referenced organizations:
come dream. come build. (cdcb) - A founding member of the MiCASiTA Model, cdcb is a multi-
faceted affordable housing organization devoted to utilizing collaborative partnerships to create
sustainable communities across the Rio Grande Valley through quality education, model financing,
efficient home design, and superior construction.

bcWORKSHOP [bc] - A founding member of the MiCASiTA Model, the buildingcommunityWORK-
SHOP is a Texas-based nonprofit community design center seeking to improve the livability and
viability of communities through the practice of thoughtful design and making. We enrich the lives
of residents by bringing design thinking to areas of our cities where resources are most scarce. To
do so, [bc] recognizes that it must first understand the social, economic, and environmental issues
facing a community before beginning work.

Enterprise Green Communities (EGC) - The only national green building standard designed
specifically for affordable housing projects, the Enterprise Green Communities Criteria
has a major impact on how affordable housing properties are constructed. Currently, 27 states and
Washington D.C. require that affordable housing developments receiving public funds comply with
the Green Communities Criteria. MiCASiTA is using this standard.

Texas Manufacturing Assistance Center (TMAC) at University of Texas Rio Grande Valley
(UTRGV). Staffed by manufacturing engineers and other experts, TMAC provided support with
Business Plan development, advised on manufacturing processes and workflows, and trained
staff on machinery operations. There will be training sessions for all Expansion Partners organized
with TMAC to help Expansion Partners learn the essential manufacturing processes.

important terms:
our phrases:
- Expansion Partner - an organization or group of organizations that are setting up and
  adapting the MiCASiTA Model to their community
- Remote Team - the members of cdcb and [bc] as well as any partners we bring in that will
  be assisting Expansion Partners / becoming a part of their team remotely
- Local Model - The local adaptation of the MiCASiTA Model (ex. The Rio Grande Valley
  Model vs. your Local Model). There will be differences in each Local Model based on
  regional needs, climate, local resources, etc.
- MiCASiTA Model - The larger model in which all Expansion Partners are encompassed.
- RGV MiCASiTA Model - The MiCASiTA Model based in the Rio Grande Valley. This was the
  first Local Model.
- Design - The design is the architectural design and process by which the Boxes and config-
  urations are State Licensed
- Home Preference Options/Choices/Selections - The choices a client can make while cre-
  ating their home using the Choice Empower Software System
- Choice Empower Software System (CESS) - This software system was developed for the
  MiCASiTA Model to be used by both clients and teams for streamlining the manufacturing
  process by tracking cost with a client’s Home Preference Choices with the Manufacturing
  Team. This system will also be used to support Local Model communications and file
  sharing.

other terms:
- State Licensed Designs - The designs built by the factories will all go through the State
  Licensing process for your state. Once a design is State Licensed, the permitting process,
fabrication, and material sourcing is simplified. This makes timely quality production
  possible
- Manufacturing Resource Planning software (MRP Software) - This is the core technology
  that sets manufacturing applications apart from other types of business software. This
  added functionality also adds complexity, both in implementation and in operation.
SECTION I
The “Why”

**THE PROBLEM(S) THAT MICASITA SEeks TO SOLVE**
Affordable housing is too often synonymous with a one-size-fits-all approach that fails to offer any real choices for families most in need. The MICASITA Model allows residents and community members to make decisions about each housing development – cultivating agency and control that yields power.

**THE MICASITA MODEL**
The MICASITA Model is a unique, off-the-shelf, environmentally sustainable, disaster-resilient modular homeownership innovation. It was designed for rural families across the Rio Grande Valley (RGV) and other rural persistent poverty communities nationwide. The MICASITA Model marks a departure from the traditional model of affordable housing production, as, it was designed to empower communities of color with modest incomes to choose and design their own homes.

The MICASITA Model is designed to achieve more than increased unit production. It is a client-led design and production system that can easily be adopted and implemented across the country. Expansion Partners work with the Remote Team to bring the MICASITA Model to their community. This includes built-in systems, processes, and technology to support market diversity and context, both culturally and economically.

The MICASITA Model combines innovations in home design, lending, and modular fabrication to deliver a housing solution that puts the needs and preferences of the client at the center of the process.

MICASITA’s design is based on a grow-home model. Offering households the ability to select as much home as they need or can afford, and grow it over time along with their family and finances. The beginning of every MICASITA home is the “CORE” - a 576 sq. ft. unit that includes a kitchen, bathroom, laundry or bedroom, and living room. Depending on the household’s needs, a client can choose to move forward with only the CORE, a CORE plus additional MICASITA Box(s), or a CORE with plans to add additional MICASITA Box(s) later.

Moving away from on-site construction is key to delivering the MICASITA design solution affordably. All MICASITA Boxes are pre-permitted through a State Licensing process and manufactured in an off-site facility. Once a MICASITA Box is completed, it is transported and installed on the client’s property. Adjusting to a manufacturing process can be challenging, but the benefits include increased productivity, less waste, improved work conditions for your crew, and greater control over the overall cost.

Connecting the MICASITA MICASITA Boxes and the manufacturing process is our Choice Empower Software System (CESS). CESS was developed to streamline and automate elements of the client selection process. This connects a client’s home preferences to real world costs, while also serving as the platform through which teams share important documents to keep the production moving on the back end. When paired with MRP software, this software makes stocking material and manufacturing efficiencies possible.

The final element of the Model is focus on client counseling and lending. There have been examples of Grow-Home and Modular construction as a solution for affordable housing, but they were rarely connected to client counseling and financing. The MICASITA Model recognizes that financing and client counseling are critical to the long term outcome we hope our clients achieve - financial stability. MICASITA was developed to work in conjunction with the realities of current lending standards, increasing the likelihood of success for our clients and our model.

**OUTCOMES**
- A quality, highly affordable housing product
- More control over costs and production
- Choice for clients
- Meeting people where they are at
- Agency for both clients and housing organizations
- Holistic approach to housing
- Additional outcomes:
  - Local economic development: jobs, expanded capacity and skills for local nonprofits, strengthen housing resale market, etc.
  - Greater financial security for clients: home will build equity, access to traditional capital, building a home they can afford

**PATH TO A MICASITA HOME**

1. **Setting Started**
   - Financial Coaching
   - Financial health check-ups with your Housing Advisor

2. **Financial Coaching**
   - Financial health check-ups with your Housing Advisor
   - Choose your home preferences through the web application process

3. **Plan Your Home**
   - Set up a plan for payments and how much you should save to expand your home

4. **Becoming a Homebuyer**
   - Home Preference Choices to move into a plan on expansion and additions

5. **Preparing Your Home and Family**
   - Families can finalize and organize their Home Preference Choices to move into the building process

6. **Building Process**
   - Once the order is placed, the home is built and shipped from the factory to the site

7. **Moving In**
   - Once the initial home is built, the team can come up with a plan on expansion and additions

8. **Financial Coaching and Growing Your Home**
   - Families can finalize and organize their Home Preference Choices to move into the building process
The two modules combined make the "CORE" - the starting point for all MiCASiTA homes. Each CORE is made of 2, 12’ x 24’ rectangular modules.

WHAT WE CAN CHANGE BY REGION

Your team and [bc] will work together on adjusting MiCASiTA to your region. Process will begin by your team reviewing current MiCASiTA designs.

Materials, finishes, product specifications can all be adjusted based on availability of materials and regional preferences.

Cultural and aesthetic preferences of your region can be used in the design and selection of porch and facade options.

Designs will be adjusted to meet local and state codes as well as environmental needs of the area.

Reach out to bcWORKSHOP for the most up to date designs.

WHAT WE CAN CHANGE BY REGION

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**L-CORE**

The L-CORE configures the Wet and Dry Box in an "L" configuration. Depending on the clients lot size it can be positioned horizontally or vertically.

The L-CORE is best suited for more traditional subdivision long narrow lots, but could be located a larger rural lot as well.

The L-CORE’s kitchen window can overlook the side or front yard depending on it's orientation.

Front doors can be easily located to accommodate different orientations.

576 Sq Ft Total
1. Bathroom
2. Washer / Dryer
3. Kitchen
4. Living Room
5. Bedroom

The L-CORE is ideal if you want to expand towards the rear.

**O-CORE**

The O-CORE configures the Wet and Dry Box side-by-side in an "O" configuration.

The Oscar is best suited for wide, narrow lots.

The O-CORE’s kitchen overlooks the back or side yard depending on the orientation.

The O-CORE easily expands outward, or to the sides.

576 Sq Ft Total
1. Bathroom
2. Washer / Dryer
3. Kitchen
4. Living Room
5. Bedroom

The O-CORE is best suited for wide, shallow lots.

**L-CORE GROWTH**

The L-CORE configures the Wet and Dry Box in an "L" configuration.

The L-CORE is best suited for narrow, long lots.

**O-CORE GROWTH**

The O-CORE configures the Wet and Dry Box in an "O" configuration.

The O-CORE is best suited for wide, shallow lots.
V 1.0 SOFTWARE CAPABILITY

Version 1 of software is still being developed. Expected date for release is May 2023.

Client-facing design tool:
- The system must allow clients to view and select from a range of Local Model design options, including Box types, configuration of units, and interior and exterior finishes, and to understand the cost differences associated with different selections.
- It is designed to be easy to navigate and user-friendly.

Back-end materials management tool:
- The system also supports the Manufacturing and Business / Development Teams with estimating costs, by enabling vendors to place bids in for materials so that the most affordable materials can be selected, and with managing inventory, as all material supplies are cataloged in the system.
- It provides the mechanism through which inter-team communication, all important documents, and updates are made immediately available to everyone who needs access. This information includes production updates, material orders, notices of permitting, field reports, etc.
- It has a means by which selections and prices can be updated regularly.

ADAPTING THE SOFTWARE FOR EACH EXPANSION PARTNER

The Remote Team will support Expansion Partners with adapting the CESS to meet their needs. It will include:
- Creating a new domain for the program
- Creating and/or sectioning off a separate backend system specific to region
- Adding specific requests based on regional needs

FUTURE SOFTWARE CAPABILITY

Ideally, the CESS will have additional functionality in upcoming years, including:
- Full integration with the lending software, so that key order and client information entered into the lending software is captured in the CESS
- Ability to provide clients with a status update on their order via log-in

Greater analytics for partner organizations, including:
- How many orders are in various stages of production at any point in time
- How many orders are awaiting input from either a client or a team member
- How many orders are stalled in a particular phase and the source of the delay
- Automated reminders to clients or team members for steps they can take to keep projects moving.
This section is intended to provide an overview of what it takes to design and launch a Local Model, in terms of time, funding, and other essential resources. While other sections dive into each step in great detail, this section instead provides a high-level perspective on several key considerations for prospective Expansion Partners, including a description of the overall journey that an organization will need to take, an approximation of the time needed to launch, and the various other factors that inform each organization’s process.

Depending upon an organization’s size, location, and core competencies, what it takes to build the Local Model will vary. This section is meant to assist a prospective Expansion Partner with understanding what they will need to launch, defining the resources that may be available to support them with launching, and deciding if the MiCASiTA Model is right for their organization.

**MiCASiTA Teams**

Teams may be made up of one or more organizations, this is the way in which the responsibilities and tasks are divided to run a Local Model within the MiCASiTA Model.

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending Team
- Design Team
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

**SECTION II - The “What”**

**PHASE 1 - Start Up**

This phase includes every step that needs to happen before the launch of the program.

**1 MARKET AND GEOGRAPHIC RESEARCH:**

**Market Research:**

It is essential for potential Expansion Partners to conduct market research to develop a firm understanding of the people they intend to serve. Some of the key information to gather when researching the potential market is:

- Total potential households
- Average size of household
- Age of household members
- Household income
- Homeownership rates
- Race/Ethnicity
- Cultural/Linguistic factors
- Common barriers to homeownership
- General preferences
- House design preferences

**Geographic Research:**

Prospective Expansion Partners should also conduct geographic research to ensure a clear understanding of the local and regional factors that may influence the feasibility of a Local Model and inform how the Model must be adapted to meet regional needs. This includes factors like climate and weather; environmental risks (fire, flood, earthquake, etc.); proximity to key manufacturing resources like transportation, manufacturing sites, and raw materials; and the profile of the local labor force.

This market and geographic research can be done with qualitative data sources, like the US Census, GIS maps, and other data sets. But qualitative sources should be used as well, including interviews, focus groups, and community engagement events, as those will allow you to get a sense of the subjective items (such as consumer preferences).

Understanding your market is an ongoing process. Expansion Partners may want to set a yearly evaluation of market, economic, and social conditions when making adjustments to their Business Plan.

Don’t become overwhelmed by the abundance of data or lack of data for your area. The most important information you can gather and use in decision making is the lived experience and preferences of potential clients. The information gathered from your Pipeline [homebuyer education and counseling] should inform not only your product but your process. What do your clients need, what do they want, and how can your organization bring those closer together through the MiCASiTA Model?

**STEPS TO LAUNCH**

**2 DEVELOPING A BUSINESS PLAN**

If the market and geographic research indicates that a Local Model is feasible, the next step for a Expansion Partner is to develop a Business Plan. The Business Plan serves as a roadmap for building and operating a Local Model. The Business Plan serves as a guide, and as such should be regularly referenced and updated as needed to reflect adjustments in the approach.

The Business Plan serves several key functions, including:

- Outline the partner organizations involved in delivering the Local Model
- Contracts or memorandum of understanding (MOU) are recommended when outlining the differing roles of the organizations involved
- Providing an overall view of the Local Model, including how the different parts work together
- Outline the component and deliverables of the Local Model
- Informed by the market and regional research
- Identify which organization are responsible for specific tasks or deliverables (if multiple organizations are involved)
- Providing an explanation of how the financing works and the overall financial feasibility of the Local Model
- Mapping out key assumptions in the Model, including the scale of production, the break-even point, etc.
- Identifying potential risks and how they can be overcome
- Include a proposed budget, staffing plan, start up and operations schedule, and milestones against which progress can be measured

Most importantly, this is likely the point where Expansion Partners will be introduced to what it means to be a manufacturer. This is a significant shift for any home builder. While the product and process are fairly similar, the way of thinking, planning, sourcing, staffing, and delivery is very different. The Remote Team is committed to supporting Expansion Partners through this transition, and will provide the technical support needed to be successful.

Your initial Business Plan will need to be adjusted ...things will not go completely to plan. But this is why you make a plan, so you can make more informed and less reactive decisions.

Business Plans should be informed by all elements of your program - checking in with everyone from marketing, counseling, to on-site installation will provide you with the information you need to adapt your plan over time.
FUNDRAISING

Every organization will have different fundraising needs, depending upon their existing financial resources, the scale of their proposed Micasita Expansion Partner, and needs of the community/people they intend to serve. Having a Business Plan that clearly identifies the budget (and budget gaps) and the overall feasibility of the Model is vital for fundraising efforts.

Depending upon funder priority, some of the costs that fundraising can help to cover include:

- Initial planning and startup costs, including all of the costs associated with designing and launching the Local Model
- Capital costs to support the factory build
- Operating support
- Assistance for homebuyers, including down payment assistance, credit repair, and other support

DEFINING INITIAL SCALE OF PRODUCTION

The scale of production will be proposed in the Business Plan, but the Factory Set-up and Manufacturing Teams will need to work closely together to discuss the process and schedule by which production gets up to that scale. This includes determining how many Boxes it will be possible to produce in the first few months, and how long it will take to achieve the desired scale of production.

DESIGN MANUFACTURING PROCESS AND SET-UP FACTORY

The manufacturing process is central to the success of the program. It is also where the most efficiencies and potential cost savings can be identified. An Expansion Partner typically spends up to a year designing a manufacturing process that meets the needs of their prospective clients while remaining within budget and producing the target number of homes.

It is highly recommended that Expansion Partners enlist the assistance of manufacturing engineers from the start of designing the manufacturing process. When designing the RGV Micasita Model manufacturing process, cdcb enlisted the assistance of Texas Manufacturing Assistance Center (TMAC) at University of Texas Rio Grande Valley (UTRGV). Staffed by manufacturing engineers and other experts, TMAC played a central role in designing the manufacturing process and the factory layout, developing a production schedule, identifying prospective sites, and introducing efficiencies and cost-saving measures into the manufacturing process. Introducing this expertise early in the design process can help an organization avoid inefficiencies and errors.

TMAC will be contracted to provide a training class for all interested groups. The cost will be covered by Micasita Inc. as part of the technical assistance provided.

BUILDING ORGANIZATIONAL INFRASTRUCTURE

Each organization will have a set of infrastructural needs to address as part of launching a Local Model. These will vary by organization, but include:

Implementing a Software System to support the Micasita design:

The CESS is essential for supporting clients through the design and purchase of their homes and for managing the flow of the manufacturing process. There is an existing system in place that will likely meet the needs of most Expansion Partners, which the Remote Team can help to customize and implement.

The software will play the following two roles, at a minimum:

- As a client-facing design tool, the system must allow clients to view and select from a range of Home Preference Options, including Box types, configuration of units, and interior and exterior finishes. The system must allow for buyers to understand the price differences between their selections.
- The system must also allow the Manufacturing and Business/Development Teams to estimate costs, by enabling vendors to place bids in for materials so that the most affordable materials can be selected, and with managing inventory, as all material supplies are cataloged in the system.

