

Design Document

Training Title: JB Masonry Project Management

Business Goal and Problem	JB Masonry is experiencing delays in project completion due to supply shortages and rising material prices, which disrupts project timelines and increases overall costs. Addressing this issue will help maintain smoother project flow and prevent disruptions in the supply chain. The goal is to implement proactive material management solutions to reduce project delays by 40% during the third and fourth quarters and secure supply costs by familiarizing project managers with timeline tasks and phases, multiple material supply sourcing, and the use of communication strategies with all stakeholders. This will ensure that projects continue to move forward in an effective way.
Target Audience	• Project managers employed by JB Masonry who range in age, gender, experience, etc. • JB Masonry project managers are skilled masons but their experience in managing a job site varies.
Learning Objectives	Terminal LOs: • Construct a flexible project timeline that accounts for all phases of a masonry job. • Develop a strategy for sourcing masonry materials from multiple suppliers to maintain strong, long-term relationships. • Use communication strategies to enable flexibility under varying project conditions. Enabling LOs: • Identify key masonry materials. • Define the phases and timeline of a masonry job.
Training Recommendation	Delivery Method: e-Learning through an Articulate Storyline Course with an accompanying job aide. Approach: A single, continuous scenario-based e-Learning course. The scenario will appear at various points of the training, including assessment.
Training Time	20 minutes e-Learning course
Deliverables	• Interactive Storyboard with script outlining e-Learning course • e-Learning course developed in Articulate Storyline ○ Editable Storyline source file (.story format) ○ Published SCORM files (2004 or 1.2)

	○ Includes a continuous scenario with voice over narration ○ Includes a final assessment ● Job Aide (PDF) ○ One page resource outlining key material management solutions ○ Provided to learner after completing the e-Learning course
Training Outline	Introduction to Course ● Welcome ○ A brief summary of the business values and goals ○ Identify the course title and purpose for this training ● Navigation ● Site Scenario ○ An introduction to the continuous scenario used in this course to identify the business problem ○ Action steps towards the business goal ● Learning Objectives Masonry Timeline ● Timeline Development ○ An introduction to this section of learning ● Key Materials ○ Masonry Units (bricks, blocks, stones) ○ Mortar (sand, lime, cement) ○ Rebar (reinforcement material) ○ Flashing and waterproofing material ● Knowledge Check-Key Materials ● Intro to Timeline ○ Develop the Timeline ■ Use a shared calendar to plot tasks and milestones to ensure proper scheduling of resources ○ Use a Work Breakdown Structure (WBS) strategy to account for all construction phases and tasks. ● Timeline Tasks & Phases ○ Pre-Construction (1-2 weeks before starting) ■ Order key materials (order 5-10% extra to account for waste and error) ■ Confirm special orders ■ Site prep (gravel brought in for the base if needed) ○ Site Setup (Day 1-3) ■ Staging Materials ● Pallets of masonry units delivered to the site

- Mortar mix ingredients arrival
 - Material Storage
 - Materials stored on-site, protected by the weather elements (cover or build temporary shelters)
 - Masonry units kept close to work area to minimize handling time
- Foundation Work (Week 1-2)
 - Base Materials: gravel/concrete brought for foundation
 - Concrete Pour: Schedule concrete delivery, ensure rebar is in its place
 - Curing: 2-3 days depending on weather
- Masonry Wall Construction (Week 2-4 or more depending on the job)
 - Continuous delivery of masonry units
 - Mortar mixing-prepare in small batches to avoid waste
 - Reinforcement-rebar and ties are installed at required intervals
- Waterproofing and Flashing
 - Materials: flashing, weep holes, and waterproofing membranes are installed as the walls are built
 - Ensure that materials are delivered before the masonry work begins
- Finishing Materials (week 4-5)
 - Joint tools and finishing supplies: Grout, sealers and joint tools arrive for finishing the masonry
 - Stone or brick sealer (if required-the sealer is delivered once masonry is complete and cured)
- Cleanup & Final Touches (Final Week)
 - Clean up materials (brushes, solutions and water to clean up mortar stains)
 - Final material inspection (no missing material touch ups, final waterproofing or other finishing needs)
- Knowledge Check-Timeline Tasks & Phases
- Develop A Timeline
 - Use a shared calendar to plot tasks and milestones to ensure proper scheduling of resources
 - Estimate the duration of each task and milestone
 - Monitor and adjust the timeline each week. Build in buffer time to account for unforeseen issues (bad weather and material shortages)

