

# HOW TO INSTALL YOUR LANDSCAPE DESIGN



After you have a plan.....

**These tips will help you to manage your project**

## **COPY YOUR PLAN!**

**One of the most important things is to make several copies of your plan right away. People do lose them!**

Fold up a copy for yourself and put it in a file folder for easy reference. Copy the plant list too. Large size colour paper and digital copies can be obtained at places like Staples, Jensen's or Riley's. A very large plan can be folded during copying but generally they fit in the standard large format printers.

**DO NOT shrink the plan** – it is a scale drawing and is most useful and accurate at full size. You don't want the landscaper to be guessing at

the quantities and layout. While taking a photo or getting a digital scan is very handy, often they get printed out too small. Take charge of this part of the process yourself!

### **LAMINATE A COPY**

Laminating a copy allows you to use it in the yard without damage. Lots of people put them up on the wall for inspiration! Give your landscaper a couple of laminated copies or attach them to sandwich boards so they are movable around the job site.

### **TAKE "BEFORE" PICTURES!**

You will really enjoy seeing the difference and will be appreciating the investment you made.

## **Get Prices from a Contractor (or two)...**

Knowing the prices makes setting priorities amazingly easy! **Always get a signed contract before commencing any work.**

**Aim for as much detail as possible in the contract and be aware that changes you make during the installation "while you are here" are inconvenient and costly for the contractor. As a result, you will pay extra for most changes. Get these changes in writing (called a change order) with price attached. This will avoid unpleasant surprises and hard feelings at the end of the job.**

***While a properly installed landscape can increase the value of your home by at least 5%, many people have the priceless experience of falling in love with their home again.....***

## **Inside this issue:**

Setting priorities	<b>2</b>
Grading, drainage, slopes	<b>2</b>
Digging, Heaving, Water Movement	<b>3</b>
Rocks, Road Crush,	<b>4</b>
Quality Items, Irrigation	<b>5</b>
Planting Instructions	<b>6,7</b>
Fertilizing, Pruning, Mulches, Edgings	<b>8,9</b>
Large Trees, Selecting Materials	<b>10</b>

## **Remember to:**

- Invest in a good quality job
- Get help for the difficult parts
- Understand what goes on beneath the surface of the garden
- Follow code and be safe

**A great garden is soon to be yours!**

## Set Priorities

### Use experts for technical things like tree removal, grading, retaining walls and paving stones.

Getting these items done by someone else eliminates the learning curve, increases the safety factor and allows you to do the fun parts on your valuable time off. These people have the right equipment and expertise to make the job go so much faster.

### Consider access issues.

Don't build things that will limit accessibility for the next part of the project, as this will significantly increase future costs.

In new neighbourhoods, you can often bring in bulky materials before fences or other houses are built.

**Always make the big mess first!** Items such as grading, retaining walls, and pilings for posts are the things that require space and equipment. The rest of the work fits into these important structural hardscaping components. Digging large tree holes will generate incredibly big piles of low quality soil so this is best done by equipment at the grading phase whenever possible.

**Think of comfort.** If you are staging the project, make an area of your yard that is a sanctuary from the mess - that might be a small deck for a couple of chairs or an area of grass for the kids and pets.



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The fines are high and it could save your life...

### If the budget is getting too stretched, consider staging the items in creative ways that won't sacrifice your desired outcome.

Examples include... making a pea gravel fire pit patio instead of using pavers;

putting in the gravel base for the patio or walks and then adding the pavers another year;

or digging out the planting areas and putting good soil in but putting in the trees and shrubs another year.

You can also buy smaller plants...they will eventually get to be the same size.

Always invest in excellent base preparation

**Do It Well, Do It Once!**

## Dry wells

are deep pits filled with crushed stone where water can drain when it has nowhere else to go.

## Grading, Drainage and Slopes

### Rent a site level

or hire someone to mark the elevations of the proposed construction. This will tell you how many steps you need, how high the walls should be, where you need to dig out the existing ground and where you need to fill in so that you have positive drainage.