Build Other Communications Lines between Teams:

Communication among teams is essential for successful and timely delivery of Micasita homes. Before a Local Model begins to manufacture homes or conduct outreach to prospective buyers, they must establish the channels through which teams will communicate. This includes:

- Ensuring there is a clear "point person" with whom buyers can communicate for all of their needs, so that they are not sending (or receiving) inconsistent messages to/from multiple places.
- Establishing workflows through which teams can quickly and regularly update one another on the status of any given order, delays or challenges at any phase, and information needed.
- To the degree possible, allowing for communication to be shared via software system so that any team member can log on and review any notes or correspondence associated with an account or product.

The means by which team members communicate will vary by organization but it is imperative that different teams are not siloed in their role.

Financial Set-up/Accounts:

An organization building a Local Model must establish the accounts and codes that allow the organization to isolate the costs, transactions, revenue amounts and sources, cash flow, and other financial information that are specific to the program. This ensures financial transparency for funders, auditors, and other stakeholders, and allows the Expansion Partner organization to better assess the performance of the program against the assumptions in the Business Plan and to prepare regular financial reports.

Ensuring Capacity for Central Micasita Functions:

Depending upon the scale of production, the introduction of the Local Model can introduce a set of new infrastructure and staffing demands on existing positions and programs. For example, the introduction of the Model may generate new demand from prospective buyers that exceeds the available counseling resources. Whenever possible, increasing the existing capacity in anticipation of such demand can reduce the strain on the agency as a whole.
DEVELOP MARKETING APPROACH

Using the findings from the market research, a Expansion Partner organization will next develop a marketing approach. This includes:

- Marketing materials that are specifically designed to reach the target population. They should be available in multiple languages as needed and in the formats most likely to be consumed by the targeted buyers (such as pamphlets, videos and photos for social media, websites that show floorplans and other key information). The materials should include any resources the outreach team will need to inform their outreach activities.
- Branding Guide, which outlines all of the graphics, fonts, colors, logos, and other visual elements that will be used by all teams for the Local Model.
- Communications Plan, which establishes marketing and communication goals and priorities and a schedule for outreach and marketing activities, which can be adjusted regularly.

PREPARE FOR MANUFACTURING

With the factory set up and the key agency infrastructure in place, the next step is to prepare for and launch the manufacturing process. All of the employees playing a role in the process will need to be hired and trained in the manufacturing protocols. The team will need to gather bids for the materials to be used in the manufacturing process, then enter the material prices into the software system to enable price-based selection. Each design option will need a Bill of Materials and a shop drawing set that matches the State Licensed architectural set. State Licensure will likely be required for all new factories as well as each design. The Manufacturing Team will then develop a quality control system and submit all required documents for State Licensure.

Once licensed, the process of selling and manufacturing Boxes can begin.

ONGOING PRODUCTION AND MONITORING

Once the manufacturing process is up and running, one of the primary tasks of the Expansion Partner is to continually review how things are going. This includes regular check-in with the teams involved to ensure smooth and timely communication and identify any process steps that could be improved. It also includes gathering feedback from buyers about their experience, including what worked and what should have been easier or clearer. Every quarter, the organization should formally review progress by comparing performance to Business Plan targets. Each of these channels for review should directly inform changes and improvements to the pertinent steps of the purchase and manufacturing process and, as needed, should be reflected in updates to the Business Plan.

DETERMINING READINESS

- Rough estimate/means of understanding other essential components
- Staff time - program design and planning
- Software and data infrastructure
- Access to capital and expected start-up funding/capital needed
- Buy-in from agency leadership, boards, local partners, etc.
- Any other baseline/minimum things needed to proceed
- Availability of TA/guidance from bcWORKSHOP/cdeb

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CRITICAL QUESTIONS

LENDING
Do you provide lending services to your clients?

YES
NO

Do you have a loan product that you provide?

YES
NO

Do you have access to a loan pool?

YES
NO

What is your current cost to service a loan?

YES
NO

Do you interested in accessing the MiCASTA lending pool?

YES
NO

The Remote Team may be able to provide support if it is needed.

DESIGN
Are current designs regionally appropriate?

YES
NO

Are current designs regionally licensed in the State?

YES
NO

What is the State Licensure process?

YES
NO

How does the MiCASTA Design need to change based on these needs?

YES
NO

Is the process overseen by NTA?

YES
NO

How long will this take?

YES
NO

Does the factory have the capacity for this project?

YES
NO

Is the site close enough to be cost effective?

YES
NO

How many modules would need to be produced to be cost effective?

YES
NO

FACTORY SET-UP
Do you have any understanding around building factories and manufacturing workflows?

YES
NO

Are there existing manufacturing factories nearby that could take on the MiCASTA Model?

YES
NO

What is the climate, culture and needs of the community?

YES
NO

How does the MiCASTA Design need to change based on these needs?

YES
NO

Is the factory close enough to be cost effective?

YES
NO

How long will this take?

YES
NO

SOFTWARE
Does the current version of the CESS have all of the features the Local Model needs?

YES
NO

CCESS is adjusted for Local Model’s needs.

Evaluate what the Remote Team capacity is to help Local Model with other needs

Remote Team provides both print and face-to-face assistance with CESS for Local Model teams.

SOFTWE
Does the current version of the CESS have all of the features the Local Model needs?

YES
NO

Are there any other software needs outside of the CESS?

YES
NO

What support will the Local Model teams need in order to feel comfortable working with the CESS?

ON-SITE CONSTRUCTION
Do you have an experienced construction team?

YES
NO

What is the workforce in the area?

YES
NO

What are the specific job skills markets in the region?

YES
NO

What materials are available locally?

YES
NO

How many homes do you/could you build in a year?

YES
NO

If there are gaps in the job skills market, how can you fill that?

MANUFACTURING
Do you have experience with building homes?

YES
NO

What is the workforce skillset, how can you plug into that, or improve upon that?

YES
NO

TMAC Training / cdcb Support

What are the specific job skills markets in the region?

YES
NO

If there are gaps in the job skills market, how can you fill that?

YES
NO

What is the workforce in the area?

YES
NO

What are the specific job skills markets in the region?

YES
NO

If there are gaps in the job skills market, how can you fill that?

YES
NO

Does the factory have the capacity for this project?

YES
NO

Is the site close enough to be cost effective?

YES
NO

How many modules would need to be produced to be cost effective?

YES
NO

REMOTE TEAM
Do you have an experienced construction team?

YES
NO

What is the workforce in the area?

YES
NO

What are the specific job skills markets in the region?

YES
NO

What materials are available locally?

YES
NO

How many homes do you/could you build in a year?

YES
NO

If there are gaps in the job skills market, how can you fill that?

YES
NO

Does the factory have the capacity for this project?

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NO

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What is the workforce in the area?

YES
NO

What are the specific job skills markets in the region?

YES
NO

What materials are available locally?

YES
NO

How many homes do you/could you build in a year?

YES
NO

If there are gaps in the job skills market, how can you fill that?
SECTION III
The “How” - the MiCASiTA Model Process

This section is meant to provide a detailed and holistic description of how an organization goes from planning and feasibility to manufacturing MiCASiTA homes. The prior section illustrated that journey in broad strokes, from the “10,000 foot” level. This section goes into greater depth and detail, highlighting specifically the teams that should be involved with each step and how they must coordinate their roles.

In addition to explaining in detail how an Expansion Partner goes through this process, this Section is also meant to highlight how different teams rely upon one another and must work together during various steps.

ALL PHASES

PHASE 1 - Start Up
This phase includes every step that needs to happen before the launch of the program.

- Business Model / Scale of Production / Build Team
- Research
- Product Dev.
- Software Dev.
- State Licensure
- Enterprise Green Communities Certification Process
- Process Repeats
  12 min. homes submitted as part of master application over 12 months

PHASE 2 - Production
This phase includes everything that needs to happen for someone to purchase and move into a home.

- Financial / Impact Analysis
- Outreach / Spreading Awareness
- Box Production / Client Service
- Community Feedback
- Client Feedback
- Worker Feedback
- Design Updates / Licensing
- Software Maintenance
- Software Maintenance

PHASE 3 - Adjustments
This phase includes everything that happens on an ongoing basis, including program adjustments/improvements as well as changes in scale or reach.

- Improve Business Model / Scale of Production
- Improve Marketing / Outreach Strategy
- Improve Client Counseling
- Improve Lending / Client Navigation
- Improve Factory Facility
- Improve Manufacturing Process
- Improve Box Design
- Increase Software Capabilities

KEY
- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

Lead to action
Inform action
**PHASE 1 - START UP**

**Business Model / Scale of Production / Build Team**
- Assemble core Team Members
- Develop Business Plan / Define geography served / Scale of production / Raise funds
- Remote research
- In-person research
- Adjust Business Plan as more is known
- Check in with all Teams
- Develop Outreach Strategy
  - Create Marketing Plan / Adapt templates for local use
  - Contact Design Team for desired images of houses
  - Make all needed marketing materials
- Team Training
  - Hire all required staff
  - Software / General MiCASiTA Model training
  - Specified training
- Factory Set up
  - Understand scale of production / Site factory
  - Design factory workflow
  - Build / Equip factory
- Manufacturing Process Development
  - Source materials
  - Create bill of materials (BOM) + shop drawings
  - Update CESS and MRP Software for material stocking and pricing for clients
- State Licensure
  - Gather required documents (will vary based on state, but will likely include QA/QC)
  - Develop required drawings (will vary based on state, but will likely include Architectural, MEP, Structural)
  - Submit required documents to relevant bodies of authority (respond to comments and resubmit as needed)
  - Add all relevant designs + product choices to CESS
- Software Development
  - Create new (or section off) database for new Local Model, create blank template to fill out software from the most up to date version
  - Edit template to fit needs of new region
  - Hold training sessions with relevant teams
  - One-on-one help to prepare for Local Model launch
- Enterprise Green Communities Certification Process
  - Process Repeats: 12 min. homes submitted as part of master application over 12 months
  - Local Model PPS is completed as part of context analysis and integrative design process, per MiCASiTA Model

**EVALUATION: KNOWING WHEN TO MOVE TO THE PRODUCTION PHASE**

- Scale of production is fully defined, all required funds have been acquired, all teams are assembled and ready to begin production
- Marketing materials are ready to go out
- Teams are fully hired and trained
- Factory is built, ready for production
- All jigs are made, production process is fully developed and practiced
- Design is State Licensed
- Software is running and up to date with all needed information from Lending, Design, and Manufacturing Teams

**PHASE 1 - PILOT RUN**

Before progressing to full production open to all clients, be sure to do a pilot run of the systems to make sure all teams are running smoothly. This should include testing the material sourcing, testing the manufacturing process, the labor teams, general communication between teams, use of software, and client management. Once the teams are comfortable with the way the model is running, then the Local Model can transition into the Production Phase.
PHASE 1 - START-UP

MARKET RESEARCH

Market research will be conducted by the Marketing / Outreach Team. Unless an Expansion Partner has an in-house Marketing / Outreach Team, they will typically work with a marketing firm or consultant to create a Marketing / Outreach Team specific to the Local Model. The Marketing / Outreach Team works closely with other members of the Expansion Partner teams in order to determine what information is most essential for understanding the demand for MiCASiTA homes among the community to be served. Some of the data to be collected will include information like:

- Total potential households
- Average size of household
- Age of household members
- Household income
- Homeownership rates
- Race/Ethnicity
- Cultural/Linguistic factors
- Common barriers to homeownership
- General preferences (e.g. size of house, locations, etc.)
- Specific design preferences (finishes, configurations, etc.)

Ultimately, the market research should shed light on who in a particular area/community might be interested in MiCASiTA homes, what features and amenities they would like in their homes, what barriers to homeownership they may face, and if there are other factors that may influence who purchases a MiCASiTA home.

Some of the market research will rely upon quantitative data sources, like the US Census, GIS maps, and other data sets. The Marketing / Outreach Team should collect qualitative information as well, including interviews, focus groups, and community engagement events. They should target key institutions in the community, including schools, churches, nonprofit organizations, health care providers, and other places where prospective homebuyers may be available to engage in market research.

GEOGRAPHIC RESEARCH

As the Marketing / Outreach Team is conducting market research to assess the demand for the Local Model, each team will participate in conducting geographic research relevant to their responsibilities. This research provides each prospective team a clear understanding of the local and regional factors that may influence the feasibility of a Local Model. It should also inform how the Model must be adapted to meet regional needs, to address the barriers to homeownership they may face, and if there are other factors that may influence who purchases a MiCASiTA home.

This geographic research will consist primarily of standard real estate due diligence, including review of local building codes/regulations, visits to prospective sites, etc. The geographic research must indicate that there are potential sites on which the Local Model factory can be built, and how the MiCASiTA Design can be adapted to best meet the local/regional needs.

BUSINESS PLAN DEVELOPMENT

If the market and geographic research indicates that a Local Model is feasible, the next step for an Expansion Partner is to develop a Business Plan. The Business Plan is developed by the Business / Development Team, in close partnership with the Manufacturing Team and the Factory Set-Up Team.

The Business Plan serves several key functions, including:

- Providing an overall view of the Model, including how the different parts work together.
- Indicating the demand/need for the proposed program, based upon the findings of the market research
- Providing an explanation of how the financing works and the overall financial feasibility of the program.
- Program staffing, including supervision/leadership, and overall oversight
- Mapping out key assumptions in the Model, including the scale of production, the break-even point, etc.
- Identifying potential challenges and how they can be overcome.
- Identifying start-up funding and ongoing revenue needed to support the program.
- Providing a proposed budget, schedule, sales and development projections, and set of milestones against which progress can be measured
- Illustrating roles and responsibilities for partner organizations/entities

DEVELOPING A MARKETING PLAN

As the factory is being developed, the Marketing / Outreach Team is preparing to begin conducting outreach and marketing activities to target prospective homebuyers. The Marketing Plan should be directly informed by the Market Research conducted earlier, and should consist of three primary elements:

- Marketing materials: The marketing materials include any items that will be distributed or disseminated to prospective buyers. They may include written pamphlets or other marketing materials, videos and photos for social media, and website pages (including links to model units, floor plans, and other visual aids showing the specific unit features). The marketing materials should be accompanied by resources and instructions for how the materials can best be used, who should be targeted through which channels, and other guidance. The Design Team will need to support the Marketing / Outreach Team to develop the materials, to ensure that the information and visual presentation of the units are accurate.
- Branding Guide: The Marketing / Outreach Team will also provide a Branding Guide to develop a brand that is specific to the MiCASiTA Expansion Partner in each location. The Branding Guide will ensure that all of the different teams are using the same logos, fonts, and other graphic elements so that they together present a coherent theme. All teams will need to use the graphical elements provided in the Branding Guide.
- Communications Plan: The Communications Plan will spell out in detail how the Marketing / Outreach Team intends to identify and engage interested buyers. It will reflect communication priorities and strategies to be employed in a monthly/quarterly schedule. The Communications Plan will be updated regularly in accordance to outcomes from the prior quarter, emerging priorities, and other factors. Directly informed by the market research, marketing activities must be adapted to better speak to the preferences of the local market. This includes offering materials in multiple languages to reflect the local populations, including regionally-specific motifs and design elements, referencing local culture, and relying upon communication channels that are popular and well-utilized by local residents. This may include participating in health fairs, attending community celebrations, offering advertisements on local radio stations, etc.

Sometimes the best way to share an idea is to show it built.
FACTORY SET-UP

The next phase in the launch process is setting up the factory, where the homes will be manufactured. This step can be divided into several distinct steps, including:

- Identifying and securing an appropriate factory site
- Designing the layout of the workspace
- Building and setting up the factory

The Factory Set-Up process involves several different teams, including the Business / Development Team, the Factory Set-Up Team, the Manufacturing Team, and the Design Team to ensure that the factory will support the exact specifications and scale of the manufacturing process.

- Identifying and Securing Site: The Business / Development Team will work closely with the Factory Set-Up Teams to identify prospective sites and take the steps needed to secure the site. The site will need to meet manufacturing specifications, including proximity to transportation and materials, availability of space for storage, proximity to workers, and other features. It may be a vacant plot of land upon which a factory will be constructed, or it may be an existing manufacturing site that can be adapted. Identifying the site includes meeting with brokers and real estate agents, visiting prospective sites, conducting all necessary due diligence, negotiating a sales price and terms, entering into contract with seller(s), and closing on the purchase.

- Designing a Manufacturing Process: The Manufacturing Team will work closely with the Factory Set-Up Team to make sure the factory design compliments the workflow of the manufacturing process. The manufacturing process must be designed specifically to produce the designated number/scale of homes, incorporate the design features and elements that best serve the targeted buyers and/or are best suited for the proposed climate/location. This is a highly technical process that benefits tremendously from the involvement of manufacturing engineers. In addition, the Design Team should work closely with the Factory Set-Up team at this time to ensure that the manufacturing process includes some of the regionally-specific features and adaptations for the new Expansion Partner. As part of designing the manufacturing process, the Manufacturing and Design Teams must create a Bill of Materials and shop drawings for each design option, and begin to gather quotes for the cost of materials. This information will be uploaded into the software system to allow buyers to understand the cost implications of different design decisions.

Once the manufacturing process has been designed, the Factory Set-Up Team builds out the factory.

