## **Ryan's Backyard Deck Project**

Client: Ryan

Manager: Charlotte Josephine

Project start date: 9/6/2025 Scrolling increment: 0

|                               |                        |           |      | September |     |     |    |    |    |    |    |    |    | Oct | October |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
|-------------------------------|------------------------|-----------|------|-----------|-----|-----|----|----|----|----|----|----|----|-----|---------|----|------|------|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|
|                               |                        |           |      | 6         | 7   | 8 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17  | 18      | 19 | 20 2 | 1 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Milestone description         | Assigned to            | Start     | Days | S         | S 1 | И Т | w  | Т  | F  | S  | S  | М  | Т  | w   | Т       | F  | s s  | М    | Т  | w  | Т  | F  | s  | S  | М  | Т  | w | Т | F | S | S | М | Т |
| Project development           |                        |           |      |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Project Initiation & Planning | Project Manager        | 9/8/2025  | 2    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Purchase Matterials           | Supplier, Carpenter    | 9/6/2025  | 1    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Site Preparation & Foundation | Mason, Labor           | 9/7/2025  | 2    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Deck Framing                  | Carpenter, Labor       | 9/9/2025  | 3    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Deck Installation             | Carpenter, Labor       | 9/12/2025 | 6    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Railing Installation          | Carpenter              | 9/18/2025 | 4    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Apply Sealant / Finishing     | Carpenter              | 9/22/2025 | 5    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Install lighting & Fixtures   | Electrician, Carpenter | 9/27/2025 | 4    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |
| Final Inspection & Sign Off   | PM, Sponser            | 10/2/2025 | 2    |           |     |     |    |    |    |    |    |    |    |     |         |    |      |      |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |

#### 1. How did you estimate costs for the budget?

The budget was estimated using a bottom-up approach. Each major activity including materials, labor, and finishes was broken down into individual resource components. For materials, quotes were obtained from local suppliers such as Home Depot for lumber, fasteners, and concrete, with a 10% buffer included to account for potential waste. Labor costs were calculated based on the expected project duration of 20–30 days and estimated carpenter and mason daily rates. Finishing costs, including sealant and stain, were estimated using standard retail pricing. While contingencies were kept minimal, the plan acknowledges risks such as weather delays and material shortages, which could impact final expenses.

2. What process will you follow if costs change during the project?

If costs change during project execution, first, the project manager will track invoices, receipts, and labor hours on a weekly basis to identify variances. Any deviation from the baseline will then be evaluated; if the variance exceeds 10%, a formal change request will be prepared. Cost adjustments over \$500 require approval from the project sponsor, Emilie Doris. All approved changes will be recorded in a cost register, noting the reason, date, and approval signature. Finally, updates will be communicated transparently during weekly progress meetings with stakeholders.

3. How and when will you measure if your project budget is on-track throughout the project?

To ensure the project budget remains on track, monitoring and control will be achieved through Earned Value Management (EVM) techniques. Three key metrics will be tracked: Planned Value (PV), representing scheduled spending; Actual Cost (AC), reflecting money spent to date; and Earned Value (EV), measuring the value of work completed. Variance analysis, comparing cost, and schedule performance will be conducted biweekly, with reports distributed to the sponsor and client. Also, milestone reviews will serve as checkpoints. After materials are purchased, framing is complete, railing is installed, and finishing is applied, costs will be measured against the baseline. At project closeout, actual expenditures will be reconciled with the baseline, and any variances will be documented for accountability and future learning.

#### **Risk Report**

Project Name: Ryan's Backyard Deck Project Project Manager: Charlotte Josephine Date: February 15, 2025

#### Introduction

The purpose of this Risk Report is to provide a comprehensive overview of the risks associated with the Backyard Deck Project. The report identifies potential threats and opportunities, evaluates their likelihood and impact, and outlines strategies to manage them. This ensures that stakeholders, including the project sponsor (Emilie Doris) and client (Ryan Talbot), understand the project's overall exposure to risk and the plan to mitigate it.

#### Risk Identification

The project involves the construction of a 12x16-foot wooden deck, which includes foundation preparation, framing, decking installation, railing, and finishing. Risks identified fall into four main categories:

- External Risks: Weather delays, permit approval, neighbor complaints, HOA restrictions.
- Resource Risks: Labor shortages, contractor availability, equipment/tool failure, material shortages.
- Financial Risks: Price fluctuations, budget overruns, scope creep.
- Operational/Safety Risks: Safety incidents on site, design changes mid-project.

### **Risk Analysis**

Each risk has been assessed in terms of its likelihood (Low, Medium, High) and impact (Low, Medium, High). The analysis shows the following priority risks:

- 1. Permit Approval Delays (M/H): Could halt the project start and push the schedule past March 2025.
- 2. Labor Shortages (M/H): Could prevent timely completion, especially if skilled trades are unavailable.
- 3. Weather Delays (H/M): Rain or freezing conditions could stall foundation and staining work.
- 4. Budget Overruns (M/H): Risks from scope creep or rising material costs could exceed the \$10,000 baseline budget.

