



**LITHONIA WOMAN'S CLUB:**  
RED AND GREEN SCENE OUTREACH COMMITTEE  
2012 PROJECT



# PARTICIPATING PROFESSIONAL ORGANIZATIONS

American Institute of Architects (AIA), Atlanta Chapter



American Society of Heating, Refrigerating, and Air Conditioning

Engineers (ASHRAE), Atlanta Chapter



Construction Specifications Institute (CSI), Atlanta Chapter

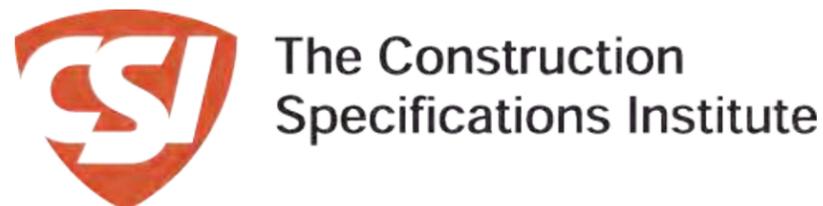
Construction Management Association of America (CMAA),

Georgia Chapter of the International Interior Design Association (IIDA Georgia)



U.S. Green Green Building Council (USGBC), Georgia Branch

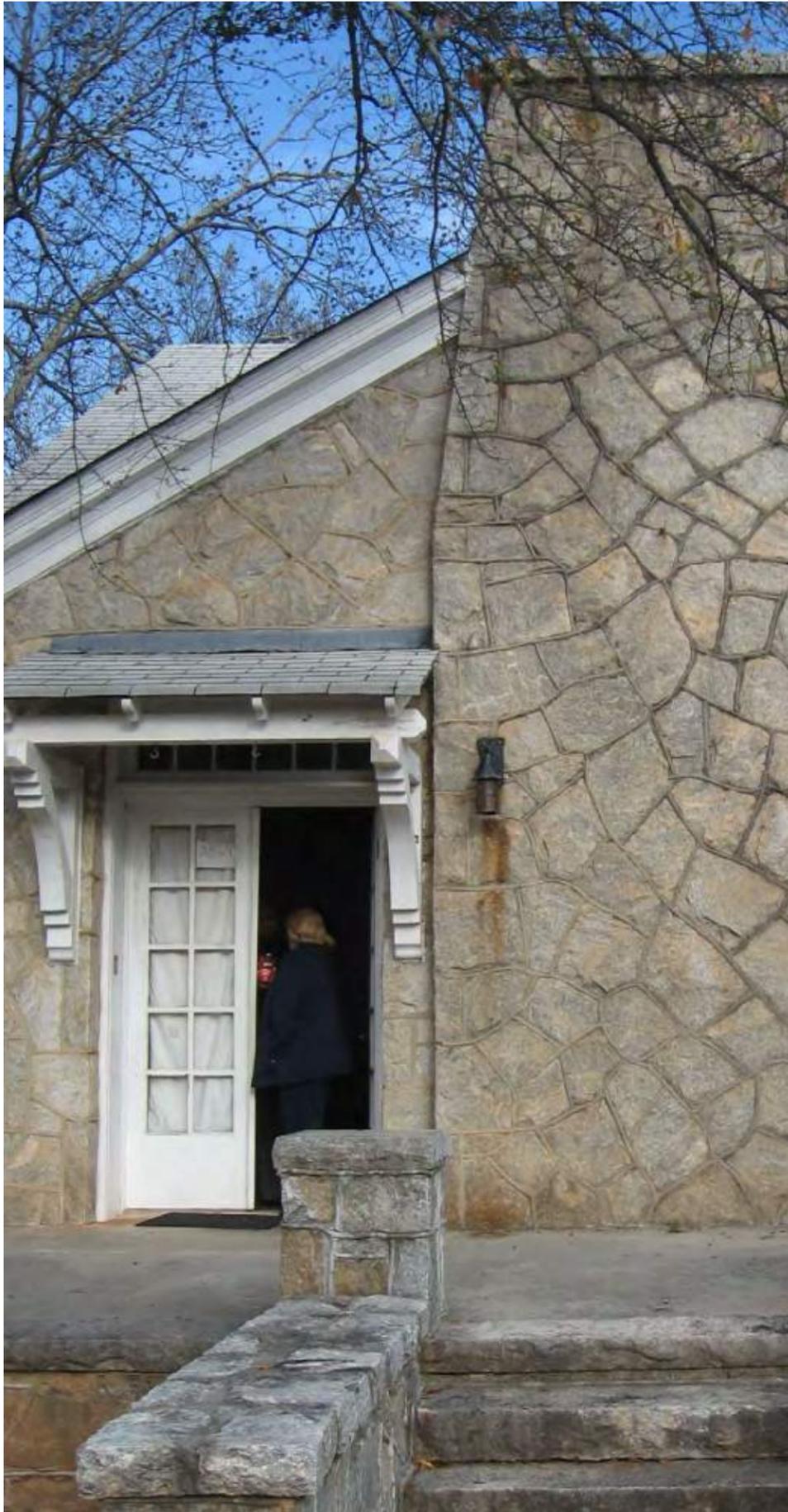
with special support from the Society for Marketing Professional Services (SMPS)



Prepared for:

# ARABIA MOUNTAIN HERITAGE AREA ALLIANCE





View of Chimney

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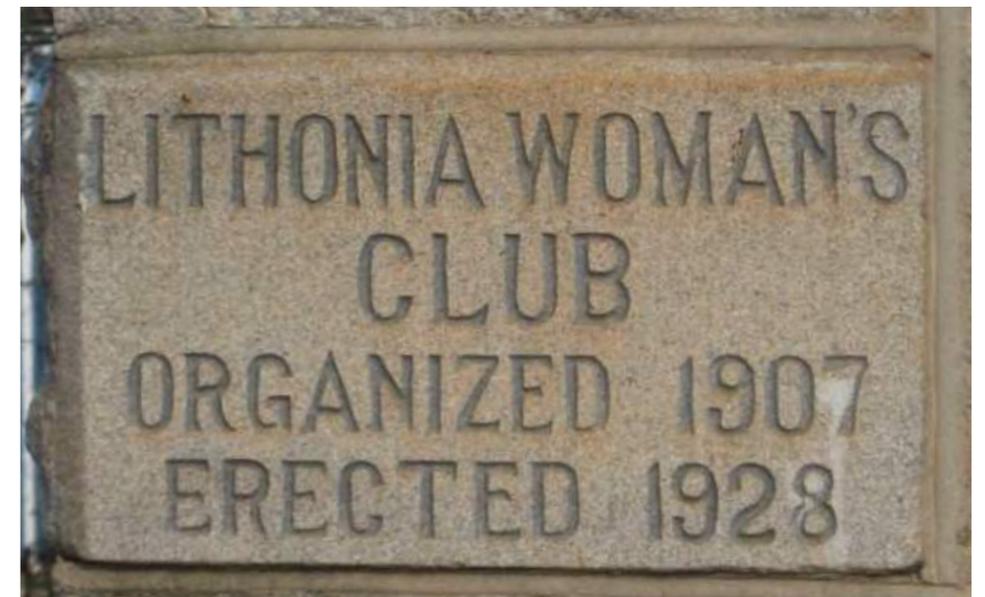
# INTRODUCTION

## From Celebration to Service

In its third year as a collaborative effort, the Red and Green Scene (R&GS) Holiday Party 2011 gathered participants of SIX organizations from Atlanta's sustainable and design community, including members of The American Institute of Architects (AIA)-Atlanta, American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE), Construction Management Association of America (CMAA), Construction Specifications Institute (CSI) Atlanta Chapter, the Georgia Chapter of the International Interior Design Association (IIDA Georgia), and U.S. Green Building Council (USGBC) Georgia Branch. While the celebration takes place in one night, the service has just begun. An annual service project is supported by proceeds from the industry's annual Red and Green Scene (R&GS) end of the year holiday celebration, in addition to volunteered professional services from R&GS member organizations, and with special support from the Society for Marketing Professional Services (SMPS).

This year, the Outreach Committee for the Red and Green Scene gathered once again to give back to the community in a collaborative manner. The Committee elected to work on a project for the good of the citizens of Lithonia by adopting

Lithonia's historic Woman's Club as its 2012 service project. Built in the late 1920s with locally mined granite, the building served as Dekalb County's first library and is currently owned by the Arabia Mountain Heritage Area Alliance. This project includes a detailed evaluation of the building and the development of a report that will indicate recommendations to upgrade the building for sustainable public use and to propose recommendations for the surrounding area as a tourist, entertainment and recreation district for Lithonia. These recommendations will complement earlier studies completed for the city of Lithonia.



Dedicated Corner Stone



Street View of Building

# HISTORY

The Lithonia Woman's Club (LWC), located at 2564 Wiggins Street, Lithonia, GA was nominated for the National Registry of Historic Structures (NRHS) in 2003 due to its significance in the areas of education, social history, and architecture. The Red and Green Scene Outreach Committee believe that we must not only preserve, but also celebrate these areas of historic significance.

The building was constructed in 1929 out of locally quarried granite, making it an example of the local building tradition. It has a rectangular plan and a cross-gabled roof. The front façade has stylistic elements of an English Vernacular Revival cottage, with a prominent chimney, grouped windows, and steep front gables. Two sets of ten light French doors are symmetrically placed to the sides of the chimney, with a single door opening into the Reception Room. Decorative brackets support hoods over the doors and decorative lanterns light the front porch made of granite.

The interior is made up of five areas, which have had little change since it was first built: a large assembly hall, library/reception room, dining room, kitchen, and bathrooms. The dominant architectural features include the granite fireplace and the exposed beams on the gabled roof in the assembly hall, which take your breath away. All rooms are trimmed

in 9" wood stained baseboards. According to the NRHS application, original hardwood floors were covered with vinyl tiles in 1971. Parquet floors were installed in the assembly hall. Walls are covered in plaster, except in the assembly hall which has white painted paneling which was added in 1971 over the plaster walls. The kitchen was renovated in the 1960's; two air-conditioning units were added to the assembly room in 1970; central heat and air in 1973-1975. In 2001 the bathrooms were updated to provide some accessibility options.

The Lithonia Woman's Club is important to the social history of Lithonia and Dekalb County as it was the center of social and civic activity from 1929 – 1955 (NRHS, 2003). The LWC was formed in 1924 and participated in civic work, which included areas such as public health, park improvement, suffrage work, education, and early library formation. The Lithonia Woman's club building was planned as a meeting place for club members and other civic groups. It was also a place for the group to house their expanding public lending library which had been started by Miss Lula (Mrs. C.J.Tucker) and the Improvement Club in 1906. According to early club members, at the time the library consisted of two bookcases and was open to the public for an hour, two afternoons each week. This original glass-bookcase is

still located in the LWC reception room today. In 1947, the Reception/Library Room was enlarged to accommodate additional books and patrons. From 1929 – 1955 the Lithonia Library, the first in Dekalb County, was operated by Woman's Club Members. In 1955 the Library moved to a new location.

The Lithonia Woman's Club building continued to serve civic groups and private citizens as rental meeting and reception space throughout its 74 years under the ownership of the Lithonia Woman's Club. In 2001, LWC, Inc. ,deeded the building and parcel of land to the Arabia Mountain Heritage Area Alliance (AMHAA).



