

Beaver Creek Dr Water Line Excavation & Installation

The winning contractor will excavate a 3' deep trench and hookup the 1" CTS PE water line, valves and fittings from the 5' stub of $\frac{3}{4}$ " CTS coming from water meter pit to 15 homes. The attached drawings show the preferred route to each home and the parts that will be supplied. BCPOA (Beaver Creek Property Owners Association) will select the contractor and be responsible for payment upon completion of each home or as negotiated with the contractor.

Trench excavation should avoid large trees. Small trees and brush should be cut down and chipped or disposed of. Any rocks too large to be removed should be described to the job inspector which could result in a change of trench location or the line could go over the rock as long as it is still at least 2' deep and encased in a 1-1/2" PVC line, Trench width is the contractor's choice.

Place the 1" CTS Water Service line in a prepared trench that is free of rocks and debris. Place the pipe so that it is relaxed and snakes loosely in the trench. Do not bend the pipe more than the minimum bend radius. Use supplied sand or pea gravel above and below the 1" CTS plastic pipe.

See sketch on page 3 for typical pipe trench details and note any suggested variation.

Trench backfill will be completed after inspection and should be tamped to lessen any extra material but none should be removed from the site. Any extra cost for tamping could be listed separately.

The contractor must contact the utility companies and take all precaution to protect the existing underground utility lines; approximate locations are shown on the drawings. Any damage must be repaired at no expense to the owner or BCPOA.

BCPOA will supply all piping, fittings and valves to the contractor, including limestone sand for bedding and initial backfill. Sand will be delivered to lot 23 or 9. All the other supplies can be obtained at 377 Beaver Creek Dr. The 1" CTS pipe will be supplied in 500' rolls and should be cut so that minimum waste occurs; suggested pipe roll use is shown on the attached drawings.

Any extra rocks & stones should be either removed from the site or placed in an owner agreed upon location not far from trench location.

The contractor will be supplied with a list of the individual home owners contact information. However any job change requested by a homeowner, which results in extra cost, is the responsibility of the home owner and not BCPOA.

Yard Hydrants (7) and Curbstop SW valves (2) must be set in clean stone to allow proper draining when turned off.

Homes which have a basement (4) will require a hole to be bored through the concrete block wall at the marked location and a 1-1/2" PVC pipe cemented in place to allow the 1" CTS line to pass through. Sealant should be used to secure a waterproof installation. The 1" pipe will terminate with the supplied 3/4" ball valves. Any inside connections are not part of this job and at the owners expense.

Any damage done to the asphalt street from the contractor equipment should be repaired to original condition.

A separate price quote is requested for each of the 14 job sites shown on the drawings. If possible, an excavation cost and hookup cost should be noted. Total job payment will be made by John Kobak, President of BCPOA. Payments can be made as each separate job is completed or as agreed upon with BCPOA when the contract is signed.

Work should proceed when agreed upon with the winning contractor and should proceed until all 14 jobs are completed. Any expected delays must be negotiated with BCPOA. Excavation may start before the water lines are available on the street. However, final hookup can only be finished when the main water line contractor inspector gives the OK.

