

# MECHANICAL

## HOMEOWNER HANDOUT

### -- *An overview for single family dwellings - -* *Basement/Attic Finish*

- Permits needed for:
1. Bath exhaust fans
  2. New supply outlets
  3. Duct
  4. Clothes dryer exhaust
  5. Changing of furnace flue vent

#### **BATH EXHAUST:**

Bath exhaust fans are required in all restrooms. Duct must be increased to 4" diameter instead of 3" diameter if there is an elbow and the duct is more than 3' long. The exhaust duct must terminate outside of the house.

#### **COMBUSTION AIR:**

The mechanical code most frequently ignored during remodeling is the combustion air requirements to the furnace room. As walls are built and finished, the combustion air supplied to the furnace and water heater is decreased. When this happens, some provision must be made to replenish this lost volume of air. This may be accomplished by either one of two methods: high /low grills or outside air.

##### High/Low Grills:

By adding the total input BTUs of the furnace and water heater (marked on nameplate) you can calculate the size of combustion air grills to be installed (within 12" of ceiling and floor). These grills are installed through the walls to replenish the combustion air volume to the furnace room.

##### Outside air:

An alternative method is to provide an opening into the furnace room from the outside of the house to replenish the combustion air. The total input BTUs will determine the size of opening from the outside.

Consult with a registered Heating Contractor or an Inspector with the Department of Building & Safety for assistance in these calculations.

#### **DRYER EXHAUST DUCTS:**

Dryer exhaust duct must be metal and have a smooth interior surface wherever it is concealed. You may use 6' of flexible duct connected to your dryer if it is not concealed in the wall or ceiling. Dryer exhaust ducts may be 35' long. Each 90 degree elbow will decrease the length of the duct allowed by 5'. Do not use screws to fasten dryer duct. You may use a strong "foil" tape.

**FURNACE:**

If you are building walls or doors close to your furnace you must maintain proper clearances. Thirty inches is required in front of the furnace for access to repair. The sides and back of the furnace will have clearance ratings marked on the name plate. These are usually 1". A door may be built no closer than 6" in front of a furnace (provided the door opens to provide 30" clearance). The supply duct extending horizontally away from your furnace must be 1" away from combustibles for the first 3'. The furnace flue pipe requires 6" clearance to combustibles if it is single wall pipe. One inch clearance is required for type "B" double wall flue pipe.

**FURNACE ACCESS:**

You may not have a furnace in a bedroom or a bathroom (shower or tub room). You may not pass through a bedroom or a bathroom to access the furnace room.

**HOMEOWNER VERIFICATION**  
**for MECHANICAL / GAS PIPING PERMITS**  
 DEPT OF BUILDING & SAFETY, 555 S 10th St, Room 203  
**LINCOLN / LANCASTER COUNTY, NE 68508**  
 Fax 402-441-8214 24HR Inspection Line 402-441-8384 [Building & Safety Website](#)

date stamp

\_\_\_\_\_, being first duly sworn, says that:

**Name:** (please type or print) First -- M.I. -- LAST

1. **I am the owner** of the single-family dwelling located at: \_\_\_\_\_  
House #    Street Direction    Street Name    Street Type    Suffix
2. **I presently reside in the single-family dwelling**, or will reside there after construction is completed.
3. **I will install** and connect the Heating / Ventilation / Cooling / Gas Piping for **myself, without compensation** or pay from, or to, any other person.
4. **I have submitted detailed plans** of the proposed Heating / Ventilation / Cooling / Gas Piping installation, **as required** by the Mechanical Section, to the DEPT OF BUILDING & SAFETY. I have **sufficient knowledge** of the Lincoln Mechanical Code requirements as stated in:  

