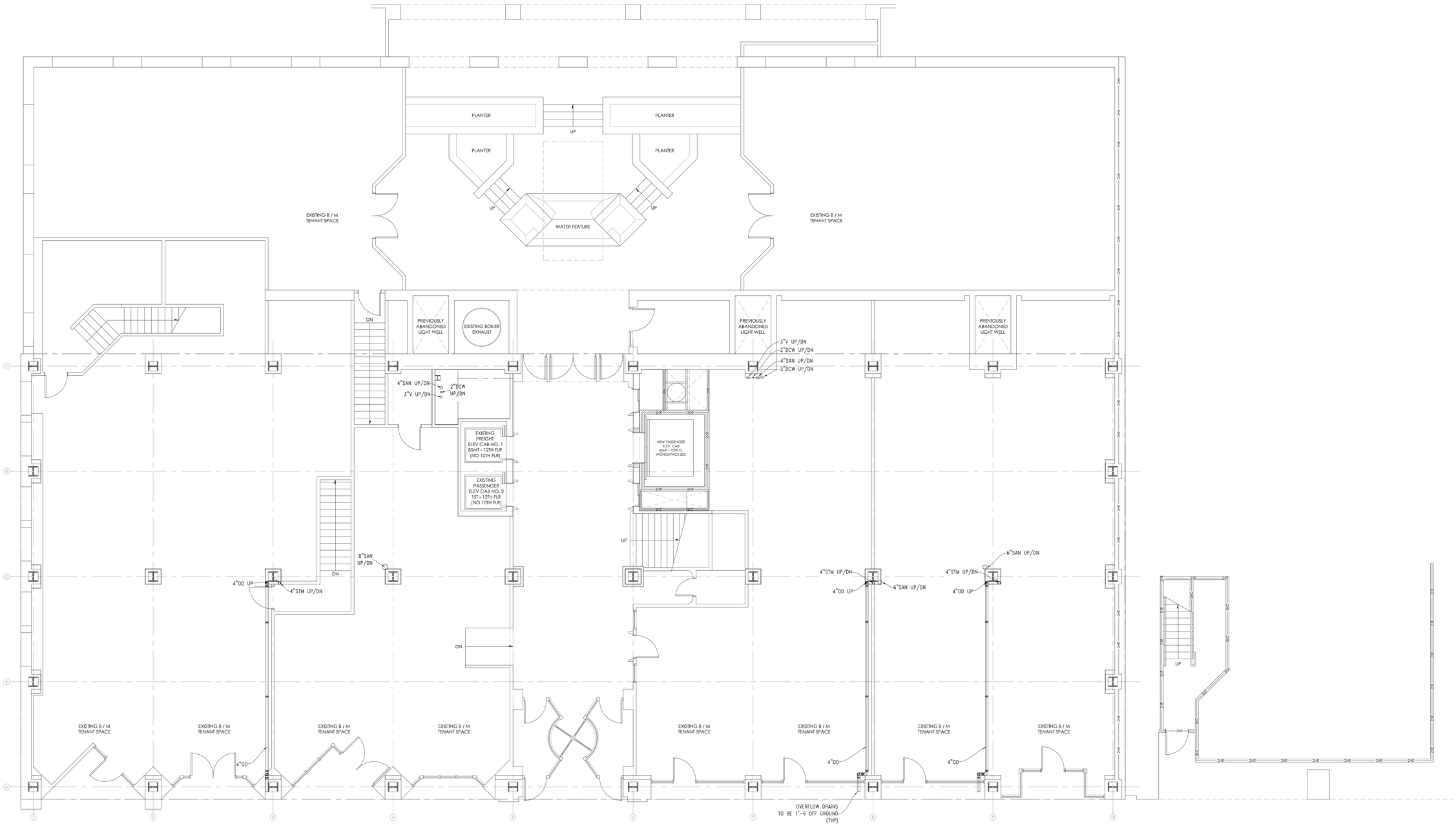


PLUMBING FIRST FLOOR PLAN

SCALE: 3/16"=1'/0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

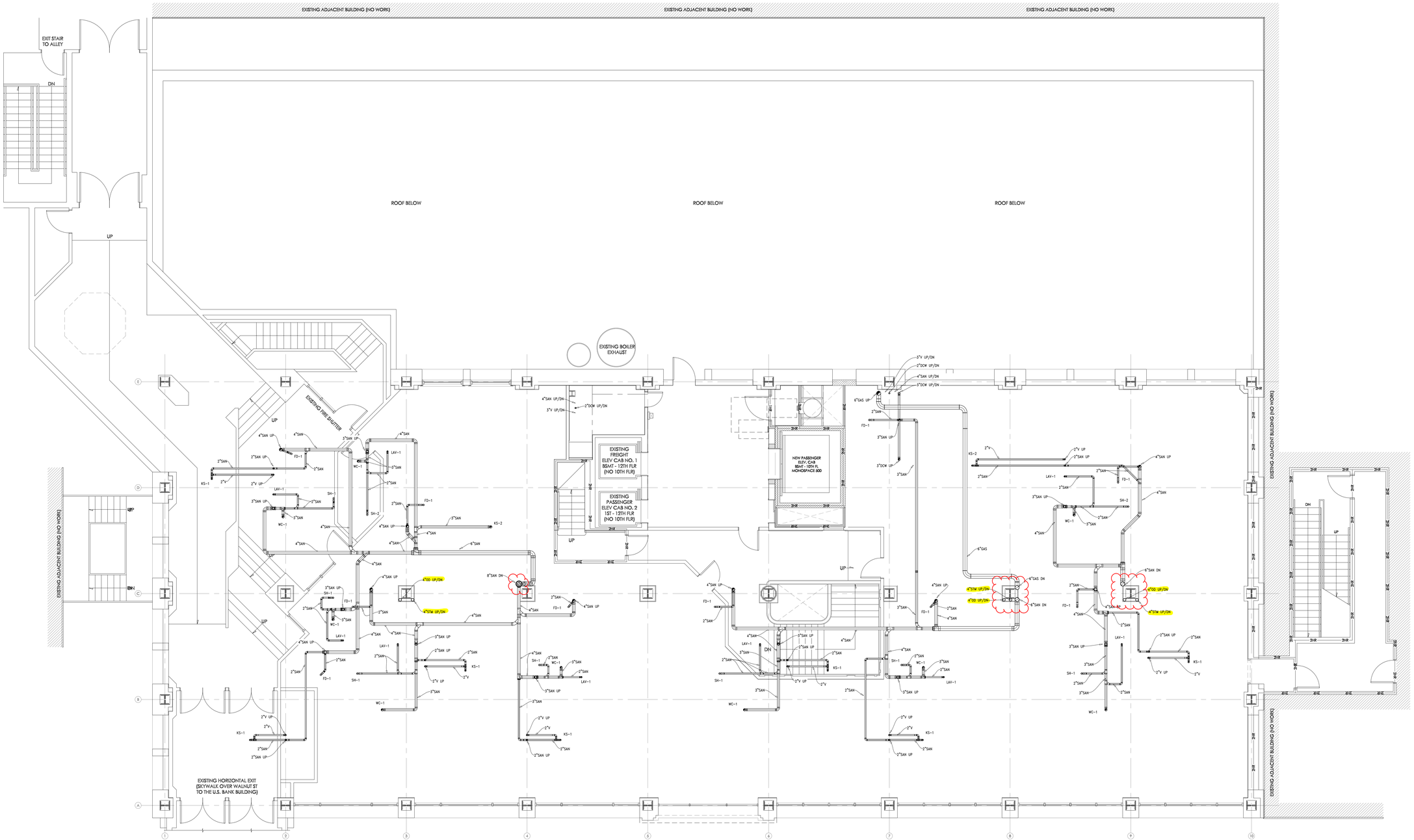
Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING
FIRST FLOOR
SANITARY

