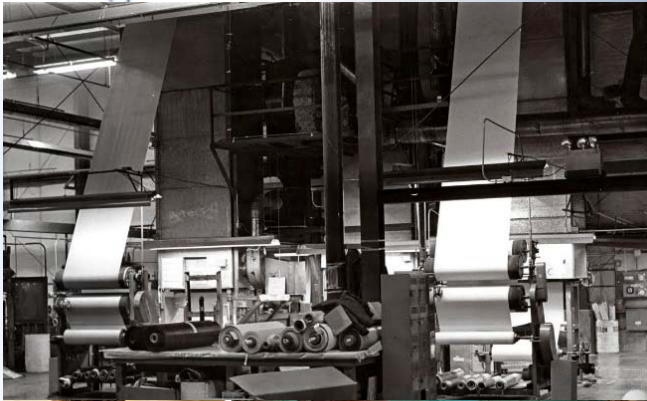


# Per & Poly Fluoro Alkyl Substance Sources



**NOTHING STICKS TO "HAPPY PAN"**  
A cast iron skillet sealed with DuPont TEFLON®

**Danger of nonstick cookingware**  
Toxic chemical PFOA perfluorooctanoate released at high temperatures

PFOA is linked in animal studies to:

Risks of liver, pancreatic, testicular and mammary gland tumors

Altered thyroid hormone regulation

Damage to your immune system

Reproductive problems, infertility and birth defects



**USAF Bases, MI, CO, PA, Del, FL, overseas**





# Per & Poly Fluoro Alkyl Substance Sources

Primary PFCs Found in Drinking Water	Source of PFC
Long-Chain	
Perfluorooctanoic acid (PFOA)	Nonstick Surfaces
Perfluorooctane sulfonate (PFOS)	Fabric Protection , Firefighting Foam
Perfluorononanoic acid (PFNA)	Surfactant Used for Plastic Production
Short-Chain	
Perfluorohexane Sulfonic Acid (PFHxS)	Firefighting Foam
Perfluorohexanoic Acid (PFHxA)	Degradation Product of PFHxS
Perfluorobutanesulfonic Acid (PFBS)	Stain Repellent; Replacement for PFOS



# Per & Poly Fluoro Alkyl Substance Treatment

- Fortunately, the PFAS compounds PFOA and PFOS being regulated by NYS are readily adsorbable by GAC.
- 2 – 40,000 lbs GAC vessels are required per well



# Affected Wells by New Regulation

## WATER SUPPLY WELLS CAPACITY AND DEMAND COMPARISON

WELL NO.	NYSDEC Well No.	PEAK 1,4-DIOXANE DETECTION (ppb)	PFOA (ng/L)	PFOS (ng/L)	APPROVED WELL CAPACITY (GPM)	AVAILABLE WELL CAPACITY (MG)	CUMULATIVE WELL CAPACITY (MG)	HISTORICAL 10 YEAR MAXIMUM AVERAGE DAY (DEFICIT) (MG) <sup>(1)</sup>	HISTORICAL 10 YEAR MAXIMUM DAY (DEFICIT) (MG) <sup>(2)</sup>	MAXIMUM DAY PLUS FIRE FLOW (DEFICIT) (MG) <sup>(3)</sup>
-	-	-	-	-	0	0.00	0.00	-12.12	-24.30	-24.93
44	N-5155	0.19	6.59	13.40	700	1.01	1.01	-11.11	-23.29	-23.92
44A	N-5156	0.15	5.91	12.20	1,600	2.30	3.31	-8.81	-20.99	-21.62
44B	N-6744	0.24	17.10	5.46	700	1.01	4.32	-7.80	-19.98	-20.61
44C	N-6745	0.38	3.77	<1.9	1,600	2.30	6.62	-5.50	-17.68	-18.31
15C	N-10206	0.19	<1.9	<1.9	1,380	1.99	8.61	-3.51	-15.69	-16.32
15E	N-10207	0.19	<1.9	<1.9	1,380	1.99	10.60	-1.52	-13.70	-14.33
16A	N-1958	<0.020	<1.9	<1.9	1,115	1.61	12.20	0.08	-12.10	-12.73
25A	N-7482	<0.020	<1.9	<1.9	1,800	2.59	14.80	2.68	-9.50	-10.13
28	N-2414	0.026	21.60	11.70	1,200	1.73	16.52	4.40	-7.78	-8.41
28B	N-10211	0.29	<1.9	<1.9	1,380	1.99	18.51	6.39	-5.79	-6.42
30	N-3720	0.062	<1.9	<1.9	1,200	1.73	20.24	8.12	-4.06	-4.69
15A	N-9151	0.46	<1.9	<1.9	1,100	1.58	21.82	9.70	-2.48	-3.11
15B	N-11037	0.30	<1.9	<1.9	1,380	1.99	23.81	11.69	-0.49	-1.12
20	N-17	0.46	14.80	13.40	1,200	1.73	25.54	13.42	1.24	0.61
57	N-7649	14.00	31.80	14.10	1,200	1.73	27.27	15.15	2.97	2.34
57A	N-7650	20.90	30.00	13.20	1,200	1.73	28.99	16.87	4.69	4.06
35A	N-4298	0.85	10.20	8.39	1,800	2.59	31.59	19.47	7.29	6.66
40	N-4390	0.64	14.70	8.43	1,400	2.02	33.60	21.48	9.30	8.67
40A	N-7445	1.50	8.72	3.28	1,200	1.73	35.33	23.21	11.03	10.40
15D	N-693	0.36	11.70	10.60	1,530	0.00	35.33	23.21	11.03	10.40
28A <sup>(4)</sup>	N-11647	0.13	<1.9	<1.9	1,200	0.00	35.33	23.21	11.03	10.40
34	N-4512	0.06	<1.9	<1.9	1,700	0.00	35.33	23.21	11.03	10.40
9	N-14	0.08	21.00	4.26	645	0.00	35.33	23.21	11.03	10.40
35	N-4077	0.62	7.40	5.70	500	0.00	35.33	23.21	11.03	10.40