Dedication Plaque

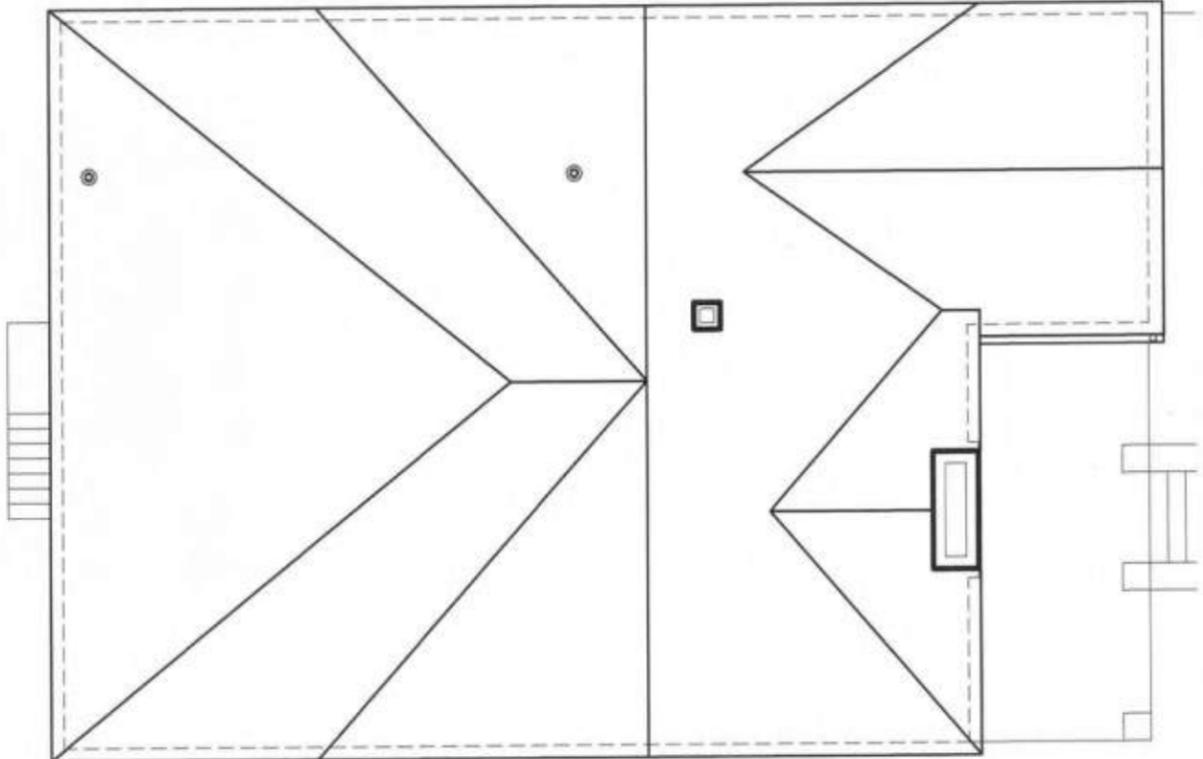


Detailed Views of Building

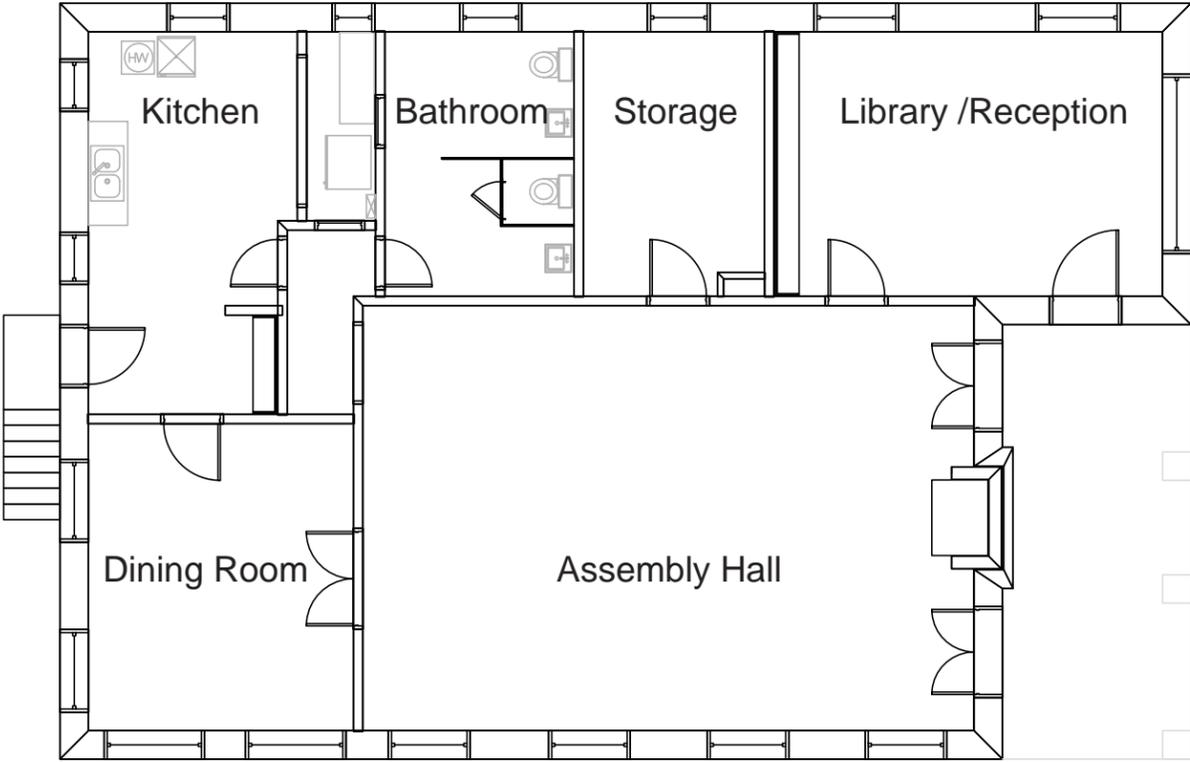
# DOCUMENTATION OF EXISTING



SOUTH ELEVATION



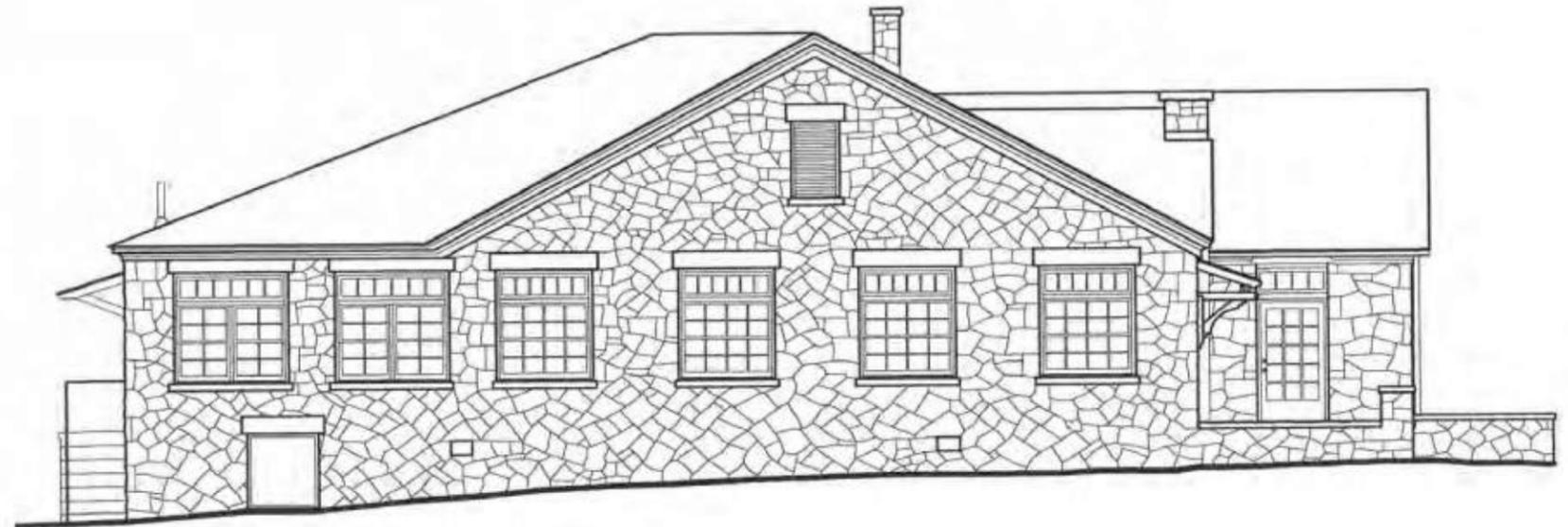
ROOF PLAN



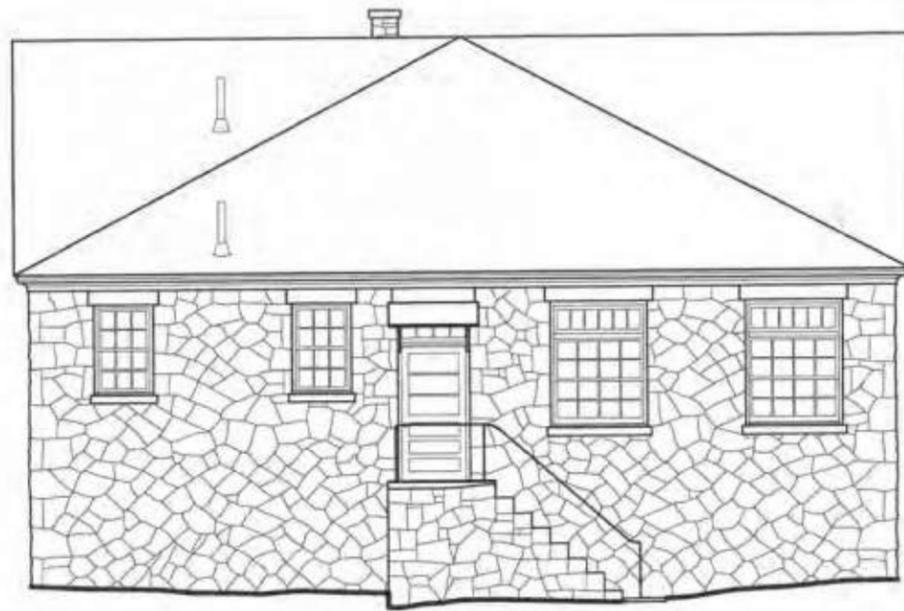
FLOOR PLAN



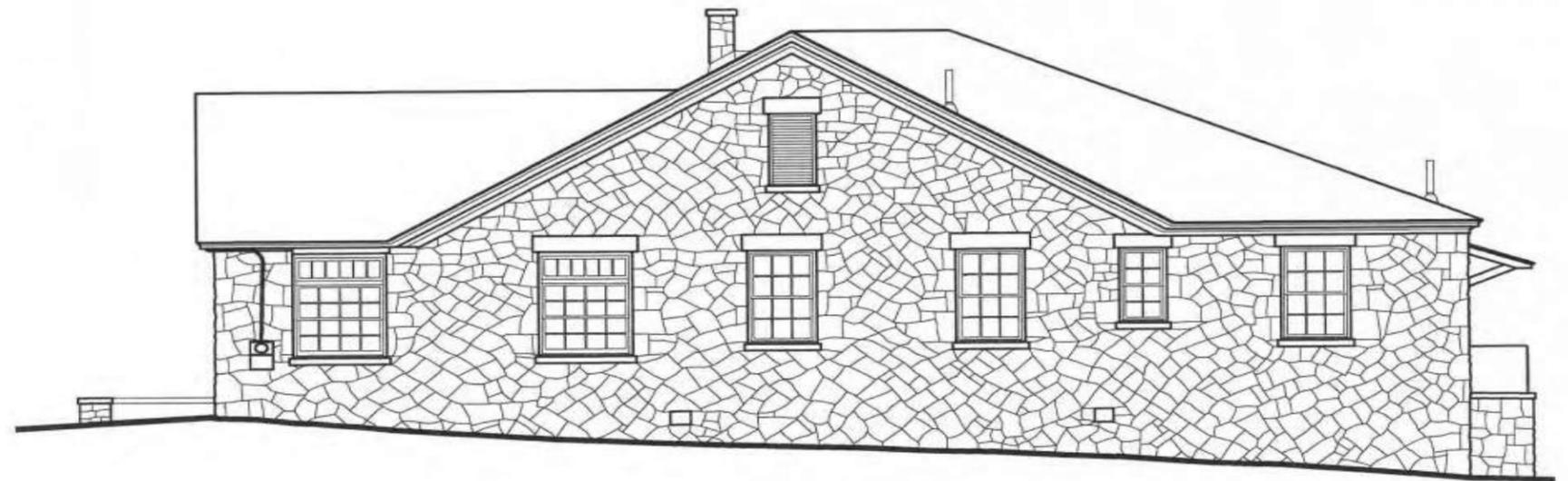
SOUTH ELEVATION



WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION

Note: Elevations on this page are shown at 1/8" = 1' scale

# PROCESS: THE CLIENT MEETING

## THE PROCESS

Our collaborative outreach effort began with the approval of the project by the Red and Green Scene Strategic Committee, and an initial meeting with the client, club members and neighbors. We included the City of Lithonia in our conversations as well. We were moved by the stories told by neighbors and club members alike who, once divided by racial differences, are united in their desire to see the Lithonia Woman's Clubhouse serve the entire community and re-establish its' place as a community center. The stories were compelling.

## THE CLIENT MEETING

Our Client is the Arabia Mountain Heritage Area Alliance, but the recipients of our work will be all of the residents of and visitors to the City of Lithonia. Therefore, it was appropriate that we received input at our next client meeting from the following: Katherine Moore, Blueprints Program Manager for the Georgia Conservancy who introduced us to the project; Mayor Deborah Jackson who represented the Lithonia city leadership and brought with her a vision, energy and excitement for the abundant potential for the City of Lithonia; Mera Cardena, the Executive Director of the Arabia Mountain Heritage Area Alliance. Each of them shared

their perspective and local as well as regional goals for the City of Lithonia. It was obvious that these ladies were firmly committed to make Lithonia a destination. We were introduced to the Georgia Conservancy Blueprints study for the City of Lithonia. This study provides recommendations for revitalization and good reasons for a positive vision. Their goal is for smart regional planning and well thought out community development.

However, the most important component of the day was hearing from the former club members and neighbors. They relayed their stories which were both inspirational and sometimes breathtaking. They set the tone for the work that lay ahead of us, and for the team work and vision that it takes to make something happen.

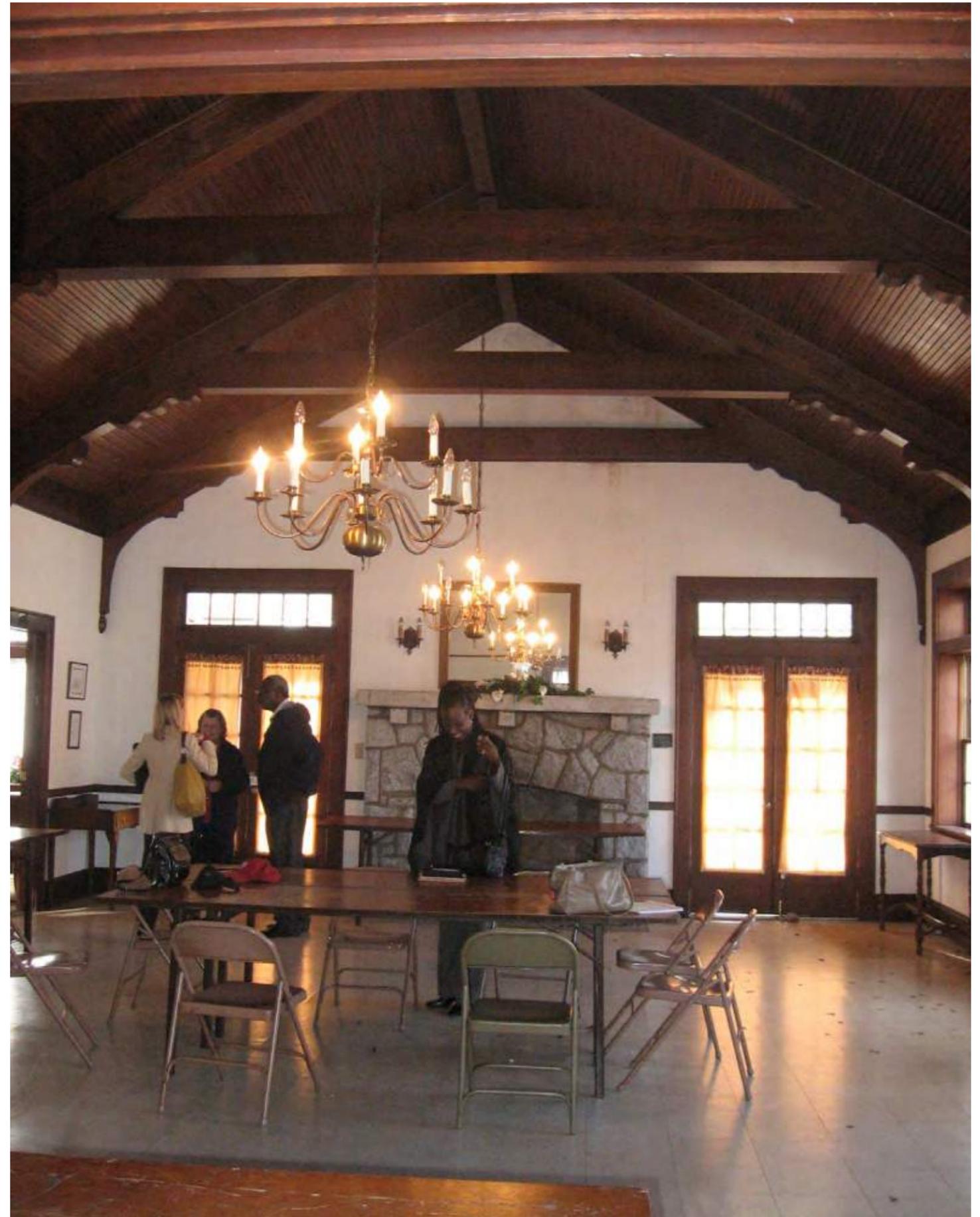
Out of the Client Meeting developed the Project Description. The Primary goal for this project is for the Lithonia Women's Club (LWC) to become re-established as an individual resource of value. Through remodeling and renovation, the LWC will be given a new direction, while allowing it to continue to serve the community which it inhabits. The secondary goal was to establish, as a service resource, what this venue can do to best serve the city.



Taking a Tour of the Downtown Area

SYNERGY

- PATH FOUNDATION
- CITY OF LITHONIA
  - MAJOR - DEBORAH JACKSON - LIVES NEXT DOOR
  - BOY SCOUTS, GIRL SCOUTS
- GA. CONSERVANCY
  - KATHERINE MOORE
- ARABIA ALLIANCE - CLIENT
  - NAT. & LOCAL HISTORIC DISTRICT REGIST.
- STUDENT GROUPS
  - KENNESAW - EXHIBIT DESIGN
  - SCAD
  - GA. STATE HISTORIC DISTRICT ARCH GUIDELINES
- BLUEPRINTS - GA TECH
- STONECREST LIBRARY
  - STORY CORPS - RECORDED & ORAL HISTORIES TO BE LOANED AT SMITHSONIAN & AFRICAN AMERICAN MUSEUM IN D.C.



View of Downtown Area

Mayor Deborah Jackson in Assembly Hall





Beginning of Bike Path

# PROCESS: PRE-CHARETTE

The Pre-Charette meeting was conducted on March 31, 2012. Now that we had listened, it was time for the committee to determine the program for the LWC. In other words, what would the building be used for? We split into teams and addressed these issues. The teams also conducted a tour of the area led by the Mayor, took photos and inspected the building/ site and its' surroundings in order to understand the project parameters. Drawings were created that documented the existing conditions and provided a foundation to work from. Preliminary inspiration images and materials were reviewed and the Mission Statement for the project was determined.

## Mission Statement:

To support and engage the community by creating a self-sustaining and flexible hub that both preserves and records history while inspiring connectivity, growth and development.





