Exercise #2: Proper sampling locations in a treatment plant for turbidity, chlorine residual, and TOC

Directions: Mark on the diagrams the proper sampling locations in a treatment plant for all of the following:

- Raw turbidity
- Raw TOC & alkalinity
- Individual filter effluent turbidity (IFE)
- Combined filter effluent turbidity (CFE)
- Filtered TOC
- Chlorine residual
- Raw turbidity
- Raw TOC & alkalinity
- Individual filter effluent turbidity (IFE)
- Combined filter effluent turbidity (CFE)
- Filtered TOC
- Chlorine residual

Basket strainer w/ auto backwash

12" pipe from river to wet well

Raw turbidity, raw TOC & alkalinity

Filter skid 2: 125 gpm max
Filter skid 1: 125 gpm max

IFE turbidity

CFE turbidity, filtered TOC

1400 gallon buffer tank (wet well for booster pumps)

Sodium hypochlorite

Soda ash

(2) 15 hp variable speed VT booster pumps

(2) 5 hp VT booster pumps lead/lag, 250 gpm each

72" x 150' pipe used for contact time

Chlorine residual

To distribution system