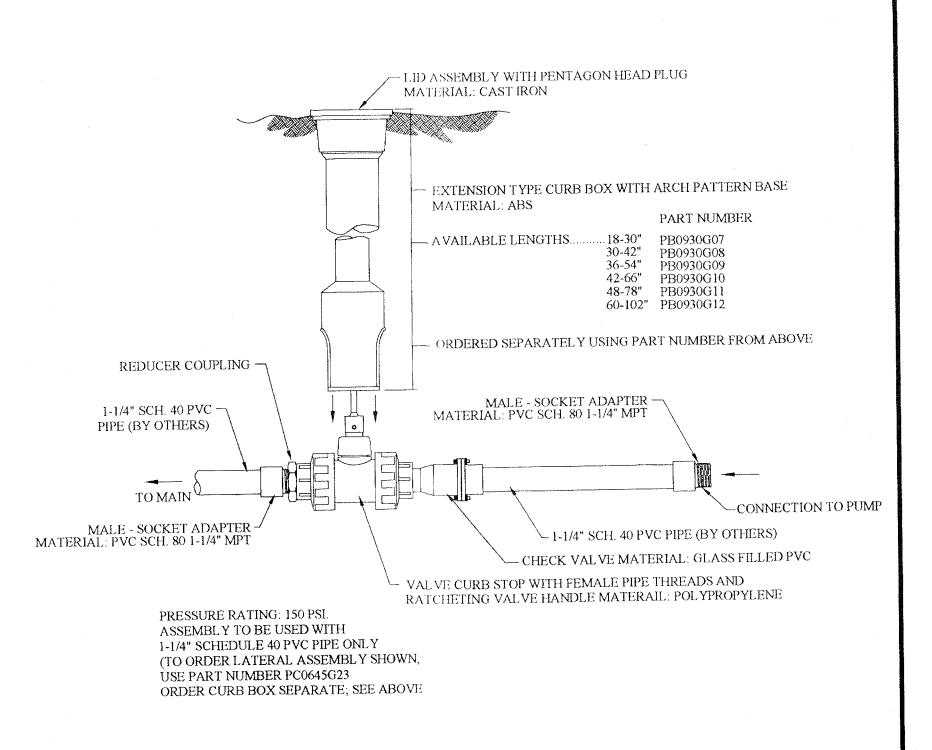


E-ONE GRINDER PUMP STATION, MODEL NO. 1012s-73



1-1/4" PVC LATERAL ASSEMBLY SCH. 40 PVC PIPE

REDUNDANT RUN (HIGH LEVEL) EXTERNAL VISUAL & AUDIBLE ALARM EXTERNAL LATCHING MANUAL SILENCE MANUAL RUN PUMP RUN INDICATOR CONFORMAL COATED CIRCUIT BOARD PADLOCK NEMA 4X ENCLOSURE ASSEMBLY CORROSION PROOF THERMOPLASTIC POLYESTER APPROVED BY UL FOR ELECTRICAL CONTROL ENCLOSURE ADDITIONAL FEATURE: 1. Provide manual portable generator connection such that pump station can be powered during conventional power failure. Manual transfer switch shall be a double throw such that generator will not back feed the conventional power grid. ALARM BREAKER 15 AMP PUMP BREAKER OPTIONAL -HOUR METERS -POWER LOSS
OWERED HIGH LEVEL DRY
ONTACT ALARM CONTACT CONTROL CABLE: TO PUMP CONTROL CABLE:
TYPE TC: DIRECT BURIAL, 12AWG, SIX CONDUCTOR

SIMPLEX SENTRY ELECTRICAL BOX & SCHEMATIC

MANUAL RUN

LOW PRESSURE SYSTEM FORCE MAIN

1. THE LOW PRESSURE COMMON FORCEMAIN SYSTEM FOR LAKEWATCH PLANTATION SANITARY SEWER SYSTEM EXTENSION, IS DESIGNED TO PROVIDE PRESSURIZED SEWER SERVICE TO THOSE PROPERTIES THAT DO NOT HAVE CONVENTIONAL GRAVITY SEWER SERVICE. THE SYSTEM HAS BEEN SPECIFICALLY DESIGNED SUCH THAT EACH RESIDENTIAL LOT WILL UTILIZE A STANDARDIZED E-ONE MODEL 1012s GRINDER PUMP STATION. EACH STATION SHALL HAVE A STORAGE VOLUME OF 237 GALLONS.

2. THE DEVELOPER AND OR RESIDENTIAL LOT OWNER WILL BE REQUIRED TO OBTAIN A COPY OF THIS CONSTRUCTION DRAWING IN ORDER TO PROCURE A SEWER SYSTEM PERMIT FROM THE FRANKLIN COUNTY HEALTH DEPARTMENT, AND A BUILDING PERMIT FROM FRANKLIN COUNTY. COPIES OF THIS SHEET AND CONSTRUCTION SPECIFICATIONS SHALL BE OBTAINED FROM ACS DESIGN, PROJECT ENGINEER. IN ADDITION, THE MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE OBTAINED BY THE INSTALLER AND UTILIZED FOR CONSTRUCTION OF EACH PUMP STATION.

