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## Development Proposal: Milestone 2

## Motor Babbitt Bearing Workflow

### JD’s Babbitt Bearings, LLC

Solution Design Proposal v3

Presented To: Jarad Finney

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# Code Authority ContactS

|  |  |
| --- | --- |
| **Name** | Mike Jensen |
| **Phone Number** | 214-774-4262 x116 |
| **Fax Number** | 972-668-2926 |
| **Email** | mjensen@codeauthority.com |

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| --- | --- |
| **Name** | Adam Ferguson |
| **Phone Number** | 214-774-4262 x117 |
| **Fax Number** | 972-668-2926 |
| **Email** | aferguson@codeauthority.com |

# Proposal Detail and Plan

## Client Needs Assessment

JD’s Babbitt Bearings manufactures and repairs Babbitt bearings. These bearings are used in many mechanical and industrial applications for power plants, motor shops, energy providers, and much more. Companies from around the world send in bearings to have them cleaned, inspected, and serviced.

The current business process for incoming jobs is done manually and requires a lot of oversight. JD’s needs a solution that relieves some of the burdens of overseeing the simultaneous production and delivery of multiple products, while keeping a strict time schedule.

The process of tracking each product as it moves through a custom workflow can be complicated and hard to follow. JD’s needs a vendor that has experience working with large data workflows, transforming raw data into clear and concise forms, and experience presenting data in a way which is informative, actionable, and interactive.

JD’s Babbitt Bearings has an established brand standard which is reflected in their products and reliability. This brand standard is a reflection of their identity and professional values. JD’s needs a software vendor who has experience adhering to brand standards and designs; developing easy-to-use, professional user interfaces with logical entry of data; and who can collaborate effectively with their branding team.

JD’s customers will rely on this solution to check the progress and status of their products. JD’s needs a custom software vendor that can create simple, light-weight pages that won’t bog down due to bandwidth or compute restrictions.

JD’s has a long term vision which will required more functionality and reporting to be added to this system. They need a vendor that can create an application that is modular, with separation of concerns, and which is developed with methodologies and standards that make it easy to enhance and add features.

# Code Authority Approach

We are often asked to estimate custom software projects in both cost and time to deliver. Estimating custom software projects is very inaccurate and borders on irresponsible without some time being spent investigating, and documenting the size and scope of the project.

Code Authority has unique method of providing “three costs” to build any project. We have been refining this process since 2001.

# Design Engagement

Code Authority takes a unique *design-first* approach to custom application projects. Our design consultants engage with the client stakeholders and subject-matter-experts to extract information, formalize it in various types of documents, and then organize it into a “Project Blue Print”.

At a minimum, the following documents are created during the design phase and provided to our clients in both printed and digital form:

* Functional Specifications
* Technical Specifications
* Entity Relationship Diagram (Database Schema / Relationships)
* Database Dictionary
* Reporting and Business Logic
* Mock Screens representing most of the application user experiences.

Additional design documents or tools that may also be found to be necessary:

* UI Requirements
* Business Rules & (Formulas)
* Prototypes & Proof of Concept
* Web Service Specifications
* Use Cases or User Stories
* Out of Scope/Future Phase Considerations

The CA team will work closely with the client during the design phase. Multiple meetings will be held, and the design process will be iterative. At the end of the design phase then client will know exactly what the software is going to do and what it will look like. Both parties will have a blueprint for the software development phase. Both parties will agree design is complete.

# Development Phase

At the conclusion of the design phase, the client will be provided and own the software design documentation. CA will provide a quote wherever possible to engage in the development of the systems defined by the design documentation. A Project Plan and timeline will also be provided.

### If the client finds the CA bid unacceptable the blue print can be leveraged to solicit competitive bids.

Prior to launch, a typical development phase client will engage in *customer driven* *beta test*s where the delivered application is proven to be acceptable and ready for adoption into daily business. CA will work closely with the client to address all functionality gaps within scope until the application is ready for launch and adoption.

