

Design Guide

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Black Rabbit is a design-build-shop studio with a focus on creating authentic living environments. Our projects range from residential to commercial to mixed-use developments. We work with clients and consultants from concept through construction using collaborative processes and 3D BIM technology.

Formerly Un.Box Studio founded in 2010, Black Rabbit has re-emerged as a design-build studio. The studio occupies a converted warehouse space on the east side of Austin, known as the East Side Collective, where we collaborate with other like-minded disciplines.

blackrabbit.co

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"Minimalism captures the essence and discards the rest; purism seeks to refine it" - Black Rabbit

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01 AUTHENTIC LIVING

Authentic Living is a culmination of design and planning principles based on innate human lifestyle characteristics that promote socially healthy environments.

Authentic (*adj*): of undisputed origin; genuine.

Principle 1: Pedestrian Priority

Plan and design centered around people, not vehicles. This forces social connectivity and activity within the larger framework of the community. While vehicle infrastructure should be incorporated into planning, it should prioritized the least. In other words, walkability should be prioritized first, bicycles secondarily, and vehicles and other modes of transportation last.

Principle 2: Proper Size & Density

Plan and design to meet overall human comfort levels in terms of scale and personal space. While personal thresholds can vary, overall comfort levels generally lie somewhere between the high rise micro-unit and the sprawling McMansion manor. This sweet spot is often referred to as 'the missing middle' in communities that are based on poor planning or segregated (or exclusionary) zoning, such as Austin, TX.

Principle 3: Consolidated & Shared Efficiency

Buildings and infrastructure should be consolidated as much as possible within overall human comfort levels. Infrastructure should be planned around shared open spaces and amenity spaces. This principle should be incorporated in planning as well as the building design. For example, creating a common courtyard for a building complex or integration of a dining table into your kitchen counter space rather than creating a separate dining room.

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Principle 4: Diversity

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Provide a balance of mixed uses to be enjoyed by a mix of different people to be enjoyed at different times of the day and night. Having a variety of uses (i.e. residences, offices, retail spaces, etc) allow communities to be more holistic thus reducing the need to drive long distances and promoting local social activity at all times. Having a cafe, for example, that can serve coffee in the morning, lunch in the afternoon, and alcoholic beverages at night can create steady activity throughout the day and night for different demographics.

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Principle 5: Incorporations of Nature

Use plants, trees, water, and natural lighting as much as possible. Bringing nature into your buildings and creating transition spaces that blur the lines between indoor and outdoor spaces; or blur the lines between natural and artificial spaces can increase physical and mental health. Large expansive glass, for example, allows daylight into the space which can cause a feeling of connection with nature while retaining all of the protective benefits of being indoors.

Principle 6: Natural Materials

Design buildings and infrastructure using less synthesized materials as much as possible. Natural materials tend to promote more green, timeless, and longer lasting buildings and infrastructure which in turn promote infrastructure longevity, healthier environments, less maintenance, and greater life cycle costs.

History & Considerations

Early cultures used raw earthen materials to create socially engaging housing and structures from as early as 11,600 BC. Around 1800 AD European settlers brought the art of timber framing to America which was later replaced by light frame timber construction. Mass production of the automobile allowed vehicles to dominate our environment and lead to planned suburbs in the 1940's. The assembly line processes entered the food industry in 1948 with McDonalds. Similar processes entered the construction industry, which currently rely on an assembly of on and off-site trades to complete individualized tasks, and our current building system was born.

The Consequences of current system:

- Use-based zoning which leads to lack of diversity and increased isolation (which leads to a decrease in socialization and exercise)
- Suburban sprawl which lead to the above consequences plus a heavy reliance on the automobile and increased infrastructure (which lead sto high costs & pollution)
- Unskilled laborers and cheaper, more synthesized materials (which leads to poor design and construction and increased health issues)

Authentic living principles are counter-reactive to these consequences. When executed properly these concepts can lead to less infrastructure, create a more diverse and socially connected lifestyle (which leads to decreased costs and better physical and mental health). Similar principles can be found in movements for sustainable design, slow food, and new urbanism.