Other risks such as neighbor complaints, HOA restrictions, and equipment failure are lower in likelihood or impact but will be monitored.

### **Risk Response Strategy**

- Avoidance: Secure permits early to avoid delays; finalize designs before construction begins to prevent scope creep.
- Mitigation: Order materials in advance, keep spare fasteners, maintain backup equipment rental agreements, and confirm labor availability.
- Transfer: Where possible, transfer risks (e.g., supplier delivery guarantees, contractor performance clauses).
- Acceptance: Minor risks such as neighbor complaints will be accepted, with mitigation through communication.

#### **Risk Monitoring and Ownership**

Each risk is assigned a risk owner responsible for monitoring and executing the response strategy:

- Project Manager: Weather delays, budget tracking, material shortages, contractor availability, and stakeholder communication.
- Project Sponsor: HOA compliance, permit issues.
- Carpenter/Site Lead: On-site safety and tool/equipment functionality.
- Client (Ryan Talbot): Scope changes and design approvals.

Risks will be reviewed at weekly project meetings, with updates logged in the risk register. Any new risks will be added promptly, and existing risks will be reassessed for severity.

### **Opportunities**

In addition to threats, the project presents several opportunities:

- Early Procurement: Buying materials early could lock in lower prices and ensure availability.
- Stakeholder Engagement: Proactively informing neighbors and the HOA can build goodwill and reduce conflict.
- Process Improvements: Using project management tools to track tasks and budgets enhances oversight and minimizes risk of overruns.

#### Conclusion

The Backyard Deck Project carries a moderate level of risk typical of small-scale construction. With careful monitoring and proactive strategies, the most significant risks, permit delays, labor shortages, weather impacts, and budget overruns can be effectively managed. By following the risk register and implementing the outlined responses, the project remains feasible, on budget, and on track for timely completion.

#### **Project Post-Mortem**

| Project Title: Ryan's Backyard Deck Project Date Prepared: 09/06/2025 |  |
|---|--|
|---|--|

#### **Project Overview:**

Ryan's Backyard Deck Project aimed to build a durable and visually appealing 12x16-foot backyard deck. The primary goals were to enhance outdoor living space, increase property value, and provide a comfortable area for family leisure.

The project was considered successful if the deck was completed by March 30, 2025, within the \$10,000 budget, and met safety and quality standards.

The project was completed slightly behind schedule (by one week) and over budget by approximately \$1,200 due to supplier delays and material quality issues. Despite these setbacks, the finished deck met quality and functional requirements, and stakeholders were satisfied.

### **Key Accomplishments:**

- Quality Outcome: The deck was structurally sound, met safety standards, and provided the intended family space.
- **Stakeholder Satisfaction:** Client and sponsor were satisfied with the final product.
- **Risk Mitigation:** Weather delays were managed effectively by rescheduling work during fair conditions.
- **Team Coordination:** Project team (carpenter, mason, general labor) communicated well and adapted to changes quickly.

### **Key Problem Areas:**

- **Supplier Issues:** A lumber delivery was delayed by five days, causing a ripple effect in the schedule.
- Material Quality: Some wood planks were warped, requiring reordering and contributing to the budget overrun.
- **Budget Overrun:** Final costs reached \$11,200 due to replacement materials and increased labor hours.
- **Permit Processing:** Local permitting took longer than expected, delaying the foundation work by three days.

## **Post Project Tasks/Future Considerations**

- Apply sealant annually to preserve the deck's durability.
- Install additional lighting (future upgrade).
- Conduct stakeholder review to evaluate long-term satisfaction after six months.
- Update vendor list to avoid repeat supplier issues.

### **Lessons Learned:**

| Category             | Lesson Learned   | Achieve d? | Comments  |
|----------------------|--|------------|---|
| Project<br>Planning  | Product concept was appropriate to Business Objectives   | Yes        | Deck aligned with goals to improve outdoor living space and property value.           |
|                      | Project Plan and Schedule were well-documented, with appropriate structure and detail          | Partially  | Initial schedule was clear but underestimated permitting and supplier lead times.     |
|                      | Project Schedule encompassed all aspects of the project  | No         | Did not fully account for buffer time for permit approval or supplier delays          |
|                      | Tasks were defined adequately  | Yes        | Major tasks(foundation, framing, railing, finishing) were broken down properly        |
|                      | Stakeholders (e.g., Sponsor, Customer) had appropriate input into the project planning process | Yes        | Sponsor and client input helped finalize design scope                                 |
|                      | Requirements were gathered to sufficient detail  | Yes        | Functional requirements (size, material, safety compliance) were captured             |
|                      | Requirements were documented clearly   | Yes        | Requirements documented in the charter and design notes                               |
|                      | Specifications were clear and well-documented  | Partially  | Material specs documented, but vendor quality standards were not enforced well enough |
|                      | Test Plan was adequate, understandable, and well-documented                                    | N/A        | No formal test plan. Visual and safety inspection served as acceptance criteria.      |
|                      | External dependencies were identified, agreements signed                                       | Partially  | Permits identified, but supplier reliability underestimated                           |
|                      | Project budget was well defined  | Partially  | Baseline budget was defined, but contingency was too low                              |
|                      | End of Phase Criteria were clear for all project phases  | Yes        | Milestones (framing, railing, finishing) were clearly set                             |
|                      | Project Plan had buy-in from the stakeholders  | Yes        | Stakeholders approved project scope and schedule                                      |
|                      | Stakeholders had easy access to Project Plan and Schedule                                      | Yes        | Plan shared via progress updates and weekly meetings                                  |
| Project<br>Execution | Project stuck to its original goals  | Yes        | Despite delays, scope remained consistent (deck only, no scope creep)                 |