Exchange of Ideas between Group Members, Client and City Officials

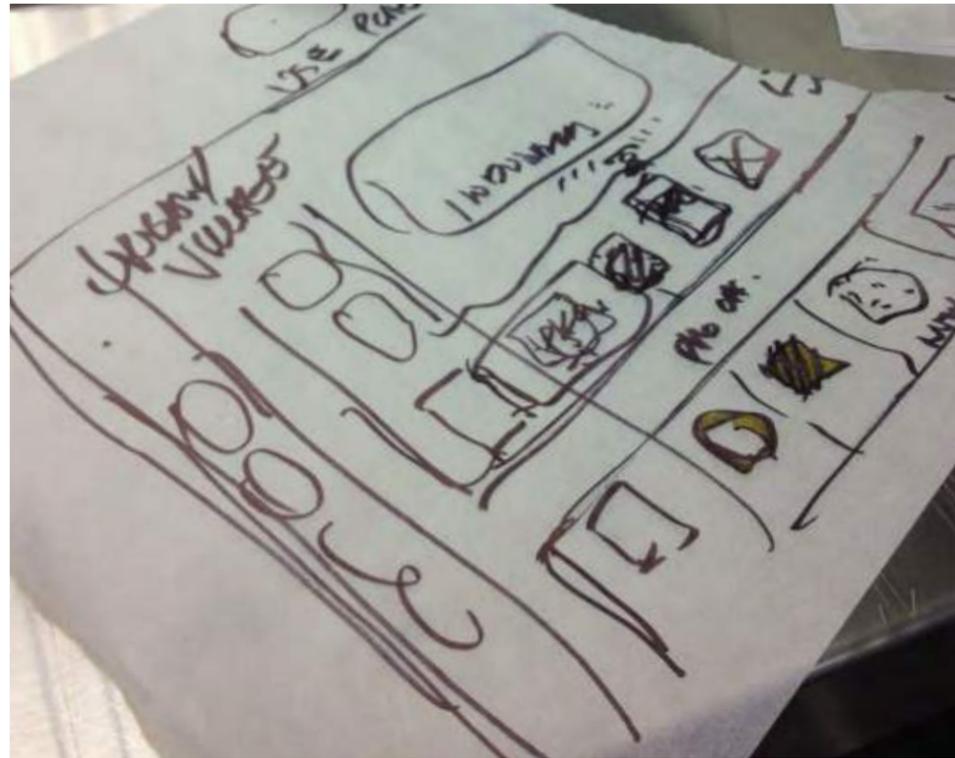
# PROCESS: THE CHARETTE

char·rette [shuh-ret] noun

Any collaborative session in which a group of designers drafts a solution to a design problem.

All of the teams contributed to this concentrated effort conducted from 9:00AM to 5:00PM on April 28, 2012. All of our available resources had to work under the core belief that we were providing a measurable value to the client by addressing specific needs identified by our process work. The Charette began with the program and ended with the solution. The photos and drawings tell the story. During the Charrette, we developed a concept to tie all the parts together – it was Storytelling. Every person we interviewed and listened to had a unique and compelling story to tell. We decided that the building would carry out this legacy.





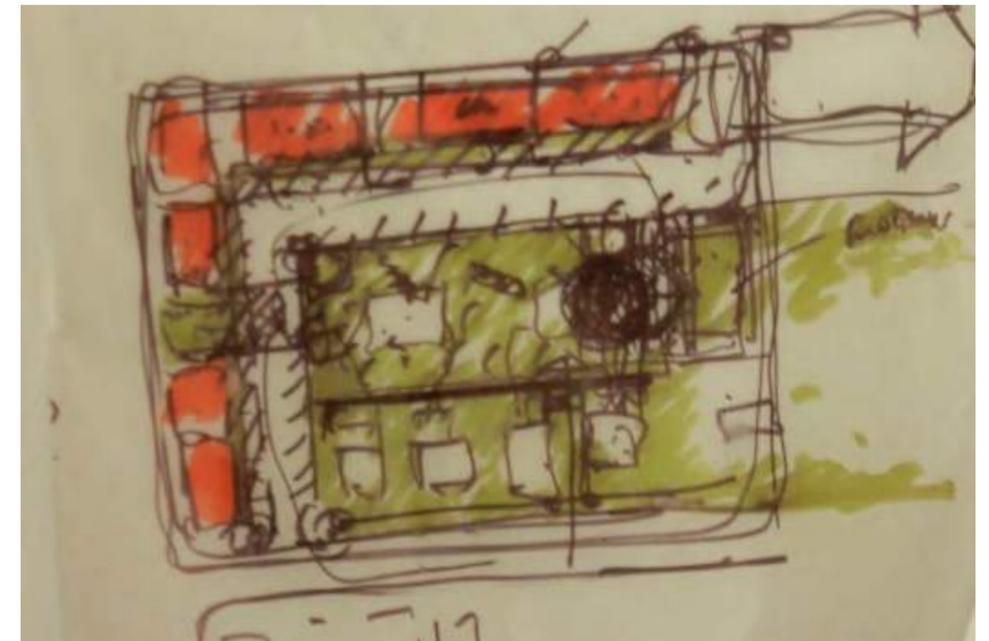
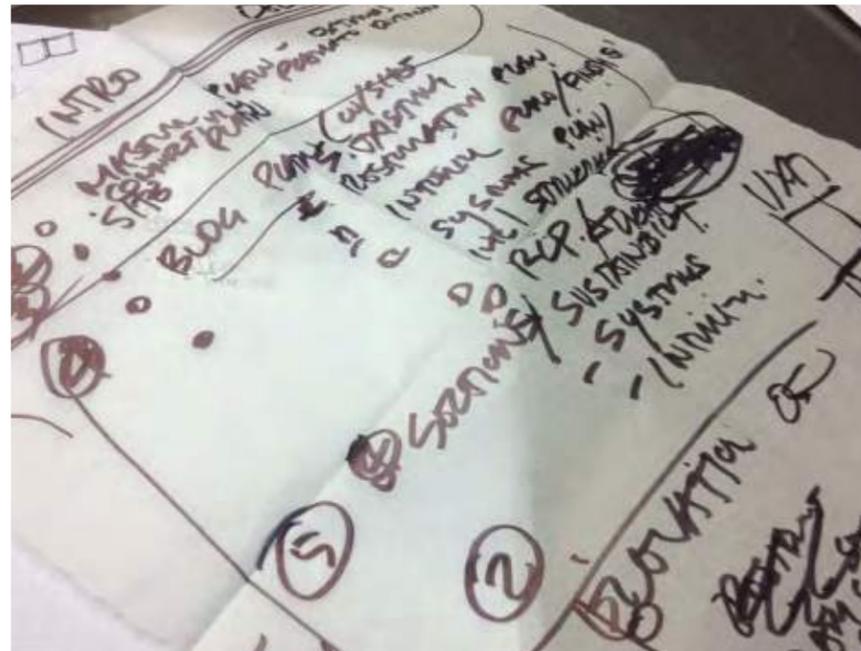
Strategy is Detailed and Presented

# PROCESS: CONCEPT / STORYTELLING

Storytelling is the conveying of events in words, images and sounds, often by improvisation or embellishment. Stories or narratives have been shared in every culture as a means of entertainment, education, cultural preservation and to instill moral values. Crucial elements of stories and storytelling include plot, characters and narrative point of view. (Wikipedia)

Based on the history of the building, the Lithonia Woman's Clubhouse is an important part of the story of the city of Lithonia and can become a strong part of its' future. The history of the city and this building are entwined, and the narrative is compelling. Our teams felt that the idea of storytelling should be the basis for the concept of this project, both inside and outside the building. The story will be conveyed through words that are preserved, images that will be shared, and sounds that are shared through gatherings, workshops, and laughter. The narratives of the culture of Lithonia will be documented, visitors will be educated, and entertainment will be had by all.





Public Relation Article Produced

Concept Ideas Presented to Group

# DISTRICT AND SITE PROPOSAL

## Context | Site

The Lithonia Woman's Club (LWC) building is in a district, located at the edge of a residential area, that converges with the downtown main street and an adjacent light industrial area.

There is an unsightly "found space" located between and behind these three uses. It is comprised mostly of a large broken up asphalt parking lot that has served the adjacent retail & industrial businesses. The parking lot is in a flood plain and appears unused.

In the vicinity are also the Southern Rail tracks and the beginning of the PATH bike trails.

Overall, the residential neighborhood is intact. However, there are several empty lots scattered about particularly at the periphery and between the LWC and the downtown. In some cases, demolished homes have been replaced with parking / paving.

Adjacent to the site of the LWC there is an abandoned Telecom Building. This building does not follow the typical setbacks of the neighborhood, and blocks the view to the LWC. With no windows it could be considered an "eyesore."

Across the street is an old house that is falling down. Behind the LWC building is the broken up paved lot.

Over the years, a portion of the historic downtown has been demolished and replaced with strip retail and large expanses of asphalt paved parking lots. One example is what locals call the "Blue Elephant," a retail building with its large blue roof that dominates the area when you drive into the Downtown from the expressway.

The Arabia Mountain Trail, a greenway mountain bike trail extends to Lithonia, and stops short of making it to the Downtown Area. The Lithonia Woman's club is situated between the end of this path and the downtown district.

## Program – Proposed Design

"Always design a thing by considering its next larger context- a chair in a room, a room in a house, a house in an environment, an environment in a city plan." Erro Saarinen

Thru the several meetings with stakeholders and from our several Charettes we identified challenges that we have addressed in our proposed design:

Reinforce and restore current uses, identities', and boundaries.

Reinforce and encourage the connectivity and synergies between uses

Reconnect the LWC to the main street retail corridor, the PATH bike trails and the community at large.

Encourage adaptive re-use of existing abandoned buildings and spaces

In one of our last meetings with the Mayor during our Charette, the mayor noted that the found space between all these uses, the large asphalt area, was also used for the occasional outdoor concert. In fact that day we were noticing a stage being set up and preparation for the concert that evening. This generated for us a real excitement over the potential uses that could transform this area. Our team expanded from trying to tie the Woman's Club building to the community, to now trying to tie all of these elements together with the LWC building at the center.

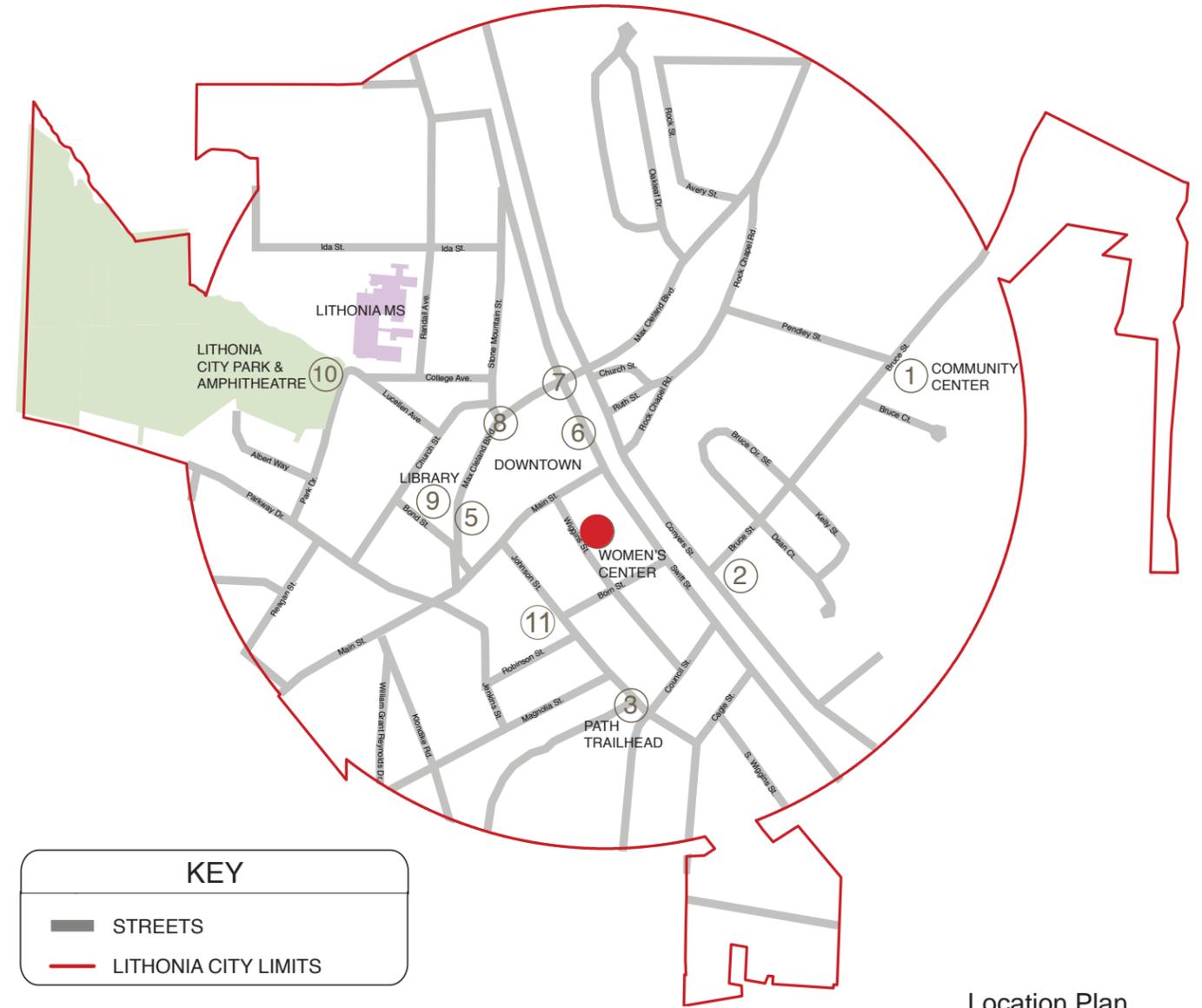
We now saw that Arabian Mountain, the PATH trail, the railroad, the downtown areas, the sidewalks, the potential parks & the music were elements that together could generate the entire project and could be expanded upon to the full potential that this area holds. We are trying to push

the envelope on the “repurposing” of the current existing uses into what could become a unique Live/Work/Play environment.

We consider this to be “Restorative Planning” and part of the healing process needed for the area to thrive once again. We are re-weaving the quilt. The LWC building has a significant story to tell along, as does the city of Lithonia. We recommend that all the parts are tied together to tell the STORY.

The Story Telling will begin outside the building. With the site rconnecting the downtown area to the path through the found space that will be come a park, an amphitheatre, and a community gathering space. We feel that this is significant: bringing the community together.