TRAINING ALL TEAMS ON THE MODEL

As the Expansion Partner prepares for the launch of the program, some teams may need to undergo training to familiarize themselves with the Model and be prepared to interface with buyers about the purchasing process.

- The Client Counseling Team will need information about how the Local Model works and what is required for a household to purchase a MiCASiTA home, so that they can provide interested buyers with accurate information.
- The Lending Team will need information about what loan products MiCASiTA buyers are eligible for, if different from other programs. They will also need to be fully trained on the process by which the homes are manufactured, and when/how the lending process will intersect with the manufacturing process. We are making the assumption that the Lending Team will be the team navigating the client through the process, so their understanding of the Model is essential.

All teams will need to work together to establish and reinforce lines of communication, including:

- General workflows and process steps, and how buyer is supported through the entire purchasing price
- How construction costs are continually updated and reflected in the software system?
- At which points in the process key information or decisions are needed from the buyers, and how that information is gathered?
- Who the primary point of contact is with buyers and how this person shares information with all of the other teams.

UNIT DESIGN

The Design Team is responsible for finalizing the design of the units that will be manufactured. bcWORKSHOP designed the original MiCASiTA unit in the RGV, and Expansion Partners will automatically be working with bc on evaluating existing designs and adapting them to the culture, needs, and climate of a new region and target buyers. The design adaptations should be informed directly by the market research conducted earlier, as well as any “lessons learned” that have emerged from other Expansion Partners.

Once the design is finalized, the Design Team can offer floor plans and other descriptive and illustrative information about the units back to the Marketing / Outreach Team to use as part of their outreach. In addition, the design adaptations can be shared with the Factory Set-Up Team for incorporation into the manufacturing process design. Significant changes to the current designs will extend the time line.

Securing State Licensure:
The Design Team will work closely with the Manufacturing Team to ensure that the designs and manufacturing process meet all the State Licensing requirements.

ADAPTING CHOICE EMPOWERS SOFTWARE

The MiCASiTA Model relies upon the Choice Empowers Software system, which currently performs two vital functions:

- As a client-facing design tool, the system allows clients to view and select from a range of Local Model design options, including Box types, configuration of units, and interior and exterior finishes. The system also allows for buyers to understand the price differences between their selections on a real-time basis.
- The system also supports the Manufacturing and Business / Development Teams with estimating costs, by enabling vendors to place bids in for materials so that the most affordable materials can be selected, and with managing inventory, as all material supplies are cataloged in the system.

An Expansion Partner will need to work closely with the Manufacturing Team to update the software system to reflect any changes and adaptations in the new unit design. This includes securing a Bill of Materials and shop drawings for each design option from the Manufacturing Team, which will be uploaded into the system. The Manufacturing Team will also need to secure updated material costs to ensure that prospective buyers have accurate cost information when making selections.
PHASE 2 - PRODUCTION

**Financial / Impact Analysis**

Make sure the financial backing and scale of production is working for the model, monitor the impact on the community and look for places to improve both.

**Outreach / Spreading Awareness**

Reach out to organizations, individuals and the community for clients and future partners, utilize local news, and social media to spread awareness about project and impact.

**Design updates / Licensing**

Develop more options for catalogue and continuously license and produce manufacturing documents for new designs (BOM, Shop Drawings, etc.)

**Software Maintenance**

Provide support to teams as needed

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**MARKETING AND OUTREACH**

The first step in the Production Phase is marketing to prospective buyers. The Marketing / Outreach Team begins to reach out to the community in accordance with the Marketing Plan. Marketing activities will include a range of strategies, depending upon the demographics and other characteristics of the target population, but will include attending community events like health fairs and local celebrations, posting actively on social media, advertising on local radio stations, and doing other forms of outreach.

The Marketing Plan should be adapted on a regular basis to incorporate information that the Marketing / Outreach Team is gathering on the ground, including which strategies seem to yield the most interest and referrals, which strategies may need to be adjusted, and any shifts in priorities (such as targeted neighborhoods or households). The Marketing / Outreach Team should be meeting frequently to measure marketing outcomes against projects and to map out goals and priorities for upcoming quarters.

As buyers purchase their homes, their stories should be folded into the marketing plan, as testimonial videos or other materials, to ensure that the buyers themselves are represented in the program marketing.

Once a prospective buyer is identified, they are referred to the Client Counseling Team (if they indicate the need for financial education or counseling) or the Lending Team (if they are prepared to move forward with the purchasing process).

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**KEY**

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

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**Community Feedback**

Gather community feedback formally through anonymous surveys in order to see what the general perception of the program is, and if there are any opportunities to provide something the community desires.

**Worker Feedback**

Gather worker feedback formally through anonymous surveys in order to monitor the working conditions and find ways to make the job easier, safer, and more efficient.

**Client Feedback**

Gather client feedback formally through outreach, through the causal interactions of the Client Navigator through the process, and analyze the success of the design through post-occupancy reports.
Once a household feels like they are ready to purchase their home, the Client Counseling Team refers them to the Lending Team. The job of the Lending Team is to support increased homeownership in general. The client counselors are not allowed to suggest a housing product for their client. Clients choose the Local Model freely while considering any other housing options that are available. Refer to the Client Counseling Section on pg. 73 for more information about the role of the Client Counseling Team.

**Home Financing**

The Lending Team works closely with each homebuyer to help them secure a loan and navigate the process of buying their home. The first step is determining the size of the loan for which the household qualifies, as this will dictate many of the design selections and other decisions. The Loan Originator will explain what that loan amount means, and how much of a down payment will likely be required.

The Lending Team then introduces them to the Local Model as one of the homeownership models available to them and walks them through the Model.

**Box Production / Client Timeline**

When a client chooses the MICASITA Model

Using the Choice Empowers software, the Lending Team then helps the buyer understand what their design options are and confirms that their selections line up with their anticipated loan amount. Selections include Box type, number of Boxes, configuration, finishes, and appliances. The client comes away from this conversation with a clear sense of "how much house" they can afford and what their home design will look like. They will also be able to decide if they intend to build any additions in the future.

The Lending Team will need to work with the buyer to determine if they intend to buy property for the unit or use their own, then coordinate with the On-Site Construction Team to better understand the costs of the home separate from the MICASITA unit, such as site work or demolition. They will then need to gather timelines for manufacturing the unit and completing appraisals. During this step, the Lending Team must work closely with the Manufacturing and On-Site Construction Teams to confirm that all design selections are final before the Manufacturing Team begins their work, and that the On-Site Construction Team has the information they need to prepare the site. bcWORKSHOP will be preparing site-specific drawings and to oversee the permitting process for the site on client’s lots. Refer to the Design Section on pg. 87 for more information about the role of the Design Team.

The Lending Team will then support the buyer to apply for loans and other forms of financial assistance and underwriting for the loan. Once the buyer has successfully closed on the loan, the Lending Team notifies the Manufacturing Team, and the two teams work together to finalize all construction costs before the order is placed. Refer to the Lending Section on pg. 77 for more information about the role of the Lending Team.

**Site Construction and Manufacturing**

Once the order is placed, the Manufacturing Team begins to manufacture the home according to the buyer specifications. The On-Site Construction Team prepares the site, including completing any demolition, pouring the foundation, preparation of flatwork, and any other modifications needed to accommodate the unit.

Once the unit has been manufactured, the Manufacturing Team works with the On-Site Construction Team to coordinate transportation of the unit to the site and assembly and connection of the unit. The On-Site Construction Team will ensure the construction of all modular elements, including porches or other on-site built objects, and completing the landscaping. The On-Site Construction Team is responsible for ensuring the unit passes all local inspection and is ready for move-in.

Refer to pg. 111 for more information on the On-Site Construction Team. Refer to pg. 117 for more information on the Manufacturing Team.

**Refinance Underwriting & Loan Execution**

Some households will choose to expand their homes in the future, and the MICASITA Model can support them with refinancing their loan to accommodate such expansions. This process follows the initial financing process closely. But, instead of originating a new loan, the Lending Team will support the buyer to refinance their existing loan and determine what expansion options are available based upon the loan they qualify for.

**Enterprise Green Communities**

The only national green building standard designed specifically for affordable housing projects, the Enterprise Green Communities Criteria has a major impact on how affordable housing properties are constructed. Currently, 27 states and Washington D.C. require that affordable housing developments receiving public funds comply with the Green Communities Criteria. MICASITA is using this standard:

More information on how to comply with the EGC can be found in the Appendix.
**BOX PRODUCTION / CLIENT TIMELINE**

**Box Production / Client Service**

**Client Counseling**
- Local Model PPS is completed as part of context analysis and integrative design process, per MiCASA Model

**Client Pre-Qualified**
- Homeowner values and health design discussion occurs as part of early counseling session

**Prebuild application for home #1 (i.e. Local Model “A” master application) submitted to EGC for review**

**1st Client Touchpoint - Home Choice**
- Core Configuration
- Additional Boxes
- Foundation Type
- Exterior + Interior Choices
- Discuss Home Placement on Site
- Fill Out All Choices In CESS

**2nd Client Touchpoint - Site Visit**
- Demo Work Info
- Site Modification
- Final Plan
- Confirm Core And Box Configuration
- Set Back - Driveway + Flatwork
- Site Report

**3rd Client Touchpoint - Confirmation**
- Request Survey
- Site Plan

**4th Client Touchpoint - Manufacturing Begins**
- Site Plan
- Manufacturing Order Form
- Site Demo Work Request
- Site Move Out

**MANUFACTURING STATE INSPECTION (RANDOMIZED)**
- Site Address
- Site Report
- Confirmation That Client is Proceeding
- Survey
- Site Plan
- Manufacture Order Form
- Site Plan - Engine Drawings
- Demo Permit

**On-Site Construction**
- Completion Of Boxes
- Box Installation
- Power Clearance
- Flatwork
- Sod
- Final City Inspection
- Engineering
- Windstorm
- Sewer
- Foundation
- Water

**Transportation Of Boxes**
- Track Route
- Cost / Distance
- Max. Height
- Required Permits

**NEED:**
- Foundation To Be Complete
- All Underground Work Around Flatwork On Site To Be Complete
- Construction To Be Complete For Building And Site
- Mass Inspections
- C/O

**NEED:**
- Permit For Site Work
- Foundation To Be Complete
- Site Report
- Confirmation That Client is Proceeding
- Survey
- Site Plan
- Manufacture Order Form
- Site Plan - Engine Drawings
- Demo Permit

**Completion Of Boxes**
- Foundation
- Brick
- Connections
- Porch

**Enterprise Green Communities Certification Process**
- Green Team reviews home #1 prebuild application (~30 days review, resubmit until approved)

**Home #2 prebuild (i.e. Local Model “A” assoc application) submitted for review**

**Prebuild application for home #1 (i.e. Local Model “A” master application) submitted to EGC for review**

**34 35**

**SECTION III: THE "HOW"**
PHASE 3 - ADJUSTMENTS

Every partner organization should incorporate processes for continual evaluation and quality improvement of their Local Model, which are followed on an ongoing basis. These processes should incorporate feedback from internal stakeholders, including all team members and partners, covering key topics like:

● Did you and your team have the information and tools you needed to complete your assigned tasks?
● What worked well and what needs improvement?
● Were there parts of the process that were prone to delays?
● Were there parts of the process that were confusing or hard to navigate?
● What could have made your job easier or more successful?
● Are there teams with whom your team needs stronger communication?
● What other barriers or challenges did you face in this process?
● What other improvements or adaptations would you recommend?

The process should also incorporate feedback from buyers, covering key topics like:

● Are you happy with the product?
● Were you satisfied with the process of buying your home?
● Was the process what you expected or were parts confusing or unclear?
● What information or resources would have made the process better?
● What improvements or adaptations would you recommend?
● Do you think this model is a good option for members of your community? Would you recommend it to others?

The teams should also periodically assess their impact, by returning to the goals and outcomes highlighted in the Business Plan and measuring performance against those goals. It may be necessary to define other ways of measuring success and impact, and/or reassessing goals on an annual basis.

There may be outside forces that are limiting your impact, so part of this analysis should also include a look at the broader housing climate of your region and the role your team plays within that.

Advocacy

● Why can’t we build more houses?
● What policies should we be changing
● What is our role?

Once all of the feedback has been collected and analyzed, the teams must come together to develop an adjustment plan. There are three points of adjustment that work relatively independently from each other:

● Business Plan / Scale of Production
● Box Design
● Software

The diagram to the right breaks these down into more detailed points of action.

Financial / Impact Analysis

Improve Business Model / Scale of Production

Improve Marketing / Outreach Strategy

Improve Client Counseling

Improve Lending / Client Navigation

Add New Lending Packages

Improve Client Experience

Improve Factory Facility

Improve Factory Workflow

Expand Current Factory / Build New Location

Invest in New Machinery / Tools

Improve Manufacturing Process

Improve Manufacturing Workflow

Create More Jigs

Improve Training Process

Reduce Waste

Improve Box Design

Develop More Box Types

Improve / Develop Designs Based on Ease of Construction

Improve / Develop Designs Based on Common Client Requests

Improve / Develop Designs Based on Pricing

Improve / Develop Designs Based on Building Performance

Increase Software Capabilities

Increase Input Options

Increase Ease of Use

Link to Other Useful Software (MRP, Lending, etc.)

Increase Automation Where Possible

Improve Team Communication

Improve Client Communication

KEY

Business / Development
Marketing / Outreach
Client Counseling
Lending
Design
Factory Set-Up
On-Site Construction
Manufacturing
Software

Lead to action
Informs action

SECTION III: THE “HOW”
SECTION IV
Team Manuals

This section is divided into manuals specific for each team detailing the specific operations and resources. These manuals are designed to be pulled out and "handed" to each team to help them each understand in depth what formation through production could look like.

TEAM DESCRIPTION

The Business / Development Team is responsible for ensuring the successful implementation of the Local Model, from initial conception to ongoing operation. One of the few teams that works in some way with every other team, the Business / Development Team is focused on the overall vision: how all the other teams are working together, ensuring that each of the steps in the process are going smoothly, and managing the budget and flow of resources.

The Remote Team plays a central role in supporting Expansion Partners, by ensuring that they have the information and technical support they need to launch and operate their own Local Model.

BUILDING THE TEAM

Remote Team members:
The Remote Team members will be available for support and will likely have regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production.

cdcb
- Executive Director
- Deputy Director
[bcl]
- Executive Director
- Associate Director of Planning

Local Staffing:
The Business / Development staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential Business / Development skills.

Skills Required:
- Business planning and budgeting
- Securing financing
- Include initial start up cost, ongoing business costs, and loan fund development
- Overall operations and oversight
- Workforce management & employee development

Positions may be divided these roles:
- Executive oversight/leadership/vision – understands the whole, can be ‘externally facing’ with funders, jurisdictional partners, and other stakeholders
- Operational expertise – understands workflows, staffing, and other elements of how the work is done.
- Finance Oversight – This could be shared by the other two members or be a separate staff person. Someone that understands the financial structure of lending, manufacturing and marketing and how they all play together to wrap-up to the Local Model.
The overall business model is scaled appropriately for the community's need and the resources available.

### RAISE FUNDS / APPLY FOR GRANTS
- **Description:** Raise money for operations, production, clients, etc...

### DEVELOP A BUSINESS PLAN
- **Description:** Develop a plan for the scale of impact and plan out who needs to be on the teams, how much funding is needed to get started, to continue, and to grow.

### DEFINE INITIAL SCALE OF PRODUCTION
- **Description:** Determine the amount of funds available for manufacturing and the speed at which the boxes can be produced given the initial factory set up.

### COORDINATE WITH MANUFACTURING PROCESS
- **Description:** Take time to learn about cost saving strategies in the manufacturing process and how the manufacturing process will be working specifically in this geography.

### BUILD PARTNERSHIPS WITH CORE TEAM MEMBERS
- **Description:** Assemble a core group of organizations to fulfill the roles of each team.

### RAISE AWARENESS
- **Description:** The Business Team will be responsible for raising awareness of the project, connecting with community partners and funders to make sure the goals can be met and the appropriate people are at the table when setting impact goals.

### COLLECT FEEDBACK
- **Description:** The Business Team must develop a way to get feedback on the success of the houses they are producing. Feedback will be needed from clients, the community and the workers.

### MONITOR FINANCES
- **Description:** Make sure the finances are working for the current production model, begin to think about scale and the possibility of scaling up and what that might take.

### ADJUST BUSINESS PLAN
- **Description:** The Business Team must use feedback from the community and other teams to refine the Business Plan. This may include change of scale, rethinking the product, etc...

### SECTION IV: TEAM MANUALS

#### BUSINESS / DEVELOPMENT

**PHASE 1 - Start Up**
Determining the initial scale of production and developing the Business Plan for that scale and growth. Building the team to accomplish these goals.

**Staffing:**
The Business / Development Team may be small, **cdcb** will be able to assist with some guidance.

**PHASE 2 - Production**
Continuing to raise funds for clients and expansion, collecting feedback as other teams are working on producing the orders.

**Staffing:**
The Business / Development Team may be small, **cdcb** will be able to assist with some guidance.

**PHASE 3 - Adjustments**
Feedback is considered while also re-scaling the production to fit new potential due to fundraising.

