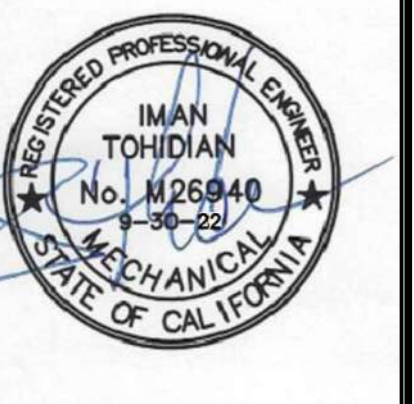
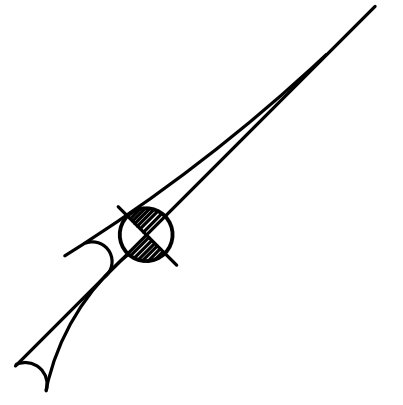


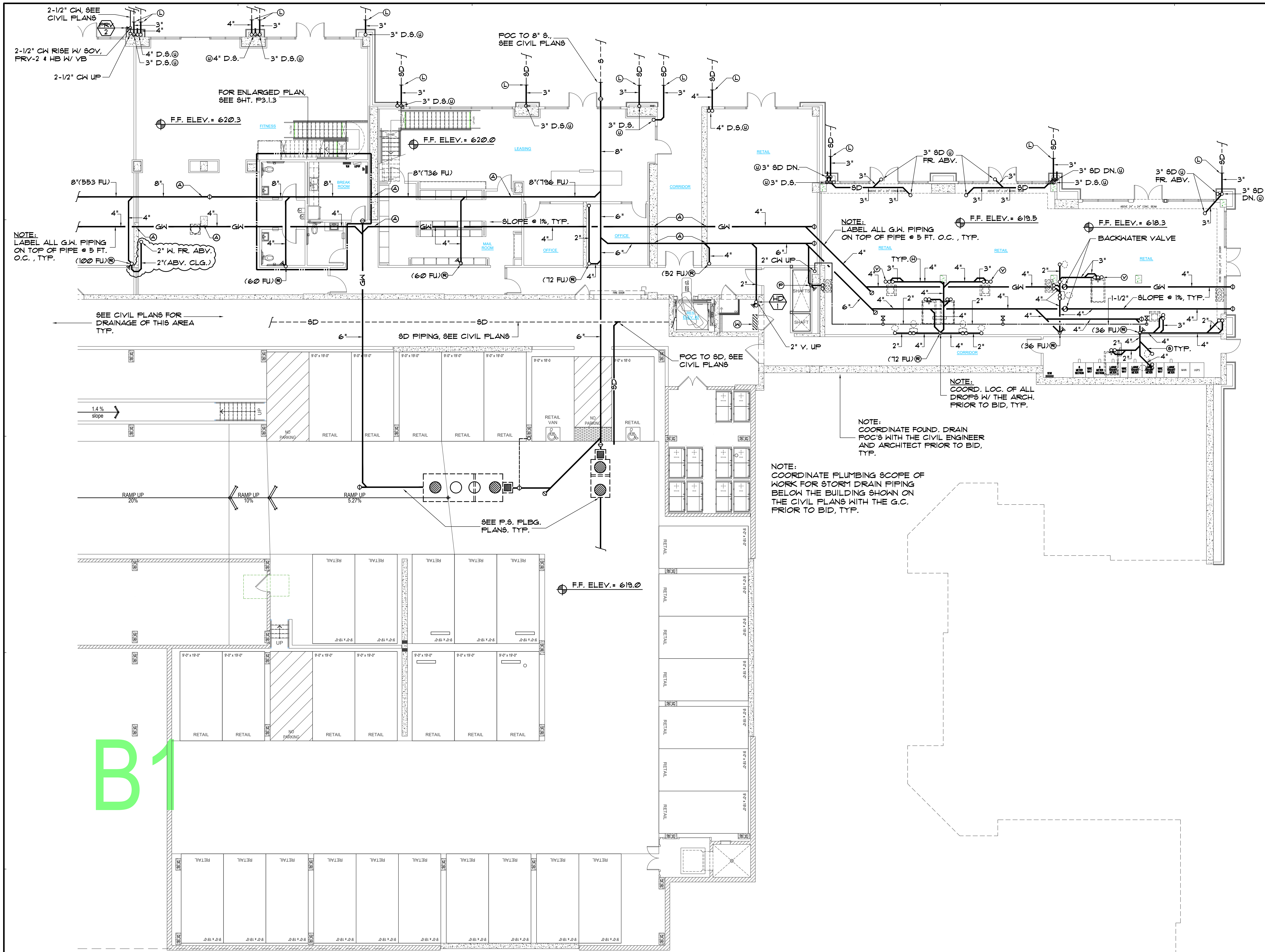
OVERALL PLUMBING UPPER FIRST FLOOR PLAN
 SCALE: 1" = 20'-0"



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1012	Project Number
4-19-19	Drawing Name
1-15-19	Plat Date
10-25-19	△ P/C CORR'S
1-20-21	△ Owner Rev's
8-8-22	△ Owner Rev's
	△
	△





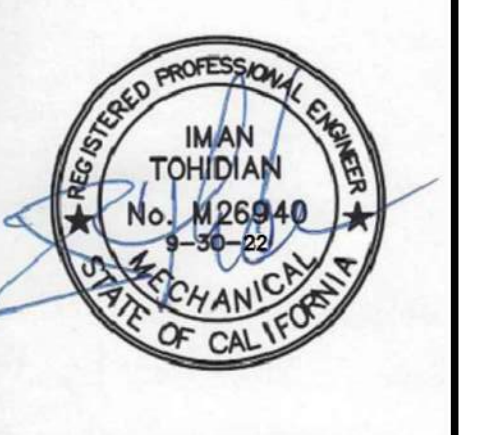
- DESIGN NOTES:**
- (A) CO-ORD ROUTING OF ALL PIPING WITH STRUCTURAL FOUNDATION PLAN, FOOTINGS, ETC. AT TIME OF BID. RE-ROUTE & PROVIDE ALL OFFSETS, ETC. AS REQUIRED, TYP.
 - (B) COORD. NOTCHING OR BORING OF ALL FLOOR JOISTS WITH THE STRUCTURAL ENGINEER PRIOR TO BID. RE-ROUTE ALL PIPING AS NECESSARY TO MEET REQ'TS.
 - (C) PROVIDE H.C.O.'S ON ALL WASTE BRANCHES OVER 5'-0" PER ADMIN. AUTHOR. & CPC, AND COORDINATE ALL LOCATIONS WITH THE OWNER AND ARCHITECT @ BID, TYP.
 - (D) PROVIDE C.O.'S ON ALL SEWER MAINS AT MIN. 100 FT. PER C.P.C. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID.
 - (E) VERIFY EXACT LOC. OF HD-2 & TP-1 W/ F.S. CONTRACTOR & CITY PRIOR TO BID. PROVIDE FIRE RATED ACCESS PANEL AND PROTECTION OF PENETRATIONS PER C.B.C. SEC. 112 & 102.0.1.2. (RELOCATE TO ANOTHER LOC. IF REQUIRED.)
 - (F) VERIFY EXACT LOCATIONS OF ALL F.S. STANDPIPES AND ALL DRAIN RECEIPTS W/ F.S. CONTR. PRIOR TO BID.
 - (G) PROVIDE FLEX. PIPE CONNS. SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRWG'S, TYP.
 - (H) COORD. WITH STRUCTURAL CONDITIONS ABOVE CEILINGS IN THIS AREA WITH THE STRUCTURAL ENGINEER, BEAMS, FRAMING, ETC. PRIOR TO BID. MODIFY PIPING SHOWN AS NECESSARY, TYP.
 - (J) COORDINATE ALL ROUTING OF PIPING IN SHEAR WALLS AND BEARING WALLS WITH THE STRUC. ENG. PRIOR TO BID.
 - (K) BALANCING VALVE W/ SOV & ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. SET @ 5 GPM. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID, TYP.
 - (L) SD PIPING BEL. GRADE, SEE CIVIL PLANS FOR CONTIN. TYP.
 - (M) 2" V. UP & 1/2" CH FR. ABV.
 - (N) 2" W. DN. IN WALL
 - (O) 3" W. DN. IN WALL
 - (P) 4" S. DN. IN WALL
 - (Q) PROVIDE DRAIN PAN BELOW ALL PIPING ABV. ELEC. RM. WITH 1" DRAIN TO OUTSIDE, TYP.
 - (R) FAN COIL UNIT, R.I. & C 3/4" IN W/ TRAP & VENT RUN TO HD-1
 - (S) COORD. EXACT LOC. OF ALL S.D. PIPING W/ ARCHITECT & STRUCT. ENGR. PRIOR TO BID.
 - (T) 3" VTR. CAP ABV. CLG. FOR FUTURE TENANT CONNECTION
 - (U) FAN COIL UNIT ON WALL R.I. & C 3/4" IN W/ TRAP & VENT, RUN TO HD-1



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 MECHANICAL PLUMBING DESIGN/ENERGY ANALYSIS
 330 S. Maple, Suite J | Ph: (951) 371-1800
 Corona, CA 92626 | Fax: (951) 371-2526

PA-12 Otay Ranch
 APARTMENTS
 BUILDING TYPE A
 1445 TOWN CENTER DR.
 CHULA VISTA, CALIFORNIA
 91915

BLDG. A
PLUMBING
SEGMENT 4
LOWER 1st
FLOOR PLAN



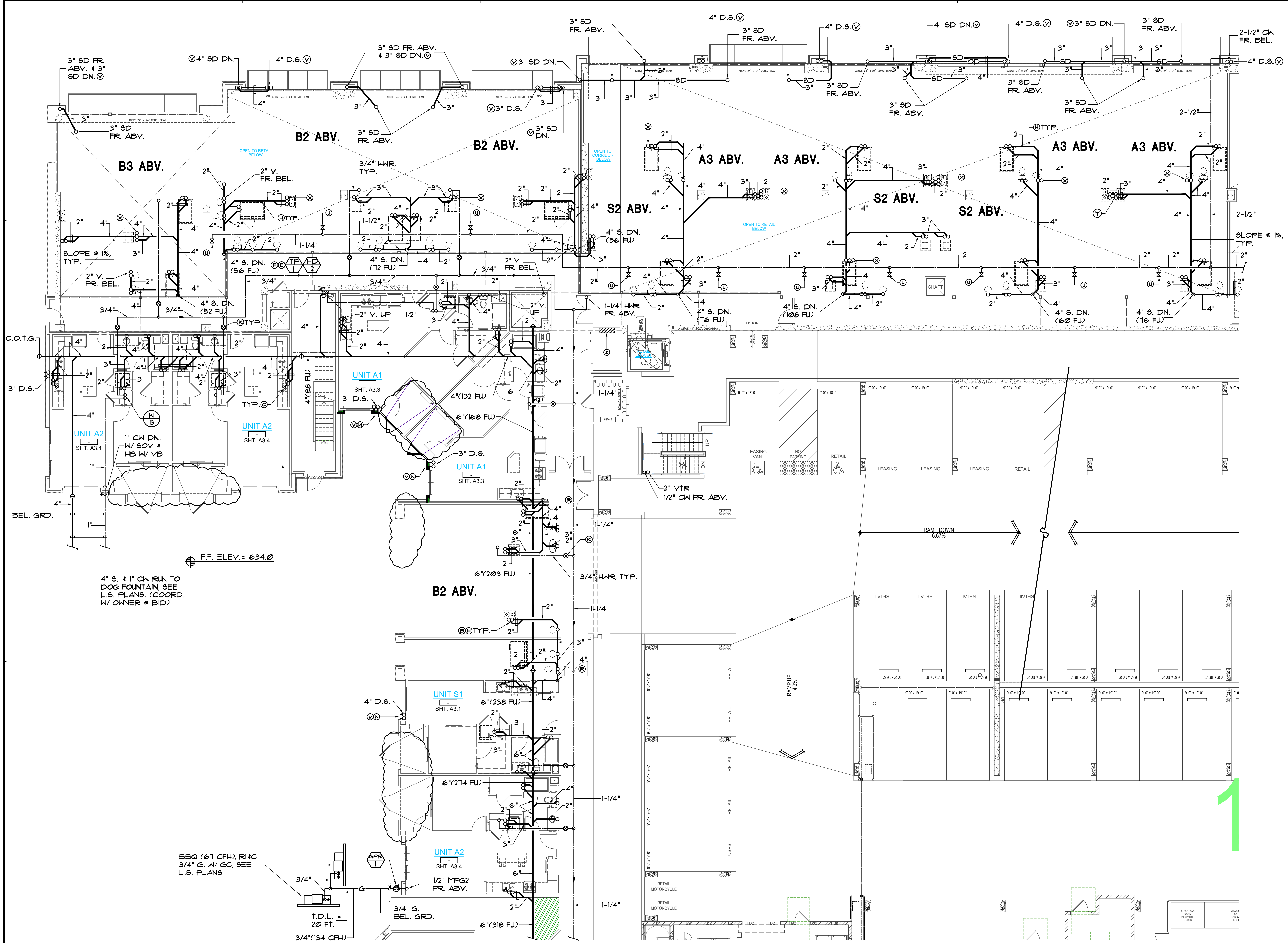
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1-20-21	Owner Rev's
8-8-22	Owner Rev's

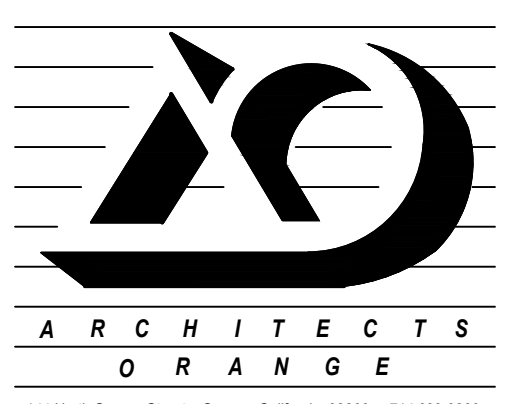
BLDG. A - SEGMENT 2 - PLUMBING LOWER FIRST FLOOR PLAN
 SCALE: 1/8" = 1'-0"

SHEET
P2.1.2

B1



- DESIGN NOTES:**
- (A) CO-ORD ROUTING OF ALL PIPING WITH STRUCTURAL FOUNDATION PLAN, FOOTINGS, ETC. AT TIME OF BID. RE-ROUTE & PROVIDE ALL OFFSETS, ETC. AS REQUIRED, TYP.
 - (B) COORD. NOTCHING OR BORING OF ALL FLOOR JOISTS WITH THE STRUCTURAL ENGINEER PRIOR TO BID. RE-ROUTE ALL PIPING AS NECESSARY TO MEET REQTS.
 - (C) PROVIDE H.C.O.'S ON ALL WASTE BRANCHES OVER 5'-0" PER ADMIN. AUTHOR. & C.P.C. AND COORDINATE ALL LOCATIONS WITH THE OWNER AND ARCHITECT @ BID, TYP.
 - (D) PROVIDE C.O.'S ON ALL SEWER MAINS AT MIN. 100 FT. PER C.P.C. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID.
 - (E) VERIFY EXACT LOC. OF HD-2 & TP-1 W/ F.S. CONTRACTOR & CITY PRIOR TO BID. PROVIDE FIRE RATED ACCESS PANEL AND PROTECTION OF PENETRATIONS PER C.B.C. SEC. 112 & 102.12. (RELOCATE TO ANOTHER LOC. IF REQUIRED.)
 - (F) VERIFY EXACT LOCATIONS OF ALL F.S. STANDPIPES AND ALL DRAIN REQTS W/ F.S. CONTR. PRIOR TO BID.
 - (G) PROVIDE FLEX. PIPE CONNS. SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRNGS, TYP.
 - (H) COORD. WITH STRUCTURAL CONDITIONS ABOVE CEILINGS IN THIS AREA WITH THE STRUCTURAL ENGINEER, BEAMS, FRAMING, ETC. PRIOR TO BID. MODIFY PIPING SHOWN AS NECESSARY, TYP.
 - (J) COORDINATE ALL ROUTING OF PIPING IN SHEAR WALLS AND BEARING WALLS WITH THE STRUC. ENG. PRIOR TO BID.
 - (K) BALANCING VALVE W/ SOV & ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. SET @ 5 GPM. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID, TYP.
 - (L) SD PIPING BEL. GRADE. SEE CIVIL PLANS FOR CONTIN. TYP.
 - (M) 2" V. UP & 1/2" CH FR. ABV.
 - (N) 2" W. DN. IN WALL
 - (O) 3" W. DN. IN WALL
 - (P) 4" S. DN. IN WALL
 - (Q) PROVIDE DRAIN PAN BELOW ALL PIPING ABV. ELEC. RM. WITH 1" DRAIN TO OUTSIDE, TYP.
 - (R) FAN COIL UNIT, R.I. & C. 3/4" IN W/ TRAP & VENT RUN TO HD-1
 - (S) 1/4" SOV & CAP FOR FUTURE T.I. (COORD. SUB-METER REQTS. W/ OWNER @ BID)
 - (T) COORD. EXACT LOC. OF ALL S.D. PIPING W/ ARCHITECT & STRUCT. ENGN. PRIOR TO BID.
 - (U) S.D. & O.F. DRAIN, SPILL TO GRADE @ 6" CUT PIPE 1" FR. WALL. COORD. EXACT DETAILS W/ THE ARCHITECT, CIVIL ENGN. & LANDSCAPE ARCH., TYP.
 - (V) 3" VTR. CAP ABV. CLG. FOR FUTURE TENANT CONNECTION
 - (W) OFFSET AROUND COLUMN IN PLUMBING WALL ABOVE
 - (X) FAN COIL UNIT ON WALL, R.I. & C. 3/4" IN W/ TRAP & VENT, RUN TO HD-1 BELOW



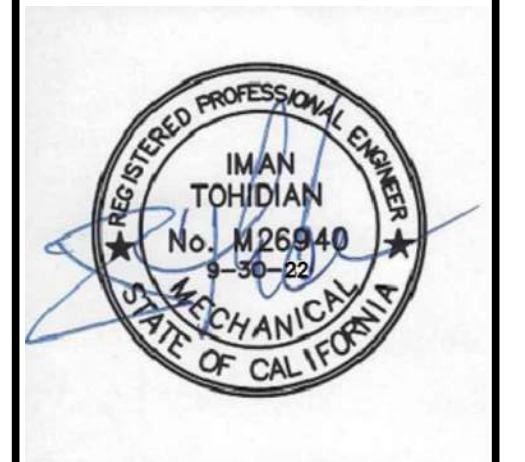
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PA-12 Otay Ranch
 APARTMENTS
 BUILDING TYPE A

1445 TOWN CENTER DR.
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 91915

Baldwin & Sons
 Building Quality Communities for Three Generations
 610 West Ash Street, Suite 1500
 San Diego, CA 92101

BLDG. A
PLUMBING
SEGMENT 1
UPPER 1st
FLOOR PLAN

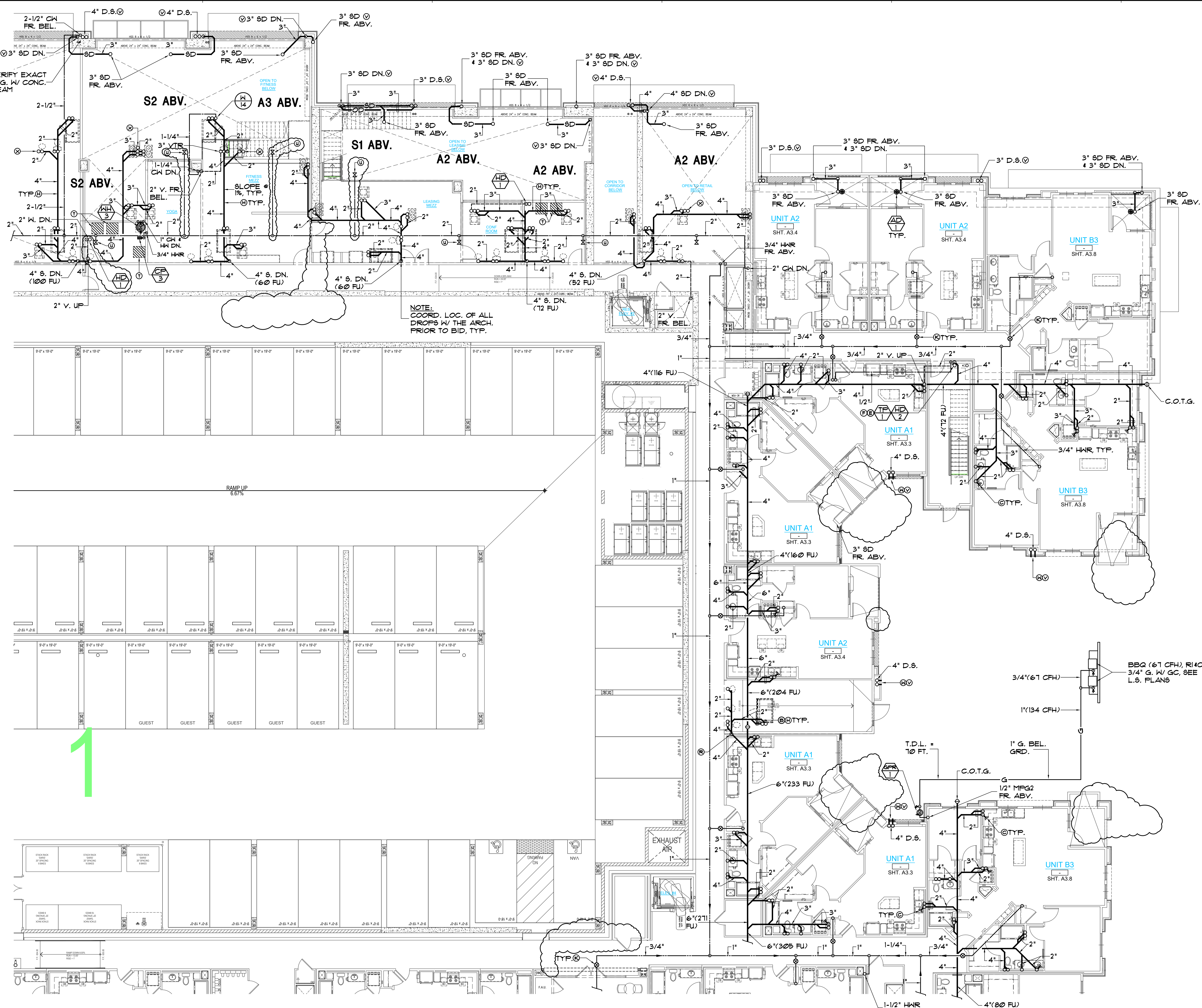


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8-8-22	Owner Rev's

BLDG. A - SEGMENT 1 - PLUMBING UPPER FIRST FLOOR PLAN
 SCALE: 1/8" = 1'-0"

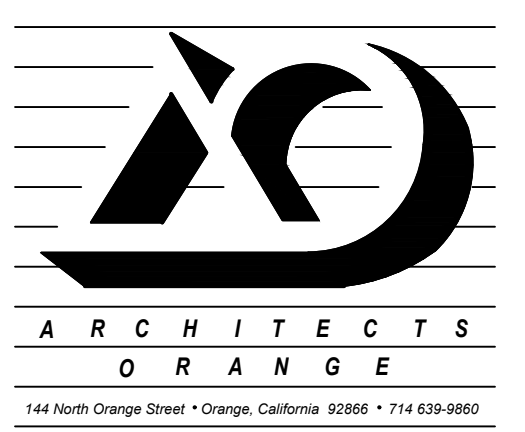
SHEET
P2.2.1



- DESIGN NOTES:**
- (A) CO-ORD ROUTING OF ALL PIPING WITH STRUCTURAL FOUNDATION PLAN, FOOTINGS, ETC. AT TIME OF BID. RE-ROUTE & PROVIDE ALL OFFSETS, ETC. AS REQUIRED, TYP.
 - (B) COORD. NOTCHING OR BORING OF ALL FLOOR JOISTS WITH THE STRUCTURAL ENGINEER PRIOR TO BID. RE-ROUTE ALL PIPING AS NECESSARY TO MEET REQ'T'S.
 - (C) PROVIDE N.C.O.'S ON ALL WASTE BRANCHES OVER 3'-0" PER ADMIN. AUTHOR. & C.P.C. AND COORDINATE ALL LOCATIONS WITH THE OWNER AND ARCHITECT @ BID, TYP.
 - (D) PROVIDE C.O.'S ON ALL SEWER MAINS AT MIN. 100 FT. PER C.P.C. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID.
 - (E) VERIFY EXACT LOC. OF HD-2 & TP-1 W/ F.S. CONTRACTOR & CITY PRIOR TO BID. PROVIDE FIRE RATED ACCESS PANEL AND PROTECTION OF PENETRATIONS PER C.B.C. SEC. 12 & 1020.12. (RELOCATE TO ANOTHER LOC. IF REQUIRED.)
 - (F) VERIFY EXACT LOCATIONS OF ALL F.S. STANDPIPES AND ALL DRAIN REQ'T'S W/ F.S. CONTR. PRIOR TO BID.
 - (G) PROVIDE FLEX. PIPE CONNS. SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. & STRUCTURAL DRAGS, TYP.
 - (H) COORD. WITH STRUCTURAL CONDITIONS ABOVE CEILINGS IN THIS AREA WITH THE STRUCTURAL ENGINEER BEAMS, FRAMING, ETC. PRIOR TO BID. MODIFY PIPING SHOWN AS NECESSARY, TYP.
 - (I) COORDINATE ALL ROUTING OF PIPING IN SHEAR WALLS AND BEARING WALLS WITH THE STRUCT. ENGR. PRIOR TO BID.
 - (J) BALANCING VALVE W/ SOV & ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. SET @ 5 GPM. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID, TYP.
 - (K) 6" SD PIPING BEL. GRADE. SEE CIVIL PLANS FOR CONTIN. TYP.
 - (L) 2" V. UP & 1/2" CH FR. ABV.
 - (M) 2" W. DN. IN WALL
 - (N) 3" W. DN. IN WALL
 - (O) 4" S. DN. IN WALL
 - (P) PROVIDE DRAIN PAN BELOW ALL PIPING ABV. ELEC. RM. WITH 1" DRAIN TO OUTSIDE, TYP.
 - (Q) FAN COIL UNIT, R. & C. 3/4" IN W/ TRAP & VENT RUN TO HD-1
 - (R) 1-1/4" SOV & CAP FOR FUTURE T.I. (COORD. SUB-METER REQ'T'S. W/ OWNER @ BID)
 - (S) COORD. EXACT LOC. OF ALL S.D. PIPING W/ ARCHITECT & STRUCT. ENGR. PRIOR TO BID.
 - (T) S.D. & O.F. DRAIN SPILL TO GRADE @ 6" OUT PIPE 1" FR. WALL. COORD. EXACT DETAILS W/ THE ARCHITECT, CIVIL ENGR. & LANDSCAPE ARCH, TYP.
 - (U) 3" VTR. CAP ABV. CLG. FOR FUTURE TENANT CONNECTION
 - (V) 3/4" IW DN. IN WALL TO SINK TAILPIECE
 - (W) 3/4" IW DN. TO LAY TAILPIECE BELOW

NOTE:
COORD. LOC. OF ALL
DROPS W/ THE ARCH.
PRIOR TO BID, TYP.

BLDG. A - SEGMENT 2 - PLUMBING UPPER FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



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Fax: (951) 371-2926

PA-12 Otay Ranch
APARTMENTS
BUILDING TYPE A
1445 TOWN CENTER DR.
CHULA VISTA, CALIFORNIA
91915

BALDWIN & SONS
Building Quality Commission for Three Generations
610 West Ash Street, Suite 1500
San Diego, CA 92101

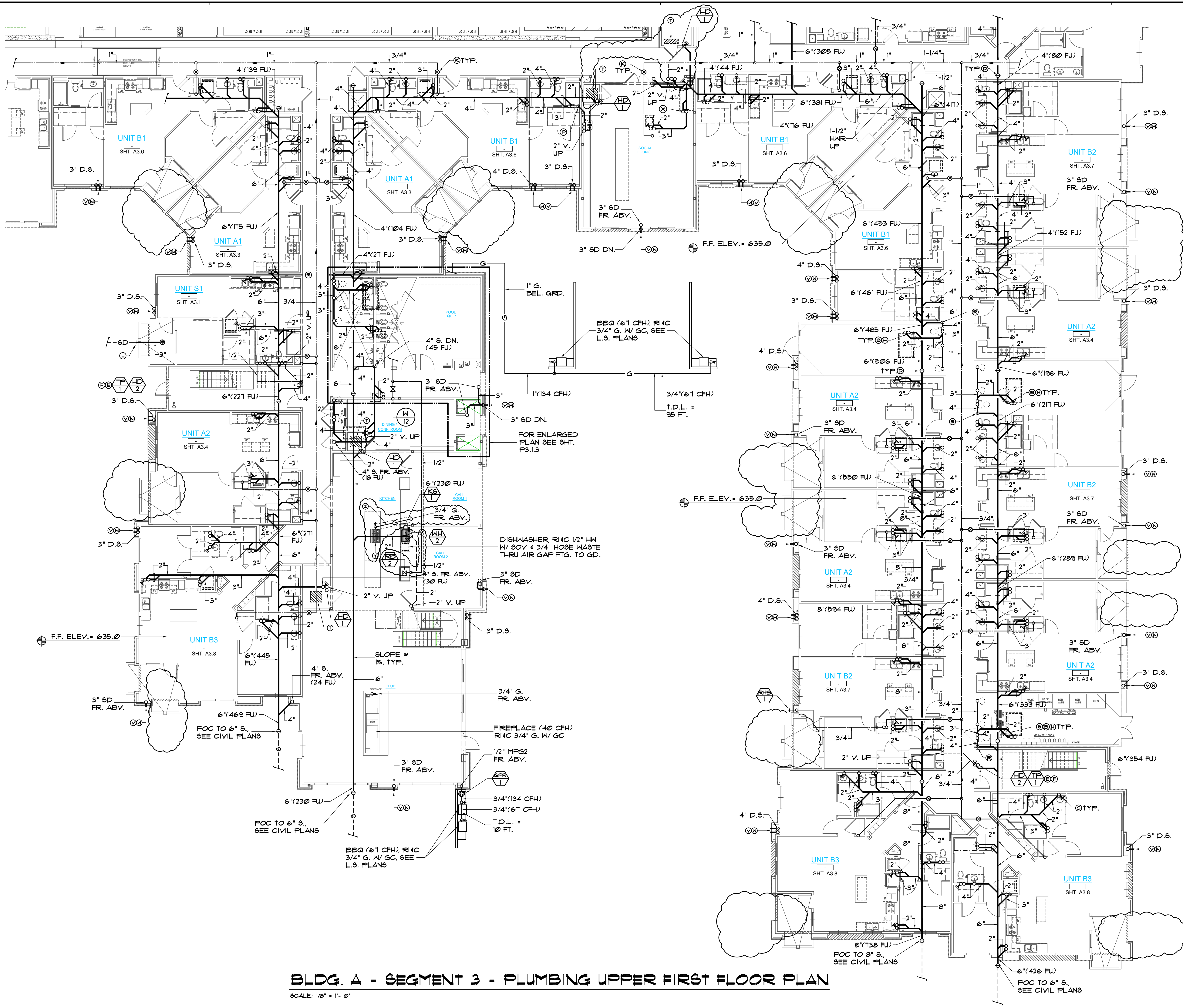
BLDG. A
PLUMBING
SEGMENT 2
UPPER 1st
FLOOR PLAN



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8-8-22	Owner Rev's

SHEET
P2.2.2



- DESIGN NOTES:**
- (A) CO-ORD ROUTING OF ALL PIPING WITH STRUCTURAL FOUNDATION PLAN, FOOTINGS, ETC. AT TIME OF BID. RE-ROUTE & PROVIDE ALL OFFSETS, ETC. AS REQUIRED, TYP.
 - (B) COORD. NOTCHING OR BORING OF ALL FLOOR JOISTS WITH THE STRUCTURAL ENGINEER PRIOR TO BID. RE-ROUTE ALL PIPING AS NECESSARY TO MEET REQMT'S.
 - (C) PROVIDE H.C.O.'S ON ALL WASTE BRANCHES OVER 3'-0" PER ADMIN. AUTHOR. & COORDINATE ALL LOCATIONS WITH THE OWNER AND ARCHITECT @ BID, TYP.
 - (D) PROVIDE C.O.'S ON ALL SEWER MAINS AT MIN. 100 FT. PER C.P.C. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID.
 - (E) VERIFY EXACT LOC. OF HD-2 & TP-1 W/ F.S. CONTRACTOR & CITY PRIOR TO BID. PROVIDE FIRE RATED ACCESS PANEL AND PROTECTION OF PENETRATIONS PER C.B.C. SEC. 12 & 1020.12. (RELOCATE TO ANOTHER LOC. IF REQUIRED.)
 - (F) VERIFY EXACT LOCATIONS OF ALL F.S. STANDPIPES AND ALL DRAIN REGMT'S W/ F.S. CONTR. PRIOR TO BID.
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 - (I) COORDINATE ALL ROUTING OF PIPING IN SHEAR WALLS AND BEARING WALLS WITH THE STRUCT. ENG. PRIOR TO BID.
 - (J) BALANCING VALVE W/ SOV & ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. SET @ 5 GPM. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID, TYP.
 - (K) 8" SD PIPING BEL. GRADE, SEE CIVIL PLANS FOR CONTIN. TYP.
 - (L) 2" V. UP & 1/2" CH FR. ABV.
 - (M) 2" W. DN. IN WALL
 - (N) 3" W. DN. IN WALL
 - (O) 4" S. DN. IN WALL
 - (P) PROVIDE DRAIN PAN BELOW ALL PIPING ABV. ELEC. RM WITH 1" DRAIN TO OUTSIDE, TYP.
 - (Q) FAN COIL UNIT, R.I. & C. 3/4" IN W/ TRAP & VENT RUN TO HD-1
 - (R) 1-1/4" SOV & CAP FOR FUTURE T.I. (COORD. SUB-METER REQMT'S. W/ OWNER @ BID)
 - (S) COORD. EXACT LOC. OF ALL S.D. PIPING W/ ARCHITECT & STRUCT. ENGIN. PRIOR TO BID.
 - (T) S.D. & O.F. DRAIN, SPILL TO GRADE @ 6" CUT PIPE 1" FR. WALL. COORD. EXACT DETAILS W/ THE ARCHITECT, CIVIL ENGIN. & LANDSCAPE ARCH., TYP.
 - (U) COORDINATE WASTE LINE WITH BEAM ABOVE CEILING W/ THE STRUCTURAL ENGINEER & ARCHITECT PRIOR TO BID, TYP.
 - (V) RANGE (65 CFH) R.I. & C. 3/4" G. W/ GC (SEE I.D. PLANS)
 - (W) 3/4" G. BEL. FLOOR IN VENTED PVC SLEEVE PER CITY REQMT'S.



