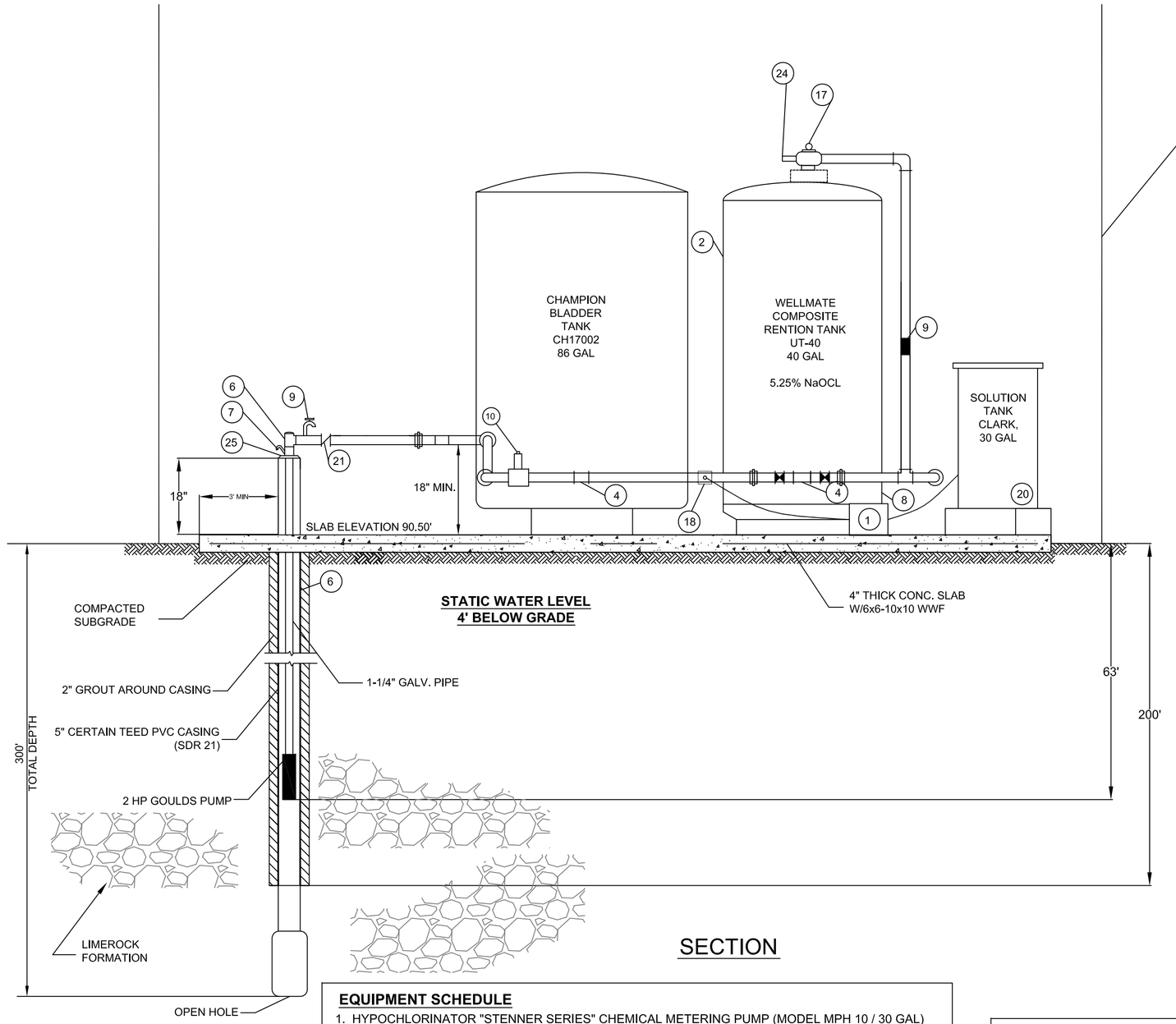
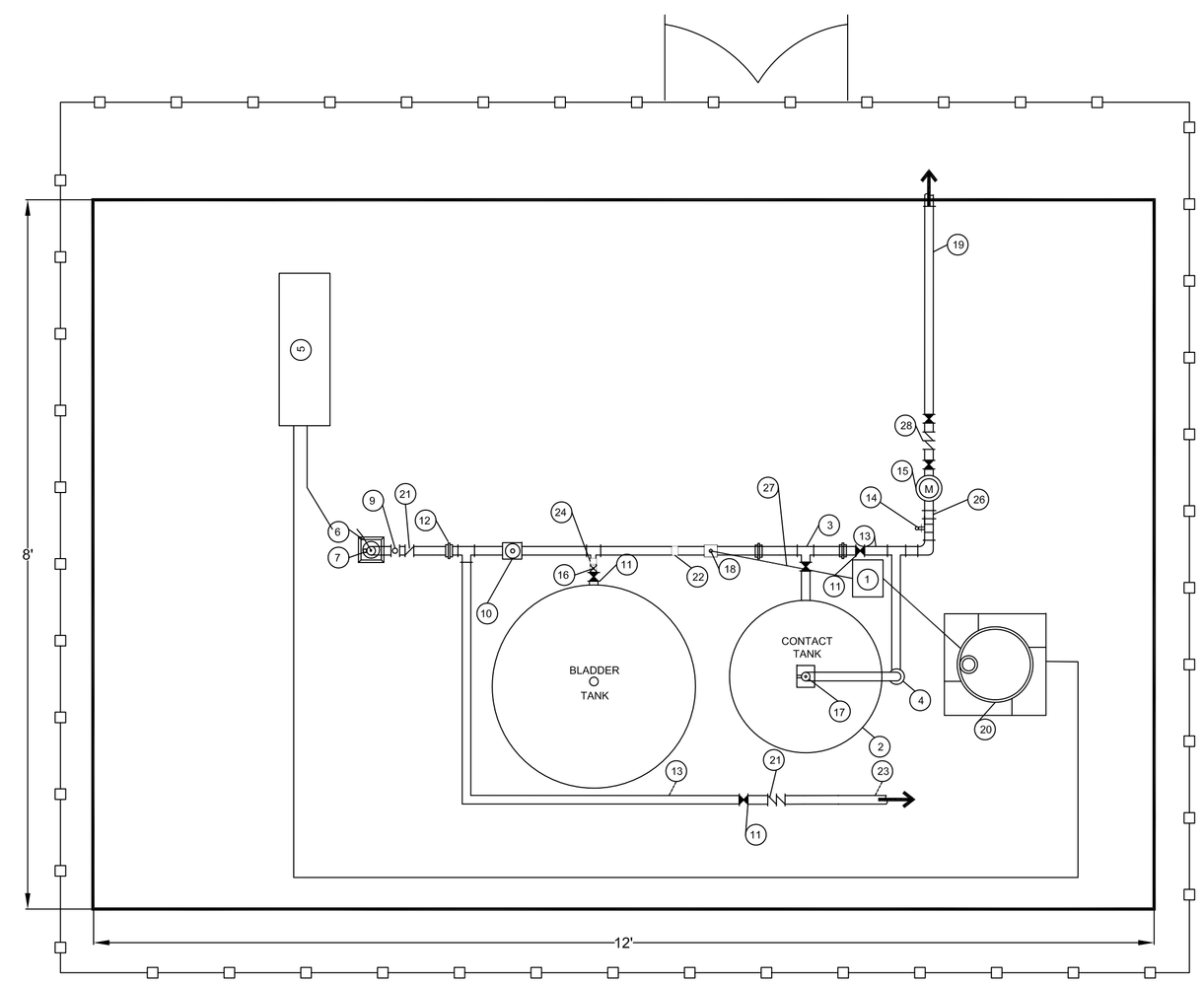
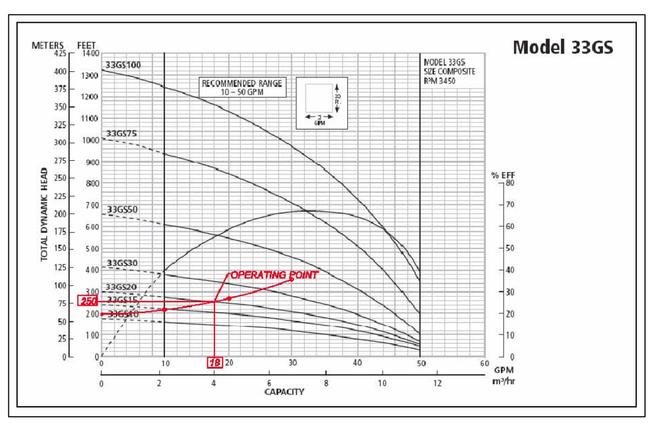


