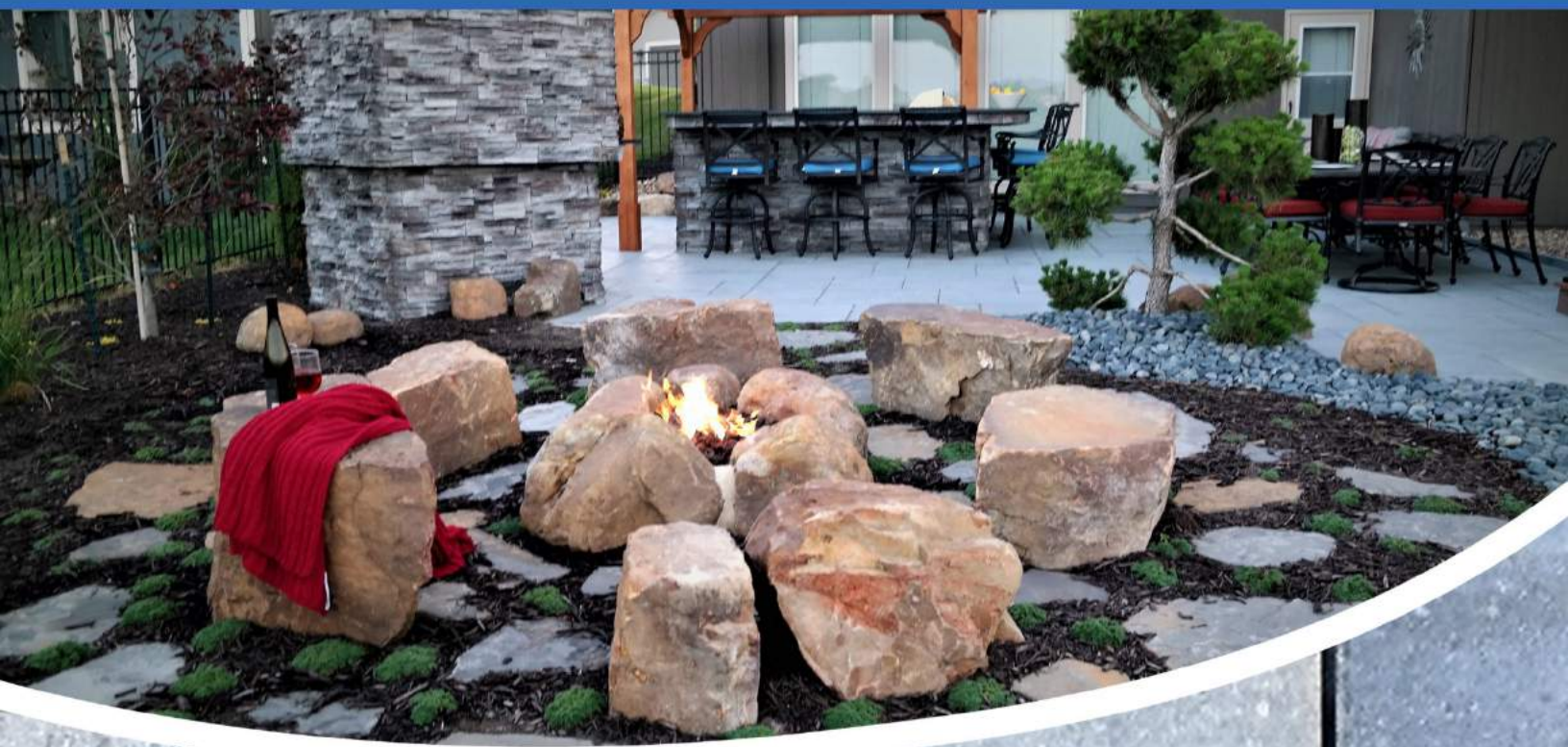


# OUTDOOR LIVING

A GUIDE TO DESIGN, CONSTRUCTION & BUDGETING



**ROBYN SCHMITZ**  
[WWW.GOHPLG.COM](http://WWW.GOHPLG.COM)

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## FOREWORD

What could be more rewarding for a professor than to be invited by a former student to write the Foreword for her first book? Then, after carefully reading Robyn Schmitz's *Outdoor Living: A Guide to Design, Construction & Budgeting* – I consider it both an honor and a pleasure to add my thoughts. If you are someone who is interested in enhancing your outdoor living environment at home or at work, then you will find this to be a unique piece of work. As a landscape design professor, I have bookcases stacked with books about landscape design and construction, and not one of them conveys the central message you will find in this book: that is, “This is the type of quality you should expect from your investment in your outdoor living spaces – and what you should expect it to cost.”

I have had the pleasure of knowing Robyn Schmitz since 2004, when she was a student in our landscape horticulture program at Kansas State University. I can clearly remember her inquisitiveness, drive and passion in her very first landscape design studio course. She had transferred into our major and soon found what she was driven to do. As her instructor in design, contracting and construction courses, as one of her mentors when she competed nationally on our Landscape Contracting team, and now as I observe her successes as a professional, I have had the privilege of a front-row seat in watching Robyn blossom. She has grown to be not only the leader of her award-winning company, but also a leader in our landscape industry. I wasn't surprised when she shared with me that she was writing this book because this is typical Robyn. She is going to keep moving forward, smartly, and bringing others along.

You'll find in this book many photographs of successful implementation of excellent landscape design projects for outdoor living spaces, and Robyn shares with you some keys to success for those installations. She will show you how to do things yourself if you are so inclined, but because most of us have neither the time, talent, access to high quality materials, or equipment to embark on such ambitious projects, she goes to lengths to explain in detail what these projects should cost. No one wants to talk about what things cost! This blunt, direct approach is extraordinarily refreshing. We've all heard, “You get what you pay for,” right? Research informs us that people invest in outdoor living spaces because of *biophilia*, the human need to connect with, and be a part of nature, but that's only part of the story.

The other parts that have been documented in research are that investing in high-quality landscaping for our homes pays us back in environmental benefits, functionality, and aesthetic enjoyment while we live there, and then financially when we have to sell and move on. In fact, it is the ONLY home improvement that actually and literally IMPROVES with age! That new kitchen? The clock is ticking. Parts, plumbing, granite, marble, or whatever surfaces are getting dinged and even high-end appliances wear out. But the trees, shrubs and seasonal color plants are growing and filling in to reveal what a talented designer intended them to do for you, all the while quietly providing benefits to the larger environment as well in this paved-over, industrial world. Plus, good landscaping is also one of the key factors that will attract potential buyers even to consider your home if you need to move. But still, this research is missing the point that well- designed outdoor living spaces improve and expand the usefulness of our homes and our refuges, hopefully in every season and at every hour of the day. Our homes ARE our refuges and we are truly fortunate if we have such special places beyond the walls of our homes for relaxation, recreation, and entertaining with our families, friends and associates.

The message in that last statement comes through loud and clear in this book, and I hope you will find the usefulness and value in reading it that I have found.

*Greg Davis, Ph.D.*

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Director, Undergraduate Teaching Program  
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## INTRODUCTION

Everybody claims to be “experts”, “experienced”, or “the best”: How do you know who to trust?

We get it. Every contractor you talk to says the same things, offers the same product, and tells the same story about how their people make the difference.

Here's the thing, that's rubbish.

Quality professionals in any field will tell you about their company and what makes them special.

Heck, many of them do believe they're experts, with exceptional people, and are the best. The difference is that the really good professionals in any field will provide more insight than the hollow sentences spoken daily by competitors.

If a person can't verbalize why they're the best, they're likely not.

We're huge proponents of providing high quality education to our staff and our clients. We believe an educated client makes the wisest decisions for their unique circumstances. We also believe that high-style design and outdoor living spaces shouldn't be reserved for just the East and West coast. After all, style doesn't stop at the mountains.

In an effort to help provide quality education to our clients, we scoured the globe looking for a resource to provide understanding about outdoor living. We looked at websites, we looked at libraries, and we even looked at Amazon.

We found some great design inspiration stuff. We found a few textbooks related to outdoor construction, but we never found a comprehensive guide. We also never found a true understanding of budgeting and what things cost.

Then, it dawned on us, we'll WRITE a guide! Who knows more about the industry than the professionals working within it? We're educated, we're award winning in design and construction, and we just happen to be consultants who teach other professionals within our industry.

We realized that WE can provide a comprehensive guide like none on the internet.

Why would we take the time?



Simple: Outdoor living projects are both an investment and an enhancer to life. What we do matters, but the investment isn't one to be taken lightly. In the following pages, you'll learn about design, construction, budgeting, trends, and what to look for when selecting a contractor. We've left nothing out.

It's time to stop choosing contractors because they're "the best", "the expert", or "have the best people". Choose your contractors because you've been empowered to understand the process and what it takes to create the right environment for you.

**Robyn Schmitz, Owner**

**High Prairie Landscape Group**

## CHAPTER 1: UNDERSTANDING THE PROCESS OF OUTDOOR LIVING DESIGN



### WHAT IS OUTDOOR LIVING AND WHY DOES IT MATTER?

**T**oday, most people spend the majority of their time indoors. Since we live and work indoors, it makes the importance of a beautiful, sophisticated, and well-landscaped space outside much more important. In addition to providing a place for you to sit down, relax and unwind after a hard day, a professionally designed landscape can also help to diversify how the property is used and increase your overall property value.

Outdoor Living, by definition, means bringing the conveniences and comforts of your indoor space to the outdoors where the sun, breeze, and gardens have a positive impact on all who use the space. This is achieved with outdoor spaces or rooms that are created for the purpose of use and enjoyment.

## CONSIDER THESE BENEFITS OF OUTDOOR LIVING FOR EACH TYPE OF PERSON:

For the Social Person or Family Person: Being the neighborhood hot-spot for entertainment is easy when you have outdoor areas to gather, cook, eat, lounge, watch the big game, and much more.

For the Exhausted Person: Outdoor living areas provide a private place for relaxation amongst nature. A lounge next to a warm fire or soothing water feature can decrease stress almost instantly.

For the Practical Person: Well designed and implemented outdoor living spaces have proven excellent returns on investment. The key is to invest based on the neighborhood expectations for real-estate. Outdoor living maximizes a property and the usage.

## YOU WANT TO LANDSCAPE, NOW WHAT?

When you decide it is time to invest in professional landscaping or outdoor living for your home, you should find a landscaper who is dedicated to their profession. The person or company should have a clear process for how to proceed.

The first part of the process will be an interview and consultation with two parts: The Client Interview and the Site Analysis. Some companies charge for the consultation, and that's a good thing. Those companies are likely to provide you a higher-value, more in-depth report, analysis, and better understanding of your needs. Would you get a better hair cut by paying for it or by going to a volunteer for a free hair cut?

## THE CLIENT INTERVIEW

Your professional will interview you to clearly understand your needs, vision, desired function, design style, and budget. Many landscapers will provide a design style guide or inspiration pictures to help generate ideas. An excellent designer will pinpoint your design style and mesh that style with the existing architectural style so that the investment fits the space. This is a perfect opportunity for you to get to know your landscaper. Gauge their professionalism, enthusiasm for your project, and technical knowledge.

Once the initial interview is complete, the landscape professional should analyze the site with your specific needs in mind.

## AN IN-DEPTH LOOK AT THE SITE ANALYSIS-BEYOND JUST MEASURING

When you hire true professional [design-build landscapers](#), they are going to analyze your property in detail. Some areas they should check include the existing grade and drainage, they should test the soil for structural integrity and ability to drain, and check how they will access the space with their equipment. Landscapers should also note wind directions and what parts of the yard receive direct sunlight to properly place outdoor elements. For example, if you are having an outdoor fireplace installed, it should be placed where the smoke will stay away from the home. Likewise, open air patios should be in shaded locations to minimize heat exposure.