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02 SERVICES

Black Rabbit Design offers full design services for new construction, addition, and remodel projects. We work with clients and consultants from concept through construction using methodical and collaborative processes.

Residential

We work with individual clients to design and coordinate the development of their dream home in accordance to their individualized priorities, needs, and budgets.Speculative: We work with builders and developers to design and coordinate the development of individual homes and residential communities with respect to cost vs value and other tradeoffs.

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Commercial

We work with a variety of commercial building typologies ranging from restaurants to boutique hotels to office environments.

Mixed-Use

We believe in a future where the lines are blurred between uses of space. Emerging concepts such as live-work, small-scale residential and commercial communities, and shared public spaces are at the heart of our authentic living principles and values.

Interiors

We often provide interior services for our residential, commercial, and mixed-use projects which help create a more holistic process and product. However, we also realize that there are more specialized interior design firms that we can recommend to work alongside as a better fit for certain projects.

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03 TEAM

Buildings are complex and demand a talented team and a tremendous amount of collaboration to achieve success. This section will discuss the team members and roles necessary to properly carry out the process

Client

The team starts with you, the visionary. Your design team is here to help you articulate your vision. Your build team is here to bring that vision to reality.

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Design Team

- <u>Building Designer</u>: Think of us as your captain. We are here to create the design and develop and coordinate the proper documentation as necessary for pricing, permitting, and construction.
- <u>Consultants</u>: Certain consultants will be required for your project while others may be optional. It is ultimately up to the Client to hire the design consultants, but it will be us, the Building Designer, that will be working closely and coordinating with these individual teams.
 - » Surveyor: All projects start with a site survey provided by a licensed surveyor. A survey is a graphical description of your property. Chances are you have a survey for your property given to you along with your deed during purchase. However, if your survey is 5+ years old, you will need an updated survey.
 - » Structural Engineer: This engineer develops structural drawings in accordance with the architectural drawings. They will size and coordinate all structural members including floors, slabs, walls, columns, beams and roofs.
 - » Geotechnical Engineer: Your structural engineer will require a geotechnical report to understand your soil conditions to properly design your foundation. Your structural engineer will have consultants that they can recommend.
 - » MEP Engineer: Mechanical, Electrical, and Plumbing Engineers. For less complex residential projects, these engineers may not be necessary. However, for more complex residential projects and commercial projects, these engineers will be essential. Mechanical Engineers handle heating, ventilation and air conditioning (HVAC) design. Electrical Engineers design the wiring systems for lights and electric appliances. Plumbing Engineers design all water (storm, domestic, waste, irrigation, other special) and gas systems.

- » Civil Engineer: Traditionally, a Civil Engineer is known to design roads, bridges and dams. You may be required to consult with a Civil Engineer to help with parking lots, garages and major topography alterations including excavations and site drainage.
- » Landscape Architect: These designers help tie your building to your site. Such design elements include hardscapes (plazas, patios, pergolas, fountains, etc) and landscapes (lawns, ponds, gardens, etc). Exterior lighting is an often overlooked design service that a Landscape Architect can provide that will add significant value to your project.
- » Interior Designer: While we do offer basic interior design services, we will work in tandem with other interior designers. Interior Designers can help with furniture, finish, and equipment selections. Some may offer even more specialty services such as lighting design calculations for projects with specific lighting requirements.
- » Specialty/Other: Common examples include a Permit Expeditor, Zoning Consultant, Accessibility Consultant, Green Consultant, Pool Consultant, and Acoustic Engineer.

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Build Team

- <u>General Contractor</u>: The General Contractor (or 'Builder') will hire and coordinate with subcontractors for the construction process. Once the design team has completed the design documentation (known as construction documents), you will contract directly with the General Contractor for the construction of your building. Unlike traditional processes, we like to work with the General Contractor from the beginning. We recommend entering a 'Preconstruction Services Agreement' with on of our recommended General Contractors. A Preconstruction Services Agreement will allow the design team to properly collaborate with the build team to holistically develop the design andbetter conform to a set budget.
- <u>Subcontractors</u>: Your individual subcontractors, or 'trades', are hired by your General Contractor to build your project. A good General Contractor is one that has good subcontractors. Good subcontractors

often cost more but tend to be more reliable and produce higher quality products. Poor subcontractors can save on costs but tend to be less reliable and require more management and often lack quality. Below are just some examples of different trades that are common to most projects.