### Your designer can create a grading plan for you (this will add an hour or so to the design fee).

### Regrade the site.

Correct the drainage problems so that water is not sitting stagnant. Add berms (rolling hills), and swales (gentle drainage courses).

Try to put excavated material somewhere else in the yard to avoid haulage and dumping fees.

### Soil should slope a minimum of 2%

(that is approximately a 2 inch drop over an 8 foot span) away from the house. Some municipalities will require even more

slope than this so it pays to check.

### Patios should not slope much more than 2%

so chairs don't feel like they are tipping over! Sometimes a low wall upside or downside of the patio will be required to achieve a comfortable patio.

**Can you dig this...**

**Dig** out planting areas 12 to 24 inches deep (more soil equals healthier plants)

**Dig** paver and wall areas 6 to 24 inches deep (see manufacturer's specifications)

**Dig** lawn areas 6 to 8 inches deep (or more if you have extreme sand or heavy clay soil)

**Dig** pond areas (no more than 24 inches-

deep unless the yard is to be fenced according to code)

**Dig** tree holes for the really large trees

**Scrape** off and remove any unwanted debris such as old concrete walks, pond liners, tree stumps etc. These can interfere with plant growth and are sometimes toxic to the trees and lawns.

**Dig** drainage channels or use a post-hole auger in a few spots to drain the planting areas if you have clay soil - this avoids creating a clay "bowl" where your plants could drown. This is often a prime reason for mysterious plant deaths.

**Make good use of the dumpster and/or dump truck while it's on site.**



Be nice to yourself and hire people with the right equipment to get the job done!

This will save you money by having the truck leave full instead of making many trips; and it will save you the aggravation of having piles of junk in your way while you're trying to work.

**Heaving, Slumping, Shifting**

**Lay geotextile** (a special heavy fabric available from paving stone suppliers) under the pavers and segmented retaining wall areas.

This prevents differential heaving patterns from making bulges in your finished product a few years down the road. It is optional but highly recommended.

**Use geogrid** (another special fabric) as tiebacks for segmented retaining walls as indicated by the manufacturer for certain wall heights and loading pressures.

For example, a wall that is supporting the side of a driveway or a steep slope is under a lot more pressure than a wall that is supporting a level lawn.

**Did you know?**

Never install walls over 2' high without consulting the manufacturer's engineered specifications for proper installation technique. This can be a free service as the manufacturer wants your wall to be successful.

**Install concrete pilings** under concrete, stamped or exposed aggregate walks and patios, under decks for support, and for fence posts.

This prevents heaving and cracking problems.

These piles have to be long enough to extend below the frost line.

**Moving Water?**

Dig in drainage pipes or make rocky swales to handle water from downspouts, sump pumps and rain barrel overflows. Direct the water to large thirsty trees but never into the neighbours property.

Perforated drain pipes are also used behind retaining walls to reduce water pressure.

Never have water spill onto walks and driveways where it can freeze in winter. Small metal and plastic grills are available to cover a cut channel in the walkway or driveway, making a great open air and walkable solution.

The latest in environmentally friendly solutions is to create a **Rain Garden** which is a low area in the lawn or shrub bed where the water can

puddle for awhile after a rain. This allows the water to percolate back into the water table where it can feed trees...instead of rushing out of the sewers to the river. This also prevents our soils from shrinking with the result of patios and walkways dropping and needing to be re-laid.

**BE AWARE!**

**Did you know that water build-up behind a retaining wall can cause the wall to explode?**

**Don't drain your hot tub, pond or pool down a slope into a walled area!**



## Rock In and Rock On

“Plant” large boulders at this stage. If you bury them by one quarter to one third, they will look much more natural.

Avoid the “ready to tip over”, the “ready to roll away” and the “tombstone” looks.

Examine the angles and bedding in the rocks as they may look better all aiming the same direction.

Place boulders in groups of 3 or 5 in a

triangular arrangement on the ground, and also arrange them from the front view like a family portrait with the tall ones at the back.