Tryco Consulting Inc.
 MECHANICAL DESIGN/ENERGY ANALYSIS
 330 S. Maple, Suite J P.O. Box 371-860
 Corona, CA 92626 Fax (951) 371-2526

PA-12 Otay Ranch APARTMENTS BUILDING TYPE A

1445 TOWN CENTER DR. CHULA VISTA, CALIFORNIA 91915

Baldwin & Sons
 Building Quality Commission for Three Generations
 610 West Ash Street, Suite 1500 San Diego, CA 92101

BLDG. A PLUMBING SEGMENT 3 UPPER 1st FLOOR PLAN



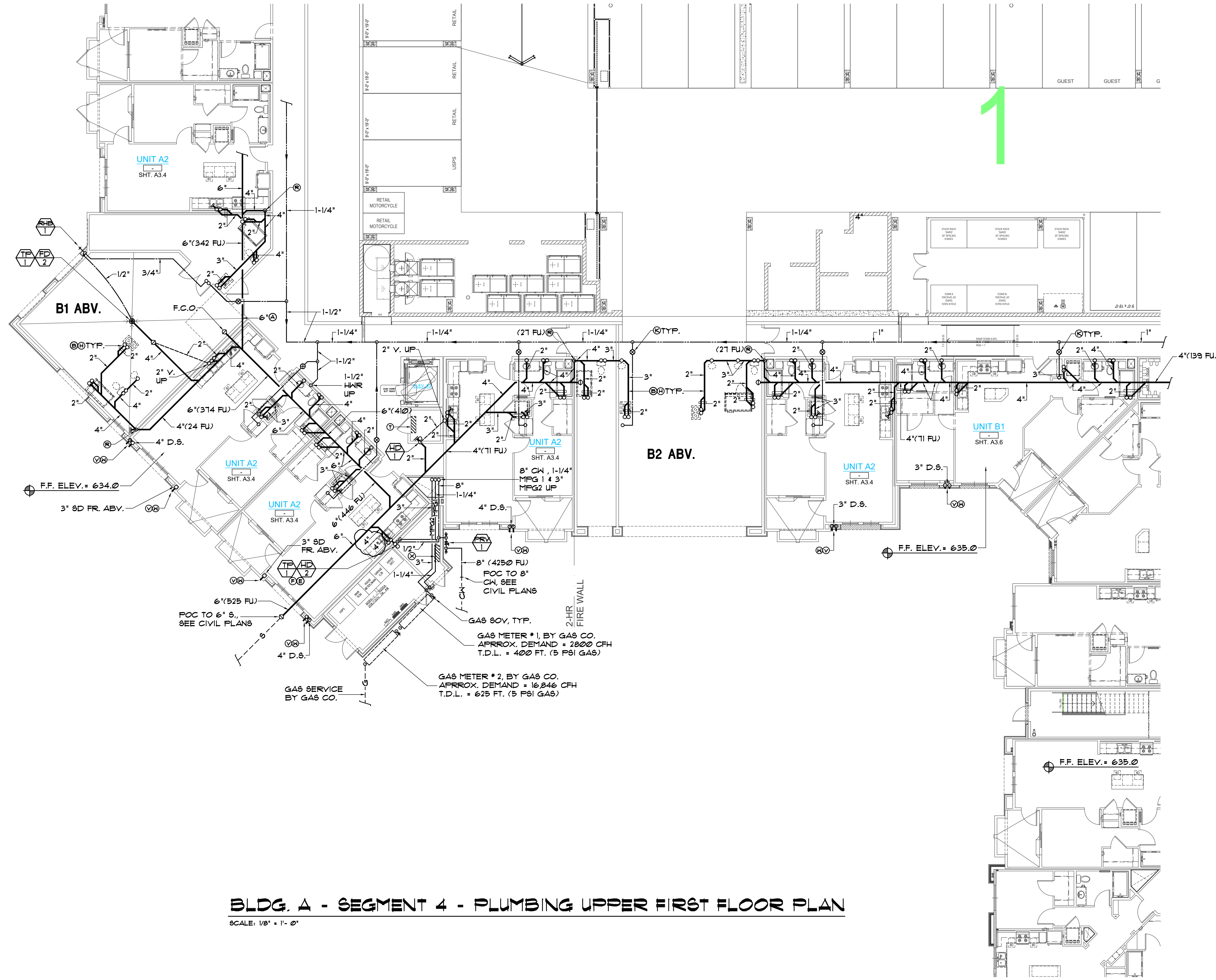
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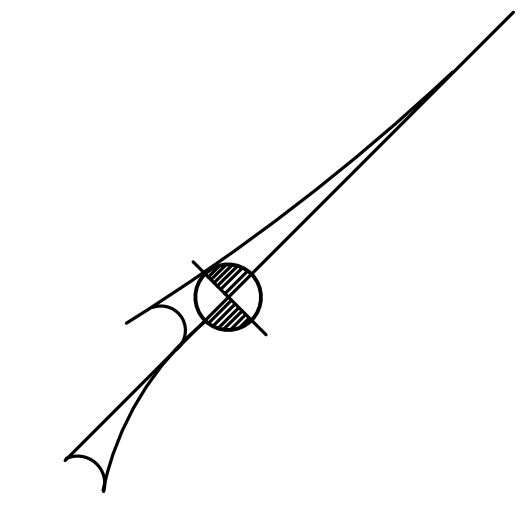
BLDG. A - SEGMENT 3 - PLUMBING UPPER FIRST FLOOR PLAN
 SCALE: 1/8" = 1'-0"

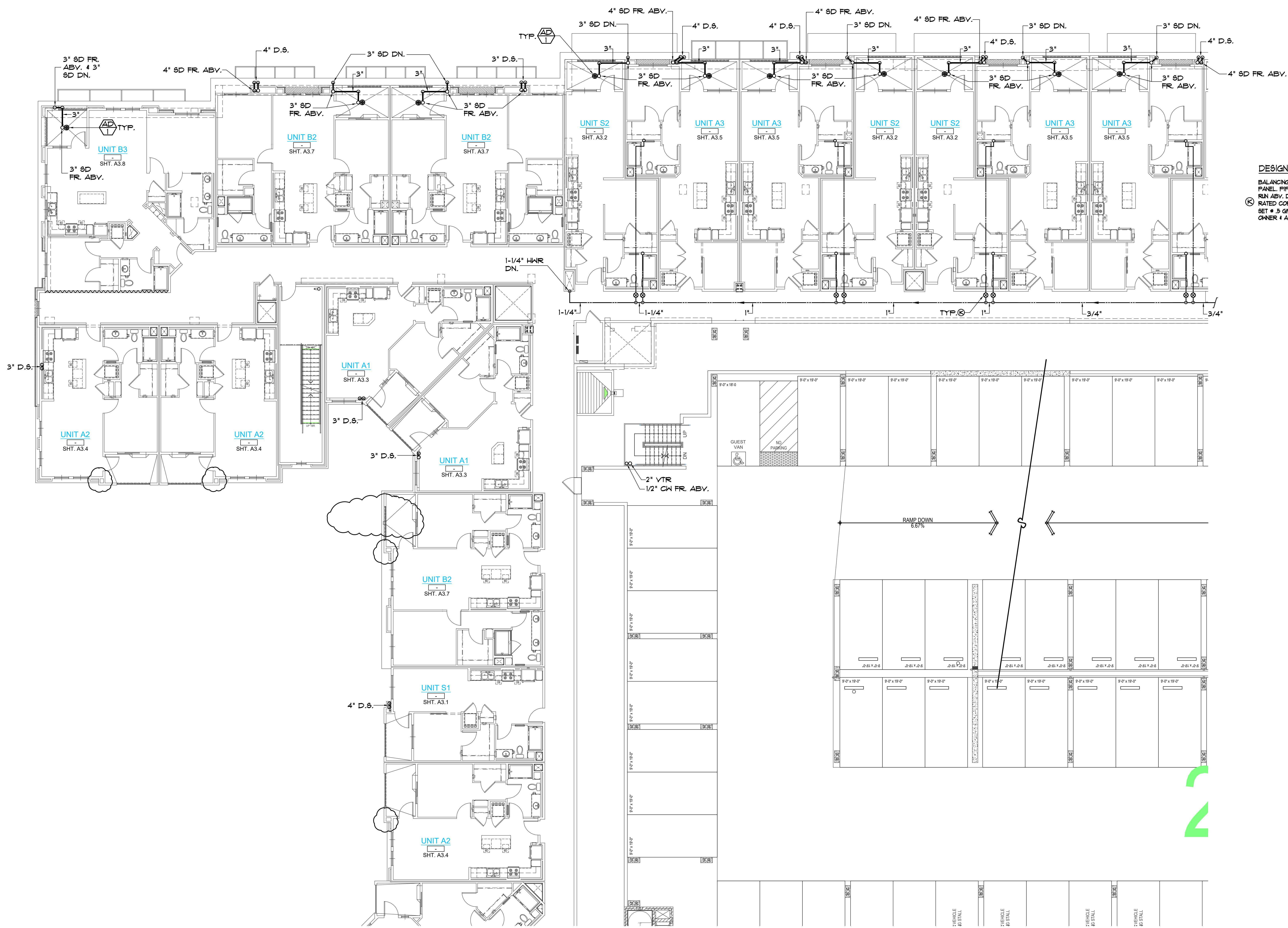
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 - (B) COORD. NOTCHING OR BORING OF ALL FLOOR JOISTS WITH THE STRUCTURAL ENGINEER PRIOR TO BID. RE-ROUTE ALL PIPING AS NECESSARY TO MEET REQMT'S.
 - (C) PROVIDE N.C.O.'S ON ALL WASTE BRANCHES OVER 3" PER ADMIN. AUTHOR. & C.P.C. AND COORDINATE ALL LOCATIONS WITH THE OWNER AND ARCHITECT • BID, TYP.
 - (D) PROVIDE C.O.'S ON ALL SEWER MAINS AT MIN. 100 FT. PER C.P.C. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID.
 - (E) VERIFY EXACT LOC. OF HD-2 & TP-1 W/ F.S. CONTRACTOR & CITY PRIOR TO BID. PROVIDE FIRE RATED ACCESS PANEL AND PROTECTION OF PENETRATIONS PER C.B.C. SEC. 12 & 102.1.2. (RELOCATE TO ANOTHER LOC. IF REQUIRED.)
 - (F) VERIFY EXACT LOCATIONS OF ALL F.S. STANDPIPES AND ALL DRAIN REQMT'S W/ F.S. CONTR. PRIOR TO BID.
 - (G) PROVIDE FLEX. PIPE CONNS. USING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRWG'S, TYP.
 - (H) COORD. WITH STRUCTURAL CONDITIONS ABOVE CEILING IN THIS AREA WITH THE STRUCTURAL ENGINEER, BEAMS, FRAMING, ETC. PRIOR TO BID. MODIFY PIPING SHOWN AS NECESSARY, TYP.
 - (I) COORDINATE ALL ROUTING OF PIPING IN SHEAR WALLS AND BEARING WALLS WITH THE STRUCT. ENGR. PRIOR TO BID.
 - (J) BALANCING VALVE W/ SOV & ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELCH FIRE RATED CORRIDOR CONSTRUCTION. SET @ 5 GPM. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID, TYP.
 - (K) SD PIPING BEL. GRADE. SEE CIVIL PLANS FOR CONTN. TYP.
 - (L) 2" V. UP & 1/2" CH FR. ABV.
 - (M) 2" W. DN. IN WALL
 - (N) 3" W. DN. IN WALL
 - (O) 4" S. DN. IN WALL
 - (P) PROVIDE DRAIN PAN BELOH ALL PIPING ABV. ELEC. RM. WITH 1" DRAIN TO OUTSIDE, TYP.
 - (Q) FAN COIL UNIT, R.I. & C 3/4" IN W/ TRAP & VENT RUN TO HD-1
 - (R) 1-1/4" SOV & CAP FOR FUTURE T.I. (COORD. SUB-METER REQMT'S. W/ OWNER • BID)
 - (S) COORD. EXACT LOC. OF ALL S.D. PIPING W/ ARCHITECT & STRUCT. ENGR. PRIOR TO BID.
 - (T) S.D. & G.F. DRAIN SPILL TO GRADE 4" x 6" CUT PIPE 1" FR. WALL. COORD. EXACT DETAILS W/ THE ARCHITECT, CIVIL ENGR. & LANDSCAPE ARCH. TYP.
 - (U) FAN COIL UNIT ON WALL, R.I. & C 3/4" IN W/ TRAP & VENT, RUN TO HD-2

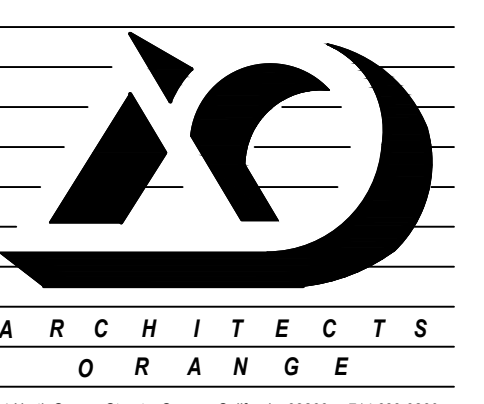


BLDG. A - SEGMENT 4 - PLUMBING UPPER FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"





DESIGN NOTES:
 BALANCING VALVE W/ SOV & ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION.
 SET # 5 GPM. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID, TYP.



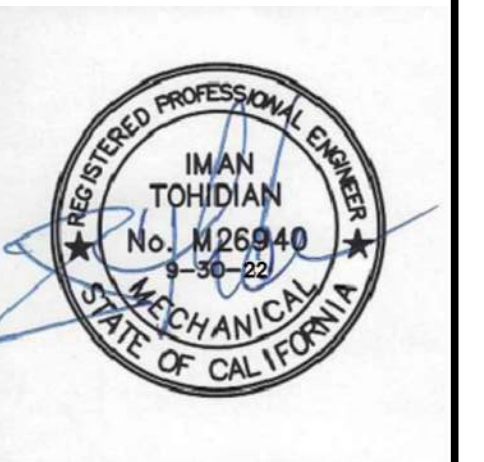
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 Ph: (951) 371-1860 Fax: (951) 371-2926

PA-12 Otay Ranch APARTMENTS BUILDING TYPE A

1445 TOWN CENTER DR. CHULA VISTA, CALIFORNIA 91915

BALDWIN & SONS
 Building Quality Commission for Three Generations
 610 West Ash Street, Suite 1500 San Diego, CA 92101

BLDG. A SEGMENT 1 PLUMBING 2nd FLOOR PLAN

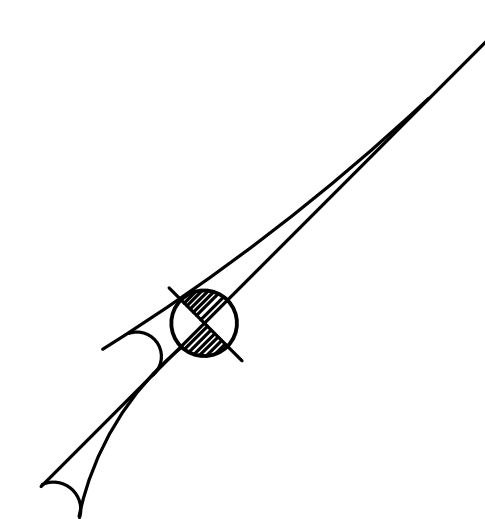


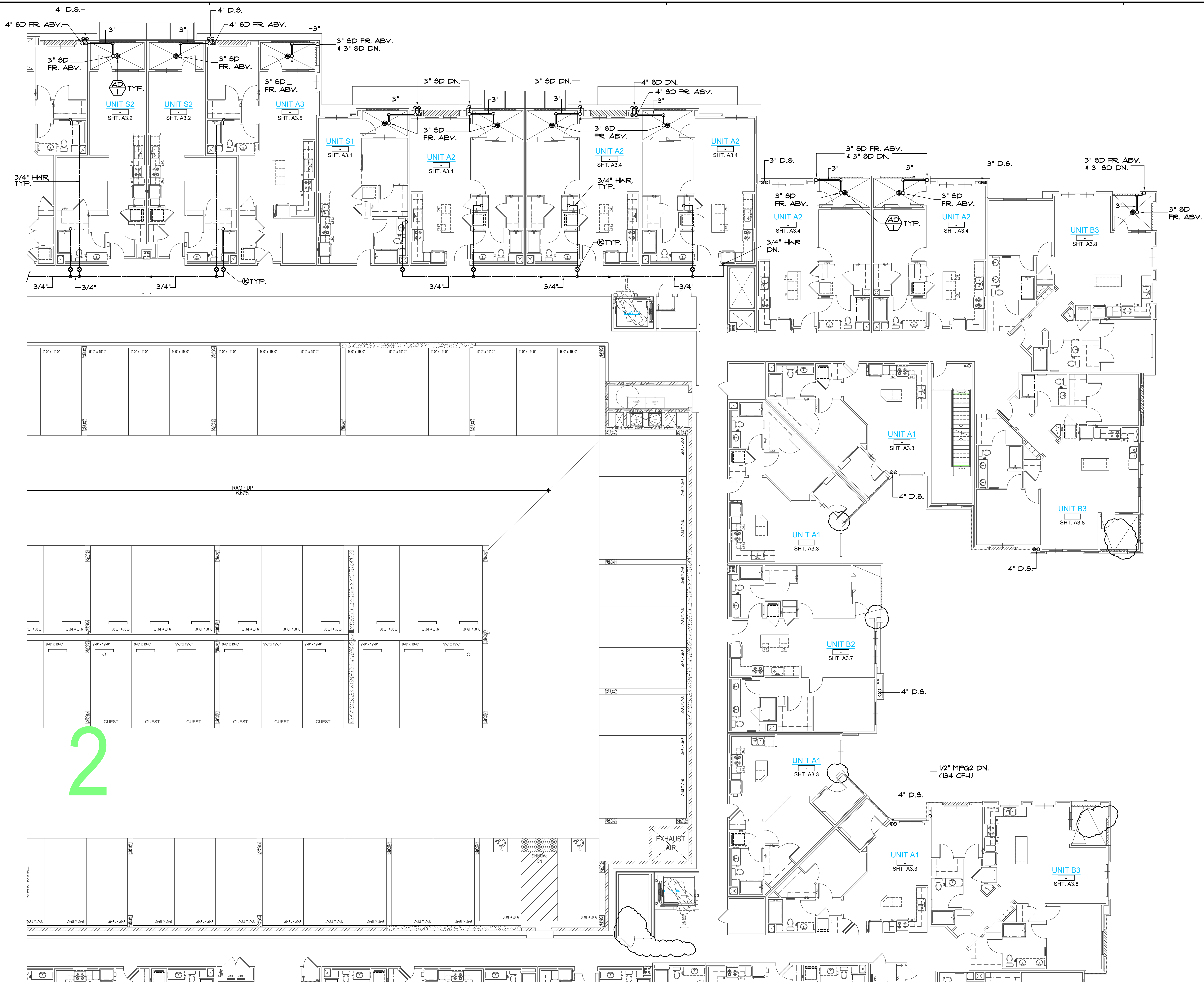
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DATE	DESCRIPTION
4-19-19	Plan Check
	Bid Set
	Permit
1012	Project Number
	Drawing Name
4-19-19	Plot Date
1-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

BLDG. A - SEGMENT 1 - PLUMBING SECOND FLOOR PLAN
 SCALE: 1/8" = 1'-0"

SHEET
P2.3.1





DESIGN NOTES:

- Ⓐ FAN COIL UNIT ON WALL, R.I. & C 3/4" IN W/ TRAP & VENT, RUN TO HD-1 BEL.



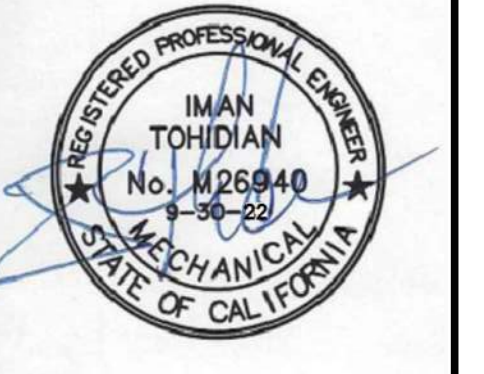
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 CHULA VISTA, CALIFORNIA 91915

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 Building Quality Commission for Three Generations
 610 West Ash Street, Suite 1500
 San Diego, CA 92101

BLDG. A SEGMENT 2 PLUMBING 2nd FLOOR PLAN



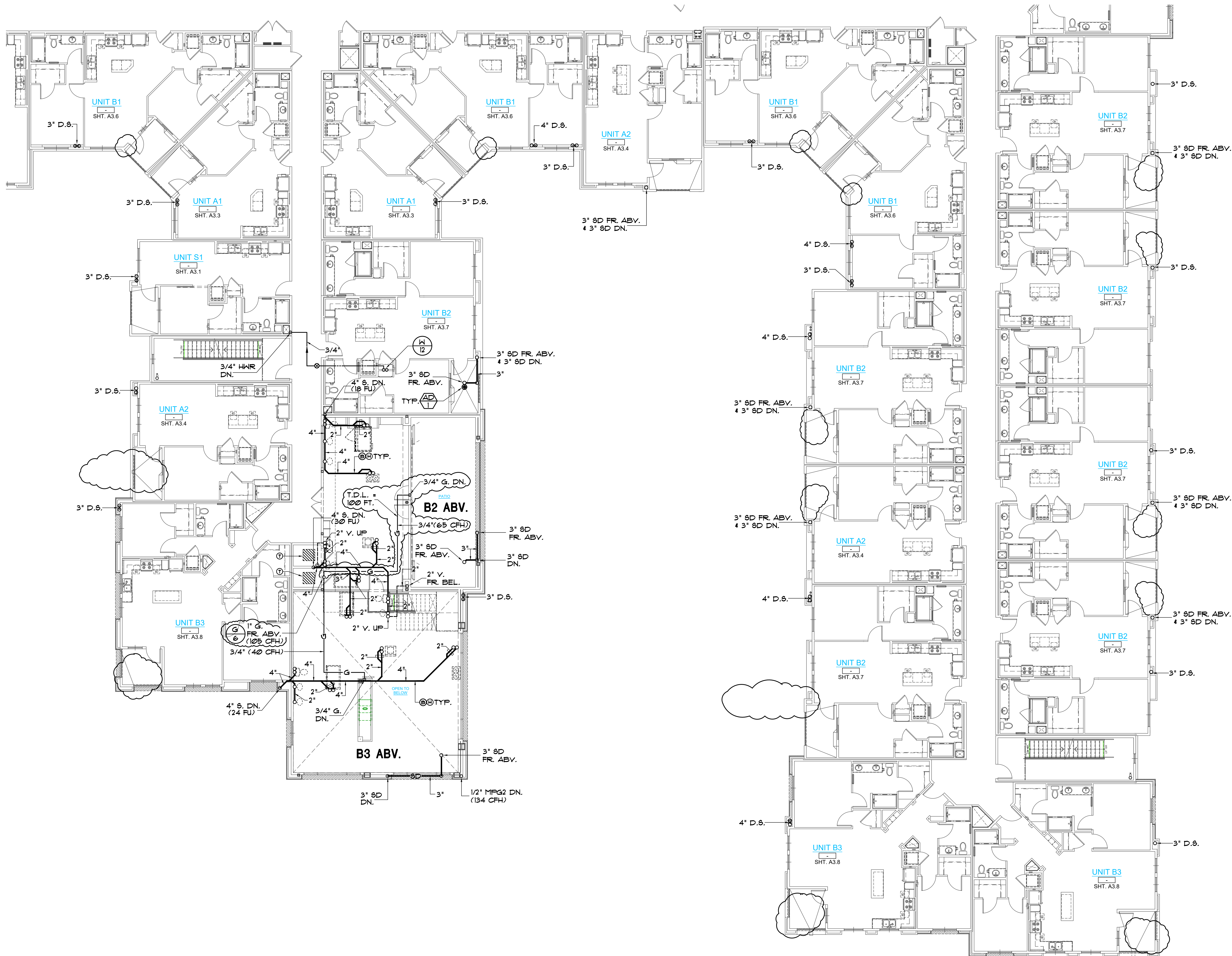
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DATE	DESCRIPTION
4-19-19	Plan Check
	Bid Set
	Permit
10-2	Project Number
4-19-19	Drawing Name
7-19-19	Plat Date
10-25-19	Ⓐ P/C CORR'S
1-20-21	Ⓐ P/C CORR'S
8-8-22	Ⓐ Owner Rev's
	Ⓐ Owner Rev's

2

BLDG. A - SEGMENT 2 - PLUMBING SECOND FLOOR PLAN
 SCALE: 1/8" = 1'-0"

SHEET
P2.3.2



- DESIGN NOTES:**
- (A) CO-ORD ROUTING OF ALL PIPING WITH STRUCTURAL FOUNDATION PLAN, FOOTINGS, ETC. AT TIME OF BID. RE-ROUTE & PROVIDE ALL OFFSETS, ETC. AS REQUIRED, TYP.
 - (B) COORD. NOTCHING OR BORING OF ALL FLOOR JOISTS WITH THE STRUCTURAL ENGINEER PRIOR TO BID. RE-ROUTE ALL PIPING AS NECESSARY TO MEET REQMT'S.
 - (C) PROVIDE H.C.O.'S ON ALL WASTE BRANCHES OVER 5'-0" PER ADMIN. AUTHOR. & CPC AND COORDINATE ALL LOCATIONS WITH THE OWNER AND ARCHITECT @ BID, TYP.
 - (D) PROVIDE C.O.'S ON ALL SEWER MAINS AT MIN. 100 FT. PER C.P.C. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID.
 - (E) VERIFY EXACT LOC. OF HD-1 & TP-1 W/ F.S. CONTRACTOR & CITY PRIOR TO BID. PROVIDE FIRE RATED ACCESS PANEL AND PROTECTION OF PENETRATIONS PER C.B.C. SEC. 12 & 1020.1.2. (RELOCATE TO ANOTHER LOC. IF REQUIRED.)
 - (F) VERIFY EXACT LOCATIONS OF ALL F.S. STANDPIPES AND ALL DRAIN RECEIPTS W/ F.S. CONTR. PRIOR TO BID.
 - (G) PROVIDE FLEX. PIPE CONNS. SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRNGS, TYP.
 - (H) COORD. WITH STRUCTURAL CONDITIONS ABOVE CEILINGS IN THIS AREA WITH THE STRUCTURAL ENGINEER, BEAMS, FRAMING, ETC. PRIOR TO BID. MODIFY PIPING SHOWN AS NECESSARY, TYP.
 - (I) COORDINATE ALL ROUTING OF PIPING IN SHEAR WALLS AND BEARING WALLS WITH THE STRUC. ENG. PRIOR TO BID.
 - (J) BALANCING VALVE W/ SOV & ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. SET @ 5 GPM. COORD. EXACT LOC'S W/ OWNER & ARCH. PRIOR TO BID, TYP.
 - (K) SD PIPING BEL. GRADE, SEE CIVIL PLANS FOR CONTIN. TYP.
 - (L) 2" V. UP & 1/2" CH FR. ABV.
 - (M) 2" W. DN. IN WALL
 - (N) 3" W. DN. IN WALL
 - (O) 4" S. DN. IN WALL
 - (P) PROVIDE DRAIN PAN BELOW ALL PIPING ABV. ELEC. RM. WITH 1" DRAIN TO OUTSIDE, TYP.
 - (Q) FAN COIL UNIT, R.I. & C
 - (R) 3/4" IN W/ TRAP & VENT RUN TO HD-1 BELOW



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BALDWIN & SONS
 Building Quality Communities for Three Generations
 610 West Ash Street, Suite 1500 San Diego, CA 92101

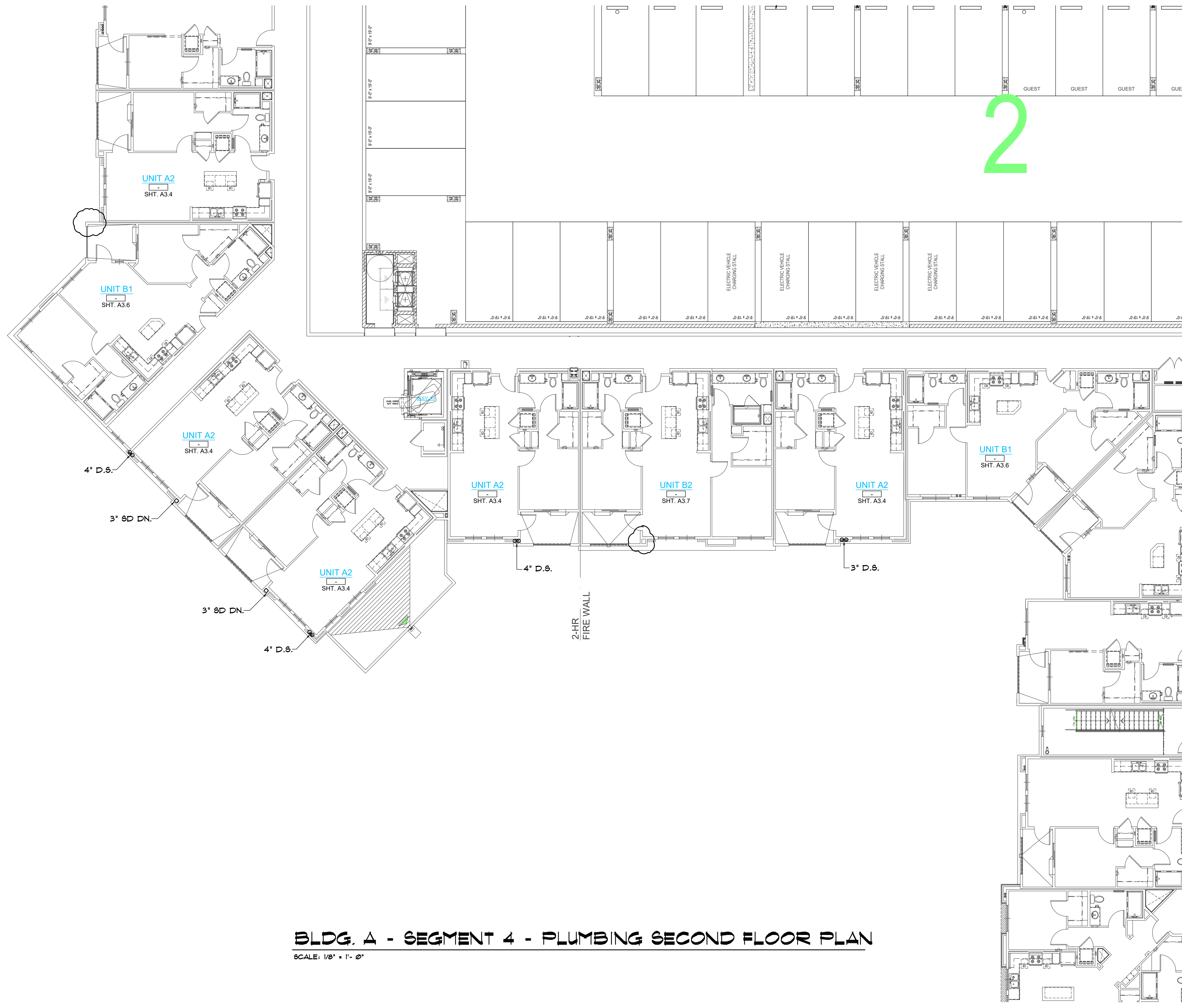
BLDG. A SEGMENT 3 PLUMBING 2nd FLOOR PLAN



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DATE	DESCRIPTION
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	Drawing Name
4-19-19	Plot Date
1-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

BLDG. A - SEGMENT 3 - PLUMBING SECOND FLOOR PLAN
 SCALE: 1/8" = 1'-0"



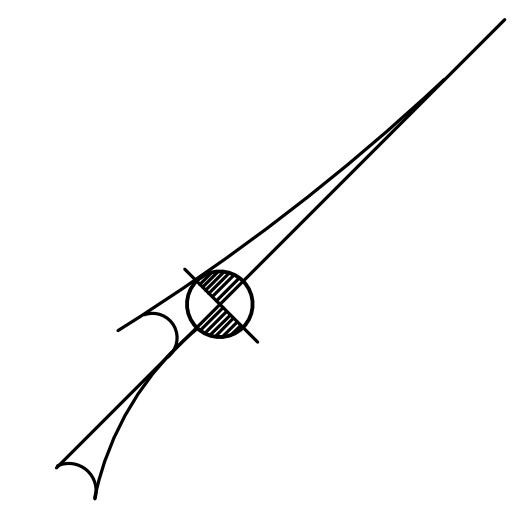
BLDG. A - SEGMENT 4 - PLUMBING SECOND FLOOR PLAN
 SCALE: 1/8" = 1' - 0"

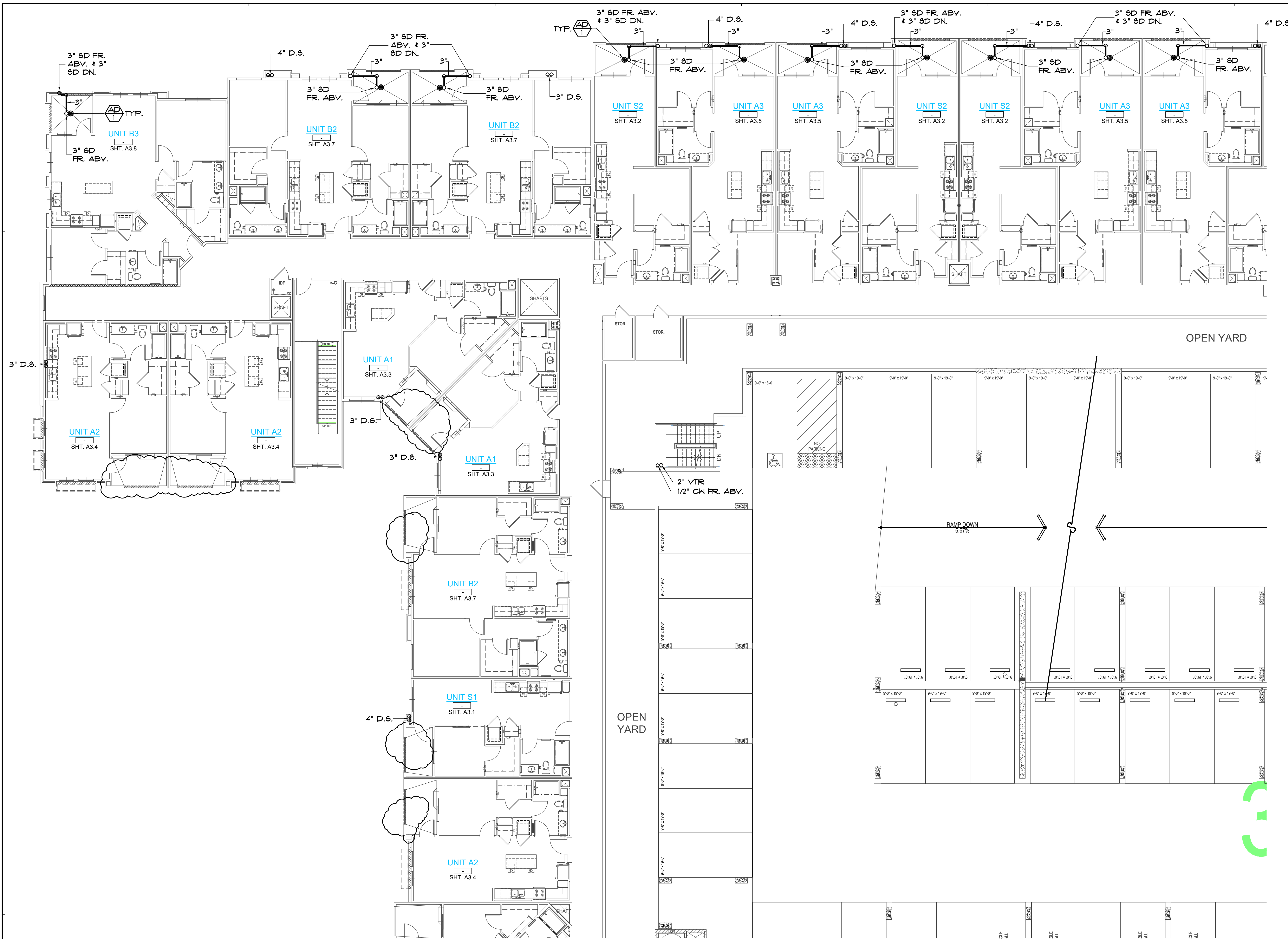
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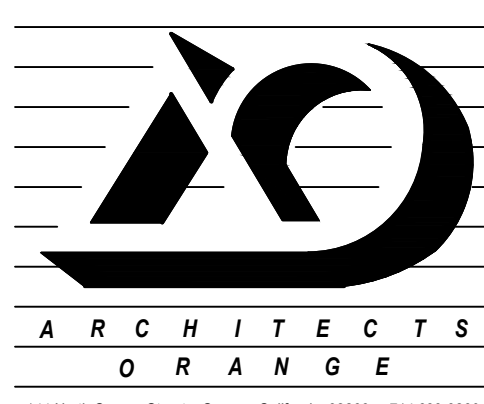
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	Drawing Name
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10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's