**Staffing:**
The Business / Development Team may be small, **cdcb** will be able to assist with some guidance.
The Business / Development Team plays several important roles in setting up the Local Model, including:

**RAISE FUNDS / APPLY FOR GRANTS**

The Business / Development Team takes the lead on developing budgets and sources of revenue for start-up and ongoing operations which, from a financial standpoint, look very different. In order to support start-up activities, most Expansion Partners will need grant funding or other resources to cover staff time, consultants, and other start-up costs, including.

Expansion Partners receive a grant for the Local Model, this is to cover the support that the program will receive from the Remote Team and some start-up costs.

**BUILD PARTNERSHIPS WITH CORE TEAM MEMBERS**

Each Expansion Partner will need to determine how all the essential roles will be filled in order to operate the Local Model. Depending upon the size, bandwidth, and core competencies of the Local Model, some roles may need to be assumed by community partners.

**DEVELOP A BUSINESS PLAN**

Every Expansion Partner needs a Business Plan, which serves as the roadmap for developing and operating their program. The plan outlines all of the key components of the program, such as: an analysis of the target population and market; a detailed description of the product(s) to be developed; how the Local Model will be staffing and supervised; budget and funding/financing sources; development and sales projections; milestones to meet in order to launch; and other elements. Developing this plan is one of the most important roles of the Business / Development Team, and the Remote Team can play an important role in this process as well. See pg. 49 for a template of a Business Plan. This can also be downloaded from our online appendix.

**DEFINE INITIAL SCALE PRODUCTION**

As part of the Business Plan, the Business / Development Team should do a market analysis, to determine the potential demand for the product and identify the households most appropriate for the Local Model. In addition, the Business Planning and Development team should listen closely to the input of MiCASiTA clients and clients of other cdcb programs to get a better understanding of what they want for their families, what amenities or features are most important, and what barriers they may face. It is also critical to listen closely to staff and other team members, to gather feedback about the needs/demand they observe in the community, what staff members need to succeed in their roles, what barriers they may face, and – once the Local Model has launched – what is and is not working. The Business / Development Team must also define the geographic market. Determining the regions that the Local Model will serve is essential for the business model. The cost of transportation will be one of the largest factors as well as what distances your team will be able to travel reliably.

**COORDINATE WITH MANUFACTURING PROCESS**

The Business / Development Team works closely with all teams, but particularly so with manufacturing. The manufacturing process is very complex, but also central to the overall success of the Model. It is also where the most efficiencies and potential cost savings can be identified, so the Business / Development Team must cultivate a close understanding of how the manufacturing process works and ensure the development of a manufacturing process that is as cost efficient as possible, and to provide feedback if costs are too high or the budget is otherwise not balanced.

Role of TMAC: Another essential member of the MiCASiTA Team is the Texas Manufacturing Assistance Center (TMAC) at University of Texas Rio Grande Valley (UTRGV). Staffed by manufacturing engineers and other experts, TMAC provided support with Business Plan development, advised on manufacturing processes and workflows, trained staff on machinery operations, and helped the cdcb team introduce efficiencies and cost saving measures into the manufacturing process. TMAC will be contracted to provide a training class for all interested groups. The cost will be covered by MiCASiTA Inc. as part of the technical assistance provided.

The Business / Development Team should also consider the local and regional resources when thinking through the manufacturing process. Ideally, the manufacturing process could draw upon local workforce and other elements of the physical and human capital in the region, connecting local workers to manufacturing jobs and providing training as needed.

**INITIAL GEOGRAPHY RESEARCH**

The Business / Development Team should have a good understanding of their community. For them, this will likely focus of feasibility studies, and a deep dive into the manufacturing process and how that can connect to local assets, efforts, and resources.
CRITICAL QUESTIONS

Will you have funds to assist clients in acquiring land?
Will your clients come with their own land?
Do you own land and/or do you acquire land for development?

What is the gap?
Will the MiCASiTA Model be filling a gap in the affordable housing supply?
Will your clients come with their own land?
Do you own land and/or do you acquire land for development?

Market Analysis
Real Estate Due Diligence

What regional resources could be tied into the Local Model to build in levels of impact and/or make the project feasible?
What other benefits will the MiCASiTA Model bring to your region?
What is that gap?

Yes
No

BUSINESS PLAN
[TEMPLATE AVAILABLE FOR DOWNLOAD IN APPENDIX]

Local Model [Replace with Local Name in document]
Regional Address [X]
[Date]

Executive Summary

Goals and Objectives
What are the general goals of this company?

Product
Describe the organization’s primary service/product.

Organizations / Companies Directly Involved
List partners

The Organization (Local Model)

The Organization
Explain the organization’s history in detail.

Business Sector
What business sectors do you plan to engage with and how?

How does this look in relation to other companies and organizations within those business sectors?

Organization Goals and Objectives
What are the specific regional issues you are addressing, and how does this housing model accomplish that?

What are the benchmarks you plan to meet?

Organizational timeline
What is the proposed timeline for achieving these goals?
Organization Structure
Will it be run as a partnership or a Sole Proprietorship?

Partners (if applicable)
Partner:  
Role:
Partner:  
Role:
Partner:  
Role:
Partner:  
Role:

Organization Management Structure
Explain in detail what the company's management structure is.

How do the teams work together?

How do the partner organizations work together (if applicable)? What does the partnership agreement include? What does the revenue sharing agreement entail?

Organization Assets
Describe the organization's assets:

The Product
Describe the organization's primary service / product in detail: Housing model, manufacturing process, counseling services, lending services.

Product Distinctions
Describe the intellectual property rights held by the company in detail: Describe how your product will be different than the product currently available in your area.

Future Products
Describe any possible products/services that are being developed:

Marketing Plan
Target Market
Provide a detailed description of the organization's target market:

Pricing Strategy
Describe the organization's pricing strategy in detail:

Pricing is based on the material and labor cost of the manufacturing process and will shift based on the selections of the client and material available, aimed at producing the best quality home for the lowest cost possible given market realities. The efficiencies of the manufacturing process keeps the cost of the houses lower than one-off on site construction.

Advertising Strategy
Explain the company's advertising strategy in detail:

What are opportunities for direct outreach to clients?

What are opportunities for indirect outreach to clients?

What local news and/or social media cycles to plug into?

Competitor Analysis
Competitors
Describe the organization's competitors:

What other housing programs exist in the area for the target market?

How will this fill a gap in the housing supply based on the programs that are available?

Operations
Daily Operations
Describe your day-to-day operations:

Business Team:

Marketing Team:

Client Counseling Team:

Lending Team:
Design Team (work with bcWORKSHOP to fill this out):

Factory Set Up Team:

Manufacturing:

On-Site Construction:

Operational Facilities
Describe the company’s operational facilities.

What will the manufacturing facility look like?

Staffing
Describe staffing needs.

Do you have anyone on staff to take the lead on this project?

Will you need to hire more people?

Are you missing needed skill sets on your team?

How do the staff from different organizations collaborate (if applicable)?

Suppliers
Does the organization have any outside suppliers?

What local material suppliers will be involved?

How will the local materials available affect the products offered?

Capital Requirements Plan

Capital Requirements
What capital requirements will the organization have?

Capital repayment Plan (If Applicable)
Describe the organization’s repayment plan if you are taking out loans:

Local Model

Actual and Projected Income Statement / Profit and Loss Account
For the year ending the 31st Day of December

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<tr>
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<tr>
<td>Total Revenue</td>
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</tbody>
</table>

Total Expenses: 0

Net Income (Before Tax): 0

[Example Budget / Projected Income Statement] - This is a placeholder
PHASE 2 - Production

Continuing to raise funds for clients and expansion, collecting feedback as other teams are working on producing the orders.

Staffing:
The Business / Development Team may be small, cdcb will be able to assist with some guidance.

RAISE FUNDS / APPLY FOR GRANTS

FISCAL MONITORING

BUILD RELATIONSHIPS WITH FUTURE PARTNERS

COLLECT FEEDBACK

RAISE AWARENESS

PROGRAM TIMELINE

KEY

Business / Development
Marketing / Outreach
Client Counseling
Lending
Design
Factory Set-Up
On-Site Construction
Manufacturing
Software

Once the Local Model has launched, the Business / Development Team remains closely involved, to ensure the ongoing success of the program. Some of the team's key roles during this time include:

OPERATIONS

The Business / Development Team will need to have a designated operations person who handles the Local Model specifically. Something we are learning is we need one person in charge of the overall operations of our Local RVG Model. Part of the Leadership Team needs to be a Director/Manager of the Local Model, that way the point of contact is clear and one person is overseeing progress and production rather than multiple.

FISCAL MONITORING

The Business / Development Team provides overall financial oversight of the program, even as fiscal and accounting staff assume greater roles. This includes closely monitoring manufacturing and other program costs, balancing the budget, reporting to funders as needed, and adjusting sales projections and profits as needed. The Manufacturing Team will be using a Material Requirements Planning (MRP) software system to track material orders. This will automate the financial tracking of the material purchased. Understanding how to use this will be essential for the success of the Local Model. Integrating this into the accounting process for the manufacturing.

RAISE AWARENESS

This includes networking with philanthropic partners, applying for grants, and making presentations to other stakeholders to secure additional resources in support of the program and raise awareness about the Model. Local / Regional / National news outreach will also help target more general audiences that may help garner unexpected partnerships or sources of income and clients.

BUILD RELATIONSHIPS WITH FUTURE PARTNERS

As the production of the homes begins, there may be more opportunities and interest to partner with new organizations, use this as an opportunity to increase impact and better the experience of the clients.

COLLECT FEEDBACK

Gathering staff and client feedback is an ongoing function of the Business / Development Team, to ensure that the process is working, to identify places where communication is breaking down or there are other delays, and to refine the product to better meet client needs. Ideally, this process is supported by data – client satisfaction surveys, manufacturing outcomes data, and/or other data.

A market analysis will also be essential in order to understand if/how the scale of production needs to change.
PHASE 3 - Adjustments

Feedback is considered while also re-scaling the production to fit new potential due to fundraising.

Staffing:
The Business / Development Team may be small, cdcb will be able to assist with some guidance.

RAISE FUNDS / APPLY FOR GRANTS

FISCAL MONITORING

BUILD RELATIONSHIPS WITH FUTURE PARTNERS

ADJUST BUSINESS PLAN

When determining the scale of expansion, the team should first consider what is feasible. More specifically:

- What is a reasonable amount of expansion considering current production levels?
- If buyer and community demand exceeds production levels, how can that be quantified to better define a target production level?
- What would such expansion cost, both in terms of one-time start-up capital and ongoing operating expenses?
- Are there other nearby communities you would like to serve? What would that require?
- Is the demand at the edges of the geography you serve reaching a point where building a closer facility may be warranted?

Once a program has achieved a stable state of operations, they may choose to expand in order to better meet the need or to serve a broader geography. The Business / Development Team plays a central role in deciding whether to expand and determining the scale of the expansion.

COLLECT FEEDBACK

Gathering staff and client feedback is an ongoing function of the Business / Development Team, to ensure that the process is working, to identify places where communication is breaking down or there are other delays, and to refine the product to better meet client needs. Ideally, this process is supported by data – client satisfaction surveys, manufacturing outcomes data, and/or other data.

The lessons learned from clients and staff should also be factored into the discussions related to expansion. These lessons will vary by program, but may include issues like:

- Phases of the process that took longer than expected
- Buyer preferences that could have been better reflected in the design
- Communication challenges or breakdowns
- Steps in the process that were confusing or frustrating for staff or clients

RAISE AWARENESS

TEAM FEEDBACK

COMMUNITY FEEDBACK

CLIENT FEEDBACK

BUILD RELATIONSHIPS WITH FUTURE PARTNERS

ADJUST BUSINESS PLAN

RAISE FUNDS / APPLY FOR GRANTS

FISCAL MONITORING

KEY

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SECTION IV: TEAM MANUALS
TEAM DESCRIPTION

The Marketing / Outreach Team is responsible for raising the profile of the Local Model in order to identify and engage prospective buyers. This includes developing a comprehensive marketing and Communications Plan, developing a brand (and corresponding Branding Guide and marketing materials) and conducting a range of promotional and outreach activities.

BUILDING THE TEAM

Remote Team members:
The Remote Team members will be available for support and will likely have regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production.

dcdb

● Director Of Marketing, Communications And Public Relations

● Designers

Local Staffing:
The Marketing & Outreach staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential skills.

Skills Required:

● Brand development – Ability to conduct market research, define the target market/population, and develop materials that speak specifically to that market/population.

● Communications – Ability to disseminate information about the Local Model in a wide range of formats, including written materials, social media posts, radio advertisements, and other formats appropriate for the market.

● Community Outreach – Experience with outreach and engagement activities that are customized to the target population/market.

Positions may be divided these roles:

● Outreach Specialist – The person making and maintaining connections, sending out materials to appropriate parties. They also are the boots on the ground person for engagement.

● Marketing Materials Designer - The person who makes the materials for marketing and outreach.
**OVERALL PHASING**

**PHASE 1 - Start Up**
Preparing materials for initial outreach round to community for clients, partners, funders.

**Staffing:**
Full staff engagement.

**BUILD BRAND GUIDE**
- Description:
  Determine guidelines for graphics, fonts, colors, logos to be used by all teams for this project only.

**CREATE COMMUNICATIONS PLAN**
- Description:
  The Communications Plan should establish quarterly marketing and communication priorities, which inform the activities of the outreach team. The plan can be adjusted quarterly based upon the outcomes of the prior quarter.

**CREATE MARKETING MATERIALS**
- Description:
  Marketing materials should reflect the information gathered during the market research. Available in multiple languages as appropriate and in the formats most likely to be consumed by the targeted buyers, they may include written pamphlets, videos and photos for social media posts, web pages (including links to model units, floor plans, photos, and other visual aids), as well as any necessary resources for members of the outreach team to inform how they are conducting outreach.

**OUTREACH TO ORGANIZATIONS THAT MAY HAVE TIES TO POTENTIAL CLIENTS**
- Description:
  As with the start-up phase, the Outreach Team should continue to reach out to community-based organizations, schools, health care providers, and other agencies that serve families that could be appropriate for the program.

**OUTREACH DIRECTLY TO CLIENTS**
- Description:
  The Marketing Team should also continue to reach out to clients directly, by holding information booths at local resource fairs, distributing surveys, etc.

**OUTREACH TO LOCAL NEWS AND MEDIA**
- Description:
  Local print and digital media should be engaged and aware of project and how it relates to current local issues.

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**OUTREACH TO LOCAL NEWS AND MEDIA**
- Description:
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**PHASE 2 - Production**
As homes are completed, making sure the community, partners, and funders are aware of progress. Continuing to reach out to the community for new clients, partners funders.

**Staffing:**
Full staff engagement.

**BUILD BRAND GUIDE**
- Description:
  Determine guidelines for graphics, fonts, colors, logos to be used by all teams for this project only.

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**OUTREACH TO LOCAL NEWS AND MEDIA**
- Description:
  Local print and digital media should be engaged and aware of project and how it relates to current local issues.

**PHASE 3 - Adjustments**
Outreach to gain community and client feedback on design and process.

**Staffing:**
Full staff engagement.

**COLLECT FEEDBACK**
- Description:
  The Marketing Team collects feedback from clients on an ongoing basis.

**OUTREACH TO ORGANIZATIONS THAT MAY HAVE TIES TO POTENTIAL CLIENTS**
- Description:
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**OUTREACH TO LOCAL NEWS AND MEDIA**
- Description:
  Local print and digital media should be engaged and aware of project and how it relates to current local issues.
The Marketing / Outreach Team plays the central role of building the marketing strategy during the set-up phase. This consists of the following tasks:

**EVALUATE CAPACITY**

What is your team’s capacity for the design or creation of marketing materials? Does anyone have experience with web design or social media?

**KNOWING YOUR COMMUNITY**

Each community will have different needs in terms of accessibility of marketing materials, including having versions of all documents and materials in all relevant languages and in formats and locations that reach the target audience.

In the Rio Grande Valley, this required Spanish fluency and consisted of working at informational booths at local events, conducting one-on-one outreach in targeted neighborhoods, and building relationships with local community organizations, schools, health organizations, and other providers with relationships with local families.

**CONDUCTING MARKET RESEARCH**

This consists of understanding who the prospective buyers are (e.g. household income, family size, and other key demographic and descriptive information) as well as what sorts of amenities and features they most want for their homes (location, preferred configurations, ideal size of home, etc.). It is essential to have a well-developed sense of what prospective buyers want and need before developing marketing materials. Focus groups and surveys can be a useful source of information for gathering information from local community members.

**FOCUS GROUPS**

A focus group is a small group of people, typically representative of the target market, with whom ideas are shared for feedback and response. The Marketing / Outreach Team asks questions about general preferences and other topics in order to get a sense of what best catches participants’ eyes. The focus group is not meant to make specific design decisions, but to gather general impressions and broad preferences.

The focus groups can help the Marketing / Outreach Team determine what types of photos work best, graphic design for marketing materials, or even marketing and outreach methods. For more information about how to set up a focus group, refer to pg. 66.

**COMMUNICATION PLAN**

The Communications Plan should establish quarterly marketing and communication priorities, which inform the activities of the outreach team. The plan can be adjusted quarterly based upon the outcomes of the prior quarter.

