PROPOSAL SUMMARY
FEDERAL ESTIMATING, DRAFTING AND ENGINEERING SERVICES

Project:	BUX SURGERY CENTER ASTC SUITE
Address:	4071 TATES CREEK CENTER DRIVE LEXINGTON, KY
Scope:	PLUMBING
Gross Area: (SF)	6462.00
Date:	

CONCEALED

DIVISION	DESCRIPTION	MATERIAL COST	LABOR COST	MATERIAL TAX	LABOR TAX	EQUIPMENT COST	TOTAL COST	OVERHEADS	PROFIT	ADDITIONAL COST (If any)	TOTAL
DIV-01	GENERAL REQUIREMENTS	$ 830.00	$ -	$ 49.80	$ -	$ -	$ 879.80	$ 87.98	$ 87.98	$ -	$ 1,055.76
DIV-22	PLUMBING	$ 35,537.52	$ 24,664.07	$ 2,132.25	$ 2,429.41	$ -	$ 64,763.25	$ 6,476.32	$ 6,476.32	$ 409.50	$ 78,125.40
	TOTAL	$ 36,368	$ 24,664	$ 2,182	$ 2,429		$ 65,643	$ 6,564	$ 6,564	$ 410	$ 79,181

BID SUMMARY			
1	**TOTAL MATERIAL COST**		**$ 36,368**
	MATERIAL SALES TAX	6%	$ 2,182
	JOB EXPENSE		
2	**TOTAL LABOR COST**		**$ 24,664**
	LABOR TAX	10%	$ 2,429
3	**TOTAL COST**		**$ 65,643**
	OVERHEADS @	10%	$ 6,564
	PROFIT @	10%	$ 6,564
4	**TOTAL COST W/ OVERHEADS + PROFIT**		**$ 78,772**
	BOND & INSURANCE	0%	$ -
	PROJECT SUPERVISION & PROJECT MANAGEMENT		$ -
	SUBMITTALS, SAMPLES, SHOP DRAWINGS, SITE SAFETY PLAN, ETC.		$ 371
	TEMPORARY FACILITIES & CONTROLS		$ -
	PROJECT SCHEDULE (Primavera P3 or P6)		$ -
	OFFICE OVERHEADS		$ -
	CLOSEOUT PROCEDURES		$ 463
	PERMITS		$ -
	ALLOWANCES		$ -
	MOBILIZATION / DEMOBILIZATION		$ 511
	SUB-CONTRACTS		$ -
	BOND PREMIUM	0%	$ -
5	**BID PRICE CONCEALED**		**$ 80,117**

MAN-LOADING AND SUPERVISION ANALYSIS				
1	TOTAL MANHOURS WITH SUPERVISION			740
2	NUMBER OF MAN-DAYS			92.53
3	MAN LOAD			5
4	JOURNEYMAN RATE	3		$ 34.21
5	SUPERVISOR RATE	1		$ 42.29
6	UNSKILLED LABOR RATE	1		$ 23.77
7	COMPOSITE LABOR RATE			$ 33.74
8	WAGE RATE			$ -

INSERT VALUES IN RESPECTIVE HIGHLIGHTED CELLS WHERE APPLICABLE

UNDERGROUND WORK

DIVISION	DESCRIPTION	MATERIAL COST	LABOR COST	MATERIAL TAX	LABOR TAX	EQUIPMENT COST	TOTAL COST	OVERHEADS	PROFIT	ADDITIONAL COST (If any)	TOTAL
DIV-01	GENERAL REQUIREMENTS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
DIV-22	PLUMBING	$ 2,776.87	$ 11,803.78	$ 166.61	$ 1,162.67	$ -	$ 15,909.93	$ 1,590.99	$ 1,590.99	$ -	$ 19,091.92
	TOTAL	$ 2,777	$ 11,804	$ 167	$ 1,163		$ 15,910	$ 1,591	$ 1,591	$ -	$ 19,092

BID SUMMARY			
1	**TOTAL MATERIAL COST**		**$ 2,777**
	MATERIAL SALES TAX	6%	$ 167
	JOB EXPENSE		
2	**TOTAL LABOR COST**		**$ 11,804**
	LABOR TAX	10%	$ 1,163
3	**TOTAL COST**		**$ 15,910**
	OVERHEADS @	10%	$ 1,591
	PROFIT @	10%	$ 1,591
4	**TOTAL COST W/ OVERHEADS + PROFIT**		**$ 19,092**
	BOND & INSURANCE	0%	$ -
	PROJECT SUPERVISION & PROJECT MANAGEMENT		$ -
	SUBMITTALS, SAMPLES, SHOP DRAWINGS, SITE SAFETY PLAN, ETC.		$ -
	TEMPORARY FACILITIES & CONTROLS		$ -
	PROJECT SCHEDULE (Primavera P3 or P6)		$ -
	OFFICE OVERHEADS		$ -
	CLOSEOUT PROCEDURES		$ -
	PERMITS		$ -
	ALLOWANCES		$ -
	MOBILIZATION / DEMOBILIZATION		$ -
	SUB-CONTRACTS		$ -
	BOND PREMIUM	0%	$ -
5	**BID PRICE UNDERGROUND PLUMBING**		**$ 19,092**

MAN-LOADING AND SUPERVISION ANALYSIS				
1	TOTAL MANHOURS WITH SUPERVISION			350
2	NUMBER OF MAN-DAYS			43.73
3	MAN LOAD			5
4	JOURNEYMAN RATE	3		$ 34.21
5	SUPERVISOR RATE	1		$ 42.29
6	UNSKILLED LABOR RATE	1		$ 23.77
7	COMPOSITE LABOR RATE			$ 33.74
8	WAGE RATE			$ -

INSERT VALUES IN RESPECTIVE HIGHLIGHTED CELLS WHERE APPLICABLE

	TOTAL BASE BID PRICE		**$ 99,209**

DETAILED TAKEOFF / ESTIMATE
FEDERAL ESTIMATING, DRAFTING AND ENGINEERING SERVICES

FEDES

Project Name	BUX SURGERY CENTER ASTC SUITE	PROJECT COST	$ 65,643
Location	4071 TATES CREEK CENTER DRIVE LEXINGTON, KY	OVERHEAD COST	$ 6,564
Project Scope:	PLUMBING	PROFIT COST	$ 6,564
Addendum:	N/A	ADDITIONAL COST (If Any)	$ 1,345
Date:	Tuesday, November 3, 2026	TOTAL BID COST	$ 80,117

