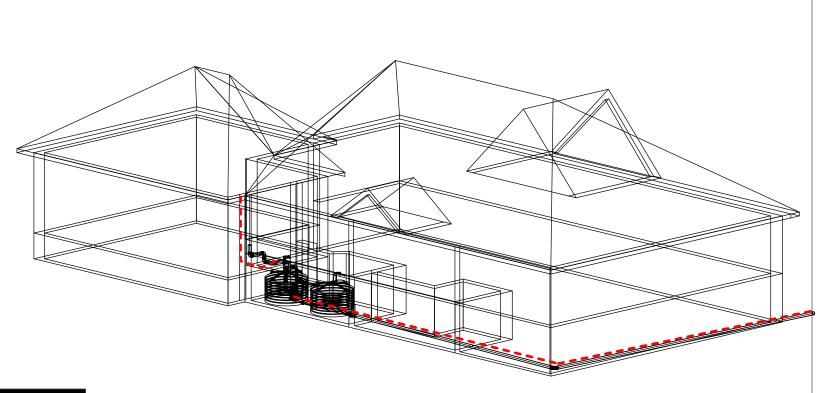
RAINWATER HARVESTING SYSTEM

YOUR - RAINWATER HARVESTING

TAG	EQUIPMENT SCHEDULE		
RSM	RAINSEEKER MAXIMUS 2400 USG SYSTEM - ABOVEGROUND		
RWT-1	- RAINWATER TANK 1200 USG		
RWT-2	- RAINWATER TANK 1200 USG		
PRF	- RAINWATER PREFILTER		
ACL	- SMOOTHING INLET		
FLI	- FLOATING INTAKE		
OVF	- SKIMMING OVERFLOW BACKWATER VALVE		
RPMP	RAINWATER PUMP		
FOT1	FLOAT SWITCH		
SOLV	SOLINOD VALVE 0.5"		



TAG	PIPE AND WIRE SCHEDULE		
A	GUTTER	EXISITING GUTTER	
В	DOWNPIPE	EXISITING DOWNPIPE	
С	CONVEYANCE 4"	4" DIAMETER @ 1.5% SLOPE (PVC DRAIN PIPE, SDR35 OR SCH 40)	
D	CONVEYANCE 6"	6" DIAMETER @ 0.75% SLOPE (OPTIONALLY 4" DIA. @ 4% SLOPE) (PVC DRAIN PIPE, SDR35 OR SCH 40)	
E	SUPPLY PIPE UNDERGROUND	1.25" DIAMETER (PVC, POLY OR COPPER)	
F	SUPPLY PIPE INTERIOR	1.25" DIAMETER (PVC, PEX, POLY OR COPPER)	
G	SENSOR WIRE	4 C - SHEILDED 16 AWG (4 CONDUCTOR)	
I	PUMP POWERS	PROVIDED POWER CORD	

CLEAN FLO WATER TECHNOLOGIES DESIGNED THE SYSTEM TO MEET THE CSA B805 STANDARDS TO PROVIDE A NON-POTABLE R2 RAINWATER HARVESTING WATER SYSTEM.

IF THE INSTALLTION IS IN ACCORDENCE WITH CLEANFLO WRITTEN INSTRUCTION THIS SYSTEM WILL PROVIDE NON POTABLE WATER. IT IS THE OWNER / OPERATORS RESPONSIBLITY TO ENSURE THE RAINWATER HARVESTING SYSTEM IS INSTALLED AND OPERATING PROPERLY. INITIAL AND ONGOING MAINTENANCE AND MONITORING IS REQUIRED AND MUST BE PERFORMED BY THE OWNER OR UNDER THE OWNER'S DIRECTION.

IF INSTRUCTIONS ARE NOT FOLLWED OR MAINTIANCE IS NOT PERFORMED OR UNKOWN SUBSTANCES ARE INTRUDCED INTO THE RAINWATER SYSTEM THE SYSTEM MAY NOT BE SAFE AND THERFORE REGULAR MAINTENACE IS REQUIRED.



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TIERS	
R1	NON-POTABLE, TRAP PRIMERS, FIRE SU
R2	NON-POTABLE, TOILETS/URINALS, LAUN
R3	NON-POTABLE, HOSE BIBS, PRESSURE
R4	POTABLE, HUMAN CONSUMPTION, ORA BATHING/SHOWERING, POOL/HOT TUBS

	Т	ABLE C
PAGE	TITLE	
0	COVER PAGE	PROVIDE
1	SYSTEM OVERVIEW	SYSTEM
2	GENERAL INFORMATION SHEET	TECHNIC
3	WATER BALANCE	WATER H
4	SCHEMATIC	RAINWA
5	SITE PLAN	SITE PLA
6-10	DRAWINGS	DETAILE
11-13	INSTALLATION	INSTALL

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WATER USES

UPPRESSION, IRRIGATION

NDRY MACHINE

WASHING, VEHICLE WASHING

AL CARE, FOOD PREPARATION, DISHWASHING,

S

OF CONTENTS

DESCRIPTION

ES PROJECT OVERVIEW

DESCRIPTION AND DESIGN NARRATIVE

CAL SPECIFICATIONS OF SYSTEM

HARVESTING POTENTIAL AND WATER USE

TER SYSTEM SCHEMATIC

AN DRAWING- LOCATION OF MAJOR EQUIPMENT.