The Communications Plan should reflect the region and target population that the program intends to serve. For instance, in the Rio Grande Valley, all materials were available in English and Spanish, and client photos and videos reflected the region in terms of colors, fonts, and local references.

**BUILDING BRANDING GUIDE**

The Remote Team will provide a base Branding Guide, which each Expansion Partner will adapt to fit their program’s needs. The Guide includes guidance on the following:

- Logos
- Standard Graphics
- Colors
- Fonts
- Correct Use / Incorrect Use

For additional information on branding, refer to pg. 65.
MARKETING TOOLKIT

Creation of marketing materials:
Marketing materials should reflect the information gathered during the market research. Available in multiple languages as appropriate and in the formats most likely to be consumed by the targeted buyers, they may include written pamphlets, videos and photos for social media posts, web pages (including links to model units, floor plans, photos, and other visual aids), as well as any necessary resources for members of the outreach team to inform how they are conducting outreach.

Development of the marketing materials relies heavily upon input from the Design Team, specifically with respect to unit specifica-tions and sample photos, floor plans, and other visual aids.

Using a model home as a marketing office and/or to offer tours to prospective buyers could be an effective marketing option, especially if there were a workstation for them to navigate through design options with a sales associate.

Basic Types of Marketing Materials:
- Brochures
- Flyers
- Newsletters
- Social media posts
- Video

Brand Ambassadors
Expansion Partners are often the best ambassadors for the program. Steps that staff can take to support marketing include:
- Activate the program from the inside-out.
- Tell everyone you know! Friends, family, everyone in your network.
- Develop a list of FAQs so that your staff has accurate responses to program inquiries.
- Create a PowerPoint that your team can use to present the program.
- Plan an info session
- Order some swag

Storytelling
Buyers can be an excellent source of marketing information by telling their stories. Expansion Partners can ask the people who have successfully purchased their homes to do a video interview about the experience. The Marketing / Outreach Team can edit the video into clips, use sound bites, and incorporate pictures to make a compelling marketing video. If the client prefers to stay off-camera, you can ask to photograph them at their home. If they would prefer not to do an interview, it is possible to use a quote and a picture.

Best Practices
There are several other ways to optimize marketing efforts and create a better user experience, including:
- Using QR codes and shorter links
- Learning how and when to capture “perfect” pictures
- Learning how to shoot video
- Researching equipment recommendations
- Documenting key moments and creating a b-roll gallery
- Utilize templates - if the Remote Team does not have a template for what you need, we may be able to help you, or you may be able to find useful templates online

BRANDING GUIDES

Logos
- Logos should be standardized
- Alternative logos could be created made for specific uses
- Full color logo vs. mono color logo vs. black and white or gray-scale logo

Standard Graphics
Make sure that the graphics that the team is using most frequently are standardized, including a set color palette and font family, using the same graphic language/style.

Colors
Choosing a color paelt that goes well together and is flexible enough for multiple uses will help unify the graphics used for one project.

Fonts
- One or multiple font families can be chosen
- Set guides of font size / bold etc.

Correct Use / Incorrect Use
Give examples of the rules you would like your team to use when making marketing materials for your program.

Examples of the elements of a Branding Guide (see current Micasita Branding Guide for current graphic standards)

VISUAL ELEMENTS | UNITS

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VISUAL ELEMENTS | COLORS

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VISUAL ELEMENTS | FONTS

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SCREEN RESOLUTIONS

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SECTION IV: TEAM MANUALS

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FOCUS GROUPS BEST PRACTICES

Planning the session:
- Choose topic of discussion - set goals
- Prepare 5-6 open ended questions - Avoid yes/no questions
- Create an agenda - Session should be 1-1.5 hours long
- Print materials you’re handing out or showing participants
- Select a venue that is accessible, offers sufficient space/ seating

Reduce barriers:
- Pick a time after regular work hours
- Choose a location that’s easy for everyone to access

Invite participants:
Focus groups are usually conducted with 6-10 members who have some similar nature, e.g., similar age group, status in a program, etc. Select members who are likely to be participative and reflective. Attempt to select members who don’t know each other.

Supplies (examples):
- Big post-it board
- Markers
- Water bottles
- Packaged snacks (granola bars, dried fruit, trail mix)

Incentives / Compensation:
Although it’s not required, it’s a good idea to compensate participants for their time and input. Gift cards to local businesses (grocery stores, coffee shops, etc.) can be very useful incentives.

Preparing for the Focus Group:
- Call participants to confirm their attendance
- Ensure that it is staffed by two people - one to facilitate the conversation and one to take notes

Starting the Focus Group:
- Establish rules at the start - recap the duration, summarize the topics to be covered, and ask people to silence their phones
- Explain that there are no wrong answers and the goal is to just get their opinions
- Conduct an icebreaker

Ensure even participation:
If one or two people are dominating the meeting, then call on others. Consider using a round-table approach, including going in one direction around the table, giving each person a minute to answer the question. If the domination persists, note it to the group and ask for ideas about how the participation can be increased.

Always seek clarity:
Never just assume that you know what the participant means.

Remain neutral:
- Listen attentively
- Keep personal views out of the facilitation
- Watch your body language

RIO GRANDE VALLEY FOCUS GROUP

Goals:
- Get feedback on how to introduce and explain the program to clients. (Keywords, phrases)
- Interior and exterior design elements and finishes that clients prefer.
- Feedback on 3 different brochure layouts and contents.

Results:
- Participants age 35+: Interested in purchasing a house they can get in 120 days, prefer a “warm/neutral” color palette, interested in a brick or siding/stone home.
- Participants age 35-: Interested in starter home they can grow, prefer a “cold” color palette, interested in a board and batten or brick home.
- All want granite countertops and a porch, nobody expressed interest in bright color houses or angled roofs, the combination stucco and stone was something all participants expressed interest in.
- All participants found the step-by-step process described in brochures helpful.
- We’re going to create marketing materials for the RGV with this in mind.
PHASE 2 - Production
As homes are completed, making sure the community, partners, and funders are aware of progress. Continuing to reach out to the community for new clients, partners funders.

Staffing:
Full staff engagement.

Once production has started, the Marketing / Outreach Team should monitor progress to date, including a review of which outreach strategies yielded the most interest. The ongoing Marketing and Communication Plan should reflect the outcomes of that review and inform ongoing community outreach to identify more prospective buyers. Some channels for outreach include:

**CONDUCTING OUTREACH TO LOCAL NEWS AND MEDIA**

The Marketing / Outreach Team should keep a close eye on what is going on locally. New stories related to housing or community development are good opportunities for an Expansion Partner to offer their CEO or ED as a subject matter expert that is implementing a solution. Marketing / Outreach Teams should explore various channels, including television, radio, newspapers, podcasts, twitter conversations, blogs, and others. While buyers might not listen to a podcast episode, colleagues, government officials, and funders might. If some strategies fail, Expansion Partners can always seek to tell a marketing story through their networks.

**COLLECTING FEEDBACK FROM CLIENTS**

The Marketing / Outreach Team collects feedback from clients on an ongoing basis through surveys to clients, scheduled phone check-ins, or community meetings targeted to clients may work depending on the community’s preferences for engagement.
COLLECT + PROVIDE CLIENT FEEDBACK TO TEAMS

If any needs that are not being met by the current model come up through the choice process or home buying process let the appropriate team know to improve the process or design based on client comments or feedback.

As part of the process of adjusting the program, the Marketing / Outreach Team should identify any unmet needs or challenges that can be addressed, as well as any ways in which the process or design can be improved. This may impact the future of any of these elements:

- Design options
- Client experience
- Software tools

Surveys to clients, scheduled phone check-ins, or community meetings targeted to clients may work depending on the community’s preferences for engagement. Channels for anonymous feedback will also be important.

ADJUST COMMUNICATIONS PLAN

Expansion Partners should use feedback from clients and other teams, as well as data analytics on success of digital outreach, to adjust the Communications Plan to reach more people in impactful ways. This may mean being more targeted in outreach, expanding the pool of recipients, getting created with outreach methods, and adjusting graphics to align with those goals.
**NOTES**

**TEAM DESCRIPTION**

The Client Counseling Team is responsible for supporting prospective homebuyers to better understand and prepare for the process of buying a home. This includes:

- General homebuyer education, such as helping a household decide if buying a home is right for them.
- Financial literacy support, including helping families to define and attain their financial goals, develop household budgets, and understand what credit scores mean.
- Support with credit, including understanding credit scores and, when appropriate, identifying strategies that households can employ to improve credit and increase savings.
- Providing ongoing client counseling to MiCASIATA buyers who wish to expand their homes and/or refinance. It should be noted that ongoing client counseling is typically not offered for other homebuyer programs and may require additional staffing resources.

**BUILDING THE TEAM**

**Remote Team members:**
The Remote Team members will be available for support and will likely have regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production. Depending on capacity, the Remote Team may be able to supply more permanent support to Expansion Partners if they are unable to bring on local Client Counseling Team.

**Local Staffing:**
The Client Counseling staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential skills.

**Positions may be divided these roles:**
- Financial Security Counselor
- HUD Counselor

**ccdb - DEPENDING ON CAPACITY**
- Financial Security Counselors
- HUD Counselors

**REFERENCES TO LOOK FOR IN APPENDIX:**

- MiCASIATA Training Materials
- MiCASIATA Branding Guide
- Marketing Material Templates
- Focus Group Guide
- Example SWOT Analysis
- Example Marketing and Communications Plan
- Example Marketing and Outreach Activity List
### OVERALL PHASING

#### KEY

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

#### INTERNAL ACTIONS

- **All teams confirm next phase is possible**
- **Local Team responsible**
- **Staffing available and assumed in beginning**
- **Remote Team responsible (bc, cdcb, TMAC etc.**)

#### START UP PHASE

The Client Counseling Team does not need to play a central role in setting the MiCASiTA program, but the other teams should be aware of how the Client Counseling Team supports clients as they prepare to buy homes. In addition, the Client Counseling Team should be fully trained on the MiCASiTA Model so that they can share accurate information with clients.

#### PRODUCTION PHASE

Once the MiCASiTA program has launched, the Client Counseling Team can continue to provide the services that they have historically offered, but can add the MiCASiTA Model to the options available to prospective homebuyers if appropriate.

#### ADJUSTMENT PHASE

If, during the process of adjusting the program or gathering client feedback, any issues or unmet needs are identified that pertain to the Client Counseling Team or process, the team should be looped into those discussions and engaged in the process of addressing those challenges.

Right now, post-occupancy counseling is offered only to households who are considering going through a refinancing process to expand their homes. Expansion Partners may consider also providing counseling support for households who are facing challenges paying their mortgage, including referrals/connections to financial assistance and foreclosure prevention resources.

### TRAINING ON MICASITA MODEL

**Description:**

The Client Counseling Team must be taught about the limitations and possibilities of the MiCASiTA Model in order to accurately describe the program to clients who are interested.

### ASSIST CLIENTS WITH FINANCIAL LITERACY + GOAL SETTING

**Description:**

The Client Counseling Team will likely already be counseling clients and this will continue on as usual while set-up takes place. The Local Model will not be offered as an option until the set-up is complete.

### STRUCTURE OPTIONS

#### HUD Certification

All Client Counseling Teams should have at least one HUD-certified counselor if they are planning on applying for grants to cover the cost of counseling. A HUD-certified counselor is specially trained and certified by the government to help you assess your financial situation, evaluate options if you are having trouble paying your mortgage loan, and make a plan to get you help with your mortgage. This certification is essential to ensure that this staff person is qualified to offer informed and accurate financial counseling. Any team members that are not HUD-certified can provide support, such as conducting follow-up with assisted households, but they cannot provide direct client counseling support.

#### Software

If the client counselors are content with the current software system they use to manage clients, then the MiCASiTA Software may be able to integrate that client information into its own system directly from the software being currently used (talk to the Remote Team about this possibility). If the Client Counseling Team needs a new software management system, then they should talk to the Software Team about the potential for CDC(Blue), the software system developed for cdcb. The MiCASiTA software program is designed to integrate the information from CDC(Blue) for a seamless client experience moving into the home design process through MiCASiTA.

### PROVIDE CLIENT FEEDBACK TO TEAM

**Description:**

Relay any feedback from people during the process that may be applied to adjust the system to better serve the clients.
Lending

TEAM DESCRIPTION
The Lending Team is responsible for helping homebuyers navigate the process of securing a mortgage and purchasing their home. This includes showing clients the Model home, pre-qualifying buyers for a mortgage, ensuring that they have acceptable DTI and FICO scores and sufficient funding to close, and taking other steps necessary to make sure that homebuyers have everything that they need to move forward with the home purchase. The Lending Team works closely with clients throughout the process, from the first day that they express interest in the product all the way to loan closing.

BUILDING THE TEAM
Remote Team members:
The Remote Team members will be available for support and will likely have regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production. Depending on cdcb capacity, and location of the program, cdcb may be able to supply more permanent support to Expansion Partners if they are unable to supply access to a wide variety of loan package options for clients.

cdcb - DEPENDING ON CAPACITY
- Mortgage Loan Originator
- Loan Processor
- Loan Underwriter

Local Staffing:
The Lending staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential skills.

Positions may be divided these roles:
- Client Navigator - the person who leads the clients through the design process
- Mortgage Loan Originator – Responsible for guiding prospective buyers through the mortgage application process. This includes supporting the buyer with gathering necessary documentation, explaining mortgage options and rates, and assisting with the submission of a loan application.
- Loan Processor – Responsible for assembling a complete loan application, analyzing all of the documentation for completeness, submitting and tracking the application to ensure successful completion.
- Loan Underwriter – Responsible for reviewing all the information included in the application to determine whether a loan can be approved and what the appropriate loan amount can be. This includes verifying income and assets, reviewing credit, and ensuring that the loan is aligned with the appraised value of the property.

**REFERENCES TO LOOK FOR IN APPENDIX:**
- MiCASiTA Product Training Materials
- HUD Training resources

**NOTES**

Lending TEAM DESCRIPTION
The Lending Team is responsible for helping homebuyers navigate the process of securing a mortgage and purchasing their home. This includes showing clients the Model home, pre-qualifying buyers for a mortgage, ensuring that they have acceptable DTI and FICO scores and sufficient funding to close, and taking other steps necessary to make sure that homebuyers have everything that they need to move forward with the home purchase. The Lending Team works closely with clients throughout the process, from the first day that they express interest in the product all the way to loan closing.

BUILDING THE TEAM
Remote Team members:
The Remote Team members will be available for support and will likely have regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production. Depending on cdcb capacity, and location of the program, cdcb may be able to supply more permanent support to Expansion Partners if they are unable to supply access to a wide variety of loan package options for clients.

cdcb - DEPENDING ON CAPACITY
- Mortgage Loan Originator
- Loan Processor
- Loan Underwriter

Local Staffing:
The Lending staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential skills.

Positions may be divided these roles:
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- Loan Underwriter – Responsible for reviewing all the information included in the application to determine whether a loan can be approved and what the appropriate loan amount can be. This includes verifying income and assets, reviewing credit, and ensuring that the loan is aligned with the appraised value of the property.
**STRUCTURE OPTIONS**

The Lending Team in the RGV MiCASiTA Model is “in house” at cdcb, meaning that homebuyers interested in the MiCASiTA product do not need to identify a lender who will work with them. There are many benefits to this structure. If a client worked with an outside lender, that lender could potentially refer them to other builders, leading to a loss of clientele. In addition, as a nonprofit community housing development organization, cdcb can offer support to low-income homebuyers, including down payment assistance, loan products that many other lenders do not offer, and a variety of avenues through which a client can qualify for a loan. While not all Expansion Partners can have an “in house” Lending Team, there are considerable benefits to that structure.

*cdcb* may be able to provide direct support depending on the scale of the need, location, and *cdcb*’s current capacity.

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**OVERALL PHASING**

**INTERNAL ACTIONS**

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

**CLIENT / COMMUNITY FACING ACTIONS**

- All teams confirm next phase is possible
- Local Team responsible
- Assistance from Remote Team available and assumed in beginning
- Remote Team responsible (Be, cdcb, TMAC etc...)

---

**PHASE 1 - Start Up**

Continue working with clients as usual, while learning about MiCASiTA in order to be able to accurately describe the process for interested clients once it is in the Production Phase.

**Staffing:**
No significant staffing needs.

---

**TRAINING ON MiCASiTA MODEL**

- **Description:**
The Lending Team must be trained in the navigation steps for clients and the limitations and possibilities of the MiCASiTA Model in order to serve the client.

---

**SET UP STRONG LINES OF COMMUNICATION**

- **Description:**
Efficient lines of communication between teams must be established before clients enter the process.

---

** Handle Loan Procurement / Payment of House**

- **Description:**
The Lending Team handles the process in which the house is paid for, this will often be through a loan, sometimes including subsidies.

---

**PROVIDE CLIENT FEEDBACK TO TEAMS**

- **Description:**
Relay any feedback from people during the process or after move-in that may be applied to adjust the system to better serve the clients.

---

**NAVIGATE CLIENT THROUGH THE LOCAL MODEL**

- **Description:**
The Lending Team will walk the client through the home design process based on the budget that they qualify for. This requires a lot of back and communication between teams.

---

**PHASE 2 - Production**

Inform clients about Local Model if they are an appropriate candidate, walk clients through the house design process and the home-buying process.