BY OTHERS/ SEPERATE PERMIT/ BY OWNER — NEED QUOTATION

SR #	DRAWING REF #	SCOPE ITEM	DESCRIPTION	QUANTITY	UNIT	WASTAGE	QUANTITY WITH WASTAGE	UNIT LABOR HOURS	TOTAL LABOR HOURS	UNIT MATERIAL COST	TOTAL MATERIAL COST	UNIT EQUIPMENT COST	TOTAL EQUIPMENT COST	UNIT LABOR COST	TOTAL LABOR COST	TOTAL COST	DIV COST
GENERAL REQUIREMENTS SUBGROUP WORK																	
		DIV-01	GENERAL REQUIREMENTS											Labor Rate	$ 25.60		
1		General Conditions	Permit (.07% of project value)	1	fee	0%	1.00	0.000	0.0	$ 830.00	$ 830.00	$ -	$ -	$ -	$ -	$ 830.00	
2		General Conditions	Site development	0	fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
3		General Conditions	Variance	0	fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
4		General Conditions	Private inspections	0	fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
5		General Conditions	Debris haul off	0	load	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
6		General Conditions	Site plan	0	Fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
							LABOR HOURS	0.000	MATERIAL COST	$ 830.00	EQUIPMENT COST	$ -	LABOR COST	$ -	SUBTOTAL		$ 830.00
		FACILITY CONSTRUCTION SUBGROUP WORK															
		DIV-22	PLUMBING											Labor Rate	$ 33.74		
			PLUMBING FACILITY														
			Cold Water Pipe														
			Type "L" Copper Pipe														
7	P100, P101, P102, MG101	Plumbing	1/2" Dia Cold Water Pipe	215	LF	10%	236.50	0.080	18.9	$ 3.80	$ 898.70	$ -	$ -	$ 2.70	$ 638.36	$ 1,537.06	
8	P100, P101, P102, MG101	Plumbing	3/4" Dia Cold Water Pipe	85	LF	10%	93.50	0.090	8.4	$ 5.63	$ 526.41	$ -	$ -	$ 3.04	$ 283.92	$ 810.33	
9	P100, P101, P102, MG101	Plumbing	1" Dia Cold Water Pipe	45	LF	10%	49.50	0.100	5.0	$ 15.90	$ 787.05	$ -	$ -	$ 3.37	$ 167.01	$ 954.06	
10	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Cold Water Pipe	32	LF	10%	35.12	0.140	4.9	$ 23.35	$ 820.12	$ -	$ -	$ 4.72	$ 165.91	$ 986.03	
11	P100, P101, P102, MG101	Plumbing	2" Dia Cold Water Pipe	165	LF	10%	181.43	0.170	30.8	$ 51.84	$ 9,405.54	$ -	$ -	$ 5.74	$ 1,040.67	$ 10,446.21	
			1/2" Thick Fiberglass Pipe Insulation														
12	P100, P101, P102, MG101	Plumbing	1/2" Dia Cold Water Pipe	206	LF	10%	226.85	0.050	11.3	$ 3.10	$ 703.24	$ -	$ -	$ 1.69	$ 382.70	$ 1,085.95	
13	P100, P101, P102, MG101	Plumbing	3/4" Dia Cold Water Pipe	49	LF	10%	53.39	0.050	2.7	$ 3.16	$ 168.73	$ -	$ -	$ 1.69	$ 90.08	$ 258.80	
14	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Cold Water Pipe	32	LF	10%	35.12	0.050	1.8	$ 4.00	$ 140.49	$ -	$ -	$ 1.69	$ 59.25	$ 199.74	
15	P100, P101, P102, MG101	Plumbing	2" Dia Cold Water Pipe	165	LF	10%	181.43	0.050	9.1	$ 4.53	$ 821.90	$ -	$ -	$ 1.69	$ 306.08	$ 1,127.98	
			Fittings:														
16	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 90 Deg Elbow	45	EA	0%	45.00	0.050	2.3	$ 3.10	$ 139.50	$ -	$ -	$ 1.69	$ 75.92	$ 215.42	
17	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 90 Deg Elbow	6	EA	0%	6.00	0.050	0.3	$ 3.16	$ 18.96	$ -	$ -	$ 1.69	$ 10.12	$ 29.08	
18	P100, P101, P102, MG101	Plumbing	1" Dia Pipe 90 Deg Elbow	2	EA	0%	2.00	0.050	0.1	$ 4.30	$ 8.60	$ -	$ -	$ 1.69	$ 3.37	$ 11.97	
19	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Pipe 90 Deg Elbow	4	EA	0%	4.00	0.050	0.2	$ 4.00	$ 16.00	$ -	$ -	$ 1.69	$ 6.75	$ 22.75	
20	P100, P101, P102, MG101	Plumbing	2" Dia Pipe 90 Deg Elbow	7	EA	0%	7.00	0.050	0.4	$ 4.53	$ 31.71	$ -	$ -	$ 1.69	$ 11.81	$ 43.52	
21	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe Tee	1	EA	0%	1.00	0.050	0.1	$ 3.10	$ 3.10	$ -	$ -	$ 1.69	$ 1.69	$ 4.79	
22	P100, P101, P102, MG101	Plumbing	2" Dia Pipe Tee	5	EA	0%	5.00	0.050	0.3	$ 4.53	$ 22.65	$ -	$ -	$ 1.69	$ 8.44	$ 31.09	
23	P100, P101, P102, MG101	Plumbing	3/4" / 1/2" Dia Pipe Tee	3	EA	0%	3.00	0.050	0.2	$ 3.16	$ 9.48	$ -	$ -	$ 1.69	$ 5.06	$ 14.54	
24	P100, P101, P102, MG101	Plumbing	1-1/2" / 1/2" Dia Pipe Tee	1	EA	0%	1.00	0.050	0.1	$ 4.00	$ 4.00	$ -	$ -	$ 1.69	$ 1.69	$ 5.69	
25	P100, P101, P102, MG101	Plumbing	2" / 1/2" Dia Pipe Tee	12	EA	0%	12.00	0.050	0.6	$ 4.53	$ 54.36	$ -	$ -	$ 1.69	$ 20.24	$ 74.60	
26	P100, P101, P102, MG101	Plumbing	2" / 1-1/2" Dia Pipe Tee	2	EA	0%	2.00	0.050	0.1	$ 4.53	$ 9.06	$ -	$ -	$ 1.69	$ 3.37	$ 12.43	
27	P100, P101, P102, MG101	Plumbing	3/4" / 1/2" Dia Pipe Reducer	5	EA	0%	5.00	0.050	0.3	$ 3.16	$ 15.80	$ -	$ -	$ 1.69	$ 8.44	$ 24.24	
28	P100, P101, P102, MG101	Plumbing	1" / 3/4" " Dia Pipe Reducer	1	EA	0%	1.00	0.050	0.1	$ 4.30	$ 4.30	$ -	$ -	$ 1.69	$ 1.69	$ 5.99	
29	P100, P101, P102, MG101	Plumbing	2" / 1" Dia Pipe Reducer	1	EA	0%	1.00	0.050	0.1	$ 4.53	$ 4.53	$ -	$ -	$ 1.69	$ 1.69	$ 6.22	
			Condenser Water Supply Pipe														
			Type "L" Copper Pipe														
30	P100, P101, P102, MG101	Plumbing	1/2" Dia Condenser Water Supply Pipe	45	LF	10%	50.01	0.080	4.0	$ 3.80	$ 190.02	$ -	$ -	$ 0.13	$ 6.75	$ 196.77	
			1/2" Thick Fiberglass Pipe Insulation														
31	P100, P101, P102, MG101	Plumbing	1/2" Dia Condenser Water Supply Pipe	45	LF	10%	50.01	0.050	2.5	$ 3.10	$ 155.02	$ -	$ -	$ 0.08	$ 4.22	$ 159.24	
			Fittings:														
32	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 90 Deg Elbow	2	EA	0%	2.00	0.050	0.1	$ 3.10	$ 6.20	$ -	$ -	$ 0.08	$ 0.17	$ 6.37	
			DE-Ionized Water Pipe														
33	P100, P101, P102, MG101	Plumbing	3/4" Dia DE-Ionized Water Pipe	17	LF	10%	18.79	0.090	1.7		$ -	$ -	$ -	$ 0.15	$ 2.85	$ 2.85	
			Fittings:														
34	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 90 Deg Elbow	4	EA	0%	4.00	0.350	1.4	$ 2.89	$ 11.56	$ -	$ -	$ 0.59	$ 2.36	$ 13.92	
			Cold Soft Water Pipe														
			Type "L" Copper Pipe														
35	P100, P101, P102, MG101	Plumbing	1/2" Dia Cold Soft Waer Pipe	33	LF	10%	36.16	0.080	2.9	$ 3.80	$ 137.40	$ -	$ -	$ 2.70	$ 97.59	$ 234.99	
			1/2" Thick Fiberglass Pipe Insulation														
36	P100, P101, P102, MG101	Plumbing	1/2" Dia Cold Soft Waer Pipe	33	LF	10%	36.16	0.050	1.8	$ 3.10	$ 112.09	$ -	$ -	$ 1.69	$ 61.00	$ 173.08	
			Fittings:														
37	P100, P101, P102, MG101	Plumbing	1/2" Dia Cold Soft Waer Pipe 90 Deg Elbow	3	EA	0%	3.00	0.050	0.2	$ 3.10	$ 9.30	$ -	$ -	$ 1.69	$ 5.06	$ 14.36	
			DE-Ionized Water Pipe														
			Type "L" Copper Pipe														
38	P100, P101, P102, MG101	Plumbing	3/4" Dia De-Ionized Water Pipe	62	LF	10%	67.65	0.090	6.1	$ 5.63	$ 380.87	$ -	$ -	$ 3.04	$ 205.43	$ 586.30	
			1/2" Thick Fiberglass Pipe Insulation														
39	P100, P101, P102, MG101	Plumbing	3/4" Dia De-Ionized Water Pipe	62	LF	10%	67.65	0.050	3.4	$ 3.16	$ 213.77	$ -	$ -	$ 1.69	$ 114.13	$ 327.90	
			Fittings:														
40	P100, P101, P102, MG101	Plumbing	3/4" Dia De-Ionized Water Pipe 90 Deg Elbow	6	EA	0%	6.00	0.050	0.3	$ 3.16	$ 18.96	$ -	$ -	$ 1.69	$ 10.12	$ 29.08	
41	P100, P101, P102, MG101	Plumbing	3/4" Dia De-Ionized Water Pipe Tee	1	EA	0%	1.00	0.050	0.1	$ 3.16	$ 3.16	$ -	$ -	$ 1.69	$ 1.69	$ 4.85	
			Hot Water Pipe														
			Type "L" Copper Pipe														
42	P100, P101, P102, MG101	Plumbing	3/4" Dia Hot Water Pipe	129	LF	10%	141.90	0.090	12.8	$ 5.63	$ 798.90	$ -	$ -	$ 3.04	$ 430.89	$ 1,229.79	
43	P100, P101, P102, MG101	Plumbing	1/2" Dia Hot Water Pipe	200	LF	10%	220.47	0.080	17.6	$ 3.80	$ 837.80	$ -	$ -	$ 2.70	$ 595.10	$ 1,432.90	
44	P100, P101, P102, MG101	Plumbing	1" Dia Hot Water Pipe	17	LF	10%	18.68	0.100	1.9	$ 15.90	$ 296.98	$ -	$ -	$ 3.37	$ 63.02	$ 360.00	
45	P100, P101, P102, MG101	Plumbing	1-1/4" Dia Hot Water Pipe	56	LF	10%	61.73	0.120	7.4	$ 27.20	$ 1,679.11	$ -	$ -	$ 4.05	$ 249.94	$ 1,929.05	
			3/4" Thick Fiberglass Pipe Insulation														
46	P100, P101, P102, MG101	Plumbing	3/4" Dia Hot Water Pipe	129	LF	10%	141.90	0.060	8.5	$ 3.98	$ 564.76	$ -	$ -	$ 2.02	$ 287.26	$ 852.02	
47	P100, P101, P102, MG101	Plumbing	1/2" Dia Hot Water Pipe	200	LF	10%	220.47	0.060	13.2	$ 3.38	$ 745.20	$ -	$ -	$ 2.02	$ 446.33	$ 1,191.52	
48	P100, P101, P102, MG101	Plumbing	1" Dia Hot Water Pipe	17	LF	10%	18.68	0.060	1.1	$ 3.42	$ 63.88	$ -	$ -	$ 2.02	$ 37.81	$ 101.69	
49	P100, P101, P102, MG101	Plumbing	1-1/4" Dia Hot Water Pipe	56	LF	10%	61.73	0.060	3.7	$ 5.73	$ 353.72	$ -	$ -	$ 2.02	$ 124.97	$ 478.69	
			Fittings:														
50	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 90 Deg Elbow	44	EA	0%	44.00	0.060	2.6	$ 3.38	$ 148.72	$ -	$ -	$ 2.02	$ 89.07	$ 237.79	
51	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 90 Deg Elbow	10	EA	0%	10.00	0.060	0.6	$ 3.98	$ 39.80	$ -	$ -	$ 2.02	$ 20.24	$ 60.04	
52	P100, P101, P102, MG101	Plumbing	1-1/4" Dia Pipe 90 Deg Elbow	4	EA	0%	4.00	0.060	0.2	$ 5.73	$ 22.92	$ -	$ -	$ 2.02	$ 8.10	$ 31.02	
53	P100, P101, P102, MG101	Plumbing	3/4" / 1/2" Dia Pipe Tee	11	EA	0%	11.00	0.060	0.7	$ 3.98	$ 43.78	$ -	$ -	$ 2.02	$ 22.27	$ 66.05	
54	P100, P101, P102, MG101	Plumbing	1" / 3/4" Dia Pipe Tee	2	EA	0%	2.00	0.060	0.1	$ 3.42	$ 6.84	$ -	$ -	$ 2.02	$ 4.05	$ 10.89	
55	P100, P101, P102, MG101	Plumbing	1" / 1/2" Dia Pipe Tee	1	EA	0%	1.00	0.060	0.1	$ 3.42	$ 3.42	$ -	$ -	$ 2.02	$ 2.02	$ 5.44	
56	P100, P101, P102, MG101	Plumbing	1-1/4" / 1/2" Dia Pipe Tee	4	EA	0%	4.00	0.060	0.2	$ 5.73	$ 22.92	$ -	$ -	$ 2.02	$ 8.10	$ 31.02	
57	P100, P101, P102, MG101	Plumbing	1-1/4" / 3/4" Dia Pipe Tee	3	EA	0%	3.00	0.060	0.2	$ 5.73	$ 17.19	$ -	$ -	$ 2.02	$ 6.07	$ 23.26	
58	P100, P101, P102, MG101	Plumbing	3/4" / 1/2" Dia Pipe Reducer	5	EA	0%	5.00	0.060	0.3	$ 3.98	$ 19.90	$ -	$ -	$ 2.02	$ 10.12	$ 30.02	
59	P100, P101, P102, MG101	Plumbing	1-1/4" / 1" Dia Pipe Reducer	1	EA	0%	1.00	0.060	0.1	$ 5.73	$ 5.73	$ -	$ -	$ 2.02	$ 2.02	$ 7.75	
60	P100, P101, P102, MG101	Plumbing	1" / 3/4" Dia Pipe Reducer	1	EA	0%	1.00	0.060	0.1	$ 3.42	$ 3.42	$ -	$ -	$ 2.02	$ 2.02	$ 5.44	
			Hot Water Return Pipe														
			Type "L" Copper Pipe														
61	P100, P101, P102, MG101	Plumbing	3/4" Dia Hot Water Return Pipe	145	LF	10%	159.53	0.090	14.4	$ 5.63	$ 898.17	$ -	$ -	$ 3.04	$ 484.44	$ 1,382.61	
			3/4" Thick Fiberglass Pipe Insulation														
62	P100, P101, P102, MG101	Plumbing	3/4" Dia Hot Water Return Pipe	145	LF	10%	159.53	0.060	9.6	$ 3.98	$ 634.94	$ -	$ -	$ 2.02	$ 322.96	$ 957.90	
			Fittings:														
63	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 90 Deg Elbow	6	EA	0%	6.00	0.060	0.4	$ 3.98	$ 23.88	$ -	$ -	$ 2.02	$ 12.15	$ 36.03	
			Gas Pipe														
			Schedule 40 Black Steel Pipe														
64	P100, P101, P102, MG101	Plumbing	3/4" Dia Gas Pipe	110	LF	10%	120.99	0.150	18.1	$ 3.48	$ 421.04	$ -	$ -	$ 5.06	$ 612.33	$ 1,033.37	
			Fittings:														
65	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 45 Deg Elbow	3	EA	0%	3.00	0.350	1.1	$ 3.59	$ 10.77	$ -	$ -	$ 11.81	$ 35.43	$ 46.20	
66	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 90 Deg Elbow	6	EA	0%	6.00	0.350	2.1	$ 3.08	$ 18.48	$ -	$ -	$ 11.81	$ 70.85	$ 89.33	
			Oxygen Pipe														
67	P100, P101, P102, MG101	Plumbing	1/2" Dia Oxygen Pipe	226	LF	10%	248.13	0.120	29.8		$ -	$ -	$ -	$ 4.05	$ 1,004.62	$ 1,004.62	
68	P100, P101, P102, MG101	Plumbing	3/4" Dia Oxygen Pipe	29	LF	10%	31.99	0.135	4.3		$ -	$ -	$ -	$ 4.55	$ 145.70	$ 145.70	
			Fittings:														
69	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 90 Deg Elbow	18	EA	0%	18.00	0.450	8.1		$ -	$ -	$ -	$ 15.18	$ 273.29	$ 273.29	
70	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 90 Deg Elbow	2	EA	0%	2.00	0.525	1.1		$ -	$ -	$ -	$ 17.71	$ 35.43	$ 35.43	
71	P100, P101, P102, MG101	Plumbing	3/4" Dia Tee	7	EA	0%	7.00	0.735	5.1		$ -	$ -	$ -	$ 24.80	$ 173.59	$ 173.59	
72	P100, P101, P102, MG101	Plumbing	3/4" / 1/2" Dia Pipe Reducer	1	EA	0%	1.00	0.473	0.5		$ -	$ -	$ -	$ 15.96	$ 15.96	$ 15.96	
			Medical Air Pipe														
73	P100, P101, P102, MG101	Plumbing	1/2" Dia Medical Air Pipe	82	LF	10%	90.50	0.120	10.9		$ -	$ -	$ -	$ 4.05	$ 366.40	$ 366.40	
			Fittings:														
74	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 90 Deg Elbow	9	EA	0%	9.00	0.450	4.1		$ -	$ -	$ -	$ 15.18	$ 136.65	$ 136.65	
75	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe Tee	1	EA	0%	1.00	0.630	0.6		$ -	$ -	$ -	$ 21.26	$ 21.26	$ 21.26	
			Nitrous Pipe														
76	P100, P101, P102, MG101	Plumbing	1/2" Dia Nitrous Pipe	83	LF	10%	91.73	0.120	11.0		$ -	$ -	$ -	$ 4.05	$ 371.39	$ 371.39	
			Fittings:														
77	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 90 Deg Elbow	9	EA	0%	9.00	0.450	4.1		$ -	$ -	$ -	$ 15.18	$ 136.65	$ 136.65	
78	P100, P101, P102, MG101	Plumbing	1/2" Dia Tee	1	EA	0%	1.00	0.630	0.6		$ -	$ -	$ -	$ 21.26	$ 21.26	$ 21.26	
			Compressed Air Pipe														
			Type "L" Copper Pipe ASTM B88														
79	P100, P101, P102, MG101	Plumbing	1/2" Dia Compressed Air Pipe	47	LF	10%	51.17	0.080	4.1	$ 3.80	$ 194.45	$ -	$ -	$ 2.70	$ 138.12	$ 332.58	
			Fittings:														
80	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 45 Deg Elbow	1	EA	0%	1.00	0.300	0.3		$ -	$ -	$ -	$ 10.12	$ 10.12	$ 10.12	
81	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe 90 Deg Elbow	5	EA	0%	5.00	0.300	1.5	$ 1.09	$ 5.45	$ -	$ -	$ 10.12	$ 50.61	$ 56.06	
82	P100, P101, P102, MG101	Plumbing	1/2" Dia Pipe Tee	1	EA	0%	1.00	0.420	0.4	$ 1.49	$ 1.49	$ -	$ -	$ 14.17	$ 14.17	$ 15.66	
			Medical Vacuum Piping														
83	P100, P101, P102, MG101	Plumbing	3/4" Dia Medical Vacuum Pipe	223	LF	10%	245.48	0.113	27.6	$ 5.63	$ 1,382.03	$ -	$ -	$ 3.80	$ 931.77	$ 2,313.80	
84	P100, P101, P102, MG101	Plumbing	1" Dia Medical Vacuum Pipe	36	LF	10%	39.19	0.125	4.9	$ 15.90	$ 623.17	$ -	$ -	$ 4.22	$ 165.30	$ 788.47	
85	P100, P101, P102, MG101	Plumbing	2" Dia Medical Vacuum Pipe	32	LF	10%	35.74	0.213	7.6	$ 51.84	$ 1,852.71	$ -	$ -	$ 7.17	$ 256.24	$ 2,108.95	
			Fittings:														
86	P100, P101, P102, MG101	Plumbing	3/4" Dia Pipe 90 Deg Elbow	18	EA	0%	18.00	0.438	7.9	$ 2.89	$ 52.02	$ -	$ -	$ 14.78	$ 266.01	$ 318.03	
87	P100, P101, P102, MG101	Plumbing	1" Dia Pipe 90 Deg Elbow	2	EA	0%	2.00	0.525	1.1		$ -	$ -	$ -	$ 17.71	$ 35.43	$ 35.43	
88	P100, P101, P102, MG101	Plumbing	2" Dia Pipe 90 Deg Elbow	3	EA	0%	3.00	0.938	2.8	$ 25.99	$ 77.97	$ -	$ -	$ 31.65	$ 94.94	$ 172.91	
89	P100, P101, P102, MG101	Plumbing	1" / 3/4" Dia Pipe Tee	7	EA	0%	7.00	0.735	5.1	$ 9.95	$ 69.65	$ -	$ -	$ 24.80	$ 173.59	$ 243.24	
90	P100, P101, P102, MG101	Plumbing	1" / 3/4" Dia Pipe Reducer	1	EA	0%	1.00	0.473	0.5	$ 5.50	$ 5.50	$ -	$ -	$ 15.96	$ 15.96	$ 21.46	
			Vent Pipe														
			Schedule 40 Pvc Pipe														
91	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Vent Pipe	296	LF	10%	325.42	0.060	19.5	$ 0.93	$ 302.64	$ -	$ -	$ 2.02	$ 658.79	$ 961.43	
92	P100, P101, P102, MG101	Plumbing	2" Dia Vent Pipe	123	LF	10%	135.48	0.070	9.5	$ 1.25	$ 169.35	$ -	$ -	$ 2.36	$ 319.97	$ 489.31	
			Fitting:														
93	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Vent Pipe 90 Deg Elbow	38	EA	0%	38.00	0.200	7.6	$ 2.99	$ 113.62	$ -	$ -	$ 6.75	$ 256.42	$ 370.04	
94	P100, P101, P102, MG101	Plumbing	2" Dia Vent Pipe 90 Deg Elbow	8	EA	0%	8.00	0.250	2.0	$ 5.49	$ 43.92	$ -	$ -	$ 8.44	$ 67.48	$ 111.40	
95	P100, P101, P102, MG101	Plumbing	2" Dia Vent Pipe Tee	4	EA	0%	4.00	0.325	1.3	$ 3.99	$ 15.96	$ -	$ -	$ 10.97	$ 43.86	$ 59.82	
96	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Vent Pipe Tee	5	EA	0%	5.00	0.260	1.3	$ 3.79	$ 18.95	$ -	$ -	$ 8.77	$ 43.86	$ 62.81	
97	P100, P101, P102, MG101	Plumbing	2" / 1-1/2" Dia Vent Pipe Tee	11	EA	0%	11.00	0.325	3.6	$ 4.29	$ 47.19	$ -	$ -	$ 10.97	$ 120.62	$ 167.81	
98	P100, P101, P102, MG101	Plumbing	2" / 1-1/2" Dia Vent Pipe Reducer	3	EA	0%	3.00	0.200	0.6	$ 2.29	$ 6.87	$ -	$ -	$ 6.75	$ 20.24	$ 27.11	
			PLUMBING FIXTURE														
99	P100, P101, P102, MG101	Plumbing	L-1: Lavatory	4	EA	0%	4.00	2.500	10.0		$ -	$ -	$ -	$ 84.35	$ 337.40	$ 337.40	
100	P100, P101, P102, MG101	Plumbing	S-1: Sink	6	EA	0%	6.00	3.000	18.0		$ -	$ -	$ -	$ 101.22	$ 607.32	$ 607.32	
101	P100, P101, P102, MG101	Plumbing	S-2: Sink	2	EA	0%	2.00	3.000	6.0		$ -	$ -	$ -	$ 101.22	$ 202.44	$ 202.44	
102	P100, P101, P102, MG101	Plumbing	S-3: Sink	1	EA	0%	1.00	3.000	3.0		$ -	$ -	$ -	$ 101.22	$ 101.22	$ 101.22	
103	P100, P101, P102, MG101	Plumbing	S-4: Sink	1	EA	0%	1.00	3.000	3.0		$ -	$ -	$ -	$ 101.22	$ 101.22	$ 101.22	
104	P100, P101, P102, MG101	Plumbing	SS-3: Sink	2	EA	0%	2.00	3.000	6.0		$ -	$ -	$ -	$ 101.22	$ 202.44	$ 202.44	
105	P100, P101, P102, MG101	Plumbing	WC-1: Water Closet	1	EA	0%	1.00	2.500	2.5		$ -	$ -	$ -	$ 84.35	$ 84.35	$ 84.35	