ED DRAWING OF RAINWATER SYSTEM

ATION SPECIFICATIONS

DESCRIPTION

THIS SYSTEM IS DESIGN TO MEET CANADIAN PLUMBING CODES AND CSA STANDARDS FOR RAINWATER HARVESTING CSA B805.

THE OVERALL SYSTEM DESIGN EMPLOYS A MULTI BARRIER APPROACH TO WATER QUALITY. THE FIRST STEP IS THE PRE-FILTER. THE SECOND STEP IS THE RAINWATER TANK DESIGN. THE THIRD STEP IS THE WATER TREATMENT SYSTEM.

CLEAN FLO SYSTEMS ARE DESIGNED FROM "ROOF TO TAP" ! WITH ATTENTION TO EVERY DETAIL OF YOUR RAINWATER HARVESTING SYSTEM. WHEN YOU PURCHASE THE COMPLETE SYSTEM FROM CLEAN FLO. IT IS PART OF A COMPLETE PACKAGE THAT WE WILL PROVIDE SUPPORT AND SERVICE FOR THE LIFE OF THE SYSTEM

THIS RAINWATER HARVESTING SYSTEM IS DESIGNED AS A SECONDARY SOURCE OF WATER FOR **IRRIGATION PURPOSES..**

THE SYSTEM WILL PROVIDE WATER FOR WATER USES **TIER: R1 - IRRIGATION PURPOSES**

ROOF

THE SYSTEM WILL BE HARVESTING RAIN FROM ONE BUILDING WITH ONE ROOF.

GUTTER, DOWNPIPES AND CONVEYANCE PIPING

THE GUTTERS, DOWNPIPES, AND CONVEYANCE PIPING IS SIZED BASED ON SPECIFICATIONS FROM THE DESIGNS.

PREFILTER

THE SYSTEM WILL REQUIRE ONE (1) PRE-FILTER. THESE PRE-FILTERS OPERATE AS BOTH A FIRST FLUSH DIVERTER AND PREFILTER, WITH A FILTER MESH SIZE OF 320 MICRONS. THE FULL CROSS-SECTION (PIPE DIAMETER) OF THE RAINWATER DRAINAGE SYSTEM REMAINS CONTINUOUSLY OPEN, AND THERE ARE NO REDUCTION IN THE CROSS-SECTION OF THIS APPLIANCE IN WHICH DIRT OR WATER CAN COLLECT.

RAINWATER TANK / CISTERN

THIS SYSTEM WILL PROVIDE A TOTAL OF 2400 USG OF RAINWATER STORAGE. WITH A TOTAL OF TWO (2) ABOVE GROUND TANK(S), MADE OF POLYETHYLENE. EACH TANK IS 1200 USG.

THE RAINWATER TANK IS DESIGNED TO PROVIDE SAFE STORAGE OR RAINWATER, WHICH IMPROVES WATER QUALITY BECAUSE OF IT'S DESIGN AND FUNCTION. THE CALMING INLET PREVENTS AGITATION OF SETTLED FINE DUST, THE SKIMMING OVERFLOW REMOVES FLOATING PARTICLES AND THE FLOATING FILTER ENSURES WATER IS DRAWN INTO THE PUMP FROM APPROXIMELY 150 mm (6.0") BELOW THE SURFACE OF THE WATER.

WATER PUMPING CLEAN FLO DETERMINED THE WATER DEMAND TO BE 8 GPM @ 60 PSI. THIS WILL BE PUMPED BY MULTI STAGE BOOSTER PUMP.

WATER QUALITY AND TREATMENT

CLEAN FLO DESIGNED THIS SYSTEM TO PRODUCE WATER THAT IS SAFE FOR CSA B805 R4 USES; NAMELY IRRIGATION.