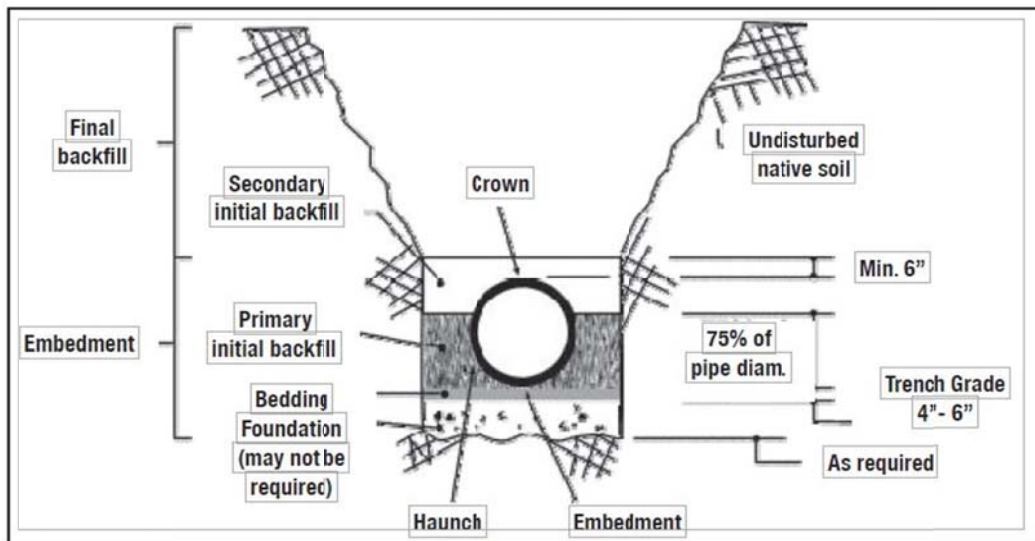
John Kobak
BCPOA President

Contractor

Date

These specifications were obtained from the waterline contract, note any differences that you expect may occur.

Figure 1 Pipe Trench



Foundation - A foundation is required only when the native trench bottom does not provide a firm working platform for placement of the pipe bedding material.

Initial Backfill - This is the critical zone of embedment soil surrounding the pipe from the foundation to at least 6 inches over the pipe. The pipe's ability to support loads and resist deflection is determined by the quality of the embedment material and the quality of its placement. Within the initial backfill zone are bedding, haunching, primary, and secondary zones.

Bedding - In addition to bringing the trench bottom to required grade, the bedding levels out any irregularities and ensures uniform support along the length of the pipe.

Haunching - The backfill under the lower half of the pipe (haunches) distributes the superimposed loadings. The nature of the haunching material and the quality of its placement are one of the most important factors in limiting the deformation of PE pipe.

Primary Initial Backfill - This zone of backfill provides the primary support against lateral pipe deformation. To ensure such support is available, this zone should extend from trench grade up to at least 75 percent of the pipe diameter. Under some conditions, such as when the pipe will be permanently below the ground water table, the primary initial backfill should extend to at least 6 inches over the pipe.

Secondary Initial Backfill - The basic function of the material in this zone is to distribute overhead loads and to isolate the pipe from any adverse effects of the placement of the final backfill.

Final Backfill - As the final backfill is not an embedment material, its nature and quality of compaction has a lesser effect on the flexible pipe. However, arching and thus a load reduction on the pipe is promoted by a stiff backfill. To preclude the possibility of impact or concentrated loadings on the pipe, both during and after backfilling, the final backfill should be free of large rocks, organic material, and debris. The material and compaction requirements for the final backfill should reflect sound construction practices and satisfy local ordinances and sidewalk, road building, or other applicable regulations.