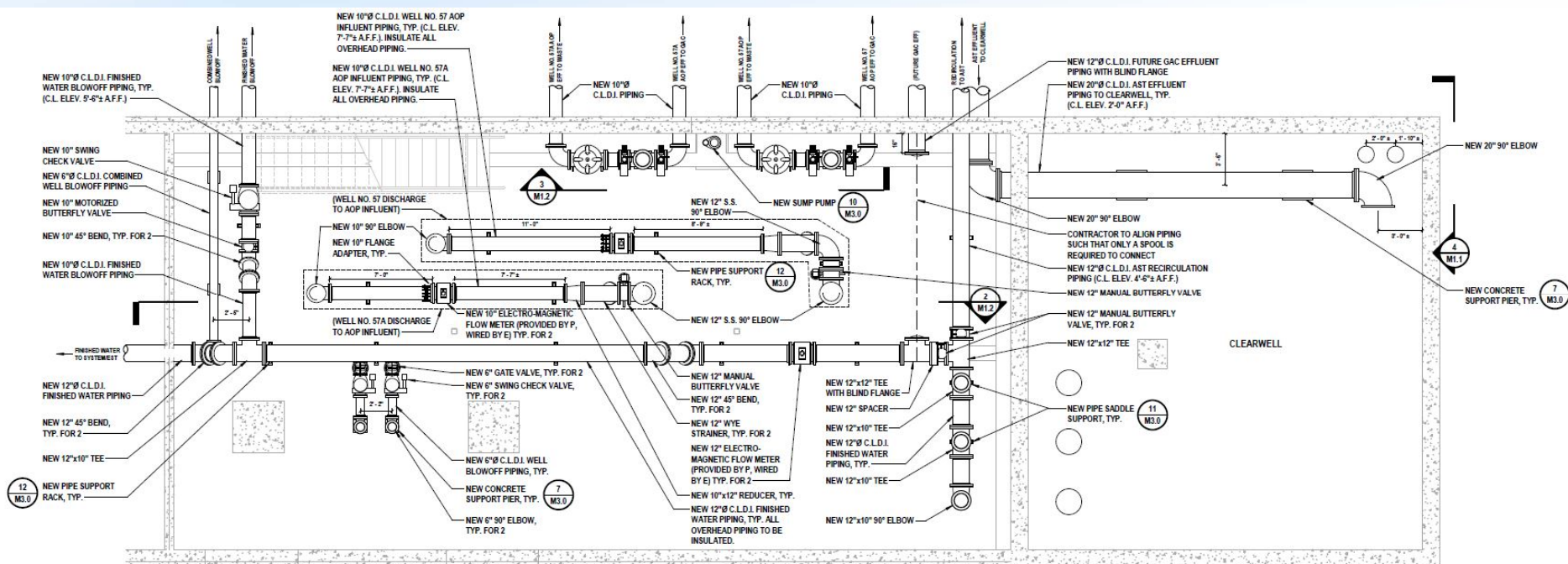






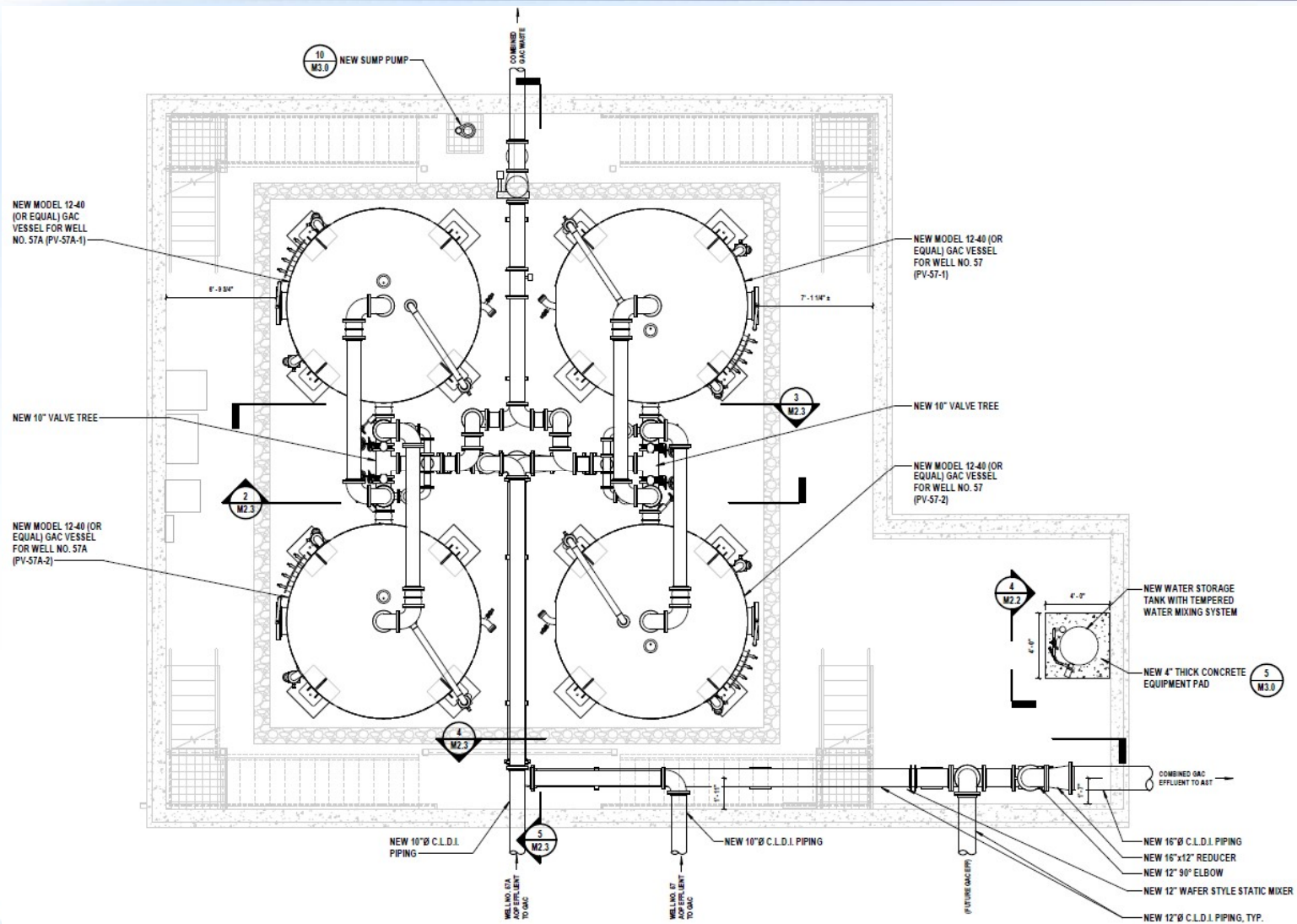


## An abstract graphic design element featuring a complex, organic, and somewhat crystalline structure in shades of blue and white. The structure appears to be a cluster of interconnected, irregular shapes, possibly representing a molecular or cellular structure. The overall effect is a dynamic and textured composition.





