

Fee: \$100

Date Received: _____

Received by: _____

HELLAM TOWNSHIP

Application for Well Construction

Permit #: _____

PROPERTY INFORMATION (please print)

Well Site Address: _____ Tax Parcel ID: _____

Owner(s) Name: _____

Address: _____

_____ Zip: _____

Phone: (____) ____-____ E-mail: _____

WELL DRILLER INFORMATION

Name: _____ PA Certification No: _____

Address: _____

_____ Zip: _____

Phone: (____) ____-____ E-mail: _____

WELL INFORMATION

New Well Well Repair Will an existing well be abandoned? Yes No

Type of Well: Drinking Well Geothermal Return Well Monitoring Well
(check one)

Other: _____

SITE PLAN REQUIREMENTS

Attach a separate 8 1/2" x 11" detailed drawing to application. The drawing must include:

- The lot showing the shape and lengths of all property lines and street names.
- the location of all existing and proposed wells, septic systems, structures, utilities and utility lines, stormwater systems, easements, and floodplain boundaries (if relevant).
- All distances from the well to the above items.
- Location of and isolation/setback distance(s) from the proposed well to any source(s) or potential source(s) of pollution, per the Minimal Isolation Distance Table.

NOTE: *If proposed well location is less than 100' to a property line, the preceding items on adjoining properties if they are in the proximity of the proposed well isolation distances.*

CERTIFICATION BY APPLICANT

The applicant certifies that all information on this application is complete and true to the best of the applicant's knowledge and belief. The applicant agrees to comply with the provisions of Hellam Township Ordinances, Codes and Regulations, and all other applicable laws and regulations whether or not specified in this application. The applicant understands and hereby authorizes the Township Authorized Representative to enter the premises to conduct the required inspections. The applicant agrees that if a well permit is issued, the permit may be revoked by Administrative Action of Hellam Township if compliance with the foregoing paragraphs is not absolute.

Applicant's Signature

Date

FOR TOWNSHIP USE ONLY

Site Address: _____ **Permit #:** _____

Application complete: Yes No **Isolation distances met:** Yes No

Application approved: _____
 Authorized Township Representative Signature _____ Date _____

Preliminary Site Inspection: _____
 Authorized Township Representative Signature _____ Date _____
 Passed Failed

Well Driller's Report Rcvd: Yes No **Water Quality Test Rcvd:** Yes No N/A

Final Well Inspection: _____
 Authorized Township Representative Signature _____ Date _____
 Passed Failed

Approval of Operation: Approved Disapproved

Reason: _____

MINIMUM ISOLATION DISTANCE TABLE

Pollution Source	Minimum Distance (ft)	Distance Provided (ft)	Distance Onsite (ft)
Barnyard, animal feedlot prep or storage areas for hazardous spray materials or fertilizers, chemicals, salt piles, fuel tanks	100		
Subsurface, elevated sand mounds, & other OLDS fields, privies, sewage seepage pits, cesspools	100		
Septic, aerobic or holding tanks, Drains carrying domestic sewage or industrial wastes, gravity sewer lines, Existing water & forced sewer, buried utilities and/or utility trenches.	50		
Wetlands ,floodplains, lakes, ponds, streams & surface water	50		
Farm Silos	50		
Storm drains, retention basins, stabilization ponds or any other stormwater management facilities	25		
Driveways	20		
Property lines	20		
public/private right-of-ways	20		
Principal/secondary Building/dwelling (*geothermal)	20/10*		
Casing distance above grade (12" min)	"	<u>WELL CAP MARKED ONSITE:</u>	
Drainage diverted from well	Y / N	Driller's Name	Y / N
Well cap screened & vented	Y / N	Depth of casing	Y / N
		Well Depth	Y / N
		GPM	Y / N

<u>WELL DRILLER'S REPORT</u>		<u>WATER QUALITY</u>	
Owner of Property	Address & Lot Number	Nitrate (EPA 300.0)	
Date of Completion	Depth of Casing	Hardness (EPA 200.7)	
Depth of Well	Static Water Level	Iron, Total (EPA 200.7)	
Type & Size of Casing	Pump Output-Gals/Min.	Manganese, Total (200.7)	
Type of Test Pump Used	Depth of Bedrock	Fecal Coliform	
Signature of Well Driller	Seal/Grout	Total Coliform	