BCPOA Water Job

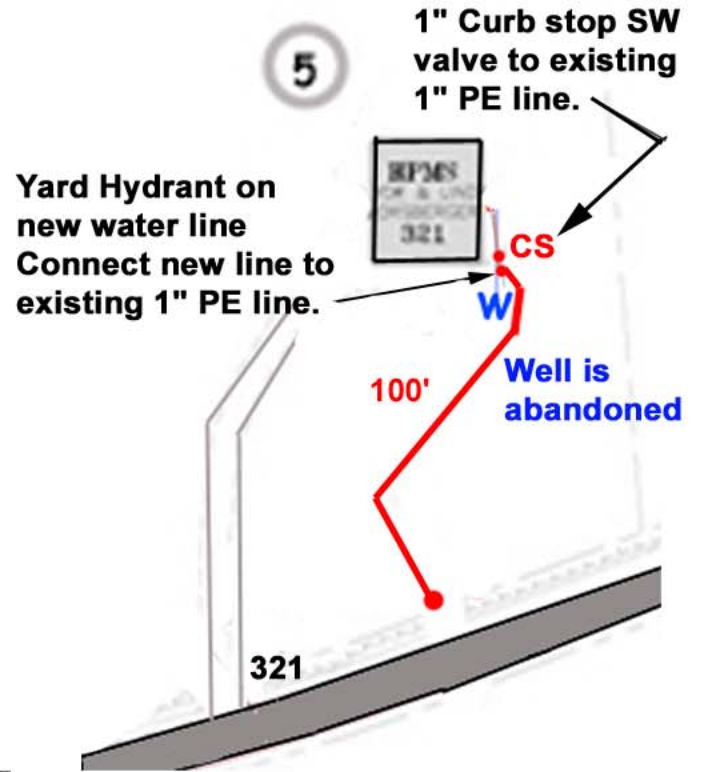
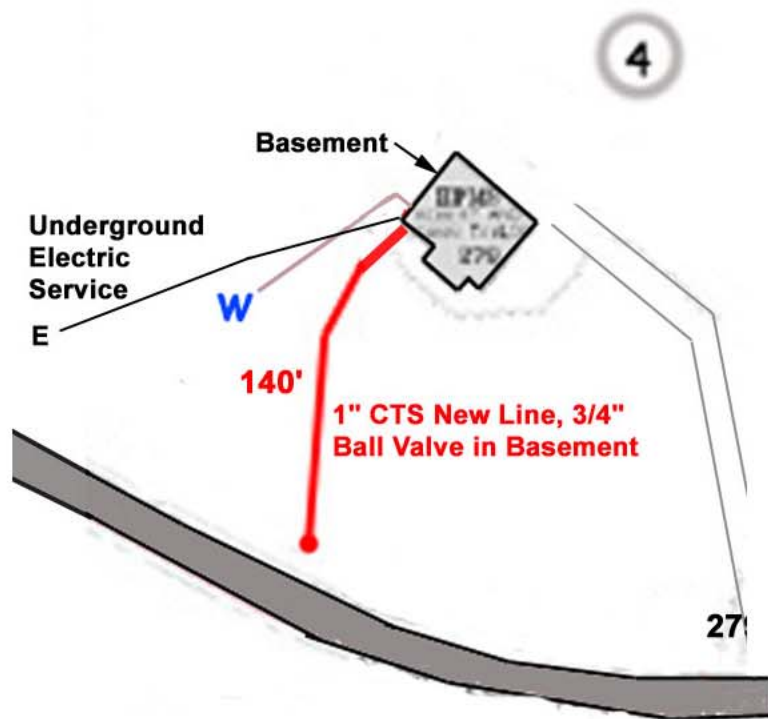
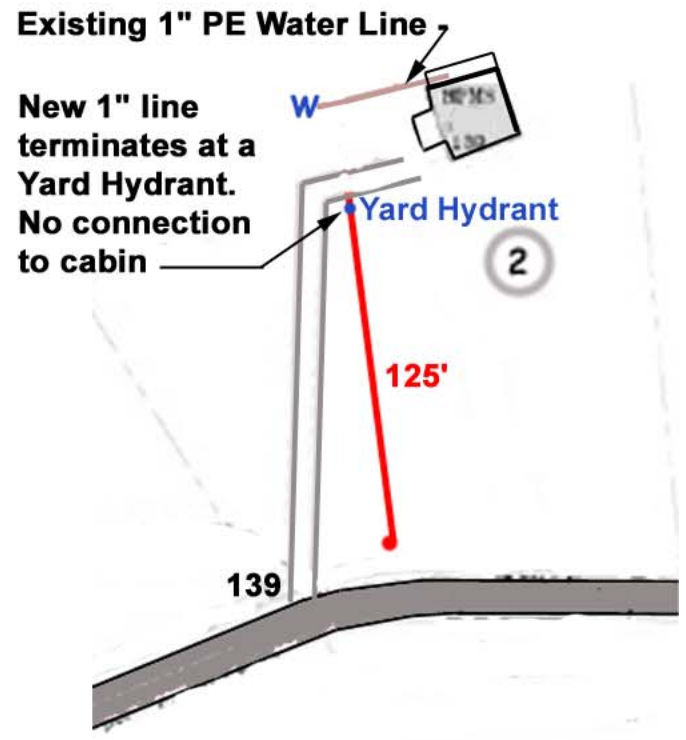
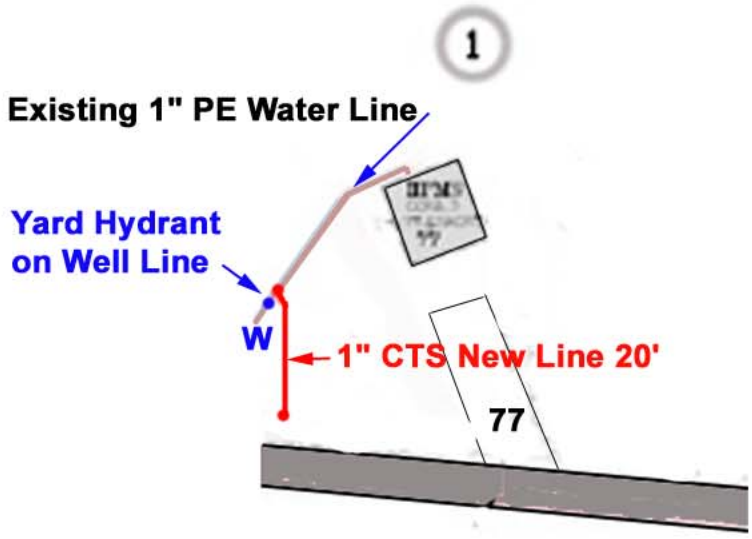
John Kobak 440-871-1758, Cell 440-554-1383