DRAWN:	HAS	REF DWG:	–
PROJ. MGR.	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P101

COORDINATION REV: 0



PLUMBING SECOND FLOOR PLAN

SCALE: 3/16"=1'0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
4895 SOME ADDRESS
CINCINNATI, OHIO 45212

PLUMBING SECOND FLOOR SANITARY & VENT

DRAWN:	HAS	REF. DWG:	–
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P102

COORDINATION REV: 0

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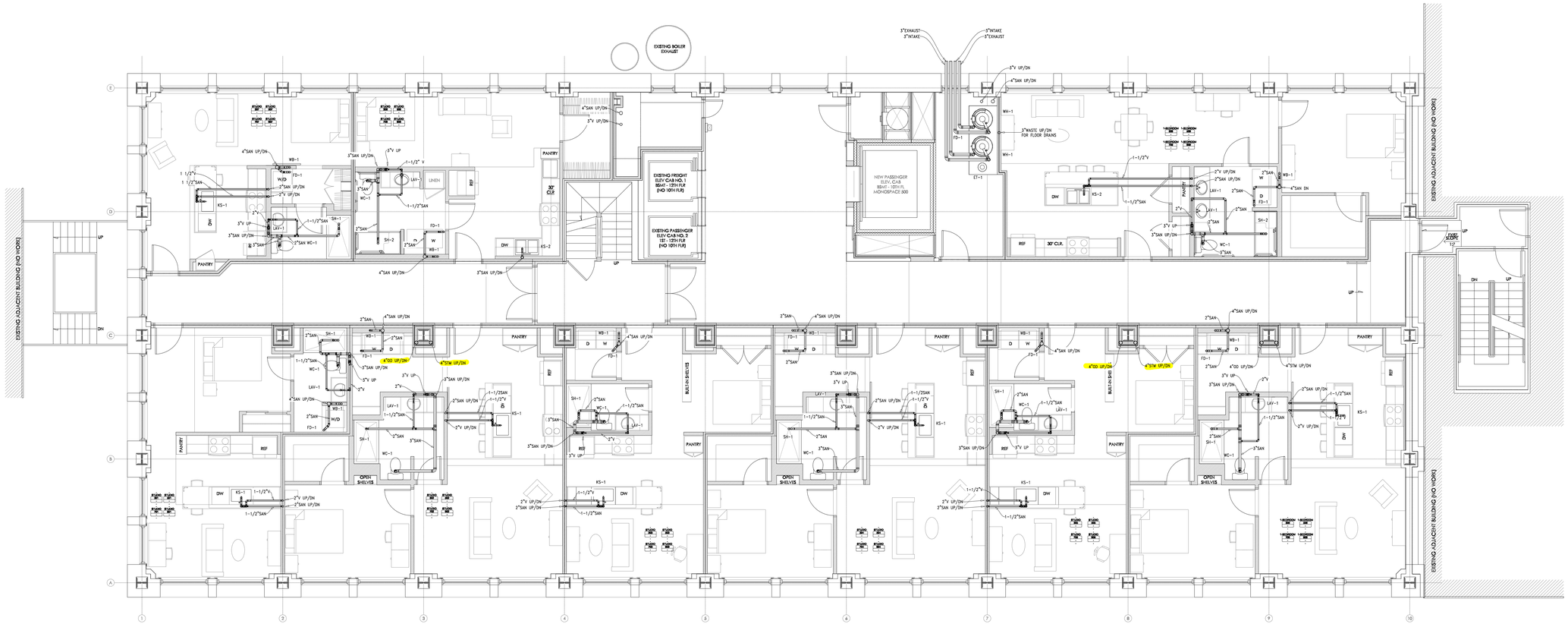

PLUMBING FLOOR PLANS

TYPICAL FOR FLOORS 3, 5, 7 AND 9

SCALE:3/16"=1'/0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING
THIRD FLOOR
SANITARY

DRAWN:	HAS	REF DWG:	–
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F. PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P103

COORDINATION | REV: 0

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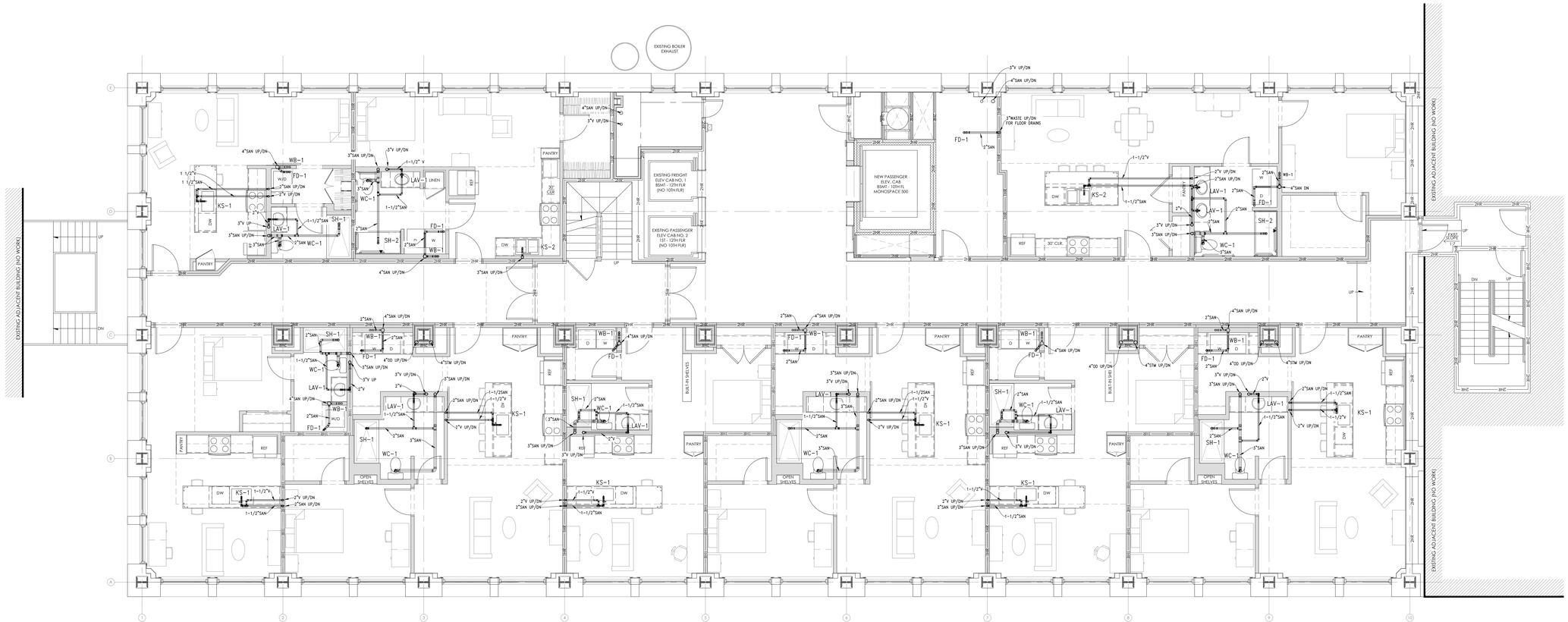
11:29 AM



PLUMBING FLOOR PLANS

TYPICAL FOR FLOORS 4, 6 AND 8

SCALE:3/16"=1'/0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING FLOOR PLANS SANITARY & VENT

DRAWN:	HAS	REF DWG:	—
PROJ. MGR.	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P104

