



Belfair Wastewater and Water Reclamation Facilities Project



Contractors' Meeting
January 10, 2011

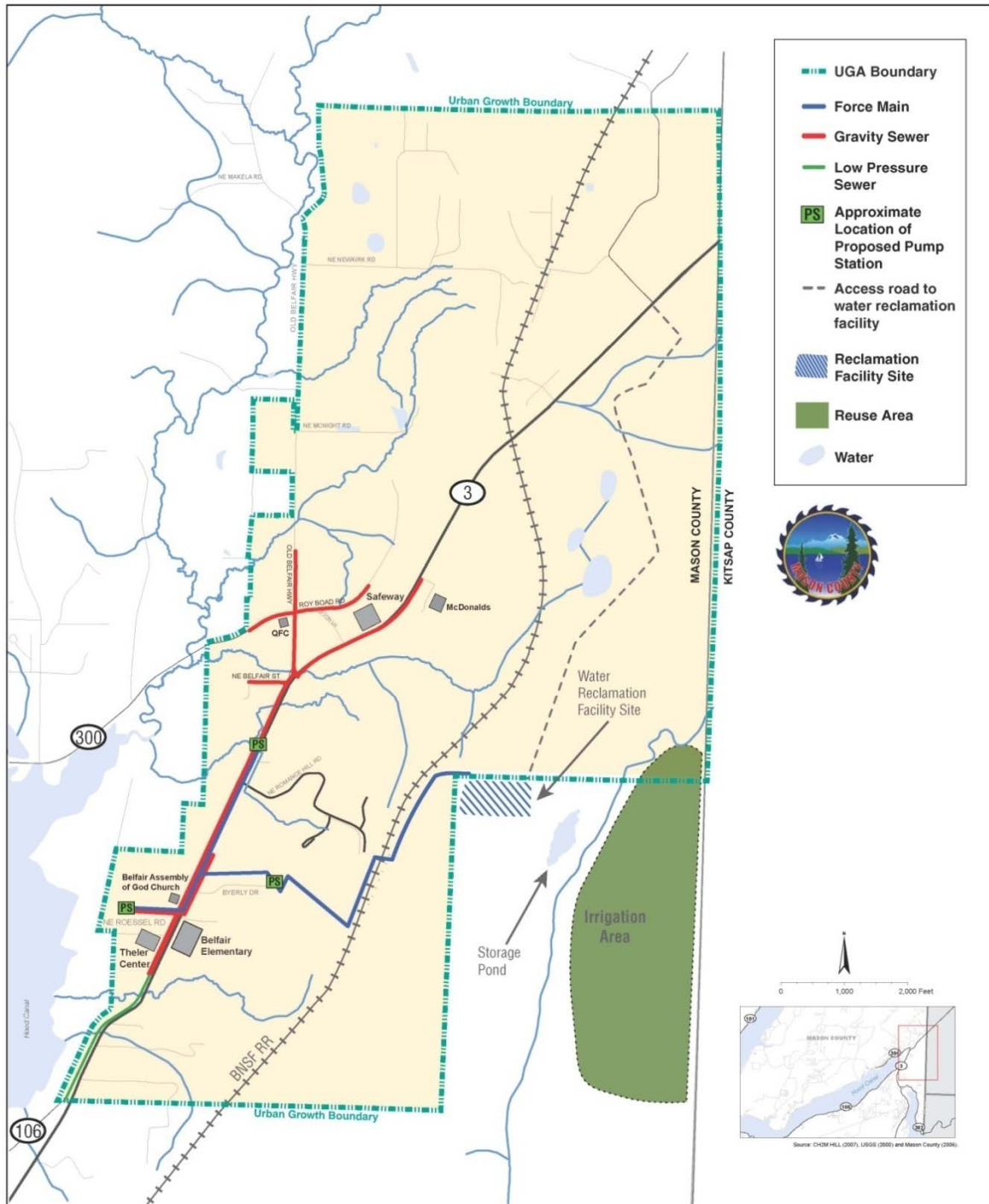




Agenda

- Project overview
- Side sewer plans and specifications
- Recommended contractors list
- Next steps / timeline
- Questions & answers