BLDG. A - SEGMENT 1 - PLUMBING THIRD FLOOR PLAN
 SCALE: 1/8" = 1' - 0"

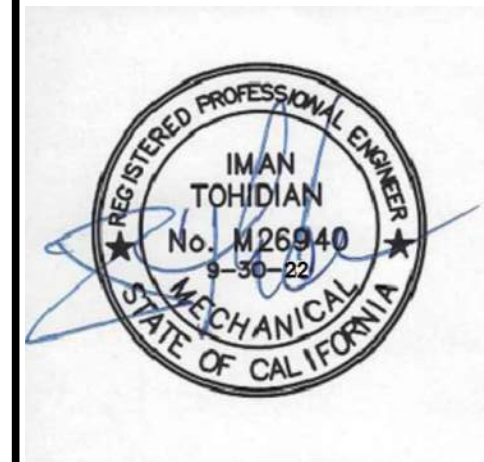


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 San Diego, CA 92101

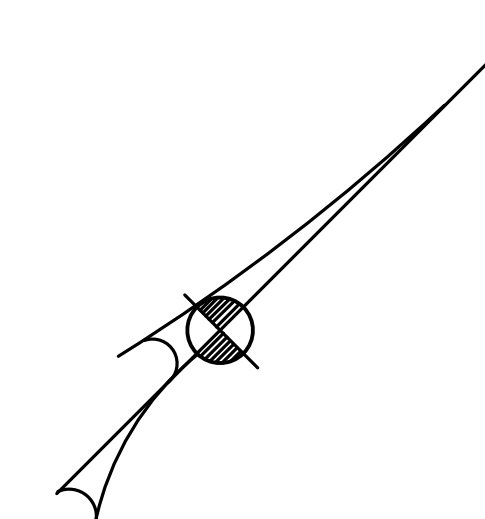
BLDG. A SEGMENT 1 PLUMBING 3rd FLOOR PLAN

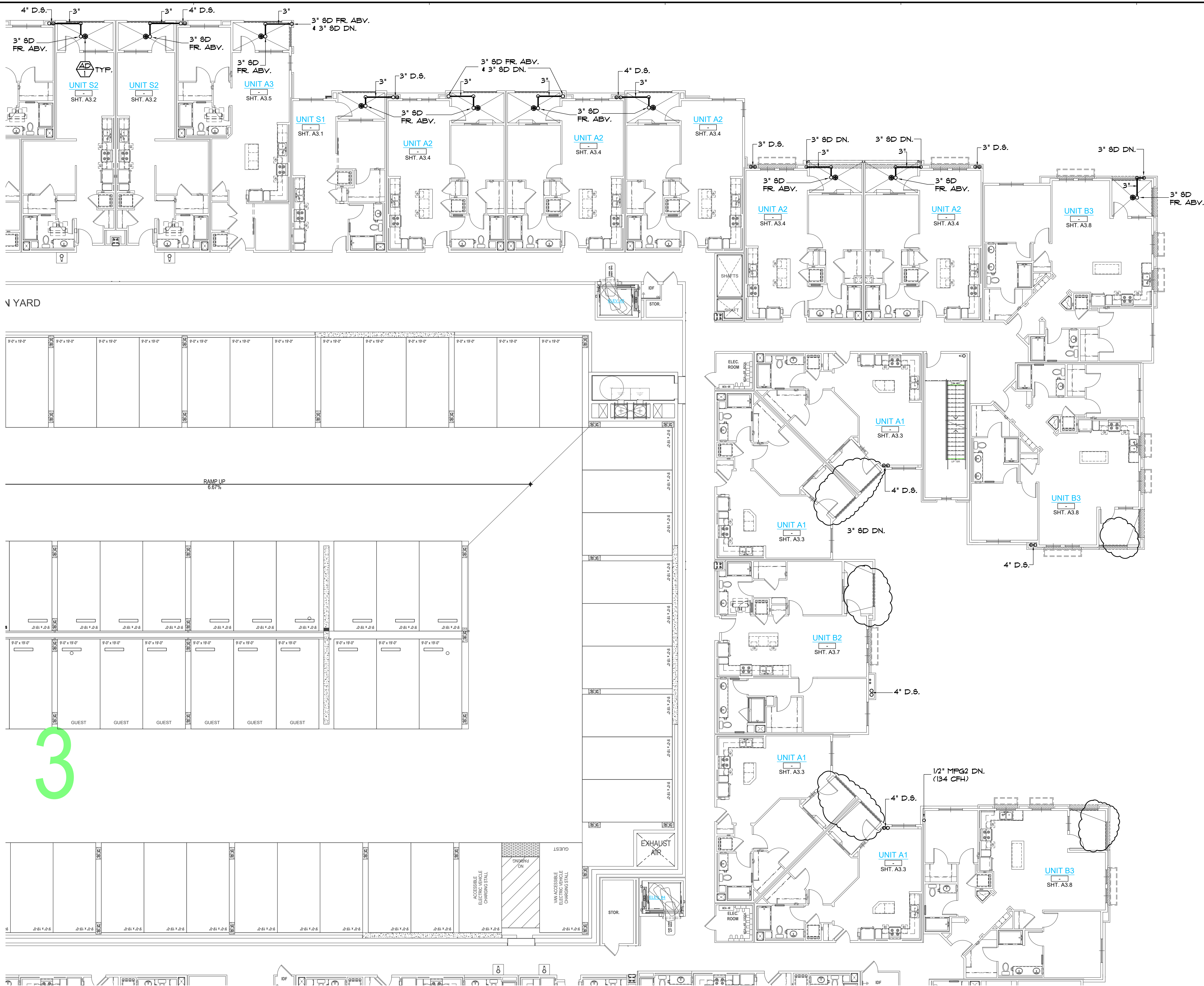


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	Permit
10-12	Project Number
4-19-19	Drawing Name
7-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

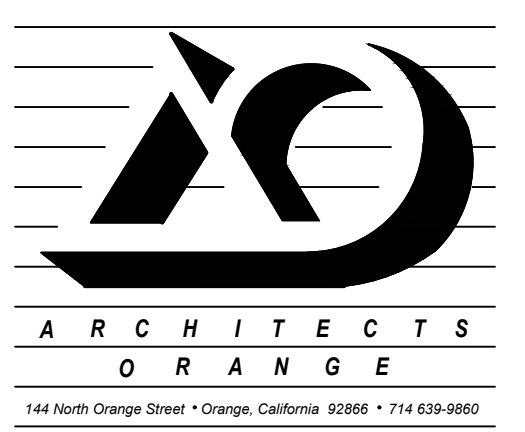
SHEET
P2.4.1





3

BLDG. A - SEGMENT 2 - PLUMBING THIRD FLOOR PLAN
 SCALE: 1/8" = 1'-0"

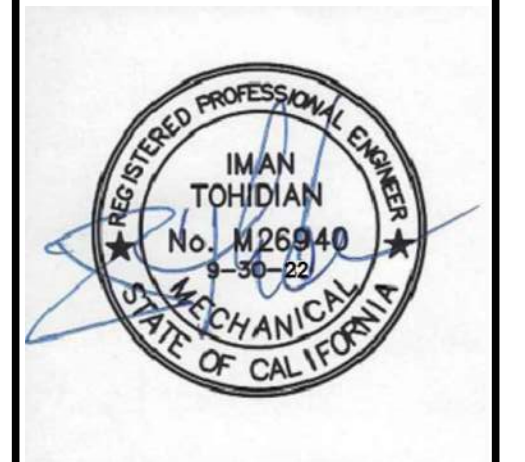


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BALDWIN & SONS
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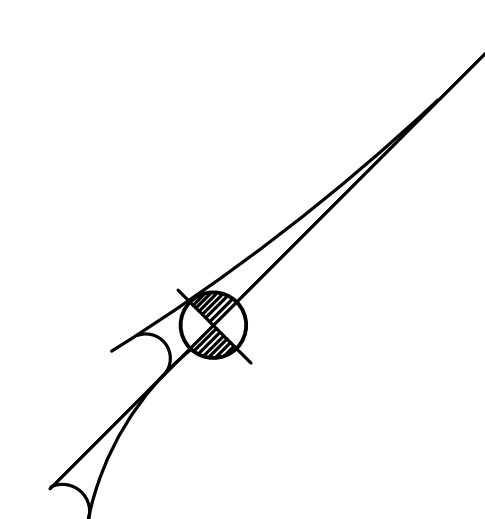
BLDG. A SEGMENT 2 PLUMBING 3rd FLOOR PLAN



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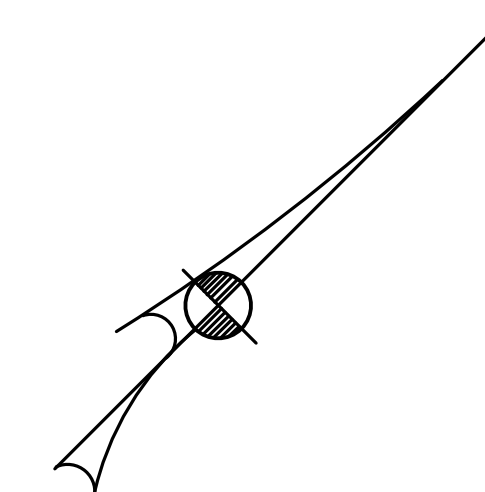
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	Permit
1012	Project Number
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1-19-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

SHEET
P2.4.2





BLDG. A - SEGMENT 3 - PLUMBING THIRD FLOOR PLAN
 SCALE: 1/8" = 1'- 0"



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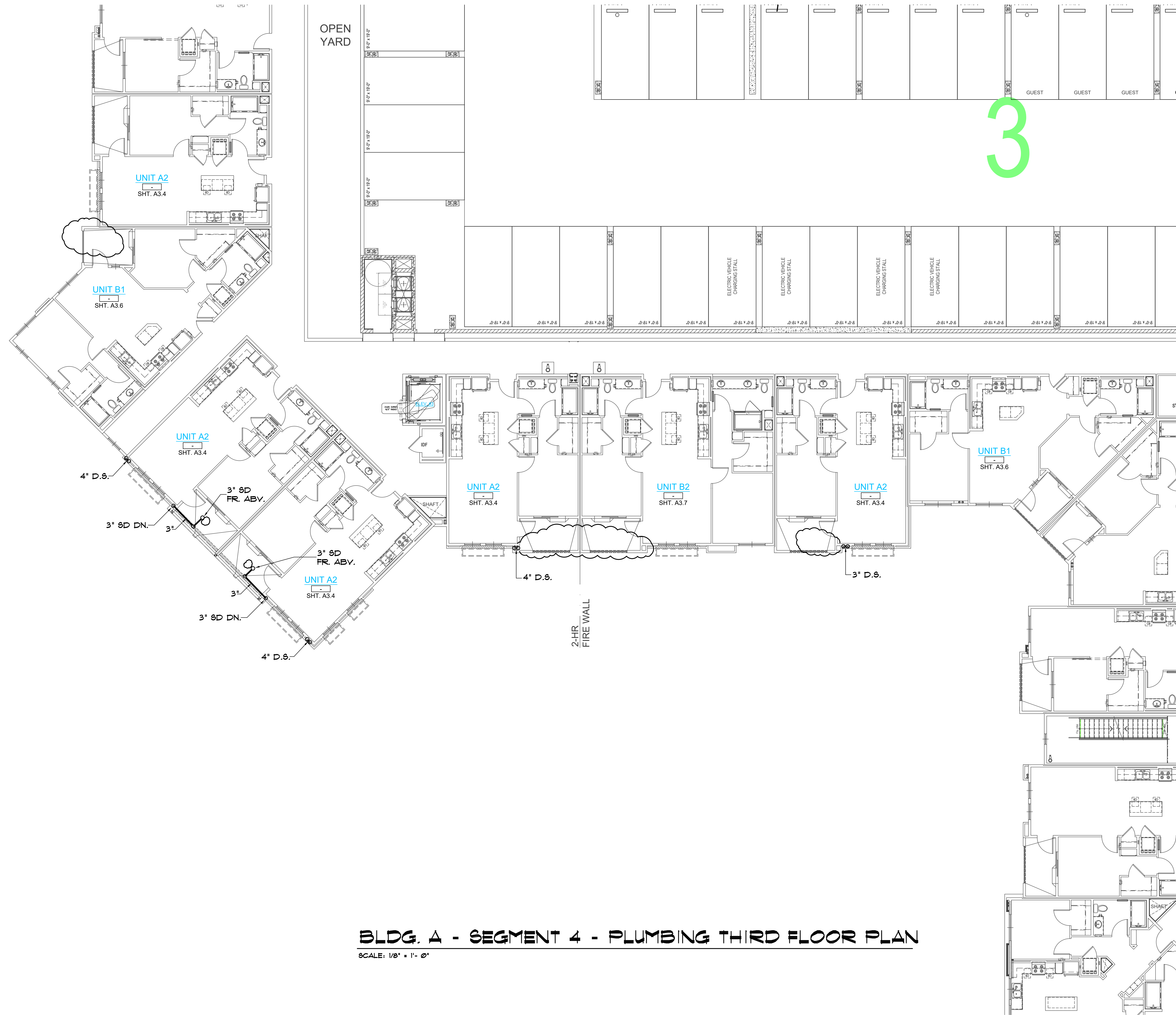
DATE	DESCRIPTION
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	Bl'd Set
	Permit
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1-20-21	Owner Rev's
8-8-22	Owner Rev's



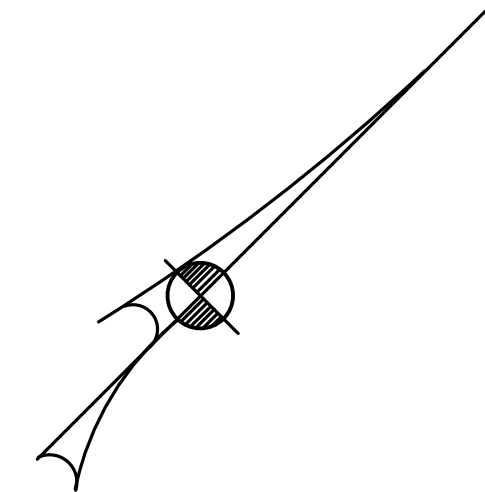
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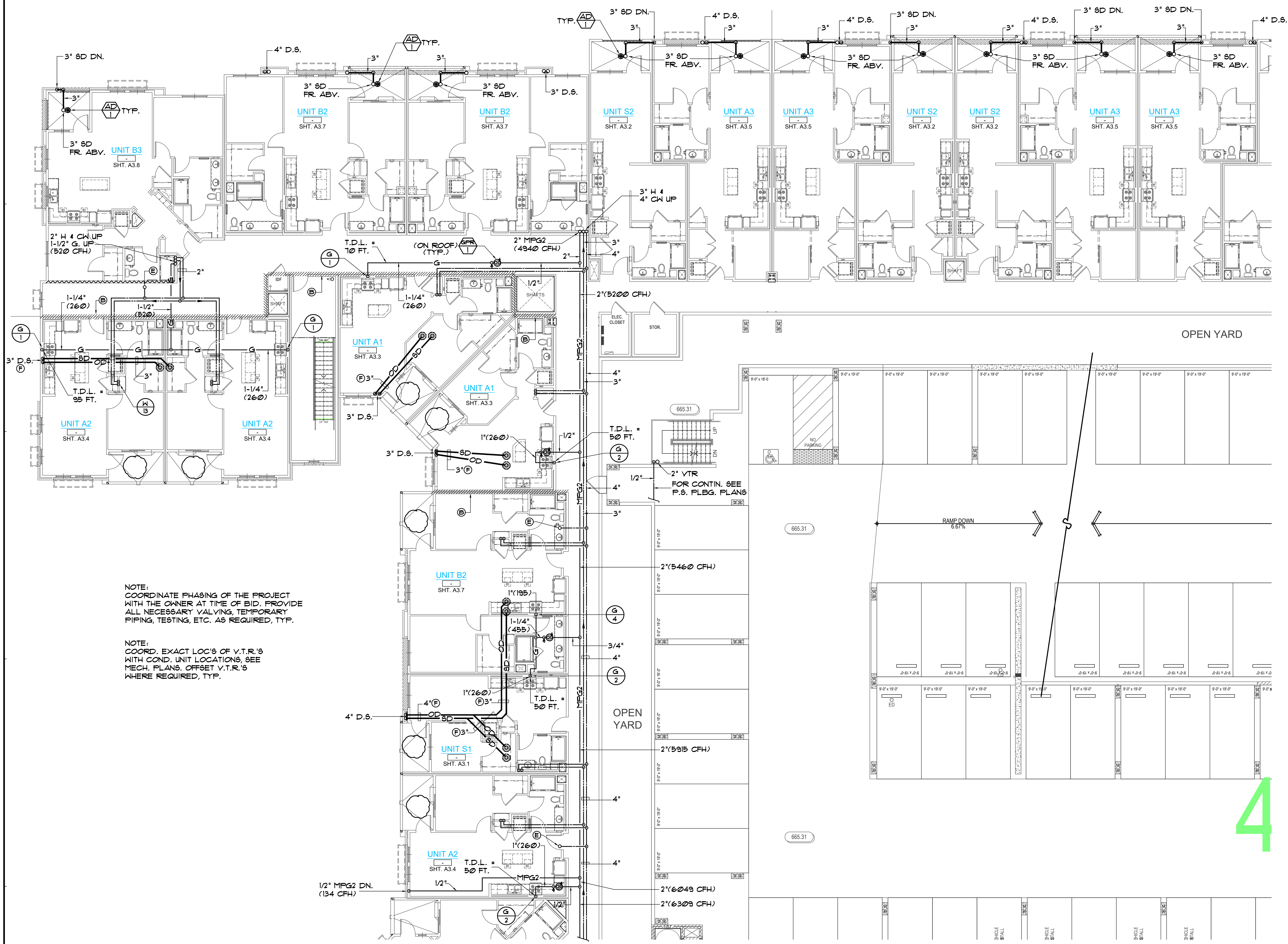
DATE	DESCRIPTION
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	Drawing Name
4-19-19	Plot Date
7-19-19	▲ P/C CORR'S
10-25-19	▲ P/C CORR'S
1-20-21	▲ Owner Rev's
8-8-22	▲ Owner Rev's
	▲
	▲

3



BLDG. A - SEGMENT 4 - PLUMBING THIRD FLOOR PLAN
 SCALE: 1/8" = 1'-0"





NOTE:
COORDINATE PHASING OF THE PROJECT WITH THE OWNER AT TIME OF BID. PROVIDE ALL NECESSARY VALVING, TEMPORARY PIPING, TESTING, ETC. AS REQUIRED, TYP.

NOTE:
COORD. EXACT LOC'S OF V.T.R.'S WITH COND. UNIT LOCATIONS, SEE MECH. PLANS. OFFSET V.T.R.'S WHERE REQUIRED, TYP.

DESIGN NOTES:

- (A) ADDITIVE ALTERNATE BID, SHUT-OFF VALVES (BALL VA'S.) WITH ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. COORD. SPACE REQ'TS W/ ARCHITECT PRIOR TO BID, TYP.
- (B) 2 HR WALL, OFFSET ALL VENTS THRU ROOF. NO PENETRATIONS THRU ROOF WITHIN 4'-0" EITHER SIDE OF WALL, COORD. W/ ARCH.
- (C) CO-ORD ROUTING OF ALL PIPING IN ATTIC W/ STRUCTURAL CONDITIONS AT TIME OF BID. PROVIDE ALL OFFSETS, ETC. AS REQUIRED.
- (D) PROVIDE FLEX. PIPE CONN'S, SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRAGS., TYP.
- (E) 3/4" CW UP TO HB W/ VB ON ROOF (COORD. EXACT LOC. W/ CU'S, SEE MECH. PLANS, TYP.)
- (F) SLOPE S.D. PIPING @ MIN. 1/8" / FT., TYP.
- (G) 1/2" CW DN. & 2" VTR
- (H) INSTALL INSULATION OVER TOP OF ALL COLD WATER PIPING IN ATTIC, TYP.



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PA-12 Otay Ranch
 APARTMENTS
 BUILDING TYPE A
 1445 TOWN CENTER DR.
 CHULA VISTA, CALIFORNIA
 91915

BALDWIN & SONS
 Building Quality Commission for Three Generations
 610 West Ash Street, Suite 1500
 San Diego, CA 92101

BLDG. A
SEGMENT 1
PLUMBING 4th
FLOOR PLAN

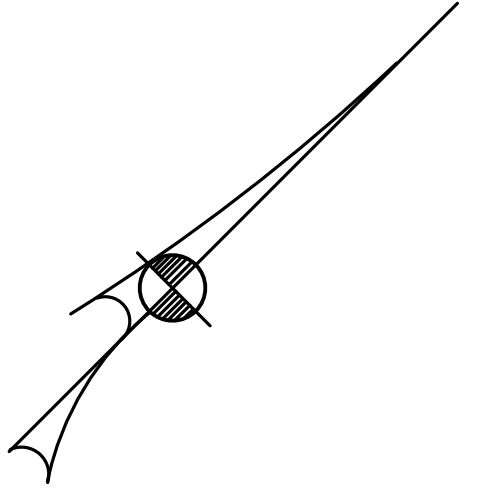


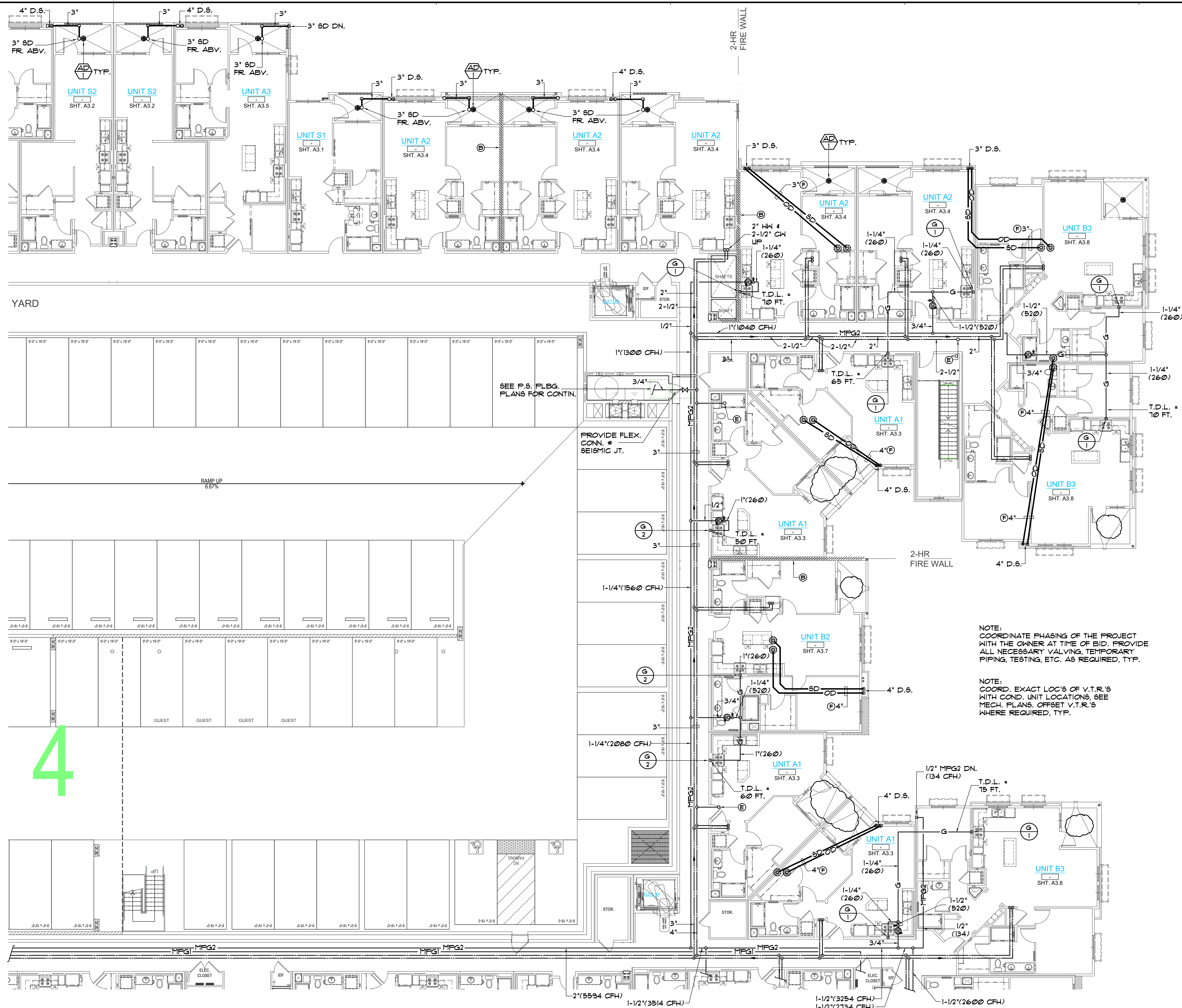
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4-19-19	Plot Date
1-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

BLDG. A - SEGMENT 1 - PLUMBING FOURTH FLOOR PLAN
 SCALE: 1/8" = 1'-0"

4





DESIGN NOTES:

- (A) ADDITIVE ALTERNATE BID, SHUT-OFF VALVES (BALL VA'S.) WITH ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. COORD. SPACE REQ'TS W/ ARCHITECT PRIOR TO BID, TYP.
- (B) 2 HR WALL, OFFSET ALL VENTS THRU ROOF. NO PENETRATIONS THRU ROOF WITHIN 4'-0" EITHER SIDE OF WALL, COORD. W/ ARCH.
- (C) CO-ORD ROUTING OF ALL PIPING IN ATTIC W/ STRUCTURAL CONDITIONS AT TIME OF BID. PROVIDE ALL OFFSETS, ETC. AS REQUIRED
- (D) PROVIDE FLEX. PIPE CONNS, SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRAGS, TYP.
- (E) 3/4" CW UP TO HB W/ VB ON ROOF (COORD. EXACT LOC. W/ CU'S, SEE MECH. PLANS, TYP.)
- (F) SLOPE S.D. PIPING @ MIN. 1/8" / FT., TYP.
- (G) 1/2" CW DN. @ 2" VTR
- (H) INSTALL INSULATION OVER TOP OF ALL COLD WATER PIPING IN ATTIC, TYP.

NOTE:
COORDINATE PHASING OF THE PROJECT WITH THE OWNER AT TIME OF BID. PROVIDE ALL NECESSARY VALVING, TEMPORARY PIPING, TESTING, ETC. AS REQUIRED, TYP.

NOTE:
COORD. EXACT LOC'S OF V.T.R.'S WITH COND. UNIT LOCATIONS, SEE MECH. PLANS. OFFSET V.T.R.'S WHERE REQUIRED, TYP.

BLDG. A - SEGMENT 2 - PLUMBING FOURTH FLOOR PLAN

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



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Building Quality Communities for Three Generations
610 West Ash Street, Suite 1500 San Diego, CA 92101

BLDG. A SEGMENT 2 PLUMBING 4th FLOOR PLAN



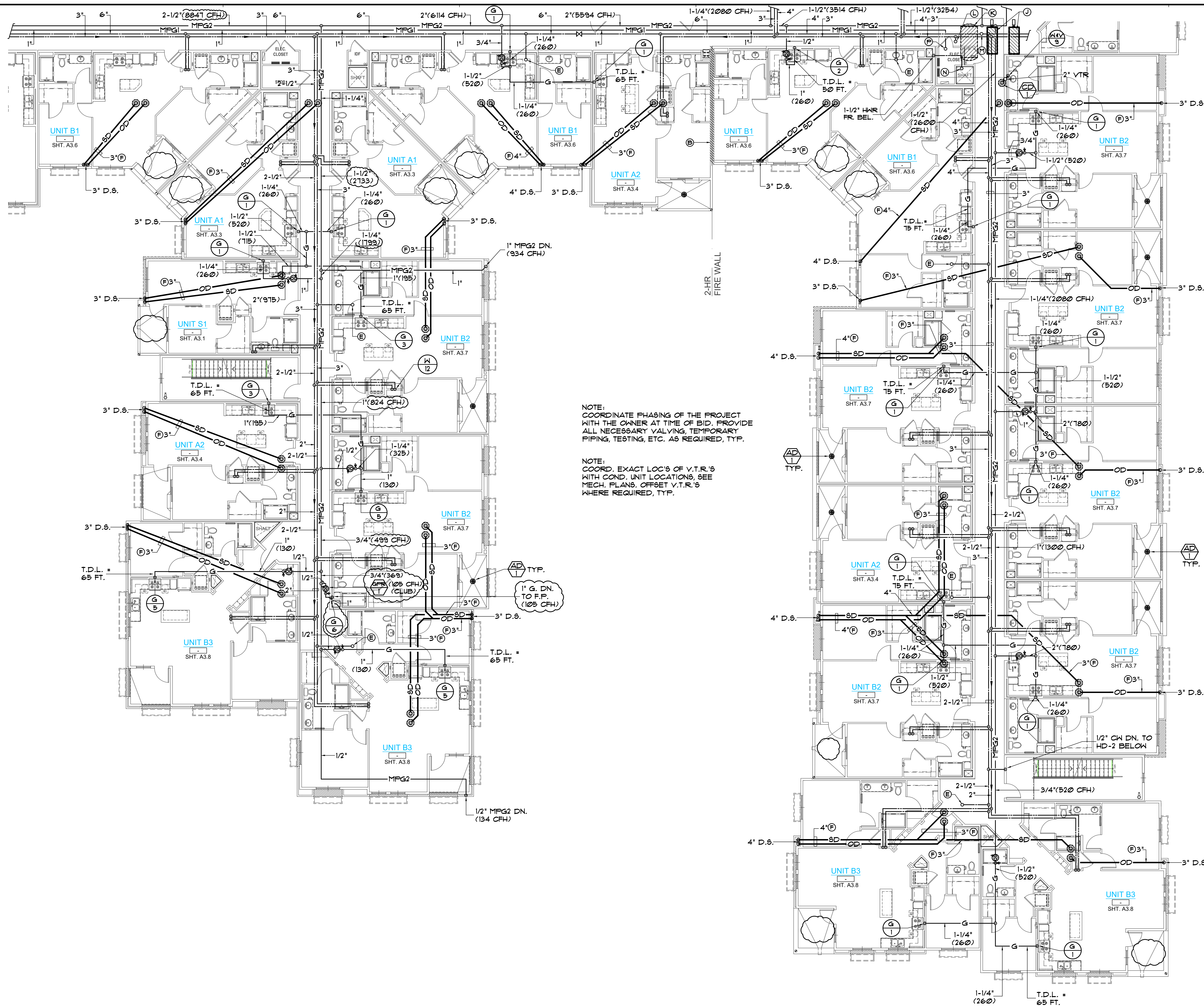
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10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

SHEET

P2.5.2

4



- DESIGN NOTES:**
- (A) ADDITIVE ALTERNATE BID, SHUT-OFF VALVES (BALL VA'S.) WITH ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. COORD. SPACE REQ'TS W/ ARCHITECT PRIOR TO BID, TYP.
 - (B) 2 HR WALL, OFFSET ALL VENTS THRU ROOF. NO PENETRATIONS THRU ROOF WITHIN 4'-0" EITHER SIDE OF WALL, COORD. W/ ARCH.
 - (C) CO-ORD ROUTING OF ALL PIPING IN ATTIC W/ STRUCTURAL CONDITIONS AT TIME OF BID. PROVIDE ALL OFFSETS, ETC. AS REQUIRED
 - (D) PROVIDE FLEX. PIPE CONNS, SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRAGS, TYP.
 - (E) 3/4" CW UP TO HB W/ VB ON ROOF (COORD. EXACT LOC. W/ CU'S, SEE MECH. PLANS, TYP.)
 - (F) SLOPE S.D. PIPING @ MIN. 1/8" / FT., TYP.
 - (G) 1/2" CW DN. 4' VTR
 - (H) INSTALL INSULATION OVER TOP OF ALL COLD WATER PIPING IN ATTIC, TYP.
 - (I) DOMESTIC HOT WATER BOILER ON ROOF, SEE PLAN THIS SHEET
 - (K) HOT WATER STORAGE TANK ON ROOF, SEE PLAN THIS SHEET
 - (L) 4" HWS FROM ABOVE ROOF
 - (M) 4" CW UP THRU ROOF
 - (N) 1-1/2" HWR UP THRU ROOF TO (CP 2)
 - (P) 1" MFG1 UP THRU ROOF (1300 CFH) T.D.L. = 400 FT.

NOTE:
COORDINATE PHASING OF THE PROJECT WITH THE OWNER AT TIME OF BID. PROVIDE ALL NECESSARY VALVING, TEMPORARY PIPING, TESTING, ETC. AS REQUIRED, TYP.

NOTE:
COORD. EXACT LOC'S OF V.T.R.'S WITH COND. UNIT LOCATIONS, SEE MECH. PLANS. OFFSET V.T.R.'S WHERE REQUIRED, TYP.