DETAILED TAKEOFF / ESTIMATE
FEDERAL ESTIMATING, DRAFTING AND ENGINEERING SERVICES

Project Name	BUX SURGERY CENTER ASTC SUITE	PROJECT COST	$ 65,643
Location	4071 TATES CREEK CENTER DRIVE LEXINGTON, KY	OVERHEAD COST	$ 6,564
Project Scope:	PLUMBING	PROFIT COST	$ 6,564
Addendum:	N/A	ADDITIONAL COST (If Any)	$ 1,345
Date:	Tuesday, November 3, 2026	TOTAL BID COST	$ 80,117
	BY OTHERS/ SEPERATE PERMIT/ BY OWNER	NEED QUOTATION	

SR #	DRAWING REF #	SCOPE ITEM	DESCRIPTION	QUANTITY	UNIT	WASTAGE	QUANTITY WITH WASTAGE	UNIT LABOR HOURS	TOTAL LABOR HOURS	UNIT MATERIAL COST	TOTAL MATERIAL COST	UNIT EQUIPMENT COST	TOTAL EQUIPMENT COST	UNIT LABOR COST	TOTAL LABOR COST	TOTAL COST	DIV COST
106	P100, P101, P102, MG101	Plumbing	WC-2: Water Closet	1	EA	0%	1.00	2.500	2.5		$ -	$ -	$ -	$ 84.35	$ 84.35	$ 84.35	
107	P100, P101, P102, MG101	Plumbing	IMB-1: Ice Maker Box	1	EA	0%	1.00	1.000	1.0		$ -	$ -	$ -	$ 33.74	$ 33.74	$ 33.74	
108	P100, P101, P102, MG101	Plumbing	MB-1 Maker Box	2	EA	0%	2.00	1.000	2.0		$ -	$ -	$ -	$ 33.74	$ 67.48	$ 67.48	
109	P100, P101, P102, MG101	Plumbing	Duplex DI Unit	1	EA	0%	1.00	4.000	4.0		$ -	$ -	$ -	$ 134.96	$ 134.96	$ 134.96	
110	P100, P101, P102, MG101	Plumbing	WS-1	1	EA	0%	1.00	3.000	3.0		$ -	$ -	$ -	$ 101.22	$ 101.22	$ 101.22	
111	P100, P101, P102, MG101	Plumbing	EEW-1	1	EA	0%	1.00	2.500	2.5		$ -	$ -	$ -	$ 84.35	$ 84.35	$ 84.35	
112	P100, P101, P102, MG101	Plumbing	CSS-1: Clean Steam Sink	1	EA	0%	1.00	3.000	3.0		$ -	$ -	$ -	$ 101.22	$ 101.22	$ 101.22	
			Air Compressor With Accessories														
113	P100, P101, P102, MG101	Plumbing	30 Gallon Air Compressor	1	EA	0%	1.00	4.000	4.0		$ -	$ -	$ -	$ 134.96	$ 134.96	$ 134.96	
114	P100, P101, P102, MG101	Plumbing	1/2" Dia Humidifier Terminate With Internal Air Gap	1	EA	0%	1.00	0.750	0.8		$ -	$ -	$ -	$ 25.31	$ 25.31	$ 25.31	
			Valve														
115	P100, P101, P102, MG101	Plumbing	1/2" Dia Ball Valve	26	EA	0%	26.00	0.400	10.4	$ 37.51	$ 975.26	$ -	$ -	$ 13.50	$ 350.90	$ 1,326.16	
116	P100, P101, P102, MG101	Plumbing	3/4" Dia Ball Valve	5	EA	0%	5.00	0.450	2.3	$ 55.13	$ 275.65	$ -	$ -	$ 15.18	$ 75.92	$ 351.57	
117	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Ball Valve	2	EA	0%	2.00	0.800	1.6	$ 239.31	$ 478.62	$ -	$ -	$ 26.99	$ 53.98	$ 532.60	
118	P100, P101, P102, MG101	Plumbing	2" Dia Ball Valve	4	EA	0%	4.00	1.000	4.0	$ 332.89	$ 1,331.56	$ -	$ -	$ 33.74	$ 134.96	$ 1,466.52	
119	P100, P101, P102, MG101	Plumbing	1" Dia Ball Valve	1	EA	0%	1.00	0.550	0.6	$ 81.30	$ 81.30	$ -	$ -	$ 18.56	$ 18.56	$ 99.86	
120	P100, P101, P102, MG101	Plumbing	ZVB-1: Zone Valve Box	1	EA	0%	1.00	6.000	6.0		$ -	$ -	$ -	$ 202.44	$ 202.44	$ 202.44	
121	P100, P101, P102, MG101	Plumbing	ZVB-2: Zone Valve Box	1	EA	0%	1.00	6.000	6.0		$ -	$ -	$ -	$ 202.44	$ 202.44	$ 202.44	
122	P100, P101, P102, MG101	Plumbing	ZVB-3: Zone Valve Box	1	EA	0%	1.00	6.000	6.0		$ -	$ -	$ -	$ 202.44	$ 202.44	$ 202.44	
			Back Flow Preventer														
123	P100, P101, P102, MG101	Plumbing	3/4" Dia Back Flow Preventer	5	EA	0%	5.00	1.500	7.5		$ -	$ -	$ -	$ 50.61	$ 253.05	$ 253.05	
			Drain And Cleanout														
124	P100, P101, P102, MG101	Plumbing	1" Dia FD-1: Floor Drain	4	EA	0%	4.00	1.500	6.0	$ 51.19	$ 204.76	$ -	$ -	$ 50.61	$ 202.44	$ 407.20	
125	P100, P101, P102, MG101	Plumbing	4" Dia FD-1: Floor Drain	1	EA	0%	1.00	1.500	1.5	$ 80.99	$ 80.99	$ -	$ -	$ 50.61	$ 50.61	$ 131.60	
126	P100, P101, P102, MG101	Plumbing	2" Dia FD-1: Floor Drain	1	EA	0%	1.00	1.500	1.5	$ 45.69	$ 45.69	$ -	$ -	$ 50.61	$ 50.61	$ 96.30	
127	P100, P101, P102, MG101	Plumbing	3" Dia HD: Hub Drain	2	EA	0%	2.00	1.000	2.0		$ -	$ -	$ -	$ 33.74	$ 67.48	$ 67.48	
128	P100, P101, P102, MG101	Plumbing	2" Dia HD: Hub Drain	1	EA	0%	1.00	1.000	1.0		$ -	$ -	$ -	$ 33.74	$ 33.74	$ 33.74	
			Manifold														
129	P100, P101, P102, MG101	Plumbing	N2O Manifold	1	EA	0%	1.00	8.000	8.0		$ -	$ -	$ -	$ 269.92	$ 269.92	$ 269.92	
130	P100, P101, P102, MG101	Plumbing	O2 Manifold	1	EA	0%	1.00	8.000	8.0		$ -	$ -	$ -	$ 269.92	$ 269.92	$ 269.92	
131	P100, P101, P102, MG101	Plumbing	MA Manifold	1	EA	0%	1.00	8.000	8.0		$ -	$ -	$ -	$ 269.92	$ 269.92	$ 269.92	
			Alarm Device														
132	P100, P101, P102, MG101	Plumbing	MAP-1: Master Alarm	1	EA	0%	1.00	4.000	4.0		$ -	$ -	$ -	$ 134.96	$ 134.96	$ 134.96	
133	P100, P101, P102, MG101	Plumbing	MAP-2: Master Alarm	1	EA	0%	1.00	4.000	4.0		$ -	$ -	$ -	$ 134.96	$ 134.96	$ 134.96	
134	P100, P101, P102, MG101	Plumbing	MVP: Vacuum Pump	1	EA	0%	1.00	8.000	8.0		$ -	$ -	$ -	$ 269.92	$ 269.92	$ 269.92	
135	P100, P101, P102, MG101	Plumbing	AAP-1: Pre/Post Op	1	EA	0%	1.00	3.000	3.0		$ -	$ -	$ -	$ 101.22	$ 101.22	$ 101.22	
136	P100, P101, P102, MG101	Plumbing	AAP-2: Pre/Post Op	1	EA	0%	1.00	3.000	3.0		$ -	$ -	$ -	$ 101.22	$ 101.22	$ 101.22	
			Water Heater With Accessories														
137	P100, P101, P102, MG101	Plumbing	EWH: Electric Water Heater	1	EA	0%	1.00	6.000	6.0		$ -	$ -	$ -	$ 202.44	$ 202.44	$ 202.44	
138	P100, P101, P102, MG101	Plumbing	Hot Water Circulation Pump	1	EA	0%	1.00	2.000	2.0		$ -	$ -	$ -	$ 67.48	$ 67.48	$ 67.48	
139	P100, P101, P102, MG101	Plumbing	Expansion Tank	1	EA	0%	1.00	1.000	1.0		$ -	$ -	$ -	$ 33.74	$ 33.74	$ 33.74	
140	P100, P101, P102, MG101	Plumbing	Thermometer	2	EA	0%	2.00	0.300	0.6		$ -	$ -	$ -	$ 10.12	$ 20.24	$ 20.24	
141	P100, P101, P102, MG101	Plumbing	3/4" Dia Union	1	EA	0%	1.00	0.400	0.4	$ 10.69	$ 10.69	$ -	$ -	$ 13.50	$ 13.50	$ 24.19	
142	P100, P101, P102, MG101	Plumbing	1-1/4" Dia Union	2	EA	0%	2.00	0.400	0.8	$ 42.29	$ 84.58	$ -	$ -	$ 13.50	$ 26.99	$ 111.57	
143	P100, P101, P102, MG101	Plumbing	1/2" Dia Temperature & Pressure Relief Valve	1	EA	0%	1.00	0.500	0.5	$ 33.79	$ 33.79	$ -	$ -	$ 16.87	$ 16.87	$ 50.66	
144	P100, P101, P102, MG101	Plumbing	3/4" Dia Balance Valve	1	EA	0%	1.00	0.600	0.6	$ 108.99	$ 108.99	$ -	$ -	$ 20.24	$ 20.24	$ 129.23	
145	P100, P101, P102, MG101	Plumbing	3/4" Dia Ball Valve	3	EA	0%	3.00	0.450	1.4	$ 55.13	$ 165.39	$ -	$ -	$ 15.18	$ 45.55	$ 210.94	
146	P100, P101, P102, MG101	Plumbing	3/4" Dia Check Valve	1	EA	0%	1.00	0.450	0.5	$ 20.95	$ 20.95	$ -	$ -	$ 15.18	$ 15.18	$ 36.13	
147	P100, P101, P102, MG101	Plumbing	1-1/4" Dia Check Valve	1	EA	0%	1.00	0.700	0.7	$ 121.99	$ 121.99	$ -	$ -	$ 23.62	$ 23.62	$ 145.61	
148	P100, P101, P102, MG101	Plumbing	1-1/4" Dia Shut Off Valve	2	EA	0%	2.00	0.700	1.4	$ 177.17	$ 354.34	$ -	$ -	$ 23.62	$ 47.24	$ 401.58	
			Water Softener														
149	P100, P101, P102, MG101	Plumbing	Water Softener	1	EA	0%	1.00	6.000	6.0		$ -	$ -	$ -	$ 202.44	$ 202.44	$ 202.44	
150	P100, P101, P102, MG101	Plumbing	3/4" Dia Shut Off Valve	3	EA	0%	3.00	0.450	1.4	$ 55.13	$ 165.39	$ -	$ -	$ 15.18	$ 45.55	$ 210.94	
151	P100, P101, P102, MG101	Plumbing	Brine Tank	1	EA	0%	1.00	1.000	1.0		$ -	$ -	$ -	$ 33.74	$ 33.74	$ 33.74	
152	P100, P101, P102, MG101	Plumbing	3/4" Dia Terminate Backwash Over Hub Drain With Air Gap	1	EA	0%	1.00	0.500	0.5		$ -	$ -	$ -	$ 16.87	$ 16.87	$ 16.87	
			Faucet Control Detail														
153	P100, P101, P102, MG101	Plumbing	1/2" Dia ASSE 1070 Mixing Valve	1	EA	0%	1.00	1.500	1.5		$ -	$ -	$ -	$ 50.61	$ 50.61	$ 50.61	
154	P100, P101, P102, MG101	Plumbing	1/2" Dia Stops And Supplies With Escutcheons For Faucet	2	EA	0%	2.00	0.400	0.8		$ -	$ -	$ -	$ 13.50	$ 26.99	$ 26.99	
155	P100, P101, P102, MG101	Plumbing	Foot Pedal Control With Integral Stops Mount To Cabinet Base	2	EA	0%	2.00	1.500	3.0		$ -	$ -	$ -	$ 50.61	$ 101.22	$ 101.22	
156	P100, P101, P102, MG101	Plumbing	GOOSENECK FAUCET WITH WRISTBLADE Handles And Third Water Connection	2	EA	0%	2.00	1.000	2.0		$ -	$ -	$ -	$ 33.74	$ 67.48	$ 67.48	
			Misc.														
157	P100, P101, P102, MG101	Plumbing	1" Dia Main Line Gauge	1	EA	0%	1.00	0.300	0.3		$ -	$ -	$ -	$ 10.12	$ 10.12	$ 10.12	
158	P100, P101, P102, MG101	Plumbing	Mainline Pressure/Vacuum Switch	1	EA	0%	1.00	1.000	1.0		$ -	$ -	$ -	$ 33.74	$ 33.74	$ 33.74	
159	P100, P101, P102, MG101	Plumbing	2" Dia Vacuum Pump Exhaust Thru Wall With GOOSENECK And Bug Screen	1	EA	0%	1.00	8.000	8.0		$ -	$ -	$ -	$ 269.92	$ 269.92	$ 269.92	
160	P100, P101, P102, MG101	Plumbing	3/4" Dia Gas Pipe Bug Screen	3	EA	0%	3.00	0.300	0.9		$ -	$ -	$ -	$ 30.37	$ 30.37	$ 30.37	
			Pipe Supports														
161	P100, P101, P102, MG101	Plumbing	1/2" Dia Clevis hanger	155	EA	0%	155.00	0.250	38.8	$ 1.69	$ 261.95	$ -	$ -	$ 8.44	$ 1,307.43	$ 1,569.38	
162	P100, P101, P102, MG101	Plumbing	3/4" Dia Clevis hanger	134	EA	0%	134.00	0.250	33.5	$ 2.19	$ 293.46	$ -	$ -	$ 8.44	$ 1,130.29	$ 1,423.75	
163	P100, P101, P102, MG101	Plumbing	1" Dia Clevis hanger	17	EA	0%	17.00	0.250	4.3	$ 2.19	$ 37.23	$ -	$ -	$ 8.44	$ 143.40	$ 180.63	
164	P100, P101, P102, MG101	Plumbing	1-1/4" Dia Clevis hanger	9	EA	0%	9.00	0.250	2.3	$ 2.95	$ 26.55	$ -	$ -	$ 8.44	$ 75.92	$ 102.47	
165	P100, P101, P102, MG101	Plumbing	1-1/2" Dia Clevis hanger	33	EA	0%	33.00	0.250	8.3	$ 2.79	$ 92.07	$ -	$ -	$ 8.44	$ 278.36	$ 370.43	
166	P100, P101, P102, MG101	Plumbing	2" Dia Clevis hanger	37	EA	0%	37.00	0.250	9.3	$ 3.49	$ 129.13	$ -	$ -	$ 8.44	$ 312.10	$ 441.23	
167	P100, P101, P102, MG101	Plumbing	3/8" Dia Threaded Rod	348	EA	0%	348.00	0.000	0.0	$ 3.72	$ 1,294.56	$ -	$ -	$ -	$ -	$ 1,294.56	
168	P100, P101, P102, MG101	Plumbing	5/8" Dia Threaded Rod	37	EA	0%	37.00	0.000	0.0	$ 9.32	$ 344.84	$ -	$ -	$ -	$ -	$ 344.84	
							LABOR HOURS	740.211	MATERIAL COST	$ 35,537.52	EQUIPMENT COST	$ -	LABOR COST	$ 24,664.07	SUBTOTAL	$ 60,201.59	