System Map





Property Owner Connections

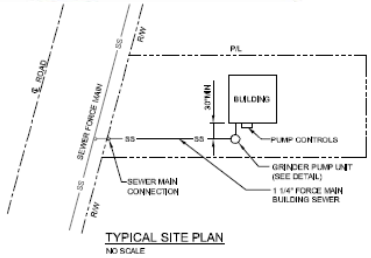
- **Property owners can individually hire contractors to build their side sewers.**
 - The County will provide property owners with a list of qualified contractors for side sewer construction.
- **The County is also pursuing grants and loans to assist property owners with their side sewer connections.**
 - This may change the way property owners connect to the system; i.e. the County may go out for bid for a contractor(s) to construct multiple side sewers.
 - Look for more information about a potential County Hook-up Program in the Spring.



Low-Pressure System Overview

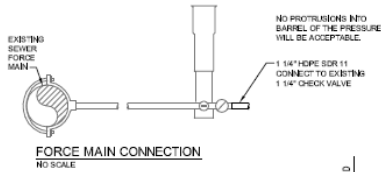
- 3" main line, 1-1/4" side sewer (laterals).
- All Low-Pressure System (LPS) hook-ups will require a grinder pump between the house and the main line.
 - The county will provide the standard grinder pump and a \$200 credit for the electrical service for all properties on the LPS (except restaurants/high occupancy properties).
- Property owners are responsible for the following:
 - The pipe from the house to the grinder pump.
 - The installation of the grinder pump.
 - The pipe from the grinder pump to the side sewer stub.
 - Restaurants and high occupancy properties on the LPS will need to purchase their own grinder pump and provide their own design.

LPS Spec Example

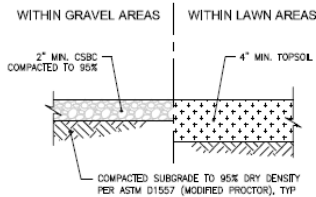


PUMP REQUIREMENTS

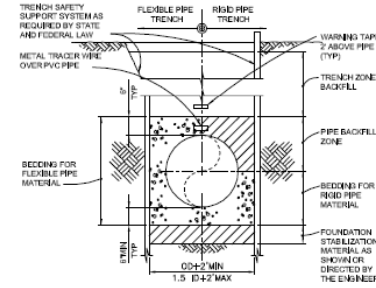
RECOMMENDED PUMP TYPE	HP	MODEL	MPGR SUPPLIER	POWER REQUIREMENTS	CORRECT EQUIPMENT
GRINDER PUMP	1 HORSE POWER	DH071 OR DX071	E ONE	240 V, SINGLE PH	