WATER TESTING

BACTERIOLOGICAL TEST

THIS TEST SHOULD BE PERFORMED AT A FREQUENCY OF SIX MONTHS AT A LOCAL ACCREDITED WATER TESTING LAB. BACTERIOLOGICAL SAMPLES WILL RAPIDLY BECOME UNREPRESENTATIVE OF THE WATER SUPPLY IF THE TEST IS NOT PERFORMED SOON AFTER TAKING THE SAMPLE

THESE TESTS INCLUDE BUT ARE NOT LIMITED TO: E.COLI, AND TOTAL COLIFORMS

CHEMICAL TEST

THIS TEST SHOULD BE PERFORMED AT A FREQUENCY OF ONE YEAR AT AN ACCREDITED WATER TESTING LAB. WHILE CHEMICAL TESTS ARE LESS TIME SENSITIVE, IT IS ADVISED TO DELIVER YOUR SAMPLE TO THE LAB WITHIN 24 HOURS OF TAKING THE SAMPLE

THESE TEST INCLUDE BUT ARE NOT LIMITED TO: HEAVY METALS, TOTAL ORGANIC CARBON, PH, TURBIDITY, TOTAL DISSOLVED SOLIDS, NITRATES, HARDNESS, AND CONDUCTIVITY.

POTENTIAL LOCAL TEST FACILITY

WHEN USING THE SERVICES OF A LOCAL TESTING FACILITY THEY WILL ENSURE THE TEST RESULTS AND TOLERANCES CONFORM TO LOCAL REGULATIONS ON WATER QUALITY.

WATER TEST RESULTS

DOCUMENTS.

WATER TESTING LOG PERFORM A BACTERIOLOGICAL TEST ON THE WATER EVERY 6 MONTHS PERFORM A CHEMICAL TEST ON THE WATER EVERY YEAR

STORE THE ORIGINAL WATER QUALITY TEST RESULTS IN FOLDER AT BACK

THE FIRST WATER TEST SHOULD BE RECORED BELOW AS THE BASELINE WATER TEST.

BASELINE TEST DATE (DD/MM/YYYY)	TEST COMPLETE DATE (DD/MM/YYYY)	TEST RESULT

A2



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DANGER!! IF THERE ARE ANY NOTICEABLE CHANGES IN WATER QUALITY (IE. COLOUR, SMELL, TASTE, ETC.) STOP USING WATER AND PERFORM BOTH BACTERIOLOGICAL AND CHEMICAL TESTS IMMEDIATELY.

PLEASE KEEP A LOG OF TEST RESULTS IN THE TABLE AT THE BACK OF THIS DOCUMENT. PLEASE FILE THE ORIGINAL WATER TEST RESULT DOCUMENTATION IN THE FOLDER AT THE BACK OF THESE

SYSTEM NAME:

YOUR - RAINWATER HARVESTING

		ROOF COLLECTION AREA:	366 m2	
SYSTEM TYPE:	R2-NON-POTABLE	ROOF MATERIAL:	ASPHALT	
OWNERS:	YOU	GUTTER MATERIAL:	PAINTED STEEL	
	123 ABC ST.	DOWNSPOUT MATERIAL:	ALUMINUM, PVC SDR 35, OR PVC DRAIN PIPE	
EMERGENCY CONTACT				
FIRST POINT - INSTALLERS	OWNERS CONTRACTORS		AL: ALUMINUM, PVC SDR 35, OR PVC DRAIN PIPE	
SECOND POINT - DESIGNER	CLEANFLO WATER TECHNLOGIES, CANADA 1-877-306-2146	STORAGE TANK SPECIF	ICATIONS	
		TOTAL VOLUME:	2400 USG	
		NUMBER OF TANKS:	2	
MAINTENANCE PERSONS	OWNER	VOLUME OF EACH TANK:	1200USG	
		TANK TYPE:	ABOVE GROUND	
SCOPE OF SYSTEM SUPPLY		TANK MATERIAL:	POLY	
WATER USES TEIR:	R1 IRRIGATION ONLY	TANK DIMENSIONS		
PRIMARY WATER SOURCE:	RAINWATER	LENGTH:	NA	
SECONDARY WATER SOURCE:	CITYWATER	WIDTH:	NA	
NUMBER OF PEOPLE SERVED:	NA	HIEGHT:	60"	
ANNUAL WATER DEMAND:	NA	DIAMETER:	83"	
ANNUAL WATER HARVESTED:	NA			
		PRE-FILTER SPECIFICAT		
NUMBER OF FIXTURES		TYPE OF PREFILTER:	WISY VORTEX 150	
HOSE BIBS:	3	NUMNER OF PRE-FILTERS:	1	
YARD HYDRANT:	0	PRE-FILTRATION MESH SIZE:	320 MICRONS	
FAUCETS:	0	MAXIMUIM INLET FLOW RATE:	12 LITERS PER SECOND	
LAUNDRY:	0	PUMP SPECIFICATIONS		
TOILETS:	0	BRAND:	CLEANFLO VFD CONSTANT PRESSURE SYSTEM	
DISHWASHER:	0	MODEL:	DABS DTRON2	
BATH/SHOWER:	0	DESIGN FLOW RATE:	8 USGPM	
MECH. EQUIPMENT: FIRE SUPRESSION:	0	MAXIMUN PSI @ 8 GPM:	50 PSI	
FIRE SUFRESSION.	0		2	
SECONDARY WATER SOURCE		POWER SPECIFICATION		
TYPE:	CITY WATER	HORSE POWER:	1.0 HP	
AUTOMATIC BY-PASS SYSTEM	AUTO BY PASS	VOLTAGE:	120 VAC	
			~ 8 A	
DESCRIPTION / COMMENTS:	WHEN FLOAT IN RAINWATER TANK IS LOW TANK TOP-UP CITY	WATTS:	1000 W	
WATER.		WATER TREATMENT SPECIFICATIONS		
SYSTEM DESIGN AND SPECS.		TYPE:	NA	
DESIGNER:	CLEANFLO WATER TECHNLOGIES, CANADA, 1-877-306-2146	BRAND:	NA	
DATE COMPLETED:	JUNE 7, 2022	MODEL:	NA	
		AGE OF EQUIPMENT:	NA	