- » Foundation
- » Framer
- » HVAC consultant/ Plumber/ Electrician
- » Doors and Windows Installer
- » Siding/ Finish Installer (Stucco, Wood, Masonry, Drywall, etc)
- » Roofer
- » Cabinet Maker
- » Countertop Installer
- » Landscaper
- » Other (Security/ Audio/ Visual, Fireplace, etc)

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04 PHASES

Buildings are complex and demand a talented team and a tremendous amount of collaboration to achieve success. This section will discuss the team members and roles necessary to properly carry out the process

Program

There is a lot more to consider when starting a design than a list of rooms and a budget. Site, social context, spatial relationships, light and shadow, material, and color are all examples of concepts that help dictate a building design. It is important that we articulate and document your goals and desires.

Before we decide to move forward, lets find out a few things about each other and your project. We ask that you spell out your ideas and goals to us in which we will follow up with a free initial consultation to further articulate your 'program'.

We also recommend that you interview with other firms. Likability and trust are equally as important as design aesthetic or style. We are about to form a long lasting relationship and need to know that we are mutually compatible.

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Phase 1: Predesign

This is the process of setting up the proper documentation for existing conditions and uncovering the pre-existing constraints. We gather all program, existing site information, and regulatory information and enter it into our system to develop existing drawings and a Predesign report. For larger or more complex projects, third party consultants may be necessary to produce a more detailed feasibility study for our report.

Your program and initial budget are further developed at this stage. Precedent images and ideas are gathered and shared using a Pinterest board.

Phase 2: Schematic Design

In this phase we develop a design based on your program and the Predesign report. We may choose to develop several design options depending on the nature and complexity of the project and your needs. We will meet to present and discuss our first draft design. We will take our notes from this meeting and internally refine our design into a single unified scheme and deliver updated results. The number of rounds of design iterations can vary drastically with client needs and other external factors (for example, regulatory and other unforeseen conditions, or evolving scope changes).

Our schematic designs are developed and shared using 3D building information modeling software, known as BIM and delivered via BIMx file and PDF plans. We will elaborate upon the BIM process in the 'Cost and Considerations' section.

Phase 3: Construction Document

We use the schematic design to develop construction document drawings (or CD's) for permitting, pricing, and construction. Construction document drawings are a detailed set of instructions on how to construct the building. These unique documents will be specific to your project and are the most time consuming part of our process. Other design consultants develop their drawings which are added to the construction document set. This requires constant communication and coordination.

As the designs are further articulated, it is important that the client is well informed. We work with you to review updated designs and help make important design decisions, such as material and fixture selections.

Phase 4: Construction Administration

The team may decide to put the construction documents out to bid to various general contractors. This may draw out the process further, but can help ensure the best price per quality and team relationship. Once a general contractor is selected and construction begins, it is our duty and legal obligation to ensure that construction activity conforms with the construction documents. We coordinate with the build team to answer questions and make revisions as necessary. Unforeseen conditions are inevitable and quick design decisions will be required. There may be unresolved details and item selections, so we develop and provide the proper design information as needed. The design team will help you and the general contractor work with proper vendors to make final selections and orders. We review all new information before final implementation.

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Post Occupancy

It is important that we keep an open relationship after occupancy. A post occupancy walk-through interview allows for proper feedback. We may use this information to stay ahead of future problems, enhance a solution, refine our process, or learn to make better design decisions in the future.

We take pride in our work and often want the world to know this. Photo shoots allow us to properly market your project. This may require a little extra legwork for items such as furniture staging. We hope that you will be equally as excited to show off your project! We rely on referrals and hope that you will want to spread the word about our process and final product.