During their analysis, landscapers should also observe any architectural elements that are present and determine whether or not they can work with the new design. During this observation, they can also consider how to integrate unique design elements.

## THE DIFFERENCE IN A LANDSCAPED YARD AND A DESIGNED LANDSCAPE

When you call the professionals and if you expect professional work, you should expect to invest in design fees. This is the only way a higher level of professionalism and sophistication is going to be brought into the space. While it is true anyone can call themselves a landscaper if they have planted a few plants, the difference between an average landscaper, and a landscape design specialist is vast. Also, if your landscaper offers any type of "free" service, be cautious. Free may mean serious issues for you down the road.

Terms and Principals a Professional Landscaper Will Use in a Design:

- Form
- Texture
- Scale
- Balance
- Emphasis
- Color
- Flow

In addition to finding a design specialist, you need a team behind them that can make their vision a reality. After all, if you have a good design with poor execution of the construction, you are completely wasting your money. The exact same is true for the opposite. A poor design with excellent construction capabilities is a waste of potential. It is essential to find a landscaping professional that is able to offer a balance in design and construction excellence to create a high-style and functional outdoor space.



## CHAPTER 2: PATIO DESIGN AND MATERIAL OPTIONS



*Above: A patio, kitchen, pizza oven, and fire pit designed and installed by High Prairie Landscape Group in Lenexa, Ks.*

If you are planning to have a patio designed and installed, there are certain aspects of the process you should understand. After all, this is your space and it should reflect how you plan to use it and your own personal style.

The first step that should be taken when consulting with a landscaping professional to construct a patio is to identify your own personal design style. You can find great patio ideas on sites such as Houzz and Pinterest, to help you discover what you like, as well as what you dislike.

When you begin thinking about what you want for the patio space, it will be beneficial to let your designer know the following things:

- How will you be using the space?
- How many people do you plan to entertain in this space?
- What time of day do you plan to use the space?



- Will your pets share the space?
- Do you want cooling or heating in the form of fire pits, fireplaces, shade structures or misting systems installed?
- Will you be cooking outdoors? What type of fixtures do you want – pizza oven, full kitchen, grill, etc.?

## CONSIDERATIONS MADE DURING THE PATIO DESIGN PROCESS

It is important to work closely with your landscaper to create your desired patio and [outdoor living](#) space. You should specify how each area of the space will be used and how it will work with the remainder of the backyard. The shapes of the hardscape features and bed lines should be designed so they complement the design style you have specified. For example, do you prefer diagonal or tangent lines? Straight or arched features? Essentially, what you choose should mimic the architectural style of your home.

Your outdoor living area should flow with the remainder of your home. For example, there should be a clear view of this space from your windows and doors, which means you can enjoy it, even when inside. The patio also needs to be easy to access and complement your indoor style. These are all factors to discuss with the designer to ensure the patio shows off your style and lifestyle, rather than being a complete conception of the designer, who will not be using the area.

## MATERIALS TO USE IN YOUR PATIO

Patios can be constructed with a variety of materials. It is important to understand the positive and negative aspects of each type of material when deciding how to best use your investment dollars.

## NATURAL STONE

Natural stone offers a classic style for timeless appeal. Common examples of natural stone used for patios would be slate or flagstone. Typically, these items will be mortared into place, but polymer enhanced sand can also be used. Some types of stone have naturally occurring metals that oxidize and produce orange colored rust patterns as the natural elements age the stone. Some people find this aging charming, while others would prefer the stones remain true to color.

Another challenge to natural stone is that some types may peel off in layers as time passes due to the freeze-thaw cycles. Natural stone is typically on the high end of the price per square foot average for patios, but it is beautiful!



*Dimond Dedication Patio*

*The patio shown above is tucked away in Kansas City in an intimate garden at UMKC's Diastole Scholar's Center. It is a dedication to Diastole's founder, Dr. E. Grey Dimond. Diastole was founded in 1976 as a place to provide a serene and stimulating environment that would benefit UMKC and those who learn, work, and study there.*

*Dr. E. Grey Dimond was the founder of UMKC's School of Medicine, a past president in the American College of Cardiology, and was known as an innovator within the medical field. Dr. Dimond was involved with many worthy causes and lived a life full of impact. Learn about his involvement with educational trips to China, his worldly travels, and more about Diastole at [www.diastole.org](http://www.diastole.org).*

*"It's rare that we get to build something to honor someone as impactful as E. Grey Dimond. This project will remain one of my favorites as long as I'm landscaping. He was an incredible human being." Robyn Schmitz, Owner, High Prairie Landscape Group*

## MANMADE STONE

If you opt for manmade pavers on your patio, you will find not all pavers are created equal and there are multiple grades available.

Paver grades are based on overall durability and the ability of the paver to age without exposing aggregate or losing color.

- **Low-Grade:** Box store pavers: These products will not hold color well and may show aggregate fairly quickly. This stone will also not tolerate salt.



This is an example of a low-grade paver. The color has faded and the aggregate is exposed. This was not installed by High Prairie Landscape Group.

- **Mid-Grade:** These pavers are a better quality than box store pavers, but will still fade over time. They can also expose aggregate over time and cannot tolerate salt. Many mid-grade pavers do not have coloring the entire way through the paver.



*Here is an example of a mid-grade paver used in Parkville, Mo.*



- **High-Grade:** High-Grade pavers do not suffer major fading and will not expose aggregate. There are a few pavers of this grade that come with a lifetime warranty. For example, Techo-Bloc has created several pavers with a salt tolerance, granite aggregate for a stronger paver, and coloring the entire way through the paver. The Techo-bloc brand has also created a number of realistic looking pavers that appear to be stone or travertine slabs but have the durability only offered by Techo-bloc, which means they won't peel or oxidize. This tends to be the best of both worlds as far as investing in an outdoor living space that ages gracefully.



*This is an example of a high-grade paver. The clients chose a contemporary look, but more natural pavers are also available in this grade. Notice the vivid coloring and variation of texture in the grey. That creates interest not found in flat, one color pavers. These pavers are also salt tolerant and made of granite aggregate.*

## STAMPED, COLORED CONCRETE

Patios can also be created out of concrete with aesthetic variations such as: coloring, stamping, texturing, and antiquing. Concrete tends to be a smaller investment than pavers, but can match the price of pavers if coloring and stamping options are detailed.

Most types of decorative concrete age similarly to low-grade pavers. The color tends to fade and cracks will form in our Mid-western clay soils. The negative aspect of concrete is that cracks are inevitable at some point and you can't just replace a section and match it. With pavers, if something were to happen to a paver, a new one could be put in place. If a patio moved, the pavers could be re-installed.

Be aware that there are differing grades of concrete and price can vary based on the type of re-enforcements used in the concrete. Examples of re-enforcements are steel re-bar, wire mesh, and fibers mixed in the concrete. Much like paver patio contractors, there are varying quality/price levels of concrete contractors.

## UNDERSTANDING IS THE KEY TO A SUCCESSFUL PROJECT

Understanding your available options on how you'll use an outdoor space and what materials fit your goals is paramount to creating a project you'll be happy with. Your landscaper should educate you on options so that you understand what you're investing in.



## CHAPTER 3: PATIO CONSTRUCTION BASICS



*Above: High Prairie Landscape Group team members screeding sand for a patio.*

Once your outdoor landscape design is finished, the next step of the process is to ensure you fully understand the construction basics. Investing in patios without understanding how they're built is unwise. There are some so-called professionals who use a one-size-fits-all method to construct exterior rooms; however, it is a flawed construction process. The characteristics of the site and soil can impact what base is necessary to create stability under your walls and patios.

## SOIL SCIENCE

When your landscaping team takes the time to know the soil classification on your property, they will be able to accurately predict a number of factors that can impact your finished patio, including:

- Drainage
- Water holding capacity
- Compactability
- Freeze/thaw expansion

These are factors that will also affect the amount of time necessary to complete the project. If the soil is loose and sandy, it won't compact properly. If the soil is heavy clay, like our Kansas City soils, it retains moisture and heaves in the winter.

There are three basic particle sizes used when determining your soil type. The testing process uses a sieve analysis gradation ASTM D 422 to determine percentage of the three types of particles in your soil. The three types include coarse-sand; med-silt; and fine-clay. The finer the particle size is, the less suitable it is for the construction of a patio or other structure. Clay is the least desirable type of soil for construction purposes. This means that people with clay soils need extra precautions taken to ensure the longevity of your hardscapes.

Soils that consist of more than 30 percent clay are considered "clay". The problem with clay soil is that it retains moisture and is slow to drain. This type of soil is also more difficult to compact since it holds moisture and it will contract and expand more during the Mid-West freeze/thaw cycles.

If your [design-build landscaping](#) professional understands your soil type, they can create a plan of action that ensures the longevity of your outdoor living area.



## THE IMPORTANCE OF COMPACTION

Prior to building anything, it is important for your contractor to compact the soil and base. This process will increase the bearing capacity, help to prevent contraction and swelling, and prevent settlement. Settlement is the top reason so many hardscape features fail.

Most professional landscapers will claim they compact the base prior to laying pavers; however, are they actually building a proper base? There are several things your contractor will need to answer:

1. What are they using for a base?
2. Are they using geotextiles between differing materials?
3. How deep is their base and why?
4. Do they compact the base material in layers? This should be done in 2" or less increments for most compactors.

**Helpful Tip:** Ask your landscaper if they test the compaction density and what density they compact bases to. If they are unable to answer, or their answer is anything besides that they compact to a minimum of 98 percent standard Proctor Density, then you are likely going to have to pay someone else to fix the project after it settles.

## GEOTEXTILES

Geotextiles are the synthetic fabrics used for stabilization of hardscape projects. They don't increase the base's load bearing capacity, but can preserve the capacity and prevent the smallest particles from settling. They are smart to use in the following situations:

- To provide a barrier between the compacted aggregate and compacted soil so the gravel won't sink into the soil.
- To provide a barrier between the compacted base and paver bedding sand so no sand settles into the aggregate.
- For concrete bases, geotextiles need to be installed over expansion joints, which is where cracking is most likely to occur.



## BASE MATERIALS

The base materials used can impact the success of your hardscape project. Common patio bases are:

Ab-3: A mixture of  $\frac{3}{4}$ " gravel with jagged edges and small (as small as dust particle sized) crushed gravel called "fines". The ideal mixture has 8% fines to lock aggregate in place. Maximum percentage of fines allowed in certified Ab-3 is 12-14%. Use a certified material source to ensure the Ab-3 has not had extra fines added.



*This picture above shows what AB-3 looks like after being compacted.*

## CLEAN GRAVEL:

Typically a  $\frac{3}{4}$ " jagged edge gravel. Allows for free drainage, but allows sand and "fines" to settle. It is suggested that a geotextile be used between gravel and any fine materials. Although clean gravel by itself should never be the sole base for a hardscape project, excessively wet areas can benefit from an extra deep base where clean gravel is installed below Ab-3 for extra drainage.

- (Example, instead of just installing 6" of Ab-3, a contractor could install 6-12" of clean gravel below the Ab-3 as an extra drainage measure. The soil below the gravel and the gravel would still need to meet compaction standards.)