COORDINATION — REV: 0

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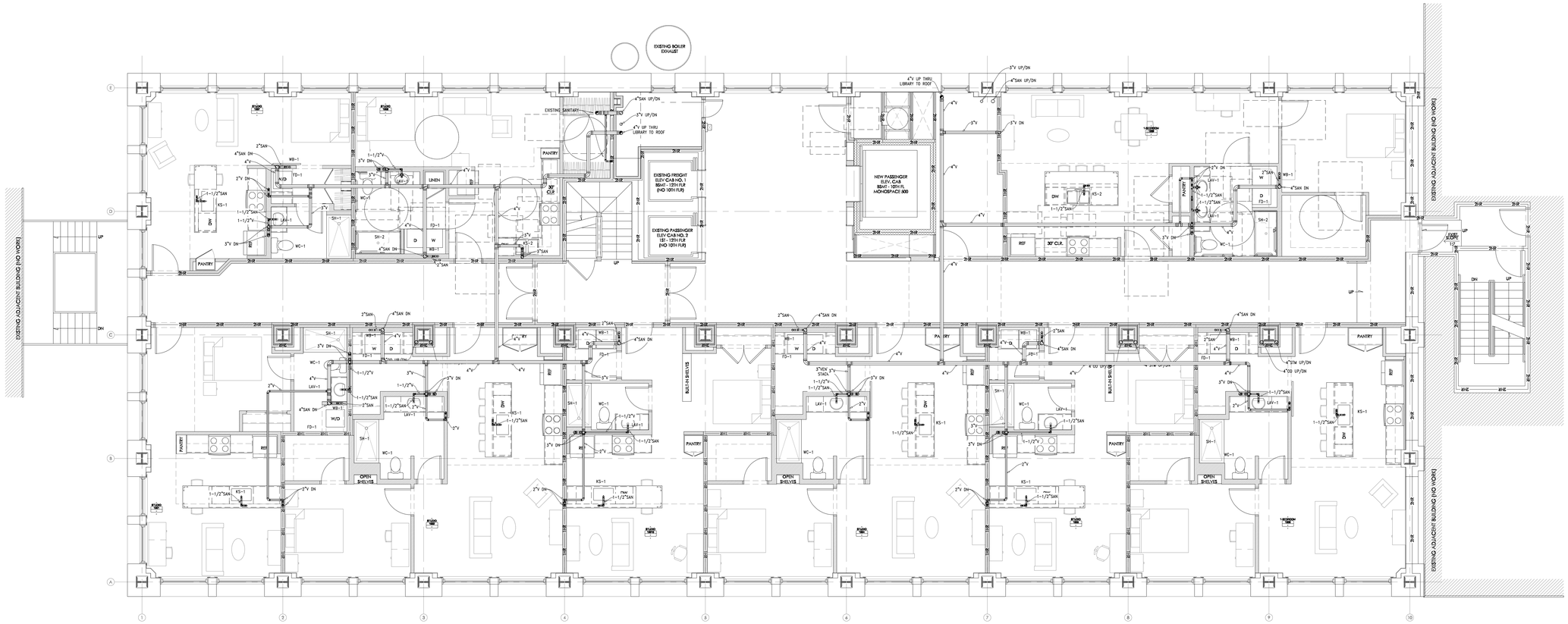

PLUMBING TENTH FLOOR PLAN

SCALE: 3/16"=1'0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED
PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
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CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING
10TH FLOOR
SANITARY & VENT

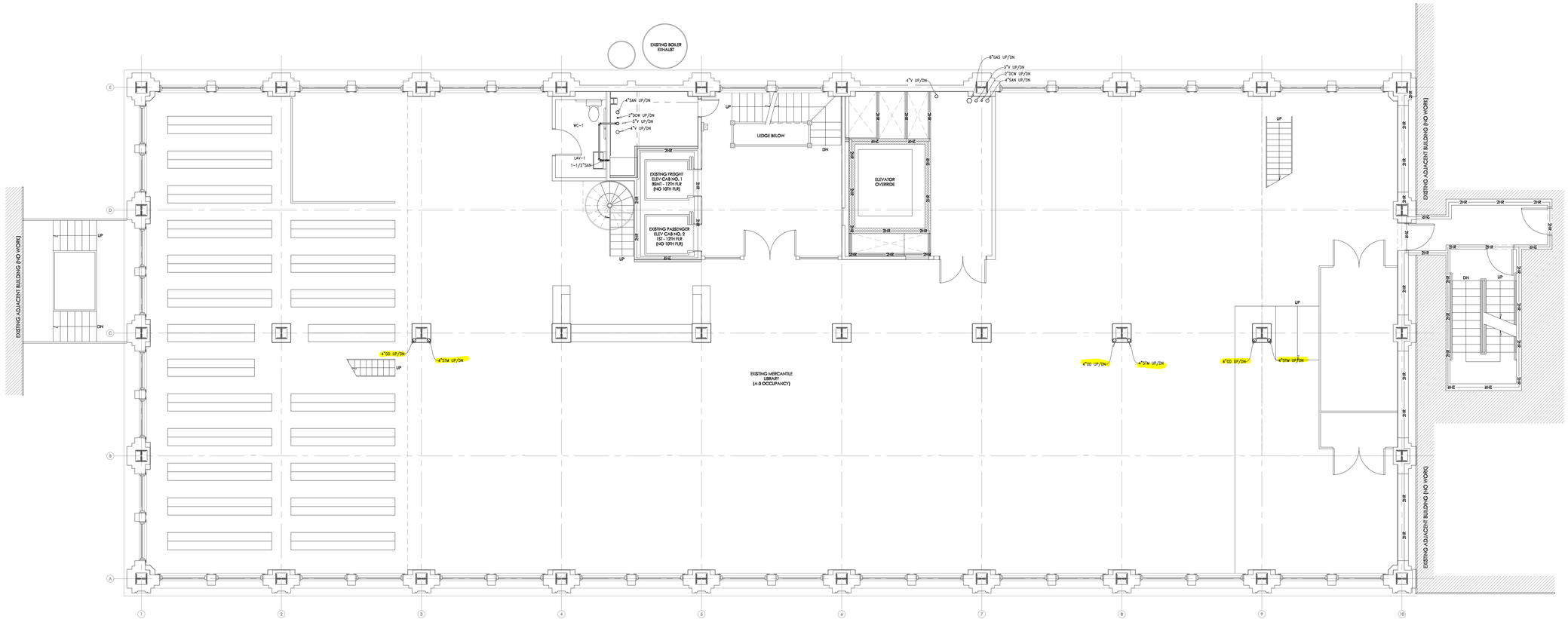
DRAWN:	HAS	REF. DWG:	--
PROJ. MGR.	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P110

COORDINATION

REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\00 DRAWINGS\P110.I ---- I_ARCH_E1 (30.00 x 42.00 inches) | 11/29/2022 10:59 AM



PLUMBING ELEVENTH FLOOR PLAN

SCALE: 3/16"=1'0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED
PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