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SYSTEM SPECIFICATIONS

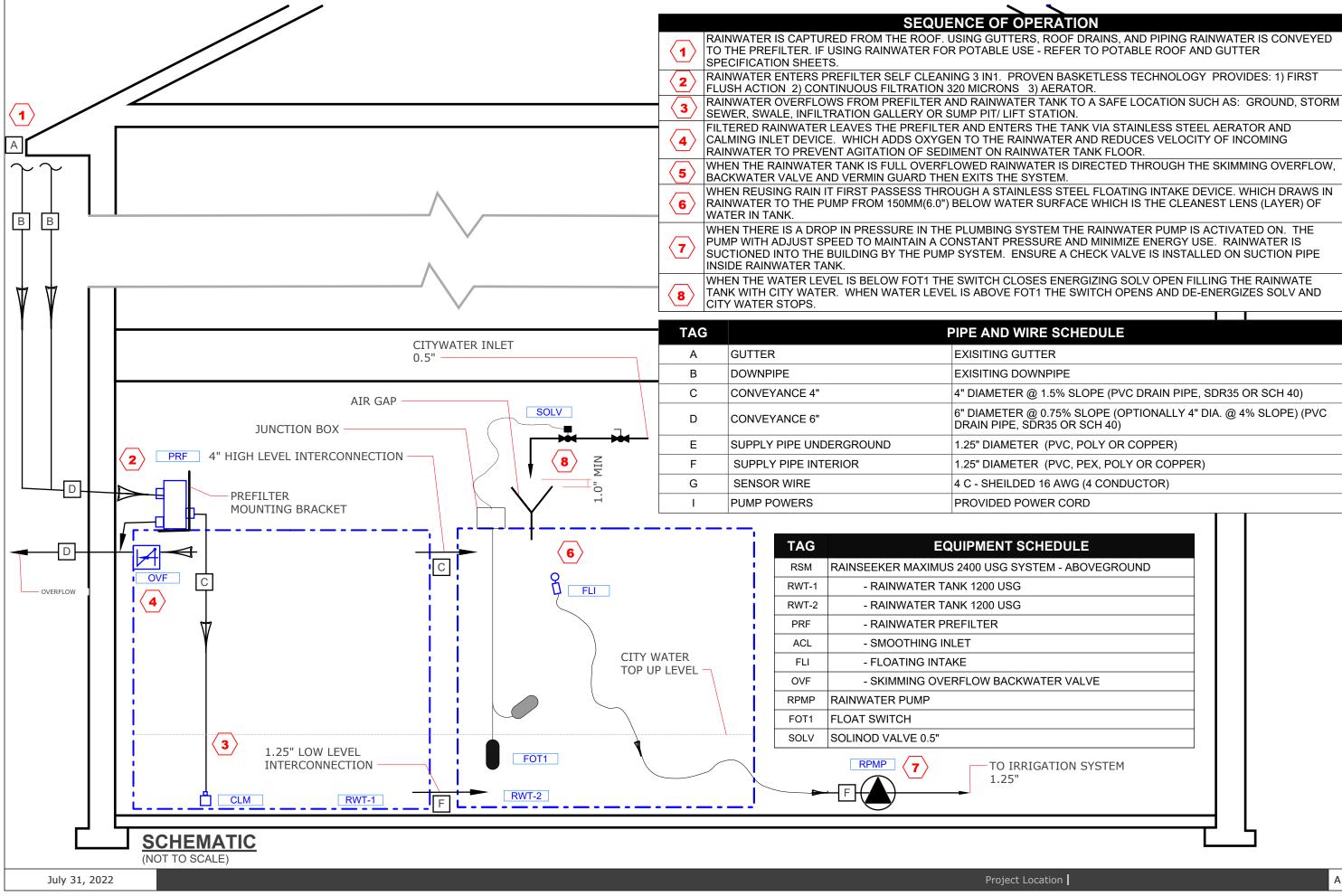
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TOTAL DYNAMIC HEAD