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05 COSTS & CONSIDERATIONS

There are many items to consider before and during the design and build process. It is important that you are well prepared for your journey, and this section will help you on your way.

Budget

Project budgets are broken down into soft costs and hard costs as described below. Check with your financial lending institution to verify draw frequencies because they can vary per bank and loan type.

- <u>Soft Costs</u>: Soft costs are the design costs which are paid to the design team during the design phases. Keep in mind that every project is unique and thus, soft costs are relative. While overall soft costs will depend primarily on project size, scope, and complexity, expect to allot 20-30% of your total budget to design team costs & fees. We work hourly to account for the dynamic nature of projects. We include an estimated fee cap so you can budget accordingly. Here is a good resource for understanding how to calculate typical fees. Although we recommend that other consultants use the same pricing structure to allow flexibility throughout the project, they can, and typically will, give fixed fee proposals if their scope is clearly defined.
- <u>Hard Costs</u>: Hard costs are the construction costs (including contractor fees) and are paid in 'draws' to the contractor.. Hard costs are also relative to your project size, scope, and complexity. Expect to allot 10-20% of the construction costs for your General Contractor's fee. Some General Contractors may also have monthly project management fees in addition.

Considerations

 <u>Cost vs Design</u>: We are all guilty of having champagne taste on a beer budget. If you already feel like you are entering a project on a tight budget, we recommend that you revisit your program (owner requirements such as number of baths). For example, do you really need that 4th bedroom for a family of 3? Leaving room in your budget will allow for better design decisions, higher quality materials, and items that can ultimately enhance your environment. Expect to add a contingency of 10-20% to your initial budget for upgrades and unforeseen conditions which could happen at anytime, even during construction. Lean on your design team to find creative alternative solutions that could ultimately allow you to have your cake and eat it too!

- <u>Phasing</u>: Although it is often cheaper to do everything altogether, you
 may want to consider breaking your project into phases. For example,
 you may eventually want to add a future pool, guest house or office.
 These items should be brought to the designer's attention early on to
 ensure future feasibility.
- <u>Cost Comparing</u>: Cost-per-square-foot analysis is relative to project size. For example, a 1-bedroom house at 500 sf could cost \$500/ sf while the same house at 1500 sf could cost \$250/sf. In the US, buildings are expensive primarily due to the high cost of labor. Much of the construction cost lies in the cost of hiring laborers to be on site, therefore, adding a few extra square feet does not always extend costs proportionately.

Communication

It is important that you maintain open communication with the entire team. This is especially important early in the design phases in order to avoid mistakes or regrets that become even more costly to resolve in later phases.

Keep in mind that your team members will have several projects occurring simultaneously. Communication via email gives the team record of correspondence and allows us all to electronically organize and keep track of action items. Phone calls and live meetings will be essential to maintain open and collaborative communication for more immediate needs and presentations.

Team

Rely on us to help coordinate your team early in the design phases. We have strong relationships with past collaborators and know how to utilize their strengths and weaknesses. We believe that assembling the team early results in a more efficient and holistic process.

BIM Process

Not very long ago, buildings were designed and drawn by hand. This was replaced by Computer Aided Drafting (CAD) which allows for a more precise design process. Recently we have entered the age of Building Information Modeling (BIM) which enables us to design and develop documents in 3D. BIM ensures a more streamlined and precise process for the design and build teams. BIM also enables better communication between consultants.

We share all of our design and documentation with the client and other team members through a free app viewer called BIMx. BIMx enables you to virtually tour the building in 3D alongside the 2D documents (such as floor plans, elevations, etc). You can view live updates which keeps you well informed throughout the process. You are able to show the project to your family, friends, bankers or investors from your desktop or mobile device.