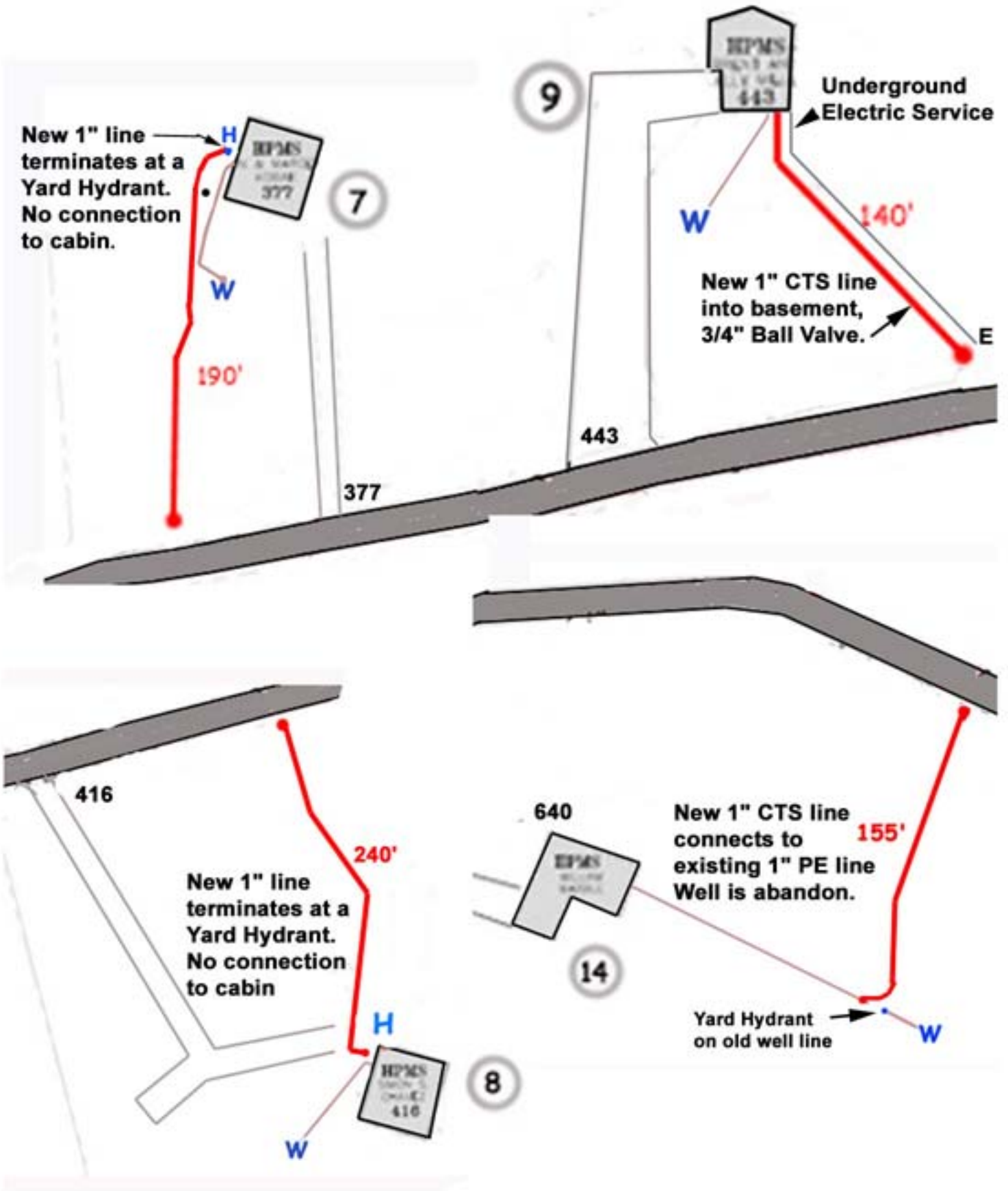
	Name	Lot No. & Address	Line Feet	Pipe Roll Number				Plumbing Parts Required												Excavate Cost	Hookup Cost	Total Cost		
				1	2	3	4	A	B	C	D	E	F	G	H	I	J	K	L					
1	Shuttlesworth	1 - 77	20				20	1	1	1		1						2	2	1				
2	Lundstrom	2 - 139	125				125	1				1	1							2	1			
3	Taylor	4 - 279	140				140	1				1				1				2	1			
4	Morsberger	5 - 321	100				100	1	1			1	1	1	1			1	1	4	3			
5	Kobak	7 - 377	190			190		1	1			1	1					1	1	2	1			
6	Chavez	8 - 416	240	240				1				1	1							2	1			
7	Laubaugh	9 - 443	140		140			1				1				1				2	1			
8	Spohn	13 - 603	15	15				1		1									1	2	1			
9	Warble	14 - 640	155			155		1	1	1		1							2	2	1			
10	Milkovich	15 - 655	80				80	1		1									1	2	1			
11	Watson	17 - 699	160		160			1				1				1				2	1			
12	Bross	21 - 873	120			120		1		1									1	2	1			
13	Kirkman	24 - 1030	200	200				1				1				1				2	1			
14	Whitney	28 - 1135	180		180			1	1	1		1								2	2	1		
15	Wrightson	29 - 1189	0									1		1								1		Not part of contract
Total			1865	455	480	465	465	14	5	6	8	7	1	1	4	2	11	30	16					