DESIGN FLOW RATE:	8 GPM
SUPPLY PIPE 1.25" @ 10FT (0.92 PSI LOSS/100FT) (NPSH MUST BE MET FOR BOOSTER PUMP)	0.092 PSI /0.1 FT HEAD
TREATMENT SKID PSI LOSS VARIES AS WATER FILTERS BECOME CLOGGED	10 PSI / 23.3 FT HEAD
DISTRIBUTION PIPE 10 GPM - 1.25 " @ 50 FT (0.92 PSI LOSS/100FT) 5 GPM - 1.0" @ 50FT (1.04 PSI LOSS/100FT) TOTAL (0.46 + 0.52) = 0.98	0.98 PSI / 4.88 FT HEAD
MINOR LOSSES: VALVES, FITTINGS ~ 100 FT 1.25" (0.92 PSI LOSS/100FT)	0.92 PSI / 1.025 FT HEAD
ELEAVTION HEAD 55FT (1.0 PSI LOSS/2.33FT)	23.61 PSI / 55 FT HEAD
STATIC PSI 30 PSI	30 PSI / 69 .9 FT HEAD
TOTAL	65.6 PSI / 153 FT HEAD



PIPE AND WIRE SCHEDULE

4" DIAMETER @ 1.5% SLOPE (PVC DRAIN PIPE, SDR35 OR SCH 40)

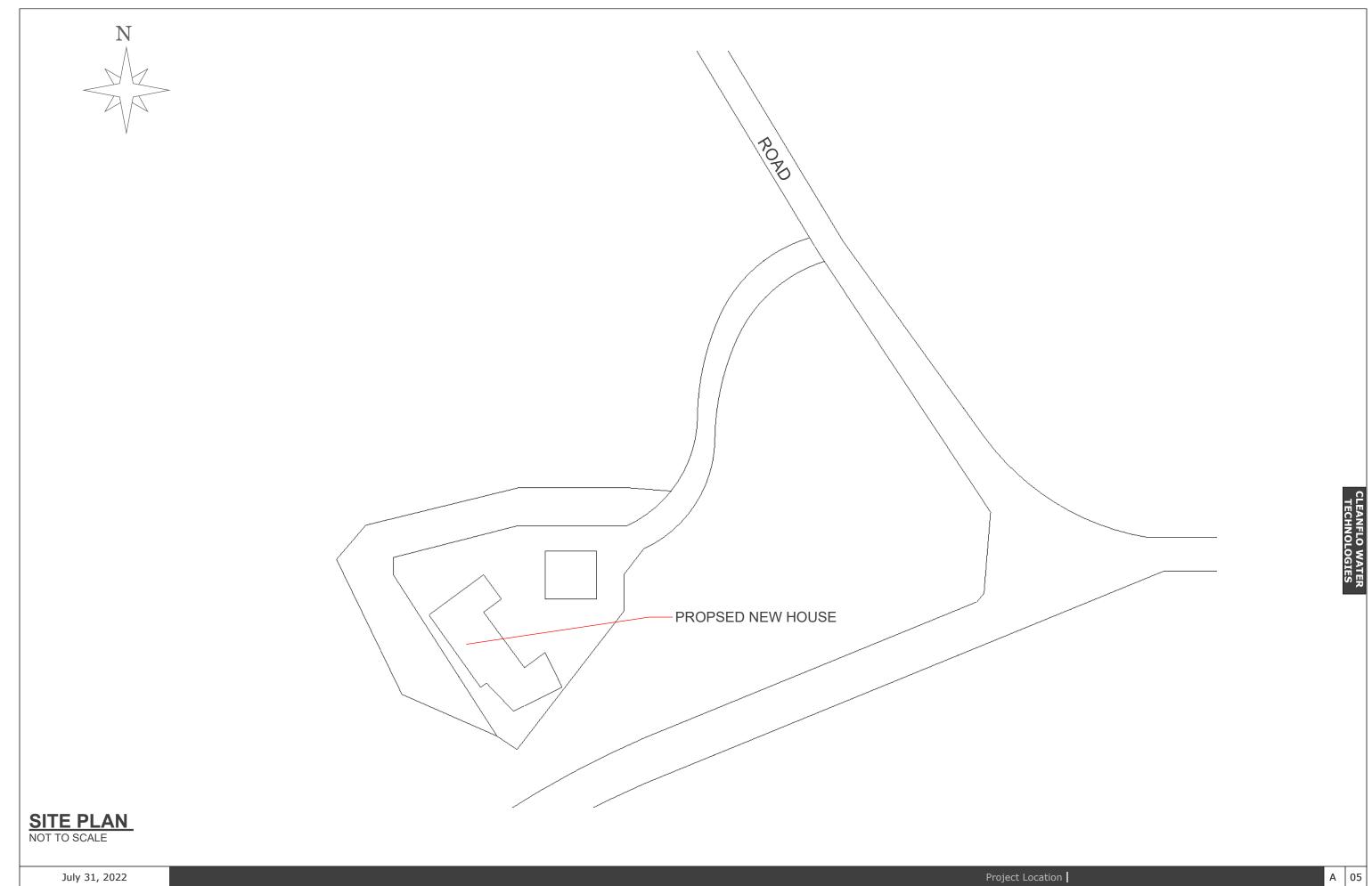
6" DIAMETER @ 0.75% SLOPE (OPTIONALLY 4" DIA. @ 4% SLOPE) (PVC DRAIN PIPE, SDR35 OR SCH 40)