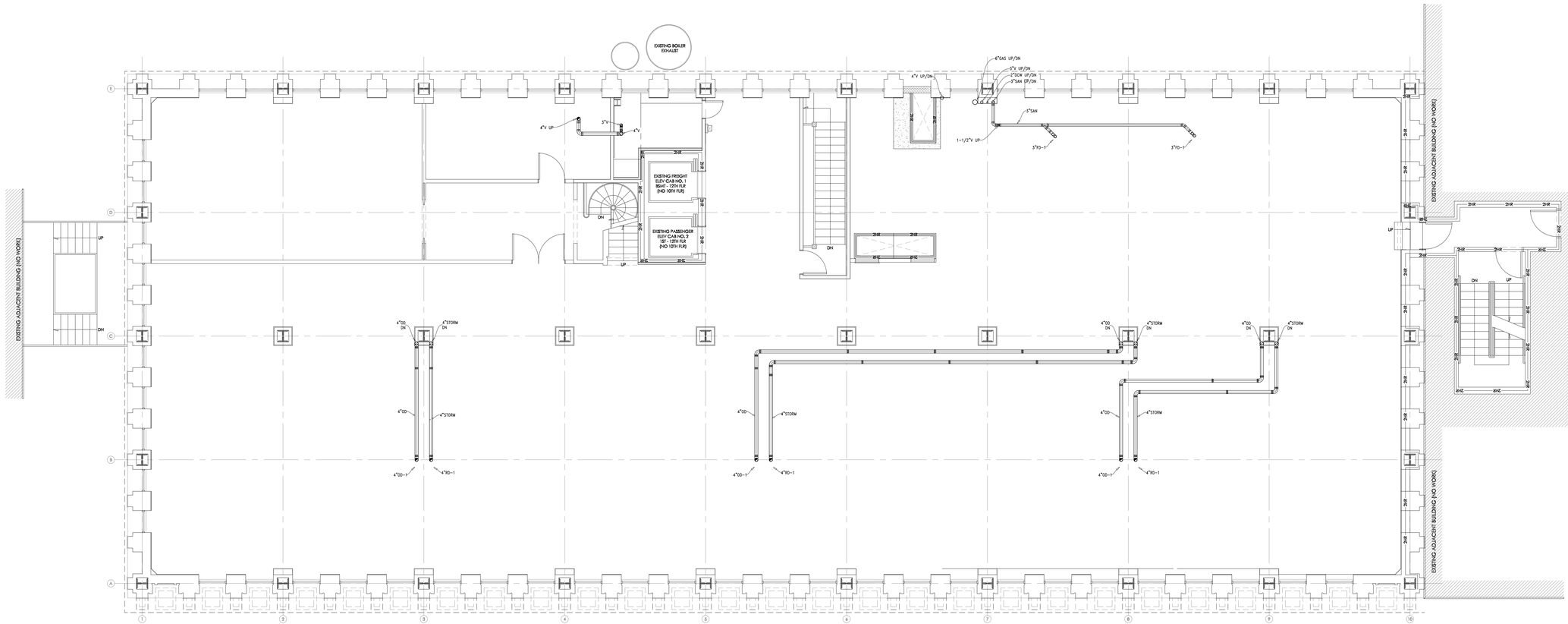
PLUMBING
11TH FLOOR
SANITARY & VENT

DRAWN:	HAS	REF DWG:	–
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P111

COORDINATION | REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\03 DRAWINGS\P111 | ------ | ARCH full sheet Ex (30.00 x 42.00 inches) |
11/29/2022 11:13 AM



PLUMBING TWELFTH FLOOR PLAN

SCALE: 3/16"=1'/0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED
PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

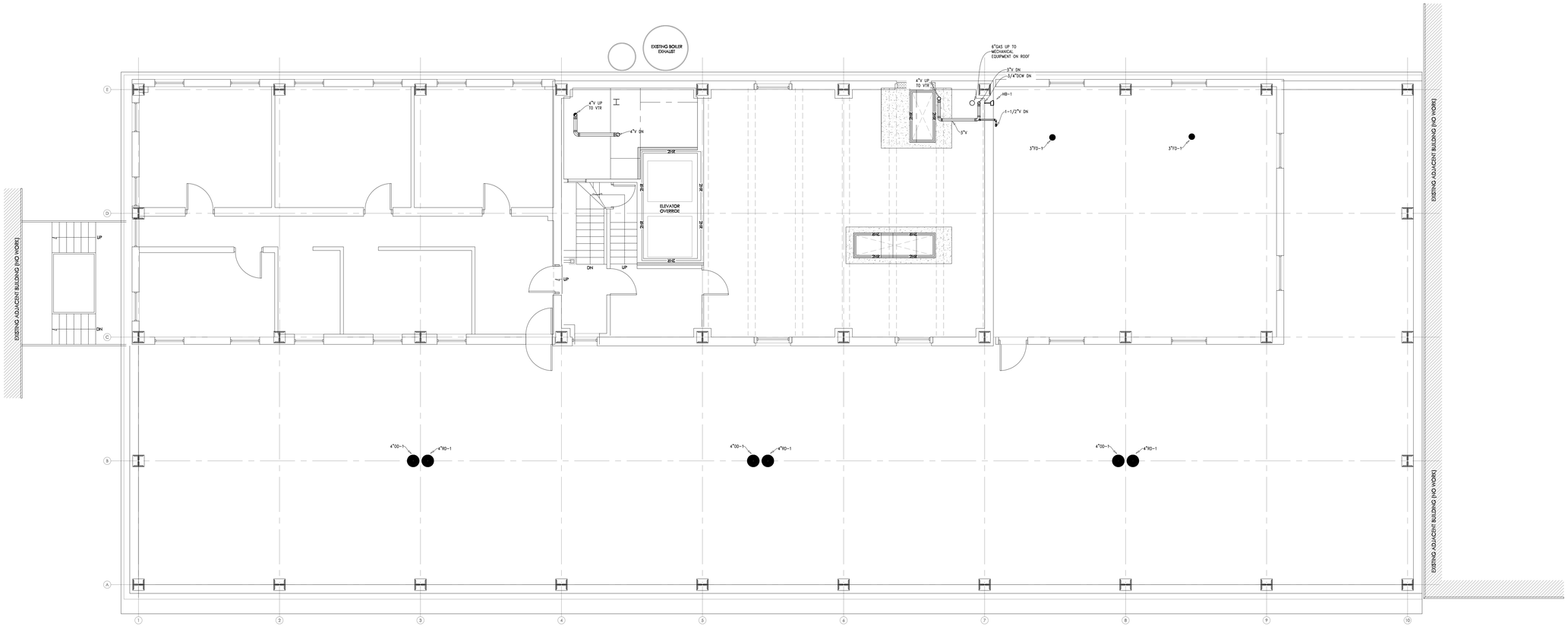
PLUMBING
12TH FLOOR
SANITARY & VENT

DRAWN:	HAS	REF DWG:	–
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P112

COORDINATION | REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\00 DRAWINGS\P112 | ——— | ARCH full bleed E1 (30.00 x 42.00 inches) |
11/29/2022 4:41 PM



PLUMBING THIRTEENTH FLOOR PLAN

SCALE: 3/16"=1'0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING
13TH FLOOR
SANITARY & VENT

DRAWN:	HAS	REF. DWG:	--
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P113