Try one laying down, a sitting one and a standing one for a visually interesting grouping.

Use a variety of rocks for dry river beds. Large boulders in the crook of the streams elbow looks more natural.

### Tip:

A circle or group of boulders under a tree area is a magnet for kids. When combined with a bridge, a trail and a little shelter or hut, it can have more scope for imagination than a purchased play structure!



### Did you know...

**That artificial turf requires a similar road crush base preparation to that of paving stones? That is why it is costly to put in!**

## Road Crush Is Your Friend...

Install road crush bases for walks, walls and patios. Bring in the material using full truckloads whenever possible as this reduces your delivery and handling charges.

**But never dump this material directly in a big heap into the excavated hole as you will not achieve enough compaction**

**and the pavers will sink in a bad way over time.**

The road crush will be packed in 3 inch to 4 inch layers (called lifts) using water and a vibrating plate compactor/tamper. The final depth of this layered packing will often be 8 to 12 inches or more under a driveway. Soil cement is good for heavy duty applications.

Adequate compaction can be self tested for each layer by stomping with the edge of the heel of your booted foot - you should barely be able to see a mark.

Note that too much water or using material with a high clay content will result in a squishy base and a wave will develop in front of the compactor as you run it. Let it dry out.

A sand or “fines” levelling layer is usually less than 2” deep – just enough to be moveable with the screed board but not so deep that it can later wash away or become an ant farm.

Polymeric sand is often swept into the cracks of the pavers as a final step and acts somewhat like grout once it gets wet.

### Investing in Good Quality

#### Installing the bricks and blocks.

Walkways and patios should have a slight slope for drainage, while block walls and planters should always be installed level on top (for structural integrity - they should step up or down rather than slope along a contour).

Walls with caps or coping stones often look more interesting

and finished than those without a distinctly different cap (self capping).

#### Installing woodwork

Decks, fences, arbours, pergolas, etc. need to be on pilings.

Be sure to follow local building codes so your project doesn't end up in noncompliance which is costly if you are forced to redo or remove things. There

are rules about heights and locations that vary between neighbourhoods and can change yearly. Get approval before building. If necessary, the designer can come back and adjust the plan.

#### Installing the topsoil.

Avoid excessive compaction by heavy equipment - especially in planting beds. You

have the choice to create a great living environment or a difficult one for your new plants.

The future quality of your lawn is directly proportional to how deep the topsoil is under it. It will be easier to maintain and compete better with weeds.

### Watering Your Investment

Bring in the irrigation contractor to install the lines and boxes. Set the timer so that the lawns and beds are soaked deeply once or twice a week rather than a little squirt every night.

This does not apply to new plantings and lawns which may require more frequent watering depending on the weather.

The key here is to be observant and adjust as necessary. Don't assume the contractor has set it to your needs!

Water deeply and not too often. You want your plants to have deep, sturdy root systems.



Frequent watering results in weak surface roots and even causes the soil to become saline as the salts are left behind during surface evaporation.

Watering the leaves instead of the soil can result in more foliar disease.

**If you have moss growing in your sunny lawn or planting areas, you are likely overwatering!**

**Dig a hole and see what's going on below the surface. Squeeze a handful of soil...water runs out if it is too wet OR the soil crumbles away if too dry.**

### Inexpensive Watering System

#### Another tip:

Underneath the mulch, use the recycled rubber type of soaker hoses that sweat or ooze water around your plants .

The end will stick out so that you can attach your garden hose and

water deeply for an hour or so at a time.

This is much more effective than hand or sprinkler top watering which can cause leaf diseases.