1.25" DIAMETER (PVC, POLY OR COPPER)

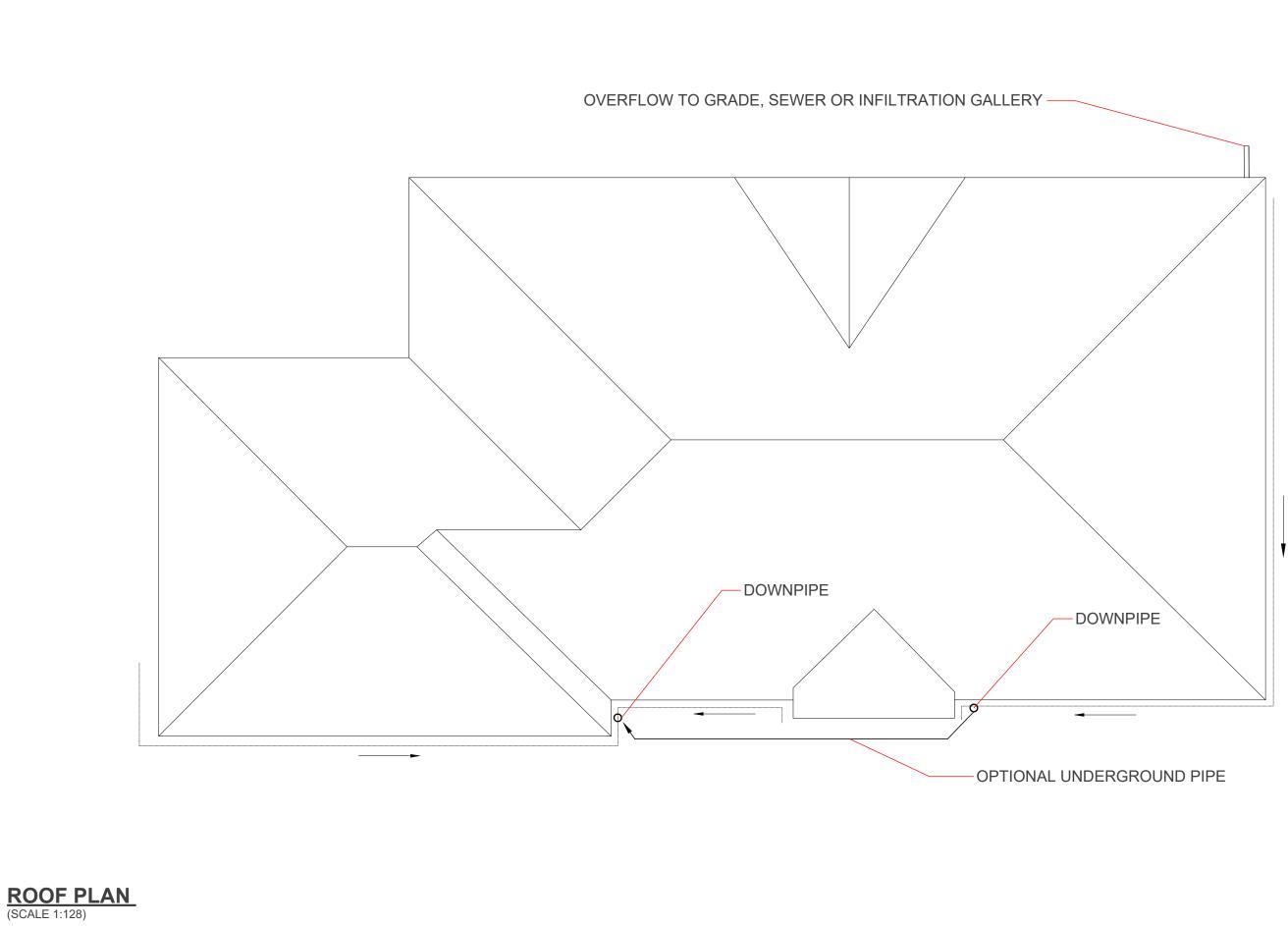
1.25" DIAMETER (PVC, PEX, POLY OR COPPER)