**Staffing:**
Full staff engagement.

---

**PHASE 3 - Adjustments**

Provide feedback from clients on available designs and process.

**Staffing:**
No significant staffing needs.

---

**REPEAT**

Clients move through the lending and home design process with transparency and full understanding.
PHASE 1 - Start Up
Continue working with clients as usual, while learning about MiCASiTA in order to be able to accurately describe the process for interested clients once it is in the Production Phase.

Staffing:
No significant staffing needs.

TRAINING ON MiCASiTA MODEL

- LEARN ABOUT MANUFACTURING PROCESS
- LEARN ABOUT DESIGN OPTIONS
- TRAIN ON SOFTWARE
- SET UP STRONG LINES OF COMMUNICATION

During Start-Up, the Lending Team must take several steps to ensure that they are prepared for the central role that their team will play once the program is launched. More specifically:

**TRAINING ON MiCASiTA MODEL**

The main points of the training for the Lending Team will include:

- Learning about the manufacturing process
- Learning about the design options
- Training on the software

Because the Lending Team navigates the client through the process, they are responsible for answering most of the questions clients have during the process of designing and producing their homes. The Lending Team must be well versed in the options available to buyers (and the costs associated with those options), and the manufacturing and construction process. They also must make sure that buyers understand that, because homes are being manufactured under State License, they cannot be changed once the design order is placed. That should be clear to buyers from the beginning, especially as they are making design decisions.

The CESS is the connective tissue for the entire production process, including lending. The Lending Team must understand how the software works, both from the perspective of the client user as well as for backend inter-team communication. That way, they can guide buyers successfully through the process of selecting their Boxes, configuration, and interior and exterior finishes, and then send out the order form and track progress.

**SET UP STRONG LINES OF COMMUNICATION**

The Lending Team plays a central role throughout the process of a household buying their home, and serves to integrate other teams into the production process. There is extensive communication between the household and the Lending Team in order to close on a loan, often requiring input from other teams, so the Lending Team often serves as the point of contact through the process. They are often called upon by buyers to answer questions, even if the questions are not related to lending. Because of this, the Lending Team should have a robust system for communicating closely with all of the other teams involved. This team must be prepared to serve as a liaison with other teams, and other teams should be prepared to respond in a timely and accurate fashion to their inquiries.

Before launch, it is critical that the Lending Team has a system by which they can obtain updates on each household’s order and a realistic timeline by which orders will be completed. It is not uncommon for clients to have expectations that differ from the actual timeline, so it is imperative to be able to manage expectations as well as possible, and keep buyers informed of any changes.

In addition, clients typically call to inquire about the status of their home, so the Lending Team should have access to that information.

Much of this communication will happen through the software platform, but depending on the version of the software used there may be gaps that need to be filled with a more analogue approach. In addition, some clients may have limited access to or familiarity with software-based communication and will require other methods for receiving consistent updates.

**CONTINUE TO ASSIST CLIENTS WITH HOME-BUYING PROCESS**

As the Lending Team is getting set up to integrate into the Local Model, it will continue to serve clients, offering the programs that the organization currently supports. Once all teams are ready to move into the Production Phase, the Lending Team will begin to talk to their clients about the MiCASiTA option.

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**KEY**

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

- Local Team responsible
- Assistance From Remote Team available and assumed in beginning
- Remote Team responsible (bc, cdcb, TMA etc...)

---

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SECTION IV: TEAM MANUALS

LENDING
**PHASE 2 - Production**
Inform clients about Local Model if they are an appropriate candidate, walk clients through the house design process and the home-buying process.

**Staffing:**
Full staff engagement.

---

**HANDLE LOAN PROCUREMENT / PAYMENT OF HOUSE**

**CLIENT PREQUALIFIED**

**CLIENT TIMELINE**

**NAVIGATE CLIENT THROUGH THE LOCAL MODEL**

**CLIENT LENDING MEETING #1**

**CLIENT LENDING MEETING #2**

**CLIENT LENDING MEETING #3**

**SCHEDULED SURVEYS**

**PHONE CALL CHECK-INS**

**COLLECTED CAUSAL FEEDBACK**

---

**HANDLING LOAN PROCUREMENT**

The Loan Originator works directly with the buyer to help them apply for a loan. This includes completing a prequalification, which determines the amount that the household can borrow and which types of loans they may qualify for. The Loan Originator informs the household what documentation is needed for income verification and helps them assemble the material needed for the loan application, providing a checklist for the client. The process of assembling the application documentation may take a few days, and the Loan Originator serves as a point of contact during that time to ensure the buyer can complete the application.

**NAVIGATING THE CLIENT THROUGH THE MICASITA PROGRAM**

If a client decides that the Local Model is best for them they will begin to meet with the Client Navigator and use the software to design their home. There are 3 designated client meetings with the Navigator. The extent to which a client will need in person assistance will depend on their comfort with technology and the complexity of their needs. All Home Preference Selections; and inter-team file-sharing will happen through the CESS.

**CLIENT LENDING MEETING #1**

The objective of this meeting is to take a first pass at making all of their Home Preference Selections. The client has already been prequalified so they know their budget. From there, they use the CESS to make choices about the core that they want, the number of Boxes, finishes, and future additions. The Client Navigator should be clear with the client that on-site additional changes may require adjustments to the choices they make at first.

The Navigator then contacts the On-Site Construction Team to do a site inspection. Refer to the On-Site Construction Manual for more information about the site inspection process on pg. 123.
CLIENT LENDING MEETING #2

In Client Lending Meeting #2, the Navigator has the Site Inspection Form, which includes the findings from the inspection and the estimate of the cost of site work. If there are any additional costs, the client may have to make different design choices in the CESS. The client and Navigator confirm that the house designed is within the client’s budget.

The Navigator then sends the confirmed Home Preference Selection and Site Inspection Form to the Design Team for a site plan.

CLIENT LENDING MEETING #3

Once the site plan is received by the Navigator from the Design Team, the Navigator meets a final time with the client to get an approval from the client of the final site plan, and to sign the contract.

Once the contract is signed, the completed order form for the home is sent to the Manufacturing Team to provide regular updates to buyers.

It is important to ensure that buyers understand the construction timeline, as it is common for construction to start immediately upon placing the order, when it can take some time after closing for construction to start. The Lending Team should continue to work with the Manufacturing Team to provide regular updates to buyers.

As part of the process of adjusting the Local Model, the Lending Team should identify any unmet needs or challenges that can be addressed, as well as any ways in which the process or design can be improved. This may impact the future of any of these elements:

- Available lending packages
- Design options
- Client experience
- Software tools

PROVIDE CLIENT FEEDBACK TO TEAMS

Feedback collection should be an established part of the process. Surveys to clients, scheduled phone check-ins, or community meetings targeted to clients may work depending on the community’s preferences for engagement. Channels for anonymous feedback and collection of more casual feedback will also be important. Client notes from the Lending Team will be an important resource for all teams when adjusting the program. The Lending Team - or whomever is receiving the feedback - should be sure that any feedback received from clients makes its way to the appropriate team.
The Design Team has two main functions: continued product development of MiCASiTA houses, and local delivery of the manufactured product. bcWORKSHOP initially worked as the designer of the houses in for the RGV MiCASiTA Model, and will continue to function as the Architect in new regions. The production of site specific documents and the local permitting process for Expansion Partners will be facilitated by bcWORKSHOP.

**TEAM DESCRIPTION**

The Design Team has two main functions: continued product development of MiCASiTA houses, and local delivery of the manufactured product. bcWORKSHOP initially worked as the designer of the houses in for the RGV MiCASiTA Model, and will continue to function as the Architect in new regions. The production of site specific documents and the local permitting process for Expansion Partners will be facilitated by bcWORKSHOP.

**BUILDING THE TEAM**

**Remote Team members:**
The Remote Team members will be main members of the Design Team.

- Licensed Architect
- Architectural Designers

**Skills Required:**
- Understanding building vernacular
- Designing sustainably for the specific climate
- Understanding of local culture and lifestyles
- Understanding of local permitting process
- Understanding of state permitting process
- Understanding building codes, zoning, etc.

**Positions may be divided these roles:**
- Licensed Architect
- Architectural Designers

**REFERENCES TO LOOK FOR IN APPENDIX:**
- MiCASiTA Product Training Materials
- cdcb Loan Packages

**NOTES**
All teams confirm next phase is possible

**PRODUCT DEVELOPMENT**

*Description:* Existing designs will be evaluated based on region’s needs. The Design Team will develop new boxes and configurations while also adapting existing designs as needed.

**INITIAL STATE LICENSED DESIGN**

*Description:* If new geography is in a state where there are already State Licensed designs, the team can begin to use those as the initial available options for clients and production. If the geography is in a state with no State License designs, current designs will have to be evaluated and adapted for the relevant state’s licensing process.

**ASSEMBLE STATE LICENSED DOCUMENTS**

*Description:* This will include foundation, flatwork, landscaping, etc...

**SITE SPECIFICS**

*Description:* This will likely include foundation, porches and on-site built objects, flatwork, landscaping, etc...

**LOCAL PERMITTING FOR SITE WORK**

*Description:* This will likely include foundation, porches and on-site built objects, flatwork, landscaping, etc...

**LICENSE NEW DESIGNS TO ADD TO SELECTION**

*Description:* As more configurations of the boxes and box designs are created, these should be Licensed through the state to make the available to clients for selection. Generally, this process should be faster once the initial design has been approved.

**RESEARCH GEOGRAPHY**

*Description:* The Design Team will collect existing climate, cultural, and material research. GIS, census data, and community engagement events will also be essential for building local needs and wants into the house design for creating geography-appropriate house designs.

**COLLECT FEEDBACK ON DESIGN**

*Description:* The Design Team must develop a way to get feedback on the success of the houses they are producing. Feedback will be needed from clients, the community, and the builders of the homes.

**ADJUST DESIGN**

*Description:* The design team must use feedback from the community and other teams to refine the design.

---

**OVERALL PHASING**

**PHASE 1 - Start Up**
The current designs are evaluated and adapted for the new geography. State Licensing of the initial designs must happen in this phase.

**Staffing:**

Remote Team responsible ([bc], cdcb, TMAC etc...)

**INTERNAL ACTIONS**

**CLIENT / COMMUNITY FACING ACTIONS**

**PHASE 2 - Production**

Clients are ordering homes and the Design Team is both producing new design options and developing site specifics for clients.

**Staffing:**

Remote Team available and assumed in beginning

**PHASE 3 - Adjustments**

The current designs are evaluated and adjusted based on feedback from clients and other teams.

**Staffing:**

Remote Team available and assumed in beginning

---

**KEY**

- **Business / Development**
- **Marketing / Outreach**
- **Client Counseling**
- **Lending**
- **Design**
- **Factory Set-Up**
- **On-Site Construction**
- **Manufacturing**
- **Software**

**NOTE:** All teams confirm next phase is possible

**LOCAL Team responsible**

**Assistance from Remote Team available and assumed in beginning**

**Remote Team responsible ([bc], cdcb, TMAC etc...)**
RESEARCH GEOGRAPHY
The MiCASITA Model was designed for the Rio Grande Valley in Texas. To meet the local and regional needs of Expansion Partners in other parts of the country, the Design Team will conduct research on geography and other local and regional factors influencing the product design. This will include reviewing local building codes and understanding the pertinent State Licensing process (if outside Texas). This will also include any necessary design adaptations to respond to differences in climate and the cultural needs of the community. For instance, in the Rio Grande Valley, the Design Team added a stem wall foundation due to local stigma against pier foundations, and added gas ranges due to client preferences. The Design Team will conduct this research with a range of tools including local Census and other data, GIS mapping, community outreach and engagement, and working with organizations and residents who are already active and involved in similar or related activities.

MARKETING MATERIALS
The Design Team plays an important support role for the Marketing / Outreach Team, as they will provide the visual and design elements for the marketing materials, including clear plans of each available unit, renders of design, and diagrams describing the process and operations for prospective buyers.

SOFTWARE UPDATES
The Design Team will be responsible for keeping the content of the Home Preference Options up to date on the software, including renders, product images, descriptions and other elements that need to be added.

STATE LICENSING
The Remote Team will provide support to Expansion Partners when obtaining State Licensure. This process varies by state, so the support provided will depend upon the specific needs of the Expansion Partner. For more information reach out to bcWORKSHOP.
UPDATING THE SOFTWARE

The Design Team will be responsible for keeping the design options up to date on the website. This includes uploading images and collaborating with the Software Team for renders that need to be able to change color based on choices the client makes. Accurate images are essential for the client to make informed decisions about their home.

Renders
Talk to the Software Team for current requirements of renders. Be sure to set standards that all renders will follow - same backgrounds, lighting, camera angles and settings, etc.

Product Images
All images used should be high quality. Be sure to keep product images up to date on the website. If you have any questions about how to upload, please reach out the Software Team and/or refer to the Software User Guide.

Descriptions
All descriptions should be accessible in all relevant languages. If you have any questions about how to edit the text, please reach out the Software Team and/or refer to the Software User Guide.
During the production phase, the Design Team deals with two timelines, the individual clients, and the program as a whole. For each client the Design Team will be handling site specifics, assembling the State Licensed documents, and the local permitting process for site work.

**FOR CLIENTS**

**Site Plan Requires:**
- Site Inspection Form - From the On-Site Construction Team
- House footprint - From Lending Team
- Survey

**Important Questions:**
- Is it a legal building site?
- Is it platted?
- Does the zoning allow for a home?
- What are the set backs?
- Is it in a flood plain?
- How will it drain? curb and gutter or ditch?
- Is there water, power and sewer?
- Is there a septic tank?
- Are there any easements?

**Site Plan Should Include:**
- Legal building site info (Lot block, St address)
- Zoning
- Set backs
- Metes and bounds
- Grade points to drain (Curb and gutter or ditch)
- Curb cut and drive
- Side walk if required
- Flood plain mitigation
- Utility poles lines (easements)
- Water, power and sewer
- Septic
- Easements
- Existing conditions (buildings, side walks, trees etc.)
- House Footprint + Roof Outline
- Dimensions
- Finish Floor Elevation
- Landscape requirements

**Engineered Foundation Drawing Request will require:**
- Foundation type
- Unit floor plan
- Finished Floor Elevation

**Submit for Permit:**
Permitting will require:
- Foundation plan
- Survey
- Site Plan
- Unit I.D.
- Flooding info
- Permit application

**FOR THE PROGRAM**

The Design Team will continue to develop new Boxes and configurations and push them through the State Licensing Process. These will be added to the website and general selection as they are approved.

The Design Team will also conduct post-occupancy reports for each completed project to help the product development serve our clients with better products and options in the future.

Feedback from the other teams, especially the Manufacturing Team, will also help adapt the designs to be easier to construct and more efficient in cost.
GENERAL NOTES

LANDSCAPE NOTES

PLANTS & TREES

<table>
<thead>
<tr>
<th>KEY</th>
<th>COMMON NAME / botanical name</th>
<th>QTY</th>
<th>SPACING</th>
<th>SIZE</th>
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SITE NOTES

KEY COMMON NAME / botanical name QTY SPACING SIZE

NOTES:

1. PORCH DECK TO HAVE UNIFORM SLOPE. CONCRETE SHALL NOT RAMP UP AT EDGINGS.
2. EXPANSION JOINTS TO BE FILLED WITH ASPHALT BOARD OR ELASTOMERIC SEALANT OVER BRICKER ROD.
3. CONTRACTOR TO PURCHASE FOR ELECTRICAL STOVE CONNECTION IN KITCHEN.
4. GAS AND ELECTRIC WIRING TO BE UPGRADED IN THE FIELD.

1. CLIMATE-APPROPRIATE (ADAPTED) TO THE REGION AND APPROPRIATE TO THE SITE, SOIL, AND MICROCLIMATE. DO NOT INTRODUCE ANY INVASIVE PLANT SPECIES. PLANT, SEED, OR XERISCAPE ALL DISTURBED AREAS.
2. OPEN JOINT VISIBLE, AND PIECES NOT OVERLAPPED. STAGGER SOD UNITS TO AVOID CONTINUOUS SEAMS. LAY SOD MOOTH AND FLUSH WITH ADJOINING GRASS AREAS, PAVING, AND TOP SURFACES OF CURBS. SOIL TO BE WATERED PRIOR TO INSTALLING SOD. ROLL SOD WITH LIGHT ROLLER AFTER INSTALLATION.
3. MEET CURRENT TEXAS MINIMUM CONSTRUCTION STANDARDS.
4. GAS AND ELECTRIC METER FINAL LOCATION TO BE VERIFIED IN THE FIELD.
5. EXPANSION JOINTS TO BE FILLED WITH ASPHALT BOARD OR ELASTOMERIC SEALANT OVER BACKER ROD.
6. ALL AREAS WITHIN 5 FEET OF NEW CONSTRUCTION TO BE PLANTED WITH LOCAL SOD MINIMUM.

NOT FOR CONSTRUCTION

SITE PLAN

ROCHELLE DRIVE

SITE PLAN - 1470

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PHASE 3 - Adjustments
The current designs are evaluated and adjusted based on feedback from clients and other teams.

Staffing: [bc] team is very engaged during this phase.