# Milestone Summary

A milestone is a set of functionality that can be logically grouped and delivered together. Fixed-cost milestones are billed after being delivered to the customer. This proposal only covers the first milestone. Milestones that are billed hourly will be invoiced weekly. For a defined period after delivery of the fixed-cost milestone, bugs in that milestone’s functionality reported to Code Authority by the customer via the bug report portal will be fixed at no extra charge. Following is a functional breakdown of the second milestone.

## Milestone 2: Motor Babbitt Bearing

Common Functionality

* Photo Management
* Drawing Management
* Final Sign-off
* Workflow Sign-off
* Delivery
* Part Details
* Drop-down with “Add New”

Babbitt Bearing Workflow

* Incoming Inspection
* Pre-cast Roughout
* Spincast Process
* Post-cast Clean Up
* Post-cast Roughout
* Insulation Process
* Clean Up Process
* Final Machine Inspection
* Finish Bore Process
* Final Assembly
* Final Inspection
* Outgoing Dimensions Form
* Conditional Workflow Navigation Logic

Job Views

* Job Details
* Job History
* Add Part
* Big Board

Customer

* Billing Report
* Add/Edit Contact
* Add/Edit Customer

Employee Portal M2 Enhancements

* Billing Report
* Job Scheduler

# Pricing

After completing the design process, Code Authority is now able to provide JD’s Babbitt Bearings with the following estimations in good faith of what the development costs would be.

## Development Hours and Cost

Below is our quote for the Development of the solution. The below Development Hours are our best estimates on the probable duration of the development phase. You will pay the hourly rate for any time spent on the design. If the development does not take the indicated estimated hours to complete, you will not have to pay as much as the estimated cost. If the development takes longer or the scope is increased, you will pay more.

|  |  |
| --- | --- |
| Option 1 - Fixed | **Fixed Cost** |
| **M2 – Babbitt Bearing** | **$59,688** |

|  |  |  |  |
| --- | --- | --- | --- |
| Option 2 – Hourly | **Dev. Est. Hours** | **QA** | **Est. Cost** |
| **M2 – Motor Babbitt Bearing** | **211 - 340** | **45** | **$28,710 - $42,885** |

## Hardware and Infrastructure

Estimates for the hardware and infrastructure components are provided by John Barfield of Barfield Information Systems and Services (BISS). However, this milestone can be delivered over Azure without any local hardware required. Local hardware will be included in a future milestone.

## Out of Scope

This milestone is intended to handle only the job processing workflow related to Motor-type Babbitt Bearings. The job-processing workflow for other parts, such as Slinger Rings, is out of scope. On-site hardware (servers, smart TVs, tablets.) is out of scope for this milestone and will be included in a future milestone.

# Terms & Conditions

## Invoices and Payment Terms

Any services following the Design Boot Camp will be provided under and executed Master Customer Agreement.

### Payment Terms Are as Follows:

Option 1 – Fixed Price:

Payment terms will be negotiated. Payments will be made based on parts of the project broken into delivered milestones.

Option 2 - Hourly:

Hours spent will be invoiced weekly.

Payments due are NET 30 from invoice date. More flexible payment terms will be made available to well-established clients.

### Limitation

The quotes provided encompass the design and development of the items which are ‘in-scope’ of the discussed system requirements. The scope of this estimate is defined by the design documents accompanying the estimate. Any functionality outside of this scope will incur additional design and development costs. An element does not have to be identified as Not in Scope explicitly to be out of scope.

## Delivery and Maintenance

Upon completion of the final Development milestone, the product will be delivered to JD’s Babbitt Bearings. After delivery, a 3 month period of customer acceptance begins. During this 3 month customer acceptance period, if the fixed cost option is chosen any bugs or issues which are found to be within the scope of the fixed cost elements will be fixed for free in a timely and professional manner. Bugs must be reported through the provided web interface. If the hourly option is chosen, bug fixes for hourly elements will be fixed at a rate of $80 per hour.

After the customer acceptance period, any bugs or other maintenance will incur an hourly cost.

## Validity of Proposal

This proposal is valid until **October 26, 2015.**