TOTAL MATERIAL COST	$ 36,368
TOTAL LABOR COST	$ 24,664
TOTAL EQUIPMET COST	$ -
TOTAL LABOR HOURS	740

DETAILED TAKEOFF / ESTIMATE
FEDERAL ESTIMATING, DRAFTING AND ENGINEERING SERVICES

Project Name	BUX SURGERY CENTER ASTC SUITE	PROJECT COST	$ 15,910
Location	4071 TATES CREEK CENTER DRIVE LEXINGTON, KY	OVERHEAD COST	$ 1,591
Project Scope:	PLUMBING	PROFIT COST	$ 1,591
Addendum:	N/A	ADDITIONAL COST (If Any)	$ -
Date:	Tuesday, November 3, 2026	TOTAL BID COST	$ 19,092

BY OTHERS/ SEPERATE PERMIT/ BY OWNER | NEED QUOTATION

SR #	DRAWING REF #	SCOPE ITEM	DESCRIPTION	QUANTITY	UNIT	WASTAGE	QUANTITY WITH WASTAGE	UNIT LABOR HOURS	TOTAL LABOR HOURS	UNIT MATERIAL COST	TOTAL MATERIAL COST	UNIT EQUIPMENT COST	TOTAL EQUIPMENT COST	UNIT LABOR COST	TOTAL LABOR COST	TOTAL COST	DIV COST
GENERAL REQUIREMENTS SUBGROUP WORK																	
		DIV-01	GENERAL REQUIREMENTS										Labor Rate	$ 25.60			
1		General Conditions	Permit (.07% of project value)	0	fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
2		General Conditions	Site development	0	fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
3		General Conditions	Variance	0	fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
4		General Conditions	Private Inspections	0	fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
5		General Conditions	Debris haul off	0	load	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
6		General Conditions	Site plan	0	Fee	0%	0.00	0.000	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
							LABOR HOURS	0.000	MATERIAL COST	$ -	EQUIPMENT COST	$ -	LABOR COST	$ -	SUBTOTAL		$ -
		DIV-22	PLUMBING										Labor Rate	$ 33.74			
			PLUMBING WATER FACILITY														
			Below Grade Sanitary Pipe														
			Schedule 40 Pvc Pipe														
7	P100, P101, P102, MG101	Plumbing	2" Dia Sanitary Pipe	109	LF	10%	120.41	0.070	8.4	$ 1.25	$ 150.51	$ -	$ -	$ 2.36	$ 284.37	$ 434.88	
8	P100, P101, P102, MG101	Plumbing	3" Dia Sanitary Pipe	100	LF	10%	109.48	0.090	9.9	$ 3.30	$ 361.29	$ -	$ -	$ 3.04	$ 332.46	$ 693.75	
9	P100, P101, P102, MG101	Plumbing	4" Dia Sanitary Pipe	103	LF	10%	113.63	0.110	12.5	$ 3.80	$ 431.79	$ -	$ -	$ 3.71	$ 421.73	$ 853.52	
			Fittings														
10	P100, P101, P102, MG101	Plumbing	2" Dia Sanitary Pipe 45 Deg Elbow	19	EA	0%	19.00	0.250	4.8	$ 2.99	$ 56.81	$ -	$ -	$ 8.44	$ 160.27	$ 217.08	
11	P100, P101, P102, MG101	Plumbing	3" Dia Sanitary Pipe 45 Deg Elbow	34	EA	0%	34.00	0.350	11.9	$ 7.49	$ 254.66	$ -	$ -	$ 11.81	$ 401.51	$ 656.17	
12	P100, P101, P102, MG101	Plumbing	4" Dia Sanitary Pipe 45 Deg Elbow	12	EA	0%	12.00	0.450	5.4	$ 12.99	$ 155.88	$ -	$ -	$ 15.18	$ 182.20	$ 338.08	
13	P100, P101, P102, MG101	Plumbing	3" Dia Sanitary Pipe 90 Deg Elbow	2	EA	0%	2.00	0.350	0.7	$ 9.29	$ 18.58	$ -	$ -	$ 11.81	$ 23.62	$ 42.20	
14	P100, P101, P102, MG101	Plumbing	2" Dia Sanitary Pipe 90 Deg Elbow	11	EA	0%	11.00	0.250	2.8	$ 2.99	$ 32.89	$ -	$ -	$ 8.44	$ 92.79	$ 125.68	
15	P100, P101, P102, MG101	Plumbing	2" Dia Sanitary Pipe Wye	1	EA	0%	1.00	0.325	0.3	$ 5.99	$ 5.99	$ -	$ -	$ 10.97	$ 10.97	$ 16.96	
16	P100, P101, P102, MG101	Plumbing	3" Dia Sanitary Pipe Wye	2	EA	0%	2.00	0.455	0.9	$ 13.99	$ 27.98	$ -	$ -	$ 15.35	$ 30.70	$ 58.68	
17	P100, P101, P102, MG101	Plumbing	4" Dia Sanitary Pipe Wye	9	EA	0%	9.00	0.585	5.3	$ 19.99	$ 179.91	$ -	$ -	$ 19.74	$ 177.64	$ 357.55	
18	P100, P101, P102, MG101	Plumbing	3" / 1-1/2" Dia Sanitary Pipe Wye	8	EA	0%	8.00	0.455	3.6	$ 9.99	$ 79.92	$ -	$ -	$ 15.35	$ 122.81	$ 202.73	
19	P100, P101, P102, MG101	Plumbing	4" / 3" Dia Sanitary Pipe Wye	12	EA	0%	12.00	0.585	7.0	$ 21.99	$ 263.88	$ -	$ -	$ 19.74	$ 236.85	$ 500.73	
20	P100, P101, P102, MG101	Plumbing	4" / 2" Dia Sanitary Pipe Wye	12	EA	0%	12.00	0.585	7.0	$ 19.99	$ 239.88	$ -	$ -	$ 19.74	$ 236.85	$ 476.73	
21	P100, P101, P102, MG101	Plumbing	4" / 3" Dia Sanitary Pipe Reducer	1	EA	0%	1.00	0.360	0.4	$ 6.49	$ 6.49	$ -	$ -	$ 12.15	$ 12.15	$ 18.64	
			Sanitary Pipe														
			Schedule 40 Pvc Pipe														
22	P100, P101, P102, MG101	Plumbing	2" Dia Sanitary Pipe	52	LF	10%	56.66	0.070	4.0	$ 1.25	$ 70.83	$ -	$ -	$ 2.36	$ 133.82	$ 204.65	
23	P100, P101, P102, MG101	Plumbing	4" Dia Sanitary Pipe	7	LF	10%	7.80	0.110	0.9	$ 3.80	$ 29.64	$ -	$ -	$ 3.71	$ 28.95	$ 58.58	
			Fittings:														
24	P100, P101, P102, MG101	Plumbing	2" Dia Sanitary Pipe 90 Deg Elbow	4	EA	0%	4.00	0.250	1.0	$ 2.99	$ 11.96	$ -	$ -	$ 8.44	$ 33.74	$ 45.70	
25	P100, P101, P102, MG101	Plumbing	2" / 1-1/2" Dia Sanitary Pipe Wye	7	EA	0%	7.00	0.325	2.3	$ 9.49	$ 66.43	$ -	$ -	$ 10.97	$ 76.76	$ 143.19	
26	P100, P101, P102, MG101	Plumbing	2" Dia Sanitary Pipe Wye	1	EA	0%	1.00	0.325	0.3	$ 5.99	$ 5.99	$ -	$ -	$ 10.97	$ 10.97	$ 16.96	
			PLUMBING FIXTURE														
27	P100, P101, P102, MG101	Plumbing	8" Dia FS, Floor Sink	2	EA	0%	2.00	3.000	6.0		$ -	$ -	$ -	$ 101.22	$ 202.44	$ 202.44	
			Cleanout														
28	P100, P101, P102, MG101	Plumbing	3" Dia FCO, Floor Cleanout	2	EA	0%	2.00	1.250	2.5	$ 81.39	$ 162.78	$ -	$ -	$ 42.18	$ 84.35	$ 247.13	
29	P100, P101, P102, MG101	Plumbing	4" Dia FCO, Floor Cleanout	2	EA	0%	2.00	1.250	2.5	$ 81.39	$ 162.78	$ -	$ -	$ 42.18	$ 84.35	$ 247.13	
			Trenching And Backfilling														
30	P100, P101, P102, MG101	Plumbing	Trenching And Backfilling	624.0	CY	0%	624.00	0.250	156.0	$ -	$ -	$ -	$ -	$ 8.44	$ 5,263.44	$ 5,263.44	
			Saw Cut														
31	P100, P101, P102, MG101	Plumbing	Saw Cut & Fill	312.0	LF	0%	312.00	0.300	93.6		$ -	$ -	$ -	$ 10.12	$ 3,158.06	$ 3,158.06	
							LABOR HOURS	349.845	MATERIAL COST	$ 2,776.87	EQUIPMENT COST	$ -	LABOR COST	$ 11,803.78	SUBTOTAL		$ 14,580.65

TOTAL MATERIAL COST	$ 2,777
TOTAL LABOR COST	$ 11,804
TOTAL EQUIPMET COST	$ -
TOTAL LABOR HOURS	350

PRICING NOTES & QA | BUX SURGERY CENTER ASTC SUITE - PLUMBING

4071 Tates Creek Centre Dr, Lexington KY (Fayette County) | Plumbing, above ground + underground | Open shop, private | Priced 2026-10-08 | Takeoff only; no plans or specs were provided

1. EXECUTIVE PRICING SUMMARY

#	Item	Workbook (live)	Independent calc	Variance	Basis / cell reference
1	Bid Price Concealed (block 1)	$80,116.66	$80,116.66	$0.00	PROPOSAL SUMMARY E39
2	Bid Price Underground Plumbing (block 2)	$19,091.92	$19,091.92	$0.00	PROPOSAL SUMMARY E71
3	GRAND TOTAL	$99,208.58	$99,208.58	$0.00	PROPOSAL SUMMARY E73

#	Direct cost component (all sheets)	Value	Notes
1	Material (before tax)	$39,144.38	Sum of line material, all detail sheets
2	Labor (base wage + fringe)	$36,467.85	Sum of line labor at the rate the template formula actually uses
3	Equipment	$0.00	Line equipment (template: unit equipment x labor hours)
4	Additional costs carried in summary rows	$1,345.00	Div-01 items with no template line; itemized in section 6
5	Total labor hours	1,090.1	All detail sheets

#	Count	Value	Notes
1	Takeoff line items reviewed	199	All quantity lines on all detail sheets, incl. Div-01 template lines
2	Line items priced (non-zero)	188	
3	Lines left blank with NEED QUOTATION fill	62	Material not priced: no published price found, or fixture/equipment per FEDES rule. Listed in section 7
4	Allowances	0	Section 8
5	Discrepancies identified	7	Section 9
6	High / critical risks	3	Section 13
7	Template formula issues	4	Section 15

No plans or specifications were provided. Quantities are priced as received and could not be checked against drawings.
Fixtures and equipment carry install labor only; material is left blank with the NEED QUOTATION fill (FEDES rule). Medical gas piping material is also blank: no published price for ASTM B819 cleaned copper was found.

2. PRICING METHODOLOGY

- Only input cells were written: unit labor hours (I), unit material (K), unit equipment (M = 0), division labor rates, Div-01 permit quantity/fee, and the summary tax, OH&P, bond, additional-cost and man-loading rate cells. No formula, sheet, row, column, merge, unit or quantity was changed.
- Labor = crew composite (base + 15% fringe) x unit hours x quantity with waste. Statutory payroll burden (FICA, FUTA, KY unemployment, KY workers comp + special fund) goes through the template LABOR TAX cell, so it is not double counted.

- Material = published 2026 online retail/catalog prices (2026-10-08). No trade discount applied, so material leans high. Lines with no published price are left blank with the template NEED QUOTATION fill rather than estimated.

- Plumbing fixtures and equipment: install labor only, material blank + NEED QUOTATION fill (standing FEDES rule).
- Each summary block (above ground, underground) gets the same tax, OH and profit inputs; Div-01 extras are carried once, in the above-ground block.

