



OLSSON ASSOCIATES
ENGINEERS • PLANNERS • SCIENTISTS • SURVEYORS

September 8, 2005

Current Property Owner

Re: Big Sandy Development
Water & Sewer Utility Requirements
OA Project No. 2003-1089

Dear Property Owner:

We have received several calls from contractors hired to build homes at Big Sandy regarding the required materials and utility connections. As the designer of the development, we prepared information to be used by the homeowner when connecting to the water and sewer utility systems. This information is provided on the web site and contains some specific information, including materials to be used such as pipe, valves, grinder pumps, and several details indicating how those connections are to be made.

Your builder needs to be aware that the sewer system at Big Sandy is a low pressure sewer system (LPS) requiring the installation of a grinder pump at each home. The grinder pump installation and maintenance is the responsibility of the homeowner.

The LPS provided for Big Sandy was designed around E-One pumps, therefore, **only** E-One pumps are allowed to be installed at each home. This will insure that all pumps in the development are uniform and allow for easier maintenance, repair, or replacement of the pumps should there be a pump failure. To purchase an E-One system, you will need to contact Electric Pump at 800-383-7867.

Sincerely,

Ben Day, P.E.

Enclosures

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Specifications for Utility Service Materials to be Installed by Homeowner

Water Services

- A. **Service Saddles:** All taps shall be installed with a pipe saddle. Saddles shall have an "o" ring seal between pipe and saddle and shall be Ford Style S90, or equal.
- B. **Curb Stops:** As required for service size and material, including any necessary reducers. Brass, minimum size 1 inch. Ford B66.444M (Pack Joint for Plastic Pipe (PEP) Both Ends, Minneapolis Pattern Valve) or equal.
- C. **Curb Boxes:** Ford EM2-55-46-48R, Minneapolis Pattern, length 5.5 feet (or deeper as required to connect to existing water service), with plug style lid, 1 ½" tapped base, 1" upper section, and stationary rod, or equal. Provide equivalent product with 2" base thread for 2" curb stops. Install permanent stake or post near cub box such that it can be easily located.
- D. **Corporation Stop:** Ford F1001-4 (3/4"), or equal.
- E. **Copper Water Service Pipe:** Water service pipe shall be type "K" seamless soft-drawn copper tubing which conforms to the requirements of ASTM B898. Fittings: ASME B16.26, cast bronze fittings; flared-end joints.
- F. **Residential Water Meter:** Shall be Neptune T-10 or equal. Meter shall be installed with backflow prevention / double check valve. Meter shall be installed with remote register mounted outside of house. Meter register shall be in units of 10 US Gallons.
- G. Refer to attached "Typical Service Connection Detail" for Water Service Installation.

Sewer Services

- A. Refer to attached "Typical Lateral Assembly" and "Typical Service Stub-Out Installation Details" for Sewer Service Installation. Install permanent stake or post near valve box such that it can be easily located.

Grinder Sewage Pumps

- A. **Grinder Sewage Pumps** shall be "E-One 2010-93" for homes without hot tubs and "E-One 2012-93" for homes with hot tubs. Installation shall be per manufactures recommendations and include all controls and alarm. Each unit shall include a pump run time meter.

Utility Service Installation & Inspection

- A. All utility services shall be inspected by People Service, Duane Grashorn at 402-614-8488.
- B. People Service is also available to install the water and sewer services including the E-One grinder system. Contact Duane Grashorn at 402-614-8488.

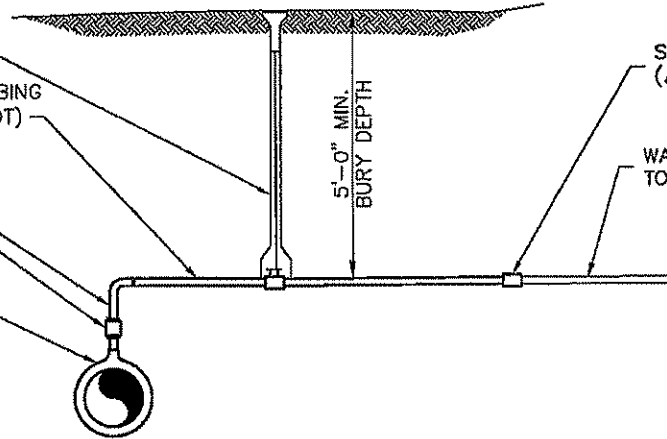
1" CURB STOP W/ BOX
(PAY ITEM, EACH)