COORDINATION

REV: 0

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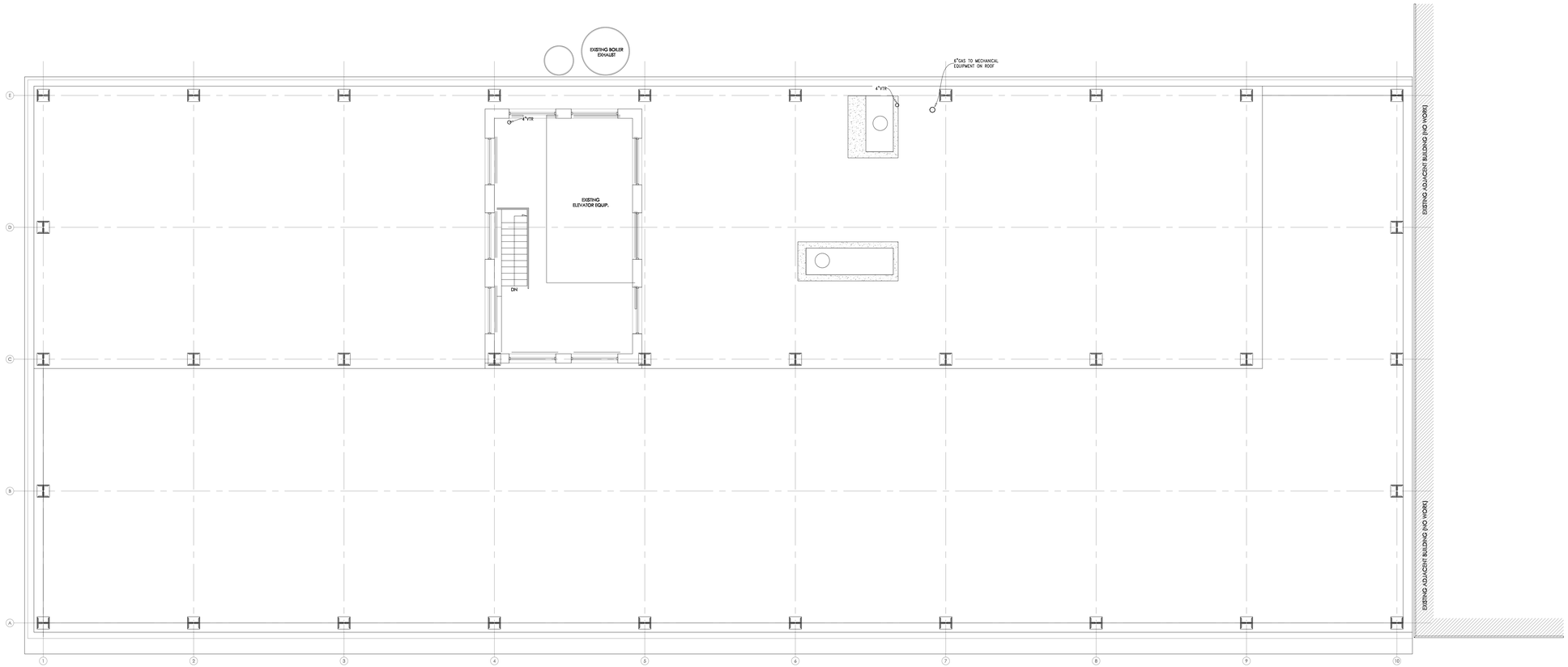
11/29/2022 4:48 PM



PLUMBING FOURTEENTH FLOOR PLAN

SCALE: 3/16"=1'0"

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
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TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED
PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
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Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING
14TH FLOOR
SANITARY & VENT

DRAWN:	HAS	REF. DWG:	--
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P114

COORDINATION

REV: 0

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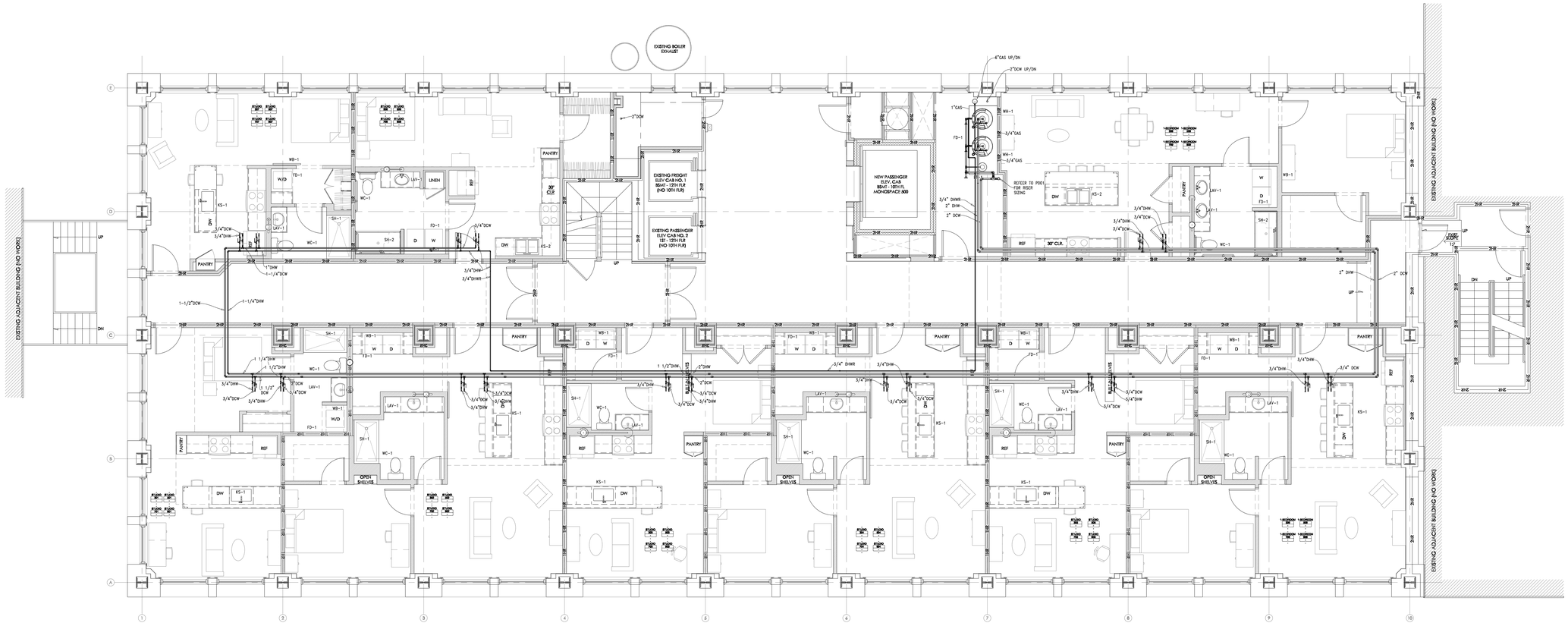

PLUMBING DCW/DHW/DHWR FLOOR PLANS

TYPICAL FOR FLOORS 3, 5, 7 AND 9
SCALE:3/16"=1'/0"

LEGEND/ABBREVIATIONS

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IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED
PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING FLOOR PLANS DCW/DHW/DHWR

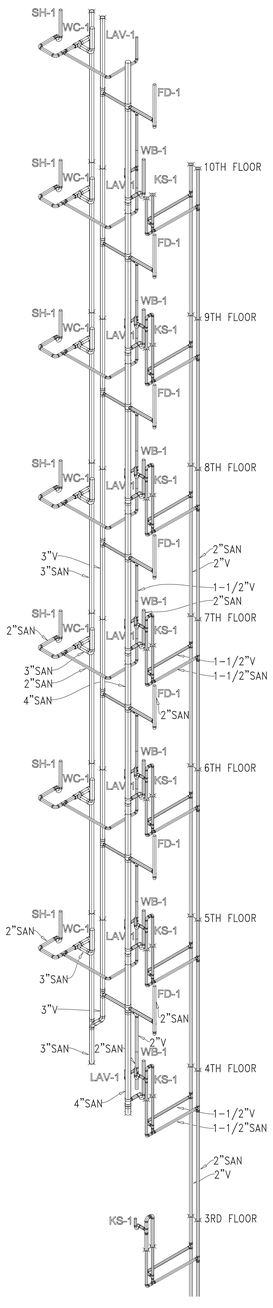
DRAWN:	HAS	REF DWG:	--
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P203