4 C - SHEILDED 16 AWG (4 CONDUCTOR)

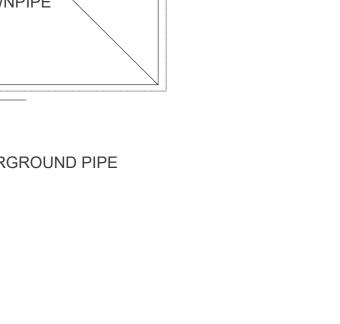
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STEM - ABOVEGROUND		ATE GIES
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WATER VALVE		
RIGATION SYSTEM		
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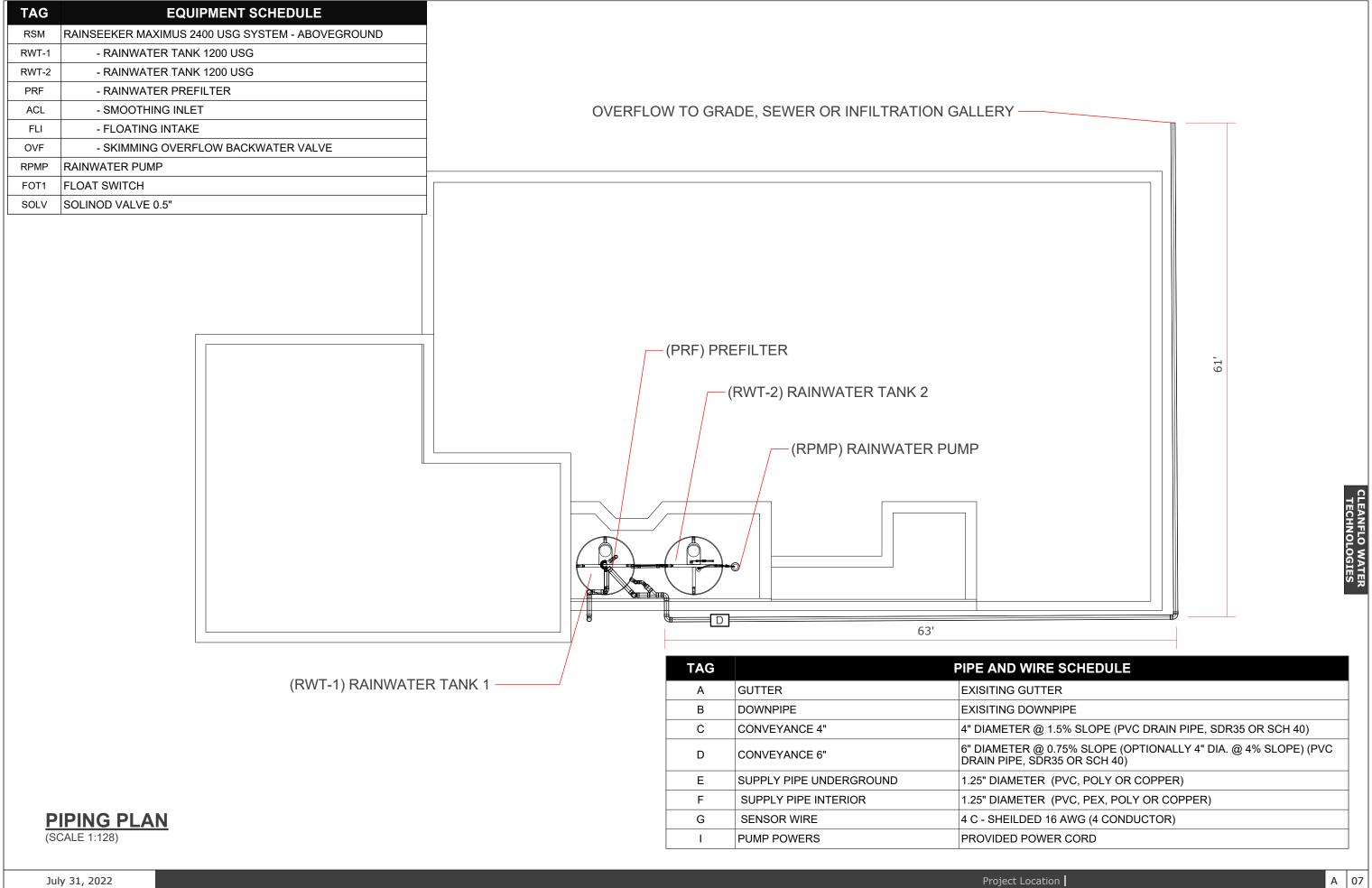
July 31, 2022

