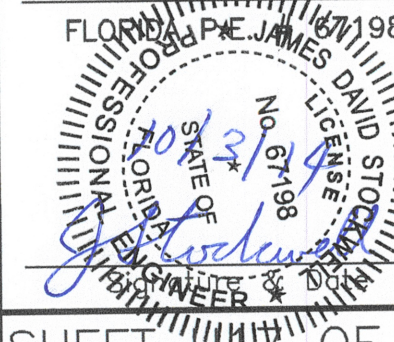


**FORCE MAIN 27-A**  
**FROM 51ST ST. W. TO THE SWWRF**  
**CROSS SECTION STA:19+50**

NO.	REVISION DESCRIPTION	BY	DATE

PROJECT #	406-6082980
SURVEY #	3825
SEC./TWN./RGE	16,17,18/35/17
VERT. SCALE	1"=2'
HORZ. SCALE	1"=20'
SURVEYED	LSF/HYATT 2001/2012
DESIGNED	LSF/JS 2002/2013
DRAWN	BLR 03/2013
CHECKED	JS 03/2013

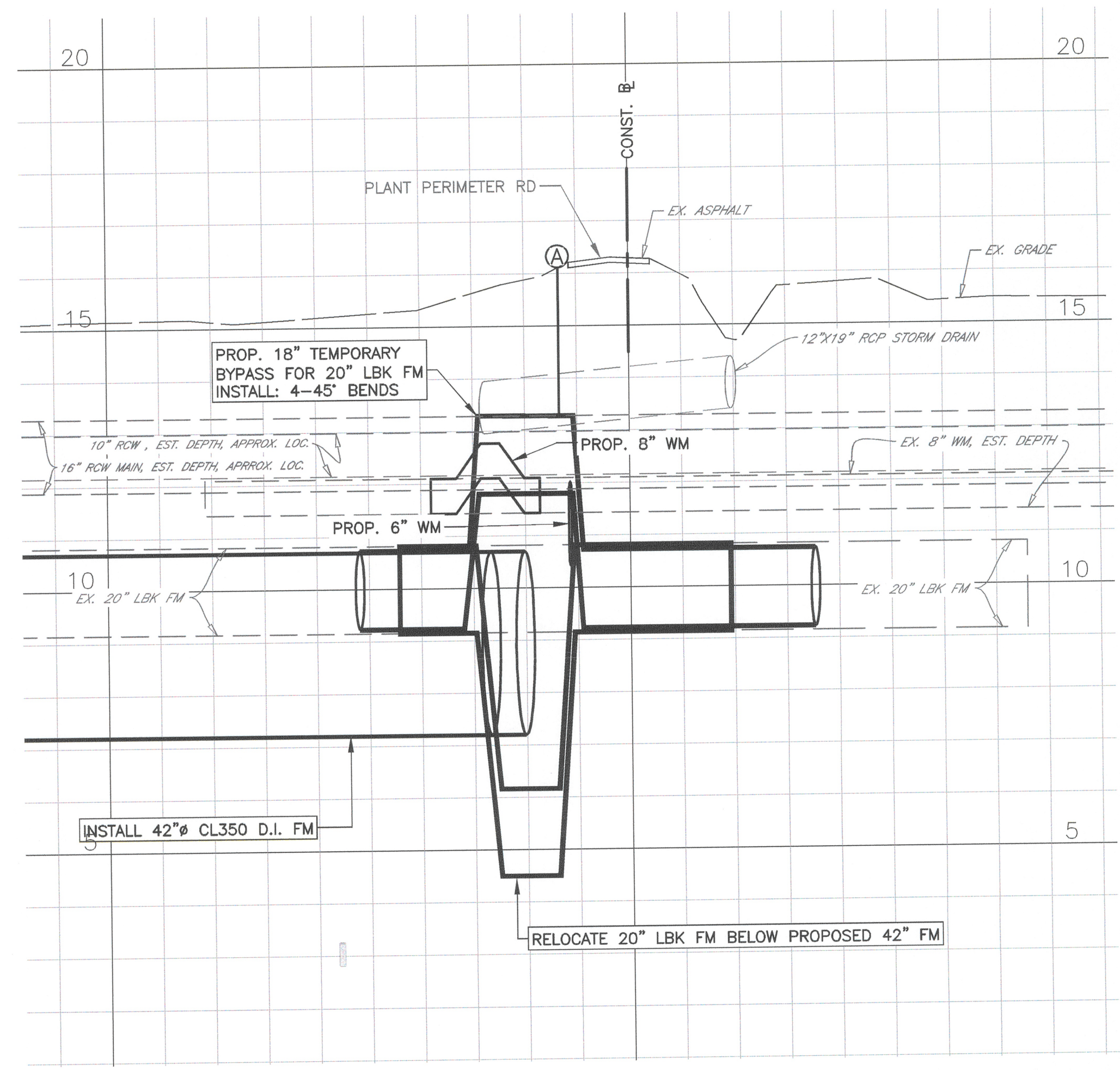
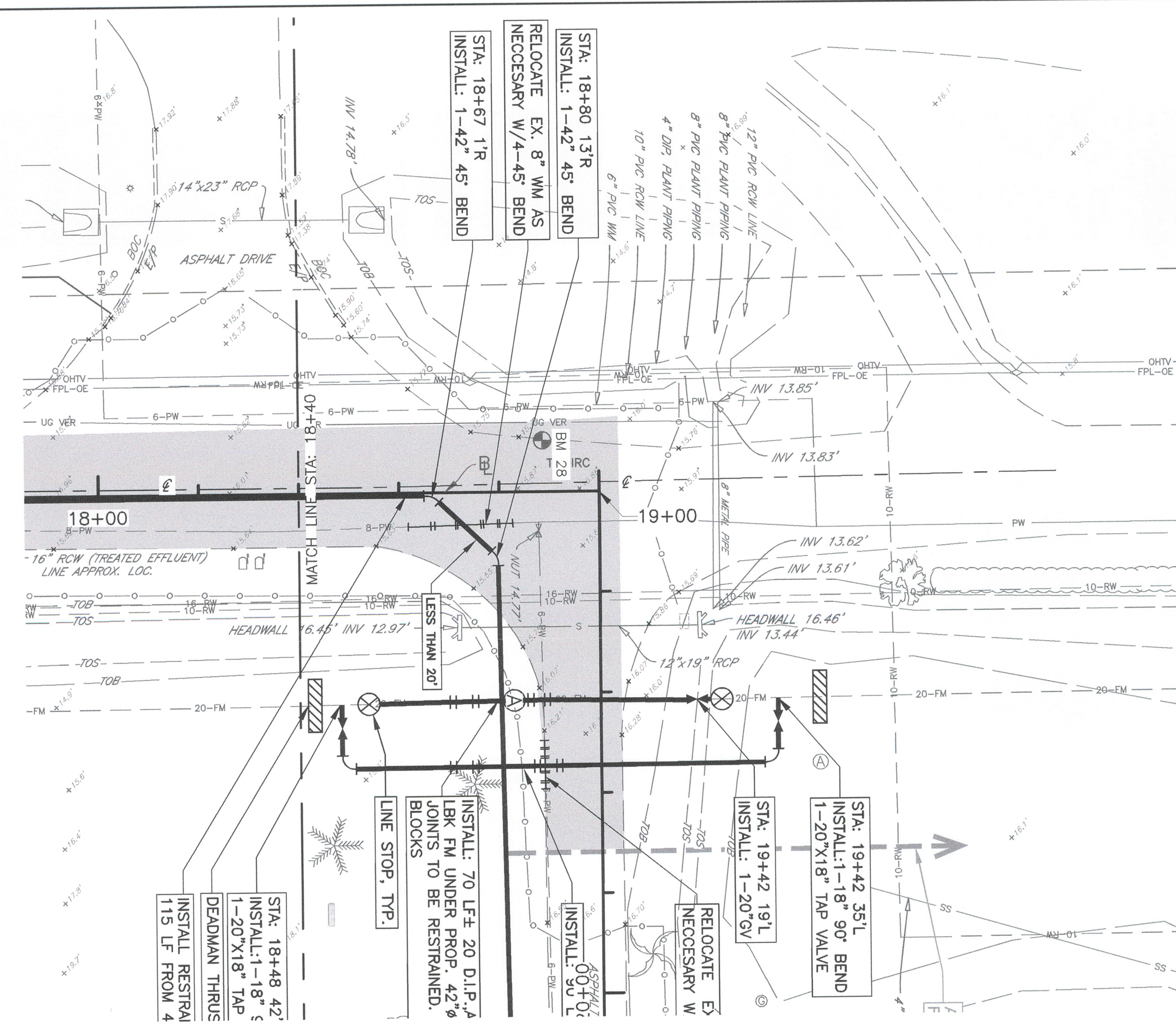
JAMES STOCKWELL, P.E.  
FLORIDA PROFESSIONAL ENGINEER NO. 1198