| Category         | Lesson Learned   | Achieve d? | Comments  |
|------------------|--|------------|---|
|                  | Changes in direction that did occur were of manageable frequency and magnitude   | Yes        | Minor adjustments made for material replacement only                        |
|                  | Project baselines (Scope, Time, Cost, Quality) were well-managed (e.g., changed through a formal Change Control Process) | Partially  | Scope and quality maintained, but cost and schedule variances occurred      |
|                  | Design changes were well-controlled  | Yes        | All design requests reviewed and approved before implementation             |
|                  | Basic project management processes (e.g., Risk Management, Issue Management) were adequate                               | Yes        | Issues tracked (supplier, weather) and responses documented                 |
|                  | Project tracked progress against baselines and reported accurate status  | Yes        | Weekly reports showed variances clearly                                     |
|                  | Procurement (e.g., RFP, Contract with vendor) went smoothly  | No         | Supplier delays and warped materials caused issues                          |
|                  | Contracted vendor provided acceptable deliverables of appropriate quality, on time, and within budget                    | No         | Some materials were defective and late, leading to budget overrun           |
|                  | Stakeholders were satisfied with the information they received   | Yes        | Sponsor and client received timely updates                                  |
|                  | The project had adequate Quality Control   | Yes        | Inspections ensured deck met safety and quality standards                   |
|                  | Requirements – specifications – Test Plan were well-managed (e.g., Requirements Management System was used)              | Partially  | Functional requirements tracked, but no formal test plan beyond inspections |
| Human<br>Factors | Project Manager reported to the appropriate part of the organization   | Yes        | PM aligned with sponsor and client throughout                               |
|                  | Project Manager was effective  | Yes        | Managed delays and issues effectively despite setbacks                      |
|                  | Project Team was properly organized and staffed  | Yes        | Carpenter, mason, and general labor were assigned appropriately             |
|                  | Project Manager and staff received adequate training   | N/A        | Training not needed for experienced team                                    |
|                  | Project Team's talent and experience were adequate   | Yes        | Skilled trades completed work successfully                                  |

| Category | Lesson Learned  | Achieve d? | Comments  |
|----------|---|------------|---|
|          | Project team worked effectively on project goals          | Yes        | Adjusted schedule and tasks to stay on track                        |
|          | Project team worked effectively with outside entities     | Partially  | Managed contractor well, but supplier relationship was problematic  |
|          | There was good communication within the Project Team      | Yes        | Weekly check-ins supported coordination                             |
|          | Management gave this project adequate attention and time  | Yes        | Sponsor was involved and supportive                                 |
|          | Resources were not over-committed                         | Yes        | Team availability was sufficient                                    |
|          | Resources were consistently committed to project aims     | Yes        | Labor team remained engaged throughout                              |
|          | Functional areas cooperated well                          | Yes        | Carpenter and mason collaborated effectively                        |
|          | Conflicting departmental goals did not cause problems     | Yes        | Small project with aligned stakeholders                             |
|          | Authority and accountability were well defined and public | Yes        | PM retained authority, decisions approved by sponsor                |
| Overall  | Initial cost and schedule estimates were accurate         | No         | Underestimated contingency, project ran over budget and by one week |
|          | Product was delivered within amended schedule             | Yes        | Completed one week late, but within revised timeline                |
|          | Product was delivered within amended budget               | No         | \$1,200 overrun due to rework and supplier delays                   |
|          | Overall Change Control was effective                      | Yes        | All scope and budget changes documented and approved                |
|          | External dependencies were understood and well-managed    | Partially  | Permitting delays and supplier reliability not fully controlled     |
|          | Technology chosen was appropriate                         | Yes        | Materials and tools suitable for requirements                       |
|          | The project was a technological success                   | Yes        | Deck built to code, safe, and durable                               |
|          | Customer's needs/requirements were met                    | Yes        | Deck provided functional outdoor spaces as intended                 |
|          | Customer was satisfied with the product                   | Yes        | Client approved the final deliverable                               |
|          | Project Objectives were met                               | Yes        | Functional, safe, and aesthetic deck delivered                      |
|          | Business Objectives were met                              | Yes        | Increased property value and outdoor usability                      |

## **Project Close Acceptance:**

| Charlotte Josephine       | Emílie Doris      |  |
|---------------------------|-------------------|--|
| Project Manager Signature | Sponsor Signature |  |
| Charlotte Josephine       | Emilie Doris      |  |
| Project Manager Name      | Sponsor Name      |  |
| 9/06/2025                 | 9/06/2025         |  |
| Date                      | Date              |  |