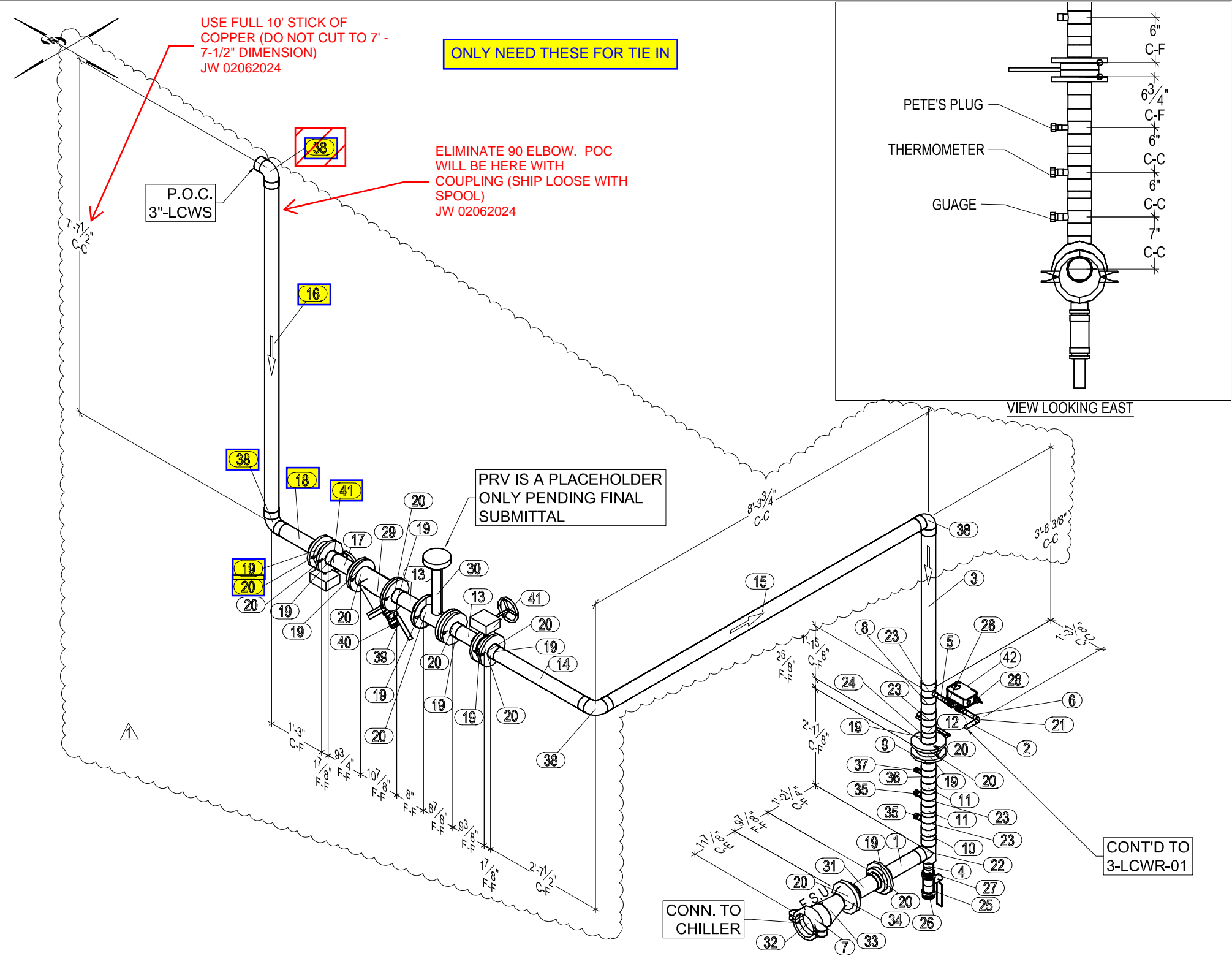


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MP Bill of Material

No.	Qty	Size	Length	Item	Service
1	1	3	1'-0 1/16"	Type L Hard Copper Pipe	LCWS
2	1	3/4	3 3/8"	Type L Hard Copper Pipe	LCWS
3	1	3	3'-5 7/8"	Type L Hard Copper Pipe	LCWS
4	1	2	3 3/16"	Type L Hard Copper Pipe	LCWS
5	1	3/4	3 1/16"	Type L Hard Copper Pipe	LCWS
6	1	3/4	3 11/16"	Type L Hard Copper Pipe	LCWS
7	1	5	4"	Sch 40 A-53 Blk Pipe PEXG	LCWS
8	1	3	5 13/16"	Type L Hard Copper Pipe	LCWS
9	1	3	5 1/4"	Type L Hard Copper Pipe	LCWS
10	1	3	4 5/16"	Type L Hard Copper Pipe	LCWS
11	2	3	4 5/16"	Type L Hard Copper Pipe	LCWS
12	1	3	4 1/2"	Type L Hard Copper Pipe	LCWS
13	2	3	8"	Type L Hard Copper Pipe	LCWS
14	1	3	2'-4 11/16"	Type L Hard Copper Pipe	LCWS
15	1	3	7'-11 9/16"	Type L Hard Copper Pipe	LCWS
16	1	3	7'-3 5/16"	Type L Hard Copper Pipe	LCWS
17	1	3	8 3/8"	Type L Hard Copper Pipe	LCWS
18	1	3	1'-0 3/16"	Type L Hard Copper Pipe	LCWS
19	11	3		Copper Coated CTS Flange 150# and Copper Piece	LCWS
20	12	3		150 # Full Face Gasket (Isolator Req.)	LCWS
21	1	3/4		607 90 Elbow CxC	LCWS
22	1	3x2x3		611 Tee (REDUCING) CxCxC	LCWS
23	4	3x3x3/4		611 Tee (REDUCING) CxCxC	LCWS
24	1	3		Milwaukee BFV ML23 2-12in	LCWS
25	1	2		Milwaukee Ball Valve BA-400	LCWS