BLDG. A - SEGMENT 3 - PLUMBING FOURTH FLOOR PLAN
SCALE: 1/8" = 1' - 0"



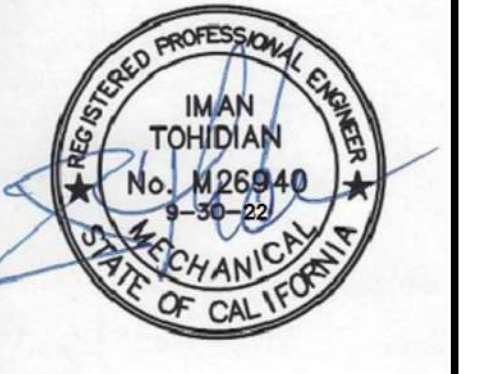
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PA-12 Otay Ranch
APARTMENTS
BUILDING TYPE A

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91915

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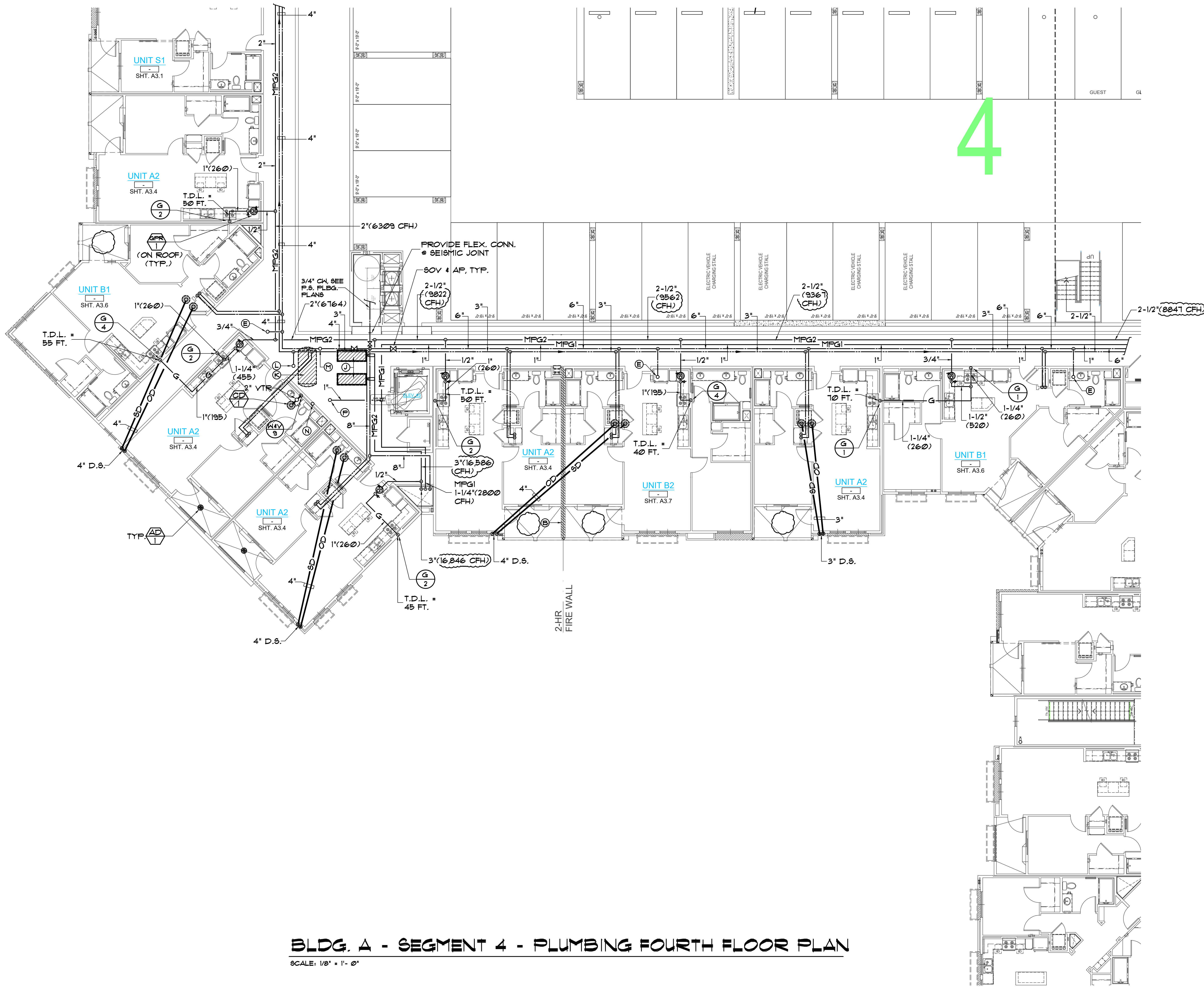
BLDG. A
SEGMENT 3
PLUMBING 4th
FLOOR PLAN



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1-20-21	Owner Rev's
8-8-22	Owner Rev's

SHEET
P2.5.3



BLDG. A - SEGMENT 4 - PLUMBING FOURTH FLOOR PLAN

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

DESIGN NOTES:

- ADDITIVE ALTERNATE BID, SHUT-OFF VALVES (BALL VA'S.) WITH ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. COORD. SPACE REQ'TS W/ ARCHITECT PRIOR TO BID, TYP.
- 2 HR WALL, OFFSET ALL VENTS THRU ROOF. NO PENETRATIONS THRU ROOF WITHIN 4'-0" EITHER SIDE OF WALL, COORD. W/ ARCH.
- COORD. ROUTING OF ALL PIPING IN ATTIC W/ STRUCTURAL CONDITIONS AT TIME OF BID. PROVIDE ALL OFFSETS, ETC. AS REQUIRED
- PROVIDE FLEX. PIPE CONN'S, SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRAGS, TYP.
- 3/4" CW UP TO HB W/ VB ON ROOF (COORD. EXACT LOC. W/ CU'S, SEE MECH. PLANS, TYP.)
- SLOPE S.D. PIPING @ MIN. 1/8" / FT., TYP.
- 1/2" CW DN. 4 2" VTR
- INSTALL INSULATION OVER TOP OF ALL COLD WATER PIPING IN ATTIC, TYP.
- DOMESTIC HOT WATER BOILER ON ROOF, SEE PLAN THIS SHEET
- HOT WATER STORAGE TANK ON ROOF, SEE PLAN THIS SHEET
- 4" HNS FROM ABOVE ROOF
- 4" CW UP THRU ROOF
- 1-1/2" HNR UP THRU ROOF TO
- 1" MFGI UP THRU ROOF (1500 CFH)

NOTE: COORDINATE PHASING OF THE PROJECT WITH THE OWNER AT TIME OF BID. PROVIDE ALL NECESSARY VALVING, TEMPORARY PIPING, TESTING, ETC. AS REQUIRED, TYP.

NOTE: COORD. EXACT LOC'S OF V.T.R.'S WITH COND. UNIT LOCATIONS, SEE MECH. PLANS. OFFSET V.T.R.'S WHERE REQUIRED, TYP.



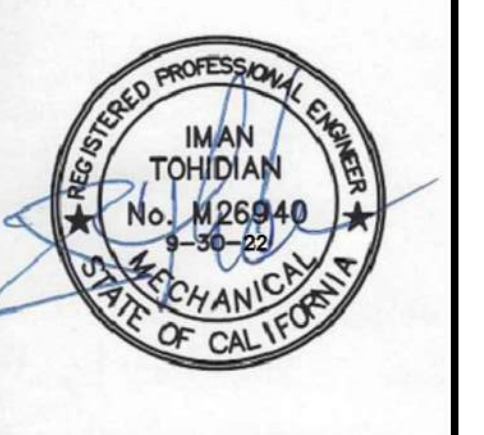
Tryco Consulting Inc.
 MECHANICAL PLUMBING DESIGN/ENERGY ANALYSIS
 330 S. Maple, Suite J | Ph: (951) 371-1860
 Corona, CA 92626 | Fax: (951) 371-2526

PA-12 Otay Ranch APARTMENTS BUILDING TYPE A

1445 TOWN CENTER DR. CHULA VISTA, CALIFORNIA 91915

BALDWIN & SONS
 Building Quality Commission for Three Generations
 610 West Ash Street, Suite 1500
 San Diego, CA 92101

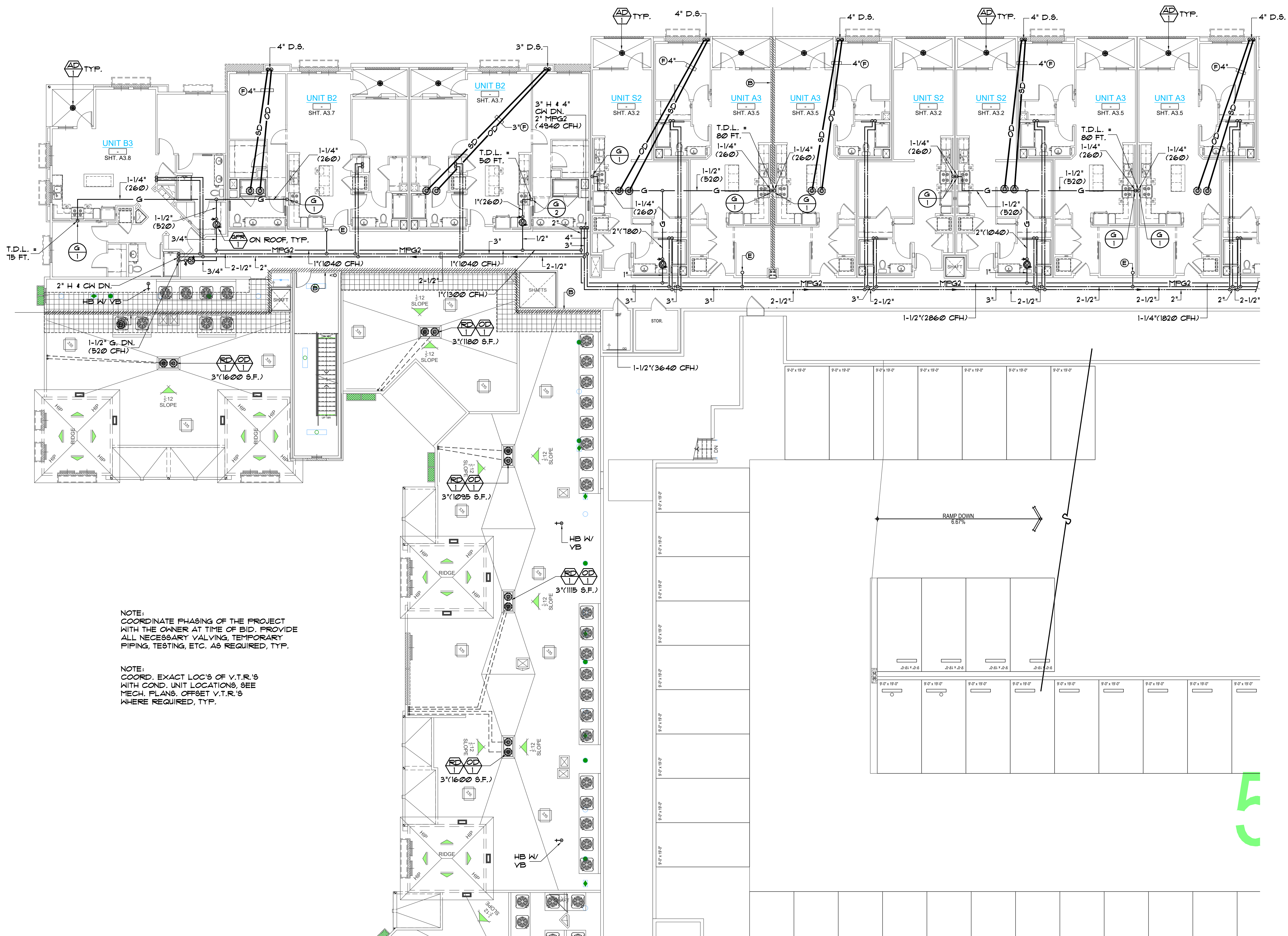
BLDG. A SEGMENT 4 PLUMBING 4th FLOOR PLAN



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	Bid Set
	Permit
10-12	Project Number
	Drawing Name
4-19-19	Plot Date
7-19-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

SHEET
P2.5.4



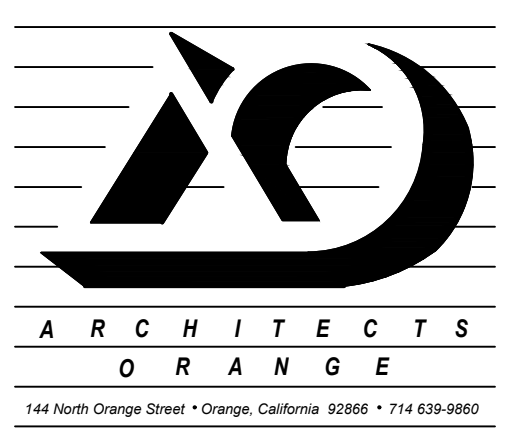
DESIGN NOTES:

- (A) ADDITIVE ALTERNATE BID, SHUT-OFF VALVES (BALL VA'S.) WITH ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. COORD. SPACE REQ'TS W/ ARCHITECT PRIOR TO BID, TYP.
- (B) 2 HR. WALL, OFFSET ALL VENTS THRU ROOF. NO PENETRATIONS THRU ROOF WITHIN 4'-0" EITHER SIDE OF WALL, COORD. W/ ARCH.
- (C) CO-ORD ROUTING OF ALL PIPING IN ATTIC W/ STRUCTURAL CONDITIONS AT TIME OF BID. PROVIDE ALL OFFSETS, ETC. AS REQUIRED
- (D) PROVIDE FLEX. PIPE CONNS, SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRAGS, TYP.
- (E) 3/4" CW UP TO HB W/ VB ON ROOF (COORD. EXACT LOC. W/ CU'S, SEE MECH. PLANS, TYP.)
- (F) SLOPE S.D. PIPING @ MIN. 1/8" / FT., TYP.
- (G) 1/2" CW DN. 4 2" VTR
- (H) INSTALL INSULATION OVER TOP OF ALL COLD WATER PIPING IN ATTIC, TYP.

NOTE:
COORDINATE PHASING OF THE PROJECT WITH THE OWNER AT TIME OF BID. PROVIDE ALL NECESSARY VALVING, TEMPORARY PIPING, TESTING, ETC. AS REQUIRED, TYP.

NOTE:
COORD. EXACT LOC'S OF V.T.R.'S WITH COND. UNIT LOCATIONS, SEE MECH. PLANS. OFFSET V.T.R.'S WHERE REQUIRED, TYP.

BLDG. A - SEGMENT 1 - PLUMBING FIFTH FLOOR PLAN
SCALE: 1/8" = 1'-0"



TRYCO Consulting Inc.
PLUMBING & MECHANICAL ANALYSIS
330 S. Maple, Suite J Corona, CA 92626
PH (951) 371-8600
FAX (951) 371-2926

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1445 TOWN CENTER DR. CHULA VISTA, CALIFORNIA 91915

BALDWIN & SONS
Building Quality Commission for Three Generations
610 West Ash Street, Suite 1500 San Diego, CA 92101

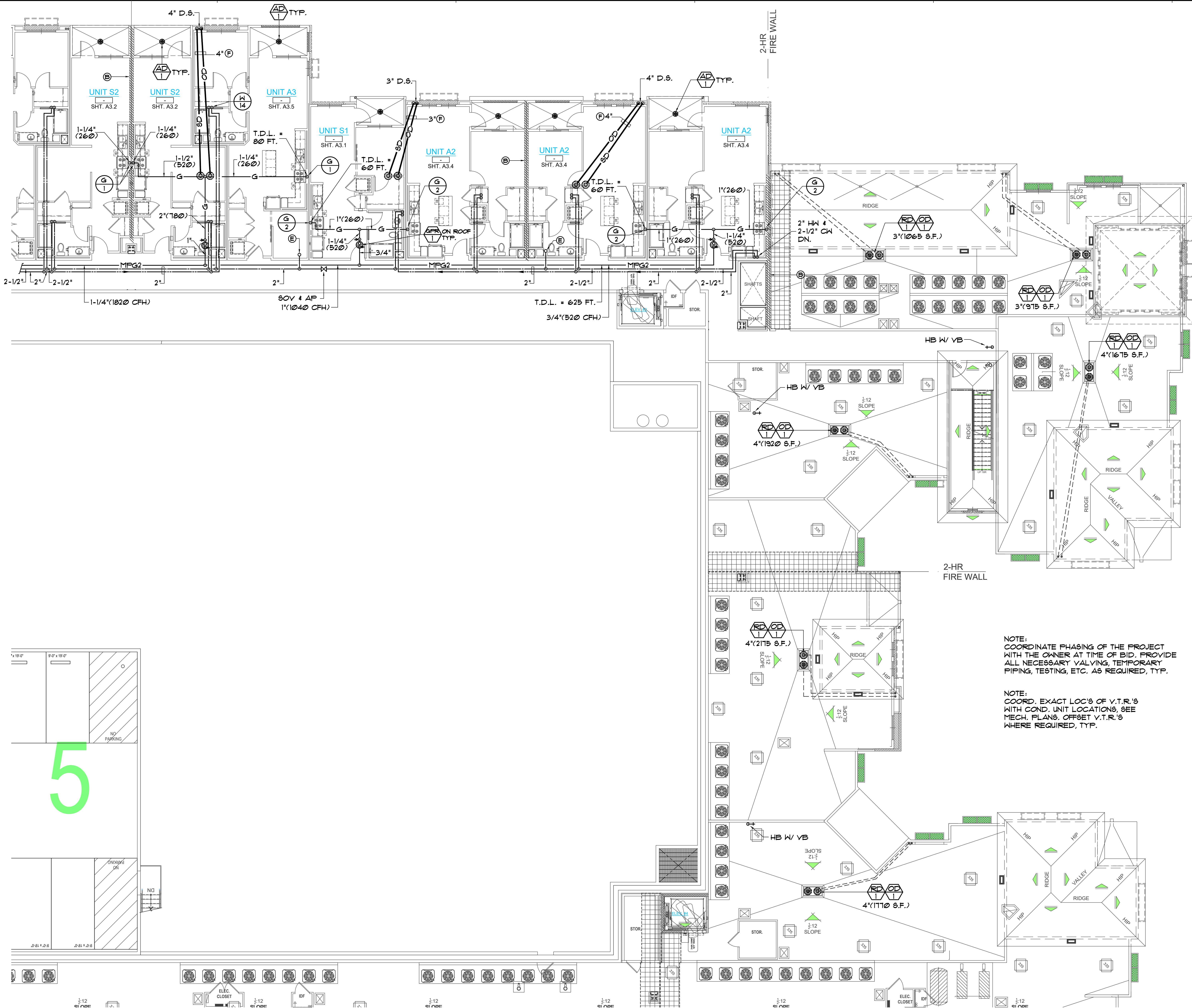
BLDG. A SEGMENT 1 PLUMBING 5th FLOOR PLAN



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10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

SHEET
P2.6.1

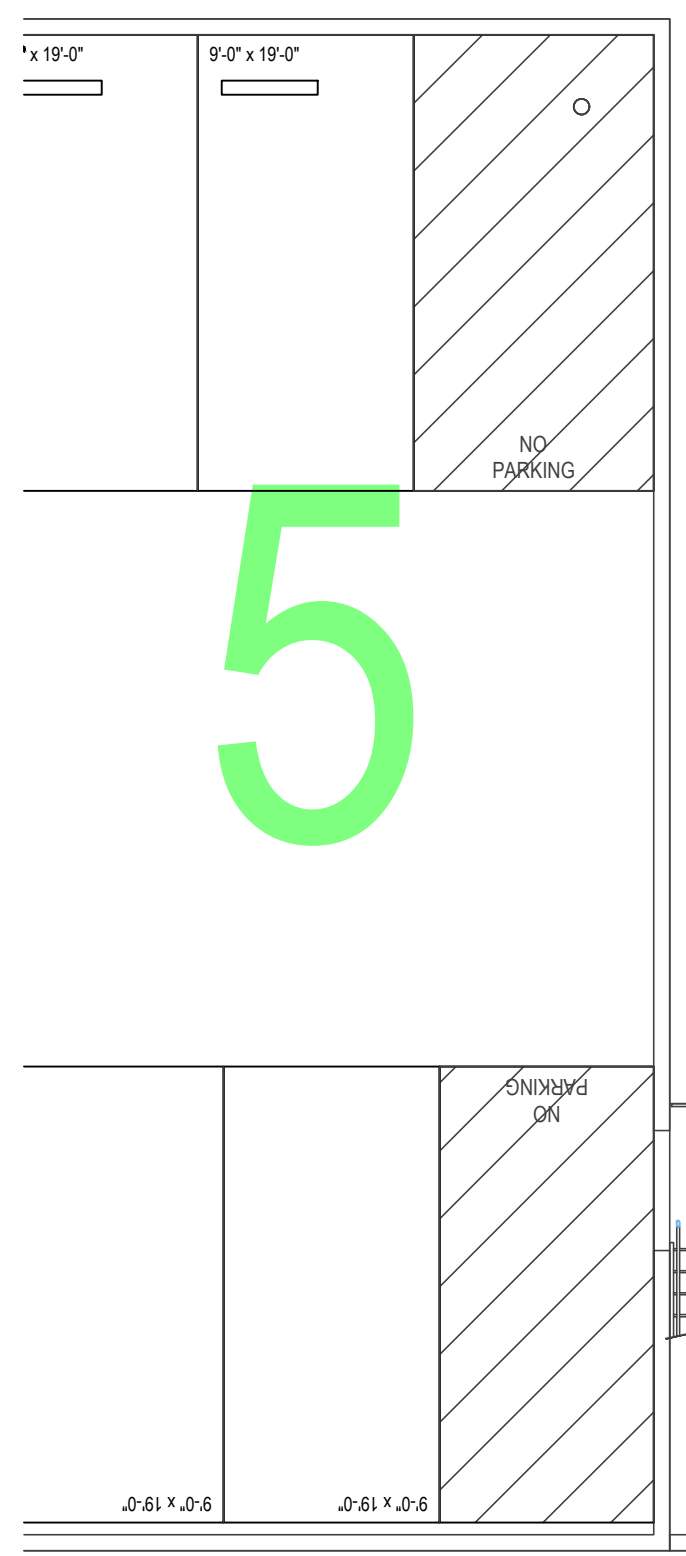


DESIGN NOTES:

- (A) ADDITIVE ALTERNATE BID, SHUT-OFF VALVES (BALL VA'S.) WITH ACCESS PANEL. PIPING AND VALVES TO BE RUN ABV. DROP CEILING BELOW FIRE RATED CORRIDOR CONSTRUCTION. COORD. SPACE REQ'TS W/ ARCHITECT PRIOR TO BID, TYP.
- (B) 2 HR WALL, OFFSET ALL VENTS THRU ROOF. NO PENETRATIONS THRU ROOF WITHIN 4'-0" EITHER SIDE OF WALL, COORD. W/ ARCH.
- (C) CO-ORD ROUTING OF ALL PIPING IN ATTIC W/ STRUCTURAL CONDITIONS AT TIME OF BID. PROVIDE ALL OFFSETS, ETC. AS REQUIRED
- (D) PROVIDE FLEX. PIPE CONNS, SWING JTS. OR EXPANSION JTS. AT ALL PENETRATIONS TO EXPANSION / SEISMIC JOINTS. COORD. LOC'S WITH THE ARCH. AND STRUCTURAL DRAGS, TYP.
- (E) 3/4" CW UP TO HB W/ VB ON ROOF (COORD. EXACT LOC. W/ CU'S, SEE MECH. PLANS, TYP.)
- (F) SLOPE S.D. PIPING @ MIN. 1/8" / FT., TYP.
- (G) 1/2" CW DN. 4 2" VTR
- (H) INSTALL INSULATION OVER TOP OF ALL COLD WATER PIPING IN ATTIC, TYP.

NOTE:
COORDINATE PHASING OF THE PROJECT WITH THE OWNER AT TIME OF BID. PROVIDE ALL NECESSARY VALVING, TEMPORARY PIPING, TESTING, ETC. AS REQUIRED, TYP.

NOTE:
COORD. EXACT LOC'S OF V.T.R.'S WITH COND. UNIT LOCATIONS, SEE MECH. PLANS. OFFSET V.T.R.'S WHERE REQUIRED, TYP.



BLDG. A - SEGMENT 2 - PLUMBING FIFTH FLOOR PLAN
SCALE: 1/8" = 1'-0"



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M.T.A.C. & PLUMBING DESIGN/ENERGY ANALYSIS
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1445 TOWN CENTER DR. CHULA VISTA, CALIFORNIA 91915

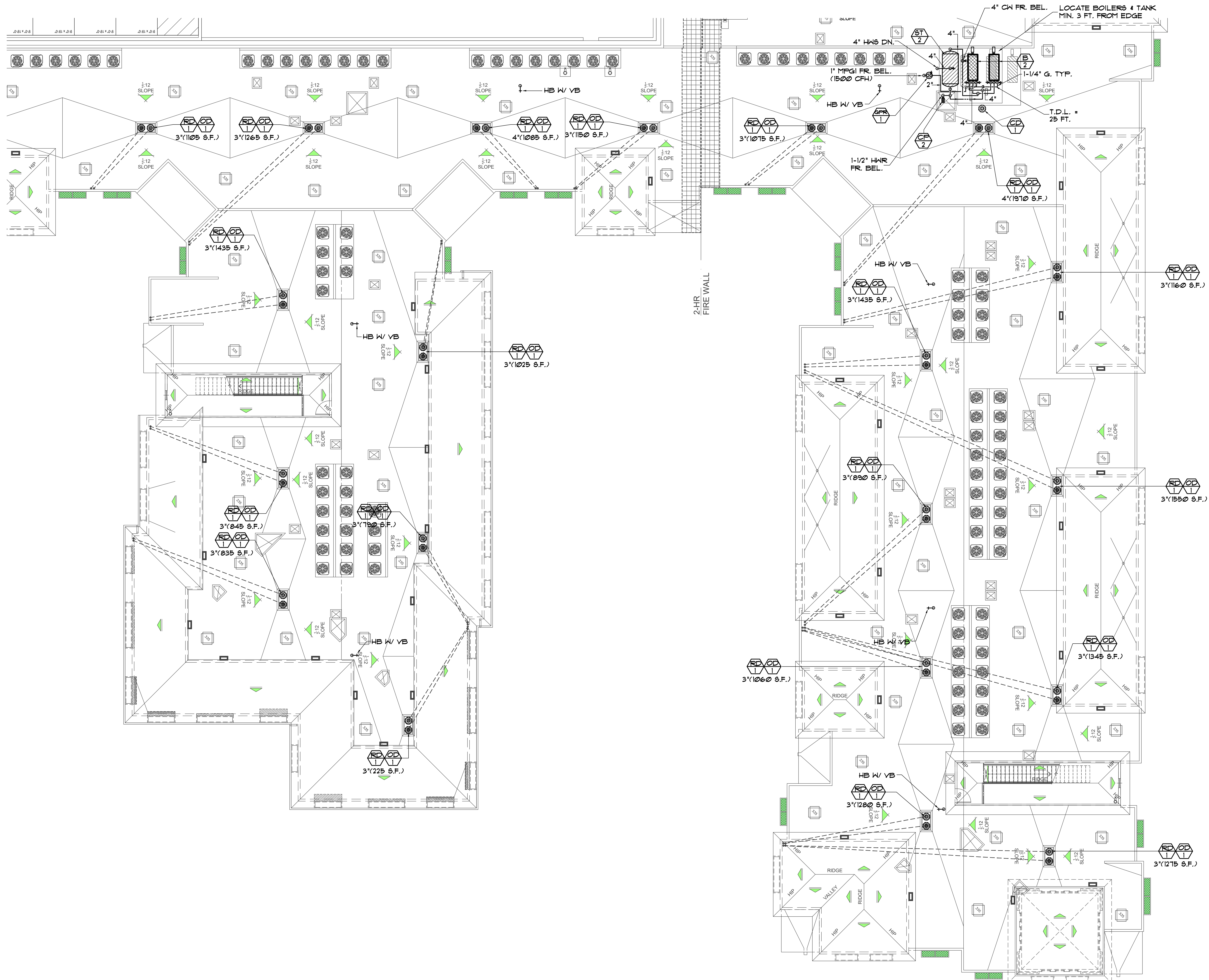
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Building Quality Commission for Three Generations
610 West Ash Street, Suite 1500 San Diego, CA 92101

BLDG. A SEGMENT 2 PLUMBING 5th FLOOR PLAN



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1012	Project Number
	Drawing Name
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7-19-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's



BLDG. A - SEGMENT 3 - PLUMBING FIFTH FLOOR PLAN
 SCALE: 1/8" = 1'-0"



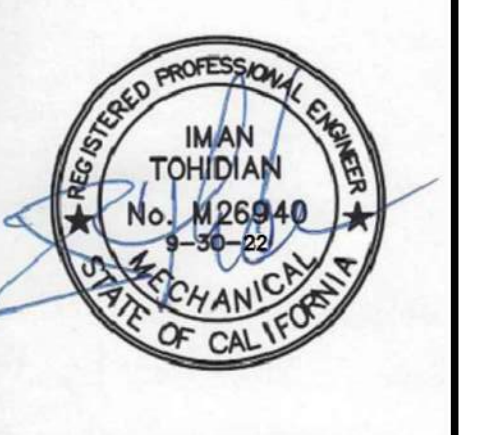
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PA-12 Otay Ranch APARTMENTS BUILDING TYPE A

1445 TOWN CENTER DR.
 CHULA VISTA, CALIFORNIA
 91915

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 Building Quality Commission for Three Generations
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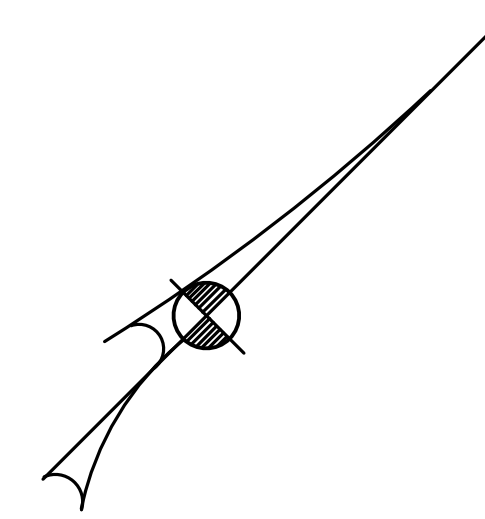
BLDG. A SEGMENT 3 PLUMBING 5th FLOOR PLAN



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4-19-19	Drawing Name
1-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

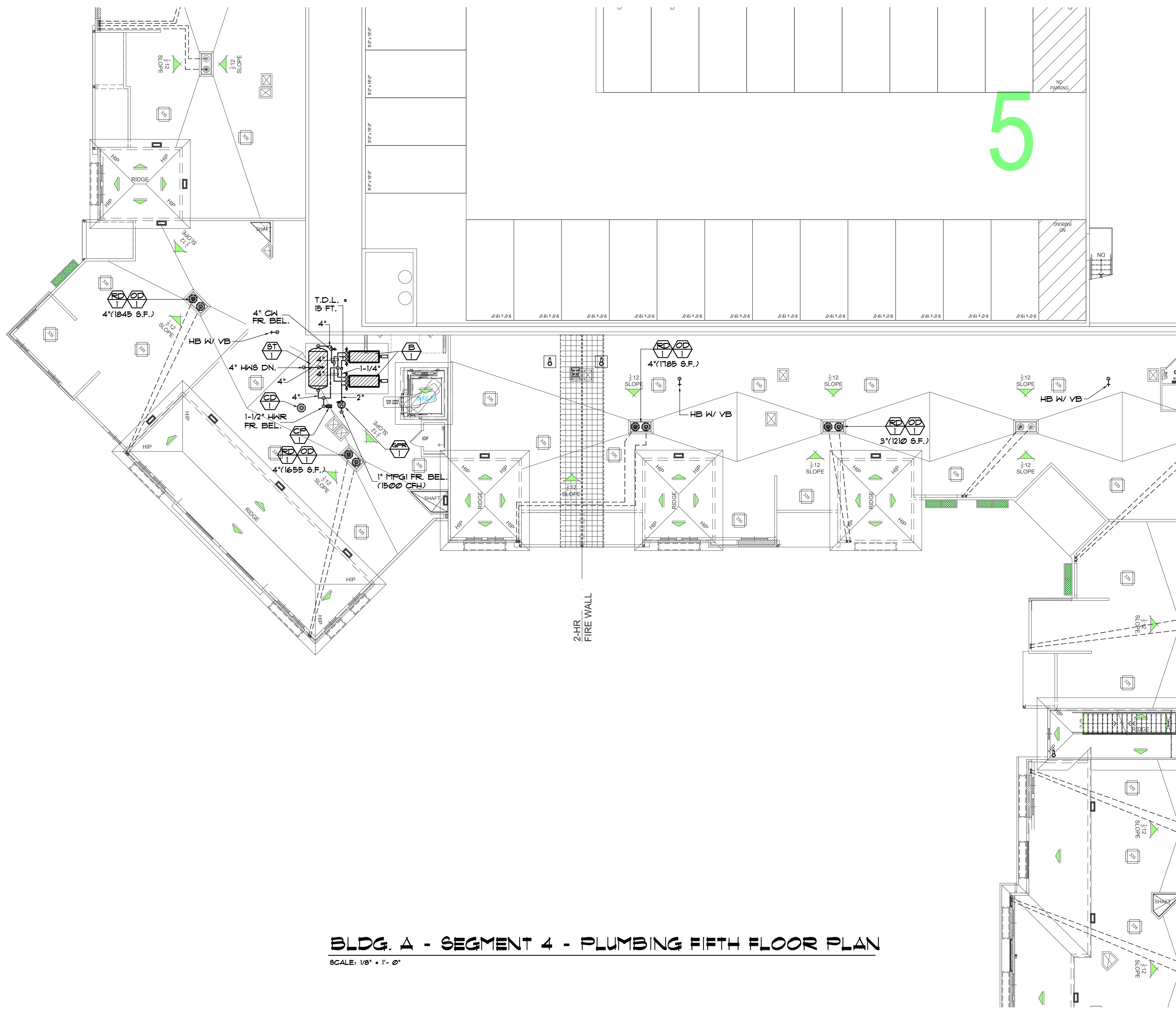
SHEET
P2.6.3





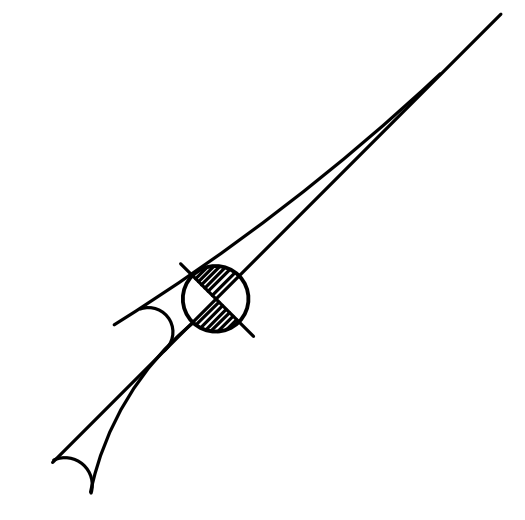
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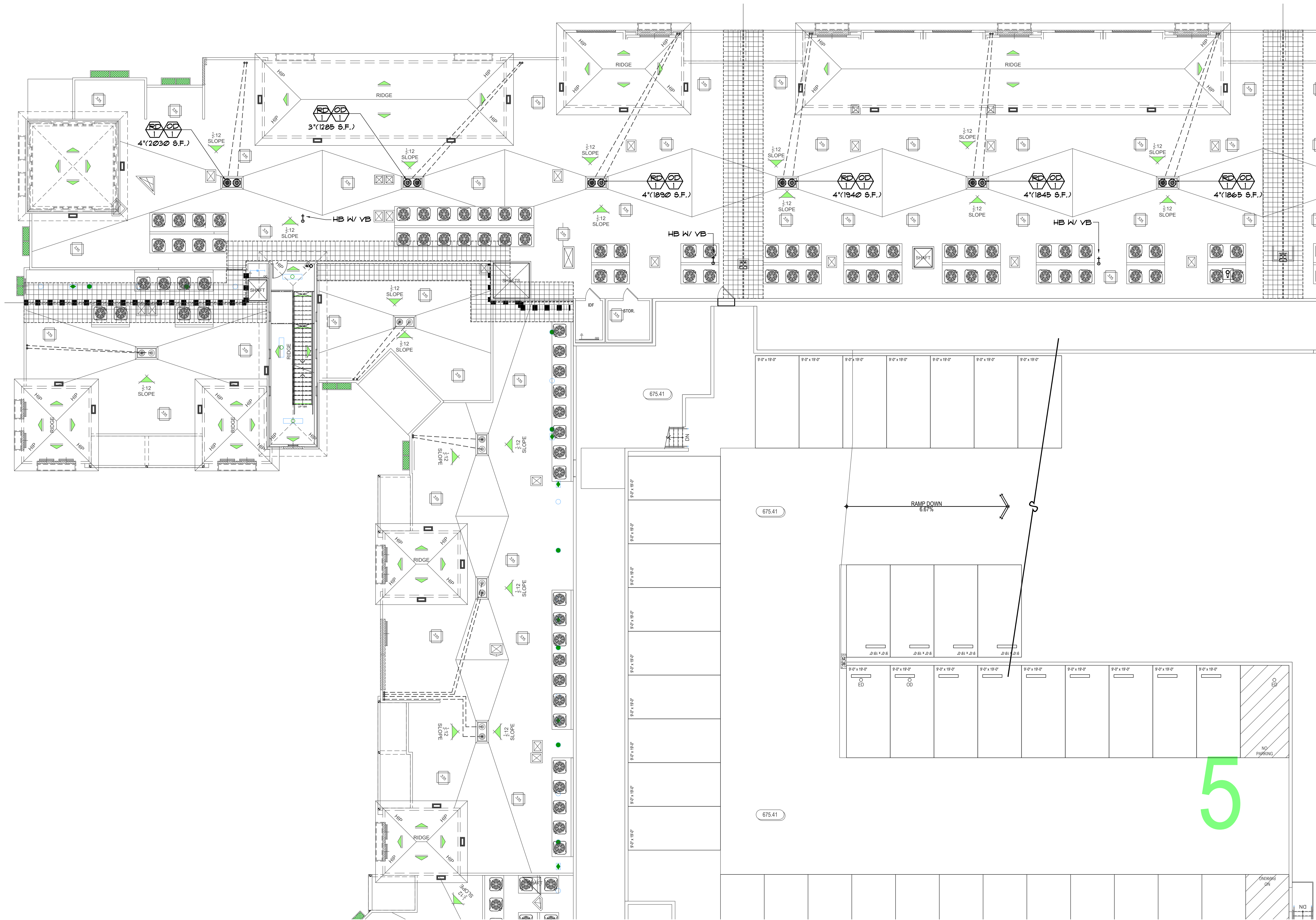
DATE	DESCRIPTION
4-19-19	Plan Check
	Bid Set
	Permit
10-12	Project Number
	Drawing Name
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10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's