Multiple Suppliers

- Material Suppliers
 - An introduction to this section of learning
- Multiple Suppliers
 - Coordinate an effective approach in managing multiple material suppliers to minimize delays, reduce risks, and optimize costs.
 - Develop Supplier Relationships

- Long-Term Partnerships (Good relationships can lead to better pricing and faster delivery)
 - Transparent communication
 - On-time payments
 - Fairness during negotiations
 - Provide regular feedback
 - Emergency Suppliers (Identify backup suppliers for critical materials in case your primary supplier experiences delays)
 - Investigate Quality Control
 - Choose suppliers with a strong reputation for quality and reliability
 - Check deliveries upon arrive to confirm that materials meet specifications
 - Establish Clear Communication
 - Regular Updates (Provide supplier with the project timeline and keep in touch with the suppliers regularly)
 - Preferred Communication Channels (Use email, phone or software management software for constant updates)
 - Clarify Lead Times (ask for specific lead times on specialty or custom order materials to avoid delays)
 - Coordinate Delivery Schedules
 - Staggered Deliveries (plan deliveries in stages that align with project phases to reduce clutter and on-site damages)
 - Delivery Window (set clear windows to ensure someone is onsite to receive and properly store materials)
 - Handling Delays (build in buffer time for possible delays from suppliers and have a list of emergency suppliers for urgent replacements)
 - Develop Clear Contracts and Agreements
 - Detailed contracts (Include terms regarding quality and delivery schedules)
 - Bulk buying options (Negotiate for bulk buying discounts)
 - Clear delivery timelines (Ensures all suppliers understand the project timeline)
 - Knowledge Check
- Communication**
- Communication Strategies
 - An introduction to this section of learning
 - Key Stakeholders
 - Clients (property owners or developers)
 - Architects/Designers (design and aesthetics)
 - General Contractor or Project Manager (oversees the overall project)
 - Masonry Crew (executing the masonry work)
 - Suppliers (provide materials)

	○ Inspectors (ensure compliance with building codes and standards) ● Communication & Progress ○ Establish Clear Communication ■ Preferred Communication Channels (Use email, phone or software management software for constant updates) ■ Conflict Resolution (If conflicts arise, meet with involved parties promptly and find a solution. Document and communicate this to the wider group) ■ Client Expectations (Be transparent about cost, timeline and setbacks. Provide realistic options and timelines for resolving issues) ○ Regular Progress Updates ■ Provide regular updates to key stakeholders on a daily or weekly basis (schedule/timeline, budget, design, photos of progress) ■ Document Progress (shared calendar and shared document to include contracts, designs, material specifications, inspection reports) ○ Project Changes or Issues ■ Site Walkthroughs: review progress, real-time feedback, and stakeholders can ask questions or raise concerns ■ Change Orders: Immediately communicate any design changes to the client and how this will impact the timeline and budget ■ Material Issues: communicate any delays or problems with materials ■ Weather Delays: keep stakeholders informed of any weather-related delay ● Wall of Knowledge ○ Summary of knowledge learned throughout course Assessment & Conclusion ● Final Quiz ● Conclusion
Assessment Plan	Level 2 Assessment: ● Ungraded knowledge checks ○ 3 Drag and Drop Matching Knowledge checks (key materials, timeline tasks and phases, material suppliers) ● 1 final graded quiz ○ 5 graded, scenario-based questions ○ 80% passing ○ Unlimited attempts to pass Level 3 Assessment: ● 40% reduction in project delays during the third and fourth quarters. ○ On-site observations of project managers to assess post-training performances on the implementation of proactive material management solutions.

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- Checklists focused on timeline tasks and phases, diversified suppliers, and communication strategies with stakeholders.
 - Interviews with project managers to evaluate the training's impact on their post-training behaviors.
 - A survey completed by stakeholders at the end of the fourth quarter to evaluate the behavior changes of project managers to enhance relationships and workflows.