Our challenge was to look at both the site and structure, but also see it in the full context of the buildings, uses, history and potential future uses. Along with this we also see much potential in the sustainable ingredients that can also be implemented. These can be implemented through such things as harvesting water for reuse, changing significant paved impervious areas over to grassy pervious areas, adding vegetation, trees & landscaping to areas that were



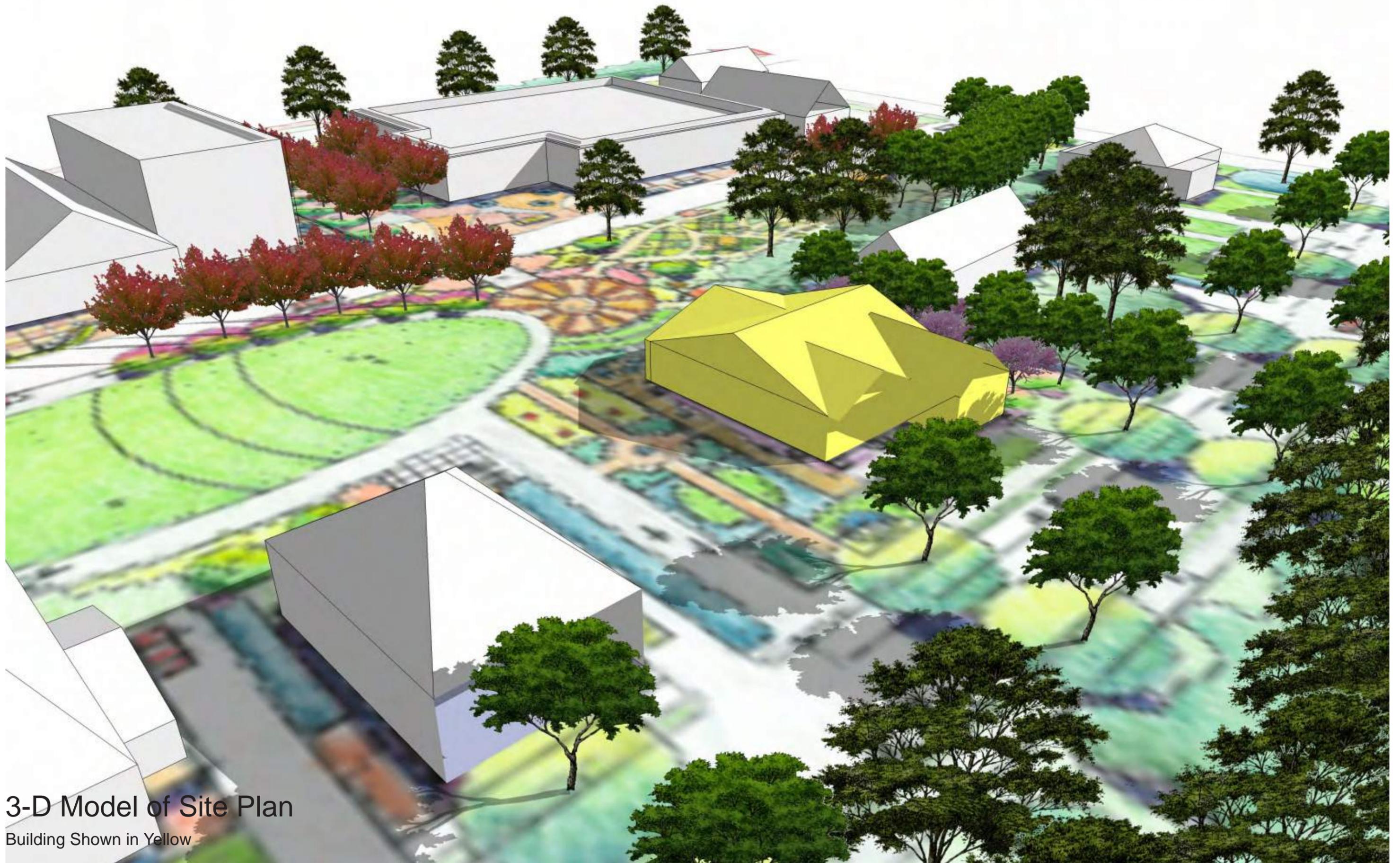
once looked upon as wasted and underutilized areas and creating park like features with multiple uses for the city.

The large grass and park area can become functional as a connecting tool for the residents of the City of Lithonia, and can serve as a place for a farmer's market, a festival, or a concert. It can become the magnet that will draw visitors and increase the economy and become a multi-purpose uses.

We are excited to present the design solutions that have been generated through input and thought from our Charette Teams. Recommendations include the building functions, the land and site planning, the sustainable and systems solutions, and interior design ideas. We have brought this presentation together in the hopes that the implementation will come about, even if it does so in phases, one step at a time.



District Plans with Circulation

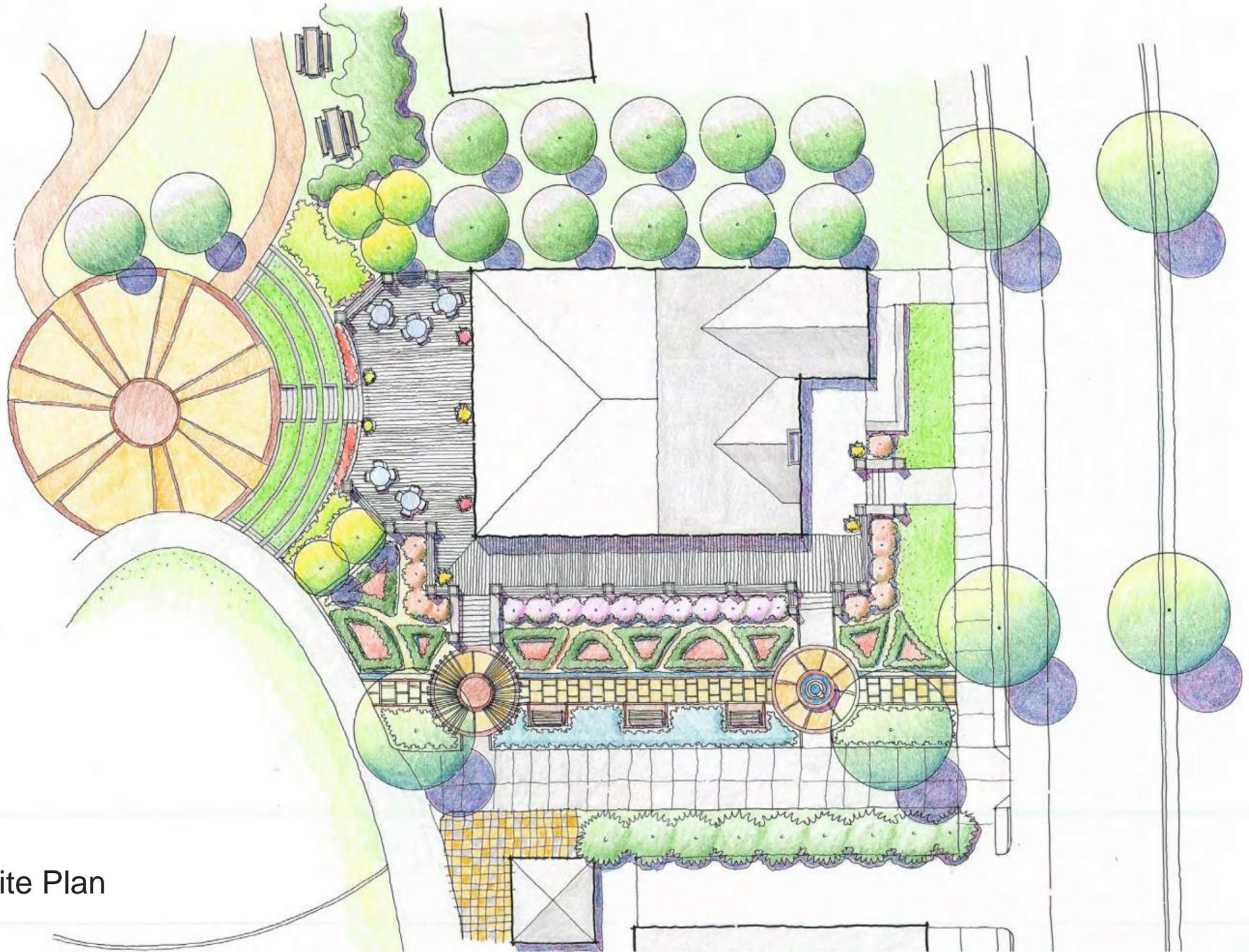


3-D Model of Site Plan  
Building Shown in Yellow



- 1.) PROPOSED GREENWAY
- 2.) MAIN STREET
- 3.) PATH CONNECTION
- 4.) PUBLIC PLAZA
- 5.) VILLAGE GREEN
- 6.) COMMUNITY GARDENS
- 7.) NATURE TRIALS
- 8.) EXISTING RETAIL/RES
- 9.) PROPOSED RETAIL/RES
- 10.) PATH SYSTEM
- 11.) SOUTHERN GARDEN
- 12.) WOMANS CLUB
- 13.) BAND STAND/ PLAZA
- 14.) GREENROOF
- 15.) PASSEO/GALLERY
- 16.) SOLAR FARM

Rendered District Plan Including Park Area



Rendered Site Plan



# INTERIOR PROPOSAL

The overall mission of the interiors team was to renovate and restore the Lithonia Woman's Club building to reflect the state of importance in the community that it once held and can hold again. The program for the interior of the facility evolved to include a restored library in its original location, a multi-purpose space for events, meetings, and gathering, a permanent space for displaying important objects, a functional but streamlined kitchen and expanded restrooms.

This scope expanded onto the exterior of the building with a new deck with the addition of inviting tables and chairs and a meaningful visual reference to Lithonia. The main entrance to the facility was clearly defined through the relocation of the front steps to create a circulation pattern that flowed into the assembly hall, through the building, to improve visual site lines and circulation flow through the interior of the space. The new rear hall will provide a direct link between the front and the rear entrance. Inside the rear door will be series of stacked mailboxes that will serve as a place to collect memories and share them. Visitors to the LWC will be encouraged to share their stories by writing them down and add place them in a mailbox that another user can read. This adding to the story element was a significant element that committee members got excited about, as a manner to bring the community together and to continue to document the history of the LWC.

The Assembly Hall of the facility and the Reception/Library will be restored and preserved. The reception/library will serve as a 'heritage' space with elevated platforms and museum-like signage. It will serve as a starting point for the storytelling concept to unfold.

The LWC Assembly Hall will be restored back to its' grand condition, removing paneling and parquet to produce an inviting space that has multi-uses including event and meeting rentals, lecture room and permanent storytelling through historic visuals on the walls. The flexibility and appeal of this room will add greatly to its revenue producing capability.

The permanent exhibit space will provide an opportunity for residents to temporarily display or permanently donate articles and objects of their own that have important meaning for the city. While maintaining the exhibits, the room will be flexible enough to provide spillover relief for events and rentals.

The expanded front deck and new side and back decks will provide an outside visitor's center, particularly for users of the PATH trails, as well as bicycle storage. It will encourage inside/outside use of the entire building and a connection to the new park and amphitheatre.

Overall, the interior of the Woman's Center will further the mission of once again creating a community gathering place for the entire community of Lithonia. The interiors team hopes to contribute to preserving history while improving function and creating a space that, in the eyes of a one-time worker at the Lithonia Woman's Center, was the prettiest place she'd ever seen with shiny floors and spaghetti dinners.

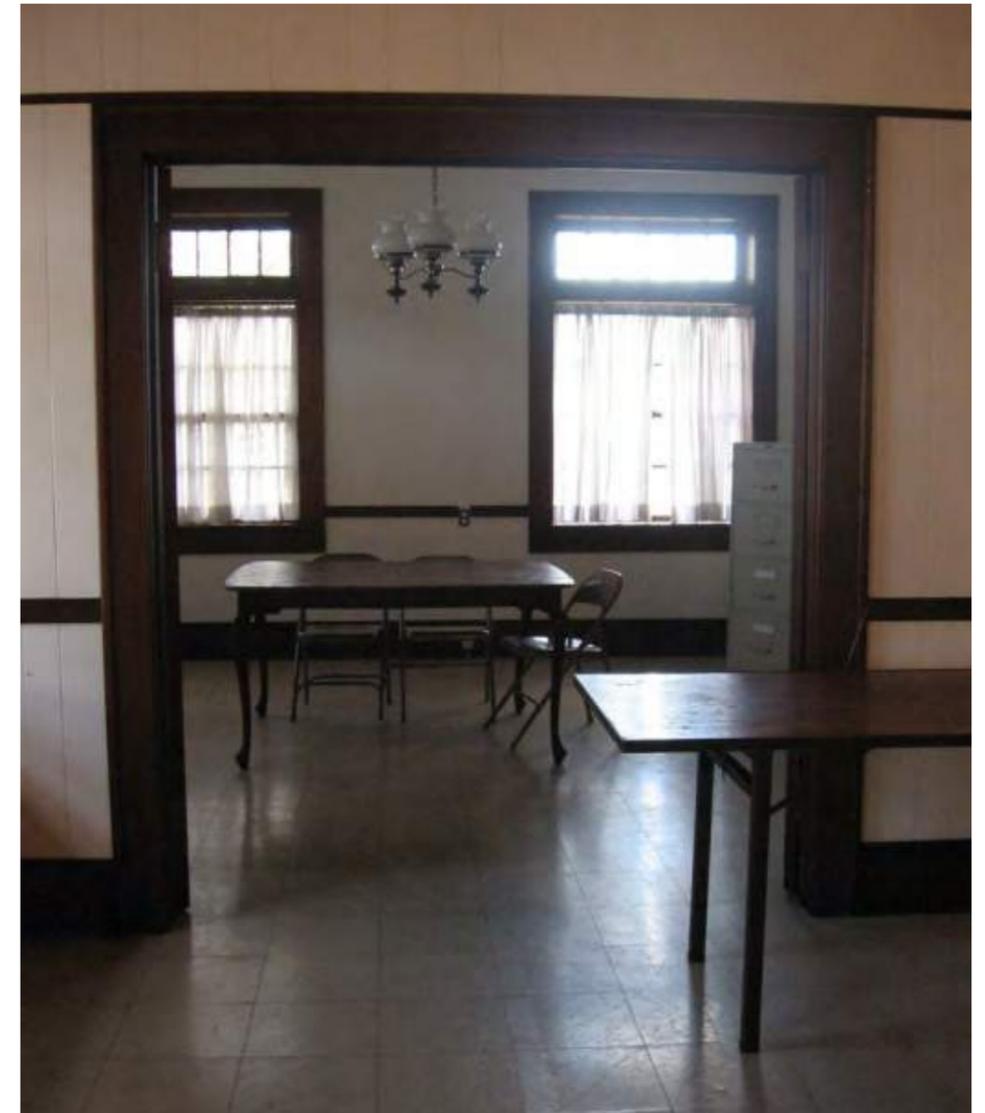
We are reweaving the quilt of memories for the LWC. In doing this, the significant story that this building symbolizes can be told. The storytelling process can begin.