Don't use more than 100 feet of this product in a row as the

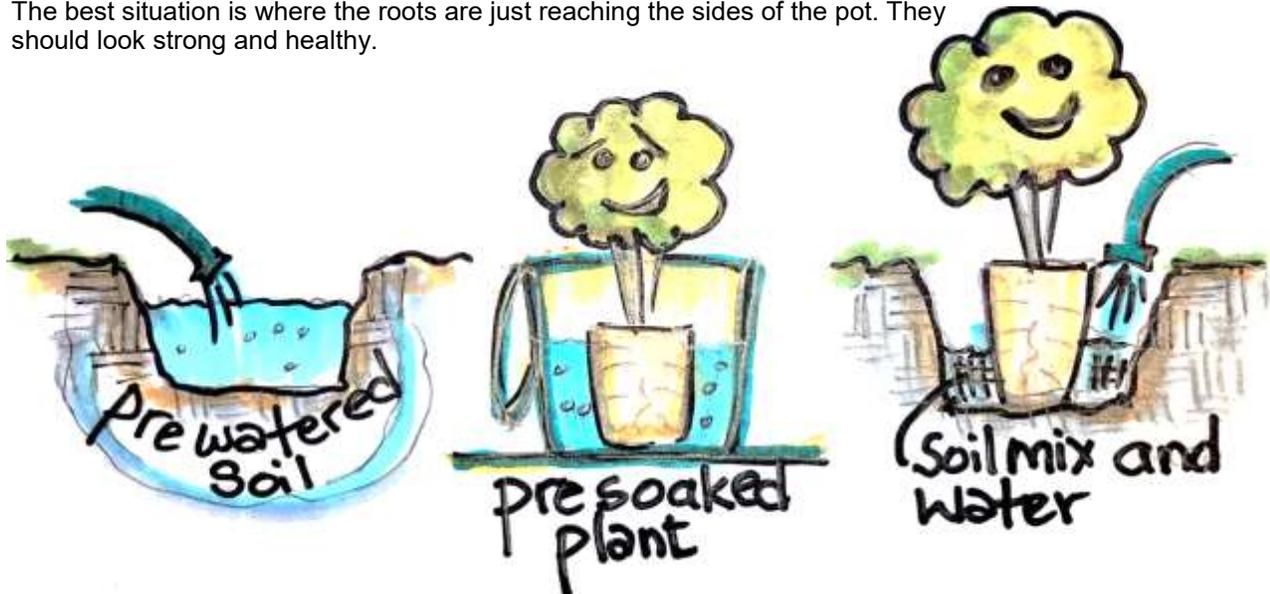
pressure will be non-existent at the far end!

Timers added to this set up are very worthwhile.

Be creative and add lines and drippers to your patio con-

## Successful Planting

Choose healthy looking plants that have a dense crown with uniformly sized leaves. Pop it out of its container (if you can!) and examine the root ball. If it has been freshly potted from a smaller sized pot, the soil may not even hold together. It may have few roots or a small ball of roots from its last container. If it has been in a pot too long, you will see a tightly wrapped ball of roots with no soil showing. The best situation is where the roots are just reaching the sides of the pot. They should look strong and healthy.



**Here are a few ideas to help you be successful while planting in a prairie environment.**

Take the time to presoak the freshly dug planting holes. This will prevent the dry soil from wicking all of the moisture out of the root ball. If you fill the hole once or twice, there will be a lovely horizon of moisture stored beneath the plant.

An added benefit is that you will clearly be able to see a poor drainage situation where the water acts like a bowl. Most plants need air as well as water in their root zone.

### Great Tip #1

**Submerge the containerized plants in a tub of water (with root boost or kelp extract) before planting for a minute or two (until the bubbles stop coming up) to ensure that the plant gets a good soaking. This is because the root ball can be quite tight which actually repels water; it stays dry and the plants dies in spite of your best efforts.**

### Great Tip #2

**Be kind—plant on cloudy & calm days, early mornings or evenings, to prevent plant stress.**

Once the plant is in the ground, have the hose running gently into the hole as you back-fill with a mixture of peat moss, manure, soil, compost, and a slow release fertilizer that you have premixed in the wheelbarrow.

After this type of planting, a good soak once or twice a week will be all that is required to establish the plants.

Stick your fingers in the soil a few inches down and feel for yourself if it is moist enough.