3. WAGE BUILD-UP

#	Classification	Base wage $/hr	Fringe $/hr	Rate (base+fringe)	Statutory burden	Loaded $/hr	Source / effective date
1	Plumber / pipefitter (47-2152)	$29.75	$4.46	$34.21	$3.36	$37.57	OEWS May 2025 Lexington-Fayette MSA median $29.75 [S1]
2	Working foreman, 1st-line supervisor (47-1011)	$36.77	$5.52	$42.29	$4.03	$46.31	OEWS May 2025 Lexington MSA median $36.77 [S1]
3	Plumber helper (47-3015)	$20.67	$3.10	$23.77	$2.50	$26.27	OEWS May 2025 Lexington MSA median $20.67 [S1]
4	Construction laborer (47-2061)	$22.26	$3.34	$25.60	$2.65	$28.25	OEWS May 2025 Lexington MSA median $22.26 [S1]

#	Statutory burden component	Rate	Source
1	FICA (employer)	7.65%	Social Security 6.2% + Medicare 1.45%
2	FUTA 0.6% on first $7,000 (effective on plumber annual pay)	0.07%	IRS; KY not a 2025 credit-reduction state (Fed. Register 2026-01-12) [S3]
3	KY unemployment 9.0% on first $12,000 (new construction employer rate; effective on plumber annual pay)	1.75%	KY Office of Unemployment Insurance 2026 guide [S4]. Experienced employers pay less.
4	KY workers comp class 5183 $1.74/$100 x 1.0553 special fund	1.84%	Third-party published rate, type/year not stated: LOW CONFIDENCE [S5]; special fund 5.53% [S5]

#	Division / sheet	Crew	Rate entered	Burden on rate	Cell

1	ABOVE GROUND WORK DIV-01 GENERAL REQUIREMENTS	Laborer	$25.60	10.36%	ABOVE GROUND WORK!O11
2	ABOVE GROUND WORK DIV-22 PLUMBING	3 plumbers + 1	$33.74	9.85%	ABOVE GROUND WORK!O21
3	UNDERGROUND WORK DIV-01 GENERAL REQUIREMENTS	Laborer	$25.60	10.36%	UNDERGROUND WORK !O11
4	UNDERGROUND WORK DIV-22 PLUMBING	3 plumbers + 1 foreman + 1 helper	$33.74	9.85%	UNDERGROUND WORK !O20

Summary block 'BID PRICE CONCEALED': LABOR TAX D21 = 9.85% (labor-weighted burden of the divisions in the block); MATERIAL SALES TAX D18 = 6.00%; OH 10%, profit 10%.
Summary block 'BID PRICE UNDERGROUND PLUMBING': LABOR TAX D53 = 9.85% (labor-weighted burden of the divisions in the block); MATERIAL SALES TAX D50 = 6.00%; OH 10%, profit 10%.

- Unemployment taxes are spread over a full year of pay (2,080 hrs) because they stop at the wage base.
- Fringe 15% of base is an open-shop assumption (health, PTO, retirement). BLS ECEC national construction figure is about 26% (includes union employers).

4. MATERIAL PRICING BASIS AND LABOR PRODUCTIVITY

Ref	Material / item	Unit	Price carried	Source	Notes
S2	Type L hard copper 1/2" to 2"	LF	3.80 to 51.84	HD Supply (Mueller), 10 ft	1" ($15.90) and 1-1/4" ($27.20) look high against 3/4" and 1-1/2"; confirm with distributor
S2	Wrot copper fittings (Nibco)	EA	1.09 to 27.89	Zoro / Nibco listings	Pack price used when sold in packs
S2	Sch 40 PVC DWV pipe and fittings (Charlotte)	LF/EA	0.93 to 21.99	Hemlock Hardware catalog feed	Retail
S2	Fiberglass ASJ pipe insulation	LF	3.10 to 5.73	Zoro (OC, JM)	3/4" wall not found; 1" wall price used for HW and HWR
S2	Lead-free full-port ball valves	EA	37.51 to 332.89	Nibco / Apollo listings	1-1/4" to 2" are Apollo (higher)
S2	Clevis hangers (Caddy EG) and threaded rod	EA	1.69 to 9.32	Zoro	Copper-plated/isolated hangers for copper NOT priced; rod length 2 ft per hanger assumed
S2	Floor drains and cleanouts	EA	45.69 to 81.39	Zoro (Zurn/Smith	Spec models (Z415, Z1400) not priced; PVC-body comparables used
S6	KY plumbing permit	fee	830	815 KAR 20:050	$50 + $20 x 39 counted fixtures/appliances/openings

Labor production rates (unit hours) are FEDES estimator judgment for the stated conditions. No published RSMeans, NECA, MCAA or NRCA unit-hour data could be accessed during this review; each rate is shown on the line table in section 18 so it can be checked against company history.

5. SALES TAX BASIS

- Kentucky sales tax 6%, no local sales tax [S7].
- Under 103 KAR 26:070 the contractor is the consumer of materials and fixtures and pays 6% at purchase; labor is not taxed and no tax is billed to the owner [S7]. Entered as MATERIAL SALES TAX 6% in both summary blocks.

- Fixtures/equipment left blank (NEED QUOTATION) carry no tax yet; when quotes are entered in K the template taxes them automatically.

6. DIVISION 01 / GENERAL REQUIREMENTS BASIS

#	Item	Location	Carried	Status	Basis
1	Permit (KY plumbing permit)	ABOVE GROUND row 12	$830.00	Carried	$50 + $20 x 39 (fixtures, appliances, drains/openings counted from takeoff) per 815 KAR 20:050 [S6]. Plumbing permits in KY are pulled by the master plumber.
2	Site development / variance / private inspections / site plan	rows 13-15,17 both sheets	$0.00	N/A	Interior suite; state plumbing inspections are included in the permit (5 inspections).
3	Debris haul off	rows 16	$0.00	N/A	No published Lexington dumpster price found; assumed GC dumpster. Gap, not invented.
4	Underground sheet Div-01	UNDERGROUND	$0.00	N/A	Div-01 carried once, on the above-ground sheet.
5	Project Supervision	PROPOSAL	$0.00	N/A	Working foreman inside crew composite; PM in overhead
6	Submittals	PROPOSAL SUMMARY	$371.00	Carried	8 MH foreman: product data for valves, drains, med-gas components, insulation; coordination drawings not included
7	Temporary Facilities	PROPOSAL	$0.00	N/A	Interior suite in existing building; GC temp facilities assumed
8	Project Schedule	PROPOSAL	$0.00	N/A	Not required at this size
9	Office Overheads	PROPOSAL	$0.00	N/A	Inside 10% overhead
10	Closeout	PROPOSAL SUMMARY	$463.00	Carried	10 MH foreman: O&M manuals, as-builts, test reports, med-gas certification coordination
11	Permits	PROPOSAL	$0.00	N/A	Carried on ABOVE GROUND row 12 (KY plumbing permit $830)
12	Allowances	PROPOSAL	$0.00	N/A	None carried; unpriced items listed as NEED QUOTATION
13	Mobilization	PROPOSAL SUMMARY	$511.00	Carried	2 mobilizations (underground, then above ground) x 4 MH plumber + 4 MH helper
14	Sub-Contracts	PROPOSAL	$0.00	N/A	Med-gas third-party verification not priced (see missing scope)

7. VENDOR QUOTES REQUIRED / NEED QUOTATION LINES

#	Sheet!row	Item	Qty	Unit	Labor carried?	Reason material is blank
1	ABOVE GROUND WORK!64	3/4" Dia DE-Ionized	18.79	LF	Yes	DI pipe material not specified in takeoff

2	ABOVE GROUND WORK!132	1/2" Dia Oxygen	248.13	LF	Yes	Med-gas cleaned & capped copper (ASTM B819) price not found
3	ABOVE GROUND WORK!133	3/4" Dia Oxygen	31.99	LF	Yes	Med-gas cleaned & capped copper (ASTM B819) price not found
4	ABOVE GROUND WORK!136	1/2" Dia Pipe 90	18	EA	Yes	Med-gas cleaned fittings price not found
5	ABOVE GROUND WORK!137	3/4" Dia Pipe 90	2	EA	Yes	Med-gas cleaned fittings price not found
6	ABOVE GROUND WORK!138	3/4" Dia Tee	7	EA	Yes	Med-gas cleaned fittings price not found
7	ABOVE GROUND WORK!139	3/4" / 1/2" Dia Pipe	1	EA	Yes	Med-gas cleaned fittings price not found
8	ABOVE GROUND WORK!142	1/2" Dia Medical Air	90.5	LF	Yes	Med-gas cleaned & capped copper (ASTM B819) price not found
9	ABOVE GROUND WORK!145	1/2" Dia Pipe 90	9	EA	Yes	Med-gas cleaned fittings price not found
10	ABOVE GROUND WORK!146	1/2" Dia Pipe Tee	1	EA	Yes	Med-gas cleaned fittings price not found
11	ABOVE GROUND WORK!150	1/2" Dia Nitrous Pipe	91.73	LF	Yes	Med-gas cleaned & capped copper (ASTM B819) price not found
12	ABOVE GROUND WORK!153	1/2" Dia Pipe 90	9	EA	Yes	Med-gas cleaned fittings price not found
13	ABOVE GROUND WORK!154	1/2" Dia Tee	1	EA	Yes	Med-gas cleaned fittings price not found
14	ABOVE GROUND WORK!161	1/2" Dia Pipe 45	1	EA	Yes	Exact wrot copper fitting size not found
15	ABOVE GROUND WORK!172	1" Dia Pipe 90 Deg	2	EA	Yes	Exact wrot copper fitting size not found
16	ABOVE GROUND WORK!191	L-1: Lavatory	4	EA	Yes	Fixture/equipment: FEDES rule, install labor only
17	ABOVE GROUND WORK!192	S-1: Sink	6	EA	Yes	Fixture/equipment: FEDES rule, install labor only
18	ABOVE GROUND WORK!193	S-2: Sink	2	EA	Yes	Fixture/equipment: FEDES rule, install labor only
19	ABOVE GROUND WORK!194	S-3: Sink	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
20	ABOVE GROUND WORK!195	S-4: Sink	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
21	ABOVE GROUND WORK!196	SSS-3: Sink	2	EA	Yes	Fixture/equipment: FEDES rule, install labor only
22	ABOVE GROUND WORK!197	WC-1: Water Closet	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
23	ABOVE GROUND WORK!198	WC-2: Water Closet	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
24	ABOVE GROUND WORK!199	IMB-1: Ice Maker	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
25	ABOVE GROUND WORK!200	MB-1 Maker Box	2	EA	Yes	Fixture/equipment: FEDES rule, install labor only
26	ABOVE GROUND WORK!201	Duplex DI Unit	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
27	ABOVE GROUND WORK!202	WS-1	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
28	ABOVE GROUND WORK!203	EEW-1	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
29	ABOVE GROUND WORK!204	CSS-1: Clean	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
30	ABOVE GROUND WORK!207	30 Gallon Air Compressor MFR:	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
31	ABOVE GROUND WORK!208	1/2" Dia Humidifier Terminate With	1	EA	Yes	Termination fittings not specified
32	ABOVE GROUND WORK!216	ZVB-1: Zone Valve	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
33	ABOVE GROUND WORK!217	ZVB-2: Zone Valve	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
34	ABOVE GROUND WORK!218	ZVB-3: Zone Valve	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
35	ABOVE GROUND WORK!221	3/4" Dia Back Flow	5	EA	Yes	Backflow type not specified (RPZ $714 vs dual check $108 [S2])
36	ABOVE GROUND WORK!227	3" Dia HD: Hub	2	EA	Yes	Hub drain assembly not specified/priced
37	ABOVE GROUND WORK!228	2" Dia HD: Hub	1	EA	Yes	Hub drain assembly not specified/priced
38	ABOVE GROUND WORK!231	N20 Manifold	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
39	ABOVE GROUND WORK!232	O2 Manifold	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
40	ABOVE GROUND WORK!233	MA Manifold	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
41	ABOVE GROUND WORK!236	MAP-1: Master	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
42	ABOVE GROUND WORK!237	MAP-2: Master	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
43	ABOVE GROUND WORK!238	MVP: Vacuum Pump	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
44	ABOVE GROUND WORK!239	AAP-1: Pre/Post Op	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
45	ABOVE GROUND WORK!240	AAP-2: Pre/Post Op	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
46	ABOVE GROUND WORK!243	EWH: Electric	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
47	ABOVE GROUND WORK!244	Hot Water	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
48	ABOVE GROUND WORK!245	Expansion Tank	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
49	ABOVE GROUND WORK!246	Thermometer	2	EA	Yes	No published price found for this item
50	ABOVE GROUND WORK!257	Water Softener	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
51	ABOVE GROUND WORK!259	Brine Tank	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
52	ABOVE GROUND WORK!260	3/4" Dia Terminate Backwash Over Hub	1	EA	Yes	Air-gap fitting not priced
53	ABOVE GROUND WORK!263	1/2" Dia ASSE 1070	1	EA	Yes	No published price found for this item
54	ABOVE GROUND WORK!264	1/2" Dia Stops And Supplies With	2	EA	Yes	No published price found for this item
55	ABOVE GROUND WORK!265	Foot Pedal Control With Integral Stops	2	EA	Yes	Fixture/equipment: FEDES rule, install labor only
56	ABOVE GROUND WORK!266	GOOSNECK FAUCET WITH	2	EA	Yes	Fixture/equipment: FEDES rule, install labor only
57	ABOVE GROUND WORK!269	1" Dia Main Line	1	EA	Yes	No published price found for this item
58	ABOVE GROUND WORK!270	Mainline	1	EA	Yes	No published price found for this item

59	ABOVE GROUND WORK!271	2" Dia Vacuum Pump Exhaust Thru	1	EA	Yes	Fixture/equipment: FEDES rule, install labor only
60	ABOVE GROUND WORK!272	3/4" Dia Gas Pipe	3	EA	Yes	No published price found for this item
61	UNDERGROUND WORK !53	3" Dia FS, Floor Sink	2	EA	Yes	Fixture/equipment: FEDES rule, install labor only
62	UNDERGROUND WORK !63	Saw Cut & Fill	312	LF	Yes	Concrete patch material and saw rental not priced (no source found)

8. ALLOWANCES

#	Item	Qty / unit	Allowance $	Basis	Included	Excluded	Why exact pricing cannot be set

9. TAKEOFF DISCREPANCIES (PRICED AS RECEIVED)

#	Issue	Takeoff	Expected /	Reference	Priced as	Exposure	Detail
1	Trenching & backfill quantity looks very high	624 CY	~0.3 to 0.6 CY per LF of trench; 312 LF	UNDERGROUND row 60 vs row 63	As received	Overstated labor ~$4,000 to $5,500	624 CY / 312 LF = 2.0 CY per LF of trench (a 2 ft x 2 ft x 13.5 ft deep trench). Check units (CF vs CY?).
2	De-ionized water in Type L copper	61.5 LF 3/4" Type L (row 80)	DI water is normally run in PP, PVDF or	ABOVE GROUND rows 62-86	As received (copper)	Low to moderate	Row 64 has a second DI run with no material.
3	Med-gas lines have no material spec	O2, MA, N2O, vacuum pipe rows	ASTM B819 cleaned & capped Type K/L,	NFPA 99	Labor only (x1.5) for O2/MA/N2O;	See risk R2	
4	Rod count equals hanger count, unit EA with no length	348 + 37 EA	Rod length per hanger	rows 281-282	2 ft per piece assumed	Low	
5	Insulation 3/4" thick on hot water lines	rows 95-98, 117	3/4" wall insulation		Priced at 1" wall	Slight overstatement	
6	Summary block label	PROPOSAL SUMMARY row 9 /	Sheet is ABOVE GROUND WORK	Template text	Not changed	None	Label carried over from another job.
7	No pipe fittings for cold soft water/condensate beyond elbows; no couplings on long runs	Fitting lists are short for 1,400+ LF of copper	Couplings every 10-20 ft	Takeoff structure	As received	$300 to $900	Couplings are often carried in pipe unit price; not included here.