Door/Window Configuration Room



View of Heritage Room



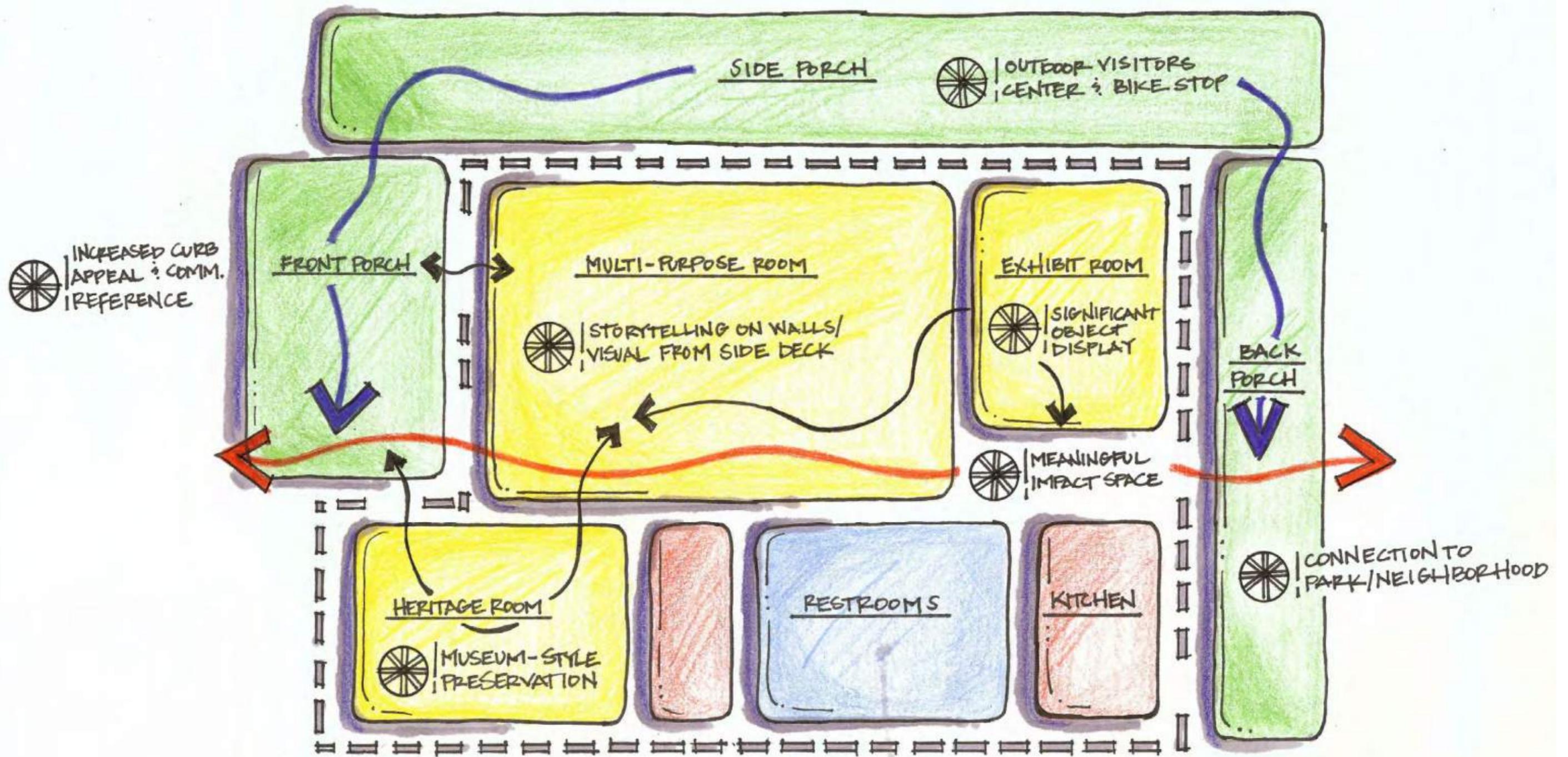
View of Exhibit Room



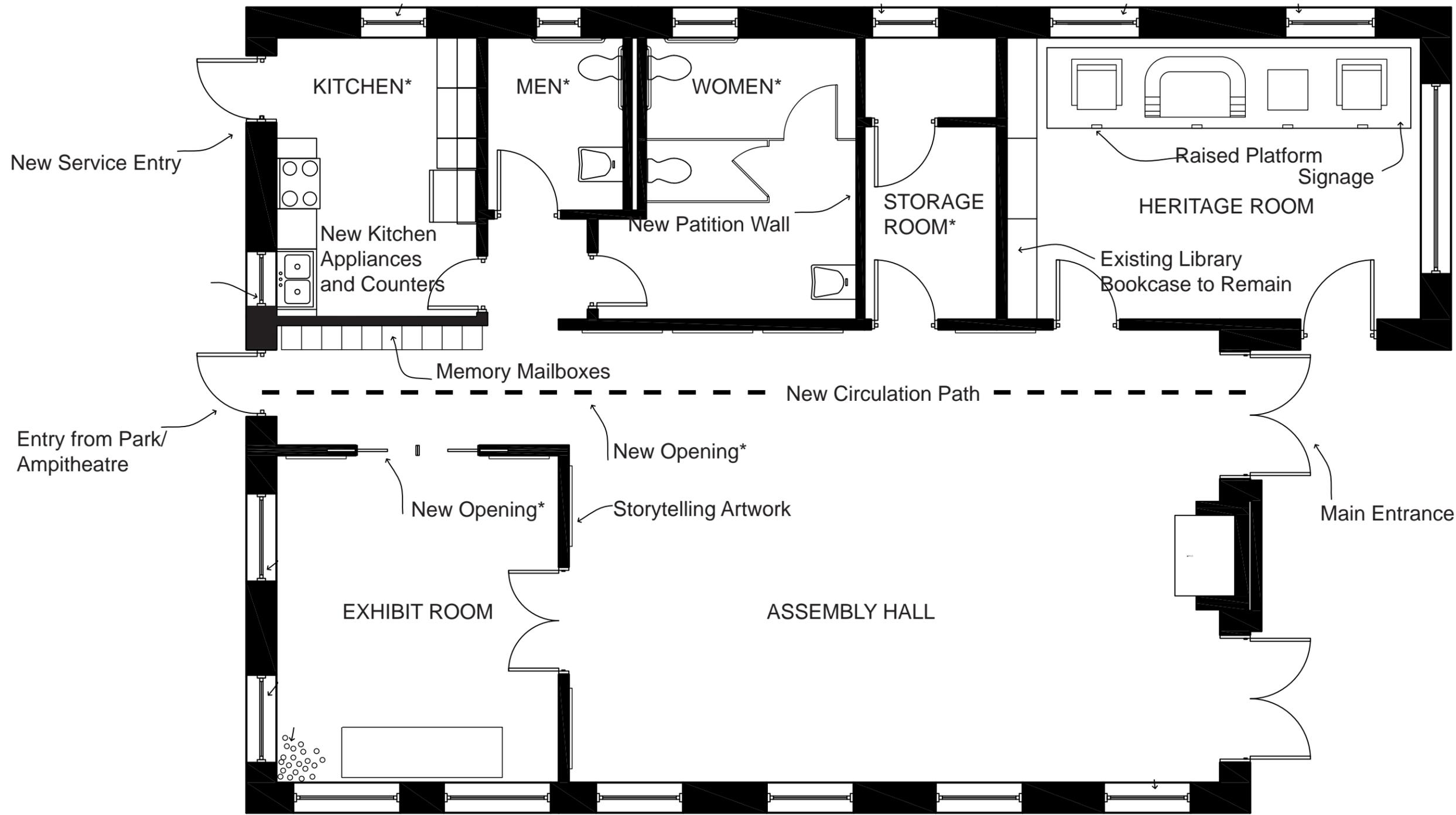
View of Assembly Room



View of Existing Kitchen



Process diagram showing circulation and points of interest



New Service Entry

KITCHEN\*

MEN\*

WOMEN\*

Raised Platform Signage

STORAGE ROOM\*

HERITAGE ROOM

New Kitchen Appliances and Counters

New Partition Wall

Existing Library Bookcase to Remain

Memory Mailboxes

New Circulation Path

Entry from Park/ Ampitheatre

New Opening\*

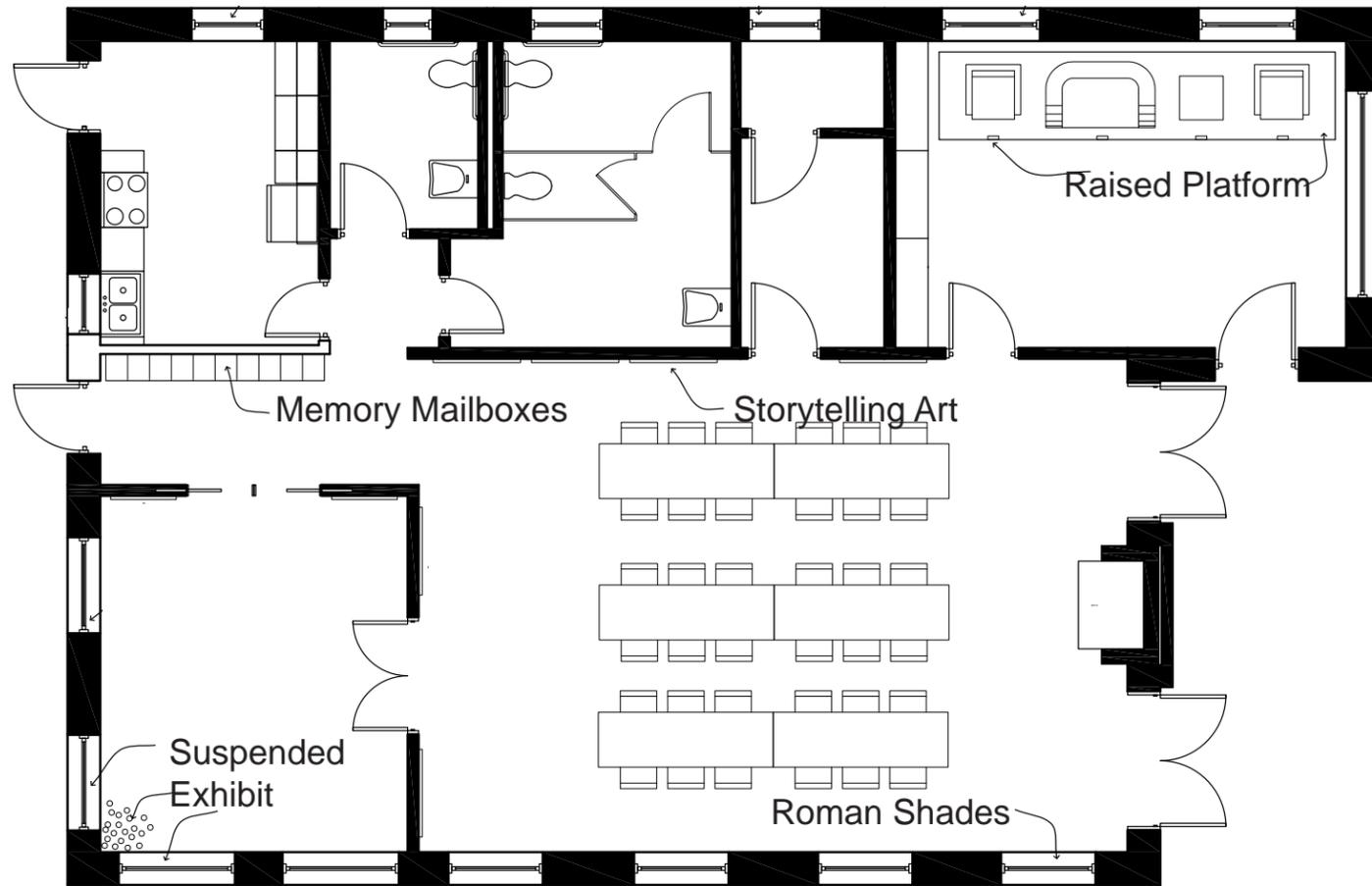
Main Entrance

New Opening\*

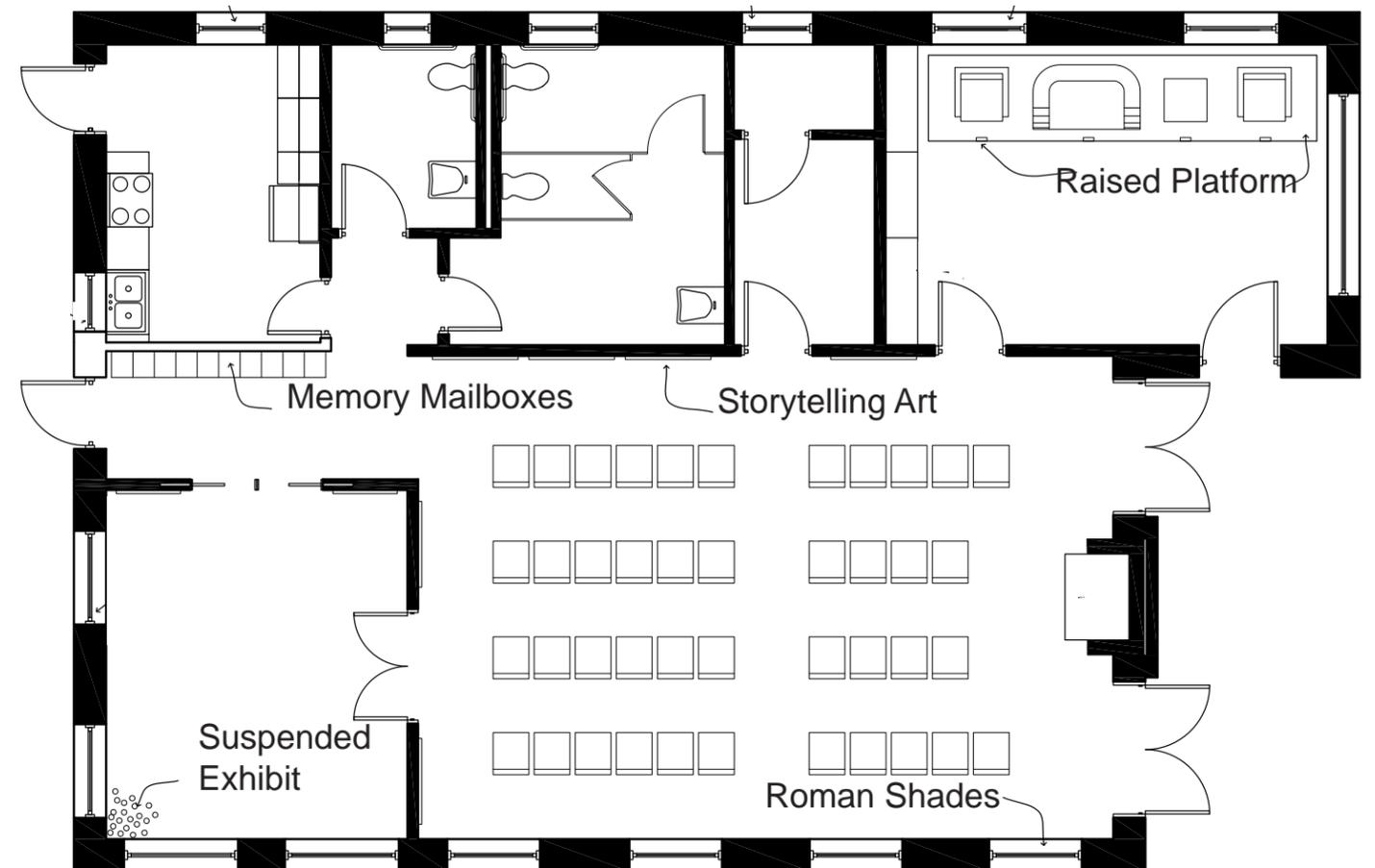
Storytelling Artwork

EXHIBIT ROOM

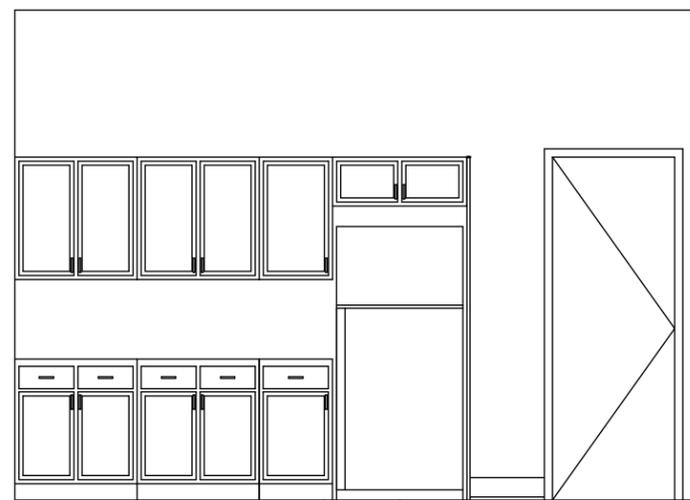
ASSEMBLY HALL



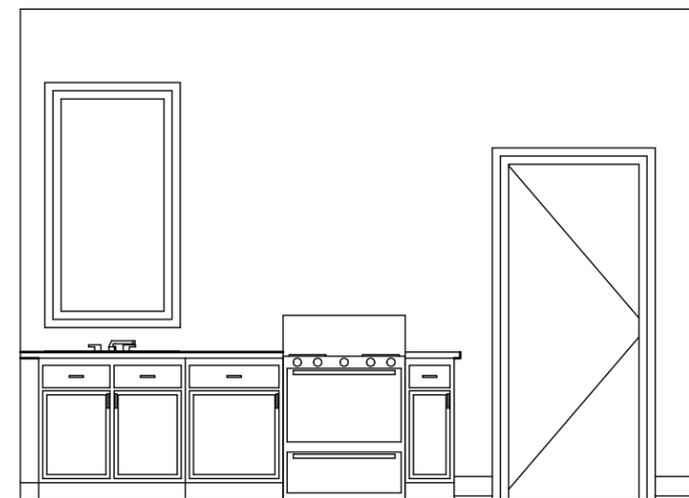
Furniture Plan: Meeting/Event



Furniture Plan: Lecture/Presentation



Proposed South Kitchen Elevation



North Kitchen Elevation



View of Assembly Hall



View of Heritage Room



View of Back Hall



View of Exhibit Room

# INTERIOR MATERIAL AND FINISH PROPOSAL

The interior finishes and materials of the Lithonia Woman's club continue to tell the story of the club's rich history while signaling a move to update the space for future generations of new storytellers. The integrity of the original interior is celebrated by restoring the original wood floors to their luster as well as returning to the original plaster walls. Neutral colors of crème and oatmeal wash the walls and highlight the original dark stain of the heavy wood beam infrastructure. This neutral palette allows the large exhibit photographs in the grand room and the 3-D exhibits in the smaller salon to become the focus with their various shapes, textures and pops of color.