## CONCRETE:

Concrete can also act as a base for pavers if the concrete is free from any cracks or settling. It is suggested to use a concrete base in the following circumstances:

- If adding square footage to an existing concrete patio that will have pavers overlayed. Concrete and aggregate bases expand and contract differently during the freeze/thaw cycle. This can cause pavers to settle differently in each area. A common way to cut corners is to compact an aggregate base next to a concrete slab and then overlay the whole thing with pavers. This can result in settling where an obvious line is visible where the concrete and aggregate meet. Always meet concrete with concrete and tie them together by drilling re-bar into the existing concrete so they move together.
- Use concrete under pavers where vehicles drive. Many municipalities require concrete under a portion of driveways even if overlaying with pavers. Also, a thicker paver is required where you'll have traffic.
  - For example [in Leawood, KS](#), the following is required
    - The 12' closest to the road called the "apron" can be no wider than 30' and no narrower than 12'. This is within the city's Right Of Way (ROW). The concrete must be at least 4" thick if overlaying with pavers, or 6" thick if not. An expansion joint is required at the curb and at the 12' mark in the concrete. Concrete must be KCMMB (Kansas City Metro Materials Board), approved for ROW.
- If concrete already exists in the exact shape you'd like to install pavers/stone in. Two things to keep in mind:
  - Existing concrete must be low enough to allow for 1" of sand and the depth of the paver/stone. If concrete is poured too close to the height of thresholds or sill-plates, there will not be room for pavers and another option will have to be considered.
  - Existing concrete must be free from settling and cracks. No installer can guarantee the durability of something they didn't build. This means that typically a warranty is voided on this type of project.



## AGGREGATE/DRY CONCRETE HYBRID BASE

In extremely poor soils, professionals can use a hybrid method where they compact Ab-3 and sprinkle a layer of dry concrete for extra re-enforcement. This both allows for flexibility and adds extra strength. These bases are very durable and are commonly used in Europe. High Prairie Landscape Group prefers this base method because Kansas City soils tend to have a high clay content and this allows for extra protection against frost heaving.

**CONTRACTOR HINT:** Ask your contractor if they get their base materials from a certified quarry. Quarries certified by a city, state, or highway organization are required to meet quality standards for use as a base. "Cheaper" suppliers can add extra "fine" particles to their mixes to cut on price. This sacrifices quality because too many "fines" decreases base strength, increases frost heaving, and drainage decreases.

## BASE DEPTH

There are specific, accepted standards regarding the base depth for various hardscape projects. These include:

- Paths, patios, sidewalks: 4" after compaction in well-drained soil. For Kansas City homes a 6" base is a better option due to the slow draining nature of the soil present.
- Drives and other areas with vehicular traffic: 8 to 10" of compacted aggregate with a 4" pad of KMMB concrete. (KMMB concrete is a high-grade, durable concrete mixture approved by the Kansas City Metro Materials Board.)

## EDGE RESTRAINTS

Improper edge re-enforcements are the second leading cause of patio failure. This is because weak edges can allow the pavers to separate or settle. A compacted base needs to be extended, at the very least, 6" outside of the paver area to install the edge restraints on a solid, secure base. Restraints should never be placed on the sand.

The edge restraints can be made from a number of different materials. In order of durability, there is plastic, aluminum, steel, stone and poured-in-place concrete.

Some companies use a combination edge restraint with a plastic or aluminum restraint and a concrete curb. These edges are the surest way to prevent separation.

Here is an example of the base and re-bar re-enforcement installed prior to concrete being poured. High Prairie Landscape Group installed the pavers on a concrete base on this project in Leawood because we were installing a heating system below the pavers:



## UNDERSTANDING SAND AND SEALERS

There are different types of sand required to complete your patio project, which include:

- Bedding Sand: 1" layer of sand installed above the base and below the pavers to set the pavers on. Bedding sand is a coarse sand that allows for drainage. Using fine sands such as mason's sand slows the drainage and can cause a ripple effect in your patio over time.
- Joint Sand: A finer sand compacted into the joints in pavers. Mason's sand can be used for this. The finer sand sweeps more easily into the joints and compacts uniformly. If using joint sand, a joint stabilizing sealer is suggested to keep sand from washing.
  - Quality control check: The Putty Knife Test- To check that the joints are completely full after compacting, try to insert a putty knife into the joint. If the joints are full, the knife will barely move into the joint even with intense pressure.
- Polymeric Sand: An alternative to joint sand with joint stabilizing sealer is to use a polymer enhanced sand that hardens when water is applied. The polymers in the sand form a solid base with the sand and prevent the sand from washing.

Sealers are often used as an upgrade that is only necessary when regular joint sand is used during the construction process. Some of the reasons to use sealers include:

- Joint stabilization
- Moss and weed control in the joints
- Color enhancement
- Protection from stains for porous materials

In some cases, sealers are treated as a separate step because they are only able to be applied in certain temperatures. This means that your contractor may complete the patio and then apply the sealer upgrade when the temperature is right. If a sealer is used, it will need to be reapplied every one to three years.





*This picture shows the pavers prior to sand being installed.*

## EFFLORESCENCE

A second reason for waiting to seal pavers is that concrete pavers sometimes have a whitish haze appear a few weeks or months after installation. This whitish haze is a natural occurrence called efflorescence and there's nothing that can be done to prevent it. It is a chemical reaction that happens as the calcium hydroxide in the concrete meets moisture at the surface of the paver. The good news is that there are cleaners available to remove the haze if it appears.

Ideally, your contractor would either use a sealer that allows the efflorescence to escape, or they'd do a follow up service visit a few months after construction to clean and seal as a separate phase.

As you can see, to properly construct a patio, quite a bit of thought, planning and testing must be done. If your landscaper does not take the proper steps, there is a good chance you'll have to repair their work. When trying to understand competing proposals, it is important that you understand what their construction methods will be. Extra investment in proper construction methods and high-grade materials will save you thousands of dollars in the long run. Nothing is more expensive than hiring an amateur - so be sure to hire one of the [best Kansas City patio contractors](#) for your patio project.

## CHAPTER 4: RETAINING WALL OPTIONS AND CONSTRUCTION BASICS



*Above: A retaining wall and landscape installed and maintained by High Prairie Landscape Group in Kansas City, Mo.*

There are many Kansas City homes that could benefit from the placement of a retaining wall. While you may understand this to be true, you may also believe there is nothing more to this process than stacking natural stone, or a man-made material. The fact is, much more goes into the design and creation process of a structurally sound and aesthetically pleasing retaining wall. Getting to know a bit more about this can help you understand why it is so important to find the right professionals for the job.



## TYPES OF RETAINING WALLS

There are two main types of retaining walls you can install on your property, which include:

- Dry stacked natural stone: This type of wall relies on the stone's weight and gravity for stability. There is no mortar in a dry-stacked wall.
- Man-made segmental wall stone: This is stabilized by a lip system, pin system or glue for smaller walls.
- A third, less commonly used method is a concrete wall or stone veneered concrete wall.

## REASONS FOR RETAINING WALL FAILURE

There are also two main reasons that many retaining walls fail:

- The base material under the wall is not compacted properly.
- Poor drainage behind walls can cause hydrostatic pressure to build up behind the wall as water pushes the wall outward.

## THE PROPER WAY TO CONSTRUCT NATURAL STONE WALLS



*Above: A natural stone wall, manmade patio, and lighting installed by High Prairie Landscape Group in Leawood, Ks.*

The good news is, a properly installed retaining wall should last a very long time. Construction methods of natural stone walls depend upon the size of stone used. Walls built with 6" wall stones are constructed differently than 14" ledge stone. Also, the maximum height is less with 6" stone than it is with 14" stone.

Natural stone walls are charming and builders often use native limestone onsite for a cheap wall option. The challenge with our native limestone in Kansas and Missouri is that it is porous. The porous stone allows moisture into the pores and breaks apart as the water freezes in winter. This means that although native walls are often more affordable, they will crack and crumble over time. It is important to use a type of natural stone that doesn't have a high porosity. Indiana limestone is more durable than our native limestone.

Here's how High Prairie Landscape Group constructs a 6" dry-stack wall:

1. Excavate trench where base will be installed and install a minimum 6" of compacted AB-3. (Aggregate with fine and coarse materials.)
  - o Base must be compacted in 2" layers called "lifts".
2. Install first layer of stone below grade to increase stability.
3. Continue adding layers, also known as "courses", to the wall checking the level with every single stone.
4. Add a layer of fabric behind wall to prevent soil from washing through.
5. Add a minimum 12" of clean gravel back-fill behind the wall with a perforated pipe at the bottom to transport moisture away from the wall.
6. Add topsoil to grade as needed.

**Helpful Tip:** A geo-textile soil barrier placed behind the wall will prevent soils from washing through the wall and is sometimes not included on "cheaper" bids.

## THE PROPER METHOD FOR CONSTRUCTION SEGMENTAL WALLS



Manmade wall systems offer the benefit of engineering that can allow for more retaining power. Although they tend to be stronger than their natural stone counterparts, they haven't always offered the same aesthetic appeal. In recent years, many companies have taken great strides to improve the looks of manmade walls so that consumers can have the durability and beauty they're looking for.

If you opt for a segmental wall, then there are certain steps your contractor should follow, which include:

- Check the irrigation system, any existing concrete, and foundations and for electrical sources prior to any digging.
- Verify the grade with transit.
- Mark the desired grades with the use of tape and metal rods.
- Excavate for the wall base. If soil is able to be used behind the wall, be sure space is left for gravel and proper drainage.
- Install the AB-3 in trench compacting in one to two-inch layers until the desired six-inch depth is reached.



- Re-enforce the aggregate by laying a ½ inch of dry concrete mix over the AB-3. The concrete must be leveled completely.
- Install the base layer of wall stone ensuring the bottom layer is below grade.



*This picture is an example of what happens when the bottom course is not installed below the grade. The base washes out and the wall will fail. **This wall was not constructed by High Prairie Landscape Group.***

- Build the remainder of the wall by stacking additional blocks on the base level.
- Install caps as needed and glue in place.





*Here's an example of a wall before the final courses and caps are installed. You can see the drainage behind the wall in this picture.*

*Just like the construction of a patio, the construction of a retaining wall – the right way – will take planning and knowledge. This is typically not a project an amateur should attempt to do on their own.*

## CHAPTER 5: OUTDOOR KITCHEN DESIGN AND CONSTRUCTION



Food. It's fair to say that the nucleus of any space revolves around where the food is. As we delve deeper into our process of learning about outdoor living, we must consider the reason behind investing in outdoor living spaces in the first place. These spaces are intended to be an extension of the home. A place to enjoy the outdoors. An extra space to either make a family dinner, or entertain a group of friends.

Naturally, outdoor kitchens are often requested in outdoor living spaces. The seemingly unlimited options combined with the vast range of pricing can cause a fair bit of confusion for consumers. If you're seriously considering investing in an outdoor kitchen area, allow us to provide clarity on the process and options available.

### THE DESIGN PROCESS

#### STEP 1: THE WISH LIST

First, a list will need to be created with your main objectives for an outdoor kitchen. We recommend creating a list of features with a priority ranking of "must have" and "would like to have". Features include size, appliances, inspiration pictures, and any other ideas you'd like to learn more about.

Your designer should lead this process, but this is an excellent opportunity to show any inspiration pictures you've collected. An excellent designer will ask you lifestyle questions to solidify how the space is intended to be used. This means you'll need to know if you plan to use the space solely for intimate gatherings, or to entertain groups. You'll need to provide an idea of how many people you plan to entertain with the space. This helps your designer provide size advice.