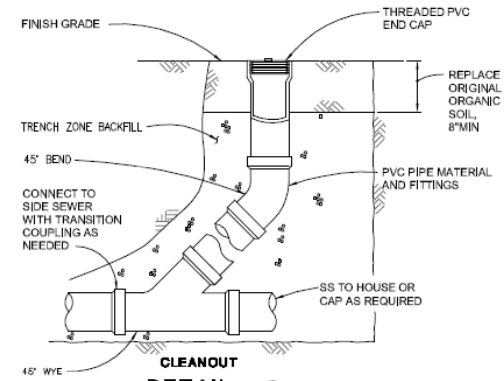
INDIVIDUAL PUMP STATION INSTALLATION DETAIL 1
NTS



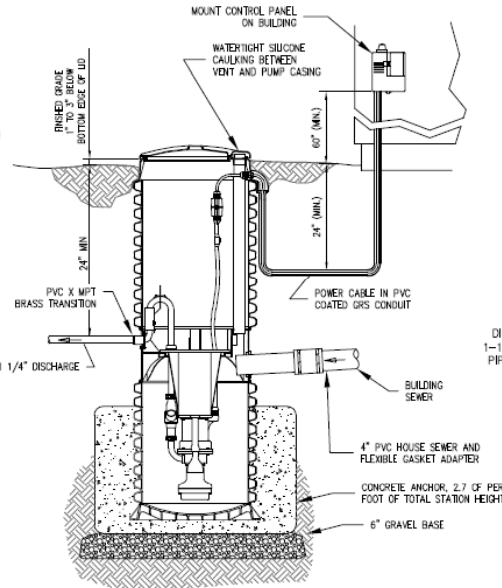
DETAIL 4
SCALE: NTS



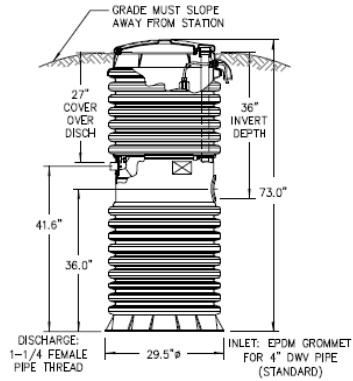
PIPE TRENCH DETAIL 2
NTS



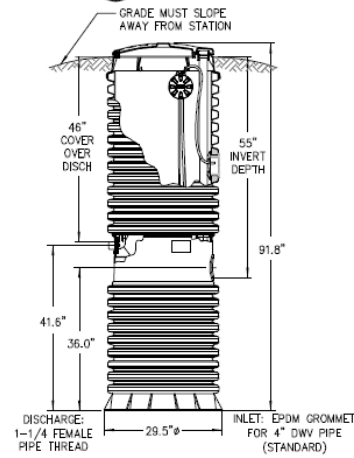
CLEANOUT DETAIL 3
SCALE: NTS



E ONE SANITARY SEWER PUMP STATION DETAIL 5
NTS



RESIDENTIAL PUMP STATION MODEL DH071-74



COMMERCIAL PUMP STATION MODEL DX071-83 (EXPLOSION PROOF PUMP)

- NOTES:
- CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER FOR THE LOCATION OF THE PUMP STATION AND CONTROL BOX.
 - ALL ELECTRICAL WORK SHALL BE COMPLETED BY ELECTRICIAN LICENSED IN THE STATE OF WASHINGTON. ALL ELECTRICAL WORK SHALL MEET LOCAL AND STATE CODES.
 - FOR E-ONE PUMP STATION, CALL CORRECT EQUIPMENT (425)-869-1233.
 - A MASON COUNTY UTILITIES AND WASTE MANAGEMENT REPRESENTATIVE MUST BE ON SITE WHILE CONTRACTOR IS WORKING AROUND EXISTING FORCE MAIN.
 - EXPLOSION PROOF PUMP MAY BE REQUIRED FOR COMMERCIAL USE.