Materials used throughout the space reflect the Lithonia area's ties to nature with a mix of metals in light fixtures and a nod to granite and stone used for sustainable flooring in the kitchen and restroom areas as well as table top surfaces. New transitional and contemporary lighting mix with existing historic fixtures to highlight the passing of time and further accentuate the diversity of memories and stories that the building evokes. Natural linen relaxed roman shades top the windows and add a soft juxtaposition to the monumentality of the stone and wood structure. Convertible tables allow for a flexible arrangement of furniture for the grand room and facilitate a multi-purpose set up and use of the space.

## Kitchen



Whirlpool  
21 cu. ft. Top-freezer  
Refrigerator with  
CEE Tier 31 rating



Whirlpool  
30-inch Self-Cleaning  
Double Oven  
Freestanding Gas  
Range

Hinkley Amelia Pendant



Armstrong Linoleum Floor  
Granette with NATURCote  
LP164 Falling Rock

## Exterior Lighting



Hinkley Lighting  
Brighton 2295SN-ES

## Bathroom



Vanity Mirror  
Quoizel Wall Mirror



Vanity Sconce Flanks Mirror  
Hinkley Harlow



Armstrong Linoleum Floor  
Granette with NATURCote  
LP164 Falling Rock

## All Windows and Paned Doors



Relaxed Linen Roman Shade  
<http://www.theshadestore.com/product2/relaxed-roman-shade>



Fabric: Linen Oatmeal

## Transitional Space Lighting

Bathroom/Kitchen Corridor



Kichler Dover Semi-Flush

## Overall Paint and Stain

Benjamin Moore Paints

Original Wood Flooring  
Lenmar Rapid Stain 1AS-1104 Chestnut



Main Color- Mascarpone AF-20

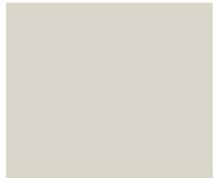
Bath/Kitchen Color- Wind Chime AF-465

# Assembly Hall

Kichler Lighting  
Dover Chandelier –  
15 Light



Blue Slate Stone



Bone



Two Tables in One

# SUSTAINABILITY PROPOSALS

The suggested interior, architectural, and landscape designs that are presented for this project have already incorporated many sustainable features. The purpose of this narrative is to further elaborate the various sustainable strategies that should be considered in the proposed renovation of the building and surrounding community.

LEED® (Leadership in Energy and Environmental Design) is a 3rd party green building rating system developed by the United States Green Building Council (USGBC). We have followed this system in our evaluation of the sustainable opportunities that this project provides.

Please refer to the LEED® Checklist that accompanies this narrative that lists the various prerequisites and credits that we feel will be able to be incorporated into the project's design and construction at minimal additional costs. Some of these items may increase the initial cost of materials or systems to be included in the project, but should be considered along with the energy and water savings over their life span, as well as in conjunction with their health and environmental benefits. One aspect that should be mentioned is that a LEED project (and any green or sustainable project) lends itself to an integrated design-build approach, such as has already begun with this project. One advantage of this approach is that preliminary estimates can be done in early design stages resulting in options

proposed for achieving similar results at less or no premium costs. It might also result in higher certification levels and corresponding life cycle savings within the established budget. There is also the possibility of receiving specific donations for some of these strategies (e.g. solar panels) that would lessen any first-costs.

Our recommendations will follow the LEED organization of site, water efficiency, energy and atmosphere, materials and resources and indoor environmental quality. Please also refer to the specific recommendations made in other areas of the booklet.

To start, we have considered that this project would be most applicable to the LEED rating system for New Construction (NC) under Building Design + Construction as it will be 100% owner-occupied.

## SITE

The building site is established and not intended to change. The larger vision of incorporating the building into the surrounding area for the community offers many opportunities to enhance and protect the environment. By its location, there is public transportation and trails within walking distance. The building will serve as an attraction and focal point to invite public to the area. With community

space, it will introduce green space and open areas for the public, which will then be designed to beneficially manage storm water and provide shade and reflective hardscapes for an enjoyable atmosphere and experience.

Our recommendations to further these advantages are:

- Provide bicycle racks for better non-vehicular access as well as preferred parking for low emitting vehicles and car and van pools.
- Ensure that construction activities do not damage existing green space and restore native vegetation in the surrounding areas without the need for irrigation, or use non-potable water for irrigation. We are recommending rain water harvesting for the building but this same approach should be considered for the community areas.
- Use green areas (bio-swales and retention areas) to manage and capture storm water and provide irrigation for plantings.
- Provide reflective hardscapes, such as light colored pavers, that do not contribute to heat island effects.
- Additionally, exterior lighting and lighting that escapes from the building should be designed to minimize light pollution to the surrounding areas, while maintaining proper safety and security.

## WATER EFFICIENCY

Saving on the use of potable water in our buildings should be standard design protocol in our area, and the good thing is, it is much easier to do than in previous years. There are many water saving plumbing fixtures now available that should not add any premium costs to the project. Depending on the owner's maintenance program, there are even waterless fixtures that can be considered.

Our recommendations in this area are:

- As mentioned above, consider restoring the surrounding vegetated areas to native plants that do not require irrigation.
- A major approach to saving on the use of potable water and sewage conveyance in buildings can be the installation of a grey water system to flush toilets and urinals. At the building, consider the installation of roof gutters that can direct the roof run off to an above-ground cistern that can be located under the deck at the rear of the building. This can then be used for irrigation and for flushing of toilets.
- Use low flow plumbing fixtures and faucets throughout. Sinks and lavatories should all be low flow. Consider automatic valves at lavatories and flush fixtures. 1 pint urinals and 1.25 gal toilets should be available. Purchase only water-saving appliances (e.g. dishwashers).

## ENERGY & ATMOSPHERE

While this category can add the most cost to a project, it can also provide the most savings over time. Any strategy considered should also include an analysis of the "pay-back period", or how long it would take to recoup any premium installation costs in savings over time.

- The first prerequisite for this category (Commissioning) will probably add some cost to a project of this type. Basic commissioning must be done regardless. We also recommend the enhanced commissioning be done as well. There are generally many benefits to the added expense, including systems that perform to their design capabilities and a follow up survey to ensure it continues. This cost is usually recouped in proper system operations.
- Optimizing energy performance entails not only looking at the HVAC systems, but also the lighting systems and the building envelope. The interior lighting should be designed to take advantage of natural day light wherever possible. Because of the public and sometimes sporadic use of many of the rooms, it is also recommended that occupancy sensors be installed to turn off lights when not in use. In any case, more efficient fluorescent bulbs should be installed for energy savings (T-8). Using LED lights will offer even further life cycle savings, though the initial cost is more expensive. The existing windows should all be replaced with more energy efficient insulating glass with low-e coatings.

We would also recommend supplementing the existing roof insulation where possible. Though the existing HVAC system is fairly new, we recommend replacing it with a much more efficient Variable Refrigerant Flow system. This system uses varying conditions of the building to balance the cooling or heating loads and thus provides greater energy efficiency and comfort. At the same time, an Energy Management System should be considered that can provide more flexible operating environments in all areas to meet the different usage needs of the building and save energy by doing so (e.g. raising or lowering temperatures when the building is not in use). Another strategy that has not been included, but should be investigated further, is the possibility of installing a geo-thermal system for heating and cooling. Ground wells could be drilled in the open community areas and utilized for multiple buildings in the area. This system has a high initial cost, but pays back over time by not using any electricity or fossil fuels for heating or cooling.

- While solar panels come with a high first cost, you essentially are getting free power after that. We believe that the existing roof could be used to mount PV panels (Photo-Voltaic panels produce electricity directly from the sun's rays). This would feed directly into the building's power system. When producing more electricity than is consumed by the building, this can be fed back into the "grid" with corresponding credit from the power company. We did not, however, include a solar hot water system to provide

- We did not include adding means to measure and verify energy consumption in the building, or for the owner to purchase green power, but these items should be investigated further as the program and design progresses.

## MATERIALS & RESOURCES

This category includes many items that are instituted in the construction phase, as well as the design phase. Executing construction waste management and using local materials with high recycled content rely upon the contractor's procurement expertise as much as the designer's material selection. These strategies should be made a part of the Project's approach so that all participants clearly understand what will be required of them. There should be no additional costs for incorporating these into the project.

Specifically:

- Providing for occupant waste recycling is a prerequisite and must be included. We feel this should be a part of all public buildings in any case.
- The renovation portion should qualify for reusing the building's structure and skin and possibly the interior partitions.
- Construction Waste Management consists of segregating all construction waste, either on or off site, and ensuring as much of this waste is sent to recycling as possible.

Diverting 75% or more of this waste is not uncommon.

- Materials reuse has not been included in our initial review, but should be considered if the opportunity arises, such as reclaimed flooring or exterior stone.
- Using construction materials that contain high percentages of recycled material and/or are obtained within 500 miles is very obtainable these days and should be included in the project's specifications.
- Selecting rapidly renewable materials and certified wood can be more challenging and why we have not included these strategies in our review. They should, however, be considered further in the design process to see if they could be feasible.

## INDOOR ENVIRONMENTAL QUALITY

As in materials and resources, there are a number of possible credits that rely upon the contractor's execution and should be clearly spelled out in the project approach. Again, these items should not necessarily mean additional costs, just careful planning and follow through. The design team should also be aware of all the prerequisites and ensure they are incorporated into the design. Since most of us spend at least 90% of our days inside buildings, this category can directly impact the quality of life we enjoy.

- Outdoor air monitoring involves installing CO2 sensors

that measure the carbon dioxide concentrations in areas where groups congregate. These will show an alarm if the concentrations reach elevated levels so additional fresh air can be introduced.

- Increased ventilation rates have not been included because of the initial cost and increased energy usage to condition more outside air into the building. This strategy should be reviewed further when the design engineers have been retained.
- Indoor air quality during construction should be standard construction practice, but again, should be spelled out in the approach to ensure it is included. Indoor air quality before occupancy will probably require the testing option. The testing option requires air quality testing after all construction operations have been completed to ensure that the proper materials have been installed and procedures have been followed. This will involve some testing costs, but will not require a delay before occupancy. We recommend that both construction and occupancy strategies be attempted.
- Most standard construction materials are available these days with low VOCs (volatile organic compounds) and without much, if any, additional costs. Adhesives and sealants, paints and coatings and flooring systems are widely available and have been included in our recommendations. Using composite wood with no added urea formaldehyde may be a bit more difficult, mostly

because of wood doors and casework, but we believe this can be achieved at no additional cost.

- The remaining strategies in this category have to do with the design of the lighting and HVAC systems. Providing for better occupant control of these systems allows for a more user-friendly and healthier environment. A follow up survey is recommended to ensure the occupants are comfortable with the end results. Incorporating sufficient lighting and thermal controls into the design now is much more cost efficient than trying to add them later. We recommend including these strategies into the design now where possible.

- Strategies for day lighting and views to the exterior have been mentioned above and should definitely be included. Fortunately, the existing building is well set up for this.

## INNOVATION IN DESIGN

This category allows for going above and beyond specified thresholds for things like recycled content and also for introducing innovative ideas that can enhance the sustainable footprint of the building. This is where the creativity of a team environment can be very beneficial and produce some good ideas and better results.

- As this is a community use building, it is advisable to incorporate an educational program of the sustainable aspects and strategies that have been used in the building.

This does not have to be costly and can educate the community and make the users feel more involved in the building, while setting a good example for everyone.

- Can the maintenance staff utilize green cleaning materials in the building? These products are becoming more and more available at no added costs, and it only makes sense to protect the environmental standards that will be established for the renovated building.

- Exemplary performance should be possible in the recycled content and water efficiency categories with careful attention to the program by all. There may be others, but this should be a minimum.

In summary, sustainability is not just about points on a checklist, but about doing what makes sense to protect and sustain our planet while improving the quality of our lives and the lives of our children. We have used the LEED checklist as a guideline to discuss these points, but it is up to the owner, design and construction team to ensure that sustainable goals are incorporated into the program goals of the project from the very beginning. Then, to see them followed through to ensure the highest quality space and grounds are created for the benefit of the community and for the efficient and economical use of our resources.

# SUSTAINABILITY PROPOSALS

## USGBC LEED ANALYSIS AND BUDGET



2009

Date: 14-Jul-12

LEED Version 2009 BD&C Project Analysis and Budget  
**LITHONIA WOMANS CLUB**  
 Lithonia, GA



Yes	likely	Maybe	unlikely	No				
3	7	8	1	7	<b>Sustainable Sites</b>	26 Points		COST IMPACT

Y								
1					Prereq 1	<b>Construction Activity Pollution Prevention</b>	Required	
					Credit 1	<b>Site Selection</b>	1	
		5			Credit 2	<b>Development Density &amp; Community Connectivity</b>	5	
				1	Credit 3	<b>Brownfield Redevelopment</b>	1	
	6				Credit 4.1	<b>Alternative Transportation, Public Transportation Access</b>	6	
				1	Credit 4.2	<b>Alternative Transportation, Bicycle Storage &amp; Changing Rooms</b>	1	
				3	Credit 4.3	<b>Alternative Transportation, Low-Emitting and Fuel-Efficient Vehicles</b>	3	
2					Credit 4.4	<b>Alternative Transportation, Parking Capacity</b>	2	
		1			Credit 5.1	<b>Site Development, Protect or Restore Habitat</b>	1	
		1			Credit 5.2	<b>Site Development, Maximize Open Space</b>	1	
				1	Credit 6.1	<b>Stormwater Design, Quantity Control</b>	1	
				1	Credit 6.2	<b>Stormwater Design, Quality Control</b>	1	
	1				Credit 7.1	<b>Heat Island Effect, Non-Roof</b>	1	
			1		Credit 7.2	<b>Heat Island Effect, Roof</b>	1	
		1			Credit 8	<b>Light Pollution Reduction</b>	1	

Yes	+	+/-	-	No				
	10				<b>Water Efficiency</b>	10 Points		COST IMPACT

Y								
	4				Prereq 1	<b>Water Use Reduction 20%</b>	Required	
	2				Credit 1	<b>Water Efficient Landscaping, Reduce by 50% or 100%</b>	2 to 4	\$26,003
					Credit 2	<b>Innovative Wastewater Technologies</b>	2	\$5,417
	4				Credit 3	<b>Water Use Reduction, 30%, 35% &amp; 40% Reduction</b>	2 to 4	
								\$31,420

Yes	+	+/-	-	No				
	14	12	9		<b>Energy &amp; Atmosphere</b>	35 Points		COST IMPACT