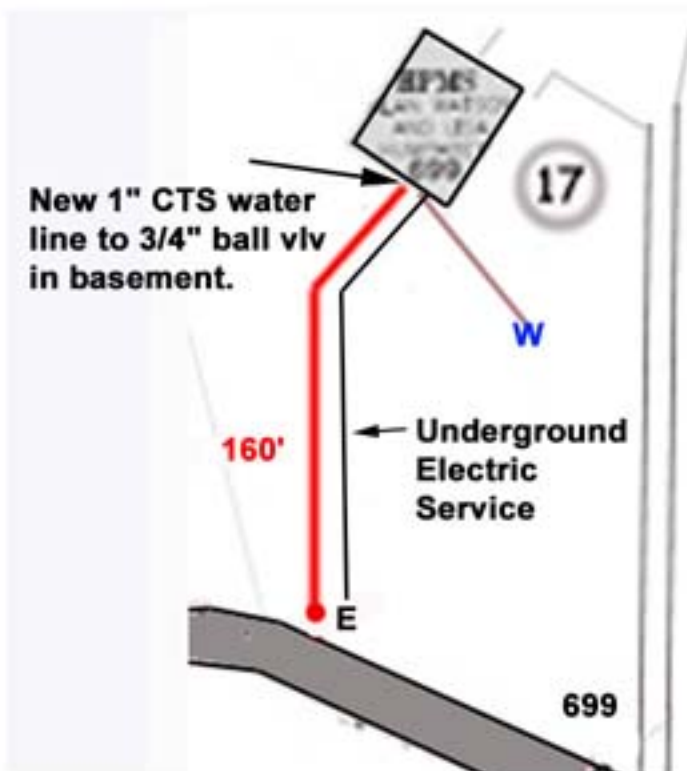
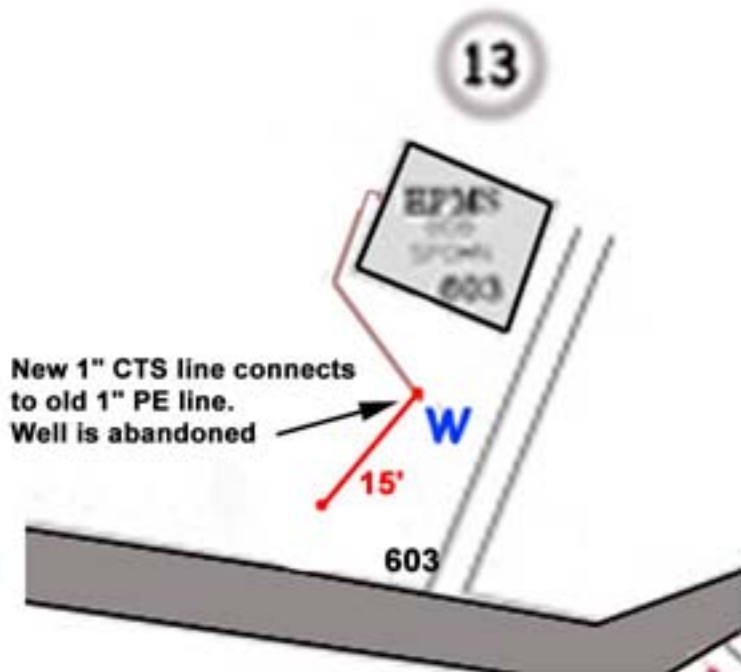
Parts BCPOA will buy