10. MISSING / ADDITIONAL SCOPE

#	Scope item	Reference	Carried?	Carried $	Exposure range	Notes
1	Medical gas third-party verification (ASSE 6030) and certification	NFPA 99	No	$0	not quantified	No published price found
2	Med-gas brazer qualification (ASSE 6010), nitrogen purge gas, cleaned fittings	NFPA 99	Labor factor only	$0	not quantified	
3	Copper-plated or isolated hangers for copper pipe	Practice	No (EG steel priced)	$0	$1,500 to $3,000	Copper-plated 3/4" is $10.99 vs $2.19 EG [S2]
4	Couplings, solder/flux, brazing rod, test caps, pipe ID labels	Accessories	No	$0	$800 to $2,000	
5	Fixture and equipment material (all NEED QUOTATION lines)	Section 7	No (labor only)	$0	quotes required	FEDES rule
6	Excavator and concrete saw rental for underground work	UNDERGROUND	No	$0	$1,000 to $3,000	No published rental rate found this session
7	Sleeves, firestopping at penetrations, access doors	Practice	No	$0	not quantified	Often by others
8	Testing, flushing, disinfection of domestic water	Practice	Labor inside closeout only	$0	$300 to $800	

11. KEY ASSUMPTIONS

- Normal working hours in an unoccupied suite of an existing building; ceiling heights up to about 10 ft.
- Contractor holds a KY master plumber license and pulls the plumbing permit.
- Domestic water, waste and vent are self-performed; med-gas installed by ASSE 6010 qualified brazers on staff.
- Copper and fittings at published retail; no trade discount.
- Unemployment tax at the KY new-construction-employer rate (conservative).

12. EXCLUSIONS

- Fixture and equipment material (quote required, labor carried).
- Medical gas verification/certification by third party.
- Excavator/saw rental and concrete patch material (no source found).
- Building permit (GC); utility tap/impact fees; water meter.
- Firestopping, cutting/patching of finishes, painting, access doors.
- Electrical connections to water heater, pumps, compressor, alarms.
- Overtime and after-hours work.

13. DOLLAR EXPOSURE / RISK ITEMS

#	Risk	Reason	Carried	Low impact	High impact	Rating	Notes
1	No drawings provided	Quantities cannot be	as received	-$3,000	$6,000	HIGH	Request plumbing plans P100-P102, MG101
2	Medical gas material and verification not priced	No published price for B819 tube;	labor only	$4,000	$12,000	HIGH	Get med-gas package quote
3	Trenching quantity 624 CY	Looks 3 to 6 times	as received	-$5,500	$0	MODERATE	Downside: bid may be high
4	Fixture/equipment material blank	FEDES rule	$0	$15,000	$45,000	HIGH	Must be added from quotes before bid
5	Copper prices at retail, some outliers	1" and 1-1/4" look	retail	-$2,500	$800	MODERATE	
6	Labor productivity	Judgment-based unit	see section 18	-$2,000	$2,500	MODERATE	+/- 20%
7	KY WC rate low confidence	Third-party rate	$1.74/$100	$0	$600	LOW	Confirm carrier rate

14. TAKEOFF-TO-ESTIMATE RECONCILIATION

#	Sheet / division	Takeoff lines	Priced	Need quotation	Material $	Labor $	Notes
1	ABOVE GROUND WORK DIV-01	6	1	0	$830.00	$0.00	
2	ABOVE GROUND WORK DIV-22	162	162	60	$35,537.52	$24,664.07	
3	UNDERGROUND WORK DIV-01	6	0	0	$0.00	$0.00	
4	UNDERGROUND WORK DIV-22	25	25	2	$2,776.87	$11,803.78	

Every takeoff line is carried at its takeoff quantity, unit and division. No quantity, unit, description or formula was changed. Div-01 template quantities were entered only where a cost is carried (section 6).

15. MATHEMATICAL QA AND TEMPLATE FORMULA ISSUES

Independent calculation: every line recomputed in Python as qty x (1 + waste) x unit rate, then the template's own summary formulas evaluated against those independent line values. Result 99,208.58. Workbook after full LibreOffice recalculation: see section 1 variance column (live).

#	Issue (formula not modified)	Cells	Dollar impact now	Detail
1	Labor formula O on 5 line(s) multiplies by O41 instead of the division labor rate	ABOVE GROUND WORK!O55:O67	$409.50 restored	Rows 55, 57, 60, 64, 67. Template labor on these rows is wrong. Formula not changed; the labor shortfall (with burden and OH&P) is carried in the summary division row ADDITIONAL COST input (col L): ABOVE GROUND WORK summary row 12: $409.50
2	Summary I12/I44 omit equipment H (I11/I43 include it)	PROPOSAL	$0	Equipment on Div-22 lines would drop out; none carried.
3	Detail line total Q excludes equipment N	Q column	$0	Same effect.
4	Above-ground block labeled CONCEALED	B9, C39	$0	Text only.

16. DEVIL'S ADVOCATE REVIEW

#	Area	Challenge and
1	Scope	Biggest open items: fixture/equipment material (labor only by rule), med-gas material and certification, excavation equipment. The bid is not complete until those quotes are added.
2	Quantities	Trenching 624 CY is the most suspicious quantity; at 0.25 MH/CY it carries about $6,000 of labor that may not be real.
3	Labor	Lexington median wages with 15% fringe; plumber composite $33.74/hr before burden. Med-gas lines carry 1.5x labor for brazing with purge.
4	Materials	Retail pricing; copper is the largest material driver. A distributor quote should come in lower.
5	Commercial	6% KY tax on materials only; OH 10% and profit 10% are the template defaults. No contingency, no bond.

17. EXTERNAL SOURCES (all accessed 2026-10-08 unless noted)

Ref	Source	Used for	Data / effective	URL
S1	O*NET Local Wages (BLS OEWS May 2025), Lexington-Fayette MSA	Plumber, helper, laborer, supervisor	May 2025 data	https://www.onetonline.org/link/localwages/47-2152.00?st=KY
S2	Online retail/catalog listings: HD Supply, Zoro, Hemlock Hardware, Newegg (Nibco), supplyhouse	All material unit prices (see research file)	seen 2026-10-08	https://www.zoro.com ; https://hemlockhardware.com ; https://punchout.hdsupplysolutions.com
S3	Federal Register FUTA credit reductions for 2025	FUTA 0.6%	2026-01-12	https://www.federalregister.gov/documents/2026/01/12/2026-00342
S4	Kentucky Office of Unemployment Insurance employer guide	9.0% new construction	2026	https://kcc.ky.gov/
S5	Third-party WC rate page; KY special fund assessment	5183 $1.74/$100 (low confidence);	2026	see research file labor_tax_pilot.md
S6	815 KAR 20:050 plumbing fees	Permit fee	eff. 2022-03-01	https://apps.legislature.ky.gov/law/kar/titles/815/020/050/
S7	KY DOR sales tax; 103 KAR 26:070	6% on contractor	current	https://apps.legislature.ky.gov/law/kar/titles/103/026/070/

Hallucination control: a separate reviewer re-opened a 42-item sample of these source pages (prices, wage rates, tax rates, unemployment and WC rates) and confirmed all 42 against the live pages on 2026-10-08.

18. LINE PRICING BASIS (EVERY LINE)

Row	Description	Qty w/ waste	Unit hrs	Unit material	Ext. material	Ext. labor	Basis / source ref / flag

ABOVE	Permit (.07% of project value) [fee]	1	0	$830.00	$830.00	$0.00	KY plumbing permit 815 KAR 20:050: $50 + $20 x 39 fixtures/appliances/openings [S6]
ABOV	Site development [fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
ABOV	Variance [fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
ABOV	Private inspections [fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
ABOV	Debris haul off [load]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
ABOV	Site plan [Fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
ABOV	1/2" Dia Cold Water Pipe [LF]	236.5	0.08	$3.80	$898.70	$638.36	Type L hard copper 1/2" $3.8/ft [S2]; 0.08 MH/LF
ABOV	3/4" Dia Cold Water Pipe [LF]	93.5	0.09	$5.63	$526.40	$283.92	Type L hard copper 3/4" $5.63/ft [S2]; 0.09 MH/LF
ABOV	1" Dia Cold Water Pipe [LF]	49.5	0.1	$15.90	$787.05	$167.01	Type L hard copper 1" $15.9/ft [S2]; 0.1 MH/LF
ABOV	1-1/2" Dia Cold Water Pipe [LF]	35.12	0.14	$23.35	$820.12	$165.91	Type L hard copper 1-1/2" $23.35/ft [S2]; 0.14 MH/LF
ABOV	2" Dia Cold Water Pipe [LF]	181.43	0.17	$51.84	$9,405.54	$1,040.67	Type L hard copper 2" $51.84/ft [S2]; 0.17 MH/LF
ABOV	1/2" Dia Cold Water Pipe [LF]	226.85	0.05	$3.10	$703.24	$382.70	FG ASJ 1/2" wall 1/2" $3.1/LF [S2]; 0.05 MH/LF
ABOV	3/4" Dia Cold Water Pipe [LF]	53.39	0.05	$3.16	$168.73	$90.08	FG ASJ 1/2" wall 3/4" $3.16/LF [S2]; 0.05 MH/LF
ABOV	1-1/2" Dia Cold Water Pipe [LF]	35.12	0.05	$4.00	$140.49	$59.25	FG ASJ 1/2" wall 1-1/2" $4.0/LF [S2]; 0.05 MH/LF
ABOV	2" Dia Cold Water Pipe [LF]	181.43	0.05	$4.53	$821.90	$306.08	FG ASJ 1/2" wall 2" $4.53/LF [S2]; 0.05 MH/LF
ABOV	1/2" Dia Pipe 90 Deg Elbow [EA]	45	0.05	$3.10	$139.50	$75.92	FG ASJ 1/2" wall 1/2" $3.1/LF [S2]; 0.05 MH/LF
ABOV	3/4" Dia Pipe 90 Deg Elbow [EA]	6	0.05	$3.16	$18.96	$10.12	FG ASJ 1/2" wall 3/4" $3.16/LF [S2]; 0.05 MH/LF
ABOV	1" Dia Pipe 90 Deg Elbow [EA]	2	0.05	$4.30	$8.60	$3.37	FG ASJ 1/2" wall 1" $4.3/LF [S2]; 0.05 MH/LF
ABOV	1-1/2" Dia Pipe 90 Deg Elbow [EA]	4	0.05	$4.00	$16.00	$6.75	FG ASJ 1/2" wall 1-1/2" $4.0/LF [S2]; 0.05 MH/LF
ABOV	2" Dia Pipe 90 Deg Elbow [EA]	7	0.05	$4.53	$31.71	$11.81	FG ASJ 1/2" wall 2" $4.53/LF [S2]; 0.05 MH/LF
ABOV	1/2" Dia Pipe Tee [EA]	1	0.05	$3.10	$3.10	$1.69	FG ASJ 1/2" wall 1/2" $3.1/LF [S2]; 0.05 MH/LF
ABOV	2" Dia Pipe Tee [EA]	5	0.05	$4.53	$22.65	$8.44	FG ASJ 1/2" wall 2" $4.53/LF [S2]; 0.05 MH/LF
ABOV	3/4" / 1/2" Dia Pipe Tee [EA]	3	0.05	$3.16	$9.48	$5.06	FG ASJ 1/2" wall 3/4" $3.16/LF [S2]; 0.05 MH/LF
ABOV	1-1/2" / 1/2" Dia Pipe Tee [EA]	1	0.05	$4.00	$4.00	$1.69	FG ASJ 1/2" wall 1-1/2" $4.0/LF [S2]; 0.05 MH/LF
ABOV	2" / 1/2" Dia Pipe Tee [EA]	12	0.05	$4.53	$54.36	$20.24	FG ASJ 1/2" wall 2" $4.53/LF [S2]; 0.05 MH/LF
ABOV	2" / 1-1/2" Dia Pipe Tee [EA]	2	0.05	$4.53	$9.06	$3.37	FG ASJ 1/2" wall 2" $4.53/LF [S2]; 0.05 MH/LF
ABOV	3/4" / 1/2" Dia Pipe Reducer [EA]	5	0.05	$3.16	$15.80	$8.44	FG ASJ 1/2" wall 3/4" $3.16/LF [S2]; 0.05 MH/LF
ABOV	1" / 3/4" " Dia Pipe Reducer [EA]	1	0.05	$4.30	$4.30	$1.69	FG ASJ 1/2" wall 1" $4.3/LF [S2]; 0.05 MH/LF
ABOV	2" / 1" Dia Pipe Reducer [EA]	1	0.05	$4.53	$4.53	$1.69	FG ASJ 1/2" wall 2" $4.53/LF [S2]; 0.05 MH/LF
ABOV	1/2" Dia Condenser Water Supply Pipe [LF]	50.01	0.08	$3.80	$190.02	$6.75	Type L hard copper 1/2" $3.8/ft [S2]; 0.08 MH/LF
ABOV	1/2" Dia Condenser Water Supply Pipe [LF]	50.01	0.05	$3.10	$155.02	$4.22	FG ASJ 1/2" wall 1/2" $3.1/LF [S2]; 0.05 MH/LF
ABOV	1/2" Dia Pipe 90 Deg Elbow [EA]	2	0.05	$3.10	$6.20	$0.17	FG ASJ 1/2" wall 1/2" $3.1/LF [S2]; 0.05 MH/LF
ABOV	3/4" Dia DE-Ionized Water Pipe [LF]	18.79	0.09	NEED QUOTE	$0.00	$2.85	0.09 MH/LF
ABOV	3/4" Dia Pipe 90 Deg Elbow [EA]	4	0.35	$2.89	$11.56	$2.36	Wrot copper fitting $2.89 [S2]; 0.35 MH
ABOV	1/2" Dia Cold Soft Waer Pipe [LF]	36.16	0.08	$3.80	$137.40	$97.59	Type L hard copper 1/2" $3.8/ft [S2]; 0.08 MH/LF
ABOV	1/2" Dia Cold Soft Waer Pipe [LF]	36.16	0.05	$3.10	$112.09	$61.00	FG ASJ 1/2" wall 1/2" $3.1/LF [S2]; 0.05 MH/LF
ABOV	1/2" Dia Cold Soft Waer Pipe 90 Deg Elbow [EA]	3	0.05	$3.10	$9.30	$5.06	FG ASJ 1/2" wall 1/2" $3.1/LF [S2]; 0.05 MH/LF
ABOV	3/4" Dia De-Ionized Water Pipe [LF]	67.65	0.09	$5.63	$380.87	$205.43	Type L hard copper 3/4" $5.63/ft [S2]; 0.09 MH/LF
ABOV	3/4" Dia De-Ionized Water Pipe [LF]	67.65	0.05	$3.16	$213.77	$114.13	FG ASJ 1/2" wall 3/4" $3.16/LF [S2]; 0.05 MH/LF
ABOVE	3/4" Dia De-Ionized Water Pipe 90 Deg Elbow [EA]	6	0.05	$3.16	$18.96	$10.12	FG ASJ 1/2" wall 3/4" $3.16/LF [S2]; 0.05 MH/LF
ABOV	3/4" Dia De-Ionized Water Pipe Tee [EA]	1	0.05	$3.16	$3.16	$1.69	FG ASJ 1/2" wall 3/4" $3.16/LF [S2]; 0.05 MH/LF
ABOV	3/4" Dia Hot Water Pipe [LF]	141.9	0.09	$5.63	$798.90	$430.89	Type L hard copper 3/4" $5.63/ft [S2]; 0.09 MH/LF
ABOV	1/2" Dia Hot Water Pipe [LF]	220.47	0.08	$3.80	$837.80	$595.10	Type L hard copper 1/2" $3.8/ft [S2]; 0.08 MH/LF
ABOV	1" Dia Hot Water Pipe [LF]	18.68	0.1	$15.90	$296.98	$63.02	Type L hard copper 1" $15.9/ft [S2]; 0.1 MH/LF
ABOV	1-1/4" Dia Hot Water Pipe [LF]	61.73	0.12	$27.20	$1,679.11	$249.94	Type L hard copper 1-1/4" $27.2/ft [S2]; 0.12 MH/LF
ABOVE	3/4" Dia Hot Water Pipe [LF]	141.9	0.06	$3.98	$564.76	$287.26	3/4" wall not found; priced at 1" wall $3.98/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1/2" Dia Hot Water Pipe [LF]	220.47	0.06	$3.38	$745.20	$446.33	3/4" wall not found; priced at 1" wall $3.38/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1" Dia Hot Water Pipe [LF]	18.68	0.06	$3.42	$63.88	$37.81	3/4" wall not found; priced at 1" wall $3.42/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1-1/4" Dia Hot Water Pipe [LF]	61.73	0.06	$5.73	$353.72	$124.97	3/4" wall not found; priced at 1" wall $5.73/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1/2" Dia Pipe 90 Deg Elbow [EA]	44	0.06	$3.38	$148.72	$89.07	3/4" wall not found; priced at 1" wall $3.38/LF [S2] (conservative); 0.06 MH/LF
ABOVE	3/4" Dia Pipe 90 Deg Elbow [EA]	10	0.06	$3.98	$39.80	$20.24	3/4" wall not found; priced at 1" wall $3.98/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1-1/4" Dia Pipe 90 Deg Elbow [EA]	4	0.06	$5.73	$22.92	$8.10	3/4" wall not found; priced at 1" wall $5.73/LF [S2] (conservative); 0.06 MH/LF
ABOVE	3/4" / 1/2" Dia Pipe Tee [EA]	11	0.06	$3.98	$43.78	$22.27	3/4" wall not found; priced at 1" wall $3.98/LF [S2] (conservative); 0.06 MH/LF