Y								
Y					Prereq 1	<b>Fundamental Commissioning of Building Energy Systems</b>	Required	
Y					Prereq 2	<b>Minimum Energy Performance</b>	Required	
Y					Prereq 3	<b>Fundamental Refrigerant Management</b>	Required	
	7	5	7		Credit 1	<b>Optimize Energy Performance</b>	1 to 19	\$4,876
	3	2	2		Credit 2	<b>On-Site Renewable Energy</b>	1 to 7	\$43,339
	2				Credit 3	<b>Enhanced Commissioning</b>	2	
	2				Credit 4	<b>Enhanced Refrigerant Management</b>	2	
		3			Credit 5	<b>Measurement &amp; Verification</b>	3	
		2			Credit 6	<b>Green Power</b>	2	

continued... \$48,214



LEED-NC

2009

Date: 14-Jul-12



LEED Version 2009 BD&C Project Analysis and Budget

LITHONIA WOMANS CLUB

Lithonia, GA

Yes + +/- - No

10 4 Materials & Resources 14 Points COST IMPACT

Y	Req	Prereq	Description	Points	Cost Impact
		Reqd	Storage & Collection of Recyclables	1	
		Credit 1.1	Building Reuse, Maintain Existing Walls, Floors & Roof	1 to 3	
		Credit 1.2	Building Reuse, Maintain Interior Non-Structural Elements	1	
		Credit 2	Construction Waste Management	1 to 2	
		Credit 3	Materials Reuse	1 to 2	
		Credit 4	Recycled Content	1 to 2	
		Credit 5	Regional Materials	1 to 2	
		Credit 6	Rapidly Renewable Materials	1	
		Credit 7	Certified Wood	1	

Yes + +/- - No

1 10 2 1 1 Indoor Environmental Quality 15 Points COST IMPACT

Y	Req	Prereq	Description	Points	Cost Impact
		Reqd	Minimum Indoor Air Quality Performance	1	
		Reqd	Environmental Tobacco Smoke (ETS) Control	1	
		Credit 1	Outdoor Air Delivery Monitoring	1	\$2,167
		Credit 2	Increased Ventilation	1	
		Credit 3.1	Construction IAQ Management Plan, During Construction	1	
		Credit 3.2	Construction IAQ Management Plan, Before Occupancy	1	
		Credit 4.1	Low-Emitting Materials, Adhesives & Sealants	1	
		Credit 4.2	Low-Emitting Materials, Paints & Coatings	1	
		Credit 4.3	Low-Emitting Materials, Flooring Systems	1	
		Credit 4.4	Low-Emitting Materials, Composite Wood & Agrifiber Products	1	
		Credit 5	Indoor Chemical & Pollutant Source Control	1	
		Credit 6.1	Controllability of Systems, Lighting	1	
		Credit 6.2	Controllability of Systems, Thermal Comfort	1	
		Credit 7.1	Thermal Comfort, Design	1	
		Credit 7.2	Thermal Comfort, Verification	1	
		Credit 8.1	Daylight & Views, Daylight 75% of Spaces	1	
		Credit 8.2	Daylight & Views, Views for 90% of Spaces	1	

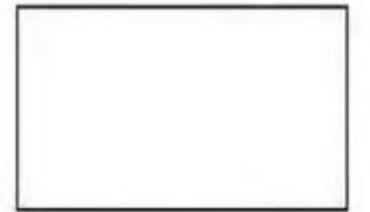
continued... \$2,167



LEED-NC

2009

Date: 14-Jul-12



LEED Version 2009 BD&C Project Analysis and Budget

LITHONIA WOMANS CLUB

Lithonia, GA

Yes + +/- - No

1 3 2 Innovation & Design Process 6 Points COST IMPACT

Y	Req	Prereq	Description	Points	Cost Impact
		Credit 1.1	Innovation in Design:	1	
		Credit 1.2	Innovation in Design:	1	
		Credit 1.3	Innovation in Design:	1	
		Credit 1.4	Innovation in Design:	1	
		Credit 1.5	Innovation in Design:	1	
		Credit 2	LEED® Accredited Professional	1	

Yes + +/- - No

2 2 Regional Priority 4 Points COST IMPACT

Y	Req	Prereq	Description	Points	Cost Impact
		Credit 1.1	Regional Priority	1	
		Credit 1.2	Regional Priority	1	
		Credit 1.3	Regional Priority	1	
		Credit 1.4	Regional Priority	1	

Yes + +/- - No

5 56 30 11 8 Project Totals (pre-certification estimates) 110 Points Total

Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80 points and above

\$81,801

# SYSTEMS PROPOSALS

The building that houses the Woman's Club is a double layered granite wall building with a wooden truss built roof and single ply asphalt shingles. The building has a crawl space and front porch that is handicap accessible and a porch at the rear of the building. The HVAC system was recently replaced due to vandalism. The building is presently cooled and heated with a Goodman® brand GSX13 ENERGY-EFFICIENT SPLIT SYSTEM AIR CONDITIONER.

## RECOMMENDATIONS

### THERMAL COMFORT

During our site investigations we discovered that the attic did not have insulation. The double walls of granite and a plaster ceiling has provided a tight seal over the years but a layer of batt insulation would provide additional R-value to reduce heat loss.

### I. VARIABLE REFRIGERANT VOLUME (VRV)/ – with HEAT RECOVERY VENTILATOR

A multi-split air-conditioning system, featuring variable refrigerant volume (VRV) technology--the so-called multi-split VRV system--with one outdoor and several indoor units, is finding its way into residential and commercial buildings since it provides precise capacity control with an inverter-

driven compressor and individual electronic expansion valves (EEVs) for each indoor unit.

#### Key Features

- DC twin rotary compressors
- Unique dual inverter drive in every outdoor unit
- Non-ozone depleting refrigerant Puron®
- Noise below 50 dB(A)
- Compact and modular design
- Energy savings COP up to 4.1
- New large-diameter fan design for improved air flow
- Improved fan blade design for smoother air flow and less turbulence
- Extended pipe runs for greater application flexibility

This technology is somewhat new and has been used extensively in the commercial area but the need to provide different heating and cooling in several rooms will make this a viable choice for the Woman's Club building to accommodate multiple activities and help in maintaining a constant temperature in the Library/Heritage Room.

### II. SPLIT SYSTEM HEAT PUMP with Supplemental Heat - with HEAT RECOVERY VENTILATOR \$\$

This technology is somewhat new and has been used extensively in the commercial area but the need to provide different heating and cooling in several rooms will make

this a viable choice for the Woman's Club building to accommodate multiple activities and help in maintaining a constant temperature in the Library/Heritage Room.

#### Advantages:

- Heat pump produces 3kW of heat to 1 kW of electricity spent (an electric heater gives you a 1 to 1 ratio)
- Easy installation
- Easy maintenance
- Quiet operation
- Heating
- Cost effective
- Simple control
- Commercially available in many sizes

#### Disadvantages:

- Multiple units required (interior and exterior)

## PLUMBING SYSTEM

I. Low Flow (ultra low flow), 1/8 gallon per flush models with a battery powered flush sensor is the unit recommended for all new construction and retrofits. These low flow units provide 85% of the water savings associated with waterless units without the cartridge changing costs.

#### Advantages:

- Low flow equals water savings

- Qualify for USGBC LEED point
- Low maintenance
- Installation in new and retrofit situations
- First cost is coming down

Disadvantages:

- High up front cost in \$ per unit

## II. WATERLESS URINALS

The waterless urinal with wall outlet saves you water and money. The unit eliminates water and sewer costs from urinals; reduces maintenance and repair bills; and is designed to create hygienic, odor-free restrooms. Implementation and maintenance guidelines must be understood prior to installation of this product.

Advantages:

- Reduced water and sewer cost
- Qualify for USGBC LEED point
- Installation in new and retrofit situations
- Payback around 1 ½ to 3 years
- Does not require freeze protection
- Does not require flush valve maintenance
- Does not require batteries, transformers or electronics
- Environmentally friendly

Disadvantages:

- Educating janitorial staff on what products to use for

cleaning

- Odor or perceived odor related to decreased cleanliness
- Splashing of urine on men's trousers during use (may not apply here)
- Reduced flow in waste water piping leading to deterioration of piping
- Cartridge changing costs
- Material expenses and stocking
- Labor expenses and when to replace
- Who does the change out? FMS or janitorial?
- Cartridge disposal. HazMat or not?

## III. LOW FLOW WATER CLOSET with SOLAR POWERED BATTERY OPERATED SENSOR (Sloan Wall Mount Toilet Bowl w/ Solar Powered HET Flush Valve, 1.28 GPF)

A pre-1994 flush-toilet or gravity-fed toilet uses 3.4 US gallons or 2.8 imperial gallons or more per flush. In 1992, the United States Congress passed the Energy Policy Act of 1992, which mandated that beginning in 1994 the common flush-toilet use only 1.6 US gallons of water per flush. Low flow water closets possess an effective flush volume of 1.28 US gallons or less. Low flow water closets may be single-flush or dual-flush. A dual-flush toilet permits its user to choose between two amounts of water. Some Low flow water closets are pressure-assisted (or power-assisted or pump-assisted or vacuum-assisted).

The performance of a flush-toilet may be rated by a Maximum Performance (MaP) score. The low end of MaP scores is 250. The high end of MaP scores is 1000. A toilet with a MaP score of 1000 should provide trouble-free service. It should remove all waste with a single flush; it should not plug; it should not harbor any odor; it should be easy to keep clean. The United States Environmental Protection Agency uses a MaP score of 350 as the minimum performance threshold for Low flow water closets.

Advantages:

- Reduced water and sewer cost
- Qualify for USGBC LEED point
- Installation in new and retrofit situations
- Payback around 1 ½ to 3 years
- Environmentally friendly

Disadvantages:

- Specifying the right manufacturer

## IV. Faucet's with LOW FLOW AERATOR and SOLAR POWERED BATTERY OPERATED SENSOR

Bathroom/Kitchen

The installation of faucets with solar powered battery operated sensors and low flow aerators' (0.5 gpm), will save the owner money and water usage.

Advantages:

- Reduced water and sewer cost
- Qualify for USGBC LEED point
- Installation in new and retrofit situations
- Environmentally friendly

Disadvantages:

- Educating janitorial staff on who replaces batteries

## VI. SOLAR POWERED POINT-OF-USE WATER HEATER

Point-of-use tankless water heaters, designed for basic low-flow point of use applications, are economical, ultra-compact and attractive. The Mini Series is best suited to applications with a relatively constant flow rate. If the flow rate is likely to fluctuate in your application due to varying water demands or changes in well pump pressures, etc., we recommend that you consider a tankless water heater with thermostatic control and flow-based power modulation technology. Due to their small size, the Stiebel Eltron Mini Tankless Water Heaters conveniently fit directly under the sink or adjacent cupboard or closet, so they deliver hot water to the sink almost instantly. By locating the heater right near the point-of-use, you can also eliminate thermal heat loss commonly associated with long pipe runs. In new construction applications, you also eliminate the need to run a hot water line all the way from the main central water heater which can save you significant money in plumbing

and material cost.

Advantages:

- Reduced energy usage
- Qualify for USGBC LEED point
- Installation in new and retrofit situations
- Environmentally friendly
- Easy to install by experienced installer

Disadvantages:

- New technology for the user - requires training

## VII. RAINWATER HARVESTING COLLECTION SYSTEM

Rainwater harvesting is the accumulating and storing, of rainwater. Rainwater harvesting systems channel rainwater that falls on to a roof into storage via a system of gutters and pipes. The collected rainwater can be reused to irrigate vegetation. Additional uses of the collected water could be to flush toilets. Local codes must be understood in order to follow rainwater requirements.

Advantages:

- Reduced water usage
- Qualify for USGBC LEED point
- Installation in new and retrofit situations
- Environmentally friendly

Disadvantages:

- May lead to less water returned to the lake
- Underground tank may be required
- Energy used to pump water to final destination

## CONTROLS SYSTEM

### I. INTRODUCTION

Building Controls are always the most misunderstood and mistreated application of those included into the Building Systems discipline which typically includes Mechanical-HVAC, Electrical, Plumbing, & Communications. This industry is geared to provide an “all inclusive” stream of technologies and information for which the potential Owner/ User tends to acquire a certain level of automated advantages that includes a myriad of little conveniences. In short the Lithonia Woman’s Club building needs a simple “smart” controls system configured to be “User Friendly” in terms of the non-technical staff that administers or run the place.

## ADDITIONAL SYSTEM

### I. SUNPOWER SYSTEMS

SunPower® Residential Solar Panels

Solar power lowers your energy costs by channeling the sun's energy. It hedges against rising utility rates, increasing your energy savings over time, and requires little maintenance. (<http://us.sunpowercorp.com>) 1-800-786-7693 Sun Power Systems provide a turnkey product for the Owner. The final installation incorporates a flat screen monitor located per the owner request. The monitor offers real time solar energy collection data at the facilities site. Community center users can get a first hand look at this impressive energy conservation feature. Children will learn more about energy conservation as they use the interactive monitor to view other energy conservation links. Free site assessment by SunPower Personnel.

#### Advantages:

- Reduced energy usage
- Qualify for USGBC LEED point
- Installation in new and retrofit situations
- Environmentally friendly
- Interactive monitor for community to learn more about solar power

#### Disadvantages:

- May not produce substantial amount of energy
- Space required on roof for solar panels

## LIGHTING RECOMMENDATIONS

### INTERIOR LIGHTING

### I. BUILDING

The existing building has a variety of lighting fixtures that use incandescent bulbs and fluorescent bulbs. We recommend replacing all lamps and bulbs with energy efficient fluorescent bulbs and T8 lamps for the fluorescent fixtures. T8 lamps have the highest luminous efficacy (efficiency of light output to power used).

### INTERIOR LIGHTING CONTROLS

#### I. OCCUPANCY SENSORS

Recommend utilizing occupancy sensors for energy-savings where possible, including:

- o Switch-type passive infrared sensors in all the rooms except the Assembly Room.)
- o Ceiling-mounted ultrasonic type in bathrooms.
- o Ceiling-mounted passive infrared elsewhere in the multi-purpose rooms, kitchen, and hallways.

### EXTERIOR LIGHTING

#### I. EXTERIOR Lighting , PHOTOCCELL AND TIMERS

Recommend using LED lighting. There is a higher up-front cost for LED over other sources; however this cost will be

offset by the energy savings of LED as well as reduced cost of maintenance. LED lamps have the longest life of available sources. The cost to maintain and replace lamps in the difficult-to-reach soffits make LED's a great option for this application. Recommend controlling this lighting by photocell-on and timer-off.

### II. MOTION SENSORS

Recommend using flood lighting controlled by motion sensor for security purposes.

### STRUCTURAL SYSTEMS

1. There exists a visible & measurable settling underneath floor beam carrying the eastern wall of the Main Hall. Jacking up is not recommended as it might lead to potential cracking in drywall etc. Instead, we recommend stiffening the existing beam in place with added vertical support in the crawl space.

2. Inspection of roof structure in the attic reveals that there are at least two buckled vertical roof supports due to excess roof loads. It is advised that further inspection of roof loads be done and potentially adding extra support in those areas where vertical buckling is clearly visible.

# CONCLUSION

## From the Co-Chairs

Six organizations that are invested in sustainable design came together to generate recommendations, to create this booklet, and to assist Arabia Mountain Area Alliance with the re-design and re-purposing of the Lithonia Woman's Club. This group of professionals volunteered their time, their knowledge, and their efforts to give back to provide assistance to a city in need of a change.

The collaboration of the teams was seamless. Thirty individuals who, for the most part, did not know one another, and who came from different professional backgrounds, were able to pull together to generate the recommendations illustrated within this booklet through an on-ground series of gatherings and online communications in a few months while maintaining their regular work hours and loads. We wanted to make a difference.