SECTION



WELL & WATER TREATMENT PLAN VIEW



PUMP CURVE

EQUIPMENT SCHEDULE

1. HYPOCHLORINATOR "STENNER SERIES" CHEMICAL METERING PUMP (MODEL MPH 10 / 30 GAL) (10 GPD W/ MIN 10:1 TURN DOWN) INTERLOCK WITH WELL PUMP STARTER CIRCUIT
2. COMPOSITE TANK 40 GALLON CAPACITY, WELLMATE
3. 1.5" TEE.
4. 1.5" 90 DEGREE BEND.
5. ELECTRICAL CONTROL PANEL, MIN 30A/3 PHASE/230 V WITH DISCONNECT
6. 5" WELL PVC CASING WITH GOULDS SUBMERSIBLE PUMP 2 HP, 50 GPM MAX.
7. 1.5" WELL OPENING/ OBSERVATION PORT/WELL VENT WITH SCREEN
8. TANK DRAIN WITH 3" AIR GAP
9. 5/8" SMOOTH NOSE HOSE BIB RAW WATER SAMPLING POINT
10. FLOMATIC PRESSURE REDUCING VALVE - CYCLE STOP VALVE (MODEL C150102E 15-150 PSI)
11. 1.5" GATE VALVE - MATCO-NORCA
12. 1.5" UNION
13. 1.5" SCH 40 PVC
14. 5/8" HOSE BIB WITH VACUUM BREAKER FINISH WATER SAMPLING POINT
15. 1" FLOW METER, AMCO C700 POSITIVE DISPLACEMENT METER
16. PRESSURE SWITCH, AMERICAN GRANBY
17. 1.5" PRESSURE GAUGE (0-100 PSI), AMERICAN GRANBY,
18. 1/2" BALL VALVE CHLORINE INJECTION POINT
19. 1" SCH 40 PVC
20. SOLUTION TANK - CLARK SERIES 30 GAL
21. BACKFLOW PREVENTER 1.5" WATTS RPZ SERIES 009
22. 1.5" CHECK VALVE - (NIBCO CHECK VALVE)
23. 1.5" PVC WATER LINE FOR IRRIGATION
24. 3/4" - 75 PSI PRESSURE RELIEF VALVE, AMERICAN GRANBY, WITH SCREEN.
25. WELL SEAL CAP.
26. 1.5" TO 1" REDUCER
27. 1/4" U.V. RESISTANT FEEDER LINE
28. 1" BACK FLOW PREVENTER

GENERAL TECHNICAL SPECIFICATIONS

The contractor shall furnish and install a complete package pump, bladder tank, and chlorination system as shown on the drawing. The system shall consist of the following:

* 40 gallons Contact tank with working pressure 75 PSI
* 86 Gal ASME Bladder Tank with 100 PSIG Working Pressure
* Chlorination equipment with chemical pump, flow sensor switch, and electric controls.
* Flow meter (1").
* Electric panel 30A/3 phase /230V with disconnect box.

BLADDER TANK

The bladder tank provided shall have a maximum working pressure of 100 PSIG working pressure and provides a minimum capacity of 86 gallons.