ABOVE	1" / 3/4" Dia Pipe Tee [EA]	2	0.06	$3.42	$6.84	$4.05	3/4" wall not found; priced at 1" wall $3.42/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1" / 1/2" Dia Pipe Tee [EA]	1	0.06	$3.42	$3.42	$2.02	3/4" wall not found; priced at 1" wall $3.42/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1-1/4" / 1/2" Dia Pipe Tee [EA]	4	0.06	$5.73	$22.92	$8.10	3/4" wall not found; priced at 1" wall $5.73/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1-1/4" / 3/4" Dia Pipe Tee [EA]	3	0.06	$5.73	$17.19	$6.07	3/4" wall not found; priced at 1" wall $5.73/LF [S2] (conservative); 0.06 MH/LF
ABOVE	3/4" / 1/2" Dia Pipe Reducer [EA]	5	0.06	$3.98	$19.90	$10.12	3/4" wall not found; priced at 1" wall $3.98/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1-1/4" / 1" Dia Pipe Reducer [EA]	1	0.06	$5.73	$5.73	$2.02	3/4" wall not found; priced at 1" wall $5.73/LF [S2] (conservative); 0.06 MH/LF
ABOVE	1" / 3/4" Dia Pipe Reducer [EA]	1	0.06	$3.42	$3.42	$2.02	3/4" wall not found; priced at 1" wall $3.42/LF [S2] (conservative); 0.06 MH/LF
ABOV	3/4" Dia Hot Water Return Pipe [LF]	159.53	0.09	$5.63	$898.17	$484.44	Type L hard copper 3/4" $5.63/ft [S2]; 0.09 MH/LF
ABOVE	3/4" Dia Hot Water Return Pipe [LF]	159.53	0.06	$3.98	$634.94	$322.96	3/4" wall not found; priced at 1" wall $3.98/LF [S2] (conservative); 0.06 MH/LF
ABOVE	3/4" Dia Pipe 90 Deg Elbow [EA]	6	0.06	$3.98	$23.88	$12.15	3/4" wall not found; priced at 1" wall $3.98/LF [S2] (conservative); 0.06 MH/LF
ABOV	3/4" Dia Gas Pipe [LF]	120.99	0.15	$3.48	$421.04	$612.33	Sch 40 black steel 3/4" $3.48/ft [S2]; 0.15 MH/LF threaded
ABOV	3/4" Dia Pipe 45 Deg Elbow [EA]	3	0.35	$3.59	$10.77	$35.43	3/4" black malleable 45 $3.59 [S2]; 0.35 MH
ABOV	3/4" Dia Pipe 90 Deg Elbow [EA]	6	0.35	$3.08	$18.48	$70.85	3/4" black malleable 90 $3.08 [S2]; 0.35 MH
ABOV	1/2" Dia Oxygen Pipe [LF]	248.13	0.12	NEED QUOTE	$0.00	$1,004.62	Brazed w/ nitrogen purge: 0.08x1.5 MH/LF
ABOV	3/4" Dia Oxygen Pipe [LF]	31.99	0.135	NEED QUOTE	$0.00	$145.70	Brazed w/ nitrogen purge: 0.09x1.5 MH/LF
ABOV	1/2" Dia Pipe 90 Deg Elbow [EA]	18	0.45	NEED QUOTE	$0.00	$273.29	0.45 MH brazed
ABOV	3/4" Dia Pipe 90 Deg Elbow [EA]	2	0.525	NEED QUOTE	$0.00	$35.43	0.525 MH brazed
ABOV	3/4" Dia Tee [EA]	7	0.735	NEED QUOTE	$0.00	$173.59	0.735 MH brazed
ABOV	3/4" / 1/2" Dia Pipe Reducer [EA]	1	0.473	NEED QUOTE	$0.00	$15.96	0.473 MH brazed
ABOV	1/2" Dia Medical Air Pipe [LF]	90.5	0.12	NEED QUOTE	$0.00	$366.40	Brazed w/ nitrogen purge: 0.08x1.5 MH/LF
ABOV	1/2" Dia Pipe 90 Deg Elbow [EA]	9	0.45	NEED QUOTE	$0.00	$136.65	0.45 MH brazed
ABOV	1/2" Dia Pipe Tee [EA]	1	0.63	NEED QUOTE	$0.00	$21.26	0.63 MH brazed
ABOV	1/2" Dia Nitrous Pipe [LF]	91.73	0.12	NEED QUOTE	$0.00	$371.39	Brazed w/ nitrogen purge: 0.08x1.5 MH/LF
ABOV	1/2" Dia Pipe 90 Deg Elbow [EA]	9	0.45	NEED QUOTE	$0.00	$136.65	0.45 MH brazed
ABOV	1/2" Dia Tee [EA]	1	0.63	NEED QUOTE	$0.00	$21.26	0.63 MH brazed
ABOV	1/2" Dia Compressed Air Pipe [LF]	51.17	0.08	$3.80	$194.45	$138.12	Type L hard copper 1/2" $3.8/ft [S2]; 0.08 MH/LF
ABOV	1/2" Dia Pipe 45 Deg Elbow [EA]	1	0.3	NEED QUOTE	$0.00	$10.12	0.3 MH
ABOV	1/2" Dia Pipe 90 Deg Elbow [EA]	5	0.3	$1.09	$5.45	$50.61	Wrot copper fitting $1.09 [S2]; 0.3 MH
ABOV	1/2" Dia Pipe Tee [EA]	1	0.42	$1.49	$1.49	$14.17	Wrot copper fitting $1.49 [S2]; 0.42 MH
ABOVE	3/4" Dia Medical Vacuum Pipe [LF]	245.48	0.1125	$5.63	$1,382.03	$931.77	Type L hard copper 3/4" $5.63/ft [S2] (med vacuum: standard Type L assumed); 0.09 MH/LF
ABOVE	1" Dia Medical Vacuum Pipe [LF]	39.19	0.125	$15.90	$623.17	$165.30	Type L hard copper 1" $15.9/ft [S2] (med vacuum: standard Type L assumed); 0.1 MH/LF
ABOVE	2" Dia Medical Vacuum Pipe [LF]	35.74	0.2125	$51.84	$1,852.71	$256.24	Type L hard copper 2" $51.84/ft [S2] (med vacuum: standard Type L assumed); 0.17 MH/LF
ABOV	3/4" Dia Pipe 90 Deg Elbow [EA]	18	0.438	$2.89	$52.02	$266.01	Wrot copper fitting $2.89 [S2]; 0.438 MH
ABOV	1" Dia Pipe 90 Deg Elbow [EA]	2	0.525	NEED QUOTE	$0.00	$35.43	0.525 MH
ABOV	2" Dia Pipe 90 Deg Elbow [EA]	3	0.938	$25.99	$77.97	$94.94	Wrot copper fitting $25.99 [S2]; 0.938 MH
ABOV	1" / 3/4" Dia Pipe Tee [EA]	7	0.735	$9.95	$69.65	$173.59	Wrot copper fitting $9.95 [S2]; 0.735 MH
ABOV	1" / 3/4" Dia Pipe Reducer [EA]	1	0.473	$5.50	$5.50	$15.96	Wrot copper fitting $5.5 [S2]; 0.473 MH
ABOV	1-1/2" Dia Vent Pipe [LF]	325.42	0.06	$0.93	$302.64	$658.79	Sch 40 PVC 1-1/2" $0.93/ft [S2]; 0.06 MH/LF
ABOV	2" Dia Vent Pipe [LF]	135.48	0.07	$1.25	$169.34	$319.97	Sch 40 PVC 2" $1.25/ft [S2]; 0.07 MH/LF
ABOV	1-1/2" Dia Vent Pipe 90 Deg Elbow [EA]	38	0.2	$2.99	$113.62	$256.42	Charlotte Sch 40 DWV fitting $2.99 [S2]; 0.20 MH
ABOV	2" Dia Vent Pipe 90 Deg Elbow [EA]	8	0.25	$5.49	$43.92	$67.48	Charlotte Sch 40 DWV fitting $5.49 [S2]; 0.25 MH
ABOV	2" Dia Vent Pipe Tee [EA]	4	0.325	$3.99	$15.96	$43.86	Charlotte Sch 40 DWV fitting $3.99 [S2]; 0.33 MH
ABOV	1-1/2" Dia Vent Pipe Tee [EA]	5	0.26	$3.79	$18.95	$43.86	Charlotte Sch 40 DWV fitting $3.79 [S2]; 0.26 MH
ABOV	2" / 1-1/2" Dia Vent Pipe Tee [EA]	11	0.325	$4.29	$47.19	$120.62	Charlotte Sch 40 DWV fitting $4.29 [S2]; 0.33 MH
ABOV	2" / 1-1/2" Dia Vent Pipe Reducer [EA]	3	0.2	$2.29	$6.87	$20.24	Charlotte Sch 40 DWV fitting $2.29 [S2]; 0.20 MH
ABOVE	L-1: Lavatory [EA]	4	2.5	NEED QUOTE	$0.00	$337.40	Install labor 2.5 MH (judgment); fixture/equipment material by quote
ABOVE	S-1: Sink [EA]	6	3	NEED QUOTE	$0.00	$607.32	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	S-2: Sink [EA]	2	3	NEED QUOTE	$0.00	$202.44	Install labor 3.0 MH (judgment); fixture/equipment material by quote