[bc] LICENSE NEW DESIGNS TO ADD TO SELECTION

[bc] ADJUST DESIGN

[bc] will conduct post occupancy reports for the projects and gather client feedback after they have lived in the homes for some time. This feedback will likely inform the types of Boxes to be added to the selection, the function of the cores, how the connections of the Boxes weather, comfort within the home, and other functions.

[bc] will also rely on other teams to direct any design-related client feedback that they have gathered back to the Design Team to incorporate into the products offered and design process.

Manufacturing / Construction / Business based feedback
Client feedback will also be used to introduce design changes that can make the manufacturing process more efficient. [bc] will also rely on the other teams to gather and notify the Design Team about any recurring issues with the design that should be adjusted.

CLIENT BASED FEEDBACK

Reach out to bcWORKSHOP for the most up to date designs, all designs an Expansion Partner offers ill need to be Licensed in that state.

Reach out to bcWORKSHOP for the most up to date designs, all designs an Expansion Partner offers ill need to be Licensed in that state.

**KEY**
- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

**POST OCCUPANCY REPORTS**

**FEEDBACK FROM OTHER TEAMS**
REFERENCES TO LOOK FOR IN APPENDIX:

» Current Boxes floor plans
» Current Floor Plans at State License
» Examples Exterior Renderings
» Share Example Axon Floor Plans

NOTES

FACTORY SET-UP

Factory Set-Up

TEAM DESCRIPTION

Unless an Expansion Partner has access to a nearby manufacturing site that is appropriate to produce MICASITA homes, it will be necessary to build a factory near the target population or communities. This is because the transportation costs associated with moving a manufactured home outside of a small radius can dramatically increase the cost of the home, and it also allows for greater control of the product.

The Factory Set-Up Team is responsible for designing and building a factory at which all Local Model orders will be manufactured. This team must identify and secure a potential site for the factory, then work closely with Business / Development, Design, and Manufacturing Teams to ensure that the factory is built to maximize efficiency of the home production.

BUILDING THE TEAM

Remote Team members:
The Remote Team members will be available for support and will likely have regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production. Degree of daily involvement will depend on the needs of Expansion Partners and the capacity of Remote Team members.

cdbc
- Manufacturing Engineer
- Manufacturing accountant
- Construction Manager

Local Staffing:
Factory Set-Up staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential skills.

Skills Required:
- Business, manufacturing, and spatial planning

Positions may be divided these roles:
- Development crew
- Manufacturing Engineer

Does the factory have the capacity for this project?

Does the factory have the capacity for this project?

Does your organization have an operating factory in your area/state?

Does your organization have an operating factory in your area/state?

Do you have any understanding around building factories and manufacturing workflows?

Do you have any understanding around building factories and manufacturing workflows?

Does the factory have the capacity for this project?

How many modules would need to be produced to be cost effective?

Is the site close enough to be cost effective?

Do you own land or plan to buy land to develop the factory?

Are there existing manufacturing factories nearby that could take on the MICASITA Model?

TIMAC Training / cdbc Support

TMAC Training / cdbc Support
The factory is optimized for better working conditions and product outcomes.

**OVERALL PHASING**

**PHASE 1 - Start Up**
This will be the busiest phase, the factory must be fully functional as a work space by the time the production phase starts.  
**Staffing:** Full team engagement.

**SITE + DESIGN FACTORY**
- **Description:** With the help of TMAC, the factory must be sited close enough to roadways that easily access the communities that will be buying the houses. The factory may already exist, may be a rehab project, or a new build, this all depends on the land and building available within a community.

**BUILD FACTORY**
- **Description:** This includes both the construction and purchasing of all needed machinery and tools for the factory. Construction of the factory will likely be a major defining factor between start-up of the program and the production phase.

**RESEARCH GEOGRAPHY**
- **Description:** Researching existing factories, sites, local resources, transportation routes, and labor markets.

**COLLECT FEEDBACK ON FACTORY**
- **Description:** Feedback from workers and the manufacturing team as a whole will be important to note if there needs to be any adjustments to the set up of the factory and to make any expansions to the factory as efficient and useful as possible. The Business / Development Team may take the lead on this.

**ADJUST FACTORY**
- **Description:** The factory may have to be adapted to expand production if that is a goal in the following years, design changes, added machinery, new locations may be things to consider.

**Micasita** brought to new region

**PROGRAM TIMELINE**

**PHASE 2 - Production**
Very few changes will be made to Factory Set-Up during this phase. Feedback on use of factory space can begin to be collected.  
**Staffing:** Very little will be done in this phase.

**PHASE 3 - Adjustments**
The factory may be slightly altered, expanded, or fully changed based on the needs of the Manufacturing Team. This will happen while production of boxes continues.  
**Staffing:** Partial to full team engagement.

**KEY**
- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

**INTERNAL ACTIONS**
- Assistance from Remote Team available and assumed in beginning
- Remote Team responsible (Bo, cdcb, TMAC etc...)

**CLIENT / COMMUNITY FACING ACTIONS**
- All teams confirm next phase is possible
- Local Team responsible

**OVERALL PHASING**

**FACTORY SET-UP**

**SECTION IV: TEAM MANUALS**
PHASE 1 - Start Up

This will be the busiest phase, the factory must be fully functional as a work space by the time the production phase starts.

Staffing:
Full team engagement.

SITE + DESIGN FACTORY

- Scale Appropriately
- Plan for Growth
- Factory Layout

BUILD / ADAPT FACTORY

- End Result / Starting Point

RESEARCH GEOGRAPHY

- Existing Facilities
- Local Materials
- Nearby Access Ways
- Local Workforce

The Texas Manufacturing Assistance Center (TMAC) at University of Texas Rio Grande Valley (UTRGV) will be assisting this team. This may include workshops on topics and/or one-on-one guidance. Staffed by manufacturing engineers and other experts, TMAC played a central role in designing the manufacturing process and the factory layout, identifying prospective sites, and introducing efficiencies and cost saving measures into the manufacturing process. Expansion Partners are strongly encouraged to work with TMAC for Factory Set-Up to avoid setting up a factory that is not optimized for their team or manufacturing process.

RESEARCH GEOGRAPHY

Whether a site is newly constructed, a rehabilitated existing structure, or an existing operational site depends largely upon what sorts of sites are available near where the homes will ultimately be located. The Factory Set-Up Team first conducts research regarding if any existing facilities may be available to use. If there are no existing facilities that could work, the team then creates an inventory of potential sites for building a factory, including local material sources and types, important access ways for transporting Boxes, and the local workforce skill sets.

SITING THE FACTORY

Factory location is very important because the large Boxes will be transported from the factory, which has a significant impact on the budget and delivery timeframes.

The type of factory to be used/constructed will inform the staffing needed for Factory Start-Up. For instance, tapping into an existing manufacturing site will require a different team and set of skills than rehabilitating a structure to become a factory.

DESIGNING THE FACTORY

The Remote Team will work closely with Expansion Partners to determine how best to layout the factory. Some of the factors to be considered include:

- Types of workspace
- Machinery / tools
- Storage
- Transportation access
- Ability to adapt / expand if needed
- Climate

Ideally, a MiCASiTA factory site could also draw upon local labor markets, providing opportunities for people who live in the region who have manufacturing skills and experience or who can be trained to work there.
The factory requires both work stations for the boxes, and space to lay out and assemble large amounts of material.
PHASE 2 - Production

Very few changes will be made to Factory Set-Up during this phase. Feedback on use of factory space can begin to be collected.

Staffing:
Very little will be done in this phase.

COLLECT FEEDBACK ON FACTORY

FEEDBACK ON WORKING CONDITIONS

FEEDBACK ON EFFICIENCY

PROGRAM TIMELINE

PHASE 3 - Adjustments

The factory may be slightly altered, expanded, or fully changed based on the needs of the production team. This will happen while production of boxes continues.

Staffing:
Partial to full team engagement.

ADJUST FACTORY

FEEDBACK ON WORKING CONDITIONS

FEEDBACK ON EFFICIENCY

Once the factory has been set up and is in the Production Phase, the Factory Set-up Team does not play a significant role, as issues and challenges that arise in production are dealt with by the Manufacturing Team.

Once the Manufacturing Team has had time to use the factory, they will gather feedback from workers, their supervisors, and other teams regarding potential improvements to the Factory Set-Up and work on incorporating those changes into the layout. The two primary areas for improvement are working conditions and the efficiency of production.

During the Adjustment Phase, the Factory Set-Up Team may be brought back in to make the needed factory changes depending on scale and skill sets required.
On-Site Construction

TEAM DESCRIPTION

The On-Site Construction Team is responsible for preparing the home sites before the Boxes are installed, installing the Boxes on the site, and constructing any site-built elements, such as porches. They work very closely with the Lending, Design, and Manufacturing Teams to ensure that the homes can be successfully installed on a variety of different types of sites.

BUILDING THE TEAM

Remote Team members:
The Remote Team members will be available for support and regular check-ins with Expansion Partners to assist them with any needs or issues they encounter through-out start-up and production.

Local Staffing:
In general, the On-Site Construction Team consists of local workers who collaborate closely with the other teams to ensure the successful connection of the manufactured homes to the home sites.

Skills Required:
- Grading
- Foundation
- Flatwork
- Framing
- Roofing
- Punch-outs

REFERENCES TO LOOK FOR IN APPENDIX:
- TMAC Training Materials
- Best Practices for Setting Up a Manufacturing Site
- MPR System - Shared as Example

NOTES

On-Site Construction TEAM DESCRIPTION

The On-Site Construction Team is responsible for preparing the home sites before the Boxes are installed, installing the Boxes on the site, and constructing any site-built elements, such as porches. They work very closely with the Lending, Design, and Manufacturing Teams to ensure that the homes can be successfully installed on a variety of different types of sites.

BUILDING THE TEAM

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The Remote Team members will be available for support and regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production.

Local Staffing:
In general, the On-Site Construction Team consists of local workers who collaborate closely with the other teams to ensure the successful connection of the manufactured homes to the home sites.

Skills Required:
- Grading
- Foundation
- Flatwork
- Framing
- Roofing
- Punch-outs
**OVERALL PHASING**

**Phase 1: Start-Up**
- Coordination between teams to set up lines of communication for Production Phase.
- **Staffing:** Training team on how to plug into Production Phase.

**Phase 2: Production**
- All site work will be handled for each order. This includes work both before and after each order is started and completed by the Manufacturing Team.
- **Staffing:** Full team engagement.

**Phase 3: Adjustments**
- Providing feedback on how the system could be improved for their collaboration with other teams.
- **Staffing:** Team will mainly be source of feedback.

**Build Communication Lines to Other Teams**
- Familiarize the team with the tools that will be used to share information between teams and the steps that must be followed for the system to work smoothly.

**Client/Community Facing Actions**
- Assistance from Remote Team available and assumed in beginning.
- Remote Team responsible (Be, od, db, TMAC etc...)
- Local Team responsible

**Internal Actions**
- **Micasita brought to new region**

**Key**
- Business/Development
- Marketing/Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

**Site Construction**
- Sitemark on each project is compared with the expected timeframe, and the quality of the work is matching expectations.

**Program Timeline**

**Phase 1**
- Coordination between teams to set up lines of communication for Production Phase.
- **Staffing:** Training team on how to plug into Production Phase.

**Phase 2**
- All site work will be handled for each order. This includes work both before and after each order is started and completed by the Manufacturing Team.
- **Staffing:** Full team engagement.

**Phase 3**
- Providing feedback on how the system could be improved for their collaboration with other teams.
- **Staffing:** Team will mainly be source of feedback.

**Demolition Work**
- All demo work must be done before building on site. This team will secure the demo permit.

**On-Site Install and Build**
- This will include foundation, porches and on-site built objects, flatwork, landscaping, etc... The On-Site Team is responsible for passing local inspections on site and preparing home for move-in.

**Client Timeline**

**Reflect + Provide Feedback**
- Let appropriate teams know how the workflow could be improved to make the jobs of the On-Site Team easier, reflect on common issues and how they may be resolved systematically.

**Phase 1 - Start Up**
- Coordination between teams to set up lines of communication for Production Phase.
- **Staffing:** Training team on how to plug into Production Phase.

**Phase 2 - Production**
- All site work will be handled for each order. This includes work both before and after each order is started and completed by the Manufacturing Team.
- **Staffing:** Full team engagement.

**Phase 3 - Adjustments**
- Providing feedback on how the system could be improved for their collaboration with other teams.
- **Staffing:** Team will mainly be source of feedback.
PHASE 2 - Production

All site work will be handled for each order. This includes work both before and after each order is started and completed by the Manufacturing Team.

Staffing:
Full team engagement.

SITE INSPECTIONS

The On-Site Construction Team performs several key functions during the Production Phase, including:

SITE PREP

Once an order has been placed, the On-Site Construction Team prepares the site for home installation. This includes any demolition work needed to clear the site, grading, and preparing the foundation.

BOX INSTALLATION

When the Boxes have been manufactured, the On-Site Construction Team works with the Manufacturing Team to connect them to the sites, perform any on-site builds, apply the remaining finishes, and finish all other site work. The On-Site Construction Team is responsible to get the house through its final inspection.

Because the Rio Grande Valley is vulnerable to hurricanes and other coastal storms, the Boxes installed in the RGV required additional anchors and hurricane ties. Boxes installed in other regions may require other locally specific adaptations.

The On-Site Construction Team sends the Site Inspection Form to the Lending and Design Teams through the software portal.
TEAM DESCRIPTION

The Manufacturing Team is responsible for building the MiCASiTA Boxes once orders are placed and working with the On-Site Construction Team to ensure that they are installed properly.

BUILDING THE TEAM

Remote Team members:
The Remote Team members will be available for support and will likely have regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout start-up and production. Degree of daily involvement will depend on needs of Expansion Partners and capacity of Remote Team members.

- Manufacturing Engineer
- Manufacturing accountant
- Construction Manager

Local Staffing:
Manufacturing staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential skills.

- Director/General Manager
- Construction Manager/Production Manager
- Superintendent/Quality Assurance Manager
- Construction Trainer/Quality Assurance Inspector
- Manufacturing Engineer
- Manufacturing accountant
- MiCASiTA Technician - The primary duty of the MiCASiTA Technician is day to day building of MiCASiTA Boxes at the factory. They will work and interact with other staff in the building process around framing, electrical, plumbing, A/C and heating systems, drywall, flooring, exteriors.

Local Workforce:
Local staffing does not need to have these exact positions, but it should have a combination of people who, together, bring the essential skills.

- Site Manager
- Superintendent/Quality Assurance Manager
- Construction Trainer/Quality Assurance Inspector
- Manufacturing Engineer
- Manufacturing accountant

Do you have experience with building homes?

- Yes
- No

What is the local workforce skill set? How can you plug into that, or improve upon that?

- Local workforce is skilled in:
- Local workforce needs:

- Build homes at a factory?
- Yes
- No

Do you have experience with manufacturing?

- Yes
- No

What materials are available locally?

- What materials do you have available?

- Which materials do you need?

- How many homes do you/ could you build in a year?
**BUILD MANUFACTURING TEAM**
Description: Train team members on protocols specific to this manufacturing process.

**SOURCE MATERIALS**
Description: Field bids for material sources and put into CESS for price based selection. Consider local sources or material types.

**CREATE THE BILL OF MATERIALS (BOM) + SHOP DRAWINGS**
Description: Create a BOM for every design option and upload that into the CESS and MRP software for accurate pricing once production starts. Each design option will need a set of shop drawings that match the State Licensed architectural set.

**INITIAL STATE LICENSED DESIGN**
Description: Design the quality control system and submit all required documents to get factory State Licensed. This will need to be done for all new factories and each new design.

**MANUFACTURE THE BOXES**
Description: Boxes to be constructed based on the State Licensed designs, expecting to be randomly inspected by the state.

**COLLECT FEEDBACK ON MANUFACTURING PROCESS**
Description: Feedback should be gathered from workers about necessary adjustments or expansions needed to make the factory more efficient. The On-Site Construction Team should also be able to give feedback on design, build quality, and timeliness of manufacturing.

**ADJUST MANUFACTURING PROCESS**
Description: The manufacturing process may need to be adapted to expand production if that is a goal in the following years. Design changes, added machinery, and new locations may be things to consider.

**LICENSE NEW DESIGNS TO ADD TO SELECTION**
Description: Design the quality control system and submit all required documents to get factory State Licensed. This will likely need to be done for all new factories and potentially each design as well.
**BUILD MANUFACTURING TEAM**

**TRAIN TEAM**

**BUILD JIGS / SET UP FACTORY WORKFLOW**

**CREATE THE BILL OF MATERIALS (BOM)**

**+ SHOP DRAWINGS**

**INITIAL STATE LICENSED DESIGN**

**SOURCE MATERIALS**

**RESEARCH GEOGRAPHY**

**BUILD COMMUNICATION LINES TO OTHER TEAMS**

**CREATE QA/QC AND ANY OTHER STATE LICENSING REQUIREMENTS**

---

**MATERIAL TAKE OFF LIST**

The Take Off list is used to order materials based upon the house orders placed. It will be sent to the different vendors, representing the exact volume of pieces to build a CORE/MICASITA Box.

**SHOP DRAWINGS**

A set of shop drawings will be needed for every iteration of each design. All treatments are treated like a different product number. These are used in the factory for manufacturing.