1. The well shall have a watertight and durable wrought iron, steel or other type of approved casing with a nominal thickness of three-sixteenths (3/16) inches (.1875 inches) and six and five-eighths (6 5/8) inches outside diameter. The sections of casing shall be joined together by threaded couplings, or full circumferential welding for ferrous materials, and threaded couplings or solvent welding in accordance with ANSI/NSF Standard 14 for PVC. Other nonferrous casing joining must meet AWWA Standard A100.
2. The casing shall be carried to a minimum depth of twenty (20) feet from the finishing grade and in any case shall be extended ten (10) feet into bedrock or other impervious strata. Driven wells shall be provided with a drive shoe and other effective casing seal.
3. An annular space shall be provided between the well casing and the earth formation of a radius at least one and one-half (1 ½) inches greater than the casing radius, excluding coupling for increased pressure grouting, or one and one-half (1½) inches greater than the casing radius, excluding coupling for external grouting. The annular space shall be completely filled with impervious cement grout or equivalent sealing material from bottom of the casing to within five (5) feet of the ground surface. External grouting shall be accomplished utilizing a tremie pipe and grout pump to force out any standing water on the outside of the well casing.
4. The casing shall be sealed effectively against entrance of water from water-bearing formations, which are subject to pollution, through which the casing may pass. If casings of smaller diameter are used in the lower portions of the well, effective watertight seals shall be provided between the casings where they telescope. In such instances, sections of casing shall telescope for a minimum distance of four (4) feet.
5. Casing and grouting must be compatible. Pressure grouting is required for all wells by running tremie pipe to bottom of the annular space outside the casing.
6. Minimum borehole diameter. The borehole should be 3 inches (76.2 mm) larger in diameter than the outside diameter of casing to allow for a minimum of 1-1/2 inches (38.1 mm) of annular space for grout placement.
7. Minimum extension above grade. Casing shall extend at least 12 inches (304.8 mm) above ground surface. The casing may be terminated at grade or just below grade if fitted with a waterproof and airtight cap and is located within a box-type enclosure with an access lid such as a small meter vault. Airtight and watertight sealed open loop return wells can be direct buried.
8. Ferrous casing. Ferrous Casing shall be new pipe meeting ASTM or API specifications for water supply well construction. It shall be equipped with a drive shoe or other effective casing seal and have full circumference welds or threaded pipe joints.
9. Non-ferrous casing. Non-Ferrous Casing shall meet appropriate ANSI, ASTM or NSF standards for water well casing applications. It shall not be driven.
10. Every water well shall be equipped with an overlapping screen vented cap with interior seal at the top of the well casing or pipe sleeve. Cover/cap shall extend downward over the casing at least one and one-half (1 ½) inches over the outside of the casing or wall. All well caps shall indicate: well driller's name, depth of well, depth of casing and gallons per minute.
11. Where pump sections or discharge pipes enter or leave a well through the side of the casing, the circle of contact shall be watertight. The use of plastic/nylon adapters for this purpose is not acceptable. A brass pitless adapter with brass connectors or equivalent are required.
12. All electric wiring from the house to the well pump shall be of UF insulated type. The wire gauge/size shall be determined by a licensed well-driller or electrician. Said wiring shall be encased in a separate conduit through the foundation/wall of the house. The trench containing the wire(s) and or well pipe(s) shall be back filled with screening type material to a minimum thickness of six inches (6") completely surrounding the wire(s) and/or pipe(s).
13. The water line(s)/pipe(s) and wire(s) shall be buried in the ground to a minimum depth of three (3) feet below ground surface.
14. All water wells shall be constructed so that surface drainage will be diverted away from the well.
15. All pumps installed in wells drilled to a depth greater than three hundred (300) feet, but not to exceed four hundred fifty (450) feet, shall be installed with two-hundred-(200) pound-per-square-inch plastic pipe. Well depths exceeding four hundred fifty (450) feet shall have pumps installed with Schedule 80 PVC threaded pipe or equivalent or galvanized steel pipe to support the increased pumping pressure required for deeper wells. The minimum acceptable pressure rating on plastic pipe is one hundred sixty (160) pounds per square inch, regardless of water supply depth. All well pumps over two (2) horsepower shall be installed on metal

pipe.

- 16.** The well rope shall be of poly-braided material and attached to the well pump shall be tied off within the well casing pipe. Tie-off may be onto the brass pitless adaptor or onto an eyebolt affixed to the interior of the casing. No well rope shall extend/show on the exterior of the well casing.
- 17.** Disinfection. Following completion of construction, the well shall be pumped continuously until the water discharge is clear. It shall then be filled with water containing concentration of not less than 100 parts per million of free chlorine. A portion of this solution shall be recirculated directly to the well in order to insure proper agitation. The water shall not be used for a period of 24 hours. Other combinations of water and chlorine concentration and time interval may be used if demonstrated equally effective to the municipal official. Disposal of the purged water shall be at a point so as to minimize adverse effects to aquatic life and in no way directed into any subsurface sewage disposal system. 1 ounce (29.57 ml) of dry calcium hypochlorite dissolved in 52.5 gallons (198.7 l) of water makes the proper strength disinfectant solution. Household bleach may be used for disinfection.
- 18.** This Chapter places no restrictions on "quantity" of water. The acceptability of water quantity is the sole responsibility of the property owner.
- 19.** Cross-connections. All check valves and backflow protection shall be properly installed. Backflow protectors must be incorporated into the system and be used as needed for each outside water hose connectors. At a minimum two check valves shall be incorporated into each water system that derives water from a well. Where not practical, a cross-connection prevention assembly shall be provided. For semi-public water supplies, the cross-connection prevention assembly device is shall be installed at any fixed potable water outlet to which a hose may be connected.
- 20.** Testing. The assembled loop system shall be pressure tested with water at 100 psi (690 kPa) for 30 minutes with no observed leaks before connection (header) trenches are backfilled. Flow rates and pressure drops shall be compared to calculated values. If actual flow rate or pressure drop figures differ from calculated values by more than 10 percent, the problem shall be identified and corrected.