ABOVE	S-3: Sink [EA]	1	3	NEED QUOTE	$0.00	$101.22	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	S-4: Sink [EA]	1	3	NEED QUOTE	$0.00	$101.22	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	SSS-3: Sink [EA]	2	3	NEED QUOTE	$0.00	$202.44	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	WC-1: Water Closet [EA]	1	2.5	NEED QUOTE	$0.00	$84.35	Install labor 2.5 MH (judgment); fixture/equipment material by quote
ABOVE	WC-2: Water Closet [EA]	1	2.5	NEED QUOTE	$0.00	$84.35	Install labor 2.5 MH (judgment); fixture/equipment material by quote
ABOVE	IMB-1: Ice Maker Box [EA]	1	1	NEED QUOTE	$0.00	$33.74	Install labor 1.0 MH (judgment); fixture/equipment material by quote
ABOVE	MB-1 Maker Box [EA]	2	1	NEED QUOTE	$0.00	$67.48	Install labor 1.0 MH (judgment); fixture/equipment material by quote
ABOVE	Duplex DI Unit [EA]	1	4	NEED QUOTE	$0.00	$134.96	Install labor 4.0 MH (judgment); fixture/equipment material by quote
ABOVE	WS-1 [EA]	1	3	NEED QUOTE	$0.00	$101.22	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	EEW-1 [EA]	1	2.5	NEED QUOTE	$0.00	$84.35	Install labor 2.5 MH (judgment); fixture/equipment material by quote
ABOVE	CSS-1: Clean Steam Sink [EA]	1	3	NEED QUOTE	$0.00	$101.22	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	30 Gallon Air Compressor MFR: CRAFTSMAN Model: CMXECXM301 [EA]	1	4	NEED QUOTE	$0.00	$134.96	Install labor 4.0 MH (judgment); fixture/equipment material by quote
ABOVE	1/2" Dia Humidifier Terminate With Internal Air Gap [EA]	1	0.75	NEED QUOTE	$0.00	$25.30	Labor 0.75 MH
ABOV	1/2" Dia Ball Valve [EA]	26	0.4	$37.51	$975.26	$350.90	LF full-port sweat ball valve 1/2" $37.51 [S2]; 0.4 MH
ABOV	3/4" Dia Ball Valve [EA]	5	0.45	$55.13	$275.65	$75.92	LF full-port sweat ball valve 3/4" $55.13 [S2]; 0.45 MH
ABOV	1-1/2" Dia Ball Valve [EA]	2	0.8	$239.31	$478.62	$53.98	LF full-port sweat ball valve 1-1/2" $239.31 [S2]; 0.8 MH
ABOV	2" Dia Ball Valve [EA]	4	1	$332.89	$1,331.56	$134.96	LF full-port sweat ball valve 2" $332.89 [S2]; 1.0 MH
ABOV	1" Dia Ball Valve [EA]	1	0.55	$81.30	$81.30	$18.56	LF full-port sweat ball valve 1" $81.3 [S2]; 0.55 MH
ABOVE	ZVB-1: Zone Valve Box [EA]	1	6	NEED QUOTE	$0.00	$202.44	Install labor 6.0 MH (judgment); fixture/equipment material by quote
ABOVE	ZVB-2: Zone Valve Box [EA]	1	6	NEED QUOTE	$0.00	$202.44	Install labor 6.0 MH (judgment); fixture/equipment material by quote
ABOVE	ZVB-3: Zone Valve Box [EA]	1	6	NEED QUOTE	$0.00	$202.44	Install labor 6.0 MH (judgment); fixture/equipment material by quote
ABOV	3/4" Dia Back Flow Preventer [EA]	5	1.5	NEED QUOTE	$0.00	$253.05	1.5 MH install
ABOVE	3" Dia FD-1: Floor Drain [EA]	4	1.5	$51.19	$204.76	$202.44	Comparable floor drain 3" $51.19 [S2] (Zurn Z415 not found); 1.5 MH
ABOVE	4" Dia FD-1: Floor Drain [EA]	1	1.5	$80.99	$80.99	$50.61	Comparable floor drain 4" $80.99 [S2] (Zurn Z415 not found); 1.5 MH
ABOVE	2" Dia FD-1: Floor Drain [EA]	1	1.5	$45.69	$45.69	$50.61	Comparable floor drain 2" $45.69 [S2] (Zurn Z415 not found); 1.5 MH
ABOV	3" Dia HD: Hub Drain [EA]	2	1	NEED QUOTE	$0.00	$67.48	1.0 MH
ABOV	2" Dia HD: Hub Drain [EA]	1	1	NEED QUOTE	$0.00	$33.74	1.0 MH
ABOVE	N20 Manifold [EA]	1	8	NEED QUOTE	$0.00	$269.92	Install labor 8.0 MH (judgment); fixture/equipment material by quote
ABOVE	O2 Manifold [EA]	1	8	NEED QUOTE	$0.00	$269.92	Install labor 8.0 MH (judgment); fixture/equipment material by quote
ABOVE	MA Manifold [EA]	1	8	NEED QUOTE	$0.00	$269.92	Install labor 8.0 MH (judgment); fixture/equipment material by quote
ABOVE	MAP-1: Master Alarm Model: 263748 [EA]	1	4	NEED QUOTE	$0.00	$134.96	Install labor 4.0 MH (judgment); fixture/equipment material by quote
ABOVE	MAP-2: Master Alarm Model: 263748 [EA]	1	4	NEED QUOTE	$0.00	$134.96	Install labor 4.0 MH (judgment); fixture/equipment material by quote
ABOVE	MVP: Vacuum Pump [EA]	1	8	NEED QUOTE	$0.00	$269.92	Install labor 8.0 MH (judgment); fixture/equipment material by quote
ABOVE	AAP-1: Pre/Post Op Part No: 263852 [EA]	1	3	NEED QUOTE	$0.00	$101.22	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	AAP-2: Pre/Post Op Part No: 263854 [EA]	1	3	NEED QUOTE	$0.00	$101.22	Install labor 3.0 MH (judgment); fixture/equipment material by quote
ABOVE	EWH: Electric Water Heater [EA]	1	6	NEED QUOTE	$0.00	$202.44	Install labor 6.0 MH (judgment); fixture/equipment material by quote

ABOVE	Hot Water Circulation Pump [EA]	1	2	NEED QUOTE	$0.00	$67.48	Install labor 2.0 MH (judgment); fixture/equipment material by quote
ABOVE	Expansion Tank [EA]	1	1	NEED QUOTE	$0.00	$33.74	Install labor 1.0 MH (judgment); fixture/equipment material by quote
ABOV	Thermometer [EA]	2	0.3	NEED QUOTE	$0.00	$20.24	0.3 MH install
ABOV	3/4" Dia Union [EA]	1	0.4	$10.69	$10.69	$13.50	Sweat union 3/4" $10.69 [S2]; 0.4 MH
ABOV	1-1/4" Dia Union [EA]	2	0.4	$42.29	$84.58	$26.99	Sweat union 1-1/4" $42.29 [S2]; 0.4 MH
ABOV	1/2" Dia Temperature & Pressure Relief Valve [EA]	1	0.5	$33.79	$33.79	$16.87	Watts LF100XL T&P $33.79 [S2] (inlet size not stated on page)
ABOV	3/4" Dia Balance Valve [EA]	1	0.6	$108.99	$108.99	$20.24	3/4" sweat balancing valve $108.99 [S2]
ABOV	3/4" Dia Ball Valve [EA]	3	0.45	$55.13	$165.39	$45.55	LF full-port sweat ball valve 3/4" $55.13 [S2]; 0.45 MH
ABOVE	3/4" Dia Check Valve [EA]	1	0.45	$20.95	$20.95	$15.18	Threaded check valve 3/4" $20.95 [S2] (sweat LF not found; 1-1/4" lead-free not stated)
ABOVE	1-1/4" Dia Check Valve [EA]	1	0.7	$121.99	$121.99	$23.62	Threaded check valve 1-1/4" $121.99 [S2] (sweat LF not found; 1-1/4" lead-free not stated)
ABOV	1-1/4" Dia Shut Off Valve [EA]	2	0.7	$177.17	$354.34	$47.24	Priced as LF full-port ball valve 1-1/4" $177.17 [S2]
ABOVE	Water Softener [EA]	1	6	NEED QUOTE	$0.00	$202.44	Install labor 6.0 MH (judgment); fixture/equipment material by quote
ABOV	3/4" Dia Shut Off Valve [EA]	3	0.45	$55.13	$165.39	$45.55	Priced as LF full-port ball valve 3/4" $55.13 [S2]
ABOVE	Brine Tank [EA]	1	1	NEED QUOTE	$0.00	$33.74	Install labor 1.0 MH (judgment); fixture/equipment material by quote
ABOVE	3/4" Dia Terminate Backwash Over Hub Drain With Air Gap [EA]	1	0.5	NEED QUOTE	$0.00	$16.87	0.5 MH
ABOV	1/2" Dia ASSE 1070 Mixing Valve [EA]	1	1.5	NEED QUOTE	$0.00	$50.61	1.5 MH install
ABOVE	1/2" Dia Stops And Supplies With Escutcheons For Faucet [EA]	2	0.4	NEED QUOTE	$0.00	$26.99	0.4 MH install
ABOVE	Foot Pedal Control With Integral Stops Mount To Cabinet Base [EA]	2	1.5	NEED QUOTE	$0.00	$101.22	Install labor 1.5 MH (judgment); fixture/equipment material by quote
ABOVE	GOOSNECK FAUCET WITH WRISTBLADE Handles And Third Water Connection [EA]	2	1	NEED QUOTE	$0.00	$67.48	Install labor 1.0 MH (judgment); fixture/equipment material by quote
ABOV	1" Dia Main Line Gauge [EA]	1	0.3	NEED QUOTE	$0.00	$10.12	0.3 MH install
ABOV	Mainline Pressure/Vacuum Switch [EA]	1	1	NEED QUOTE	$0.00	$33.74	1.0 MH install
ABOVE	2" Dia Vacuum Pump Exhaust Thru Wall With GOOSENECK And Bug Screen [EA]	1	8	NEED QUOTE	$0.00	$269.92	Install labor 8.0 MH (judgment); fixture/equipment material by quote
ABOV	3/4" Dia Gas Pipe Bug Screen [EA]	3	0.3	NEED QUOTE	$0.00	$30.37	0.3 MH install
ABOVE	1/2" Dia Clevis hanger [EA]	155	0.25	$1.69	$261.95	$1,307.43	Caddy EG clevis 1/2" $1.69 [S2]; 0.25 MH incl. anchor/rod attach. Copper-isolated hanger not priced
ABOVE	3/4" Dia Clevis hanger [EA]	134	0.25	$2.19	$293.46	$1,130.29	Caddy EG clevis 3/4" $2.19 [S2]; 0.25 MH incl. anchor/rod attach. Copper-isolated hanger not priced
ABOVE	1" Dia Clevis hanger [EA]	17	0.25	$2.19	$37.23	$143.40	Caddy EG clevis 1" $2.19 [S2]; 0.25 MH incl. anchor/rod attach. Copper-isolated hanger not priced
ABOVE	1-1/4" Dia Clevis hanger [EA]	9	0.25	$2.95	$26.55	$75.92	Caddy EG clevis 1-1/4" $2.95 [S2]; 0.25 MH incl. anchor/rod attach. Copper-isolated hanger not priced
ABOVE	1-1/2" Dia Clevis hanger [EA]	33	0.25	$2.79	$92.07	$278.36	Caddy EG clevis 1-1/2" $2.79 [S2]; 0.25 MH incl. anchor/rod attach. Copper-isolated hanger not priced
ABOVE	2" Dia Clevis hanger [EA]	37	0.25	$3.49	$129.13	$312.10	Caddy EG clevis 2" $3.49 [S2]; 0.25 MH incl. anchor/rod attach. Copper-isolated hanger not priced
ABOVE	3/8" Dia Threaded Rod [EA]	348	0	$3.72	$1,294.56	$0.00	3/8" rod $1.86/ft x 2 ft assumed per hanger [S2]; labor in hanger line
ABOVE	5/8" Dia Threaded Rod [EA]	37	0	$9.32	$344.84	$0.00	5/8" rod $4.66/ft x 2 ft assumed per hanger [S2]; labor in hanger line
UNDE	Permit (.07% of project value) [fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
UNDE	Site development [fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
UNDE	Variance [fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
UNDE	Private inspections [fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
UNDE	Debris haul off [load]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
UNDE	Site plan [Fee]	0	0	$0.00	$0.00	$0.00	N/A (see section 6)
UNDE	2" Dia Sanitary Pipe [LF]	120.41	0.07	$1.25	$150.51	$284.37	Sch 40 PVC 2" $1.25/ft [S2]; 0.07 MH/LF
UNDE	3" Dia Sanitary Pipe [LF]	109.48	0.09	$3.30	$361.29	$332.46	Sch 40 PVC 3" $3.3/ft [S2]; 0.09 MH/LF
UNDE	4" Dia Sanitary Pipe [LF]	113.63	0.11	$3.80	$431.79	$421.73	Sch 40 PVC 4" $3.8/ft [S2]; 0.11 MH/LF
UNDE	2" Dia Sanitary Pipe 45 Deg Elbow [EA]	19	0.25	$2.99	$56.81	$160.27	Charlotte Sch 40 DWV fitting $2.99 [S2]; 0.25 MH
UNDE	3" Dia Sanitary Pipe 45 Deg Elbow [EA]	34	0.35	$7.49	$254.66	$401.51	Charlotte Sch 40 DWV fitting $7.49 [S2]; 0.35 MH
UNDE	4" Dia Sanitary Pipe 45 Deg Elbow [EA]	12	0.45	$12.99	$155.88	$182.20	Charlotte Sch 40 DWV fitting $12.99 [S2]; 0.45 MH
UNDE	3" Dia Sanitary Pipe 90 Deg Elbow [EA]	2	0.35	$9.29	$18.58	$23.62	Charlotte Sch 40 DWV fitting $9.29 [S2]; 0.35 MH
UNDE	2" Dia Sanitary Pipe 90 Deg Elbow [EA]	11	0.25	$2.99	$32.89	$92.79	Charlotte Sch 40 DWV fitting $2.99 [S2]; 0.25 MH

UNDE	2" Dia Sanitary Pipe Wye [EA]	1	0.325	$5.99	$5.99	$10.97	Charlotte Sch 40 DWV fitting $5.99 [S2]; 0.33 MH
UNDE	3" Dia Sanitary Pipe Wye [EA]	2	0.455	$13.99	$27.98	$30.70	Charlotte Sch 40 DWV fitting $13.99 [S2]; 0.45 MH
UNDE	4" Dia Sanitary Pipe Wye [EA]	9	0.585	$19.99	$179.91	$177.64	Charlotte Sch 40 DWV fitting $19.99 [S2]; 0.59 MH
UNDE	3" / 1-1/2" Dia Sanitary Pipe Wye [EA]	8	0.455	$9.99	$79.92	$122.81	Charlotte Sch 40 DWV fitting $9.99 [S2]; 0.45 MH
UNDE	4" / 3" Dia Sanitary Pipe Wye [EA]	12	0.585	$21.99	$263.88	$236.85	Charlotte Sch 40 DWV fitting $21.99 [S2]; 0.59 MH
UNDE	4" / 2" Dia Sanitary Pipe Wye [EA]	12	0.585	$19.99	$239.88	$236.85	Charlotte Sch 40 DWV fitting $19.99 [S2]; 0.59 MH
UNDE	4" / 3" Dia Sanitary Pipe Reducer [EA]	1	0.36	$6.49	$6.49	$12.15	Charlotte Sch 40 DWV fitting $6.49 [S2]; 0.36 MH
UNDE	2" Dia Sanitary Pipe [LF]	56.66	0.07	$1.25	$70.83	$133.82	Sch 40 PVC 2" $1.25/ft [S2]; 0.07 MH/LF
UNDE	4" Dia Sanitary Pipe [LF]	7.8	0.11	$3.80	$29.64	$28.95	Sch 40 PVC 4" $3.8/ft [S2]; 0.11 MH/LF
UNDE	2" Dia Sanitary Pipe 90 Deg Elbow [EA]	4	0.25	$2.99	$11.96	$33.74	Charlotte Sch 40 DWV fitting $2.99 [S2]; 0.25 MH
UNDE	2" / 1-1/2" Dia Sanitary Pipe Wye [EA]	7	0.325	$9.49	$66.43	$76.76	Charlotte Sch 40 DWV fitting $9.49 [S2]; 0.33 MH
UNDE	2" Dia Sanitary Pipe Wye [EA]	1	0.325	$5.99	$5.99	$10.97	Charlotte Sch 40 DWV fitting $5.99 [S2]; 0.33 MH
UNDE RGRO	3" Dia FS, Floor Sink [EA]	2	3	NEED QUOTE	$0.00	$202.44	Install labor 3.0 MH (judgment); fixture/equipment material by quote
UNDE	3" Dia FCO, Floor Cleanout [EA]	2	1.25	$81.39	$162.78	$84.35	Zurn CO2450-PV3 $81.39 comparable [S2]; 1.25 MH
UNDE	4" Dia FCO, Floor Cleanout [EA]	2	1.25	$81.39	$162.78	$84.35	Zurn CO2450-PV4 $81.39 comparable [S2]; 1.25 MH
UNDE RGRO	Trenching And Backfilling [CY]	624	0.25	$0.00	$0.00	$5,263.44	0.25 MH/CY (machine dig, backfill, compact); excavator rental not priced
UNDE	Saw Cut & Fill [LF]	312	0.3	NEED QUOTE	$0.00	$3,158.06	0.30 MH/LF cut, remove, patch