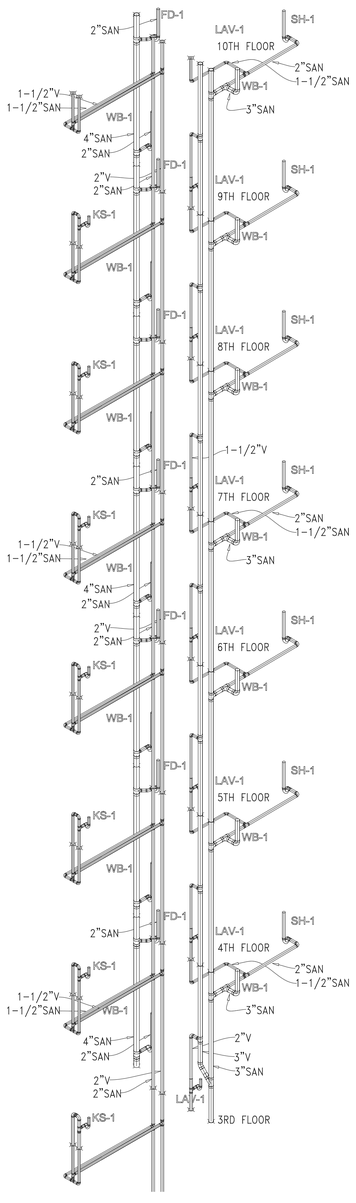
COORDINATION

REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\CD PRAWINGS\P103.1 | ---- | ARCH_E1 (30.00 x 42.00 Inches) | 11/29/2022 10:57 AM

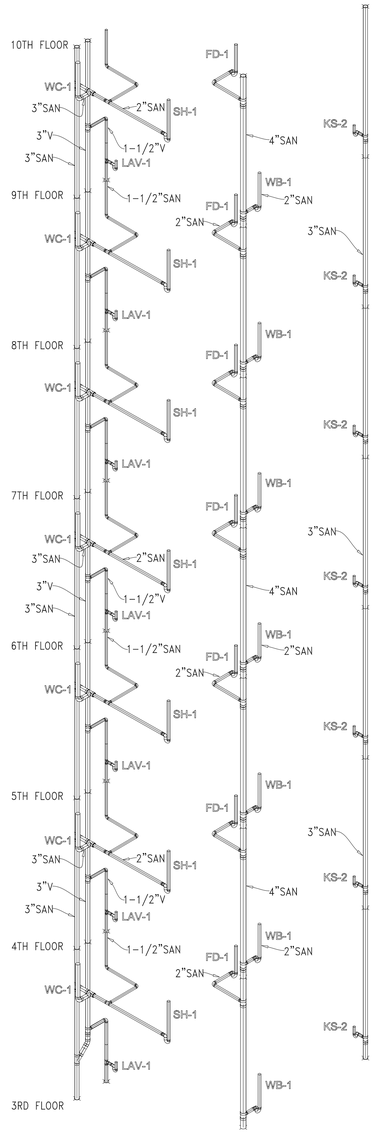


UNITS - 301 THRU 901

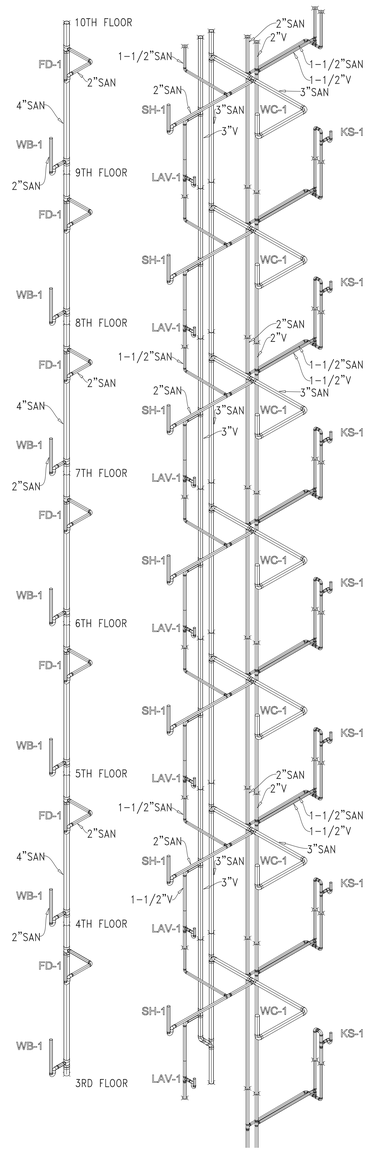


SANITARY STACKS
CONTINUED ON P301 TYP.

UNITS - 307 THRU 907

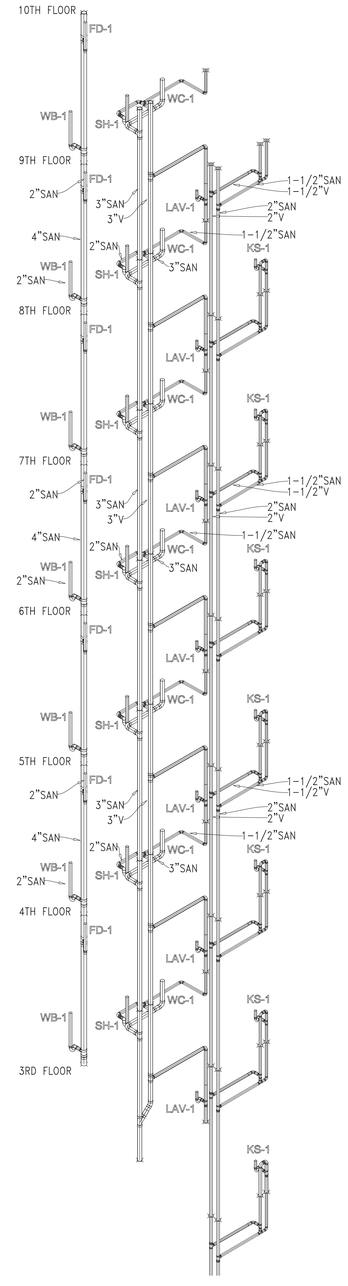


UNITS - 308 THRU 908

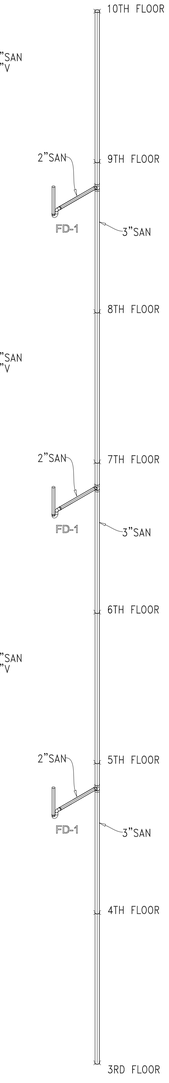


SANITARY STACKS
CONTINUED ON P301 TYP.

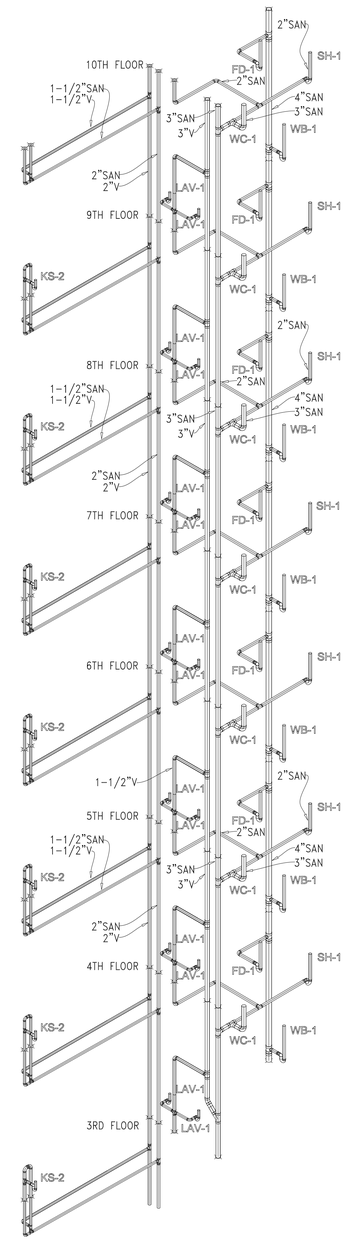
UNITS - 302 THRU 902,
304 THRU 904,
306 THRU 906



UNITS - 303 THRU 903
305 THRU 905



MECH ROOM - 301
THRU 901



SANITARY STACKS
CONTINUED ON P301 TYP.