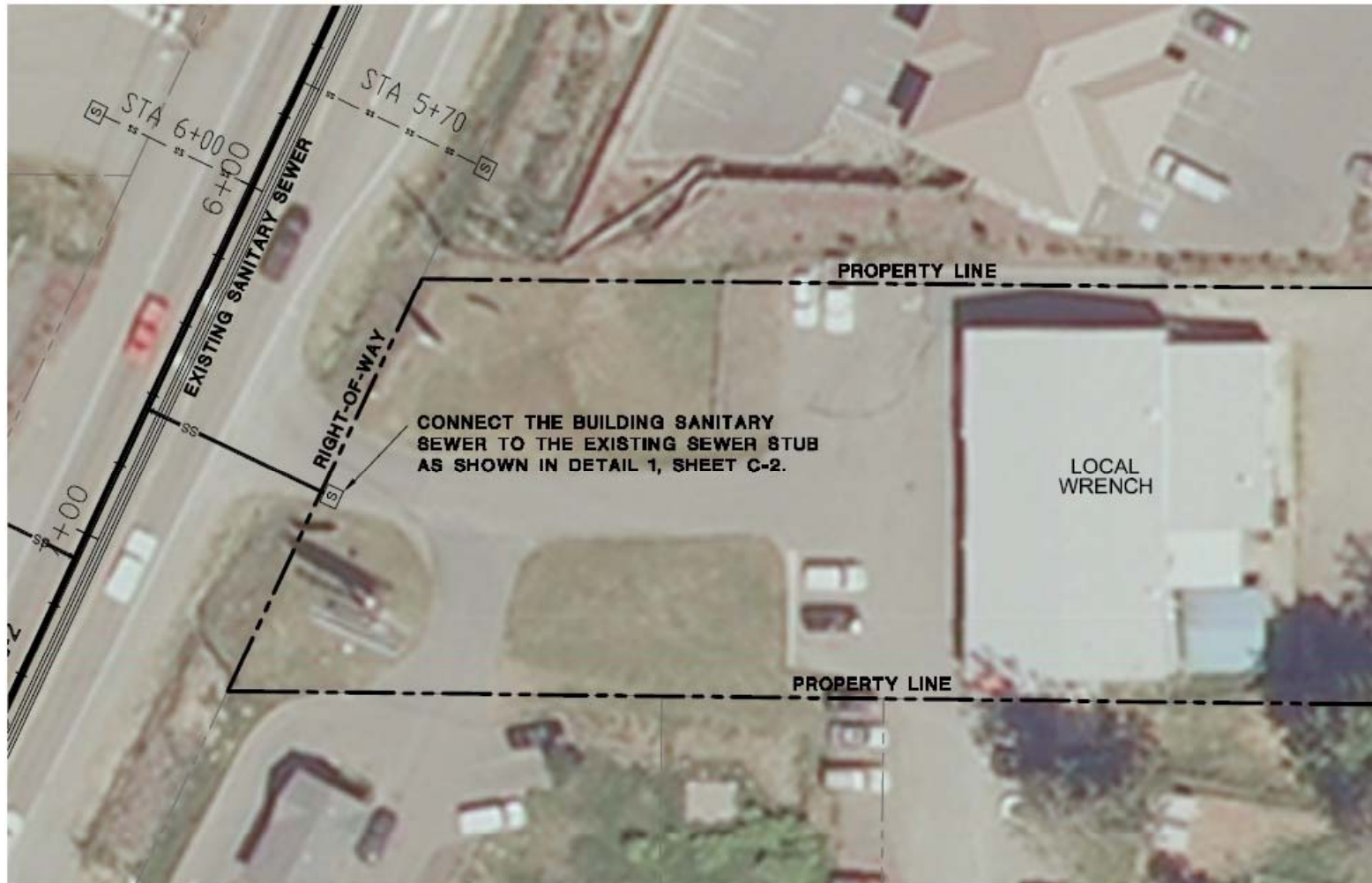




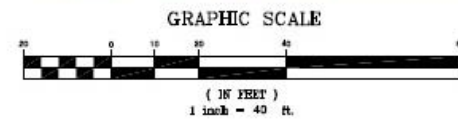
Gravity System Overview

- 8” main line, 6” side sewer (laterals).
- Property owners will pay for all of the cost associated with the construction of their side sewers.
- If a building is located below the elevation of the gravity main line, they may require a pump to get the wastewater from their house to the main line.
 - These parcels will have to install a grinder pump between the cleanout from the building and the lateral at the property line.
 - The property owner will have to purchase the grinder pump.
 - Topographic survey data will normally be necessary to verify this condition.

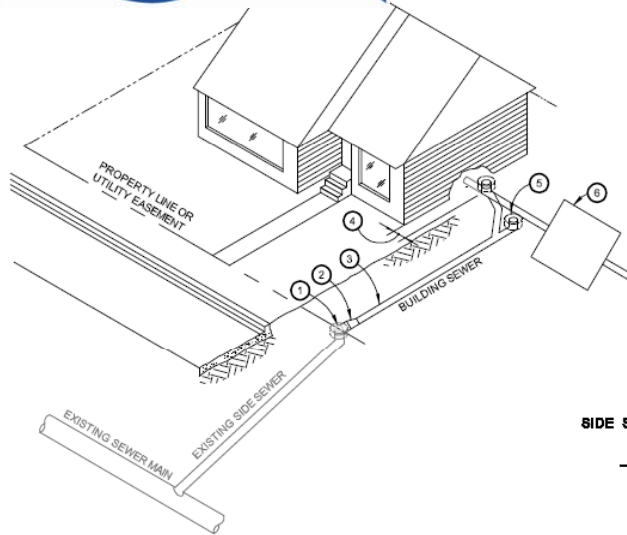
Gravity System Design Example



SITE PLAN
SCALE: 1"=40'