## Everyone Thrives in a Community

Most trees and shrubs prefer to have some friends around them for company and protection.

Think of your garden as a team sport—with many plants contributing in specialized ways like

Nitrogen fixing

Pollinator attraction

Erosion prevention

Creature habitat—nests and burrows

They even improve the weather microclimate!

## If you have a plant that is very unhappy, you will see things like:

- \* wilted or drooping eaves
- \* pale coloured or strangely veined leaves,
- \* new leaves can be smaller than usual,
- \* the tips of leaves are dry and crispy

## But how do you know what is wrong?

The best way to learn is to dig a hole beside the plant, or even dig up the plant.



You will may discover that

- The bark may be rotten from being covered with wet soil or bark too deeply
- There is too much water in the planting hole and it smells rotten
- There is no moisture in the soil and the roots have died
- There is a creature eating the roots or the bark
- There is moisture in the new soil, but the root ball is repelling water
- Sometimes there is garbage like plastic or leftover concrete hiding below



If you have brought home a “pot bound” plant, it is a good idea to loosen those roots and give them a trim. It will grow new roots into the fresh soil. A gnarly knot of roots will inhibit the plant for a long time by limiting it’s ability to absorb water and nutrients

## Landscape Fabric and Mulches

**Some people** don't mulch at all and simply scratch up the soil surface by regularly using a Dutch hoe or a cultivator tool.

This maintains a surface that is uninviting to weed seed germination.

Using mulch reduces (not eliminates) weed growth, keeps the roots cool and retains moisture. It is not used in wet locations.

It is very visible for the first couple of years, but disappears from view as the plants fill in.

Installing large planting areas will mean that you will need to buy mulch in bulk, so it will be most economical to order it all at once.

There are companies who can actually spray it onto the beds from a big truck.

However, you may choose to cover small areas as you go through the plan to give you a sense of completion!

**Fabric is not required under bark, but it is sometimes recommended.**

If you like to putter in the garden (move plants around, put bulbs in, etc.), your best mulch option will be a shredded or composted material **without** fabric.

Mulching is quite possible to do at a later

stage; however, it does become more challenging to install as the plants get bigger.

From a maintenance point of view, bark will need occasional top-dressing as it decomposes over time. It is a great natural option that reduces the initial weed potential.

**Stone mulch that is on fabric needs to be vacuumed or blown clean to reduce the accumulation of debris (this is where weeds take root!).**

## Edgings

**Some people** don't use edgings at all and simply keep the plant beds dug out by hand with a square spade or a motorized edger tool creating a trench.

You can fill the trench with bark mulch for an easy casual look. The grass does not like spreading into the mulch except during extended rainy periods.

Well-executed edgings can really enhance the overall look of your project and is a good investment.

The idea is to reduce the trimming required while maintaining the initial crisp shapes of your design.

You can dig a test hole in your lawn where you will see how far down the grass roots are inhabiting the soil horizon. An edging that is shallower than these roots will logically be ineffective.

The black plastic edging is great for curves and needs to be the deepest and strongest kind that you can find. Be sure to install the stakes that go with them so the product stays in the ground properly during winter frost heaving. Then the mower won't chew it up.

There are also aluminum and rubber types that work for curves.

Precast concrete (pavers in a soldier course side by side, or small curb shapes), poured in place concrete, and wooden timbers are good choices

as long as they are not sticking up higher than the lawn making it difficult for you to trim it and achieve a tidy appearance.

If you are trying to contain those nefarious weeds along the fence line or those awesomely vigorous plants such as raspberries, goutweed or lily of the valley, consider using a 2 foot deep coreplast strip (cut up a 4 by 8 sheet from Windsor Plywood or a hardware store), a plank of wood, or even sheet metal (with a rolled edge so it's not sharp).

## Pruning

Learn to prune or hire someone every year to do the job. This maintains your design intent; as well as keeping the yard safe and the plants blooming and growing well.

Try not to prune spring blooming plants in fall or in early spring as you will be removing the flower buds! Examples include lilac, white spirea, mock-orange and double flowering plums.