UNITS - 309 THRU 909

PLUMBING ISOMETRICS FLOORS 3-9
SCALE:NTS

LEGEND/ABBREVIATIONS
BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

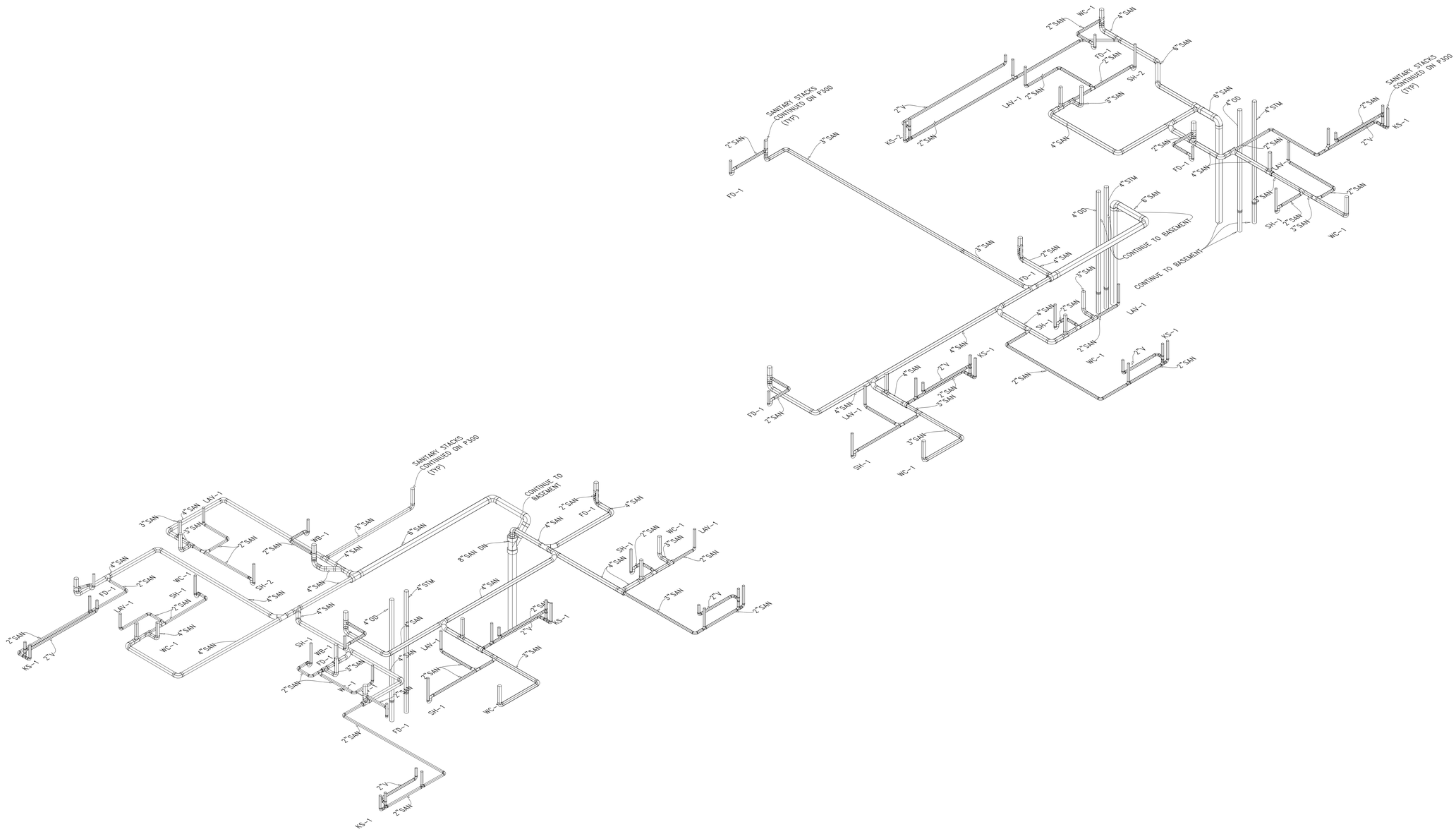
SANITARY ISOMETRICS FLOORS 3-9

DRAWN:	HAS	REF DWG:	...
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P300

COORDINATION
REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\00 DRAWINGS\P300 | ---- | ARCH full bleed E1 (30.00 x 42.00 inches) |
11/29/2022 12:18 PM



PLUMBING SECOND FLOOR ISOMETRIC

SCALE: NONE

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING SECOND FLOOR SANITARY ISOMETRIC

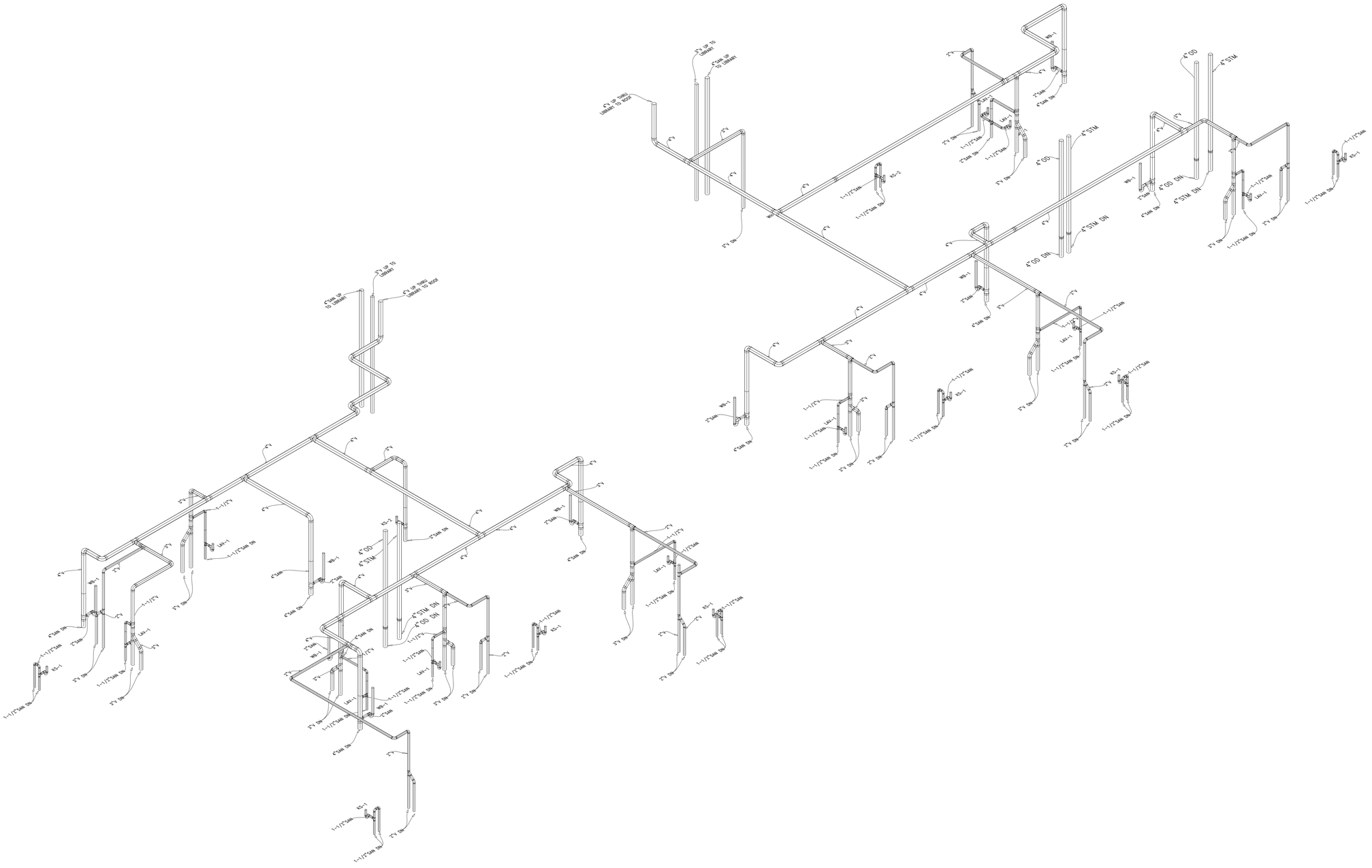
DRAWN:	HAS	REV. DWG#:	--
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P301