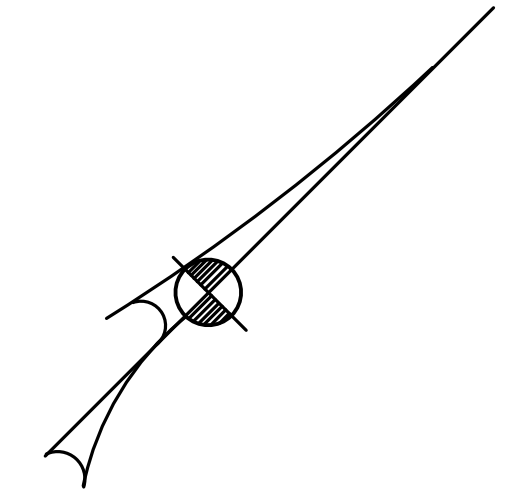
BLDG. A - SEGMENT 4 - PLUMBING FIFTH FLOOR PLAN

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



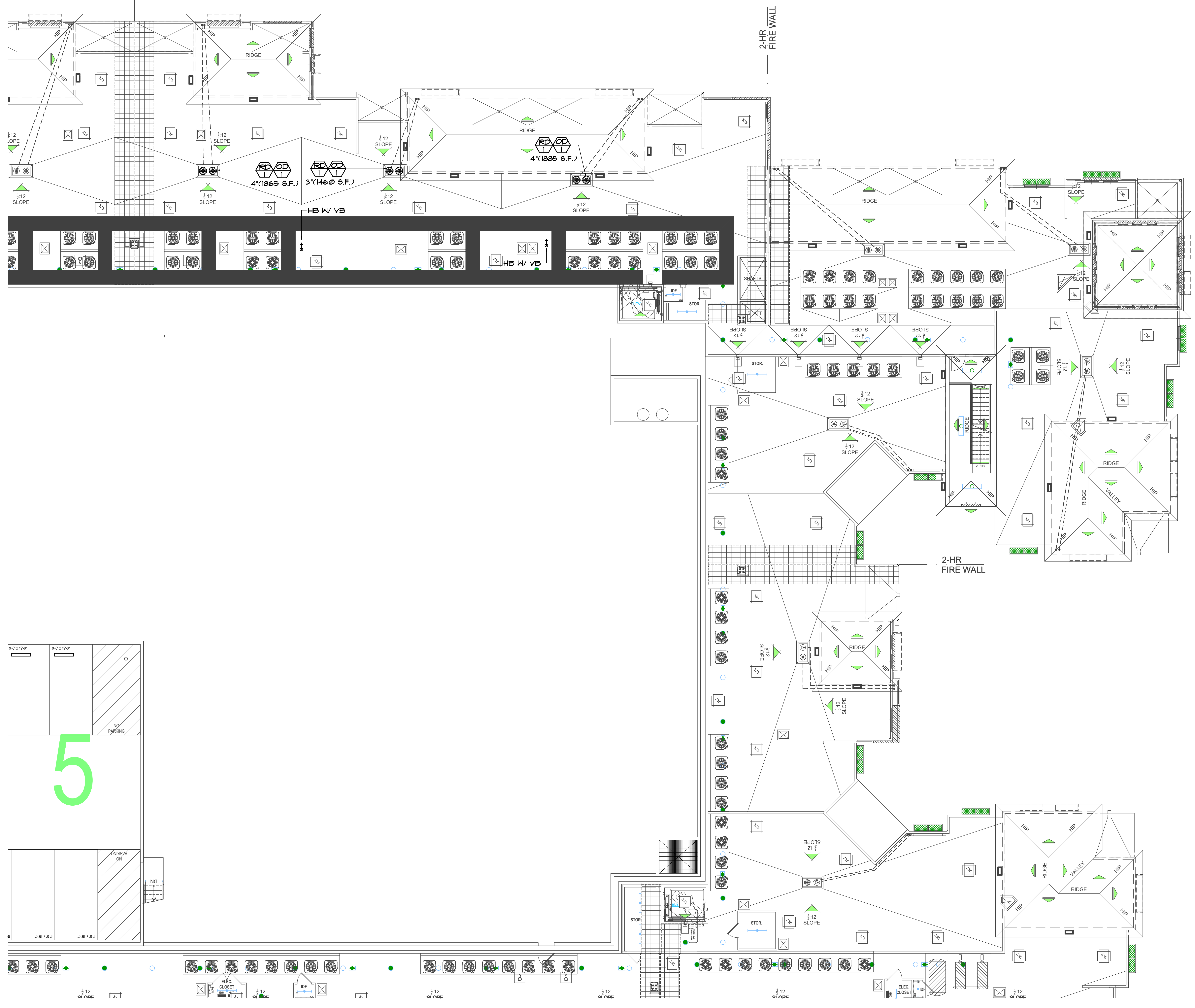


BLDG. A - SEGMENT 1 - PLUMBING ROOF PLAN
 SCALE: 1/8" = 1'-0"

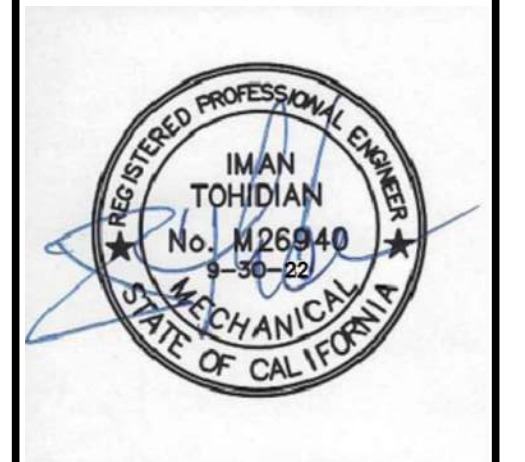
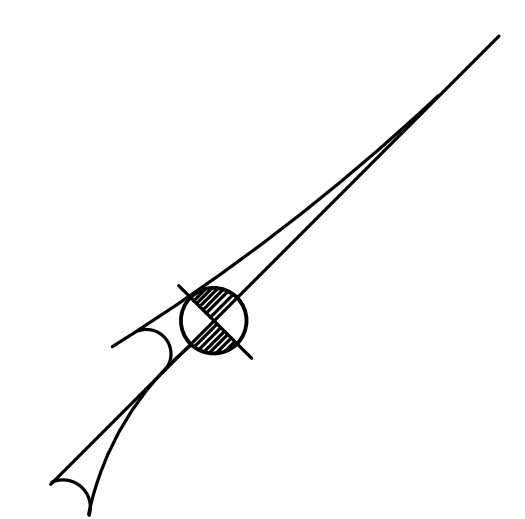


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DATE	DESCRIPTION
4-19-19	Plan Check
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1012	Project Number
4-19-19	Drawing Name
7-19-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

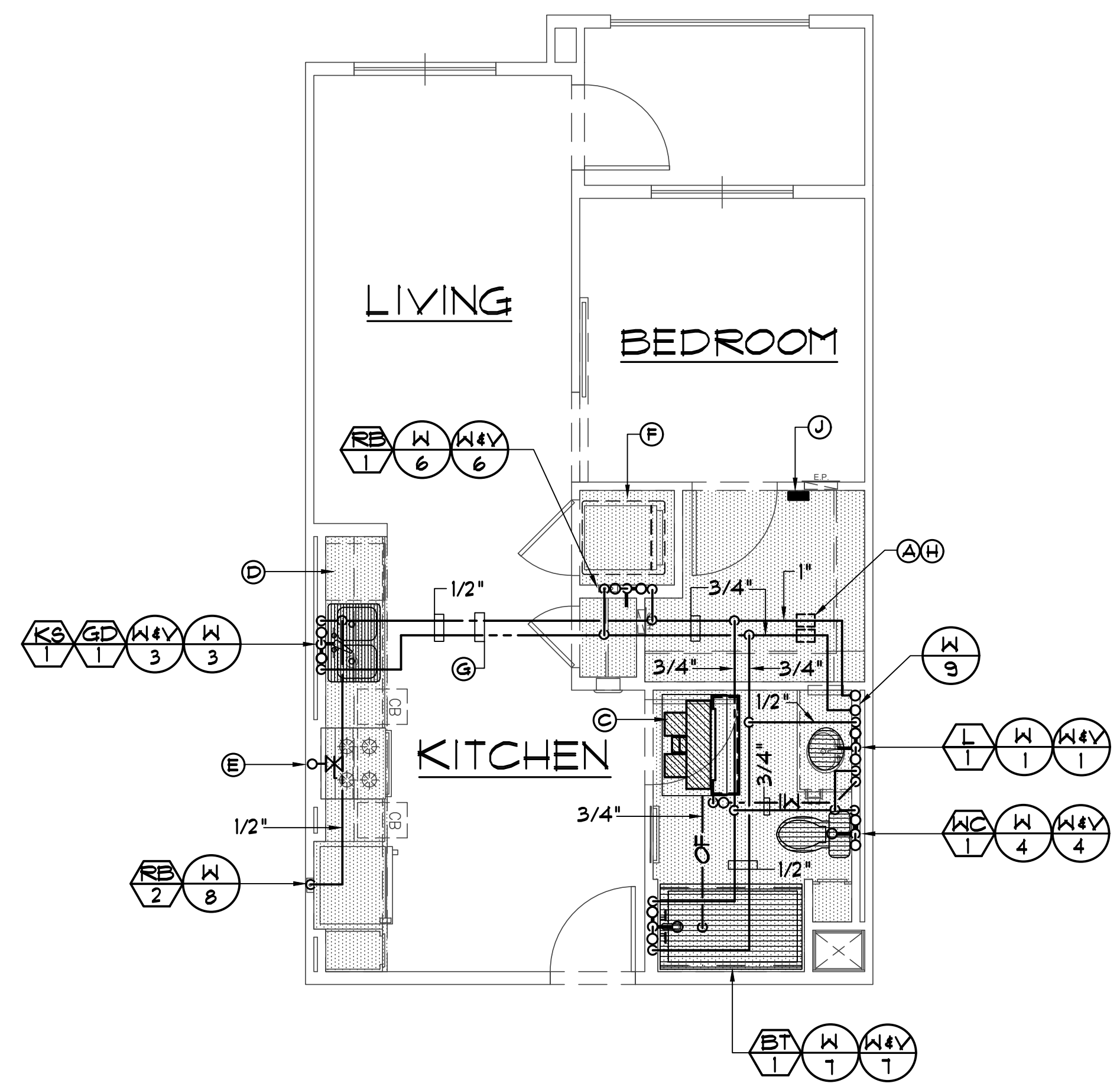


BLDG. A - SEGMENT 2 - PLUMBING ROOF PLAN
 SCALE: 1/8" = 1'-0"

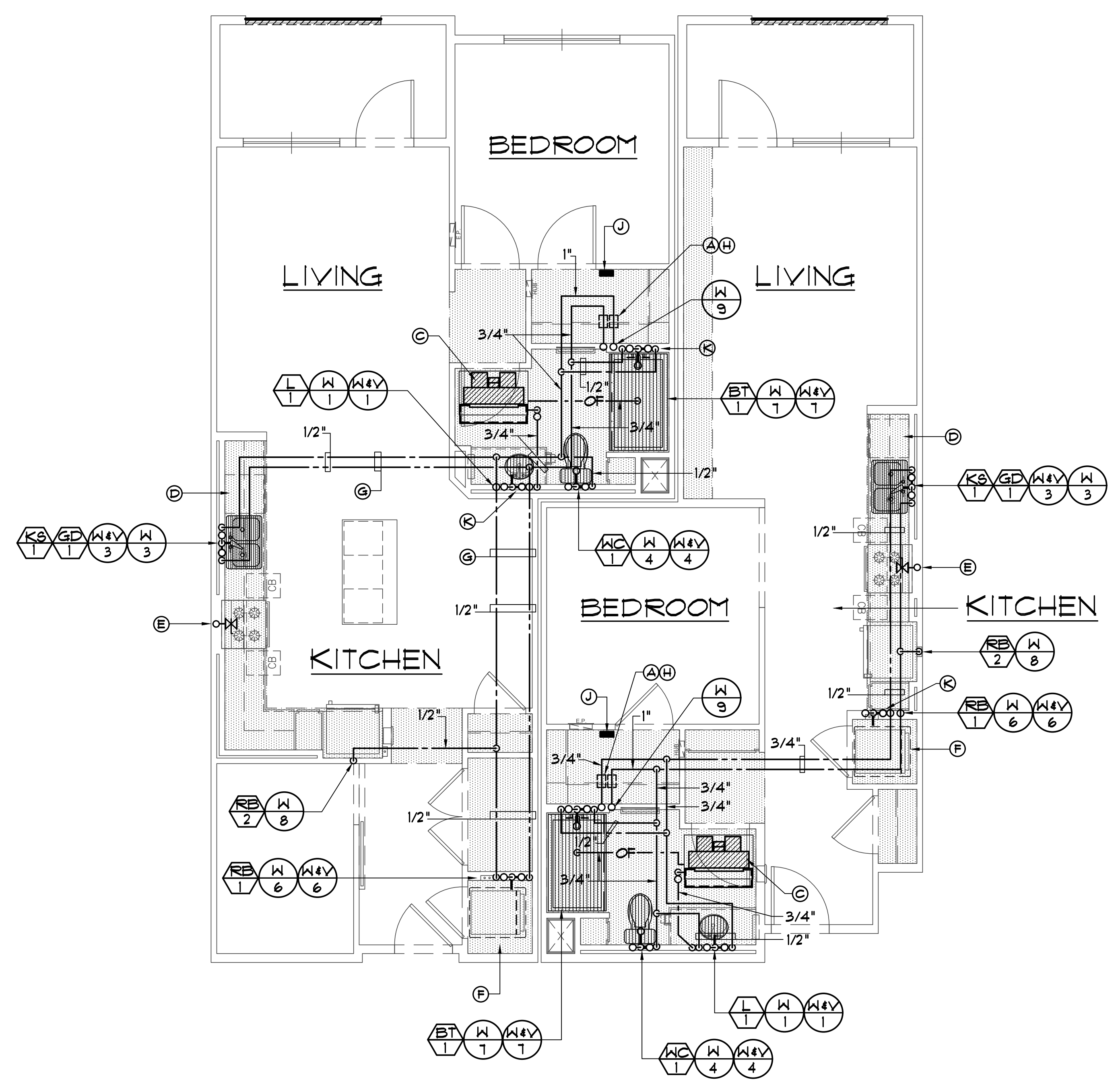


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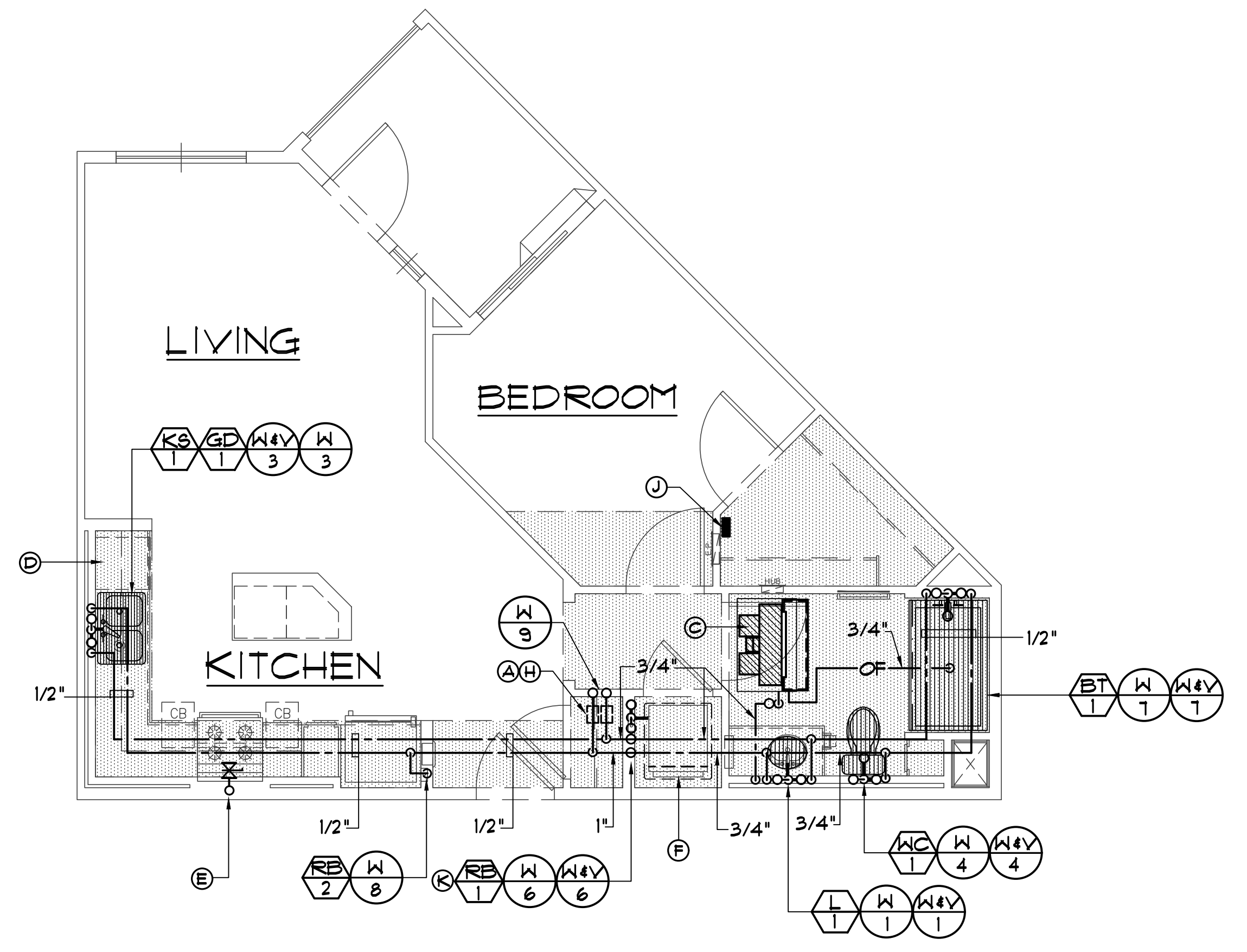
DATE	DESCRIPTION
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4-19-19	Drawing Name
1-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's



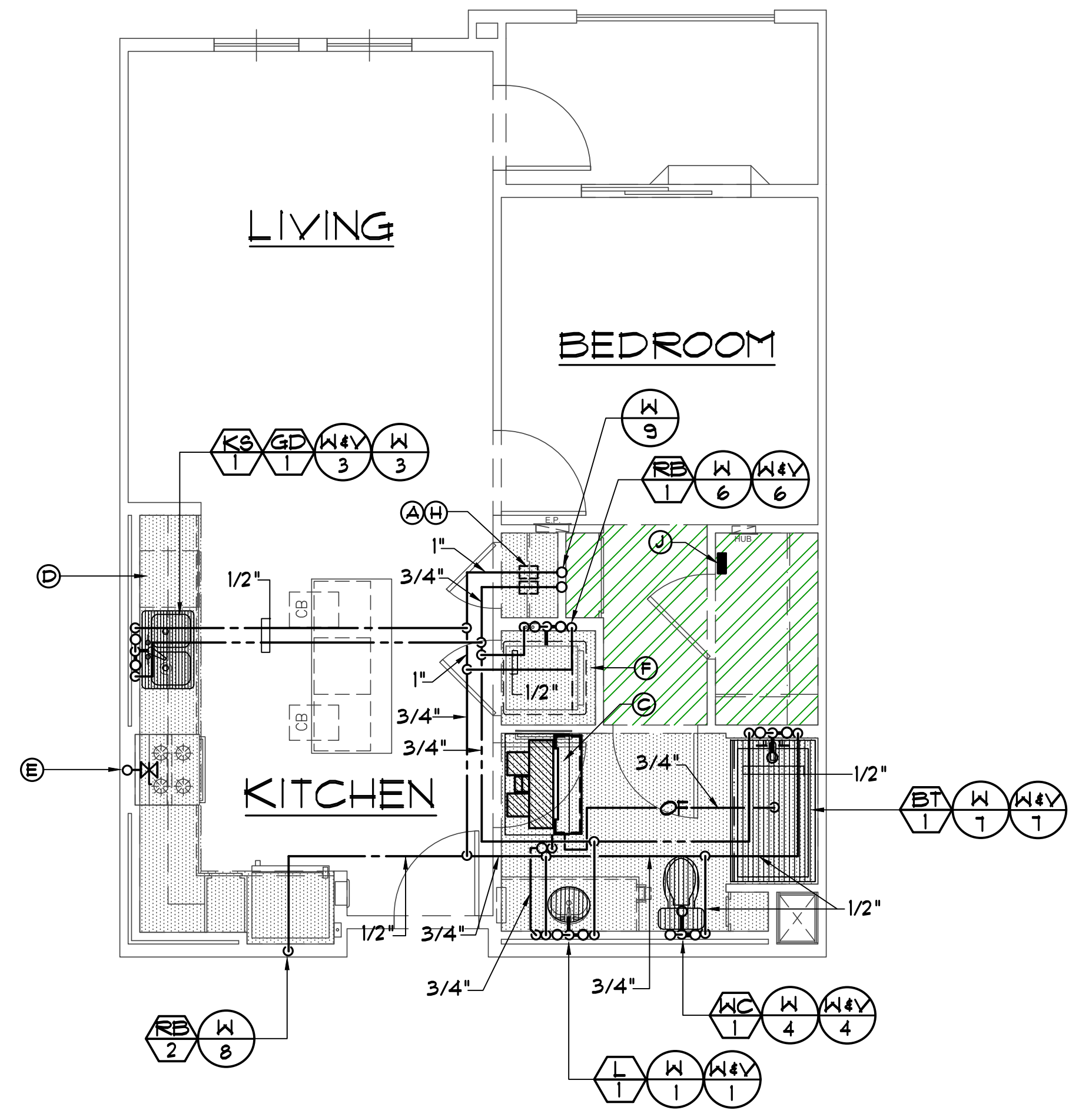
UNIT S1 - TYP. PLUMBING PLAN
SCALE: 1/4" = 1'-0"



UNIT A3 / S2 - TYP. PLUMBING PLAN
SCALE: 1/4" = 1'-0"



UNIT A1 - TYP. PLUMBING PLAN
SCALE: 1/4" = 1'-0"



UNIT A2 - TYP. PLUMBING PLAN
SCALE: 1/4" = 1'-0"

DESIGN NOTES:

- (A) TENANT HOT & COLD WATER METERS R1/4" CW & 3/4" HW W/ SOV'S (CO-ORD. W/ OWNER AT TIME OF BID), PROVIDE SPOOL, MAX. PRESS. DROP = 6 PSI @ 10 GPM
- (B) TENANT HOT & COLD WATER METERS R1/4" CW & 1" HW W/ SOV'S (CO-ORD. W/ OWNER AT TIME OF BID), PROVIDE SPOOL, MAX. PRESS. DROP = 6 PSI @ 15 GPM
- (C) FAN COIL UNIT ABV. CLG. R1/4" C. 3/4" LW W/ TRAP & VENT (RUN TO LAV TRAP), 3/4" O.F. SPILL ABV. TUB WITH ESCUTCHEON.
- (D) DISHWASHER, R1/4" 1/2" HW W/ SOV & 3/4" HOSE WASTE THRU AIR GAP FTG. TO GD.
- (E) RANGE (65 CFM), R1/4" C. 3/4" G. W/ GC (1" G. WHERE SHOWN ON 1/8" SCALE PLANS)
- (F) ELECTRIC DRYER
- (G) RUN PIPING IN JOIST SPACE COORD. W/ STRUCTURAL PRIOR TO BID, TYP.
- (H) COORD. EXACT LOC'S OF ALL SUB-METERS ABV. DROP CLG. W/ ACCESS PANEL (W/ REMOTE READ) W/ OWNER PRIOR TO BID, TYP.
- (J) WATER METER REMOTE READOUT LOCATION. COORD. EXACT REQMTS W/ OWNER AT TIME OF BID, TYP.
- (K) COORD. EXACT LOC. OF RISERS W/ MECH. CONTR. & DUCTWORK.
- (L) ALTERNATE LOCATION OF RISERS WHERE BEAM OCCURS AT ENTRY DRIVES, SEE STRUCTURAL PLANS

NOTE:
COORDINATE PIPING LOCATIONS W/ SHEAR WALL LOCATIONS AND STRUCTURAL ENGINEER PRIOR TO BID. RELOCATE PIPING AS REQ'D.

NOTE:
COORDINATE ROUTING OF ALL PIPING WITH FRAMING AND ALL STRUCTURAL CONDITIONS PRIOR TO BID, TYP.

NOTE:
COORD. ALL NOTCHING AND BORING OF STUDS / JOISTS FOR PIPING FOR MAXIMUM ALLOWABLE HOLE SIZE WITH THE STRUCTURAL ENGINEER PRIOR TO BID, TYP.



Tryco Consulting Inc.
P.E. & C.E. PLUMBING DESIGN/ENERGY ANALYSIS
330 S. Maple, Suite J, Corona, CA 92626
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PA-12 Otay Ranch APARTMENTS BUILDING TYPE A

1445 TOWN CENTER DR. CHULA VISTA, CALIFORNIA 91915

BALDWIN & SONS
Building Quality Communities for Three Generations
610 West Ash Street, Suite 1500 San Diego, CA 92101

ENLARGED PLUMBING FLOOR PLANS

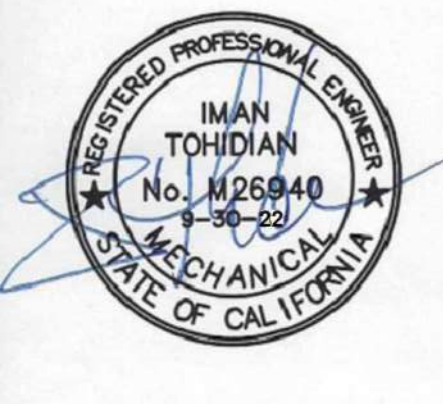


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SHEET

P3.1.1



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10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

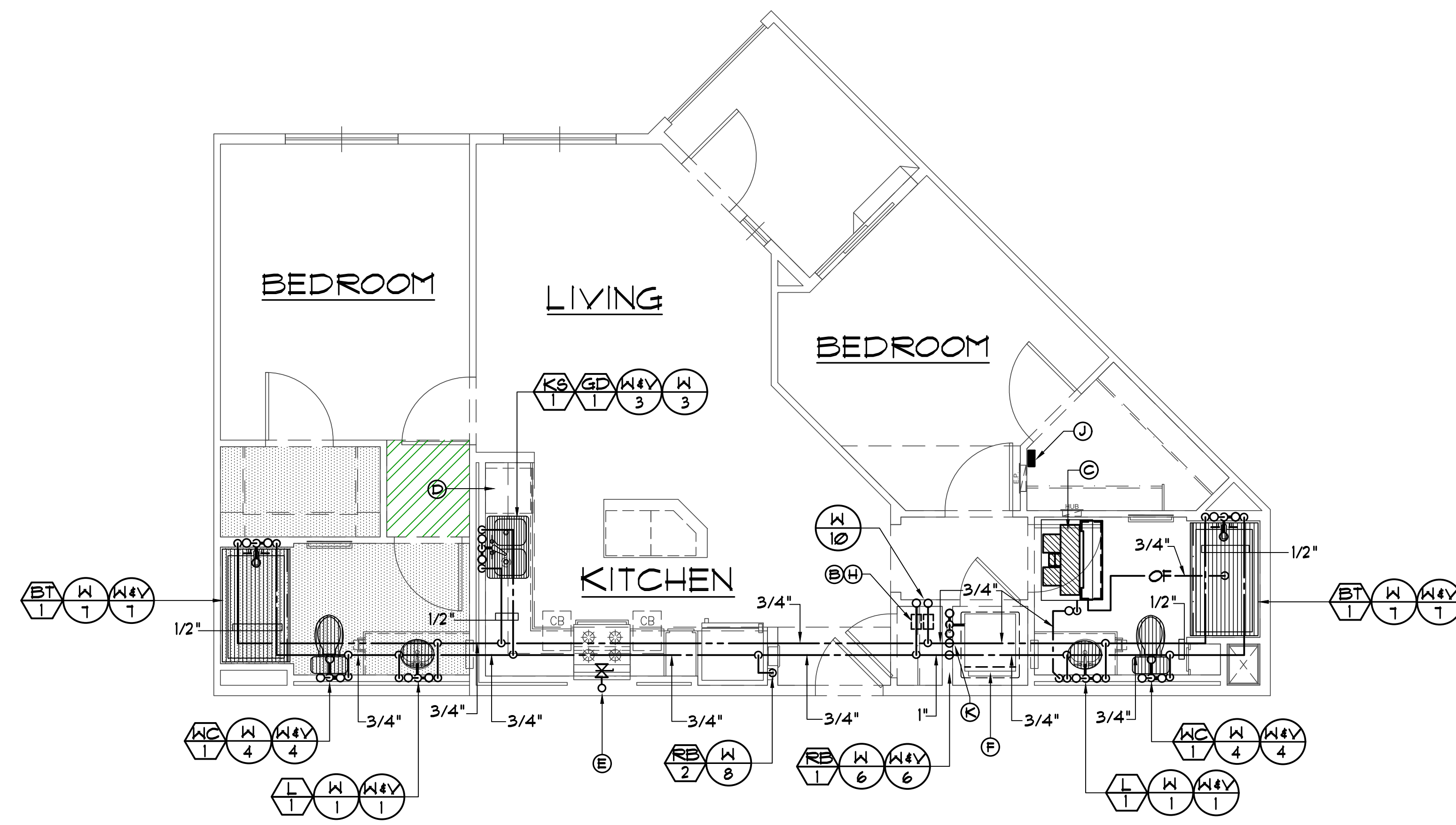
DESIGN NOTES:

- (A) TENANT HOT & COLD WATER METERS R1/4" CW & 3/4" HW W/ SOY'S (CO-ORD. W/ OWNER AT TIME OF BID), PROVIDE SPOOL, MAX. PRESS. DROP = 6 PSI @ 10 GPM
- (B) TENANT HOT & COLD WATER METERS R1/4" CW & 1" HW W/ SOY'S (CO-ORD. W/ OWNER AT TIME OF BID), PROVIDE SPOOL, MAX. PRESS. DROP = 6 PSI @ 15 GPM
- (C) FAN COIL UNIT, ABV. CLG. R.L. & C. 3/4" I.H. W/ TRAP, & VENT (RUN TO LAV TRAP), 3/4" O.F. SPILL ABV. TUB WITH ESCUTCHEON.
- (D) DISHWASHER, R1/4" 1/2" HW W/ SOY & 3/4" HOSE WASTE THRU AIR GAP FTG. TO GD.
- (E) RANGE (65 CFM), R.L. & C. 3/4" G. W/ GC (1" G. WHERE SHOWN ON 1/8" SCALE PLANS)
- (F) ELECTRIC DRYER
- (G) RUN PIPING IN JOIST SPACE COORD. W/ STRUCTURAL PRIOR TO BID, TYP.
- (H) COORD. EXACT LOC'S OF ALL SUB-METERS ABV. DROP CLG. W/ ACCESS PANEL (W/ REMOTE READ) W/ OWNER PRIOR TO BID, TYP.
- (I) WATER METER REMOTE READOUT LOCATION, COORD. EXACT REQ'TS W/ OWNER AT TIME OF BID, TYP.
- (J) COORD. EXACT LOC. OF RISERS W/ MECH. CONTR. & DUCTWORK.
- (K) ALTERNATE LOCATION OF RISERS WHERE BEAM OCCURS AT ENTRY DRIVES, SEE STRUCTURAL PLANS

NOTE:
COORDINATE PIPING LOCATIONS W/ SHEAR WALL LOCATIONS AND STRUCTURAL ENGINEER PRIOR TO BID. RELOCATE PIPING AS REQ'D.