## STEP 2: SITE INSPECTION AND PRACTICAL ADVICE

Once your [outdoor living contractor](#) understands your goals, they'll inspect and provide insight for the project. Things that your professional will be looking for are location of utilities, wind exposure, sun exposure, and logistical challenges. This step can save the client thousands of dollars and provide maximum utilization.

Placing the kitchen near the gas line is a perfect example of how to save some money. A level spot is always going to be more affordable than a sloped spot.

Environmental factors that will affect the functionality of the space: wind, sun exposure, proximity to your house, views out your windows, privacy, and many other factors.

## STEP 3: IDENTIFY YOUR STYLE

This is where inspiration pictures are a huge help. As you identify your style, you'll start to understand which material options fit that style. Keep in mind the architecture of your home and also that your style may need to be translated in creative ways depending upon your budget.

## STEP 4: SET A REALISTIC BUDGET

By setting a wish list, considering practical construction methods, and identifying your style, your professional should be able to help set a goal budget. It is at this point where priorities and adjustments can be made before you've invested in design fees. This is still a goal budget, not an official bid, but it can help both parties align expectations for a successful project.



Outdoor kitchens can range from \$5,000 for a simple grill island to \$50,000 plus for an entire entertaining kitchen with bars, shade, cooking areas, and socializing areas. This doesn't include additional patio space or heating features. This is why you must understand how your wishes add up on a realistic budget. Phases of certain aspects of a space can also be an option. Just remember your designer is here to help you get what you want and need.

## STEP 5: SET GOAL CONSTRUCTION METHODS AND MATERIAL OPTIONS

With a goal budget in place, your professional can help determine your material selections and construction methods. This will be how they proceed with the design and formal proposal for their work.

### CONSTRUCTION METHODS:

1. Cinder block base with a veneer over-coat: Stable, heavy, requires footers, several options for veneer.
2. RTF (Ready to Finish), base with a veneer over-coat: Stable, lighter-weight, no footers, several veneer options. Can save money on labor. (Check out RTF here: <http://www.rtfsystems.net/>).
3. Pre-assembled Kitchen Kits: These elements are pre-made and installed onto concrete piers onsite. They're quick, and there's labor savings, but there are few customization options and high material costs.
4. Wall Stone Used to Create Kitchen: Custom built using the same stone used for retaining walls. Heavy, multiple customization options, color and texture are limited to the stone selection, price is dependent upon type of stone. Piers are needed or a concrete base.

### MATERIAL OPTIONS

1. The kitchen base material options will depend upon the desired construction method. This can be natural stone, manmade stone, brick, stucco, the options are varied.
2. The counters can be limestone, concrete, granite, honed granite, or quartz. Each type has pros and cons. In addition to material, edge shape will need to be decided. It's almost always an upgrade to change from the 90 degree square edge.



**Contractor hint:** Be cautious when selecting granite counters to avoid light coloring with high metal content. The metal almost always oxidizes and turns portions of the counter rust colored. Also consider durability and how often sealing must occur to prevent staining.



Above: A sample of granite at a stone yard in Kansas City with rust starting to appear as the natural metals oxidize. This look is not appealing to most people as the rust spots get larger and larger as the slab is exposed to elements. Using darker granite outside or opting for concrete or limestone if a light look is preferred will prevent this issue.

## STEP 6: HAVE A FORMAL DESIGN AND PROPOSAL PREPARED

At this point, you should already understand your options and have a fair guess as to what the proposal will be. Most professional designs will charge a design fee for their time, so it's important that they understand as much as possible to eliminate wasted time. This process can take two weeks during the busy time of year.

At the end of this process, you'll be able to make educated decisions based on what works for you and your family. A well designed outdoor kitchen can provide decades of family enjoyment.





## CHAPTER 6: FIRE PITS AND OUTDOOR FIREPLACES



*Custom boulder fire pit with gas burner in a Japanese garden in Lenexa, Ks. constructed by High Prairie Landscape Group*

Expand the charm and functionality of your outdoor living area with a fire feature. The addition of a fire brings another design dimension to life. We've learned about form and function in our previous Outdoor living posts, now we'll explain the distinctive details of an outdoor living design that take your space to the next level.

### MOVEMENT = LIFE

Fire and water bring a design concept called "movement" into well-designed [outdoor living](#) spaces. The concept utilizes the ever-moving form of fire or water to draw people to a space. Envision the mesmerized look people get when they watch a fire or the flow of water over a waterfall. This movement provides a sense of "life" in an outdoor space.

Fire features bring the design concept of movement to life when they're being used AND they bring the function of additional heat for extended use.

## TYPE OF ELEMENT

Fire features are often a fire pit or fireplace. There is a third category for fire features that would best be described as custom accents. The custom accent features may be fire/water combos, fire pillars, fire tables, or visual features in an element like a pool back-drop. We'll discuss accents in an upcoming chapter.

For the purposes of this educational piece, we're focusing on fire pits and fire places. Once you've decided you'd like to add some warmth to your space, you need to consider what you're envisioning.



*The above example is a custom fire table with gas burner installed in Olathe, Ks. by High Prairie Landscape Group.*

## FIRE PIT



*Prescott Manmade fire pit being enjoyed by High Prairie Landscape Group employees at our office.*



Pro's: Shape often allows for people to sit around the element and converse while enjoying the warmth. Fire pits are commonly a smaller level of investment. They're also easier to fit into design concepts. Fire pits can be made of wall-stone, stone-veneered, cast-iron, custom concrete, or out of boulders. Gas features will cost more, but are typically more safe. Wood burning can cause embers. Fire pits range in price from \$800 to \$7500 depending upon size, material, and gas vs. wood.

## FIRE PLACES

Pro's: Fireplaces often act as a focal point in designs, so they're both functional and hold high aesthetic value. Fire places can act as a barrier or privacy screen as well. They provide a sense of separation or easy creation of outdoor rooms. Much like fire pits, fire places can also be gas or wood burning. Gas features do require a larger investment, but do offer the convenience of very little cleaning and increased safety. A gas feature can sometimes run between \$2000 and \$3000 more than wood burning. Fortunately, most outdoor fireplaces have a spark arrestor to prevent embers. Investment level depends upon size, material, heat source, and upgrades like wood boxes on the sides. Fire places can range in price between \$11,000 and \$30,000 with the average fireplace being about \$16,000.

As you and your designer discuss which type of feature works for you and your visions there are some important design considerations you must be aware of:

1. Consider wind directions when picking the placement of your fire feature. Direct wind can cause inconsistencies in your flame, push embers in undesirable directions, affect overall performance of your features. Always ensure this is considered.



2. Clearance from the flame: Ensure that your fire feature has clearance directly above and is far enough from any structures to meet local codes. In many Kansas City suburbs, wood burning fire features must be at least 25' from a house.
3. Convenience: Some clients prefer the traditional smells and sounds of a wood burning fire. Others prefer gas for the safety and convenience of use. Take a minute to picture yourself using the feature. Will you haul wood and clean the ashes? Don't invest in something if you genuinely won't get value from it.

## CHAPTER 7: PERGOLA AND DECK CONSTRUCTION



You and your family deserve a space that reflects the idea that function and style can co-mingle. There are times when an outdoor living area wouldn't make sense without considering the shade options of a pergola or the additional space available with a deck.

### WHEN DOES IT MAKE SENSE TO CHOOSE A DECK INSTEAD OF A PATIO?

That depends on your priorities. Decks make the most sense for elevated structures on second floors. They can also be a great option if you have substantial sloping and want to add usable [outdoor living space](#). Beyond that, decks provide a different look and texture than stone or pavers.

When a space is level or slightly sloped, it becomes much more difficult to decide if a deck or patio is a better option. This is where your priorities make the decision a little easier. Although high-grade composite decks can cost more than some paver patios, a simple cedar deck can be less of an investment. However, the maintenance is high compared to stone and the longevity is almost always less.

Cedar does last more than many other types of lumber, but doesn't tend to last longer than a stone or paver patio. At this point, you must decide what your budget priorities are and what style you're hoping for.

If a deck is right for you, consider the three main causes of deck failure and ensure your professional addresses these in their bid.

1. Adequate footers for your posts. The footers must extend below the frost line for your area and also be solid enough to support the weight of the deck and intended users. Settling and shifting footers are one of the major causes of deck failure. Don't skimp on small, or weak footers. You'll waste your money.
2. Solid beams with proper non-rust fasteners. Cheap contractors will sneak low quality beams or fasteners that rust to save money. This will cause problems in the future. Beams must be engineered for the size of deck specified and footers must be spaced utilizing local codes.
  - Speaking of codes: Be sure to ask your professional if a permit is needed and who is responsible.
3. Utilize flashing and don't bury posts under soil: Decay is expedited when flashing, a galvanized metal sheeting, is not installed and posts are buried without proper considerations. Yes, cedar is durable. Yes, it can still decay over time. Replacing posts is the number one phone call we get on aging decks. Protect yourself by asking that posts either be attached to the piers via a bracket that sits above ground, or that the posts be wrapped in galvanized flashing. (We utilize brackets so none of the posts are buried.) Flashing should also be considered anywhere the deck meets the house above your house flooring sill. It depends upon the type of siding and house construction, but it's better to ask for verification from your professional.

## MATERIALS

**Lumber:** Pine and Cedar- Cedar lasts way longer than pine and is better suited for outdoor use. The natural oils in cedar prevent decay for several years. The cedar ages to a grey color unless a sealer or stain is applied. Cedar can be stained once the curing process has occurred. Stains do not absorb into cedar well until all of the oils have been secreted.

**Composite:** There are varying grades of composite. Although much less maintenance, we do not suggest using a composite unless it is a higher-grade composite. The low-grade materials fade, peel, and warp. The high-grade composites age much more gracefully and provide the low maintenance benefits. Be forewarned, the good composites are not cheap.



Exotic Hardwoods: Ipe, Teak wood, and several other exotic hardwood have become a staple in high-end deck construction. Though the investment is high, they're long lasting and have a unique color range. Very little maintenance is needed with these, but the investment is substantial.

## SHADE

Shade is a huge factor in the functionality of a space. A space that has no reprieve from the heat will not be a usable space during the afternoon. If the outdoor living area is protected by the house or there is existing shade, a pergola or pavilion may not be needed. However, if the space is exposed, the addition of a shade structure could be a wise investment.

## PERGOLAS



Pergolas range from kits to custom and can be wood, vinyl, or aluminum. Pergolas are an open-top structure. With beams running across the support system. Spacing of these beams will determine how much shade or protection is available. If a client likes the look of a pergola, but wants to use the space if it's raining, there are water-proofing systems available.

Water proofing systems for pergolas tend to fall into two categories:

1. Vinyl underlayment canopies that can be retracted when the weather is nice.
2. Louvre style beams that open when nice and close when raining. These are often aluminum to make them light weight for the louvres.
  1. *High Prairie uses Solara louvre pergolas due to their convenience, maintenance free materials, and capability to remove to change the louvres. ([www.patiocover.us](http://www.patiocover.us))*

## PAVILIONS

Pavilions are a closed roof structure similar to a home with no walls. They have posts to hold the roof, but are open to the outdoor living space. They can be created to complement the style of existing architecture and can be free-standing or attached. The roof style and type of shingles are customizable. The posts can also be rustic or formal depending upon client tastes. Since pavilions have a solid roof, they're incredibly easy to add lighting, televisions, and other electronics that can be a little more difficult with open shade systems. These are the largest investment of the shade options available.