COORDINATION

REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\00 DRAWINGS\P301 | ——— | ARCH full bleed E1 (30.00 x 42.00 inches) |
11/29/2022 3:39 PM



PLUMBING TENTH FLOOR ISOMETRIC

SCALE: NONE

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
IE=BOTTOM OF INSIDE OF PIPE (SLOPED PIPE)
TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED
PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

KEN NEYER PLUMBING, INC.
4895 S.R. 128
CLEVES, OHIO 45002
(513) 353-3311
www.neyerplumbing.com

Project Title:
MERCANTILE LIBRARY RESIDENTIAL
414 WALNUT STREET
CINCINNATI, OHIO 45202

PLUMBING
10TH FLOOR
ISOMETRIC

DRAWN:	HAS	REF DWG:	--
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P302

COORDINATION

REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\00 DRAWINGS\P302 | ---- | ARCH (ul) (Red) E1 (30.00 x 42.00 Inches) |
11/29/2022 12:29 PM

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	BASIS OF DESIGN	NOMINAL PIPE SIZE				FAUCET / FLUSH VALVE		MOUNTING HEIGHT	REMARKS
			DCW	DHW	WASTE	VENT	BASIS OF DESIGN	FLOW RATE		
HB-1	HOSE BIBB	WOODFORD MODEL 24	1/2"	-	-	-	-	-	-	ANTI-SIPHON WALL FAUCET
KS-1	SINGLE BOWL KITCHEN SINK	ELKAY HDSB332293	1/2"	1/2"	2"	1 1/2"	ELKAY HDFAV1411	1.75 GPM	-	SOLID BRASS BODY, CHROME FINISH, PULL DOWN SPRAY
KS-2	DOUBLE BOWL KITCHEN SINK	ELKAY HDDB332294	1/2"	1/2"	2"	1 1/2"	ELKAY HDFAV1411	1.75 GPM	-	SOLID BRASS BODY, CHROME FINISH, PULL DOWN SPRAY
LAV-1	CIRCULAR COUNTERTOP LAVATORY	AMERICAN STANDARD RONDALYN 0491.019	1/2"	1/2"	1 1/2"	1 1/2"	DELTA 2520LF-A	1.5 GPM	34" TO RIM	COUNTER TOP MOUNT, ROUND BOWL 191/8", SELF RIMMING WITH FRONT OVERFLOW
SH-1	SHOWER	STERLING ENSEMBLE	1/2"	1/2"	2"	1 1/2"	DELTA 132900 MONITOR 13 SERIES, R1000 SERIES VALVE	2.0 GPM	-	60"X32" THREE WALL ALCOVE, 3-1/2" THRESHOLD
SH-2	ADA SHOWER	FREEDOM SHOWERS MODEL APF6036BF	1/2"	1/2"	2"	1 1/2"	DELTA T13H153, R1000 SERIES VALVE	2.0 GPM	-	ROLL-IN SHOWER STALL, 1-1/4" THRESHOLD, 2 HORIZONTAL & 1 VERTICAL GRAB BAR, FRAMELESS FOLD UP SEAT
WB-1	WASHER BOX	OATEY MODA	1/2"	1/2"	2"	1 1/2"	-	-	-	MODA WASHING MACHINE BOX F1807 PEX CONNECTIONS
WC-1	FLOOR MOUNTED WATER CLOSET	AMERICAN STANDARD CADET3	1/2"	-	3"	1 1/2"	-	1.28GPF	16-1/2" TO RIM	VITREOUS CHINA, 1.28GPF, ELONGATED
ACCEPTABLE EQUAL MANUFACTURERS: AMERICAN STANDARD, ELJER, ELKAY, JUST, KOHLER, MUSTEE, SLOAN, ZURN.										

PLUMBING DRAIN SCHEDULE

MARK	DESCRIPTION	BASIS OF DESIGN	NOMINAL PIPE SIZE		REMARKS
			WASTE	VENT	
FD-1	FLOOR DRAIN	ZURN Z415B	3"	1-1/2"	WITH TRAP GUARD
OD-1	OVERFLOW DRAIN	ZURN Z100	3"	-	CAST IRON BODY, NO-HUB, INTERNAL WATER DAM
RD-1	ROOF DRAIN	ZURN Z100	3"	-	CAST IRON BODY, NO HUB
ACCEPTABLE EQUAL MANUFACTURERS: JOSAM, JR SMITH, WADE, WATTS					

WATER HEATER SCHEDULE

MARK	DESCRIPTION	BASIS OF DESIGN	STORAGE GALLONS	RECOVERY AT 70 DEGREE RISE GPH	GAS INPUT MBH	EFFICIENCY %	ELECTRICAL DATA				REMARKS
							KW	VOLT	PH	ELEMENTS	
WH	WATER HEATER	AO SMITH BTH-120(A)	60	197	120,00	95	35.0	120			GAS FIRED, CONDENSING, DIRECT VENT
ACCEPTABLE EQUAL MANUFACTURERS: BRADFORD-WHITE, LOCHINVAR, RHEEM, STATE											

EXPANSION TANK SCHEDULE

MARK	SERVING	BASIS OF DESIGN	TANK VOLUME (GALLONS)	MAX ACCEPTANCE	CONNECTION (INCHES)	SYSTEM	REMARKS
ET-1	WH-1(2)	AMTROL ST-20VC	8	3.2	3/4	DOMESTIC	ASME RATED
ACCEPTABLE EQUAL MANUFACTURERS: B & G, TACO, WATTS							

PUMP SCHEDULE

MARK	LOCATION	BASIS OF DESIGN	TYPE	CAPACITY		MOTOR DATA				REMARKS
				GPM	FT HD	HP	VOLTS	PHASE	Hz	
RCP-1	SEE PLANS	ARMOSTRONG S-25	IN-LINE	15	8	0.08	115	1	-	NON-FERROUS BODY, CENTRIFUGAL IMPELLER
ACCEPTABLE EQUAL MANUFACTURERS: ARMSTRONG, B & G, GRUNDFOSS, LITTLE GIANT, STANCOR, ZOELLER										

LEGEND/ABBREVIATIONS

BI=BOTTOM OF INSULATION
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TT=TOP OF TRAPEZE

KEYPLAN

STATE OF OHIO
WAHOFF
E-59973
REGISTERED PROFESSIONAL ENGINEER
11/29/2022

DATE	REV	DESCRIPTION

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PLUMBING SCHEDULES

DRAWN:	HAS	REF DWG:	--
PROJ. MGR:	FP	JOB #:	2022.01.235
CHECKED BY:	F.PAULY	DATE:	11-29-22
SIGNED OFF:	F.PAULY	DATE:	11-29-22

P400

COORDINATION REV: 0

S:\ENGINEERING\MERCANTILE\MERCANTILE LIBRARY RESIDENTIAL 2022.01.235\22 PLUMBING\00 DRAWINGS\P400 | ---- | ARCH full bleed E1 (30.00 x 42.00 inches) |
11/29/2022 11:31 AM