Gravity System Spec Example

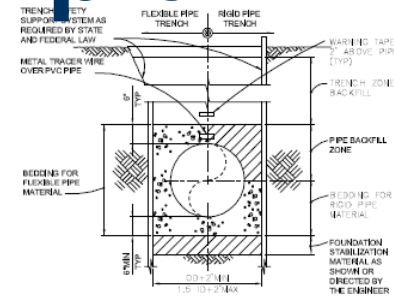


GENERAL NOTE:

A. ALL MATERIALS AND CONSTRUCTION PROCEDURES SHALL COMPLY WITH MASON COUNTY STANDARDS.

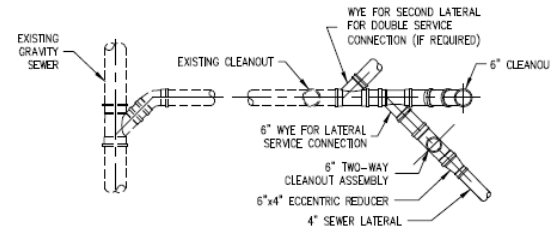
CONSTRUCTION NOTE:

- 1 EXISTING TEE BELOW GRADE & CLEANOUT
- 2 6"x4" REDUCER AS NEEDED FOR RESIDENTIAL
- 3 4" BUILDING SEWER, SDR 35 (RESIDENTIAL) OR 6" BUILDING SEWER, SDR 35 (COMMERCIAL), SLOPED 2% MIN
- 4 30" MINIMUM FROM BUILDING
- 5 CLEANOUT WITH THREADED PLUG
- 6 DECOMMISSION EXISTING SEPTIC TANK PER MASON COUNTY HEALTH DEPARTMENT REQUIREMENTS

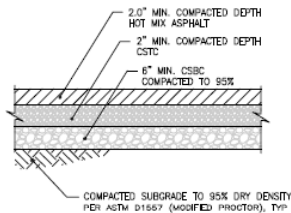


PIPE TRENCH DETAIL 2
SCALE: NTS

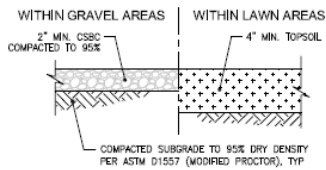
SIDE SEWER CONNECTION DETAIL 1
SCALE: NTS



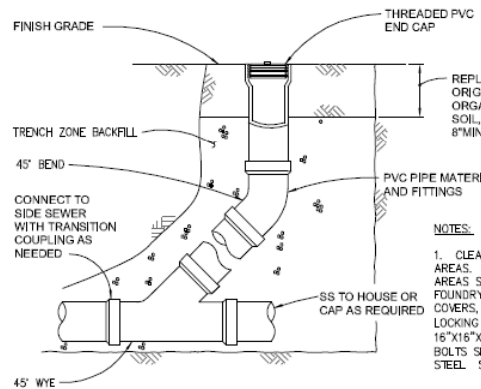
PLAN



ASPHALT PAVING SECTION DETAIL 3
SCALE: NTS



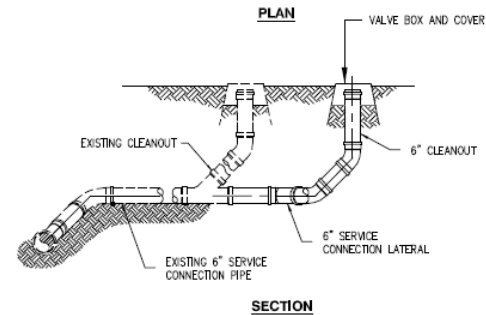
DETAIL 4
SCALE: NTS



CLEANOUT DETAIL 5
SCALE: NTS

NOTES:

1. CLEANOUT IS FOR NON-PAVED AREAS. CLEANOUTS WITHIN PAVED AREAS SHALL INCLUDE OLYMPIC FOUNDRY TYPE W1025 FRAME AND COVERS, CAST IRON TWO BOLT LOCKING TYPE (OR EQUAL) WITH 16"x16"x6" CONCRETE COLLAR. BOLTS SHALL BE 5/8" STAINLESS STEEL. SOCKET HEAD, COUNTERSUNK.