CHLORINE EQUIPMENT

Chlorine shall be injected into the influent line of bladder tank and occur simultaneously when the low sensor senses flow into the tank. Provide sensor switch as required.
The rate of injection shall be proportional to the flow into the tank. The chlorine booster pump shall be large enough to accommodate this flow. Chlorine contact time hydropneumatic tank shall be minimum of 15 minutes and provide a free chlorine residual of 0.2 ppm throughout potable water distrbution system. The chlorination equipment shall have a "STENNER" Metering pump system. Chlorine Solution tank shall be 30 gallons capacity and contain NaOCL @ 5.25 %

HOSE BIBS

Provide 5/8" brass hose bibs, Nibco non-thread end or equal. Hose bibs shall be installed as shown on plan or where it is required by the manufacturer's recommendation.

ELECTRIC SYSTEM

A NEMA type 3 enclosure, fabricated of painted steel (or HDPE) shall house the control equipment. The panel shall be gasketed and raintight. Control panel shall meet NEMA and/or NEC Standards, and shall be prewired for 230 v, 3 phase, 3 wire, and 60 cycle service. The interal wiring and electrical connections for the components of the hydropneumatic pumping system shall be factory installed and tested prior to shipment. All wire and conduits necessary to make the connection between the tank pumping system control panel, well pump, and the power source shall be provided by the contractor.

CONTROL SYSTEM

The electric controls for the well shall be included in the control panel. The pressure switch shall be arranged to operate on the following schedule:

* Normal operating pressure: (pump on).....55 PSI
* Pump off.....75 PSI

When water flows into hydropneumatic tank, the flow switch valve shall turn on the booster pump to provide proper proportional injection of chlorine to the influent line of the tank.

PAINT COATING

Interior surfaces of the bladder tank shall be cleaned of dirt, grease, oil, rust, mill scale, and weld splatter and shall be galvanized to meet AWWA and NSF requirements for potable water systems.

NOTE

IRRIGATION WILL OCCUR AT NIGHT ONLY

a. ALL PIPING AND EQUIPMENT SHALL BE NSF APPROVED AND SHALL BE MARKED WITH "NSF-PW", PVC PIPE SHALL BE SCHEDULE 40 (MIN.).

b. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3.0 FEET COVER FROM THE FINISH GRADE TO TOP OF PIPE.

d. CONCRETE THRUST BLOCK SHALL BE PROVIDED AT FITTINGS OR RESTRAINT JOINT PIPE

e. CONTRACTOR SHALL VERIFY ALL EXISTING UNDERGROUND UTILITIES IN THE VICINITY AFFECTING HIS WORK.

f. CONTRACTOR SHALL RESTORE ALL THE DISTURBED AREAS TO ORIGINAL OR BETTER THAN EXISTING CONDITIONS.

g. CONTRACTOR SHALL CONTACT THE OWNER OR ENGINEER PRIOR TO ANY CONSTRUCTION THAT MAY DAMAGE TREES.

h. ALL PIPING SHALL BE TESTED AS PER AWWA C-600 AND DISINFECTED AS PER AWWA C-601.

i. ALL PVC PIPE ABOVE GROUND SHALL BE PAINTED WITH LATEX PAINT FOR UV PROTECTION.

j. CHLORINATED WATER LINE SHALL BE COLOR CODED BLUE COLOR

k. CONTREACTOR TO SPEC REQUIRED ELECRICAL WIRE WHICH MEETS OR EXCEEDS ALL CURRENT ELECTRICAL CODE BASED ON LOAD REQUIREMENTS.

*** WELL PAD TO HAVE 6' HIGH ENCLOSURE (COMPLETE ENCLOSURE WITH LOCKED GATE)***

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PROJECT:

FISHHAWK SPORTING CLAYS
WATER TREATMENT PLANT
13505 HOBSON SIMMONS ROAD
LITHIA, FL 33547

CLIENT:

BELL CREEK HOLDINGS, LLC
13505 HOBSON SIMMONS ROAD
LITHIA, FL 33547

REVISION	DATE
CONSTRUCTION PLANS	2-17-10
REVISED PER HD COMMENTS	7-28-10
REVISED PER HD COMMENTS	10-27-10
REVISED PER HD COMMENTS	12-3-10

DES. J.C.
DRFT. J.O.

JEREMY COUCH, P.E.
PROFESSIONAL ENGINEER # 70658

PROPOSED
WELL PLAN

SHEET NO:

C-3