DATE: 03/2013

SUGGESTED CONSTRUCTION SEQUENCE:

1. Prepare Wastewater Spill Control and Prevention Plan and submit to County for review. Submit thrust block design calculations and details to Engineer for review. Submit MOT plans to county for review. Submit proposed pipeline shutdown and diversion schedule and details to county for review. Perform soft digs to locate utility conflicts if any, including gas line at 65th.
2. Relocate existing 24" RCW on 53rd Ave. at 65th St. Replace leaking 24" butterfly valve.
3. Install 18" tapping valves on 20" City of Longboat Key (LBK) force main at locations shown on the plans. Advise LBK to adjust their lift station operations to avoid surges, eg. hard on/off pump starts during bypass construction and to have emergency stand-by personnel monitoring station during force main relocation.
4. Relocate 8" & 6" waterlines at 65th St. Relocate 19" x 30" storm drain at 65th St.
5. Construct 18" DIP temporary bypass pipelines for LBK wastewater.
6. Install temporary and permanent thrust blocks and restrain existing pipelines & valves as necessary. Install 20" line stops at locations shown on the plans. Divert LBK force main flow to bypasses. Relocate 20" LBK main under proposed 42" main at bypass locations, with restrained pipe and bends.
7. Remove line stops, shut tapping valves, restore flow back to LBK 20" force main.
8. Construct 42" FM past LBK force main crossings, including 42" plug valve(s) and thrust blocks, and 24" FM stub for vault. Fill & pressure test 42" FM, connect to existing 42" FM at plant boundary and at 43rd St. plug valve. Open 42" plug valve at plant headworks (by CH2M) and start flow in new 42" FM. Shut 30" plug valve at 43 St.
9. Construct 8" FM at 65 St and connect to new 42" FM. Shut existing 30" FM valve at plant headworks. Pump out and TV and clean exist. 30" FM while shut down. Install proposed 30" FM connection to 42" FM at Sta. 101+19.
10. Construct 6" FM to serve golf clubhouse, install tapping valve on 42" FM and connect.
11. Construct all other works in scope, including RCW work for Manatee Fruit property. Coordinate with road project contractors. Restore all surfaces and plant fence.



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