SECTION

- NOTE:
1. DOUBLE SIDE SEWER CONNECTION AS REQUIRED

DOUBLE SIDE SEWER CONNECTION DETAIL 6
SCALE: NTS



CALL TWO WORKING DAYS BEFORE YOU DIG

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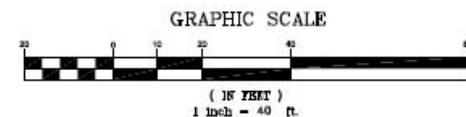
UTAH'S UNDERGROUND LOCATION CENTER



Pressure to Gravity Design Example



SITE PLAN
SCALE: 1" = 40'



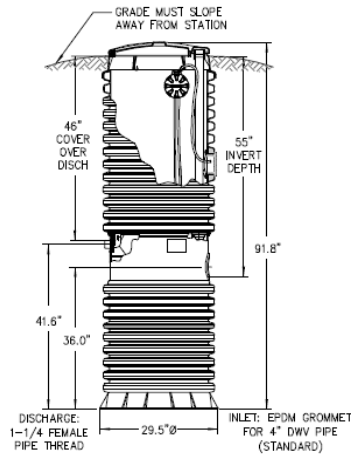
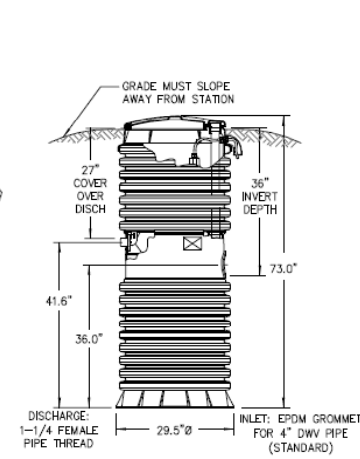
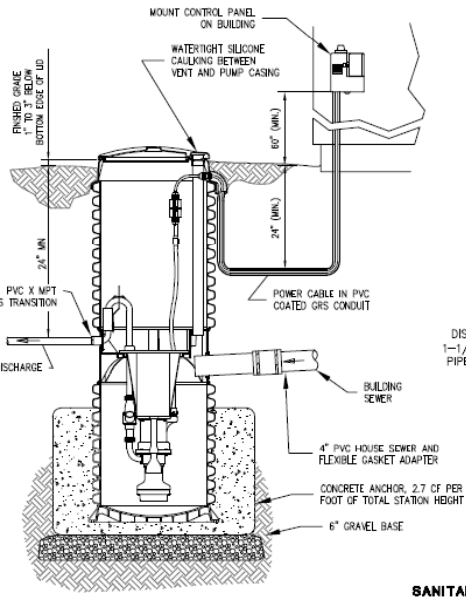
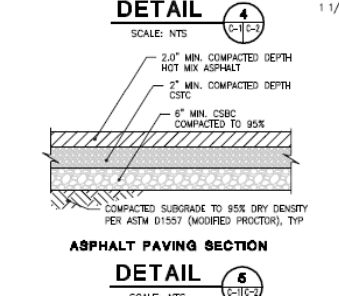
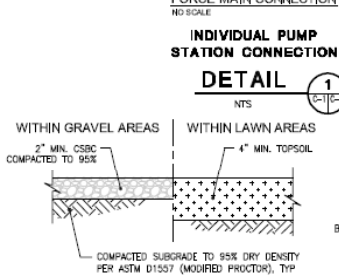
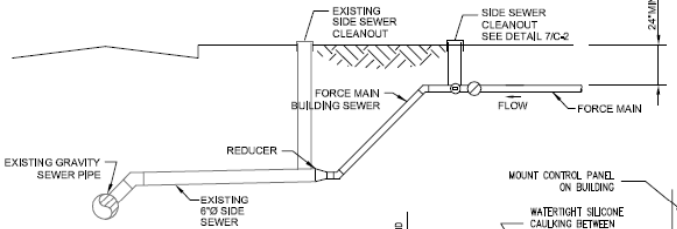
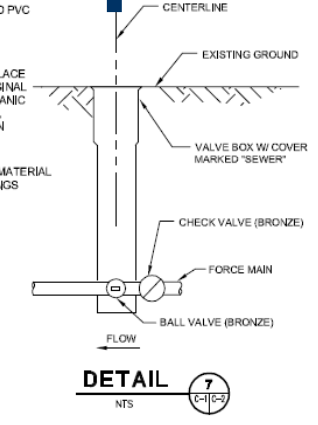
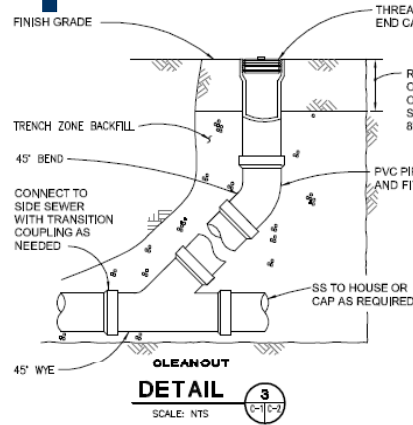
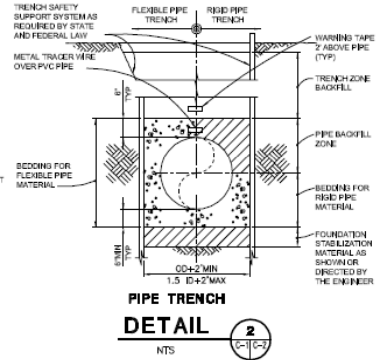
Pressure to Gravity Spec Example