## CHAPTER 8: ADDING WATER WITH POOLS AND WATER FEATURES



*Above: A Formal waterfall constructed in Olathe, Ks. using a formal waterfall and LED light all controlled by remote with an auto-fill feature so it never goes dry.*

Are you searching for a way to enhance your outdoor living space? Do you want to add an element that is attractive and functional? If so, a swimming pool is an ideal solution.

The right pool can provide you, your family, and friends with hours of fun and entertainment. You also have a built-in way to escape the heat on summer days. If you want to make your Kansas City swimming pool a year-round source of entertainment, all you need to do is add a heater. Thanks to the versatility of this home addition, it is one that makes the investment more than worthwhile.

### IMPORTANT CONSIDERATIONS FOR INSTALLING A POOL

While you may be ready to dive in and begin searching for the perfect pool now, there are a few practical considerations to think about first.

- **Design:** Pools are offered in several design options with two basic shapes – geometric and freeform. You can also choose water features such as vanishing edges and sunning shelves.



- **Size:** The size of the pool you install is going to be dependent on the amount of space you have. Don't use your entire yard area for the pool, since you are likely going to want a patio area at some point.
- **Location:** It is best to install your pool close to your patio or another outdoor living area. This makes it comfortable for people to swim and socialize.
- **Zone regulations:** Prior to digging, make sure you aren't breaking any zoning regulations for your neighborhood or city. In many situations, the contractor you hire will take care of this. Permits are required for pools.
- **The View:** Do you live in a particularly scenic area? Or, is your home in a neighborhood? Consider views and placement carefully to determine if you also need to install a fence for privacy.

## THE BEST TYPE OF SWIMMING POOL

There is no such thing as a "right" answer for everyone when it comes to selecting the right type of pool. You have to consider what you want and then find the pool option that best meets these expectations.

When choosing a pool, there are three basic options to consider:

### FIBERGLASS

Fiberglass pools are extremely popular due to their low maintenance, energy efficiency, and durability. They are also compatible with saltwater systems and have a low cost of ownership.

However, the major con of fiberglass pools is that they are typically not customizable in regard to size or shape. Fortunately, several shapes and sizes are available.

### CONCRETE

Concrete pools are another popular option, mainly due to how customizable they are and the large number of features offered. This style of pool is also extremely nice to look at and can withstand constant use and abuse.

Some of the downsides of a concrete pool include the high use of chemicals and constant maintenance they require. Concrete is also not an option if you want a saltwater system.

## VINYL LINER

A pool type that most people are familiar with is the vinyl liner style pool. These are the most affordable options and use fewer chemicals than concrete pools. However, the lower price also means the pool is not as durable and has low energy efficiency.

Selecting a pool is a big decision. However, if you want to complement your existing outdoor area with a source of fun and entertainment, then there is no question it is a smart addition. Taking the time to find the right one will ensure you get the results and price you desire.

Since there is not "one-size-fits-all" approach to pools, knowing your options will help guide you towards an investment that works for you.

## WATER FEATURES

Water Features can be created to appear either natural or formal. Naturalized water features are often babbling streams, waterfalls, ponds, or bubbling rocks. Formal water features are often made with statuary, wall stone, or pottery.



*The waterfall in this picture comes out of the wall and into a pond-less basin. It was constructed in Kansas City, Mo. by High Prairie Landscape Group.*



## CHAPTER 9: LANDSCAPE ACCENTS AND ENHANCEMENTS



*Seasonal Color installed and maintained by High Prairie Landscape Group in Leawood, Ks.*

Landscape enhancements refer to any addition to the space that boosts the aesthetics, function and overall enjoyment of the outdoor area. These details are the little “extra” that can take your space to another level.

There are several ways to improve your landscape and mixing and matching the options highlighted here can help you create an incredible, unique space you love using and spending time in.



## SEASONAL COLOR

Seasonal Color refers to annual flowers being switched out for the seasons. It offers an excellent way to customize your space according to the current season. When you invest in this type of enhancement, you can visually change the way your space feels just by changing the textures and colors present. Seasonal color is also linked to branding in some communities. In many ways, your seasonal color is your personal brand for your outside space. With the right elements, you can create a visually appealing space full of high-impact colors.



*Above: A community in Leawood, Ks. uses High Prairie Landscape Group to create seasonal color displays that reflect their brand of a luxury lifestyle community.*

## LIGHTING

Do you want to extend the usefulness of your outdoor space into the evening hours? If so, landscape lighting is an ideal solution. The right lighting can accent certain architectural elements, outdoor living areas, steps, and pathways. You can even create artistic statements with the right landscape lighting, or you can choose fixtures and options that blend with the surroundings.

## HEATING SYSTEMS

While fire elements are extremely popular and provide heat, there are other options such as electric and gas heaters. You can choose from free-standing patio heaters you can move from place to place, or overhead heaters that are installed in pavilions or pergolas. Fire pits and fireplaces still offer more aesthetic appeal, but if you are looking for something different, it is nice to know there are other options available.

## COOLING SYSTEMS

The majority of exterior cooling systems fall into one of the following categories:

- **Misting systems:** These can be installed in an outdoor living space to help cool the area by producing a fine mist. It will require a water source.
- **Shade-providing systems:** There are several ways to increase the outdoor area's shade including retractable canopies, sun sails, pavilions, and pergolas.

## ARCHITECTURAL INTEREST

Do you want to add architectural interest to your outdoor area? If so, there are several ways to do this. Any of the following elements can add to the architectural interest of a landscape:

- Natural elements: Driftwood and boulders
- Classic elements: Mill-stones, finials, and urns
- Eclectic elements: Colorful pots, gnomes, and spheres
- Structural elements: Benches, arbors, and trellises

## MOSQUITO REPELLENT

Keeping pests at bay is a top priority during the warmer months of the year. There are several ways to help prevent mosquitos, including a misting system or a treatment that is applied directly to the lawn. With more and more cases of Zika virus popping up around the country, these enhancements have become extremely popular.

Are you looking for a way to enhance and boost the aesthetics of your outdoor space? If so, consider the enhancements here. They can help you create a space that is appealing and relaxing that represents your unique style.

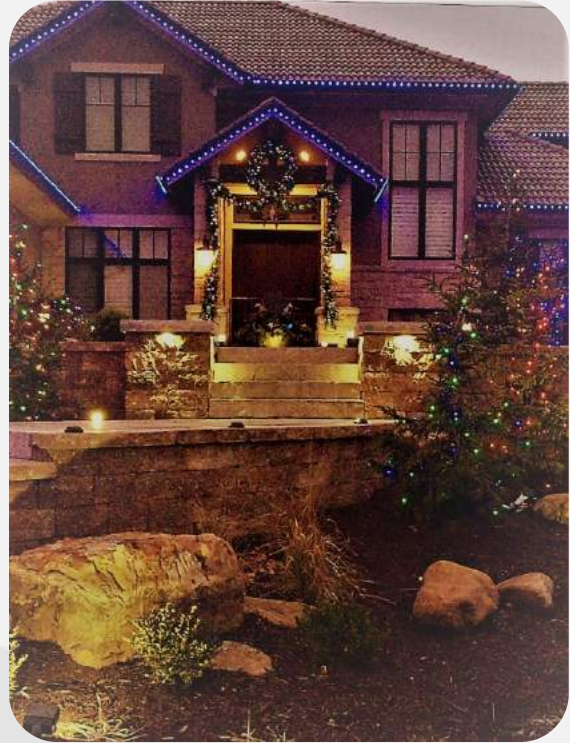


## CHAPTER 10: OUTDOOR LIGHTING

*Year-round landscape lighting combined with holiday lighting at a residence in Leawood, Ks. installed by High Prairie Landscape Group.*

Installing professional-grade landscape lighting is one of the best ways to ensure your outdoor space can be used in the evening. However, the right lighting can also enhance security and extend the enjoyment you experience by accenting certain architectural elements and focal points.

Not all landscape lighting is created equal. While a professional can help you choose the best options for your property and needs, there are a few factors to understand before you begin looking. When you are informed, you are equipped to make the best decisions for your needs and property.



### LANDSCAPE LIGHTING GRADE

Have you ever wondered why professionals don't simply go to the local home improvement store to purchase lighting kits? This isn't a coincidence. There are several reasons for this:

- The construction is subpar, and the lights easily degrade, break and fade
- The lights aren't as effective regarding the light emitted
- Replacement parts aren't easily found because this type of lighting is considered disposable and more affordable to replace than repair

### INNOVATIONS IN LIGHTING PROVIDE MORE OPTIONS THAN EVER BEFORE

Recent innovations in the professional lighting industry have changed the industry in several ways. For example, LEDs are now virtually the only lighting type used by professionals. This is due to the lower power usage, longevity of the bulbs and low heat emitting capability.

Another innovation in the industry is the availability of RGBs, which stands for Red, Green, Blue. This light can change to almost any color thanks to the three color diodes present in each bulb. This is still a type of LED light, with the ability to change colors. With these, you can alter the ambiance of your outdoor space with just the push of a button.

There are also new and improved lighting designs. Today's options are much more appealing than ever before, including visually appealing lights which are designed based on your specific needs and configurations.

## TRANSFORMER CONSIDERATIONS

If you are installing landscape lighting, you have to also invest in a quality transformer. There are two main considerations to make when selecting a transformer:

1. Wattage: You need to figure out how many lights can be added to the transformer safely? Most professional services will advise you to purchase a transformer that gives you room to add more lights down the road. This eliminates the need for you to purchase a second transformer in the future.
2. Capabilities: Some transformers run on a timer, while others run on a light-sensing photocell. There are also some that do both. With innovations, some transformers can zone lighting to turn on or off or even fade at specific times – for example, restaurants that dim the lights after 8:00 PM.

If you are considering adding landscape lighting to your outdoor space, you need to make sure you consider the factors here.

## CHAPTER 11: TRENDS FROM ABROAD



*Above: Landscape designed and installed by High Prairie Landscape Group using the client's favorite garden, Villandry Castle and gardens in France as inspiration.*

Trends can be fleeting in nature, or timeless. At High Prairie Landscape Group, we look to parts of Europe and Australia for inspiration because of the timeless nature of their landscape style. As you look into your outdoor area, do you feel like something is missing? Do you want to pull in elements from other parts of the world? If so, you may need some inspiration. Here you will find some of the latest trends offered from locations near and far.

### EUROPEAN INSPIRATION

The styles between France, Italy, and England vary greatly. We're big fans of the [Chelsea Flower Show](#), and draw much of our inspiration there. Here are some of the latest trends to come out of Europe:

- Dark fencing and structures: In Europe navy blue is extremely popular for fences. It offers a dramatic backdrop for your plant, trees and shrubs.