**STATE LICENSING**

The Manufacturing Team plays a lead role during Set-Up, particularly in the process of State Licensing and setting up the Quality Control system. Each design will need to go through the same process, although there may not be many Quality Control changes for different Box designs for the manufacturing side of the State Licensing.

During this time, the Remote Team works closely with the Manufacturing Team during the Set-Up to design and implement a manufacturing process that is efficient and timely and trouble-shoot any process steps that may not be working well.

---

**EXAMPLE OF BILL OF MATERIALS**

The Manufacturing Team works closely with the Texas Manufacturing Assistance Center (TMAC) at University of Texas Rio Grande Valley (UTRGV). Staffed by manufacturing engineers and other experts, TMAC played a central role in designing the manufacturing process and the factory layout, identifying prospective sites, and introducing efficiencies and cost saving measures into the manufacturing process. **TMAC will be contracted to provide a training class for all interested groups. The cost will be covered by MICASITA Inc. as part of the technical assistance provided.**

**RESEARCH GEOGRAPHY**

The first step is understanding the local material sources and types, important access ways for transporting Boxes, and the local workforce skill sets.

**BUILD MANUFACTURING TEAM**

The Manufacturing Team will have to first set up a training plan and build the jigs and process in which the manufacturing will work. As people are hired, they will have to be trained on the manufacturing process. This will include how to use the jigs, tools, and the MICASITA Model as a whole.

**BILL OF MATERIALS**

The Bill of Materials (BOM) is a structured, comprehensive list of the materials, components, and parts required to manufacture or repair a product, as well as the quantities in which the materials are needed and their names, descriptions, and costs. It includes units of measure, quantities, and lead times for each item. This is used to calculate the price of the house for the client. With the exception of some maintenance, repairs, and operations, if something is not listed in the BOM, it is not needed to build the part number described. There are several types of BOM, including a special BOM using common components, kits, and planning elements, or Super BOM using percentage of historical demand.

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**SECTION IV: TEAM MANUALS**

---

**KEY**

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

Local Team responsible

Assistance from Remote Team available and assumed in beginning

Remote Team responsible (bcx, oth, TMAC etc...)
**SCHEDULE BUILD**

Completing all factory orders in a timely and consistent manner.

**Staffing:**

Full team engagement.

**SOURCE MATERIALS**

<table>
<thead>
<tr>
<th>COLLECT FEEDBACK ON MANUFACTURING PROCESS</th>
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<tbody>
<tr>
<td>FEEDBACK ON QUALITY OF WORK</td>
</tr>
<tr>
<td>FEEDBACK ON WORKING CONDITIONS</td>
</tr>
<tr>
<td>FEEDBACK ON EFFICIENCY</td>
</tr>
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</table>

**CREATE THE BILL OF MATERIALS (BOM) + SHOP DRAWINGS**

**LICENSE NEW DESIGNS TO ADD TO SELECTION**

| CREATE QA/QC AND ANY OTHER STATE LICENSING REQUIREMENTS |

**MANUFACTURE THE BOXES**

| RECEIVE ORDER | SCHEDULE BUILD | BUILD BOXES | TRANSPORT TO SITE |

**CLIENT TIMELINE**

**PROGRAM TIMELINE**

**KEY TASKS DURING THE PRODUCTION PHASE**

**Update the CESS regularly with current prices for all materials so that cost estimating functions are accurate.**

Prices should be reviewed and updated every four weeks at a minimum (depending upon market changes and region). Vendors should respect the prices on their bids for 4 weeks, but a new bid should be requested at least once per month. When there’s a price change on any item, the database should be updated, typically by the Manufacturing Accountant. Either is a manual system or an Enterprise Resource Planning (ERP) system. This is essential for having accurate cost estimates for the client.

**Receive and process orders from the Lending Team**

This includes ensuring that the Sales Order Form has been filled out correctly and includes all the information needed to build the Boxes according to the buyer’s preferences. This also involves confirming that the site inspection has been completed and the site is compatible with the buyer’s order. It is critical that the buyer understands that once the Manufacturing Team has the order, there cannot be any changes.

**Order and stock material to ensure sufficient supply for manufacturing**

Expansion Partners will work with the Remote Team to set up a Material Requirements Planning (MRP) system for material management. (MRP) is a software-based integrated inventory and supply management system designed for businesses. Companies use MRP to estimate quantities of raw materials, maintain inventory levels, and schedule production and deliveries. This system will allow Manufacturing Teams to know when to order materials and at what quantity based on upcoming orders.

**Build the Boxes in accordance with State Licensing specification**

For each design going through State Licensing, there is a part that needs to be completed by the Manufacturing Team. The Production Manager completes all forms as needed, then the Quality Assurance team orders all material for the MiCASITA Box and passes the plans and material to the Construction Trainer/Quality Assurance Inspector.

**Perform ongoing Quality Control for the manufacturing process**

The manufacturing process is broken into phases. As each phase is complete, the Boxes are inspected for quality of work and State Licensing compliance before progressing to the next phase. This is done by a member of the Manufacturing Team. The state may do random spot inspections to make sure the factory and products match the approved design and process.

**Provide updates to the buyers on the status of their homes, including anticipated move-in dates**

In order for clients to be the most up to date with the status of their homes it is essential to keep that information current in the backend of the program. This function will eventually be included in the CESS.

**ACTUAL STEPS OF MANUFACTURING THE BOXES FOR CLIENTS**

The Boxes will be fully manufactured within the factory, including framing, insulation, mechanical, electrical, plumbing, drywall, and certain exterior finishes. The Manufacturing Team will work closely with the Remote Team to develop a manufacturing process that best suits the scale of production and the facility limitations.

**Prepare Boxes for transport to home sites**

The Manufacturing Team is responsible for getting the Boxes onto the transport to the site. The On-Site Construction Team manages the transportation and transfer onto the site. This process requires coordination between the manufacturing and On-Site Construction Team based on factory schedule, on-site construction benchmarks, and the weather.

Considerations include: height of the Box on the trailer with respect to overpass heights, road weight restrictions, and transportation permits.

**Work closely with the On-Site Construction Team**

To ensure that home sites are prepared in accordance with the Boxes ordered and ready for installation when the Boxes are pending delivery, the On-Site Construction Team must be present when the home is delivered. Schedules should be coordinated in advance.

**KEY**

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

Local Team responsible

Remote Team available and assumed in beginning

Assistance from Remote

Remote Team responsible (bc, cdcb, TMAC etc...)

**SECTION IV: TEAM MANUALS**

**123**
EXAMPLES OF FACTORY LAYOUT / WORKFLOW

WORK CENTER WITH A HYBRID FIX POSITION - FUNCTIONAL LAYOUT

The factory requires both work stations for the boxes, and space to lay out and assemble large amounts of material.
EXAMPLE OF MANUFACTURING PROCESS

WET BOX - PRELIMINARY PRODUCTION FLOW CHART
(2 Operators in 8 hour Shifts)

NOTE: General process description was stopped at this point due to time constraints and the fact that it was being described by the framing crew. There are other important activities pending to include, (e.g., insulation, interior drywall, etc.) which may be subcontracted or performed by a different operator. I believe there are inspection details pending also. Next steps on this exercise will be discussed with the CDCCB Team.
PHASE 3 - Adjustments

Providing feedback on how the system could be improved for their collaboration with other teams.

Staffing:
Team will mainly be source of feedback.

SOURCE MATERIALS
CREATE THE BILL OF MATERIALS (BOM)
SHOP DRAWINGS
LICENSE NEW DESIGNS TO ADD TO SELECTION

ADJUST MANUFACTURING PROCESS

FEEDBACK ON QUALITY OF WORK
FEEDBACK ON WORKING CONDITIONS
FEEDBACK ON EFFICIENCY

The Manufacturing Team should be actively involved in the Adjustment Phase, specifically to:

ADJUST PRODUCTION

The Manufacturing Team should work with the Business / Development Team to assess the feasibility of scaling up with the current factory set up and workflow. If something needs to change, the Factory Set-Up Team should be brought in to discuss options.

The Manufacturing Team may wish to adjust the production process according to the experience of the workers. This could include adding training for workers, creating new jigs, investing in different machinery or tools, or other improvements.

PROVIDE FEEDBACK

The Manufacturing Team will also provide feedback to the Design Team about how to improve the quality of the product and/or better address buyer preferences. Constructibility will be a big factor here.
SOFTWARE

TEAM DESCRIPTION

The Software Team is responsible for ensuring the effectiveness of the Choice Empower Software System (CESS) supporting the program. At a minimum, the CESS is central both for supporting clients through the design and purchase of their homes and for managing the flow of the manufacturing process.

The MiCASITA Model has an existing software system that, for most Expansion Partners, will probably make sense to build upon rather than creating a whole new system. The person(s) responsible for supporting the software will work closely with the current CESS designed to customize the system to meet their needs.

BUILDING THE TEAM

Remote Team members:
The Software Team for the Local Model is fully remote. However, other teams will be responsible for maintaining and updating the content of their system to reflect price changes or new design options. The system allows Expansion Partners to make those changes on their own, but the Remote Team will be available for support and regular check-ins with Expansion Partners to assist them with any needs or issues they encounter throughout the Start-Up and Production Phases.

- Software Developer

Teams that will be updating the software often:
- Design
- Manufacturing

Teams that will be using the software often:
- Lending
- Design
- On-Site Construction
- Manufacturing

Notes:

- Example Jigs

Software

1. Does the current version of the CESS have all of the features the Local Model needs?
   - NO
     - CESS is adjusted for Local Model’s needs.
     - Remote Team provides both print and face-to-face assistance with CESS for Local Model teams.
   - YES
     - What support will the Local Model teams need in order to feel comfortable working with the CESS?

2. Are there any other software needs outside of the CESS?
   - NO
     - Remote Team provides both print and face-to-face assistance with CESS for Local Model teams.
   - YES
     - Evaluate what the Remote Team capacity is to help Local Model with other needs.

3. Does the current version of the CESS have all of the features the Local Model needs?
   - NO
     - Remote Team provides both print and face-to-face assistance with CESS for Local Model teams.
   - YES
     - What support will the Local Model teams need in order to feel comfortable working with the CESS?
V 1.0 SOFTWARE CAPABILITY

Right now, the CESS plays two important roles:

Client-facing design tool:
- The system must allow clients to view and select from a range of Local Model design options, including Box types, configuration of units, and interior and exterior finishes, and to understand the cost differences associated with different selections.
- It is designed to be easy to navigate and user-friendly.

Back-end materials management tool:
- The system also supports the Manufacturing and Business / Development Teams with estimating costs, by enabling vendors to place bids for materials so that the most affordable materials can be selected, and with managing inventory, as all materials are cataloged in the system.
- It also provides the mechanism through which inter-team communication, all important documents, and updates are made immediately available to everyone who needs access. This information includes production updates, material orders, notices of permitting, field reports, etc.
- It has a means by which selections and prices can be updated regularly.

Design Team Responsibilities:
Provide up to date images and descriptions for each design and product option.

Manufacturing Team Responsibilities:
Provide up to date Bill of Materials (BOM), and Material Take Offs for each design possibility.

All Team Responsibilities:
Provide required updates to the CESS and give feedback based on experience. Let the Software Team know of any bugs or issues with software.

ADAPTING THE SOFTWARE FOR EACH EXPANSION PARTNER

The Remote Team will support Expansion Partners with adapting the CESS to meet their needs. It will include:
- Creating a new domain for the program
- Creating and/or sectioning off a separate backend system specific to region
- Adding specific requests based on regional needs

FUTURE SOFTWARE CAPABILITY

Ideally, the CESS will have additional functionality in upcoming years, including:
- Full integration with the lending software, so that key order and client information entered into the lending software is captured in the CESS
- Ability to provide clients with a status update on their order via login
- Greater analytics for partner organizations, including:
  - How many orders are in various stages of production at any point in time
  - How many orders are awaiting input from either a client or a team member
  - How many orders are stalled in a particular phase and the source of the delay
  - Automated reminders to clients or team members for steps they can take to keep projects moving.
OVERALL PHASING

START UP PHASE
Training materials will be supplied in the appendix of this document and training sessions will be held by the Remote Team.

As an Expansion Partner is preparing to launch, they should understand clearly which aspects of managing the CESS require their input and which are hard-coded and cannot be changed without working with the MiCASiTA software designer.

Any team member who will be using the system – either to support clients in the design selection or to manage orders or inventory at the back-end – will need to be oriented to the system.

Any new Expansion Partner that adopts the current software will still need to make important adjustments to the system prior to launch. This is done by the Design and Manufacturing Teams.

On the front end this includes:
- Rendrers and product images that reflect regional design options
- Design option descriptions
- Needed translations or added instruction to design tool
- Up-to-date material pricing information
- Bill of Materials for each design option
- Material Take off for each design option

On the back end this includes:
- Renders and product images that reflect regional design options
- Design option descriptions
- Needed translations or added instruction to design tool

On the back end this includes:
- Up-to-date material pricing information
- Bill of Materials for each design option
- Material Take off for each design option

On the front end this includes:
- Rendrers and product images that reflect regional design options
- Design option descriptions
- Needed translations or added instruction to design tool
- Up-to-date material pricing information

On the back end this includes:
- Up-to-date material pricing information
- Bill of Materials for each design option
- Material Take off for each design option

PRODUCTION PHASE
Once production begins, the Software Team is responsible for ensuring that the CESS is working as intended, making any necessary fixes and updates, and keeping staff trained on and informed about such changes.

One of the more important tasks during production is updating the CESS regularly with any price increases, so that those costs are reflected accurately in the design budgets and elsewhere.

This is done by the design and Manufacturing Teams.

As other changes and improvements are made to the CESS – including building the system out for greater functionality – the Software Team is responsible for communicating with all other teams about what those changes are, providing training and other resources for staff, and trouble-shooting any challenges encountered.

This is done by the design and Manufacturing Teams.

ADJUSTMENT PHASE

The role that the Software Team plays during the Adjustment Phase is very similar to their role during initial implementation. This includes:
- Incorporating client and staff feedback into system improvements.
- Working closely with other teams to ensure that the software supports their work.
- Providing training and resources for staff members using the system.

SECTION IV: TEAM MANUALS

PHASE 1 - Start Up
The Software Developer focuses on building the framework, and other teams fill that framework in with relevant assets and information.

Staffing: The MiCASiTA Software Developer is the only staff for this team.

PHASE 2 - Production
General maintenance of the CESS for the use of clients and other teams.

Staffing: The MiCASiTA Software Developer is the only staff for this team.

PHASE 3 - Adjustments
The CESS is evaluated and adapted based on feedback from other teams and clients focused on use of use, clarity, and extensive tools.

Staffing: The MiCASiTA Software Developer is the only staff for this team.

TRAIN TEAM ON USE OF SOFTWARE

- Renderers and product images that reflect regional design options
- Design option descriptions
- Needed translations or added instruction to design tool

DEVELOP WEBPAGE AND BACKEND FOR LOCAL MODEL

- The Software Team will create an individual portal for the Local Model and make relevant adjustments needed based on the initial research on the needs of the community and local teams.

UPDATE SOFTWARE WITH RELEVANT IMAGES, DESCRIPTIONS, AND BACKEND INFO

- This will be done by relevant teams but the Software Team will be aware that this is going on and available to help teach the teams how to use the functions needed to add content and backend information.

PROGRAM TIMELINE

Software is kept up to date and includes all new features for use of clients and team members.

CLIENT / COMMUNITY FACING ACTIONS

PRODUCTION PHASE

Once production begins, the Software Team is responsible for ensuring that the CESS is working as intended, making any necessary fixes and updates, and keeping staff trained on and informed about such changes.

One of the more important tasks during production is updating the CESS regularly with any price increases, so that those costs are reflected accurately in the design budgets and elsewhere.

This is done by the design and Manufacturing Teams.

RESEARCH GEOGRAPHY

- The Software Team needs to understand the needs of the community and accommodations or limits that the software may have to address in order for the community to be able to access it and use it as needed. Also if there are any needs different on the backend as well.

INTERNAL ACTIONS

- Business / Development
- Marketing / Outreach
- Client Counseling
- Lending
- Design
- Factory Set-Up
- On-Site Construction
- Manufacturing
- Software

MICASITA brought to new region

All teams confirm next phase is possible

Local Team responsible

Assistant Team Remote Team available and assumed in beginning

Remote Team responsible (bc, odd, TMAC etc...)

RESEARCH GEOGRAPHY

- The Software Team needs to understand the needs of the community and accommodations or limits that the software may have to address in order for the community to be able to access it and use it as needed. Also if there are any needs different on the backend as well.

ADJUST AS NEEDED

New versions with more features will be developed based on the feedback of the team members who use the CESS both for back-end communication and for client facing features.
Version 1 of software is still being developed. Expected date for release is May 2023.

REFERENCES TO LOOK FOR IN APPENDIX:

» User Guide

NOTES

The Appendix of this document lives in a Google Doc that is updated with useful links to resources. Please use one of the following methods to access it. If you ever have any issues with these links, or a link in the Appendix itself, please reach out to our team to fix the issue.

CLICK LINK TO APPENDIX

OR COPY / PASTE:
https://docs.google.com/document/d/1d7SvXho7P_AT1Q6fNZhc79Q2SimGl4xvpTqr2a2sMjWkaiY/edit?usp=sharing