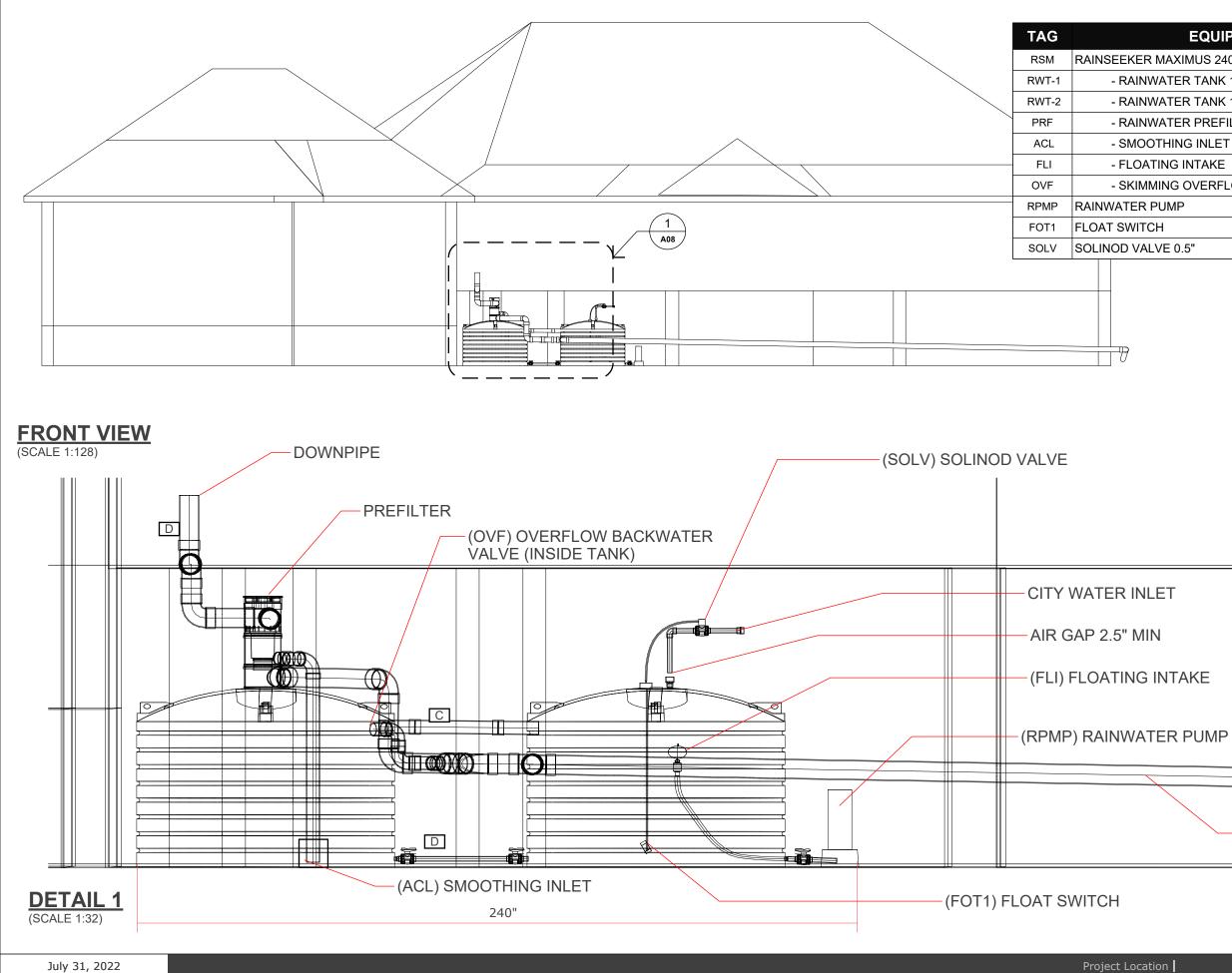


July 31, 2022









EQUIPMENT SCHEDULE

RAINSEEKER MAXIMUS 2400 USG SYSTEM - ABOVEGROUND

- RAINWATER TANK 1200 USG

- RAINWATER TANK 1200 USG

- RAINWATER PREFILTER

- SMOOTHING INLET - FLOATING INTAKE

- SKIMMING OVERFLOW BACKWATER VALVE

SOLINOD VALVE 0.5"

D



CLEANFLO WATER TECHNOLOGIES

