Fire Pits
Everything you need to know

Reasons to get a Fire Pit
During the cooler months, we often feel stuck inside, hunkered down in the dry warmth of our heaters. With the addition of a pit, you can enjoy the benefits of being outdoors, without sacrificing comfort.
Reasons to get a Fire Pit

1. You can host an outdoor bonfire any time of the year!
   - Take that party outside. A fire pit allows you to host a party even if the weather is cool. There is little clean-up since the party is outside. Simple foods like hotdogs and marshmallows can be prepared.
   - Just you and a loved one? A bonfire on a Saturday night is a great, low cost way to do something different and exciting.

2. Transform Unused Space
   - A fire pit offers an extension of your home. It is a place to gather, eat, and enjoy good company. It adds a sense that your backyard is a completed space.
   - If you have a space in your yard that goes unused, consider adding a fire pit. It requires little to no maintenance. It can also cut down your lawn care needs.
Reasons to get a Fire Pit

3. Increase the value of your home
   - The addition of a fire pit will increase the value of your home. It adds a sense of sophistication and completeness to your backyard.
   - It is also valuable in other terms. It will increase quality family time, time spent outdoors, and time spent in the good company of others.

4. Add Visual Appeal
   - You can finally eliminate those uncomfortable plastic chairs and patio furniture and replace them with stylish and maintenance free natural seating around your fire pit.
   - Choices in furniture allow you to find the perfect style to complement to your existing home and landscaping.
Reasons to get a Fire Pit

5. They can help you relax!
   - If you choose a gas fire pit, you can cozy up at a moments notice, clear your mind, snuggle up with a good book. Let the crackling sounds of the fire allow your mind to relax.
   - Studies show that just by being in nature, it helps us relax and keeps us healthy.

Before you get started...

- There are many things to look into before you start your fire pit project.
  - Cost
  - Location
  - Types of fire pits
    - Permanent or portable
    - Gas or wood burning
  - Materials to use
  - How to build
  - What firewood to burn
  - Safety
  - Town ordinances
Cost

- If you’re planning for a small fire pit, costs can be as low as $200.
  - You can buy your own stones and dig the hole yourself or purchase a simple unit at any hardware store.
  - Prices can certainly go up depending on the design, materials, and seating.

Location

- Location is very important when deciding where to place your pit. Most town ordinances have laws to consider.
  - All outdoor fires have to be at least 10 feet from any structure, including detached garages and utility sheds.
  - You should stay clear from fences, other structures, and overhanging branches.
  - A site inspection may be required from local fire officials to help make sure your proposed location is safe.

***check with your town for individual requirements and safety concerns***
Types of Fire Pits

Permanent
- Built-in to existing landscape
- Becomes a focal point
- Tends to be more expensive
- Ability to be fully accustomed to your style

Portable
- Many different options available
- Copper, stainless steel, or cast iron bowls
- Fire tables
- Chimney-style options
- Tend to be cheaper
- Can move the fire pit when you don’t want it out anymore

Types of Fire Pits

Wood
- Real outdoor smell
- Takes time to light
- Provides warmth
- Can create any size fire you’d like
- Costs less
- Attracts more insects when not in use

Gas
- Instant
- Won’t get the crackle or smoke from wood fire pit
- Provides limited warmth
- Mostly for décor
- Limited to settings on pit
- Costs more
Styles of Fire Pits

- Simple Design
  - This idea is perfect for any size backyard, budget, or style
  - Can be made with different types of stone to create a unique look
  - Can be built in many different shapes
  - Add cheap seating for a great entertainment area

- Fire Pit Table
  - Built with even pavers
  - Add a table top to create a perfect centerpiece for entertaining
  - Can be hand made or store bought
  - Great way to utilize any space
Styles of Fire Pits

- Ultra Modern Fire Pit
  - Easy to create custom shapes
  - Gas burners can be used anywhere you like
  - Unlimited colors available
  - Simple, but elegant

- Rugged Fire Pit
  - Get the feel for the real outdoors
  - Cut up an old tree for seating
  - No need for perfection
  - Natural look

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Styles of Fire Pits

- In-Ground Fire Pit
  - Simple: dig a hole, line with bricks
  - Add some stone around
  - Can be established in a few hours
  - Cheap
  - Patio chairs can be added for a simple seating solution

- Cityscape Fire Pit
  - Can be added to any deck or patio
  - Uses crossfire burners
  - Uses gas
  - Can come in kits so installing is extremely easy
Styles of Fire Pits

- Stonehenge Fire Pit
  - Creates a magical look
  - Simple and unique design

Materials To Use

- Fire bricks
  - Withstands heat better
- Fill material
  - Fire mortar
    - Conducts heat better
- Structure
  - Stone, brick, or cultured block
- Gas line and burner
- Caps
- Fire ring (if using cultured block)
How to:

- **Step 1 - Location**
  - Choose a location for pit
    - Keep in mind distance and other township ordinances, if any

- **Step 2 - Dig the pit**
  - Mark out the pit
    - Set the larger form in position and spray paint around it. Dig a hold about 8in deep and 3 in larger in diameter than the form.
  - Level the pit
    - Check the bottom of the hole with a level. Remove high spots by scraping rather than digging.