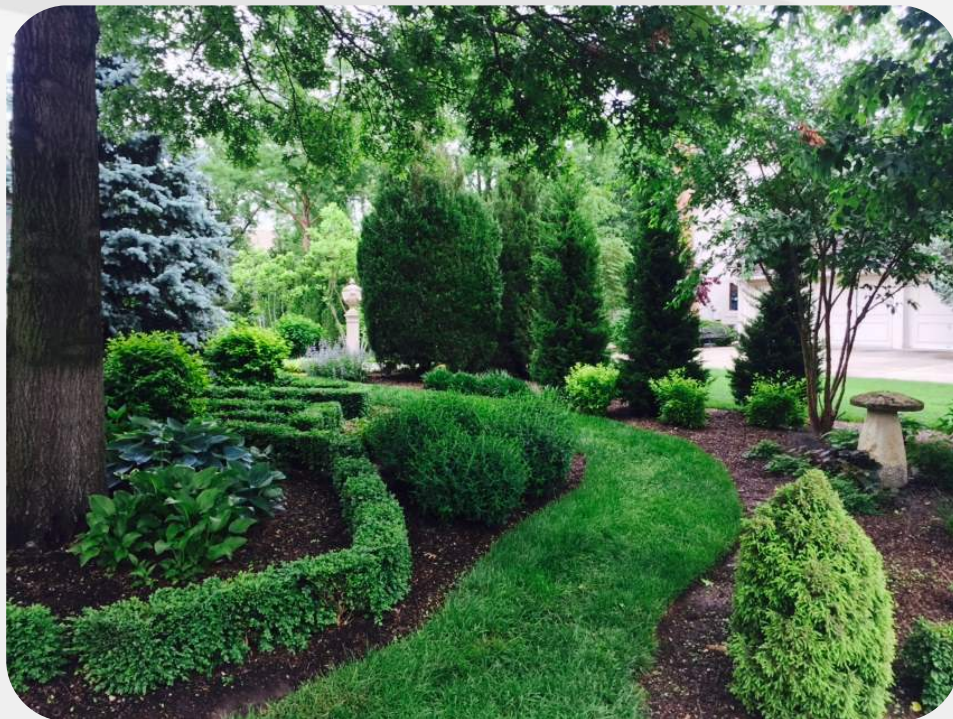


- White Gardens: Those in “high-society” absolutely love the mono-tone look of all-white blooming plants. This also provides you with a stunning moon garden where the flowers can be seen at night.
- Terraced spaces: This represents a true homage to the agricultural history of Europe. Gardens across Europe are terraced, and you can do the same in your space. This adds different levels with the various uses for each one.
- Natural Stone: Many hardscape elements are constructed with natural stone. Consider using granite pavers, limestone, bluestone, or flagstone for your walls and patios.

Other European trends include trough planters full of annuals or edibles; moss or patina on landscape elements to give the impression of age; and tree grates and drains that feature intricate designs and scroll work.

## INSPIRATION FROM DOWN UNDER

Some of the most noteworthy trends in Australia include the use of straight, clean lines, hedges formed in architectural shapes; succulents in displays; the use of polished aluminum and Cor-Ten steel for walls, planters, and accents; square slabs and pavers; and plant palettes that are dominated by various shades of green.



*Above: A grass path in Leawood, Ks. designed and installed by High Prairie Landscape Group.*

## ARE YOU READY TO BE INSPIRED?

If you want to create a [landscape design](#) that represents your unique style while integrating some of the trends from abroad, then this information provides you a great starting point. Take some time to visualize what you want to create in your landscape. If using a designer, save ideas on [houzz.com](#), [pinterest](#), or print pictures.

Garden trends evolve over time and being aware of what's happening in the world of landscaping allows for innovation. Style comes from inspiration. A high-style landscape comes from studying elements just like the things listed above. Don't be afraid to draw inspiration from any place you enjoy.

## CHAPTER 12: WHEN TO HIRE A PRO VS. DIY

*Above: Our talented team-member Edgar leveling wall stones.*

When you own a home, knowing your way around tools and how to build basic structures can be beneficial. If you are one of the few people who are competent when it comes to DIY projects, it may be tempting to take a DIY approach to your outdoor living area. After all, with this approach, you could save quite a bit of money. However, you have to ask yourself – would you really save in the long run?

Before diving into a DIY project, ask yourself these questions. The answers will let you know whether or not you should move forward with the project you have planned.

### DO YOU HAVE THE TOOLS NECESSARY TO DO THE WORK PROPERLY?

Most projects require specialized tools such as screeds, laser levels, compactors and masonry saws. If you don't have these on hand, the cost to acquire them can be high. Additionally, a hand tamper won't provide the same results that a professional grade compactor can. Professionals will have access to high quality, commercial grade equipment and tools to ensure the job is done right.

Rentals are sometimes an option, but also add to the investment for something you may or may not be able to operate well.





## DO YOU HAVE EXPERIENCE OPERATING THE EQUIPMENT AND MAKING STEADY CUTS?

Specialized equipment can take some time to get used to and to learn how to use properly. Unfortunately, even those who have used certain tools in the past may not have the steady hand necessary to make smooth, even cuts. In most cases, you can tell DIY work simply because the edges and cuts are not as high quality or smooth as what the professionals can do. This is also a safety concern. Using a rock saw is totally different than a wood saw. People can get hurt. Also, it's important to protect your lungs when cutting stone. The dust is dangerous to your lungs. Professionals know how to handle these obstacles.

## DO YOU HAVE THE TIME TO COMPLETE THE PROJECT?

Some outdoor living projects can take weeks or even months to complete. For some homeowners, this type of time dedication is just too much. In many cases, many projects are left half-done for quite a while simply due to the large amount of time the project takes. A professional is able to dedicate their time and resources to a project, regardless of how involved or complex it may be.

## CAN YOU JUSTIFY THE COST SAVINGS IF THE PROJECT CRUMBLED, SETTLED OR FAILED IN THE FUTURE?

Even a seemingly small, insignificant mistake can lead to walls falling over or patios settling. All the time and effort you put into the DIY project is then worth nothing. Please be sure you understand the construction basics if taking on the project.

With a professional, these mistakes aren't an issue. Many professionals will offer a warranty on their work for extra peace of mind.

Hardscape materials are a sizable investment, regardless of who installs it. However, when you make sure to use the services of a professional, it helps ensure timely completion of the project and that it is done properly the first time.

## CHAPTER 13: HAVE YOU FOUND THE RIGHT PROFESSIONAL?



*Above: Our dedicated team working through a summer thunder storm to ensure a client's property was ready for a party.*

Hiring a professional to work on your home or property can be a challenging process. With more than a few options in the area, it may be difficult to know who to trust. After all, there are nefarious companies and service providers simply trying to scam unsuspecting consumers out of their money.

The good news is, there are a few guidelines you can use to ensure you hire a trustworthy and reliable company.

## REPUTATION AND PROFESSIONALISM

One of the first things to consider when hiring any service provider, and especially an [outdoor living contractor](#), is how reliable they are. One of the best ways to determine this is by asking around to friends, family members and neighbors who have had similar services completed in the past. Also, check out their reviews on the internet. Customer reviews are an excellent way to determine company reliability. When you find a company that comes highly recommended, it is likely one you can trust.

Another important factor to consider is how professional the workers are. Do they dress in uniforms and appear to care about their appearance? Do they speak to you and other customers with respect? Are they able to answer questions you have knowledgeably? If so, then it is a good sign you have found a quality and reputable service provider.

## COMPANY MISSION AND EMPLOYEES

Does the service have a mission statement or pamphlet explaining what to expect with their services? If so, it is a good sign they are dedicated to customer satisfaction. It is also a good idea to ask about employee turnover rate. If new employees are constantly having to be found and hired, it could be a bad sign. Make sure to keep this in mind when searching for a service provider.

## PORTFOLIO AND CUSTOMER REFERENCES

Being able to see the work a person or company has done in the past goes a long way in ensuring a quality service provider is hired. Most companies today have [an online portfolio](#) where potential customers can see some of the work they have done in the past. They may also be able to provide a new customer with the names and contact information for past customers they have worked for. Any good contractor has several clients willing to act as references.

## REAL, MEASURABLE QUALIFICATIONS

Any company is able to claim to have received certain training or awards. The company that can prove this is one that stands out from the rest. Do they have degrees and certifications in the area of work they do? What about insurance? No contractor should be allowed on your property unless they have the proper insurance coverage.



When you take the time to find the right service provider, your efforts will pay off. You will be able to have confidence that they will help you achieve the results you desire for any outdoor project you have in mind. Landscaping and outdoor living projects are an investment that can provide substantial returns. It's important you choose a professional landscaping company who consistently delivers and provides the quality and professionalism you need to justify your investment.

## CHAPTER 14: PROFESSIONALISM IN LANDSCAPERS: WHY DOES IT MATTER?



*Above: High Prairie Landscape Group team members getting extra training.*

Anybody can call themselves a landscaper, but not all landscapers perform equally. Since there is no governing body that limits entry into the world of professional landscaping, it's important to understand the levels of professionalism in the landscaping industry and how to utilize each level.

First, we'll start with an example. People spend tens of thousands of dollars on purchasing a car. When it comes to protecting the investment, people use mechanics to do things like change the oil and monitor for larger problems. Much like landscaping, mechanics are available in varying skill sets and costs. You might use a lower skill set person to do something like change a filter, but you might trust a highly skilled professional to work on the transmission. Each mechanic serves a purpose. Both low skill and high skill can be useful if the difference is understood.

In landscaping, there can be benefits to each level as well. The lower skill sets save you money and the higher skill sets provide a more diverse range of high quality services. Each can be useful.

## ENTRY LEVEL/AMATEUR:

Does side work for cheap prices.

Who this is: This level of professional works somewhere else but knows how to pull weeds and operate equipment. If they don't work elsewhere, they're an owner operator who may or may not carry insurance and proper certifications.

When Entry Level Could Work for You:

If you're needing a low skill level task done such as mulching or weeding, you could save money by going with this level of professional. Be forewarned, they're often the least reliable and can disappear at any time, with or without a deposit from you. They do tend to be the most affordable, so you can save money if you're willing to monitor closely.

How to Spot an Entry Level Landscaper:

- No uniform, logo, formal proposal or anything else to show they've invested in being a professional.
- No logo on vehicle.
- Doesn't know any of the technical or scientific reasons for performing a certain landscape task. Little education related to actual landscaping or outdoor living design/construction.

## MID-LEVEL LANDSCAPE COMPANY

May or may not claim to do it all. Often is very good at some of their services, but may not deliver consistently across all services. Investment levels can be mid to high.

Who this is: This level of landscaper has stepped full-time into landscaping and taken the leap into managing employees. They're often still figuring out how to run a business, but are personally good at some of the technical work. Mid-level owners often struggle to train and grow employees that have the same level of skill or quality. They often make promises they don't keep because they spread themselves too thin and can't keep up.



## WHEN MID-LEVEL COULD WORK FOR YOU

You can benefit from using a mid-level professional for simple landscaping where you're not pressed by a tight timeline or in need of reliability. On non-urgent projects, you can save some investment choosing a mid-level pro. Keep in mind their quality is not always consistent, so you may need to stay more involved.

How to Spot a Mid-level Landscaper:

- May or may not have uniforms and logos.
- Does not have a professional website or online presence. How can you know they do what they say with few reviews or presence?
- May be able to answer simple technical questions or operate equipment, but can't provide clarity on what to expect, budgeting, or timelines. (It's because they have no idea due to lack of managerial help or business acumen.)

## HIGH-LEVEL LANDSCAPE COMPANY

Utilizes a specialized team of educated, well trained professionals to offer landscape services to a specific target market.

Who this is: High-level landscape companies offer clear communication, consistent quality, and a team of trained professionals. This company has learned to operate as a true business and offers the highest level of reliability and quality. At this level, there is no need to worry about them disappearing, doing poor work, or providing crews you can't communicate with. The investment is likely higher because this type of business has invested in top-tier staff, professional training, and degrees/certifications.

## WHEN HIGH-LEVEL COULD WORK FOR YOU

Contact a high-level of professionalism company when you're considering serious investments, want the project to last long-term, and are looking for reliability and communication. Be forewarned the initial investment is often higher, but the return on investment often is higher since the projects tend to last.

How to Spot a High-level Landscaper:

- Clean, professional uniforms, trucks, and logos. They've invested in their business.