3. INSTALLATION OF THE E-ONE GRINDER PUMP SYSTEM AND SERVICE CONNECTION SHALL ADHERE TO THE MINIMUM STANDARDS SET FORTH WITHIN THESE CONSTRUCTION DOCUMENTTS AND AS SPECIFIED BY THE MANUFACTURER. THE DEVELOPER, BUILDER OR LOT OWNER SHALL REFER TO THE CONSTRUCTION DRAWINGS CONTAINED HEREIN FOR SPECIFIC LOCATION AND INSTRUCTIONS FOR CONNECTION TO THE COMMON LOW PRESSURE FORCEMAIN.

4. AUDIO AND VISUAL ALARMS SHALL BE LOCATED WITHIN EACH RESPECTIVE RESIDENCE.

5. INSTALLATION OF THE PACKAGED GRINDER PUMP STATION AND PRESSURE FORCEMAIN SERVICE CONNECTION SHALL BE PERFORMED BY A LICENSED PLUMBER AND ELECTRICIAN AS DICTATED AND ENFORCED BY FRANKLIN COUNTY BUILDING DEPARTMENT.

6. THE GRINDER PUMP STATION SHALL NOT BE INSTALLED WITHIN ANY RESIDENTIAL STRUCTURE. THE GRINDER STATION SHALL BE LOCATED SUCH THAT IT'S TOP ELEVATION IS LOWER THAN THE LOWEST FINISHED FLOOR ELEVATION WITHIN THE RESIDENCE.

7. THE E-ONE PUMP STATION SHALL BE CONSTRUCTED BY A CERTIFIED E-ONE INSTALLER. THE DEVELOPER/LOT OWNER SHALL CONTACT THE FOLLOWING TO PURCHASE AN E-ONE PACKAGE PUMP STATION:

FALWELL CORPORATION 3900 CAMPBELL AVENUE LYNCHBURG, VIRGINIA 24501 PHONE: 434-846-2737 FAX: 434-846-2740

8. AFTER COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT PRELIMINARY TESTS TO ENSURE THAT THE PUMP STATION IS FUNCTIONAL AND WILL OPERATE SATISFACTORILY. THE CONTRACTOR SHALL THEN DE-ENERGIZE THE SYSTEM AND FILL THE PUMP TANK FULL OF CLEAN WATER. THE CONTRACTOR SHALL CONTACT ACS DESIGN TO SCHEDULE AN INSPECTION. THE INSPECTION SHALL CONSIST OF A VISUAL INSPECTION OF THE INSTALLATION AND AN OPERATIONAL INSPECTION OF THE EQUIPMENT AT SUCH TIME THAT THE PUMP IS ACTIVATED. FINAL INSPECTION SHALL CERTIFY THAT ALL ALARMS AND CONTROLS PERFORMED AS SPECIFIED IN THE CONSTRUCTION DOCUMENTS. THE BUILDER/LOT OWNER SHALL BE RESPONSIBLE FOR PAYMENT FOR PROFESSIONAL SERVICES RELATED TO THE ENGINEER'S FINAL INSPECTION AND CERTIFICATION STATEMENT.

9. AFTER FINAL INSPECTION, THE CONTRACTOR SHALL PROVIDE ACS DESIGN WITH A CONTRACTOR COMPLETION STATEMENT THAT INCLUDES THE FOLLOWING INFORMATION:

