Installation of PH Water Treatment System Colonial Life Arena University of South Carolina Columbia, South Carolina

Mechanical Addendum

August 1, 2014

NOTE: The following amendments, additions, and deletions shall be made to the Construction Documents and Contract Documents. Insofar as those documents are at variance with this Addendum, this Addendum shall govern.

Questions

Item No. Description

- 1. Is the excavation classified or unclassified? The excavation shall be "unclassified".
- 2. Is the initial fill of the 140 gallon tank included in this contract? The initial fill will be through the chemical maintenance contract, and will be handled by the University. The contractor will be responsible for the initial start-up of the metering pump.
- 3. What is the size and ring stamp on the manhole covers? The manhole covers shall be 24" and shall be stamped "Sanitary Sewer".
- 4. *Can an alternative electric panel be used?* Circuits for PH pump may be taken from existing panel SPP located adjacent to the overhead doors.
- 5. What does the 140 gal. tank do? Meaning Does it dump water into the large tank in the ground or does it retrieve water from the large tank in the ground? **The 140 gallon tank contains caustic that pumped into the exterior holding tank.**
- 6. On page P-1 the General notes number 1 it specifies 140 gallon tank with containment basin... as manufactured by ZEE Corp. or approved Equal. However, my colleges (sic) and I have been unable to find this product or an authorized dealer to obtain specifications from it to ensure it is the same tank desired. Is there a point of contact or additional information about this specific tank? The Zee Company is a member of The Vincit Group. The regional manager is Ben Luckowski who can be reached at 1-800-782-0233. Please realize that this is the basis of design.
- 7. Presumably, on the outgoing side, from the in ground holding tank, there is no information to cap off the 12" DIP. Do we use a regular 12" meg-alug or was it to somehow remain open or another capping procedure that was required? Nothing specific was noted and clarification is needed. The existing ductile iron pipe shall be capped water tight. Meg-a-lug is an acceptable means but other means are acceptable so that the piping is capped watertight.

- 8. In the existing prints it shows that there are 2 valves. Do we need to reinstall these to the 12" DIP or simply discard them all together? No, the plans do not show those valves be reinstalled.
- 9. When reconnecting the 12" DIP to go into the ground's holding tank what type of fitting is needed to adjoin the piping back together? Or do we use our own discretion and use the same piping or can we use plastic piping? Connections between ductile iron sections shall be made using elastomeric seals.
- 10. The conduit- the notes on P-1 #-2 states that 2-1" conduits and 1-2" conduit is to be used and routed in the drainage ditch. However, when you look and the plans details on page P-2 it is illustrated ad there are 2-2" lines (one is 2" pvc schedule 40 above the inlet pipe) the other is listed as a (2" galvanized metal conduit) between the manhole access. The third conduit is not defined nor do any of them state what each conduit purpose is used for. What is each one utilized for and the proper sizing and proper material needed for each conduit? The 2" conduit is for the routing of the caustic from the 140 gallon tank to the holding tank. This line shall be Schedule 40 PVC. The two 1" conduits are for control wiring. These shall be similar to the galvanized metal conduits as specified on the electrical plans.
- 11. For the SP-1 it is showing that it is tapping onto the 12" DIP. What type of tap is needed and does it need a corporation, tap & saddle, or a threaded hole with a nipple, which is recommended? Also is a check valve needed on this line or a ball valve needed? A tap and saddle is
- recommended and check valve should be included on the pump outlet.
 Where specifically do the floats need to be located, and what type of mounting brackets is needed for the floats? In addition which conduit is being utilized for the floats? See manufactur's installation instructions. Mounting brackets shall be included with sump pump from the manufacturer.
- 13. For the pumps, SP-1 and SP-2, are there any specific mounting details to secure it to the base of the tank, or is it to be free-standing? In addition, on the schedule, it states that a removal system is needed with SP-1. Where are the details on the location of the rails, and discharge piping, base elbows, etc. do they go to the top of the man-hole or just to the top of the holding tank? How and where is this to be done, or do we do it on our own past experiences? Installation of sump pump and agitator pump shall be per the manufacturer's installation instructions.
- 14. Is there a specific line dedicated to the external holding tank? If so which line is it and is it a drain line or a return line? No specific information to what the scope of work is for and the concept of what is being done here. Is the 140 gallon holding tank maintaining water in it, if so where is the inlet and outlet and what is the location of each? The 2" conduit is for routing of the tubing that introduces the caustic into the holding tank. The holding tank maintains caustic in it. Holding tank is supplied by