**Before digging, call your utility company to check the location of buried utility lines.**

How to:

- **Step 3 - Set up 3-4 stakes around fire pit diameter**
  - Fasten string from each stake at the desired height of the fire pit
    - Set string with line level
  - Install form, if applies, or dig the hole to precise measurements
  - Add the rebar
    - Bend the rebar into half circles and tie them together with wire to make a ring. Fill the forms halfway. Press the ring into the concrete making sure it doesn’t touch the sides of the forms
  - Pour a sturdy footing
    - Using fire proof mortar
How to:

Step 3
- Finish the Footing
  - Shovel in the remaining concrete until the forms are filled. Recheck level, hammering the forms down if necessary, and smooth the top of the footer. Let the concrete set over night.

The concrete footing will create a stable base for the pit walls and keep the sides of your pit from cracking as the ground moves over time.

How to:

Step 4
- Dry-set the firebrick liner
  - Adjust the spacing between brick so you won’t have to cut the last brick to fit. Mark the position of every brick on the footing

Regular clay bricks can crack at high temperatures, which is why you use firebrick, or refractory brick, to line the inside of the pit walls.
How to:

Step 5

- Mortar the Firebrick
  - Butter a thin layer of cement on the footer and position your first brick. Butter the second brick and butt it against the first. Continue around the circle checking level side-to-side and back to front as you go.

- Create air holes
  - Leave gaps in the firebrick in four spots and then fill them with half bricks. These gaps feed air to the fire.

Step 6

- Complete the outside walls with face brick or stone, if using cultured block, fire ring applies
  - Split bricks in half
    - Cup the bricks in your hand, keeping fingers below top of brick. Give the brick a solid tap on the outside edge near the center hold.
  - Set the face brick
    - Lay a thick bed of mortar and let it harden for 15 minutes. Then lay fresh mortar and begin setting brick. Butter one side of each brick before you set it in place.
  - Work in sections
    - Working on a small section of the pit at a time, check the level of each course and tap down the bricks as necessary. Stagger the joints between courses for strength.
  - Strike the joints
    - After you finish each section of face brick, use a jointer to smooth the joints before the mortar dries too much. Striking gives the wall a uniform, polished look.
How to:

- **Step 7**
  - Finish off the top lip
  - Mortar the brick caps
    - Caps can be the same brick or of another hard stone product
  - Fill gaps of cap brick or other hard stone product
    - Add small amount of mortar to the joints of the cap brick to fill any gaps. Check level frequently and tap gently with a brick hammer to adjust the spacing.

- **Step 8**
  - Install wood of choice for wood fire pit
  - Start fire, and enjoy!

What to burn

<table>
<thead>
<tr>
<th>Best hardwood</th>
<th>Best softwood</th>
<th>What not to burn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ash</td>
<td>Southern yellow pine</td>
<td>Green wood</td>
</tr>
<tr>
<td>Red &amp; white oak</td>
<td>Spruce</td>
<td>Pressure treated wood</td>
</tr>
<tr>
<td>Beech</td>
<td>Fir</td>
<td>Railroad ties</td>
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<tr>
<td>Birch</td>
<td>Cypress</td>
<td>Stained or painted wood</td>
</tr>
<tr>
<td>Hickory</td>
<td>Eastern red cedar</td>
<td>Paper products</td>
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<tr>
<td>Hard maple</td>
<td></td>
<td>Anything plastic</td>
</tr>
<tr>
<td>Dogwood</td>
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<td>Food waste</td>
</tr>
<tr>
<td>Cherry</td>
<td></td>
<td>Anything that emits black smoke or a foul odor when burned</td>
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<tr>
<td>Walnut</td>
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<tr>
<td>Elm</td>
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<tr>
<td>Sycamore</td>
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Safety

- Placement
  - 10 feet from any structure
- Fire dimensions
  - The size and scope of outdoor fires are important. Fire pits of all sizes are capable of throwing off sparks and destructive heat.
- Management
  - May have to be covered by wire mesh or metallic screens
- Environmental Concerns
  - Burning items not recommended causing noxious smell and black smoke

*** Make sure to have a fire extinguisher handy in case of any unwanted fires.