	Size	Catalog	Qty
A	3/4" - 1" CTS	C44-34-NL	14
B	1"PE - 3/4"IPSm	C86-34-NL	5
C	1"CTS - 1"PE	C46-44-NL	6
D	1"CTS - 3/4"IPSm	C84-34-NL	8
E	Yard Hydrant	Simmons	8
E-1	Street EI- 3/4"IPS		6
E-2	4 x 4 support & strap		8
F	Tee for Hydrant	T444-443-1	1
G	EI for Hydrant	L84-33-NL	2
H	3/4" Ball Vlv - IPSf	1/4 turn	4
I	3/4"IPSf Curb Stop SW	ZL11-3335	2
J	Insert 1" PE	53-72	11
K	Insert 1" CTS	52	30
L	Insert 3/4" CTS	51	17
	1" CTS HDPE 250 psi	feet	2000
	Limestone Sand	tons	78

Item Cost



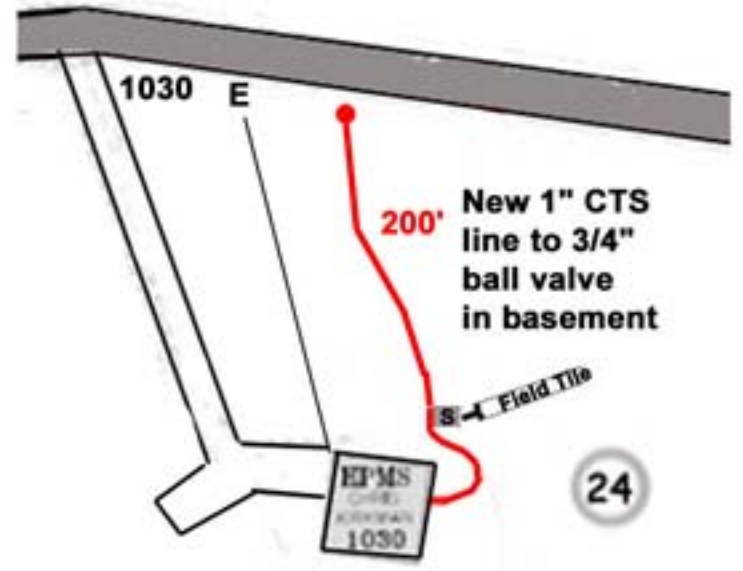




Note: No water lines to

- Lot 12 - 572 Beaver Creek Dr
- Lot 19 - 777 Beaver Creek Dr
- Lot 18 - 876 Beaver Creek Dr

New 1" water line connects to 1" PE line and well is abandoned.



New 1" CTS line connect to cabin old 1" PE line.
Yard Hydrant on old 1" PE well line.



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New water line connected to Yard Hydrant