3/4", 1", OR 1-1/2"
COPPER WATER SERVICE TUBING
(PAY ITEM, PER LINEAR FOOT)

SWIVEL BEND

CORPORATION STOP

NEW WATER MAIN W/
TAPPING SADDLE



SERVICE COUPLING
(AS REQUIRED)

WATER SERVICE PIPING
TO HOUSE

5'-0" MIN.
BURY DEPTH

***TYPICAL SERVICE CONNECTION (D)**

SCALE: 1/2" = 1'-0"

*TO BE INSTALLED BY HOMEOWNER

PROJECT: 2003-1089
DRAWN BY: JBD
DATE: 08/03/04

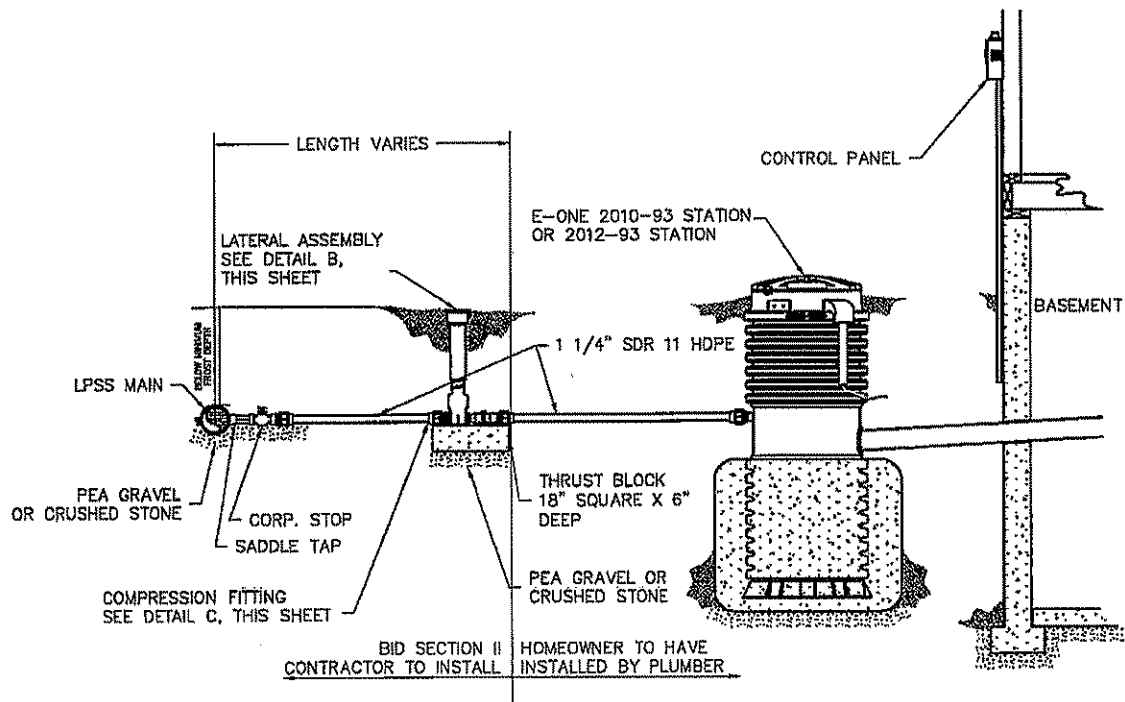
**WATER SERVICE
CONNECTION DETAIL**



OLSSON ASSOCIATES
ENGINEERS - PLANNERS - SCIENTISTS - SURVEYORS
1111 LINCOLN HALL - LINCOLN, NEBRASKA 68505
PH. 402-474-8511 - FAX 402-474-8180

FIGURE

1



NOTES:

1. SERVICE STUBOUT INCLUDES TAPPING SADDLE, TAP, CORP STOP AND LATERAL ASSEMBLY.
2. 1 1/4" PIPE TO BE PAID FOR ON A LINEAR FOOT BASIS

TYPICAL SERVICE STUB-OUT INSTALLATION DETAIL (A)

