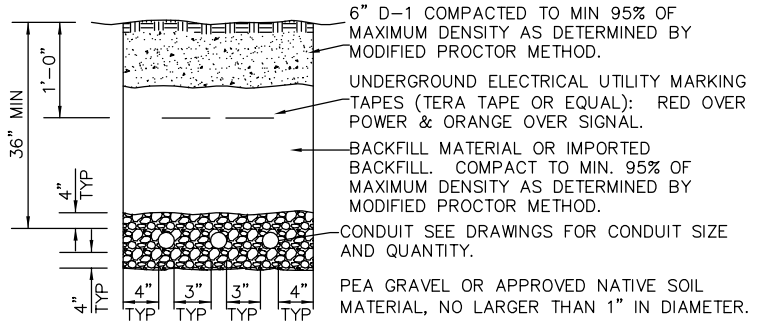


**PUMP CONTROL NOTES**  
**FOR SHEET 220-8**

1. SEE SHEET 220-10 FOR THE CONTROL LEGEND.
2. COORDINATE WITH LJ ALARM TO PROVIDE (4) SEPARATE ALARMS TO LJ THROUGH THE DIGITAL COMMUNICATOR:
  - (1) LOSS OF POWER
  - (2) LOW LEVEL
  - (3) HIGH LEVEL
  - (4) SPARE
3. COORDINATE WITH CBJ WASTEWATER DEPARTMENT COLLECTIONS SECTION TO PROGRAM THE MULTITRODE CONTROLLER TO START AND STOP THE PUMPS, ALTERNATE THE PUMPS (LEAD VS. LAG), AND ESTABLISH THE HIGH AND LOW LEVEL ALARM SET POINTS.
4. PROGRAM SMC FLEX AUXILIARY CONTACT NO. 1 TO CLOSE WHEN STARTER IS "UP TO SPEED". PROGRAM SMC FLEX AUXILIARY CONTACT NO. 2 TO CLOSE WHEN STARTER IS "IN FAULT". PROGRAM SMC FLEX AUXILIARY CONTACT NO. 3 TO CLOSE WHEN STARTER IS "UP TO SPEED". PROGRAM SMC FLEX AUXILIARY CONTACT NO. 4 TO CLOSE WHEN STARTER IS "UP TO SPEED".
5. CONTROL TRANSFORMER. 480V:120V, 1 $\phi$ , 2 KVA, W/ FACTORY INSTALLED PRIMARY AND SECONDARY FUSE PROTECTION. SQUARE-D TF2000. SEE NOTE 9 BELOW.
6. CONTROL TRANSFORMER. 120V:24V, 1 $\phi$ , 100 VA, W/ FACTORY INSTALLED PRIMARY AND SECONDARY FUSE PROTECTION. SQUARE-D TF100. SEE NOTE 9 BELOW.
7. PROVIDE AN R-C SUPPRESSOR ACROSS ALL SMC FLEX STARTER OUTPUTS THAT POWER A COIL. ALLEN BRADLEY 199-MSMA1.
8. ALL RELAYS SHALL BE INDUSTRIAL CONTROL RELAYS. ALLEN BRADLEY BULLETIN "700" SERIES OR EQUAL. PROVIDE WITH NUMBER OF AUX CONTACTS AS REQUIRED (MIN. OF 2).
9. SECONDARY SURGE ARRESTOR WITH LED MEETS ANSI/IEEE C62.11-1993. SQUARE D SDSA1175 OR EQUAL.
10. CONTROLS ARE SHOWN FOR A 480V LIFT STATION. MODIFY TRANSFORMERS, FUSES, ETC. IF DIFFERENT LINE VOLTAGE IS USED. USE CONTROL VOLTAGE AS SHOWN.
11. THE NUMBER OF STARTS COUNTER SHALL BE A RED LION P/N CUB30000 OR EQUAL. THE RUN TIME COUNTER SHALL BE AN ETM P/N FWZ72 OR EQUAL.



NOTES:

1. ALL DIMENSIONS ARE MINIMUM.
2. THE LOCATION OF ALL EXISTING PIPING, CONDUIT, ETC MAY NOT BE WHERE SHOWN AND MAY NOT BE SHOWN. ALL LOCATIONS THAT ARE SHOWN ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED. OBTAIN UTILITY LOCATES PRIOR TO DIGGING. DIG WITH CAUTION. AVOID WATER, SEWER, DRAINAGE PIPES AND OTHER CONFLICTS.
3. MAINTAIN 12 INCHES MINIMUM SEPARATION (ALL DIRECTIONS) BETWEEN POWER AND OTHER EXISTING CONDUITS, PIPES, ETC.
4. CUT & REPLACE EXISTING ASPHALT, CONCRETE, CONCRETE CURB, GUTTER, SIDEWALK, ETC AS NECESSARY.
5. ALL TRENCHES SHALL BE 18" WIDE MIN. COMPACT BACKFILL TO 95%. TOP 6" OF MATERIAL SHALL BE D-1.

**TRENCH DETAIL**  
NTS

SCALE: NTS	DATE: 1/18/00	CITY AND BOROUGH OF JUNEAU, ALASKA	
DRAWN BY: STAFF	CHECKED BY: JB/STAFF	PUMP STATION	
APPROVED BY: <i>DRW</i>	REVISED: 8/14/2011	NOTES & TRENCH DETAIL	
		STANDARD 220-9	