Some perennials such as elephant ears are evergreen and do not like to have their

leaves cut off. It can be good to observe the habits of a plant before being too hasty to clean it up. You will generally not cause damage by being patient.

Dead flowers and stems can add visual interest and also catch the insulating snow. Those lovely tall grasses can be cut off with a serrated knife in the spring before the new shoots arise.

Rotting fruit should be removed from the garden and diseased foliage should be

burned to interrupt the cycle of disease.

A professional garden maintenance team is always a good investment. But be sure to insist on maintaining the style that you like because casual or highly formal are very different looks!

We don't recommend cutting the skirts off of the spruce and pine trees because new plants and grass will not thrive in that environment and it will generally not look any better.



**You can't  
put it back!**

## Fertilizing

Fertilize once or twice a year (early spring and early summer) to feed the plants **when they are actively growing**.

Avoid fall fertilizing which may encourage late growth rather than natural hardening off. The exception are the specialty products sold for fall lawn application.

The natural fertilizers such as manure, fish meal, bone meal and bloodmeal often seem low in strength but they enrich the root environment tremendously. Root Boost and Kelp extract are great products.

The synthetic fertilizers are designed to dissolve in water and feed the plant directly which means YOU are in charge of how often your plants get food.

While they might seem like better value, synthetic fertilizers often acidify the soil which kills off the naturally occurring soil organisms. Also, this acidification changes the plants ideal range of pH which affects their nutrient uptake.

**TIP!** Mature urban trees are often forgotten and benefit greatly from extra feeding and watering.



## Compost

is also a wonderful way to reduce weeds, retain moisture and improve your soil fertility and texture.

Your household scraps and garden debris can be turned into a rich product with little effort and applied to the trees, garden beds and lawn every spring. This is most easily done when stone or bark are not present.

**Don't be fresh....**

Always compost animal manure for a full season before adding to your plantings to avoid burning them.

***The fairest thing in nature, a flower, still has its roots in earth and manure.***

***D. H. Lawrence***

## Large Tree Installation

Use large size trees in key areas for privacy, blocking views, and providing shade.

**Large leafy trees are called caliper trees** and are sold by the diameter of the trunk at your ankle height (just above where the trunk widens into roots) rather than by their height.

**Evergreens are sold by height.**

Consider using a tree spade to move large trees into areas that have good access. The tree nursery staff will tell you what times of year this can be done.

Always stake large trees according to Landscape Alberta industry standards as trees can

tip over in the wind and it is very difficult to straighten them.

### Alert!

**Remember to remove the guy wires in a year or two.** If the wire grows into the trunk, the tree will choke and becomes stunted on the top and will later break off at that location.



## Selecting Materials

**Choose materials** by going to the supplier's yards and bringing home charts and samples. Always see what goes best with your existing house cladding. Choosing complementary colours and/or blended colours sometimes works better than trying to match the house colour exactly.

**Order the materials well in advance of when you need them.**

Try to order all paver and wall areas at one time to avoid changes in colour batches.

Even though your landscape contractor can supply the plants, take the time yourself

to select and tag large plants in the nursery or garden centre because it is very difficult to change out a large tree after it is in place.

Availability can decline as summer progresses, so you may want to put a "hold" on your perennials and shrubs too.

## We are here for YOU!

We know there is a lot to consider when installing your project.

This guide is an effort to make it a little easier... but of course it is not comprehensive!

It is a synthesis of our opinions based on years of installing and maintaining landscapes.

Please always use your own best judgement and ask lots of questions.

And remember that we are only an email message away!

Did you know that your designer will also stop by during construction if you need an extra set of eyes or another opinion? Our regular rates will apply.

**780 236 2222 Cell**

**info@earthworm.ca**



**Where gardens are designed**

**In a day ... and treasured for life!**

**Now that you have a plan, take it shopping with you and let those landscapers and retailers help you to refine the decisions...it's going to be so much easier now!**