water treatment supplier. See additional answers in this addendum for fittings.

- 15. Where is the power supply located at and, what is the distance from the existing power supply to the new control boxes for the pumps and floats? Please see electrical design documents, E1 and E2.
- 16. On SP-2 what is the discharge piping size needed and what type of pipe is needed coming off of that pump? Sheet P2 clearly shows the discharge size as 1-1/2" and is specified as Schedule 40 PVC.
- 17. On the note on P-2 on the holding tank details, it says all holes in tank to be sealed with boots. What kind of boots is desired? Link-seals, Rubberboots, etc.? Rubber boots provided by the precast concrete supplier are anticipated. Tank shall be completely sealed below grade.
- 18. On the bypass line nothing was stated to what kind of material to use during this time. Can we use flex pipe, plastic pipe, or do we maintain DIP? This line is purely for the convenience of the installing contractor and may be whatever material they choose. All contractors are strongly encouraged to visit the site to see the flow of water that is currently in the piping. This water will have to be accounted for during construction.
- 19. What size of a hole is required on top of the holding tank for the manhole cone to set on it? The tank is suppose to be 5' in width and if 2 separate holes are made in the top to fit the 4' manhole cone the weight of the combined cones and fill dirt may weaken the top of the tank thereby causing a potential cave-in. Just need conformation that this is indeed how it is to be done. While we certainly won't accept a weakened installation, the initial selection by the equipment supplier does show this as a 4' opening and there was no apparent concern by them.
- 20. 90 days to compete the job with providing equipment and submittals looks to be very difficult if not impossible. Can we get an additional 30 or 60 days? No. The owner's schedule of events is very full. Shop drawings will be reviewed in approximately one week's time. We feel that the 90 days is more than adequate.
- 21. Drawing E1 mentions and shows pH controller (1LB-78) and Pump Controller (1LB-84). We can find no description or requirements of these items. PH controller shall be provided by chemical treatment supplier, see above for basis of design contact information. The pump controller is provided by sump pump manufacturer. Basis of design is represented by Alan Auten at 803-724-1877.
- 22. Is the pump controller mentioned above the pump controller for the sump pumps (Weil Model 8183)? Yes, the sump pumps and the agitator pump.
- 23. Can you confirm the 140 gallon tank is to have secondary containment? It looks like the 140 gallon tank is circular and the secondary containment is rectangular. Yes, it does. The containment basin shall also have an integral pump shelf for mounting the chemical metering pump.

	Containment basin shall be supplied by chemical treatment
	equipment supplier, not contractor provided.
24.	Any spec or description of the materials of construction for the tank that
	holds caustic? The tank is polyethylene with a specific gravity rating of
	1.9, 140 gallon capacity. The tank will have a neutral color so that the
	liquid level can be seen through the tank.
25.	Fittings schedule? Tank will have a fill line and a vent line. Stainless
	steel bottom drain line/pump suction with Schedule 40 stainless
	isolation valve
26.	How does the caustic get to the tank? Via the chemical maintenance
	contract through the fill line.
27.	Is the tank open top or domed top? Domed top.
28.	I would think at a minimum you would have the following fittings: drain,
	level indication via gallonage tape and/or site tube (with isolation valves),
	fill, pump suction, overflow, vent (if is enclosed domed top tank). See
	above.
29.	Is some form of hold down straps required? If you are referring to the
	140 gallon tank, no.

END OF ADDENDUM