**CHAPTER 24.05 [GAS PIPING] AND/OR CHAPTER 25.03 [MECHANICAL]**  
**OF THE LINCOLN MUNICIPAL CODE, to satisfactorily complete the project.**
5. **I am aware the project** for which a Permit is issued **must be inspected BEFORE Vents or Ducts are concealed; AND also must be inspected when** the installation of the Heating / Ventilation / Cooling / Gas Piping **work is completed.** I will call the DEPT OF BUILDING & SAFETY **24-hr Inspection Line (402) 441-8384** before 12:00 p.m. for next business day inspection and request the required inspections with the following information:
  - **Permit # AND** [House #, Street Name, & Type of Street],
  - **Date** you want the inspection, (AM or PM, if necessary), and
  - **Access instructions** (if necessary, contact an inspector between 8:00 and 8:45 AM with any special information).
 If I have any questions I will call the Mechanical Section (402) 441-7521.
6. **I am aware** the Mechanical / Gas Piping **PERMIT is valid for 120 days from issuance.**
7. **I am aware** that *failure to submit satisfactory information or violating the above statements* is sufficient grounds to *void* a Permit already issued or to *refuse issuance* of a Heating / Ventilation / Cooling / Gas Piping Permit to a homeowner.
8. **I am aware** that there is a **\$35.00 fee for each reinspection** required **because of non-compliance** with Lincoln Mechanical Code / Gas Piping Code **or if work is not complete** at the time inspection is called for.

\_\_\_\_\_                      (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_                      \_\_\_\_\_  
 Date                                      Home Phone #                                      Signature of Homeowner  
  
 \_\_\_\_\_                      (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_  
 Date Received                                      Work Phone #

-->COPY to Homeowner<--

# \_\_\_\_\_ Dir. \_\_\_\_\_ Street Name \_\_\_\_\_

Bldg # \_\_\_\_\_ Floor # \_\_\_\_\_ Unit/Apt # \_\_\_\_\_

Owner Name \_\_\_\_\_

Wk Phone # \_\_\_\_\_ Hm Phone # \_\_\_\_\_

Owner Address \_\_\_\_\_ City/State/Zip \_\_\_\_\_

Tenant Name (If other than Owner) \_\_\_\_\_ (\_\_\_\_\_) \_\_\_\_\_  
 Tenant Phone # \_\_\_\_\_

CONTRACTOR NAME \_\_\_\_\_ (\_\_\_\_\_) \_\_\_\_\_  
 Phone # \_\_\_\_\_

Mailing Address \_\_\_\_\_ City/State/Zip \_\_\_\_\_

CITY OF LINCOLN Permit # M \_\_\_\_\_  
 DEPT. OF BUILDING & SAFETY  
 555 S. 10<sup>th</sup> St., Suite 203  
 Lincoln, NE 68508  
 Building & Safety Website MC \_\_\_\_\_  
 Building Permit # B \_\_\_\_\_

## APPLICATION for Mechanical / Gas Piping Permit

*Check Appropriate Boxes:*

- CITY OF LINCOLN       LANCASTER COUNTY (Beyond 3-Mile Limit)
- Residential       Commercial
- New       Replacement       Remodel

**Application must be received by 12:00 pm for next business day inspection**  
 Mechanical Section ..... 402-441-7521  
 24-hr. Inspection Line ..... 402-441-8213 (before 12:00pm for next business day inspection)  
 FAX ..... 402-441-8214

I certify that I have read this application and state that the above information is correct. I agree to comply with all state laws and the Lincoln Municipal Code:

- Gas Piping--Section 24.05; Mechanical--Section 25.04:  
 Mechanical Fuel Gas Code--Section 25.10;  
 Mechanical Residential Code--Section 20.10.720**

and hereby authorize the City's representative to enter upon the above-mentioned property for inspection purposes.

**Applicant**

**Signature** X \_\_\_\_\_

Date: \_\_\_\_\_

**INSPECTION:**     Ready Date \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Access \_\_\_\_\_

Permit Expiration: This permit shall expire and become null and void if the work authorized by this permit is not commenced within 120 days from the date of this permit, or work authorized by this permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. A new permit shall be obtained before work can be recommenced.