You can view one of our sample projects from our website: blackrabbit.co/design > Cost & Considerations > + BIM Process

06 CASE STUDY PROJECTS

We are a general practitioner studio and have diversified experience working with various project typologies, budgets and teams. We have developed strong relationships because we feel that a project is only as good as its team members. This section reviews a few success stories. "We shape our buildings; thereafter they shape us." $\ -$ Winston Churchill



Lakeview Residence

We were inspired to create our first authentic living space to reflect our client's desire to live and work in his painting studio. The design emulates his painting style and personal lifestyle by using natural materials, minimalist values, and bridging social context within a live-work environment. The overall form takes on an ethos of monumental simplicity which inherently captures panoramic lake views from the steep mountainside terrain. As part of authentic living, this studio is entirely devoid of added paints or stains. The exterior walls are made of exposed rammed earth construction set atop a giant plinth of exposed concrete. The interior features natural plywood finishes and exposed structural beams. Our glazing faces the north and south to capture views, utilize soft light for the painting, and create passive solar systems.

Location Austin, TX
Building Designer Black Rabbit Design
Interior Designer Black Rabbit Design Structural Engineer Maritech Engineering
General Contractor Black Rabbit Build











Native Hostel, Bar & Kitchen

A boutique hostel, cafe, and event space designed for the epicurean traveller and locals alike. It is nestled in an existing 2-story late 1800's stone building and a mid-century brick warehouse in the middle of the upcoming transit-oriented development adjacent to downtown. Black Rabbit utilized a rich palette and textured materials, a theme aptly referred to throughout the design process as 'dark and stormy'. The result is a truly unique communal experience that offers affordable rates with impeccable style at the nexus of development in Austin.

Location

Austin, TX
Building Designer
Black Rabbit Design
Interior Designer
Joel Mozersky Interior Design
Creative Branding
Helms Workshop
General Contractor
Icon Design Build
Photographer
Chase Daniel Photography
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Lake Austin Cabin

This beautiful lakefront oasis, known affectionately as The Narrows, lies just a few miles outside of downtown Austin. This 480 sf cabin, nicknamed 'Cousin Cabana', needed to host family gatherings, weekend retreats, and occasional events in a small space while maintaining a sense of openness. We chose natural materials and methods that would be maintenance-free for years including an ipe wood rainscreen siding, custom floor-to-ceiling face-glazed steel windows and board-formed concrete planters.

Location

Austin, TX
Building Designer Black Rabbit Design
Interior Designer Herb Schoening Interior Design
Landscape Architect Helms Workshop
General Contractor True Build
Photographer Leonid Furmansky Architectural Photography















East Side Collective

Our office. Our home. Our community. We teamed up with other architects, engineers, contractors, interior designers, and like-minded businesses and individuals to renovate an old Pepsi bottling warehouse facility into a social space for productivity and recreation. Accomplished on an extremely small budget and a lot of sweat equity, the East Side Collective was originally intended as a shared office space, but have since utilized the courtyard and open warehouse space to help host art gallery and music events, and classes and seminars.

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Location

Austin, TX
Building Designer
Black Rabbit Design
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Interior Designer
Black Rabbit Design
General Contractor
Black Rabbit Build
Photographer
Leonid Furmansky Architectural Photography





east side collective













West Mary Residences

These four garden courtyard houses embody the feel of south Austin's eclectic and casual lifestyle. Taking cues from the local neighborhood, the 2-story primary units facing the street are styled in a traditional vernacular form while the rear 1-story accessory dwelling units (ADU's) take on a low-slung mid-century modern form. Solid (insulated) stack-bonded architectural grade CMU (concrete masonry unit) walls define the ADU's (accessory dwelling unit) exterior walls which carry through to the interior. Heavy mass gabion walls create privacy and natural garden planter walls.

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Location

Austin, TX

Building Designer Black Rabbit Design Interior Designer Kelly Laplante General Contractor Sett Studio











Oasis Residence

This large concrete residence overlooking Lake Travis exemplifies luxury living. Natural materials and landscape blend the building into the surrounding environment and take advantage of the views. Large expansive glass and a wrap-around pool allow views from every aspect of the house.

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Location

Austin, TX	
Building Designer	
Black Rabbit Design	
Interior Designer	
Rachel Mast Design	
General Contractor	
CVI	





07 MATERIALS

Meet some of our favorite materials that inspire us.

"Design is nothing but a humble understanding of materials, a natural instinct for solutions and respect for nature" - B.V. Doshi

