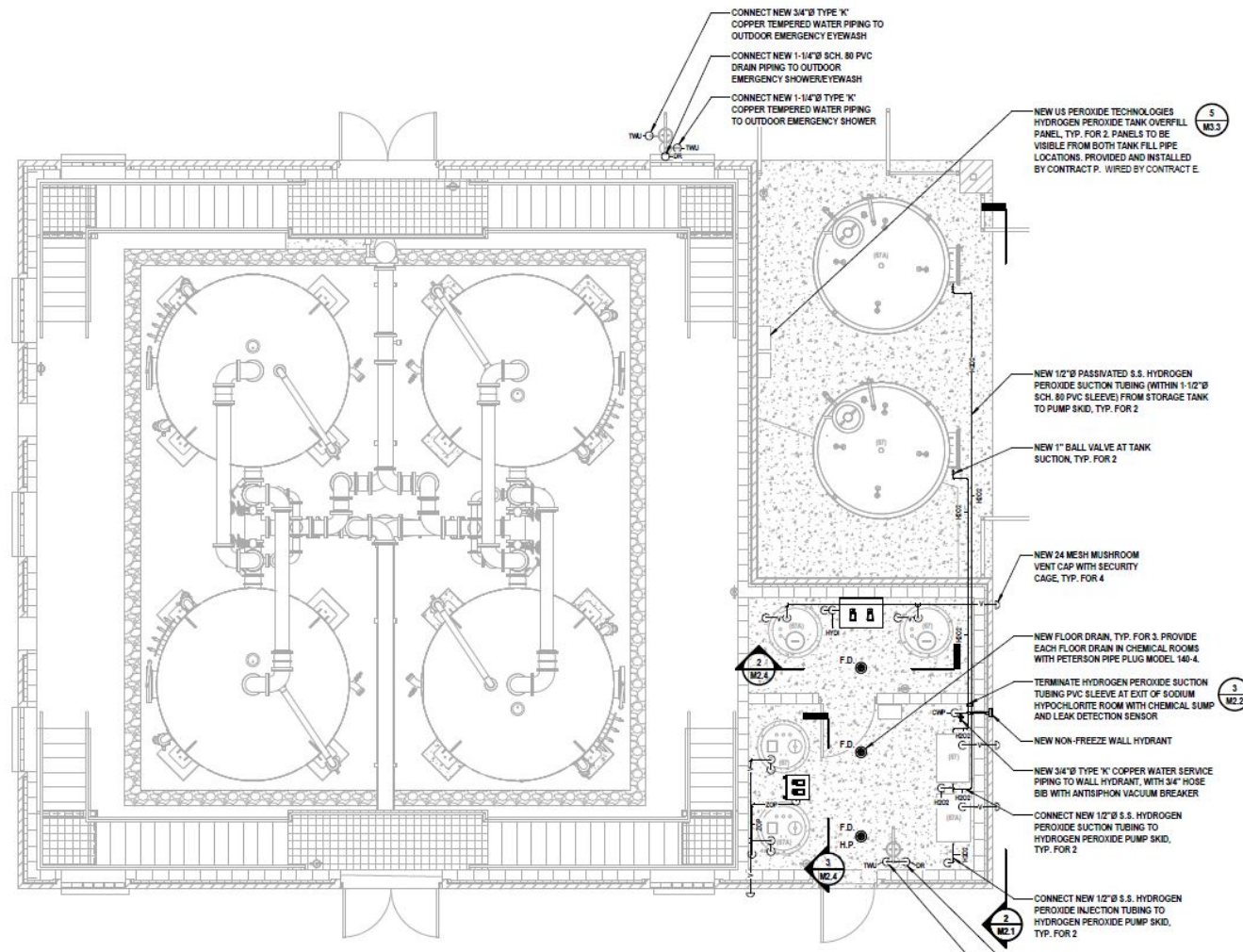
# Proposed GAC Floor Plan







# Proposed GAC Floor Plan



# Existing Conditions







# Existing Conditions







# Existing Conditions







# Existing Conditions