***I, the undersigned, hereby make application for the following: Heating/Cooling/Ventilating/Gas Piping***

	#	\$ Fee each	Total
Furnace: ..... Electric <input type="checkbox"/>	_____	\$30	_____
Brand: ..... Gas <input type="checkbox"/>	_____	\$30	_____
Cooling Equipment: ..... Air Conditioner <input type="checkbox"/>	_____	\$30	_____
Brand: ..... Heat Pump <input type="checkbox"/>	_____	\$30	_____
Roof Top Heating / Cooling .....	_____	\$60	_____
Brand: .....	_____		_____
Air Handling Unit: Brand: .....	_____	\$30	_____
<b>List Name of Electrical Contractor:</b>			
.....			
Residential Kitchen Exhaust Hood & Duct .. CFM	_____	\$25	_____
Bath/Restroom Exhaust & Duct ..... CFM	_____	\$10	_____
Clothes Dryer Vent .....	_____	\$10	_____
Vent/Chimney Liner for Fuel Burning Appliance .....	_____	\$25	_____
Alteration of Existing Duct Work .....	_____	\$25	_____
Decorative Gas Fireplace/Log Set .....	_____	\$60	_____
Underground Ductwork (per system) .....	_____	\$30	_____
Ventilation System (separate from Htg/Cool Sys) ....	_____	\$30	_____
Type II Hood ..... CFM	_____	\$50	_____
Make-up Air System ..... CFM	_____	\$50	_____
Heat Recovery System ..... CFM	_____	\$30	_____
Paint Booth ..... CFM	_____	\$90	_____
Fume Hood Exhaust ..... CFM	_____	\$60	_____
Mixing/VAV Boxes .....	_____	\$15	_____
Unit Heater/Infrared Pipe Heating Sys. (Comm. only) .	_____	\$30	_____
Type I Hood including Ducts (Comm. only) .. CFM	_____	\$300	_____
Reinspection Fee: .....	_____	\$35	_____
Minimum Mechanical Fee .....	_____		\$30

	#	\$ Fee each	Total
<b>REFRIGERATION</b>			
Remote Condensing Units .....	_____	\$25	_____
<b>Refrigeration Systems:</b> ..... 10-25 tons	_____	\$25	_____
..... 26-50 tons	_____	\$35	_____
..... 51-75 tons	_____	\$40	_____
..... 76 tons and larger	_____	\$50	_____
<b>HYDRONICS</b>			
Boiler Piping, less than 200,000 BTU .....	_____	\$35	_____
Each additional 120,000 BTU .....	_____	\$10	_____
Fluid Cooler Piping, less than 20 tons .....	_____	\$30	_____
Each additional 10 tons .....	_____	\$10	_____
Heat Pump and Fan Coil .....	_____	\$25	_____
Heating, Chilled, and Condenser Piping .....	_____	\$10	_____
Heat Pump, Heat Recovery Piping .....	_____	\$10	_____
Radiant Panel and Coil Piping .....	_____	\$10	_____
<b>GAS PIPING</b>			
<b>Each Gas Appliance, New or Replacement, Requires a Gas Piping Permit.</b>			
New Construction (1-5 outlets) .....	_____	\$25	_____
Each Additional Outlet .....	_____	\$1	_____
Gas Piping Replacement Appliance .....	_____	\$6	_____
Gas Piping: <input type="checkbox"/> Replacement <input type="checkbox"/> Alteration	_____	\$35	_____
<b>Work Done Beyond the Lincoln City &amp; 3-Mile Limits</b>			
From 3 miles to 8 miles beyond .....	ADD	\$15	_____
Beyond 8 miles .....	ADD	\$30	_____
Reinspection Fee .....		\$30	_____
Investigation Fee If Applicable .....	<b>DOUBLE FEE</b>	\$	_____
<b>TOTAL FEE</b>			_____

**Permit Issued By:** \_\_\_\_\_ **Date:** \_\_\_\_\_