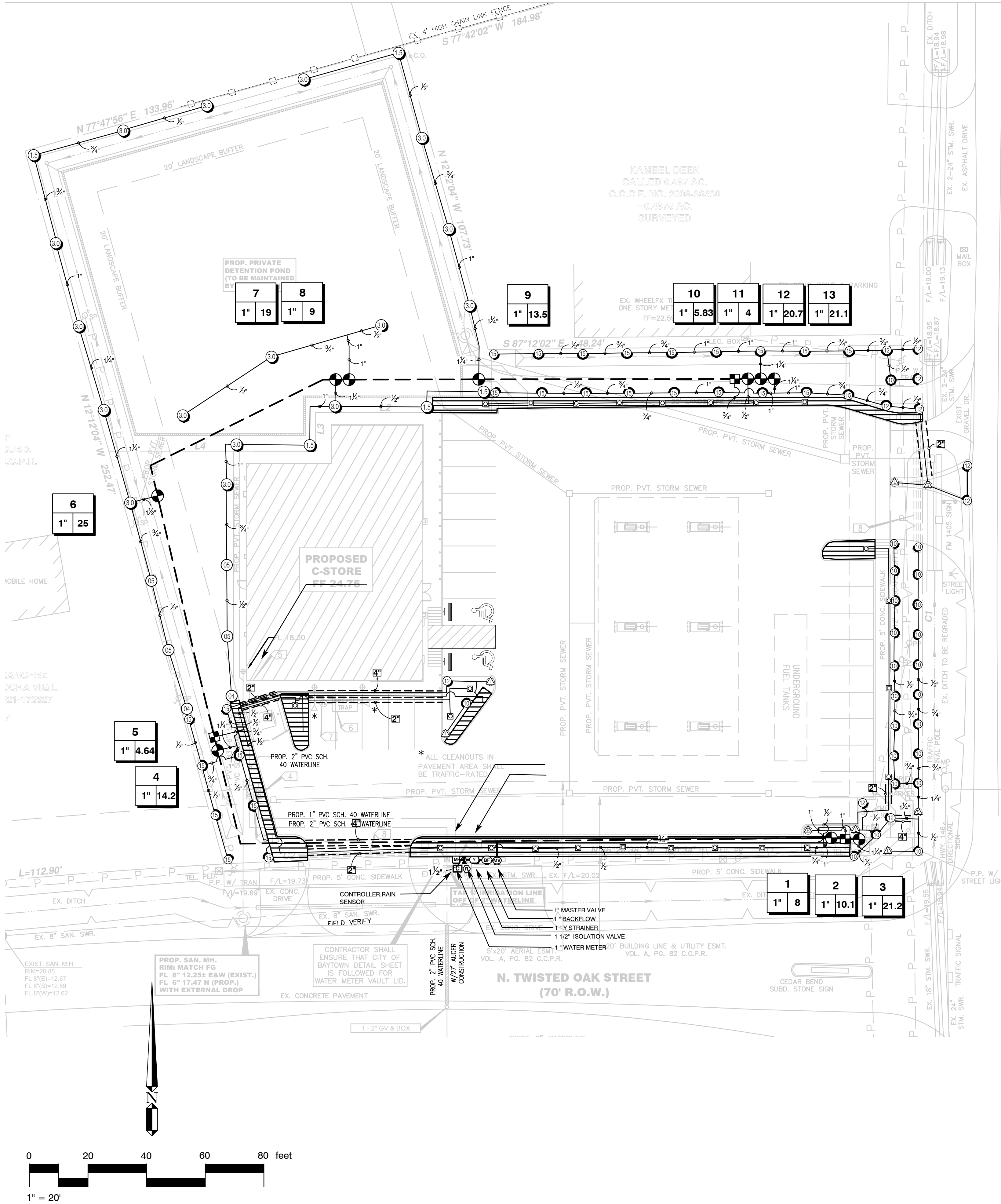
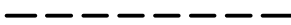
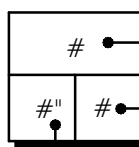




IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL	QTY	ARC	PSI	RADIUS
	Hunter PROS-04 LCS-515	5	LCS	30	5'x15'
	Hunter PROS-04 RCS-515	1	RCS	30	5'x15'
	Hunter PROS-04 SS-530	2	SST	30	5'x30'
	Hunter PROS-04 10F	1	360	30	10'
	Hunter PROS-04 10H	18	180	30	10'
	Hunter PROS-04 10Q	4	90	30	10'
	Hunter PROS-04 12H	3	180	30	12'
	Hunter PROS-04 12Q	7	90	30	12'
	Hunter PROS-04 15H	20	180	30	15'
	Hunter PROS-04 15Q	6	90	30	15'
	Hunter PCB 50	24	360	30	3'
SYMBOL	MANUFACTURER/MODEL	QTY		PSI	RADIUS
	Hunter PGP-ADJ-B 1.5	5		45	31'
	Hunter PGP-ADJ-B 3.0	16		45	38'
	Hunter PGP-ADJ-LA 04	2		40	24'
	Hunter PGP-ADJ-LA 05	4		40	27'
SYMBOL	MANUFACTURER/MODEL	QTY		PSI	
	Hunter ICZ-101-40 1"	3			
	Area to Receive Dripline Hunter HDL-06-12-CV	2,159 l.f.		20	
SYMBOL	MANUFACTURER/MODEL	QTY			
	Hunter ICV-G 1"	10			
	Shut Off Valve 1 1/2"	1			
	Hunter ICV-G 1"	1			
	Febco 825Y 1"	1			
	Hunter I2C-1600-M	1			
	Hunter RAIN-CLIK	1			
	Y-Strainer 1"	1			
	Water Meter 1"	1			
	Irrigation Lateral Line: PVC Schedule 40 1 1/2"	1,490 l.f.			
	Irrigation Lateral Line: PVC Schedule 40 3/4"	469.2 l.f.			
	Irrigation Lateral Line: PVC Schedule 40 1"	256.6 l.f.			
	Irrigation Lateral Line: PVC Schedule 40 1 1/4"	162.1 l.f.			
	Irrigation Lateral Line: PVC Schedule 40 1 1/2"	11.6 l.f.			
	Irrigation Mainline: PVC Schedule 40 1 1/2"	583.9 l.f.			
	Pipe Sleeve: PVC Schedule 40 2"	118.1 l.f.			
	Pipe Sleeve: PVC Schedule 40 4"	99.5 l.f.			
	Valve Callout				
	Valve Number				
	Valve Flow				
	Valve Size				

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	PIPE	WIRE	DESIGN PSI	FRICTION LOSS	VALVE LOSS	PSI	PSI @ POC	PRECIP
1	Hunter ICV-G	1"	Bubbler	8	16	462.3	137.8	30	5.62	2.8	38.4	54.2	1.7 in/h
2	Hunter ICZ-101-40	1"	Area for Dripline	10.05	1,005 l.f.	18.1	142.5	20	0.52	8.03	28.5	45.1	0.96 in/h
3	Hunter ICV-G	1"	Turf Spray	21.23	27	282.7	147.3	30	3.95	3.74	37.7	57.1	1.4 in/h
4	Hunter ICV-G	1"	Turf Spray	14.17	12	250.4	144.0	30	4.31	3	37.3	53.9	1.23 in/h
5	Hunter ICZ-101-40	1"	Area for Dripline	4.64	464.3 l.f.	122.3	148.7	20	1.07	4.76	25.8	40.4	0.96 in/h
6	Hunter ICV-G	1"	Turf Rotor	25	10	273.1	233.2	40	6.28	6	52.3	76.9	0.7 in/h
7	Hunter ICV-G	1"	Turf Rotor	19	9	212.3	313.8	45	5.21	3	53.2	73.0	0.81 in/h
8	Hunter ICV-G	1"	Turf Rotor	9	3	90.5	318.5	45	2.78	2.9	50.7	67.4	0.32 in/h
9	Hunter ICV-G	1"	Turf Rotor	13.5	5	151.6	362.6	45	7.04	3	55.0	73.0	0.57 in/h
10	Hunter ICZ-101-40	1"	Area for Dripline	5.83	582.7 l.f.	7.5	450.0	20	0.25	5.5	25.8	41.1	0.96 in/h
11	Hunter ICV-G	1"	Bubbler	4	8	117.3	454.4	30	2.11	2.38	34.5	49.2	1.7 in/h
12	Hunter ICV-G	1"	Turf Spray	20.71	13	180.6	458.9	30	2.69	3.43	36.1	59.2	0.88 in/h
13	Hunter ICV-G	1"	Turf Spray	21.11	15	221.3	463.4	30	3.75	3.67	37.4	61.1	0.86 in/h
	Common Wire						583.9						

WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	SUN	MON	TUE	WED	THU	FRI	SAT	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	Hunter ICV-G	Bubbler	1.7 in/h	15 min					15 min	15 min	1.25	45	360	120
2	Hunter ICZ-101-40	Area for Dripline	0.96 in/h		21 min		21 min		21 min	1	63	633	211	
3	Hunter ICV-G	Turf Spray	1.4 in/h				18 min	1.25	54	1,146	382			
4	Hunter ICV-G	Turf Spray	1.23 in/h	21 min			21 min			21 min	1.25	61	864	288
5	Hunter ICZ-101-40	Area for Dripline	0.96 in/h		21 min		21 min		21 min	1	63	292	97.4	
6	Hunter ICV-G	Turf Rotor	0.7 in/h	36 min			36 min			36 min	1.25	108	2,700	900
7	Hunter ICV-G	Turf Rotor	0.81 in/h	32 min			32 min			32 min	1.25	94	1,786	595
8	Hunter ICV-G	Turf Rotor	0.32 in/h	78 min			78 min			78 min	1.25	232	2,088	696
9	Hunter ICV-G	Turf Rotor	0.57 in/h	44 min			44 min			44 min	1.25	132	1,782	594
10	Hunter ICZ-101-40	Area for Dripline	0.96 in/h		21 min		21 min		21 min	1	63	367	122	
11	Hunter ICV-G	Bubbler	1.7 in/h	15 min				15 min		15 min	1.25	45	180	60
12	Hunter ICV-G	Turf Spray	0.88 in/h	29 min			29 min	1.25		96	1,781	594		
13	Hunter ICV-G	Turf Spray	0.86 in/h	30 min			30 min			30 min	1.25	88	1,858	619
	TOTALS:			318	63		351	30	63	318	1,134	15,838	5,279	

CRITICAL ANALYSIS

P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	1"
Flow Available	37.5 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	80 PSI
Elevation Change:	5.00 ft
Service Line Size:	1 1/2"
Length of Service Line:	20 ft
Pressure Available:	77 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	25 GPM
Flow Available at POC:	37.5 GPM
Residual Flow Available:	12.5 GPM
Critical Station:	6
Design Pressure:	40 PSI
Friction Loss:	5.71 PSI
Fittings Loss:	0.57 PSI
Elevation Loss:	0 PSI
Loss through Valve:	6 PSI
Pressure Req. at Critical Station:	52.3 PSI
Loss for Fittings:	0.4 PSI
Loss for Main Line:	3.96 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	10.6 PSI
Loss for Master Valve:	6 PSI
Loss for Water Meter:	3.7 PSI
Critical Station Pressure at POC:	76.9 PSI
Pressure Available:	77 PSI
Residual Pressure Available:	0.07 PSI



SHEET DESCRIPTION:
IRRIGATION DESIGN

Casey Reimann
06/30/2023

PROJECT:
Proposed C-STORE AND Gas station
Swift At Highway 146
BAYTOWN, Tx 77083

REVISIONS:
None
08/17/2023
12/05/2023
01/30/2024

DATE:
06/30/2023

JOB NUMBER:
D1-06302023

DRAWN BY:
CASEY REIMANN

CHECKED BY:
CLR

SCALE:
1" = 20'

SHEET:
LI.00