26	1	2		Brass Plug Threaded	LCWS
27	1	2		604 Adapter CxM	LCWS
28	2	3/4		733-4 - Union CxM - Cast	LCWS
29	1	3"		Y-STRAINER FLANGED_	LCWS
30	1	3"		PRESSURE REDUCING VALVE_	LCWS
31	1	4"		FLEXIBLE HOSE FLANGED	LCWS
32	1	5		Victaulic Style 107N Rigid Coupling	LCWS
33	1	5x3		Eccentric Reducer	LCWS
34	1	3		150# Flat Face Weld Neck Flange	LCWS
35	2	3/4		603-2 Adapter FtgxFPT	LCWS
36	1	3x3x1/2		611 Tee (REDUCING) CxCxC	LCWS
37	1	1/2		603-2 Adapter FtgxFPT	LCWS
38	4	3		607 90 Elbow CxC	LCWS
39	1	1		Milwaukee Ball Valve BA-400	LCWS
40	1	1		Brass Plug Threaded	LCWS
41	2	3		Milwaukee BFV ML33 2-12in	LCWS
42	1	3/4		2 WAY BY-PASS VALVE (NC)	LCWS

LINEAR FEET OF PIPE = 28'-11 7/8"

FIELD SUPERVISOR APPROVAL STAMP

SYMBOL LEGEND

SIZE
SYSTEM
LINE NUMBER
SPEC
SHEET NUMBER
X-XXX-XXX-XX-X



FLOW ARROW

XX
XXX

INSTRUMENT TAG NO.

##

MAT'L LIST
& CUT LIST

FW

WELD BOX (FIELD)

SW

WELD BOX (SHOP)



SLOPE DIR.



Murray Company

MECHANICAL CONTRACTORS

CONTRACTORS LICENSE NO. 162382

CORPORATE
18414 SOUTH SANTA FE AVE.
RANCHO DOMINGUEZ, CA 90221

NCA BRANCH
2090 FARALLON DR.
SAN LEANDRO, CA 94577

NEWBURY PARK
3541 OLD CONEJO ROAD #119
NEWBURY PARK, CA 91320

SAN DIEGO
8520 PRODUCTION AVE.
SAN DIEGO, CA 92121

REF.PLAN: LCHW SPOOL MAP

P&ID:

DRAWING NUMBER: 3-LCWS-01