- Highly educated, can answer technical questions. Perform high-skill tasks, and know why certain tasks need to occur.
- Communicates in an articulate manner and provides a clear understanding of what to expect. Will provide value through educating you.
- Has a professional website and positive online presence.
- Has long-term employees who are educated and trained

One word of advice, don't ask your high-level landscape professional to teach, provide advice, or manage an entry-level landscaper just because you're trying to save money. Why? The high-level landscaper has likely invested thousands of hours and dollars into gaining the skills necessary to be a true professional. Educations aren't free. Asking an educated professional to teach your low-rate laborer how to prune, water, or otherwise landscape your property is unethical. If you'd like an educated professional who knows how and why to perform your landscape tasks, hire a professional.

Imagine if people did this in other industries: Picture taking your spouse to a fancy dinner to celebrate your anniversary. You've done your research and chosen THE best restaurant in town. The chef is world-renowned. Now imagine arriving at the restaurant and asking the chef to teach your spouse how to make the meal because you don't want to pay for dinner there. Would someone ever do that? Not likely! If your low-rate laborer doesn't know how to perform the tasks necessary to create or maintain your landscape, why would you hire them?

## CHAPTER 15: BE CAUTIOUS OF FREE

Free Designs! Free Estimates! Free (fill in the blank)! There is no other word in the English language that garners more marketing attention than the word “free”. By definition, free means that you, as the consumer, don't have to pay for quoted services. There are times when free really is an exceptional deal, and other times where settling for free is the most expensive mistake you can make.

### WHEN IS FREE A GOOD DEAL?

Free is a genuine deal when there aren't costly strings attached, or the free thing isn't too good to be true.

- Landscape Estimates- If you're looking for a simple estimate that doesn't need design services or you're getting a quote on something already designed, it's okay to get a free estimate. Most of the “leg work” has already been done or isn't needed.
- Free seeding of bare patches if you sign up for a lawn chemical program. (Or some alternative such as a free flea treatment). These items are easily and realistically included in services without a bunch of hidden fees. Keep in mind that nothing is truly free though.

### WHEN IS FREE A PRICEY MISTAKE?

Free can be your most expensive mistake when the thing being offered either sounds too good to be true, or is something that requires substantial time or material investments to produce a high quality end result.

- Landscape Designs- simple mathematics dictate that the time and talent needed to produce excellent designs cost money. Companies don't invest in talented designers and expect them to spend the time needed to design properly without charging for those services. Why?
  - Landscape designs require extensive time measuring, drafting, and creating concepts. None of that can be absorbed by a company unless they're charging for that time elsewhere. If you're considering a sizable investment in your property, why would you skimp on the one document/plan that will dictate the overall look and budget of the project. Do people build houses without blueprints?



- Free designs equal rushed designs. Since the designer's time isn't being directly compensated, they have to rush through as quickly as possible. This never translates into a top-tier design with well thought out concepts and creativity.
- Truly talented designers have invested tens of thousands of dollars in education and training. Their services aren't free because they've worked to perfect their craft. Free designers are often in-experienced, poorly trained, or their company is in dire need of work.
- A landscape design is the single most important document in the outdoor living process. It dictates how your investment is utilized. No matter how excellent a company's install crews are, they can't out-perform a mediocre design.

In summary, very few things in the business world are truly free. However, some can be justified if they're realistic. Just avoid anything that either requires substantial skill, or is too good to be true. It likely is.

## CHAPTER 16: A COMPLETE BUDGETING GUIDE FOR OUTDOOR LIVING

How do you budget when you're not sure what things cost? Why does a budget matter?

At High Prairie Landscape Group, we work diligently to bring valuable information to our clients because we feel that an educated client can make sound decisions. With any project, it's important to establish goals and parameters before a design or bid is created. Why? As you'll see below, projects have wide ranges of investment levels and if a designer has no idea of your goals and budget, they can't customize a design to fit YOUR needs. It wastes your valuable time and the designer's time making revisions because their plans don't meet your financial needs.

The best way to ensure a client gets exactly what they need is to set budget goals. Nobody wins when a designer arrives with a \$50,000 proposal and the client had a \$10,000 budget. The following information is provided based on industry averages for high-quality work. The low-ball businesses that go out of business every few years are not considered in these pricing averages. (For good reason!)

Please note this information is intended to be an educational tool to help you understand how to align your dreams with realistic goals. This in no way constitutes a formal bid since every site is unique.

This useful guide will allow you to plan phases if needed as well as understand that contractors and clients work better together when we can help you maximize your budget.

## DRIVEWAYS

What you won't see in the pricing guide for driveways:

- Paver drives on an aggregate/gravel base: These driveways do NOT last with vehicular traffic and are not considered a wise investment if not installed on concrete.
- Driveways with natural stone such as flagstone: The natural stone is not engineered, so isn't as likely to handle traffic. It also doesn't tolerate salt on tires like a high-grade paver would.

Things that will increase your investment beyond the average price per foot are: demolition of existing elements, building up a sloped area, walls to level area, and extra excavation.

Type	Average Price	Tip to Save	Tip to Customize
<b>Gravel Driveway</b>	\$0.70-2.00 per square foot	Keep the design simple and straight	Add a border or apron with a paver or brick
<b>Concrete Driveway</b>	\$8.00-10.00 per square foot	Don't add coloring to the concrete, keep it grey and simple	Consider decorative concrete
<b>Decorative Concrete Driveway</b>	\$12-19 per square foot	Opt for one color and a simple pattern/texture	Add multiple colors, and antique top coats. Consider borders or other embellishments. (Add \$2-7 per SF)
<b>Paver Driveway (On Concrete)</b>	\$17-25 per square foot	Choose straight lines in the design, and use one simple paver	Add a different paver for the border, add curves, or designer details
<b>Premium Paver Driveway (On Concrete)</b>	\$23-35 per square foot	Use a single stone for the body of the drive and another for the border. Don't mix too many pavers, sizes, or textures	Add character with differing pavers, patterns, or a mix of color in complementary tones

## PATIOS AND WALKWAYS



Things that will increase your investment beyond the average price per foot are: demolition of existing elements, building up a sloped area, walls to level area, drainage work, poor access to use machinery.

Type	Average Price	Tip to Save	Tip to Customize
<b>Concrete Patio</b>	\$6-16 per square foot	Keep the design with straight edges and don't color	Add curves or contrasting borders/bands
<b>Colored/Stamped Concrete Patio</b>	\$15-19 per square foot	Avoid complex shapes, and use one color	Add additional colors, top coats, and contrasting details
<b>Paver Patio on Aggregate</b>	\$15-25 per square foot	Save money by using a more affordable paver for the body and use a higher-end paver for the borders	Add designer details, unique patterns, and multi-size stone options
<b>Premium Paver Patio</b>	\$25-32 per square foot	Use a simple design in a simple, classic pattern	Add designer details, unique patterns, and multi-size stone options. Consider using larger scale slabs.
<b>Natural Flagstone Patio</b>	\$28-32 per square foot	Allow for larger joints for mortar instead of cutting every edge for labor savings. (No more than 2" joints)	Use square cut stone or have random flagstone cut on every edge for tiny joints.



## RETAINING WALLS



If demolition of existing elements or rough grading are needed, additional investments should be planned depending upon the scope. This would be in addition to the average construction price listed above. This level of investment is unique to each property.

Walls over 3' or terraced walls require reverse engineering with a geo-textile product that reinforces the walls to prevent future failing. This additional investment can be \$2-5 more per square foot.

Type	Average Price	Tip to Save	Tip to Customize
<b>Split-face Block Retaining Wall</b>	\$15-30 per square foot	Opt for simple designs and keep walls below 3' tall	Add an interesting cap or some curves
<b>Premium Block Retaining Wall</b>	\$28-36 per square foot	Opt for simple designs and keep walls below 3' tall	Use a contrasting block as a designer ribbon in the wall or use an interesting cap.
<b>Retaining Wall with Veneer</b>	\$25-35 per square foot	Use stucco instead of veneer, or use simple designs	Choose a natural stone veneer, an interesting cap, or use a colored mortar
<b>Stone Retaining Wall</b>	\$25-45 per square foot	Use larger ledge stone to save on labor	Use an exotic stone or frost-resistant stone.
<b>Poured Concrete Retaining Wall</b>	\$30-40 per square foot	Use a simple, straight design below 3' tall	Add coloring, textures, or caps
<b>Stone Veneer on existing surface</b>	\$10-20 per square foot	Use a manmade product	Use a natural stone

## FIRE FEATURES



Some cities require permits for fire features and also have design standards about proximity to lot lines and structures. Ensure you know your codes before investing. Permits can be expensive.

Ensure the fire feature is installed where prevailing winds won't blow out the fire or blow smoke towards your usable space.

Type	Average Price	Tip to Save	Tip to Customize
<b>Portable Outdoor Firepit</b>	\$200-1500	Choose a small, wood burning model	Choose an antique sugar kettle, or a pre-fabricated option
<b>Block Fire Pit Kit Built on site</b>	\$1500-4000	Choose wood burning, simple caps, and simple block	Add natural gas, accent fire-glass, or a cooking grate. Also consider a unique cap.
<b>Custom Fire Pit</b>	\$5000-7000+	Stick to common sizes and shapes and if using gas, locate close to the lines.	Customize with seating, walls, fire/water features, or unique materials.
<b>Pre-Fabricated Fireplace</b>	\$5000-12,000	Select a basic model with minimal sections to install and choose wood burning	Choose more ornate materials and details. If gas is desired, the additional investment is between \$2000 and \$2500 more.




<b>Pre-fabricated structure with Custom Veneer</b>	\$8000-20,000	Choose a simple veneer and add embellishments with a different stone.	Add fire boxes, a mantle, a stone hearth, or custom details that match your architecture. If gas is desired, the additional investment is between \$2000 and \$2500 more.
<b>Custom Fireplace</b>	\$20,000+	Choose standard shapes and sizes	Choose high-end materials, add water features, planters, wood boxes, and custom details. If gas is desired, the additional investment is between \$2000 and \$2500 more.

## OUTDOOR KITCHENS



Type	Average Price	Tip to Save	Tip to Customize
<b>Prefab Outdoor Kitchen</b>	\$2000-8000	Choose simple appliances in a linear shaped bar. Choose a stucco model to save.	Upgrade to stone veneer, more/better appliances, and lighting
<b>Simple Outdoor Kitchen (Veneered)</b>	\$10,000-20,000	Buy a smaller grill and include only our must-have accessories.	Upgrade counters, finishes, change to an L-shape, or add a tiered bar
<b>Large Outdoor Kitchen</b>	\$25,000 to 65,000	Choose simple finishing materials in an easy to build shape. (Square is easier than curved). Keep accessories simple	Upgrade counters, finishes, change to an L-shape, or add a tiered bar. Consider a beer or rootbeer tap.
<b>Luxury Outdoor Kitchen</b>	\$55,000+	Choose simple finishing materials in an easy to build shape. (Square is easier than curved). Keep accessories simple	Add a TV, sound system, multi-bar, heaters, and any luxury you can add to your indoor kitchen.