NOT TO SCALE

PROJECT: 2003-1089
 DRAWN BY: JBD
 DATE: 08/03/04

**SEWER SERVICE
 CONNETION DETAIL**



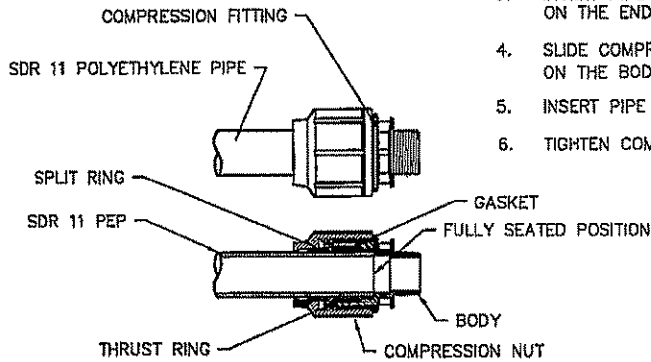
OLSSON ASSOCIATES
 ENGINEERS - PLANNERS - SCIENTISTS - SURVEYORS
 1111 LINCOLN MALL - LINCOLN, NEBRASKA 68508
 PH 402-474-5311 - FAX 402-474-0100

FIGURE

2

INSTALLATION STEPS:

1. CUT PIPE SQUARE.
2. MAKE SURE PIPE IS ROUND, NOT FLATTENED. CLEAN OFF ANY DIRT SO THAT THE SURFACE IS SMOOTH.
3. INSERT PIPE THROUGH COMPRESSION NUT. POSITION SPLIT RING ON THE END ON THE END OF PIPE WITH THE TAPERED END TOWARD THE COMPRESSION NUT.
4. SLIDE COMPRESSION NUT OVER SPLIT RING AND ALIGN IT WITH THE THREADS ON THE BODY.
5. INSERT PIPE INTO THE BODY OF FITTING UNTIL FIRMLY SEATED.
6. TIGHTEN COMPRESSION NUT SECURELY TO THE FITTING BODY.

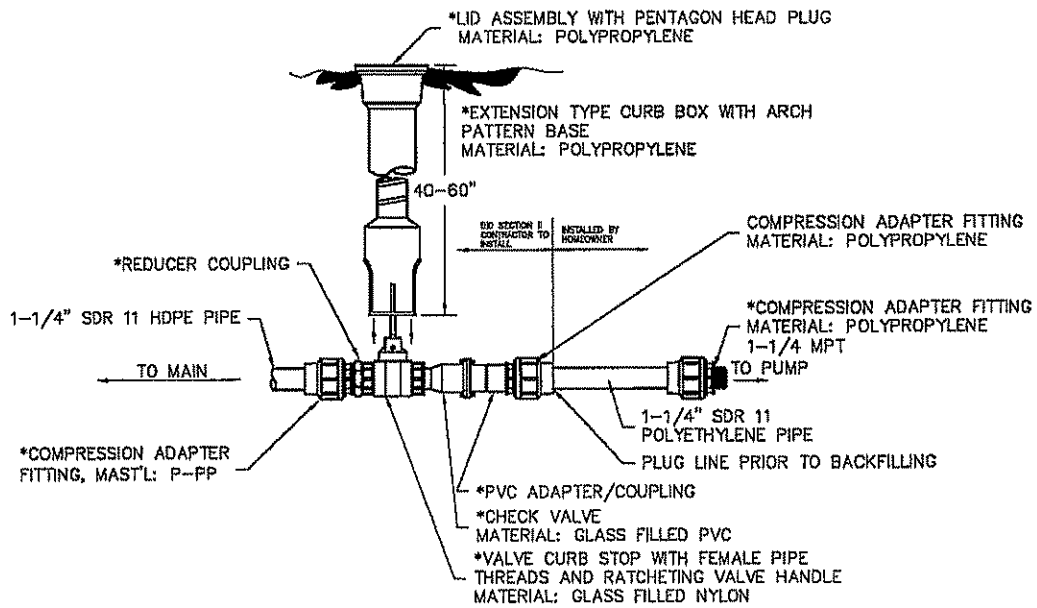


COMPRESSION FITTING (C)

NOT TO SCALE

NOTES:

1. E ONE "LATERAL ASSEMBLY" ORDER CODE CAP-AP6
2. PRESSURE RATING 150 PSI
3. ASSEMBLY TO BE USED WITH 1-1/4" SDR 11 PIPE ONLY
4. *INDICATES ITEMS INCLUDED IN LATERAL ASSEMBLY



LATERAL ASSEMBLY DETAIL (B)

NOT TO SCALE

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**SEWER SERVICE
 CONNECTION DETAILS**



OLSSON ASSOCIATES
 ENGINEERS - PLANNERS - SCIENTISTS - SURVEYORS
 1111 LINCOLN MALL - LINCOLN, NEBRASKA 68503
 PH. 402-474-8311 - FAX 402-474-5150

FIGURE

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