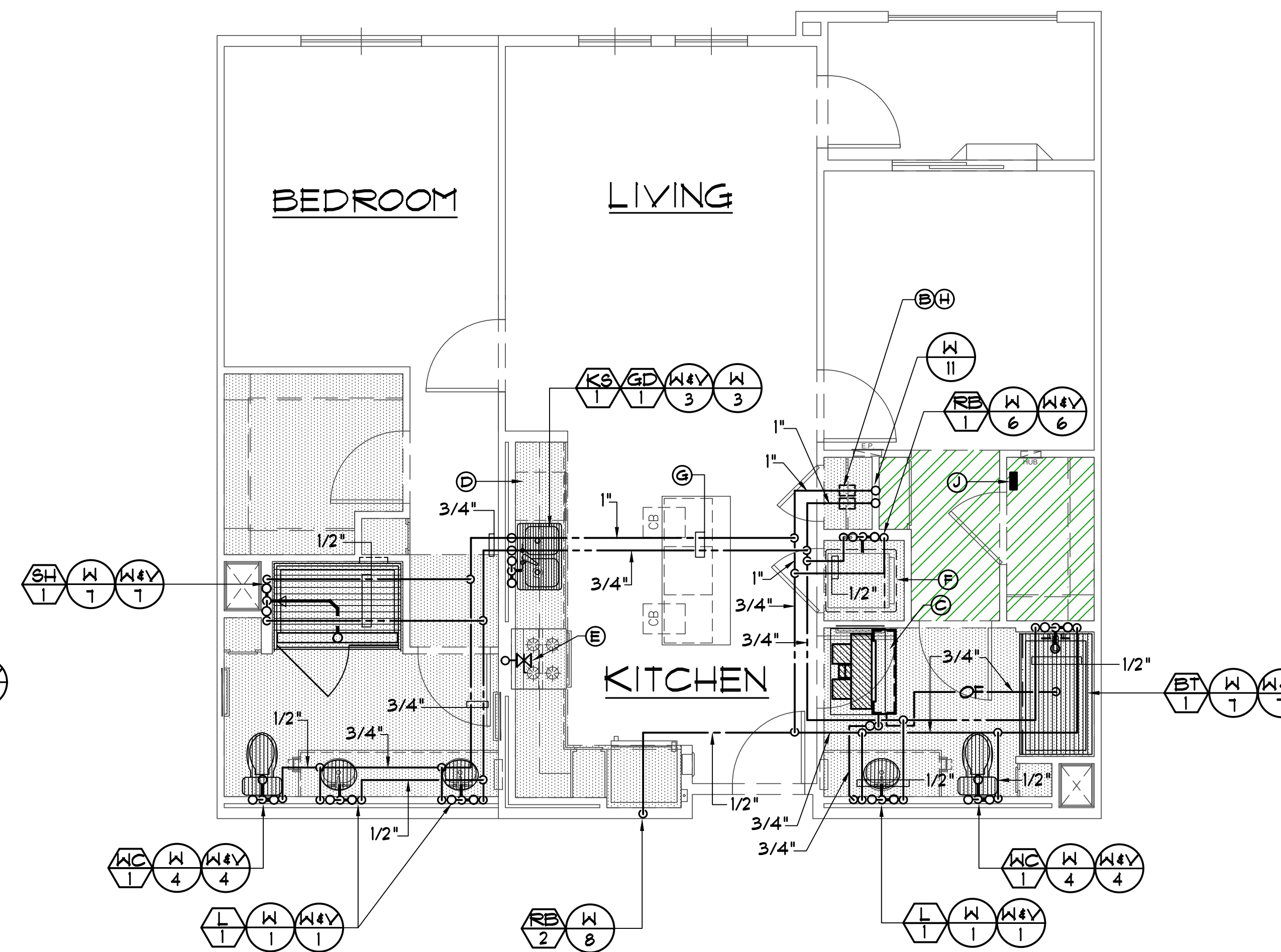
NOTE:
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NOTE:
COORD. ALL NOTCHING AND BORING OF STUDS / JOISTS FOR PIPING FOR MAXIMUM ALLOWABLE HOLE SIZE WITH THE STRUCTURAL ENGINEER PRIOR TO BID, TYP.



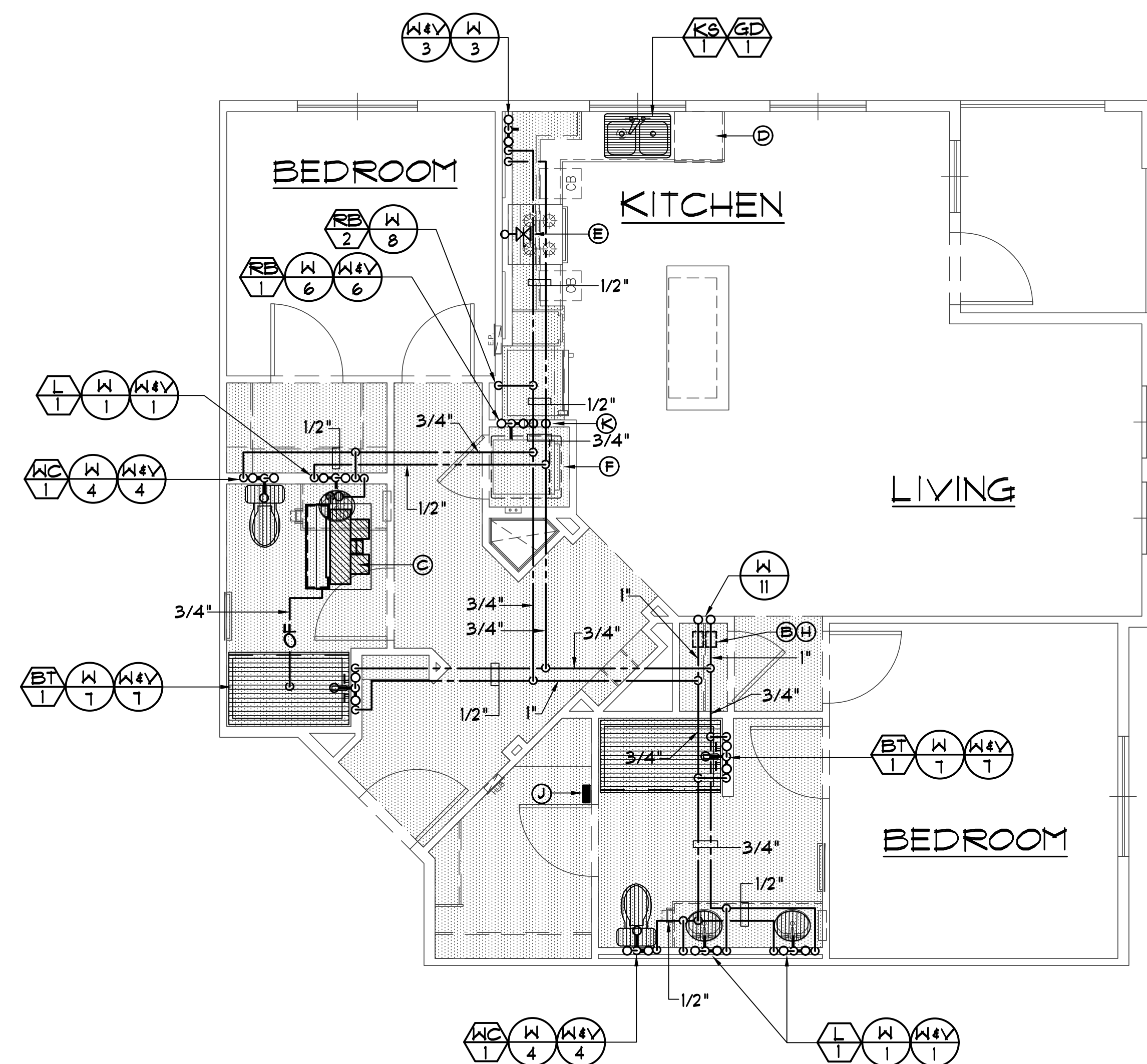
UNIT B1 - TYP. PLUMBING PLAN

SCALE: 1/4" = 1'-0"



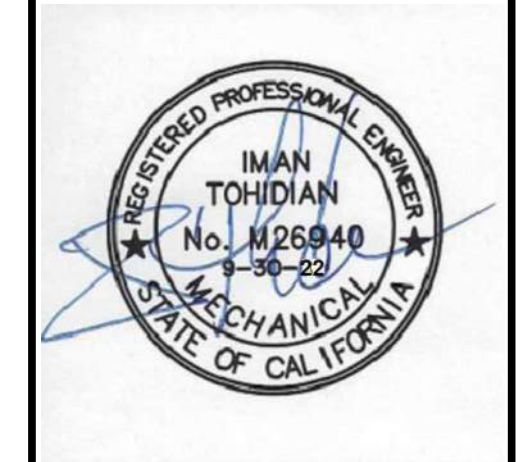
UNIT B2 - TYP. PLUMBING PLAN

SCALE: 1/4" = 1'-0"



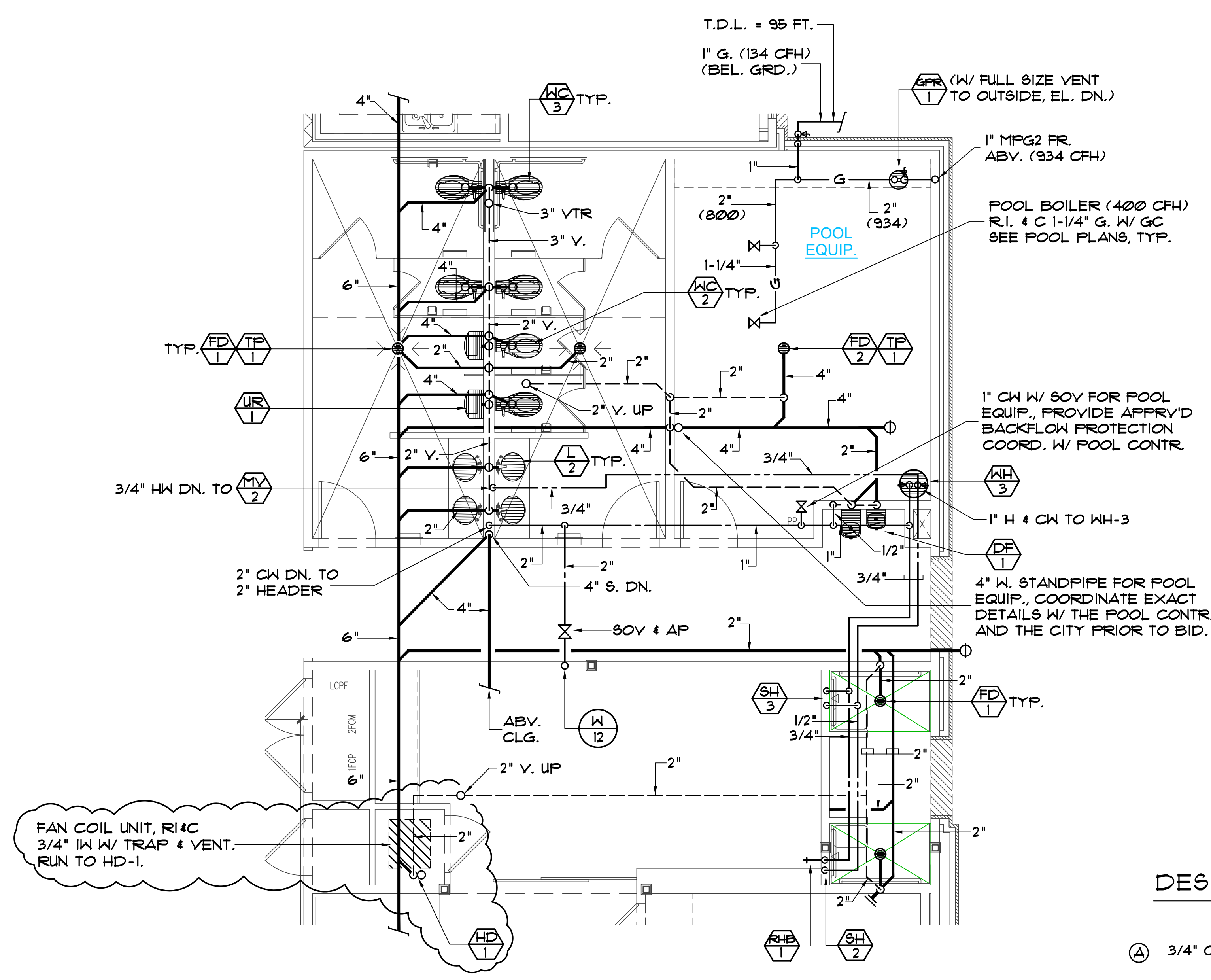
UNIT B3 - TYP. PLUMBING PLAN

SCALE: 1/4" = 1'-0"



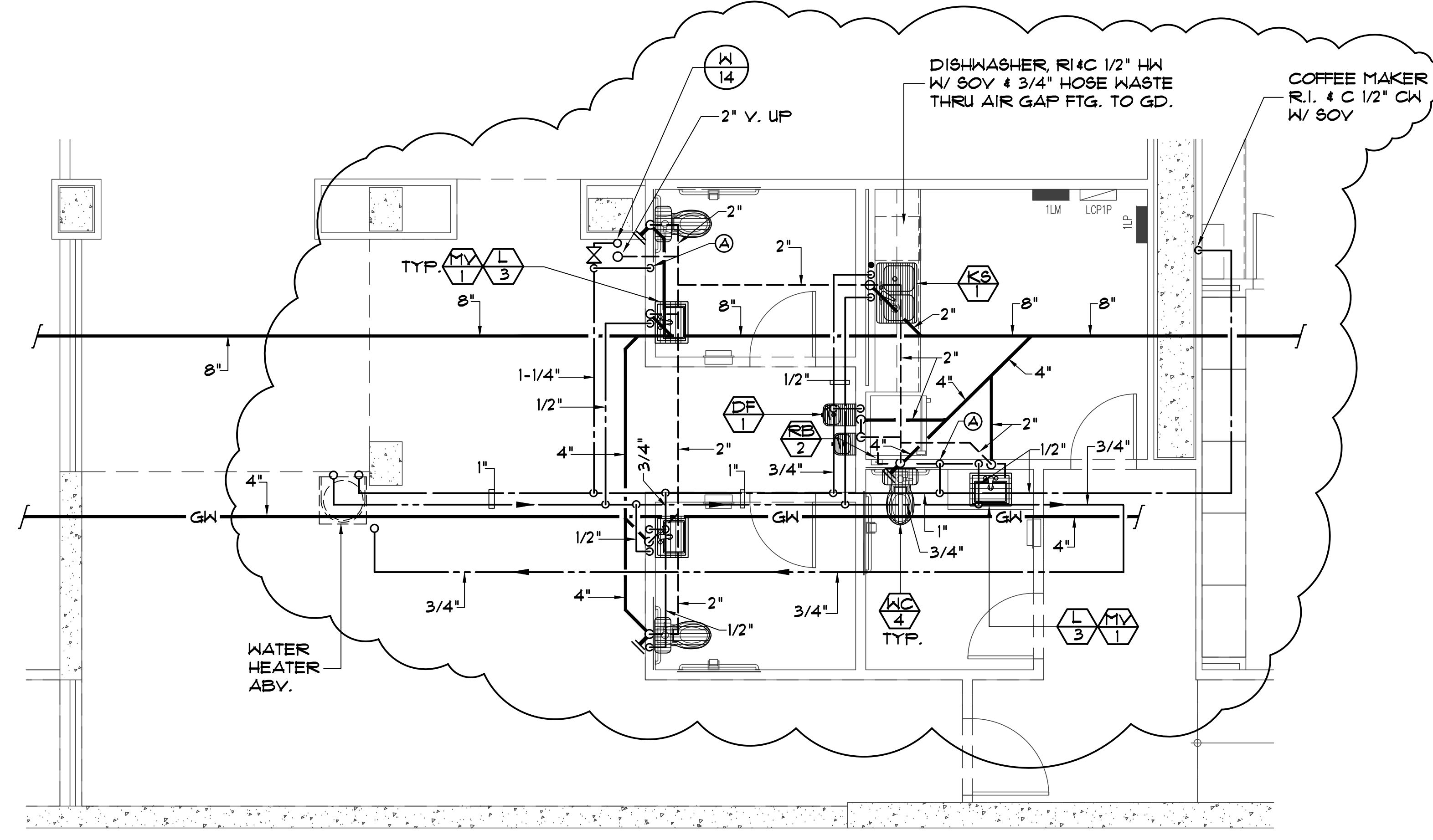
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8-8-22	Owner Rev's

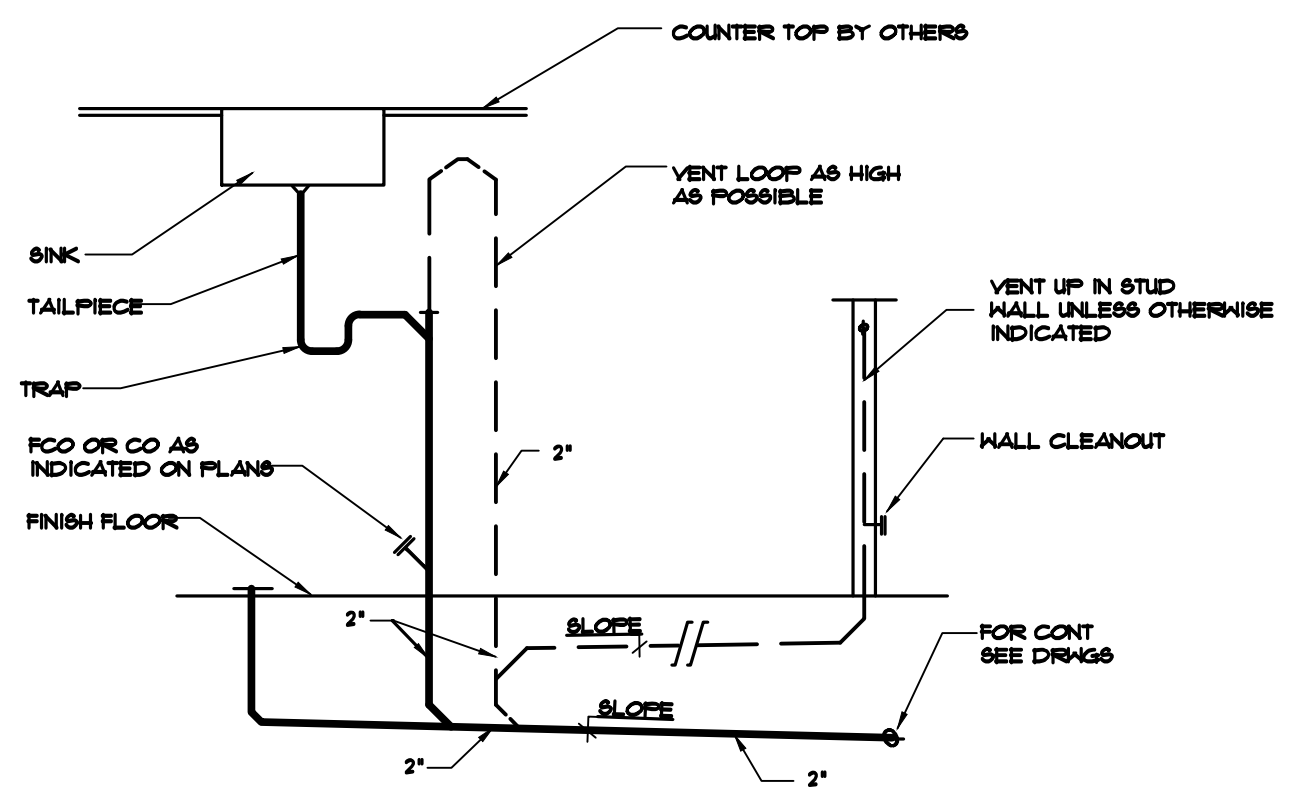


PLUMBING ENLARGED PLAN
SCALE: 1/4" = 1'-0"

- DESIGN NOTES:**
- (A) 3/4" CW DN. IN WALL TO 1/2" BRANCHES
 - (B) 3/4" HW DN. TO 1/2" BRANCHES

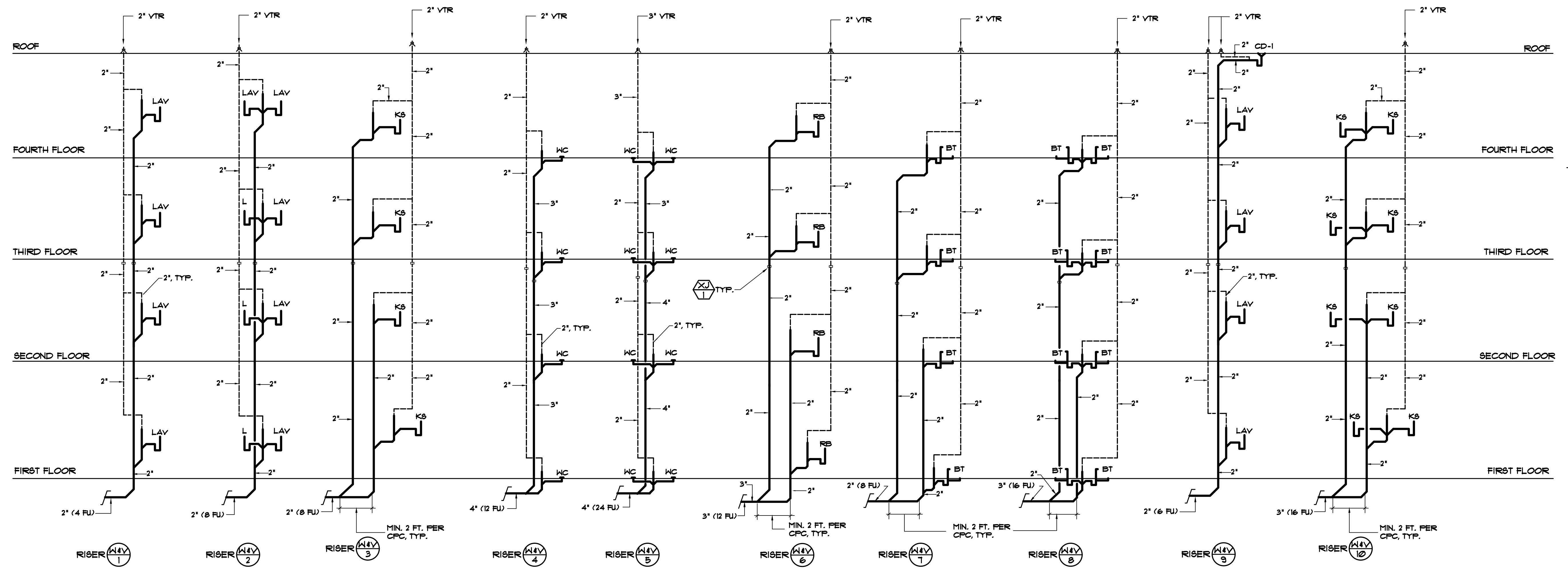


PLUMBING ENLARGED PLAN
SCALE: 1/4" = 1'-0"



ISLAND VENT DETAIL

SCALE: NONE

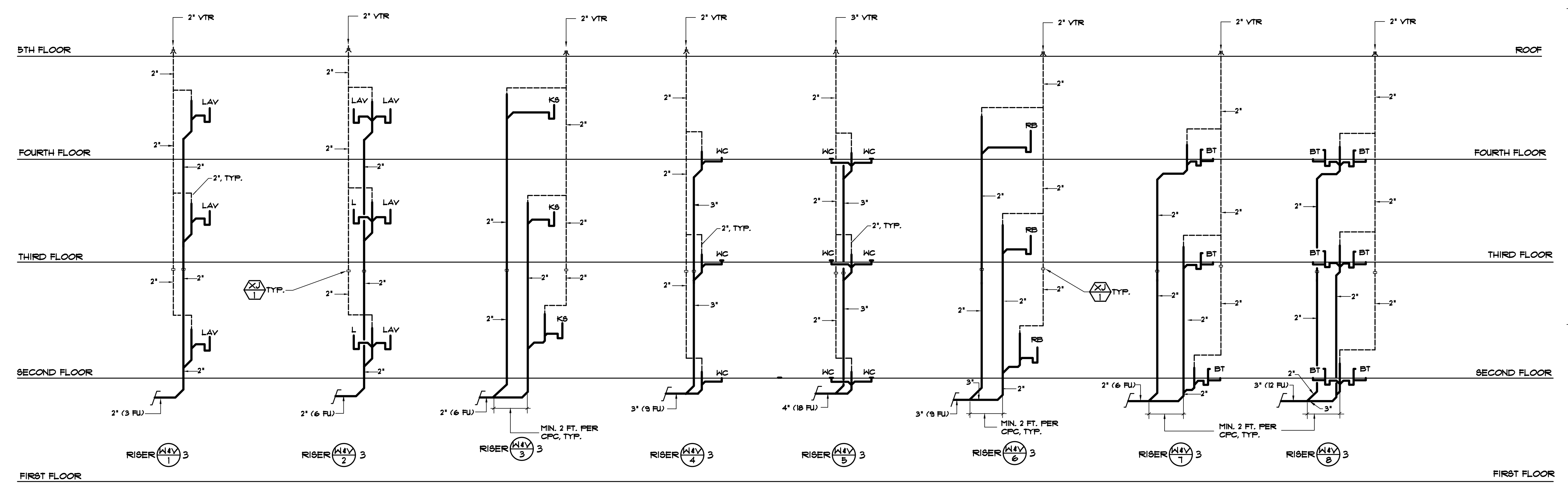


4 STORY RISERS

WASTE AND VENT RISER DIAGRAMS

SCALE: NONE

WASTE RISER NOTES:
 1. OFFSET ALL VTR'S A MIN. OF 5 FT. FROM 2 HR. WALLS
 2. ALL HORIZ. WASTE BRANCH LINES OVER 5 FT. SHALL BE PROVIDED W/ A CLEANOUT, COORD. EXACT RISER AND C.O. LOCATIONS W/ ARCH. 4 OWNER.



3 STORY RISERS

WASTE AND VENT RISER DIAGRAMS

SCALE: NONE

NOTE:
 EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN 6" ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE BEFORE CONNECTING TO ANY OTHER VENT.



TryCO Consulting Inc.
 MECHANICAL PLUMBING DESIGN/ENERGY ANALYSIS
 330 S. Maple, Suite J P.O. Box 371-8860
 Corona, CA 92626 Fax (951) 371-2926

PA-12 Otay Ranch APARTMENTS BUILDING TYPE A

1445 TOWN CENTER DR. CHULA VISTA, CALIFORNIA 91915

BALDWIN & SONS
 Building Quality Commission for Three Generations
 610 West Ash Street, Suite 1500 San Diego, CA 92101

PLUMBING RISER DIAGRAMS



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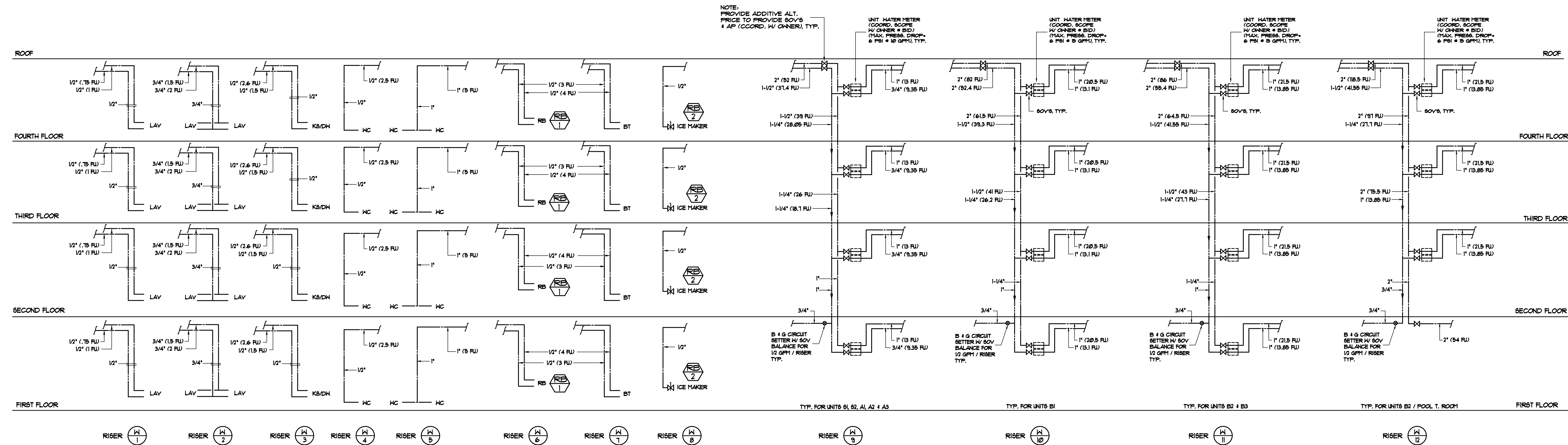
DATE	Plan Check
4-19-19	Blk Set
10-12	Permit
10-12	Project Number
4-19-19	Drawing Name
1-19-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

SHEET
P4.1.1



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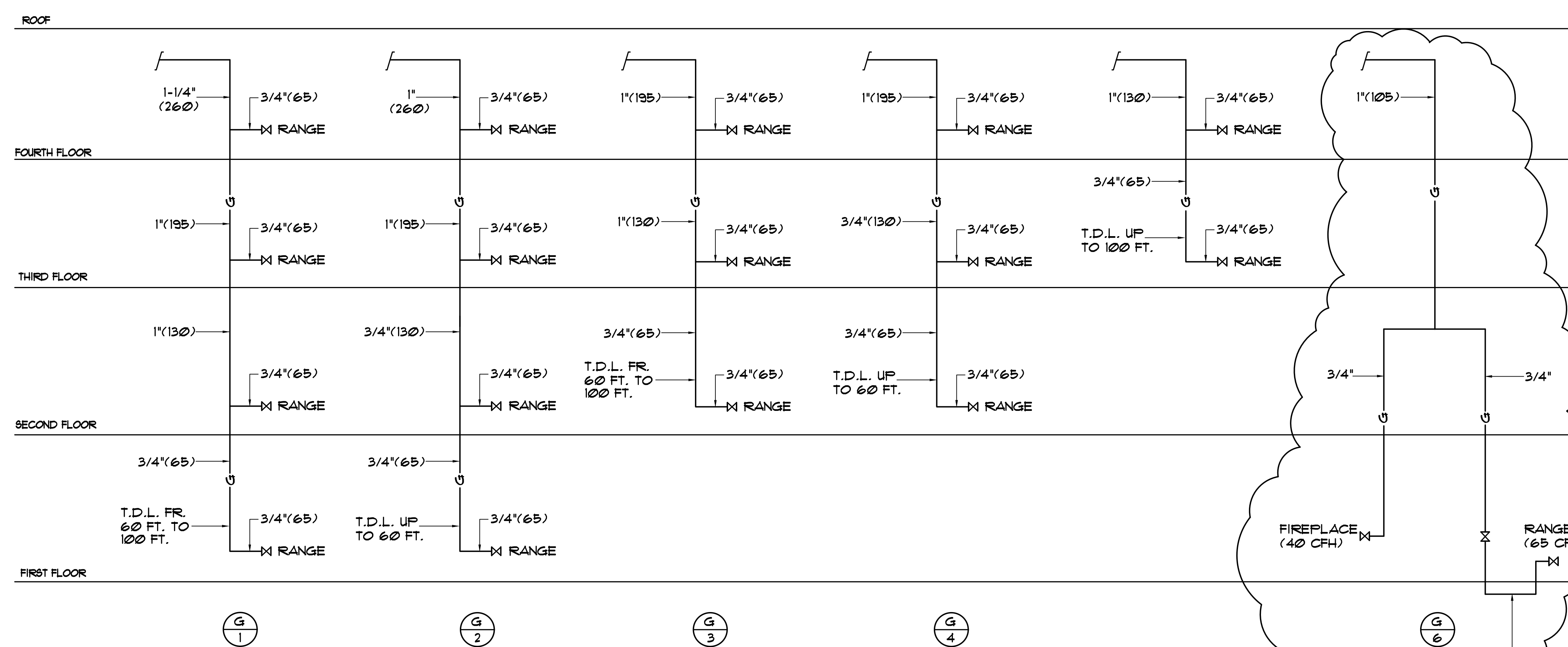
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	Bid Set
	Permit
1812	Project Number
	Drawing Number
4-19-19	Plot Date
1-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's