<b>Pre-fab Pizza Oven</b>	\$2500-13,000	Choose a counter-top version to save.	Choose a stone veneered, independent piece to add to your kitchen
<b>Mugnaini Italian Pizza Oven with Stone Veneer</b>	\$15,000-25,000	Choose a smaller model and simple veneer	Upgrade to a larger model, add designer details in the veneer, add an upgraded mantle.
<b>High Prairie Custom- The Sous Chef</b> 	\$6,500-9,500	Choose the base price Granite with a 90 degree edge and a simple veneer.	Upgrade to a limestone counter choosing between a 90 degree edge and hand chiseled edges. Choose a high end veneer, upgrade your appliances, or add more lights.
<b>High Prairie Custom- The Chef (9')</b> 	\$13,500-17,000	Choose the base price Granite with a 90 degree edge and a simple veneer.	Upgrade to a limestone counter choosing between a 90 degree edge and hand chiseled edges. Choose a high end veneer, upgrade your appliances, or add more lights.
<b>High Prairie Custom- The Entertainer (8.5' X 8.5')</b> 	\$19,000-25,000	Choose the base price Granite with a 90 degree edge and a simple veneer.	Upgrade to a limestone counter choosing between a 90 degree edge and hand chiseled edges. Choose a high end veneer, upgrade your appliances, or add more lights.

## POOLS



Pools almost always require a permit and must meet zoning rules. Check with your city before investing.

Type	Average Price	Tip to Save	Tip to Customize
<b>Vinyl Pool</b>	\$3000-18,000	Choose a smaller shape in a rectangle or square.	Upgrade vinyl, add custom coping, or a nice pool deck
<b>Fiberglass Pool</b> (Fiberglass performs well in our Kansas City clay)	\$15,000-45,000	Smaller is always a savings. Forgo the heaters and water features to save more.	Add custom coping, a permeable paver pool deck for no visible drains, and water features.
<b>Gunite Pool</b>	\$35,000-75,000	Choose one custom color, and limit the extra features like spas and waterfalls.	Add a sun-ledge, infinity edge, boulders, glass tiles, and custom coping. Include a permeable paver pool deck for no visible drains.
<b>Resort Style Gunite/Concrete Pool</b>	\$50,000-175,000	Consider simple colors for the pool interior. Keep the patterns simple.	Upgrades are unlimited: Sun decks, sound systems, light shows, water features, grottos, automated pool covers, swim-up bar, glass tiles, and custom coping.

## LIGHTING AND ACCESSORIES



Ensure your electrical system will support your lighting system.

Type	Average Price	Tip to Save	Tip to Customize
<b>Per fixture (A transformer already onsite)</b>	\$125-200	Choose Vista Lighting which is pro-grade, but more affordable.	Choose Fx Luminaire with options like color-changing, and operable from your phone.
<b>Simple Lighting System</b>	\$4000-6000	Choose Vista Lighting which is pro-grade, but more affordable.	Choose Fx Luminaire with option like color-changing, and operable from your phone.
<b>Intricate Lighting System (More fixtures, and more effects)</b>	\$7000-30,000	Choose Vista Lighting which is pro-grade, but more affordable.	Choose Fx Luminaire with option like color-changing, and operable from your phone.
<b>Holiday Lighting- Professional Grade LED</b>	\$3000-30,000	Start with the roofline and build to your collection over time	Wrap trees- this is the most expensive investment in both materials and labor in holiday lighting, but they're amazing!

<b>Tiered Concrete Fountain</b>	\$1500-4500	Choose a two-tier option close to electrical sources	Select a larger fountain, and add an auto-fill so that you never have to fill.
<b>Wall Fountain</b>	\$750-4500	Choose a smaller design	Select a larger fountain, and add an auto-fill so that you never have to fill.
<b>Large Fountain</b>	\$4500-8000	Size is the price dictator. Always ensure a proper base on large fountains.	Add lighting, timers, and auto-fillers.
<b>Custom Mail Box</b>	\$1200-4000	Keep it simple	Add custom details, natural stone veneer, and lights.



## IRRIGATION AND DRAINAGE



Type	Average Price	Tip to Save	Tip to Customize
<b>Surface Swale</b>	\$0.50-0.75 per square foot		
<b>Dry Stream Bed</b>	\$10-16 per square foot	Use less boulders, pick a simple gravel, and keep the shape simple	Add boulders to edges and throughout to make the stream appear natural. Always use 3 sizes of rock to prevent it looking like a gravel pad, make natural curves and islands.
<b>Engineered French Drain (EZ-Flo)</b>	\$30-45 per linear foot	Use a single-wide drain and seed the disturbed areas.	Add a double-wide drain and sod disturbed areas.
<b>Trench drains in hardscapes</b>	\$70-80 per linear foot	Choose a simple grate	Add a custom metal grate with decorative details, OR permeable pavement.
<b>Irrigation (Sprays and Rotors)</b>	\$1000-2200 per zone		
<b>Irrigation (Drip Zone)</b>	\$500-800 per zone		
<b>Full System (Average Site)</b>	\$4500-8000	Keep the system and clock simple	Upgrade to a smart clock that can be operated from your phone, add a rain sensor, and consider moisture meters.

## LAWNS



Type	Average Price	Tip to Save	Tip to Customize
<b>Seeded Lawn</b>	\$0.50-0.65 per square foot		
<b>Sodded Lawn</b>	\$3.50-4.00 per square foot	Sod priority areas, and seed low priority areas	

## PLANTING



The following pricing includes the selection of plan, soil amending, fertilizing, edging, and mulching.

Removal of existing landscape elements, stripping of sod, downspout burying, and irrigation adjustments are extra investment that must be considered when planning your project.

Type	Average Price	Tip to Save	Tip to Customize
<b>Front Landscape Small</b>	\$4500-7500	Choose smaller plants, space further apart, and consider doing any removals yourself	Upgrade the accent plants to a larger size, add seasonal color or pots
<b>Front Landscape Average</b>	\$8000-19,000	Choose smaller plants, spaced further apart, and consider doing any removals yourself	Upgrade the accent plants to a larger size, add seasonal color or pots. Consider styles such as English Garden, Italian, or French.
<b>Front Landscape Large</b>	\$15,000-45,000	Focus on the priority areas for upgrading size.	Bring in specimen features, upgrade size for immediate impact, introduce English or French pottery, custom art, and seasonal color displays
<b>Back Landscape Small</b>	\$4500-8000	Choose smaller plants, space further apart, and consider doing any removals yourself	Upgrade the accent plants to a larger size, add seasonal color or pots

<b>Back Landscape Average</b>	\$10,000-25,000	Choose smaller plants, spaced further apart, and consider doing any removals yourself	Upgrade the accent plants to a larger size, add seasonal color or pots. Consider styles such as English Garden, Italian, or French.
<b>Back Landscape Large</b>	\$26,000-45,000	Focus on the priority areas for upgrading size.	Bring in specimen features, upgrade size for immediate impact, introduce English or French pottery, custom art, and seasonal color displays
<b>2.5-3" Tree</b>	\$550-900	Choose common cultivars. Quick growers are also more affordable	Order a specimen quality plants and upgrade to an in-ground watering tube system.
<b>6' Evergreen Tree</b> (Includes compost, fertilizer, mulch, and tree stake system.)	\$300-400	Select a readily available cultivar	
<b>9' Evergreen Tree</b> (Includes compost, fertilizer, mulch, and tree stake system.)	\$600-900	Select a readily available cultivar	



## EDGING

Type	Average Price	Tip to Save	Tip to Customize
<b>Natural Cut Edge</b>	\$3 per linear foot		
<b>Steel Edge</b>	\$8-10 per linear foot		
<b>Stone Edge (Set in concrete)</b>	\$16-20 per linear foot		
<b>Paver Edge with Mow Strip (Set in concrete)</b>	\$18-22 per linear foot		

## FENCING

Some cities require permits for fences and don't allow certain heights on certain lots. Check with your local codes before investing.

Alternately, fences are often required around pools.

Type	Average Price	Tip to Save	Tip to Customize
<b>Chain Link Fence</b>	\$6-8 per linear foot	Choose a smaller gauge of wire	
<b>Wood Fence</b>	\$8-12 per linear foot	Use a simple design and affordable treated lumber	Upgrade the design, add a different topper, and consider cedar or staining
<b>Vinyl Fence</b>	\$18-22 per linear foot	Use an affordable white vinyl, but keep away from "discount quality" vinyl as it will crack in our weather extremes.	Choose a custom color, wood-look, and pro-grade vinyl with designer details.
<b>Wrought Iron Fence</b>	\$20-30 per linear foot	The shorter the fence, the more affordable. Choose a simple design	Add custom details, locks, etc.
<b>Ipe or Tempered Glass Panels</b>	\$30-50 per linear foot		Customize design in any matter of styles.

## DECKS, PERGOLA'S AND ARBORS



Please note that second and third story decks and steps are typically more of an investment per square foot. This is dependent upon size, access, and scale.

Also note, that every municipality is unique in relation to permits and zoning. Ensure your project is legal before investing.

Type	Average Price	Tip to Save	Tip to Customize
<b>Prefab Vinyl Arbor</b>	\$600-1000	Choose a basic design	Use pro-grade vinyl
<b>Prefab Iron Arbor</b>	\$600-1000	Choose a basic design	Upgrade to a custom design
<b>Basic Custom Wood Arbor</b>	\$2000-5000	Choose a basic design	Upgrade to teak, ipe, and add special columns
<b>Custom Arbor</b>	\$5000-15,000	Choose a common wood and simple design	Add any detail you can imagine: benches, swings, planters, tropical wood
<b>Pressure Treated Deck</b>	\$16-19 per square foot	Use a square shape, simple rail, and seal the wood. Maintenance costs are high.	Upgrade wood and railings
<b>Cedar or Redwood Deck</b>	\$18-25 per square foot	Use a square shape, simple rail, and seal the wood.	Upgrade wood and railings
<b>Composite Deck</b>	\$23-44 per square foot	Use a simple design. No sealing needed. Avoid low end composite since it doesn't age gracefully or retain coloring	Add designer details like benches, tree boxes, planters, and cut-outs

<b>Ipe Deck</b>	\$25-32 per square foot	Use only where prominent. Use simple designs.	Add designer details like benches, tree boxes, planters, and cut-outs
<b>Open-Roof Wood Pergola</b>	\$4000-10,000 for a 10X10'	Space the beams further apart and keep it as small as needed	Add columns, rain-proofing canvases, lighting, fans, and decorative beams
<b>Aluminum Pergola</b>	\$6000-9000 for 10X10'	Use basic posts, attach to house to limit posts, and choose a simple design	Add columns, rain-proofing canvases, lighting, fans, and decorative beams
<b>Solid Roof Pavilion</b>	\$18,000-30,000 for a 12X12'	Choose simple materials and build only as big as you need. Choose a level spot if possible	Upgrade to stone column bases, lighting, fans, heaters, outdoor TV's, and fire features.

## ABOUT THE AUTHOR



Robyn Schmitz is a green industry educator, landscape consultant, and owner of a landscaping company in Kansas City called High Prairie Landscape Group. Robyn has created a platform for educating consumers and landscaping professionals as a way to improve the industry in her most recent book. Her belief is that a consumer investing thousands of dollars in landscaping and outdoor living should be provided with all the information they need to make educated decisions.

Robyn provides a clear understanding of the design, construction, and budgeting processes within the pages of "Outdoor Living- A Guide to Design, Construction, and Budgeting". With this understanding, consumers can prevent costly mistakes, be encouraged to find the professional that fits their needs, and ultimately make the choices that work for them.

Robyn's experiences include university speaking engagements, feature presentations at green industry educational events, and the design and construction of several award-winning landscapes through her own company. When not working Robyn and her husband Bret focus their time raising their adopted dogs, growing gourmet garlic, and spending time with their large extended families.



The background image shows a two-story brick building with white-trimmed windows, including a prominent arched window. An American flag flies on a tall pole in front of the building. In the foreground, there is a multi-tiered stone retaining wall with small plants and red flowers growing along its base. The sky is clear and blue.

## **Kansas City Area Residents**

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