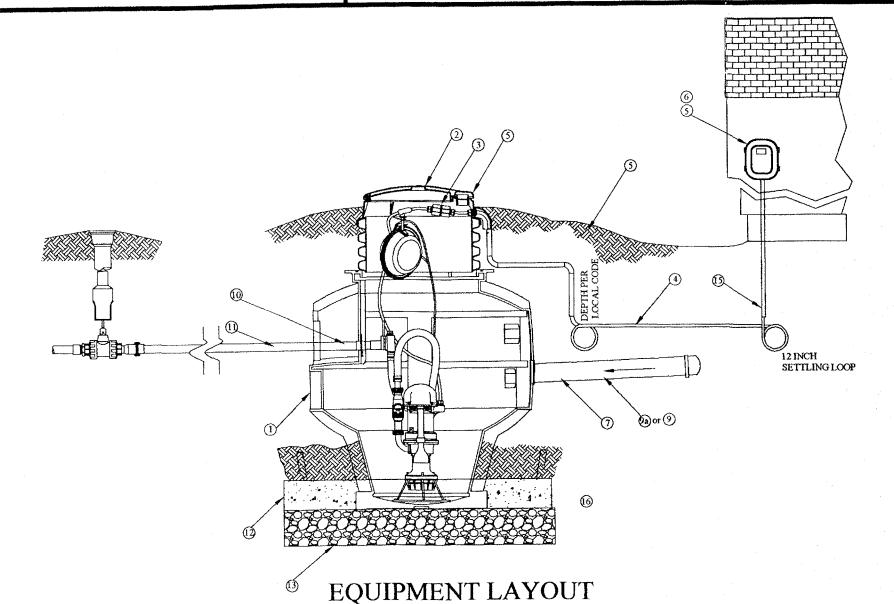
A. LOT NUMBER AND STREET ADDRESS OF INSTALLATION

B. DATE OF INSTALLATION

C. TYPE OF EQUIPMENT INSTALLED

D. DATE OF FINAL INSPECTION E. CONTRACTOR CONTACT INFORMATION FOR WARRANTY AND SERVICE

F.THE COMPLETION STATEMENT SHALL BE ATTACHED WITH THE ENGINEER'S CERTIFICATION AND SUBMITTED TO VDH AND FRANKLIN COUNTY FOR RECORD



BALLAST CART FOR E-ONE 1012s GRINDER PUMP STATION

GP MODEL 1012s	STATION VOLUME (in.)	FNET BOUYANT (lbs.)	TANK WEIGHT (lbs.)	FBALLAST (lbs.)	VOLUME CONCRETE (cu. ft.)*	WEIGHT CONCRETE IN AIR (lbs.)*	MINIMUM DIAMETER OF CONCRETE ANCHOR (in.)	MINIMUM THICKNESS OF CONCRETE ANCHOR (in.)
GP MODEL 1012s-55	36.4	2058	213	2264	8.58	1287	60	7

* VOLUME CALCULATED IS FOR MINIMUM DIMENSIONS GIVEN. MINIMUM DIMENSIONS MUST FIRST BE MET OR EXCEEDED FOR ACTUAL APPLICATION

ENVIRONMENT ONE GRINDER PUMP FEATURE IDENTIFICATION

1. GRINDER PUMP BASIN - POLYETHYLENE 2. ACCESSWAY COVER - FIBERGLASS REINFORCED POLYESTER (FRP) 3. ELECTRICAL QUICK DISCONNECT (EQD) - CABLE FROM PUMP CRE

4. POWER AND ALARM CABLE - CIRCUITS TO BE INSTALLED IN ACCORDANCE WITH LOCAL CODE.

5. ALARM PANEL - NEMA 4x ENCLOSURE AND EQUIPPED WITH CIRCUIT BREAKERS, LOCATE ACCORDING TO LOCAL CDES. 6. ALARM DEVICE - EVERY INSTALLATION IS TO HAVE AN ALARM DEVICE TO

ALERT THE HOMEOWNER. 7. INLET - EPDM GRPMMET (4.5" I.D.) FOR 4.5" O.D. DWV PIPE.

8. WET WELL VENT - 2.0" TANK VENT

9. GRAVITY SERVICE LINE - 4" D.W.V. (4.5 O.D. DWV PIPE) 9a. STUB-OUT - 4"x5' LONG WATERTIGHT STUB-OUT, TO BE INSTALLED AT TIME OF BURIAL UNLESS THE GRAVITY SERVICE LINE ISEXISTING.

10. DISCHARGE FTG - 1-1/4" FEMALE NPT, STAINLESS STEEL. 11. DISCHARGE LINE - 1-1" NOMINAL PIPE SIZE. SUPPLIED BY OTHERS. 12. CONCRETE ANCHOR - SEE BALLAST CALCULATIONS CHART FOR SPECIFIC WEIGHT FOR YOUR STATION HEIGHT.

13.BEDDING MATERIAL - 6" MINIMUM DEPTH, ROUND AGGREGATE, (GRAVEL). SUPPLIED BY OTHERS. 14. FINISHED GRADE - GRADE LINE TO BE 1" TO 2" BELOW REMOVABLE LID AND SLOPE AWAY FROM THE STATION.

15. CONDUIT - 1" OR 1-1" MATERIAL AND BURIAL DEPTH AS REQUIRED PER NATIONAL AND LOCAL CODES. CONDUIT MUST ENTER PANEL FROM BOTTOMAND BE SEALED PER NEC SECTION 300.5 & 300.7. SUPPLIED BY OTHERS. 16. REBAR - REQUIRED TO LIFT TANK AFTER BALLAST (CONCRETE ANCHOR) HAS BEEN ATTACHED, 4 PLACES, EVENLY SPACED AROUND TANK.

NIEL M. EARLY

ENGINEERING - SURVEYING LANDSCAPE ARCHITECTURI CONSTRUCTION MANAGEMENT

2203 PETERS CREEK ROAD ROANOKE, VIRGINIA 24017 P 540,562,2345 F 562,2344 INFO@ ACSDESIGNLLC.COM WWW.ACSDESIGNLLC.COM

DESIGNED BY: DESIGNED CHECKED BY: CHECKED JOB NUMBER:

> DEC 28, 2006 REVISED APRIL 30, 2007 SHEET 10 OF 10

E-1 GRINDER PUMP DETAILS