4 STORY RISERS

HOT & COLD WATER RISER DIAGRAMS

SCALE: NONE



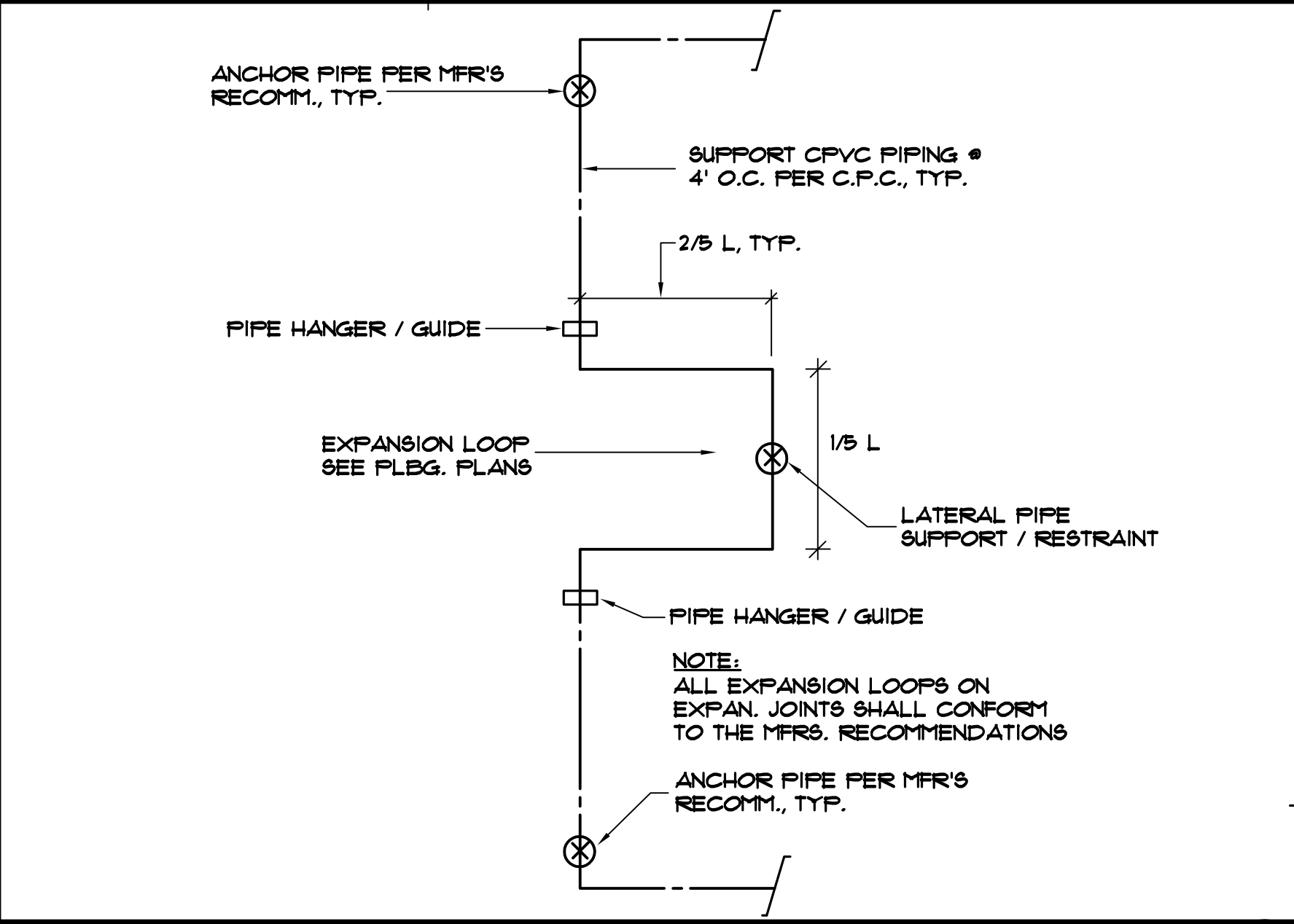
NATURAL GAS RISER DIAGRAMS

SCALE: NONE

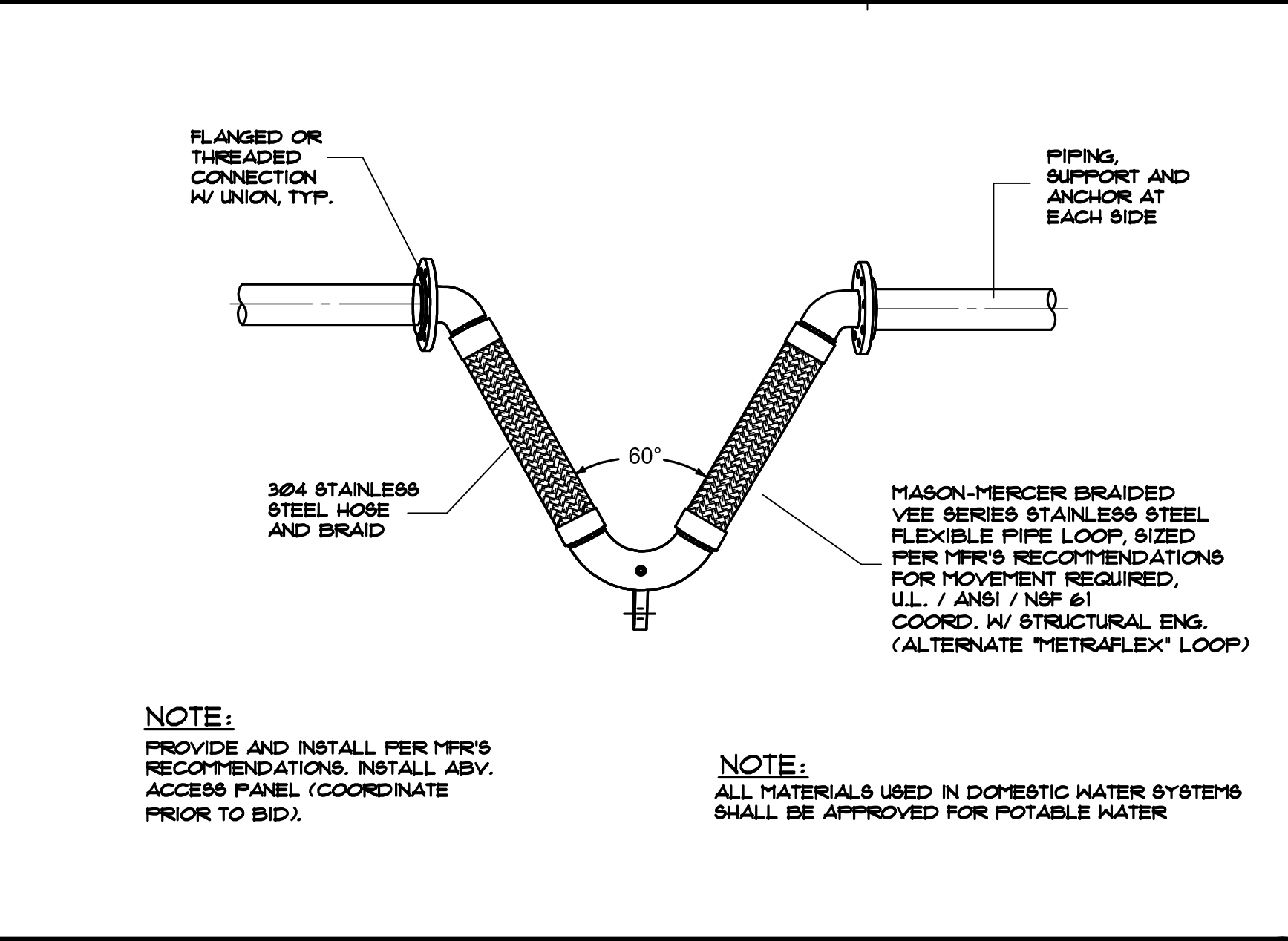
HOT & COLD WATER RISER DIAGRAMS

SCALE: NONE

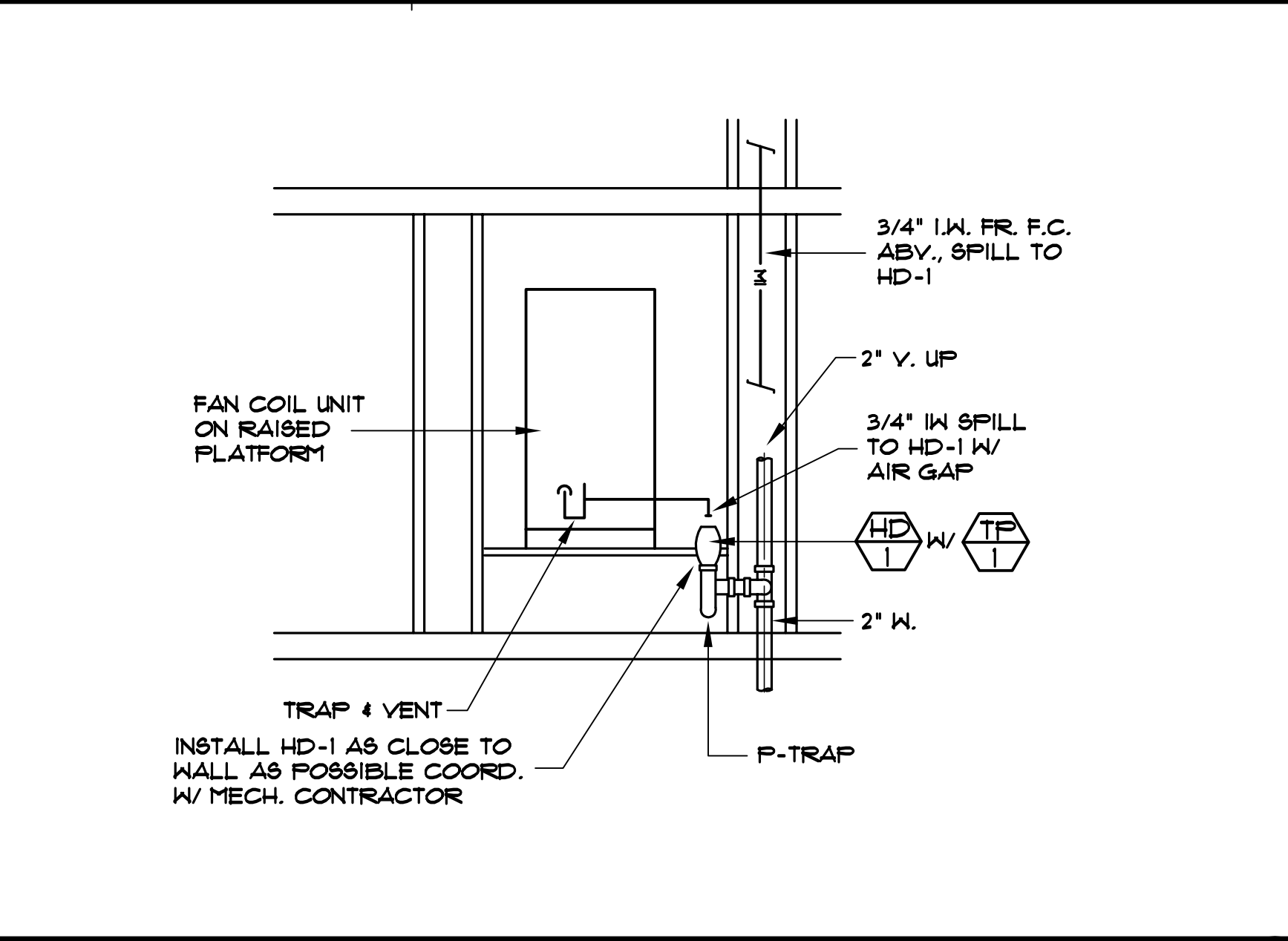
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4-19-19	Plan Check
	Bid Set
	Permit
1012	Project Number
	Drawing Name
4-19-19	Plot Date
7-15-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's