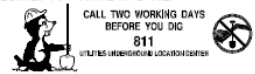
PUMP REQUIREMENTS

RECOMMENDED PUMP TYPE	MPOR.	CORRECT EQUIPMENT
GRINDER PUMP	SUPPLIER	E ONE
HP - 1 HORSE POWER		
MODEL - DH071 OR DX071		

POWER REQUIREMENTS - 240 v. SINGLE @



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- E ONE SANITARY SEWER PUMP STATION DETAIL** ⑥
NTS





LPS Construction Standards

- Grinder pumps for a residential system on LPS shall be Environmental One Corporation (eone) model #DH071.
 - Standard pumps will be supplied by Mason County.
- LPS lateral piping from the pump to the property line shall be 1-1/4" diameter High Density Polyethylene (HDPE), SDR11.
- Pipe from the house to the pump tank shall match the diameter of the existing outlet line and shall be PVC, SDR35.
- The side sewer stub will be equipped with a Curb Stop/Swing Check Forced Sewer Assembly manufactured by the Lateral Connection Corp.
 - This assembly will be located in a valve box, 18 inches deep, at the ROW line of the parcel.



Gravity System Construction Standards

- The pipe from the house to the side sewer shall be PVC, SDR35 and should match the diameter of the pipe out of the house.
- The side sewer connection is a 6" diameter stub with a threaded plug that is located approximately 5 feet below the cleanout cover.
- The slope of the pipe from the house to the side sewer shall be a minimum of 2% (or 2 feet of vertical drop per 100 feet of horizontal distance).
- If the minimum 2% slope cannot be achieved, then the property will need to install a grinder pump between the house and the side sewer.



Inspection Process

- Mason County Utilities & Waste Management will provide project drawings to property owners.
 - Contractors should request plans and drawings from the property owner.
 - Contractors should review the drawings before providing an estimate for the work.
- The County will inspect and approve (or reject) side sewers for each property.
- There may be a re-inspection fee if the side sewer does not meet the parameters noted in the project drawings.



Recommended Contractors' List

In order to be placed on Mason County's list of qualified contractors, you must:

- ✓ Attend the Contractors' Meeting on Jan. 10, 2011

- Fill out Contractor Qualifications Form, including:
 - Business license number,
 - Tax number, and
 - Relevant experience and references.



Next Steps

- Contractors should submit qualifications to the County ASAP to be included in the recommended contractors list – ***today, or by January 21, 2011.***
- A mailing will be sent to property owners in early 2011 with final side sewer construction details and the County's list of recommended contractors.
- Property owners can begin constructing their side sewers in the Spring/Summer 2011.
- All side sewers must be constructed, inspected, and ready for operation by the end of 2011.



Questions?



Contact Us

Construction hotline:

(360) 801-2482

E-mail:

info@masoncountywastewater.com

Website:

www.masoncountywastewater.com