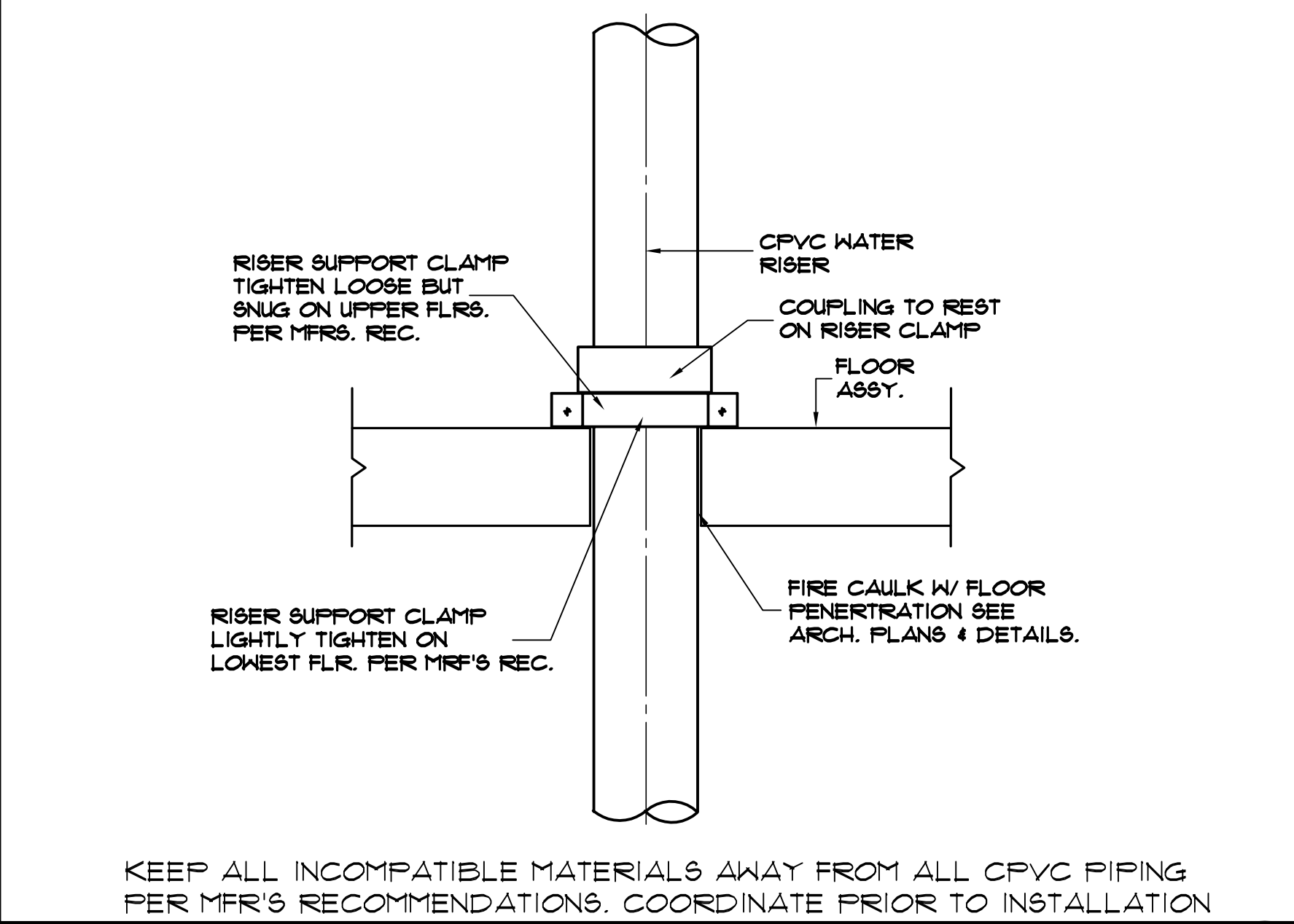
CPVC EXPANSION LOOP DETAIL SCALE: NONE



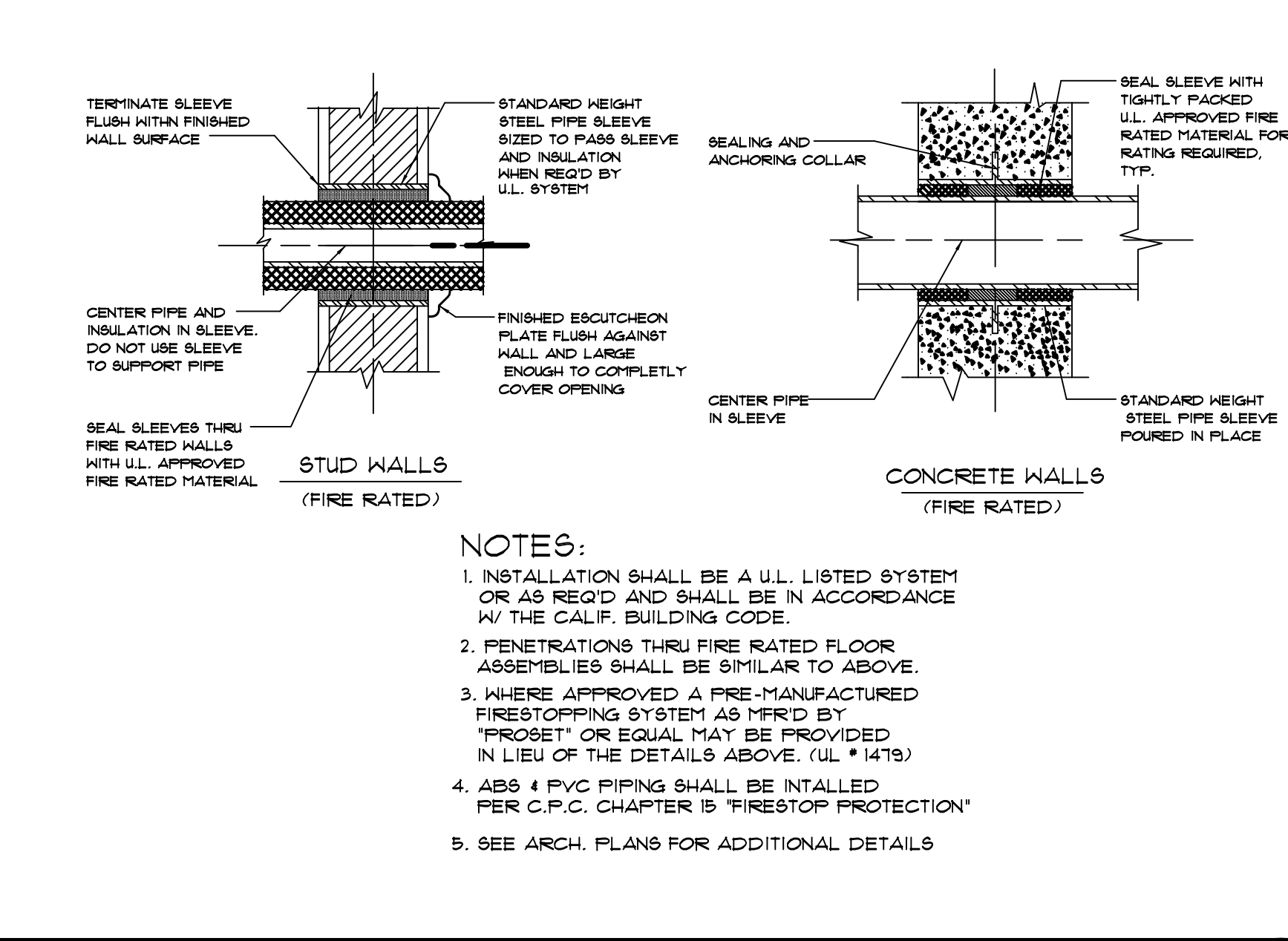
PIPE @ SEISMIC JOINT SCALE: NONE



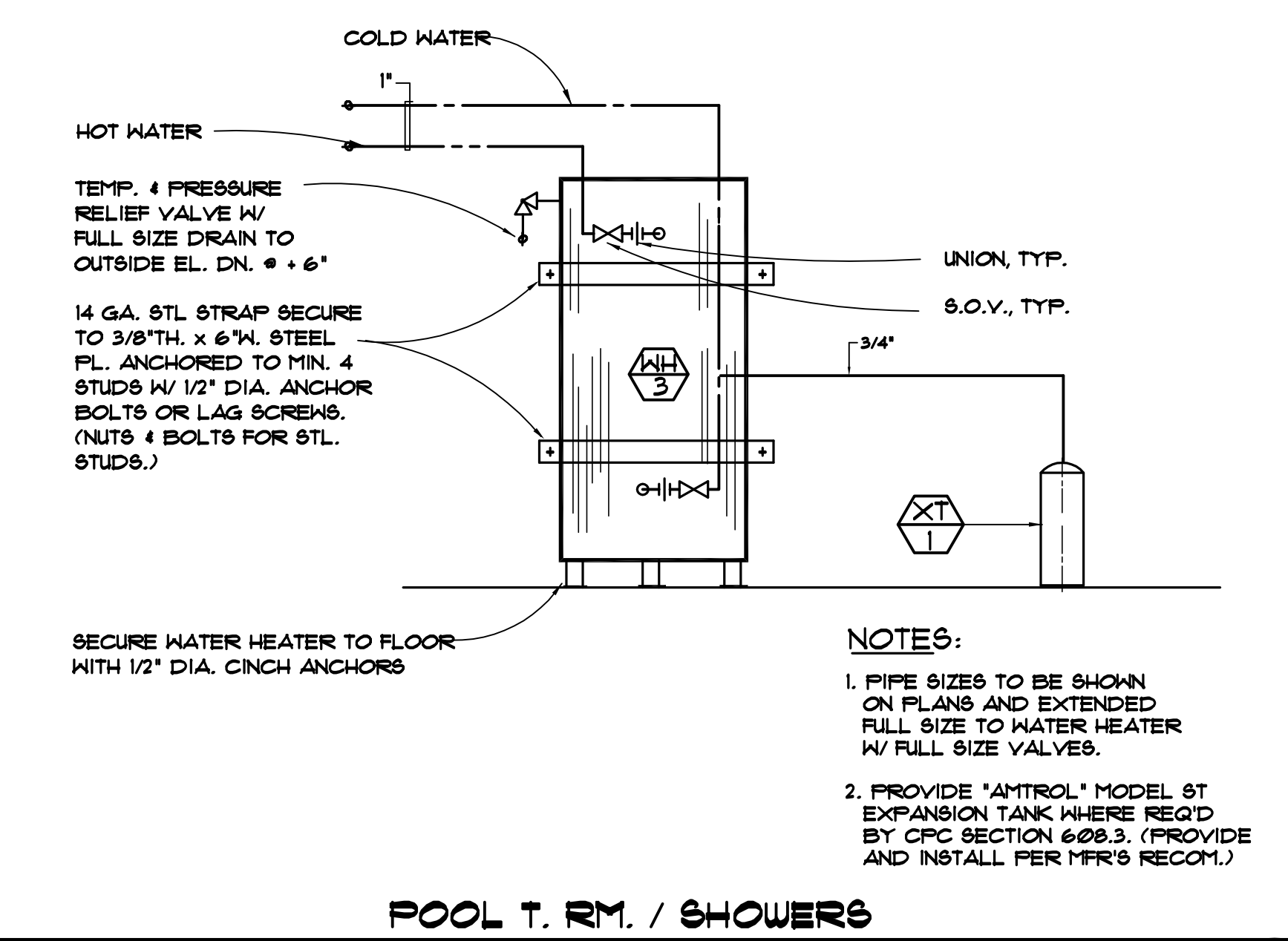
F.C. HUB DRAIN DETAIL SCALE: NONE



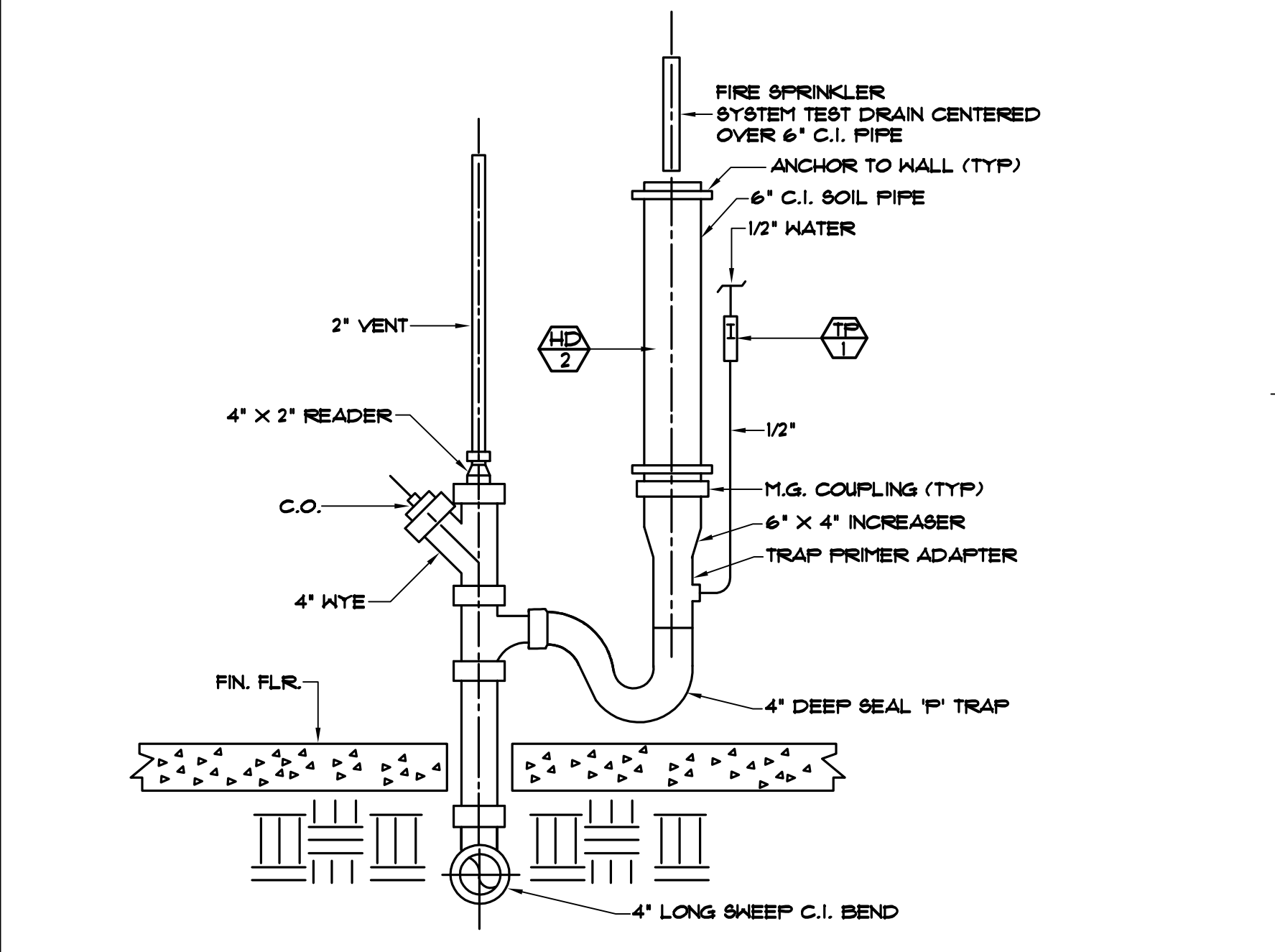
CPVC RISER DETAIL SCALE: NONE



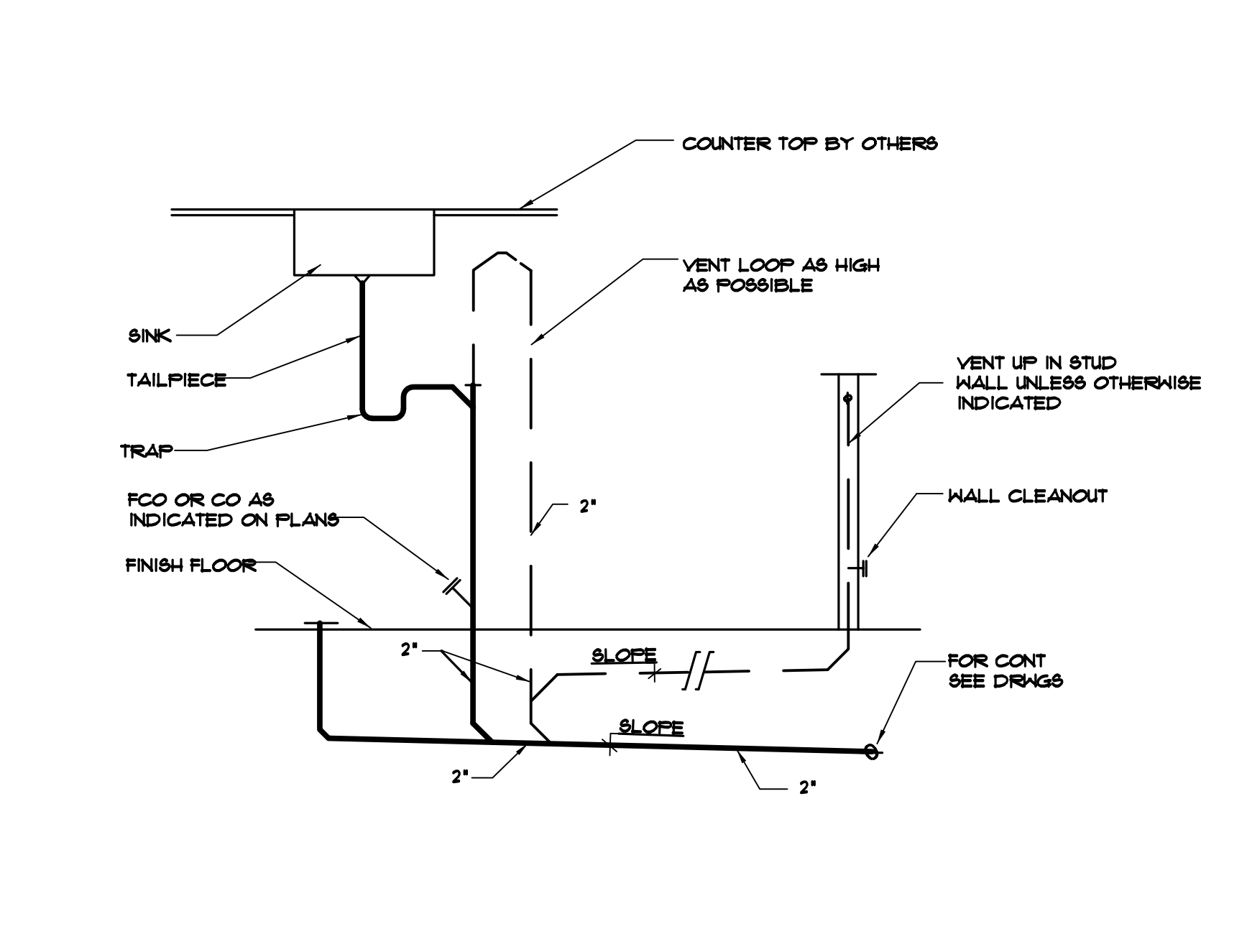
PIPE @ FIRE RATED WALL SCALE: NONE



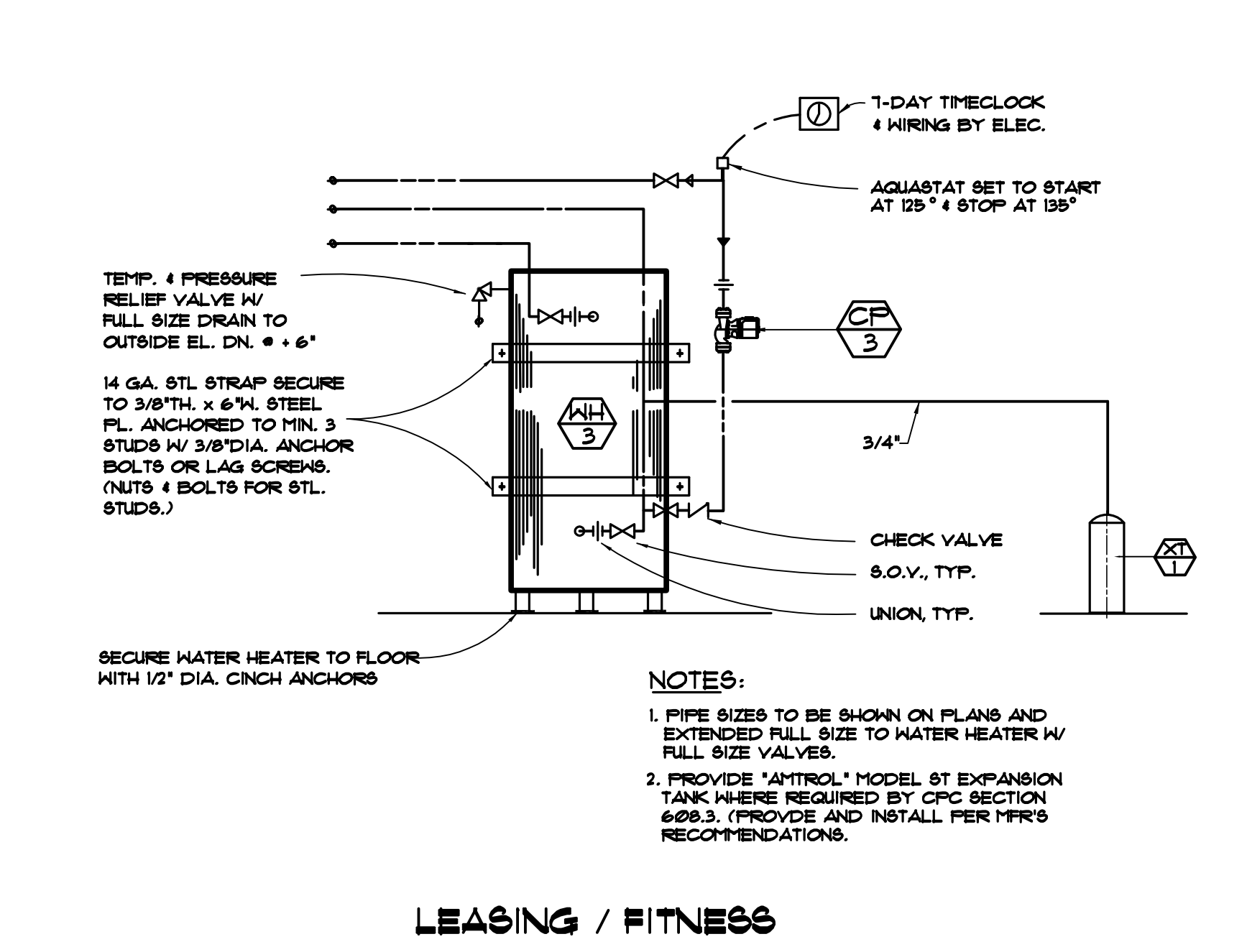
WH-3 WATER HEATER DETAIL SCALE: NONE



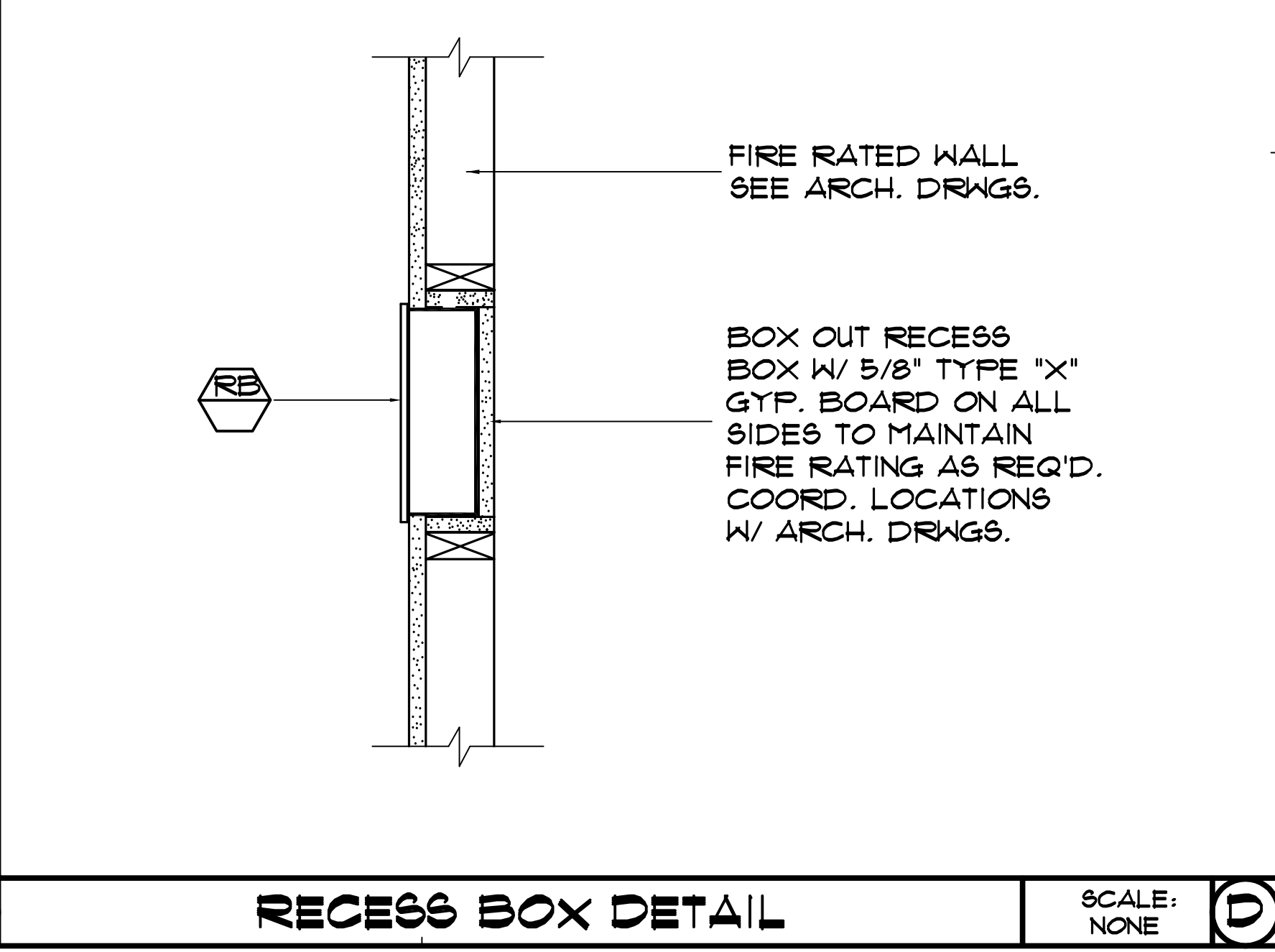
FIRE RISER / STANDPIPE DRAIN SCALE: NONE



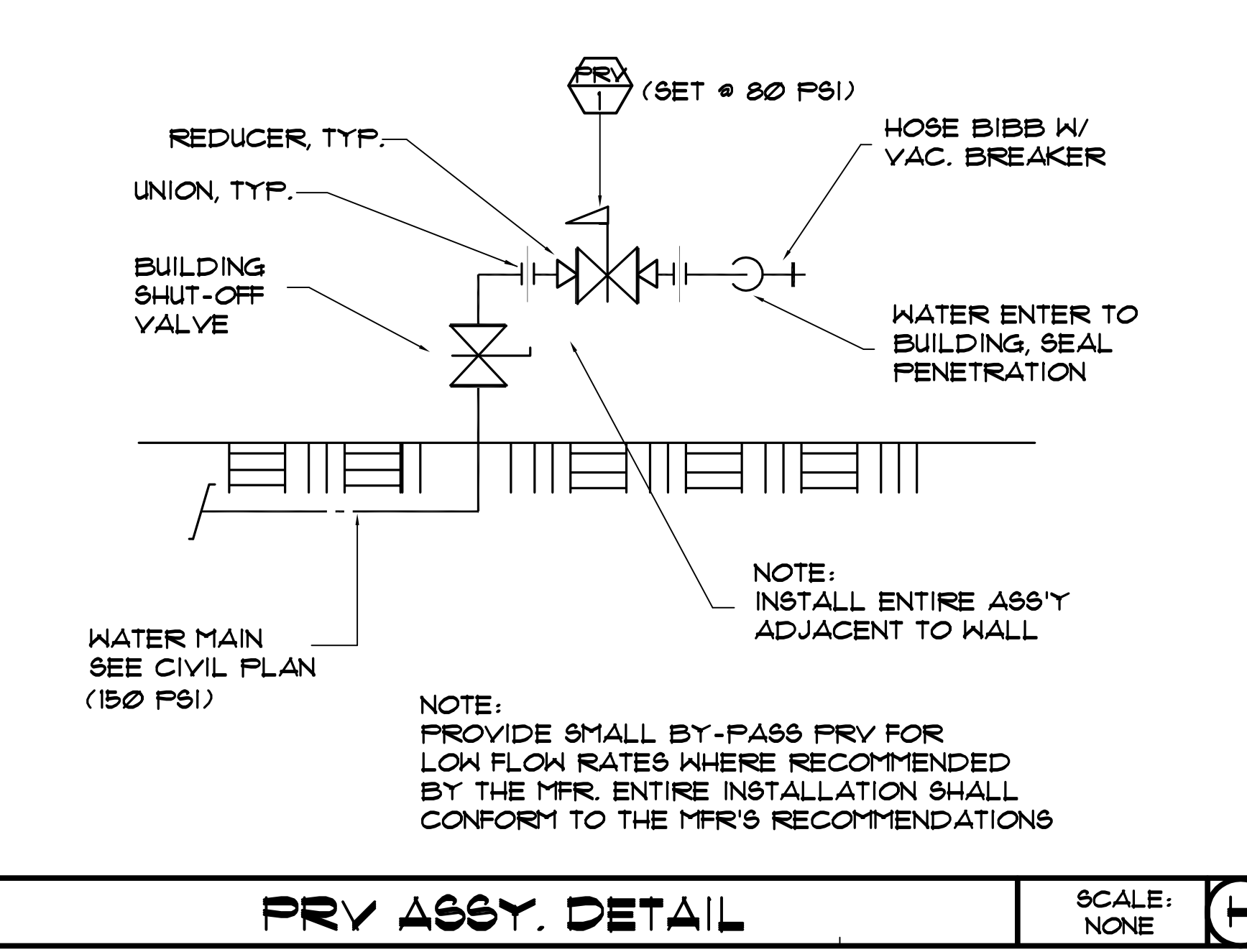
ISLAND VENT DETAIL SCALE: NONE



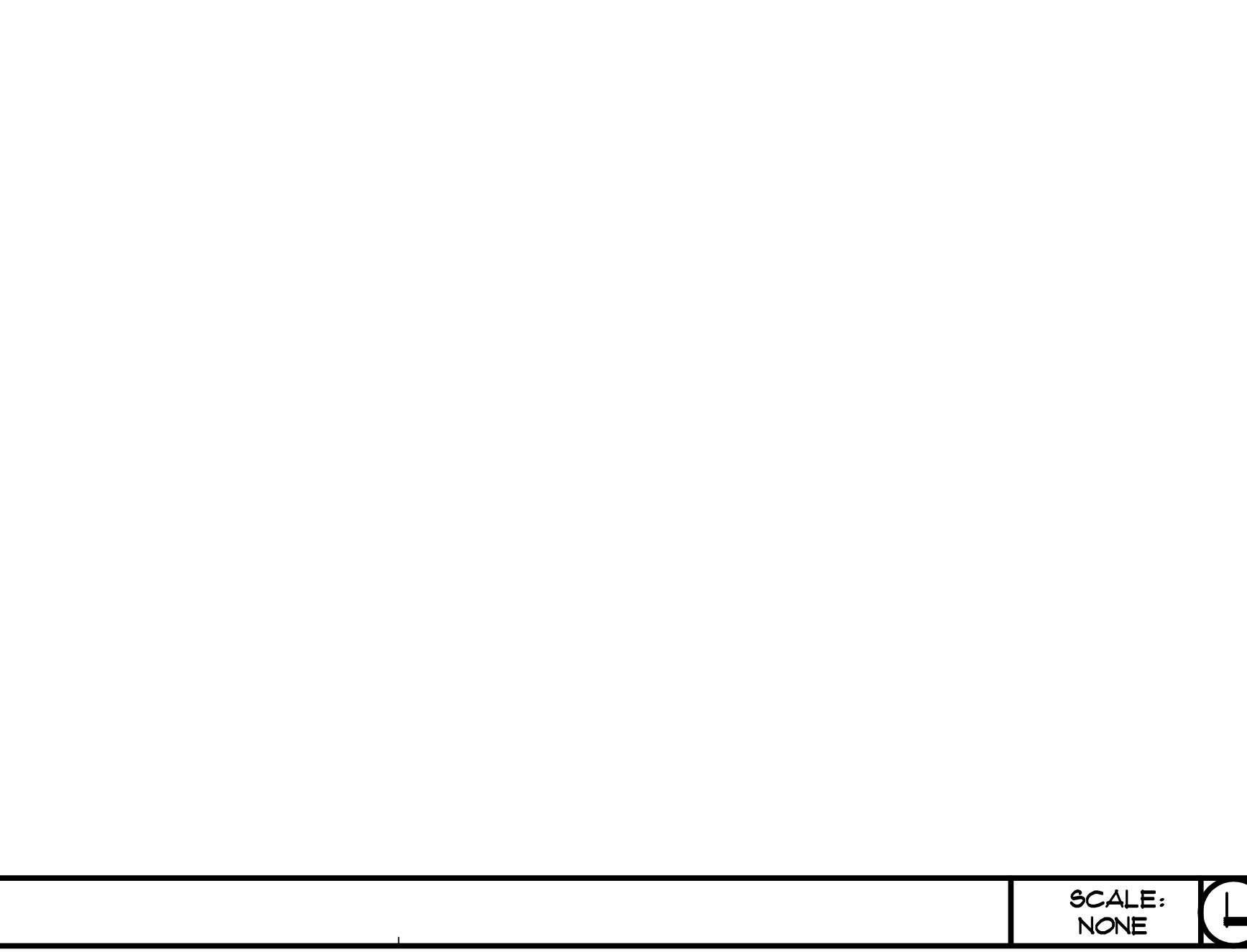
WH-3 WATER HEATER DETAIL SCALE: NONE



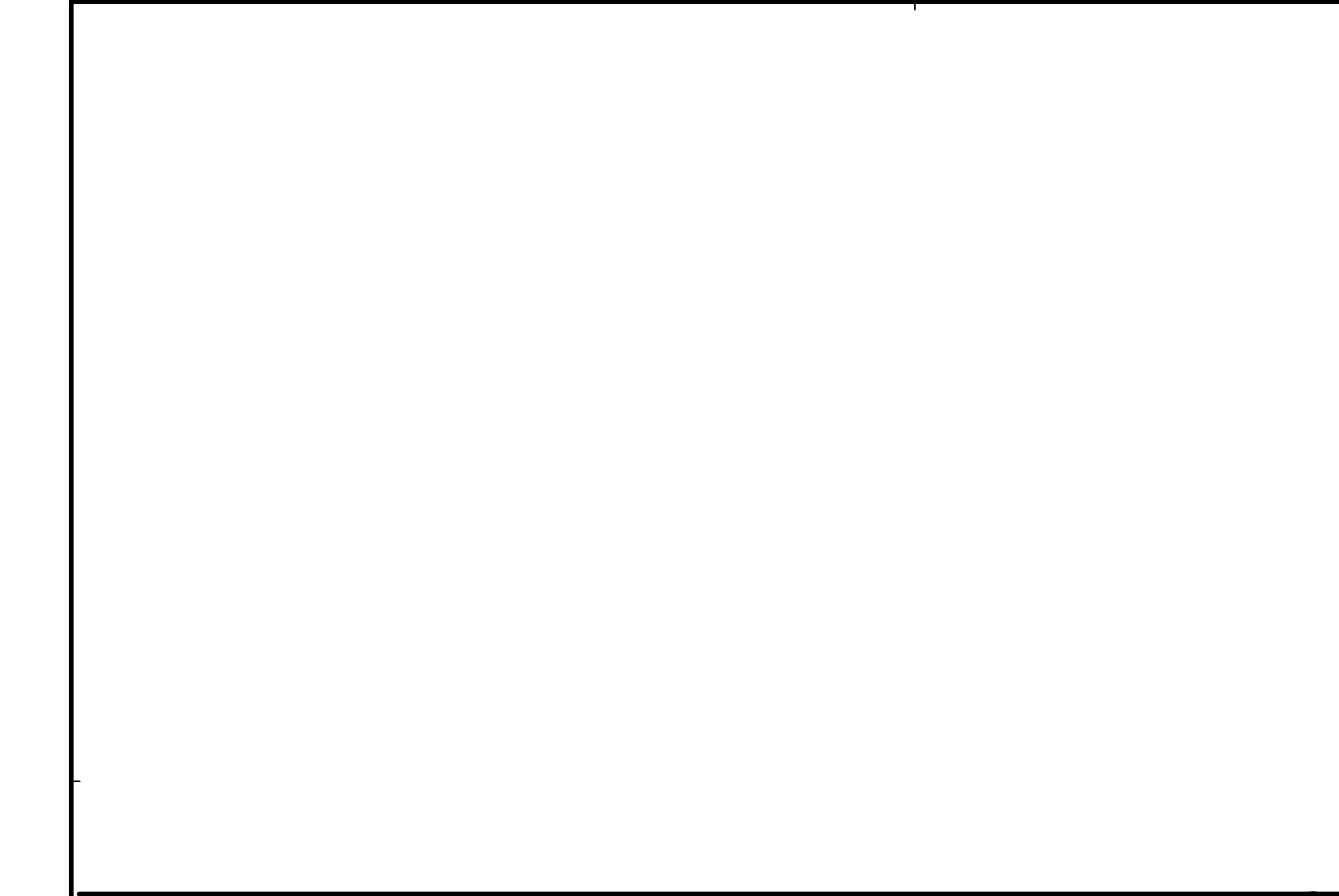
RECESS BOX DETAIL SCALE: NONE



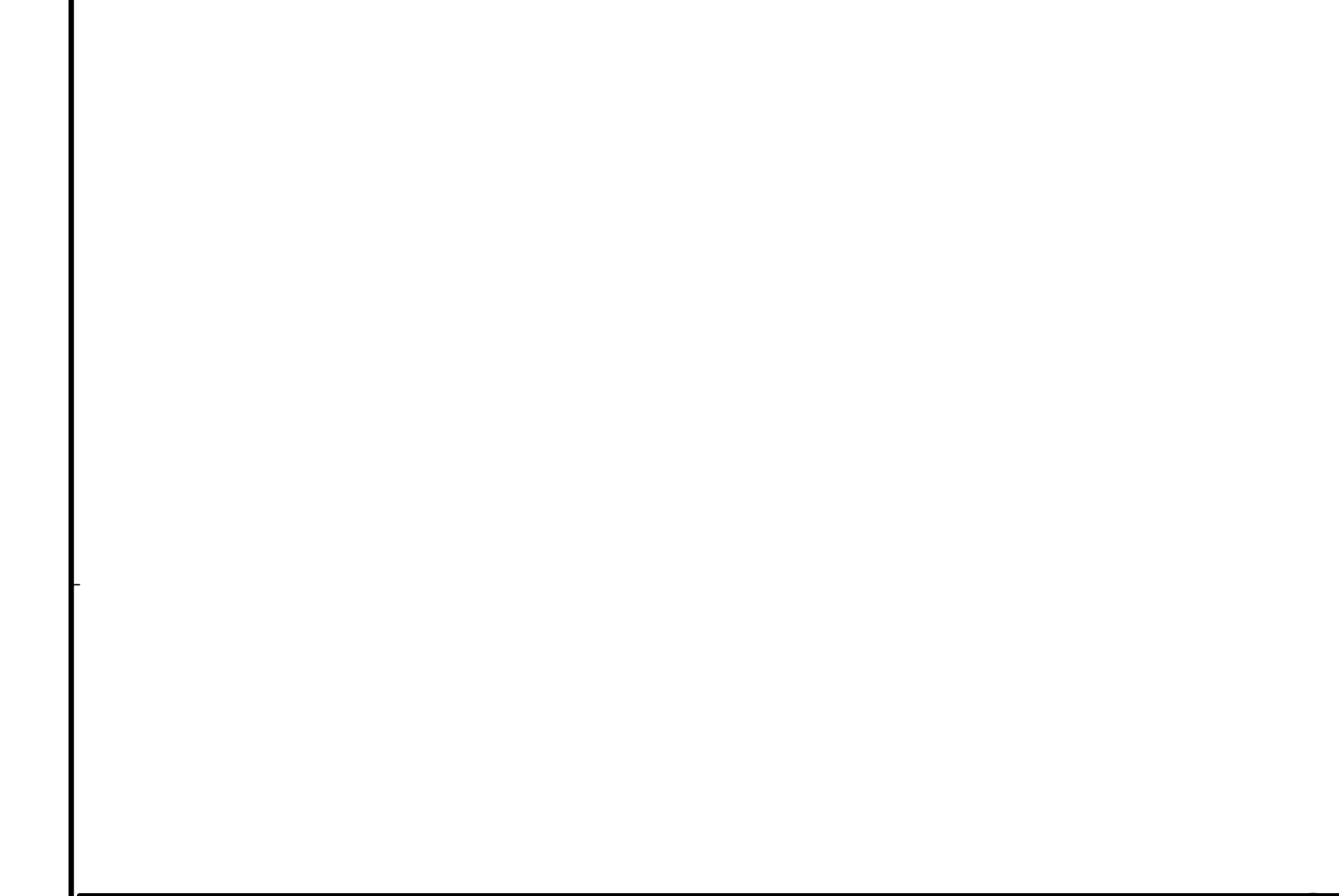
PRV ASSY. DETAIL SCALE: NONE



WH-3 WATER HEATER DETAIL SCALE: NONE



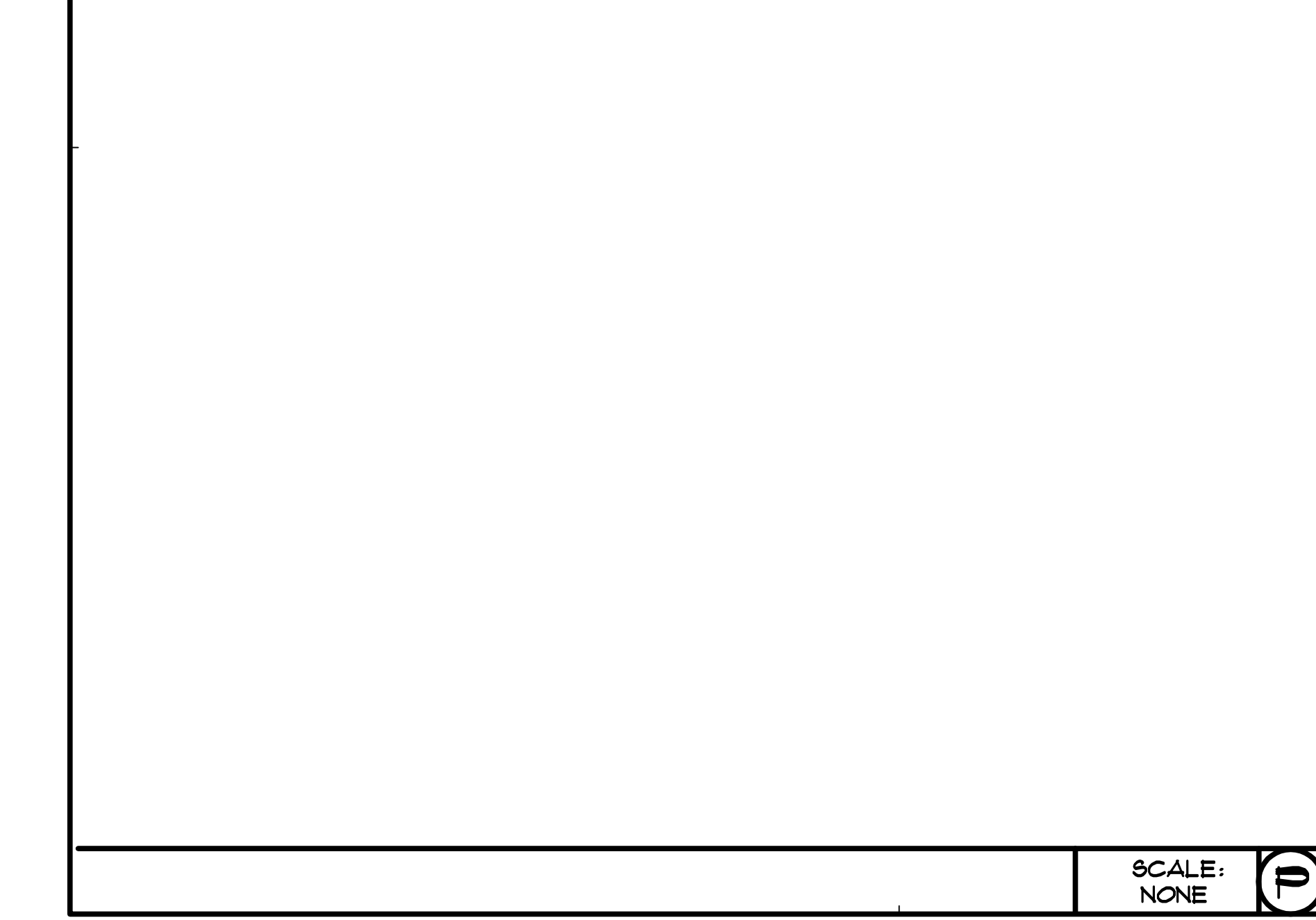
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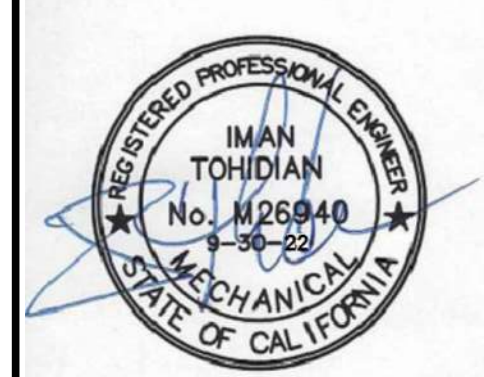
SCALE: NONE N



SCALE: NONE O



SCALE: NONE P

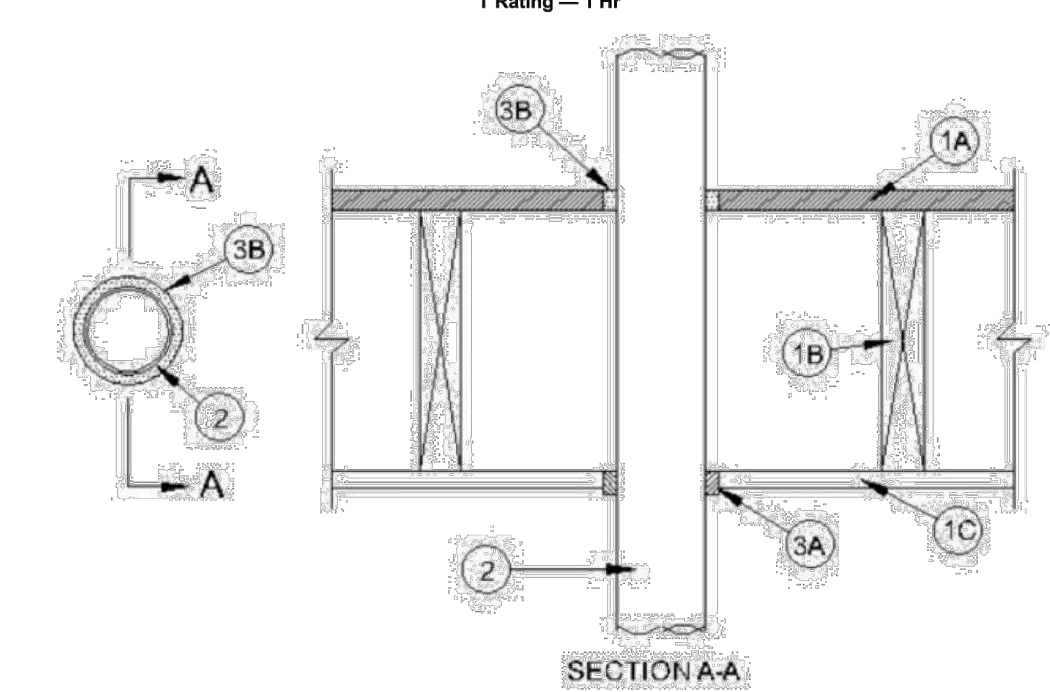


DATE	Plan Check
4-19-19	Bid Set
	Permit
1012	Project Number
	Drawing Name
4-19-19	Plot Date
1-19-19	P/C CORR'S
10-25-19	P/C CORR'S
1-20-21	Owner Rev's
8-8-22	Owner Rev's

metacaulk (800) 231-3345 www.rectorseal.com www.metacaulk.com
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System No. F-C-2367
December 27, 2007

F Rating — 1 Hr
T Rating — 1 Hr



1. Floor - Ceiling Assembly — The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the Individual L500 Designs in the UL Fire Resistance Directory, as summarized below:

A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture as specified in the individual Floor-Ceiling Design. Max. diam. of floor opening is 4 in. (102 mm).

B. Wood Joists — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members with soaping as required and with ends firestopped.

C. Gypsum Board — Nom 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Wallboard secured to joists as specified in the individual Floor-Ceiling Design. Max. diam. of ceiling opening is 4 in. (102 mm).

2. Through Penetrants — One nonmetallic pipe to be centered within the freestop system. The annular space between pipe and periphery of opening shall be nom 1/4 in. (6.4 mm) gap. The annular space on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:

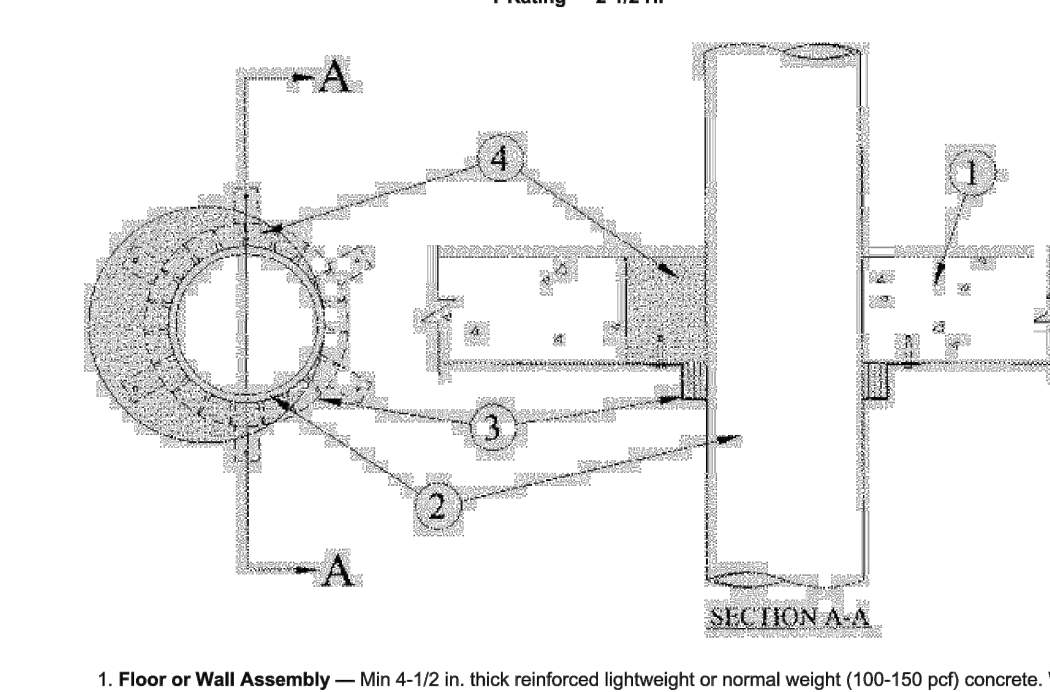
A. Polyvinyl Chloride (PVC) Pipe — Nom 3 in. (76mm) Schedule 40 solid core PVC or cellular core PVC (CPVC) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. Acrylonitrile Butadiene Styrene (ABS) Pipe — Nom 3 in. (76mm) Schedule 40 solid core ABS or cellular core ABS (cABS) for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

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System No. C-AJ-2269
December 20, 2000

F Rating — 3 Hr
T Rating — 2-1/2 Hr



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 10 in.

See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants — One nonmetallic pipe to be installed either eccentrically or concentrically within the freestop system. The annular space shall be min 1/4 in. (6.4 mm) gap. Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:

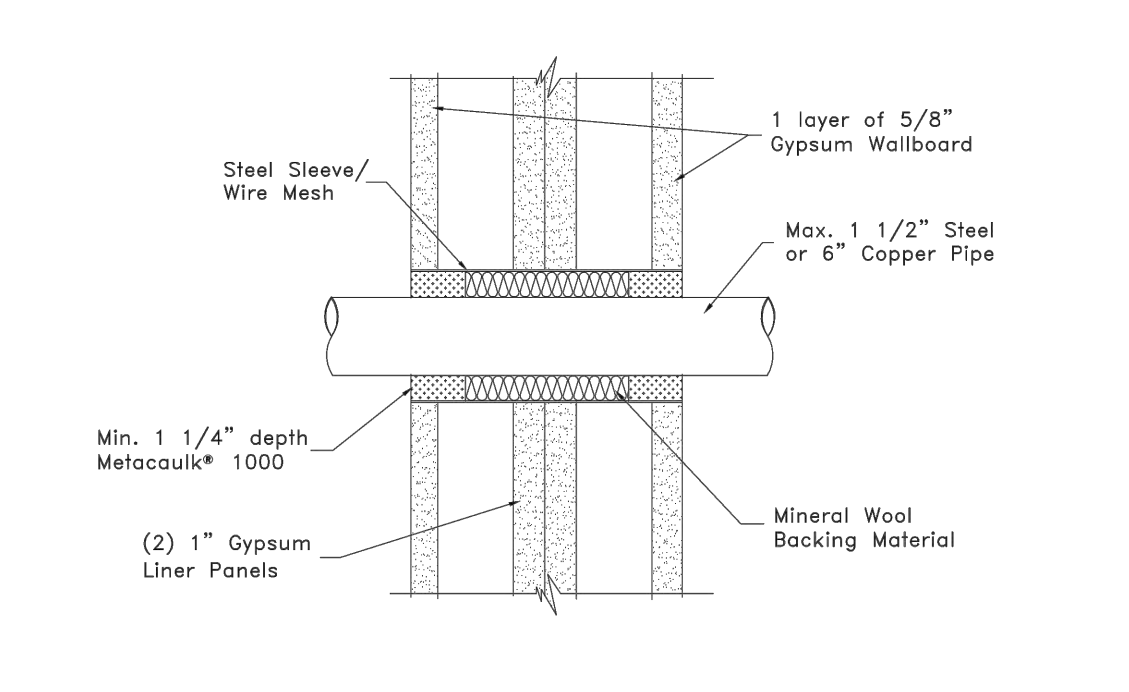
A. Polyvinyl Chloride (PVC) Pipe — Nom 8 in. diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 8 in. diam (or smaller) SDR 17 CPVC pipe for use in closed (process or supply) piping systems. When pipe collars are provided on both sides of a wall, SDR 17 CPVC pipe may also be used in vented (drain, waste or vent) piping systems.

C. Acrylonitrile Butadiene Styrene (ABS) Pipe — Nom 8 in. diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

D. Flame Retardant Polypropylene (FRPP) Pipe — Nom 8 in. diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

RECTORSEAL Job No.: SK 11-09-41a Met
Certified Installation Instructions Date: 09-29-11 Rev: ..



1. Install a min. 20ga. galvanized steel sleeve or #8 wire mesh cut to size, formed to opening shape, centered inside wall around penetrants having a min. 2" overlap along the longitudinal seam and allowed to spring back snugly against periphery of opening such that it is recessed a min. 1/4" in from wall surface on both sides.

2. Install backing material by firmly packing annular space w/ full wall depth of min. 4.0 pcf mineral wool and recess 1 1/4" on each side.

3. Gun, trowel and/or pump a min. 1 1/2" depth of Metacaulk® 1000 into the annular space around pipe on both sides of wall. Tool smooth.

Note: Local Inspector to have final authority at determination of hourly rating of floor/wall assembly.

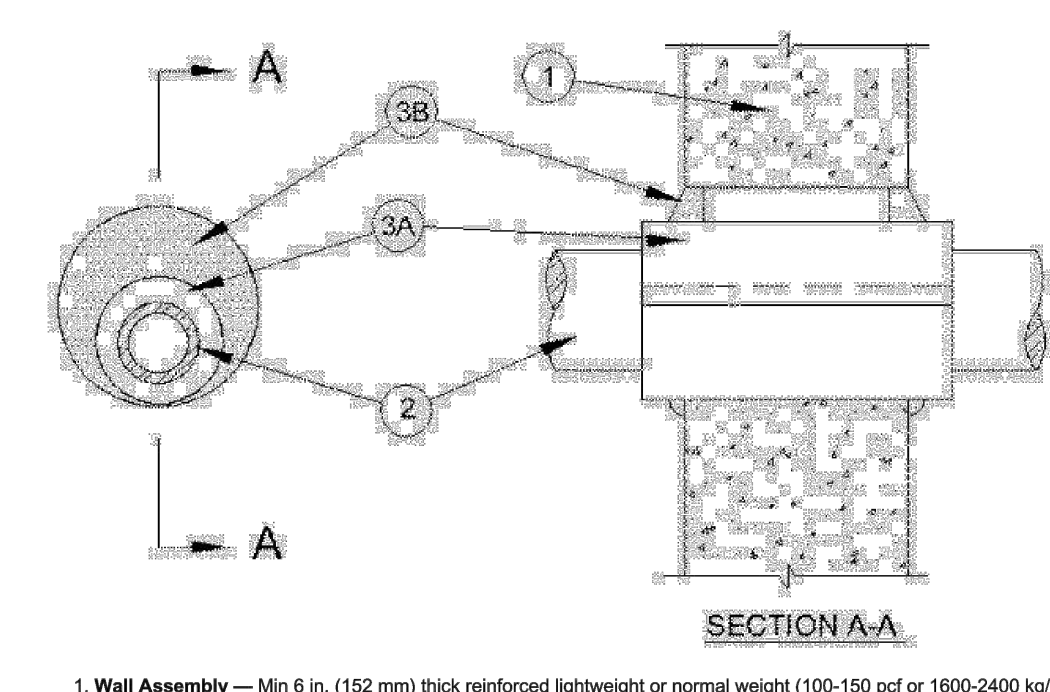
Penetrant: Max. 1/2" Steel or 6" Copper Pipe
Annular Spacing: Max. 1 1/2", Min 1/2"

Refer to U.L. System No.: WL1159
Hourly Rating: 3 Hr. "F" Rating
Rectorseal Corporation 2601 Spennick Houston, TX 77055 (800) 231-3345 Fax (800) 452-2824

metacaulk (800) 231-3345 www.rectorseal.com www.metacaulk.com
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System No. W-J-2129
March 10, 2011

F Rating — 2 Hr
T Rating — 1-1/2 Hr



1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 10-12 in. (257 mm).

See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants — One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the freestop system. Pipe to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes may be used:

A. Polyvinyl Chloride (PVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) SDR 13 CPVC pipe for use in closed (process or supply) piping systems.

C. Rigid Nonmetallic Conduit — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

The required annular space is dependent upon the nom diam of the through penetrant as shown in the table below:

Nom Diam of Through Penetrant, in. (mm)	Min and Max Annular Space, in. (mm)
3/4" (19 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
1" (25 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
1 1/2" (38 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
2" (51 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
2 1/2" (64 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
3" (76 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
3 1/2" (89 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
4" (102 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
4 1/2" (114 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
5" (127 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
5 1/2" (139 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
6" (152 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
6 1/2" (165 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
7" (178 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
7 1/2" (190 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
8" (203 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
8 1/2" (216 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
9" (229 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
9 1/2" (241 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
10" (254 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
10 1/2" (267 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
11" (279 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
11 1/2" (292 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
12" (305 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
12 1/2" (318 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
13" (330 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
13 1/2" (343 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
14" (355 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
14 1/2" (368 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
15" (381 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
15 1/2" (394 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
16" (406 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
16 1/2" (419 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
17" (432 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
17 1/2" (444 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
18" (457 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
18 1/2" (470 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
19" (482 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
19 1/2" (495 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
20" (508 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
20 1/2" (521 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
21" (533 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
21 1/2" (546 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
22" (559 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
22 1/2" (571 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
23" (584 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
23 1/2" (597 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
24" (610 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
24 1/2" (622 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
25" (635 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
25 1/2" (648 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
26" (660 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
26 1/2" (673 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
27" (686 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
27 1/2" (699 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
28" (711 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
28 1/2" (724 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
29" (737 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
29 1/2" (750 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
30" (762 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
30 1/2" (775 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
31" (787 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
31 1/2" (800 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
32" (813 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
32 1/2" (826 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
33" (838 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
33 1/2" (851 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
34" (864 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
34 1/2" (877 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
35" (889 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
35 1/2" (902 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
36" (915 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
36 1/2" (928 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
37" (940 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
37 1/2" (953 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
38" (966 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
38 1/2" (979 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
39" (991 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
39 1/2" (1004 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
40" (1017 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
40 1/2" (1030 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
41" (1042 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
41 1/2" (1055 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
42" (1068 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
42 1/2" (1081 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
43" (1093 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
43 1/2" (1106 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
44" (1119 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
44 1/2" (1132 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
45" (1144 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
45 1/2" (1157 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
46" (1170 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
46 1/2" (1183 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
47" (1195 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
47 1/2" (1208 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
48" (1221 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
48 1/2" (1234 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
49" (1246 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
49 1/2" (1259 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
50" (1272 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
50 1/2" (1285 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
51" (1297 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
51 1/2" (1310 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
52" (1323 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
52 1/2" (1336 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
53" (1348 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
53 1/2" (1361 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
54" (1374 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
54 1/2" (1387 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
55" (1400 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
55 1/2" (1413 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
56" (1425 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
56 1/2" (1438 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
57" (1451 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
57 1/2" (1464 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
58" (1476 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
58 1/2" (1489 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
59" (1502 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
59 1/2" (1515 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
60" (1527 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
60 1/2" (1540 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
61" (1553 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
61 1/2" (1566 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
62" (1578 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
62 1/2" (1591 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
63" (1604 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
63 1/2" (1617 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
64" (1630 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
64 1/2" (1643 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
65" (1655 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
65 1/2" (1668 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
66" (1681 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
66 1/2" (1694 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
67" (1707 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
67 1/2" (1720 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
68" (1732 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
68 1/2" (1745 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
69" (1758 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
69 1/2" (1771 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
70" (1784 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
70 1/2" (1797 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
71" (1810 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
71 1/2" (1823 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
72" (1835 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
72 1/2" (1848 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
73" (1861 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
73 1/2" (1874 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
74" (1887 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
74 1/2" (1900 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
75" (1912 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
75 1/2" (1925 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
76" (1938 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
76 1/2" (1951 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
77" (1964 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
77 1/2" (1977 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
78" (1990 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
78 1/2" (2003 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
79" (2015 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
79 1/2" (2028 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
80" (2041 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
80 1/2" (2054 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
81" (2067 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
81 1/2" (2080 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
82" (2092 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
82 1/2" (2105 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
83" (2118 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
83 1/2" (2131 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
84" (2144 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
84 1/2" (2157 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
85" (2170 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
85 1/2" (2183 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
86" (2195 mm)	1/4" (6.4 mm) to 1/2" (12.7 mm)
86 1/2" (2208 mm)	1/4" (6