Through this effort, we expanded our vision outside of the Lithonia Woman's Club site to include the surrounding areas. We did this with past studies in mind, being conscious of not re-doing but instead expanding the vision. We hope you will find this useful and that it will help provide guidance in the years to come.

Liset Robinson & Richard Nelson  
Co-Chairs – 2012 R&GS Community Outreach Committee





# MANUFACTURES SPECIFICATION SHEETS



2295SN-ES

Brighton

Brighton's regal design features hand-soldered solid brass construction. The triangular-shaped stamped window pattern with circular medallion accent gives this style a distinguished sophistication.

Width: 9"

Height: 24"

Weight: 27 lbs.

Material: Solid Brass

Glass: Clear Seedy Glass

Bulb: One 26w CFL GU24 (Included)

TTO: 11"

Extension: 9.25"

Back Plate Height: 11"

Back Plate Width: 4.5"

Certification: c-UL-us Wet

UPC: 840885229516



Notes

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3124CM  
Amelia

Width: 12.75"  
Height: 13.75"  
Weight: 15 lbs.  
Material: Steel  
Glass: Etched Opal Glass  
Bulb: One 100w Medium Base  
Voltage: 120v  
Leadwire: 120"  
Certification: e-UL-us Damp  
UPC: 640865312409



Notes

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Dover - Chandelier 15Lt  
2523AB  
Chandelier 15Lt  
Dia./Width: 36.5 IN  
Body Height: 45.5 IN

Available Finishes: Antique Brass, Brushed Nickel, Polished Brass, Tannery Bronze

The Dover Collection takes classic design and offers its own unique, modern twist. Characterized by its long, sweeping arms, Dover fixtures offer a clean look while remaining fresh and exciting. With our Antique Brass finish over its hand-wrought steel frame, you can be sure of a high quality fit and finish that is second to none. This 3-tiered, 15 light chandelier is the largest in the Dover Collection. With its etched seedy glass diffusers, this fixture is perfect for a large room or foyer. It measures 36 1/2" in diameter with a 45 1/2" body height and uses 60-watt (max.) bulbs.

Technical Information

Type	Chandeliers	Depth/Case Dimensions	3.125 DIA. IN
Style	Transitional	Bulb Included	Not Included
Finish Group	Brass	Primary Bulb Count	15
Room	Dining Room, Foyer Lighting, Creek Room	Primary Max Watt	60W
Weight	34 LBS	Primary Lamp Type	B10
Body Height	45.5 IN	UL CSA Listed	Yes
Width	36.5 IN	Diffuser Description	ETCHED SEEDY GLASS
Chain Length	72 IN	Body Material	Steel
Extra Lead	80 IN		

Related Products



Semi Flush 3Lt  
Finish: Polished Brass  
Dia./Width: 15.25  
Body Height: 14.0



Semi Flush 3Lt  
Finish: Antique Brass  
Dia./Width: 15.25  
Body Height: 14.0



Mini Pendant 1Lt  
Finish: Polished Brass  
Dia./Width: 6.5  
Body Height: 11.5



Semi Flush/Inv Pendant 3Lt  
Finish: Polished Brass  
Dia./Width: 17.75  
Body Height: 19.0



**Dover - Semi Flush 3Lt**

3623AB

Semi Flush 3Lt

Dia./Width: 15.25 IN  
Body Height: 14.0 IN

**Available Finishes:** Antique Brass, Polished Brass, Tannery Bronze, Brushed Nickel, Olde Bronze, Polished Nickel, Brushed Nickel

The Dover Collection takes classic design and offers its own unique, modern twist. Characterized by its sweeping arms, Dover fixtures offer a clean look while remaining fresh and exciting. With our Antique Brass finish over its hand-wrought steel frame, you can be sure of a high quality fit and finish that is second to none. This 3 light Dover Semi-Flush uses 60-watt (max.) bulbs for everyday lighting. With its etched seedy glass base, this fixture brings a timeless design into any room. It measures 15 1/4" in diameter with a 14" body height.

**Technical Information**

Technical Information		Bulb Included	Not Included
Type	Ceiling Lights	Primary Bulb Count	3
Style	Transitional	Primary Max Watt	60W
Finish Group	Brass	Primary Lamp Type	A19
Room	Bedroom, Hallway, Utility	UL CSA Listed	Yes
Weight	5 LBS	Diffuser Description	ETCHED SEEDY GLASS
Body Height	14 IN	Body Material	Steel
Width	15.25 IN		
Backplate Dimensions	5 DIA IN		

**Related Products**



**Chandelier 5Lt**  
Finish: Antique Brass  
Dia./Width: 24.0  
Body Height: 23.0



**Mini Chandelier 4Lt**  
Finish: Antique Brass  
Dia./Width: 18.0  
Body Height: 16.0



**Chandelier 5Lt**  
Finish: Polished Brass  
Dia./Width: 24.0  
Body Height: 23.0



**Mini Chandelier 4Lt**  
Finish: Polished Brass  
Dia./Width: 18.0  
Body Height: 16.0



life AGLow™



4210PN  
Harlow

Width: 4.5"  
Height: 14.25"  
Weight: 2 lbs.  
Material: Metal  
Glass: Etched Opal Glass  
Bulb: One 60w Candelabra  
Voltage: 120v  
TTO: 10.25"  
Leadwire: 120"  
Extension: 5"  
Back Plate Height: 8"  
Back Plate Width: 4.5"  
UPC: 640865421019



Notes

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Durable, Lightweight, Recycled, Aluminum, A-Frame, Folding Chair



### FOLDING CHAIR—SPECIFICATIONS

Position: Open Folded	Seat Height: 18.5" (469mm)	Overall Height: 34.5" (880mm) 49" (1245mm)	Width: 20" (510mm)	Seat Depth: 18" (457mm)	Overall Depth: 25.25" (642mm) 1" (25mm)	Weight: 12.7 lbs (5.8kg)	Footprint: 30.25" (769mm) L x 20" (508mm) W 3.17" (80mm) clearance side chair
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**Frame:** Main support frame is made using 1.25" x .025" (1.25in x 1.60in) x 18-gauge oval steel tubing. Crossbars consist of identical 18-gauge oval tubing firmly welded to each leg.

**Lag Feet and Caps:** Lag Feet and Caps: Feet are injection molded using a non-scoring thermoplastic elastomer. Combined feet to floor contact is not less than 2.8 sq inches (18 sq cm).

**Ganging:** Optional steel frame-link ganging or after-market nylon clip.



**Frame Finish:** Finish is an electro-statically applied powder coat over a phosphate treated aluminum frame. The powder is cured in a computer-controlled oven for enhanced precision and extended durability.

**Seat and Chair Back:** Seat and chair back are injection molded structural nylon and provide an incredible strength to weight ratio (pound for pound stronger than steel) and impact resistance. The nylon frames provide the main structural support for upper sections of the chair and house the RipStop mesh. The seat is attached to corresponding frame members using 5/16" (7.9mm) zinc-plated rivets. Chair back is attached to the top of the front legs of the chair through a system of glides and snaps that lock into the oval steel tube.

**RipStop Mesh:** Commercial-grade elastomeric mesh is made in the USA and is upholstered to the nylon seat and back frames using a proprietary bonding process that is patent-pending. RipStop mesh is tear, stain, fire, and abrasion resistant (see Standards).

**Standards:** Chair passes California Bulletin 133. RipStop Mesh passes California Bulletin 117, British Standard BS52 Section 4: 12.2 – 12.3, and is tested to over 50,000 double rubs. Protected by US Patents D599177 & 8833598.

**Weight Capacity:** 1,000 lbs (454kg)

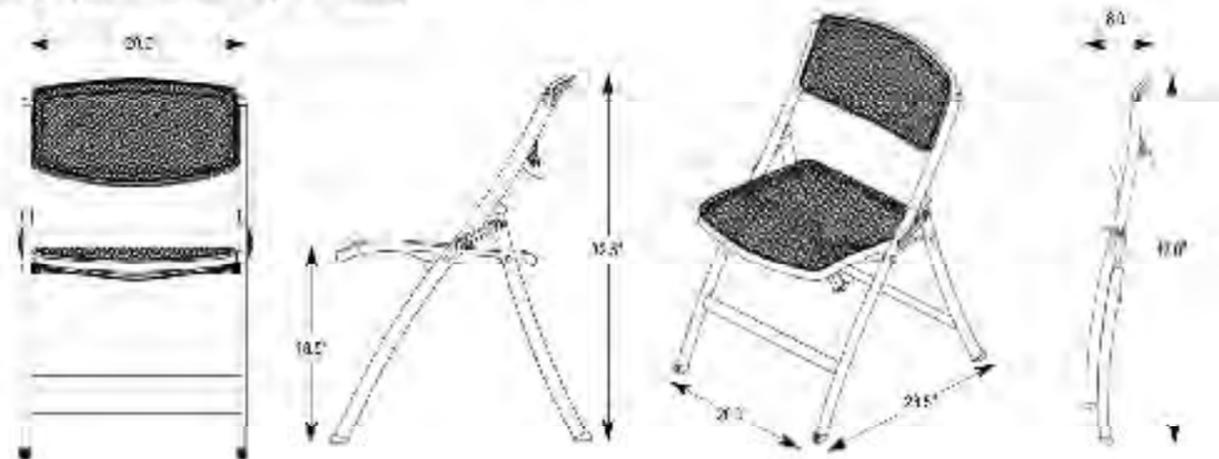
**Folding:** Folding mechanism is a 4-bar type linkage created through the structural nylon chair seat and 14-gauge stamped steel frame links. Mechanism is joined by zinc-plated steel 5/16" (8mm) diameter rivets.

**Stacking:** The slope and construction of the chair provides stable, positive indexing when stacked. Stacking density is 8.0" (15.2cm) for the first chair, each additional chair is 2.5" (6.3cm).

**Warranty:** Mesh-One™ folding chairs are warranted to be free from defects in materials and workmanship under normal use, service, and handling for ten (10) years from the date of purchase on steel chair frame and three (3) years from the date of purchase on structural nylon seat and chair back and RipStop mesh upholstery.

**Sustainability:** Mesh-One™ chairs are GREENGUARD Certified and qualify for credits through LEED & other sustainable building programs.

Mesh-One chair construction utilizes recycled steel, nylon, and polypropylene making the chair more than 98% recycled based on weight of contributed materials.



**Part Numbers**

Standard Finish: 2190000000 (BLACK/BLACK) 2190000001 (BLACK/OLIVE/BLACK)

Optional Finish: 2190000002 (OLIVE) 2190000003 (BLACK) 2190000004 (RED/BLACK)



Commercial



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www.southernaluminum.com



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on all products (ends 7/23)

# RELAXED ROMAN SHADE



linen - oatmeal

- ORDER FREE SAMPLE
- PRODUCT DETAILS
- PHOTO GALLERY
- COMPARE PRICES
- HOW TO MEASURE
- TIPS + FAQs

## PRODUCT DESCRIPTION: RELAXED ROMAN SHADE

- each relaxed roman is made to your specifications
- primarily decorative style, not ideal for everyday use
- gentle curve at bottom of shade
- additional scoops may be added on shades ~42" w
- a small stitch may show where rings are sewn to the back of shade
- control is positioned behind the shade
- no charge for privacy or blackout lining
- prices from \$259 (30" x 54")
- relaxed roman shades ship in 10 days!
- free shipping on all orders

## STEP 1: SELECT YOUR MATERIAL

COTTONS + LENSING | SILKS | WOOL + BLENDS | SHEERS | PATTERNS

cotton + linen • cotton oyster • linen sheers • living simply • kathos  
amazing race • gate stitch

## STEP 2: CHOOSE YOUR COLOR

ORDER FREE SAMPLES

linen • price group A • 97% linen 3% cotton  
soft, textured, durable linen material suitable for any decor

white	ivory	ecru	parch	green	natural
caramel	beige	sea	sterling	graphite	peridot
huckle	cinnamon	coffee	saddle	midnight	black

## OPTIONAL: ADD A 2 1/2" DECORATIVE BORDER IN A CONTRASTING COLOR?

- no
- YES (surcharge: \$10/shuttering tool)

CONTINUE

CONTINUE

## SHOP ADDITIONAL PRODUCTS

- drapery hardware
- designer collections
- comics
- baby + kids
- shade pulls
- eco-friendly materials

## CUSTOMER SERVICE

- order status
- shipping + handling
- my account
- child safety
- measure + install
- to the trade

## POLICIES

- satisfaction guarantee
- terms + conditions
- privacy policy

## ABOUT US

- our story
- green matters
- in the press

## Energy and Eco-Friendly

Energy Star® Qualified : Yes, 30%

## Style and Extras

Icemaker Type : Field Installed  
Control Type : Single Knob/ Single Thermostat

## Capacity

Freezer Capacity : 6.1 Cu. Ft.  
Refrigerator Capacity : 14.9 Cu. Ft.  
Total Capacity : 21.1 Cu. Ft.

## Dimensions

Width : 32 1/2  
Height To Top Of Cabinet : 65 1/2  
Depth Radius : 62 1/4  
Height : 66 1/4  
Depth : 33 7/8  
Depth Closed Including Handles : 33 7/8

## Configuration and Overview

Upper Capacity : 2.1 Cu. Ft.  
Total Capacity : 3.9 Cu. Ft.  
Range Configuration : Double Oven

## Whirlpool Sensing and Adapting Technology

Accubake : Accubake  
Precise Clean : Self Clean

## Style and Extras

Sabbath Mode : Yes  
LP Gas Convertible : Yes  
Cleaning System : Self Clean  
Number of Oven Racks : 2  
Electronic Touch Control : MRC

## Cooking Elements (Gas Only)

Range Fuel Type : Natural Gas  
Right Front Burner High (BTU) : 9200  
Left Rear Burner High (BTU) : 5000

## Product Dimensions

R 33 7/8  
H 66 1/4  
W 32 1/2

Dimensions are for planning purposes only.  
For complete information, visit owner center.

## Product Dimensions

R 28 1/2  
H 47 1/8  
W 29 15/16

Dimensions are for planning purposes only.  
For complete information, visit owner center.

## Product Spec Sheet - Granette with NATURCote

### Form(s):

#### Sheet

5.5 ft (2.0 m) Wide x 98.4 ft (30 m) Max. Length

### Reference Specs:

ASTM F 2034 Type I  
Standard Specification for Sheet Linoleum Floor Covering.

### Fire Test Data :

ASTM E 648 Critical Radiant Flux Class I - 0.45 or more watts/cm<sup>2</sup>

ASTM E 662 Smoke Developed 450 or less  
Numerical flammability ratings alone may not define the performance of the product under actual fire conditions. These ratings are provided only for use in the selection of products to meet the specified limits.

CAN/ULC-S102.2-07 Flame Spread Rating (FSR) 100  
(2.5mm products only)

CAN/ULC-S102.2-07 Smoke Developed Classification (SDC) 330  
(2.5mm products only)

### Static Load Limit:

ASTM F 970 (modified) 250 psi (17.6 kg/cm<sup>2</sup>)  
Subjective visual, no visually apparent indentation.

ASTM F 970 450 psi (31.6 kg/cm<sup>2</sup>)  
<=0.005 in. residual indentation.

### Gauges:

0.100 in (2.5 mm) overall (nominal)

### Durability :

0.100 in (2.5 mm) - Very Good

### Maintainability :

0.100 in (2.5 mm) - Excellent

### Resilience :

0.100 in (2.5 mm) - Very Good

### Approximate Installed Cost (per Sq. Ft.):

#### Sheet

0.100 in(2.5 mm): U.S.: \$4.75 to \$5.50

## Quoizel Lighting Downtown Mirror in Brushed Nickel DW43222BN

Cool, sleek sophistication is written all over this design. Gleaming glass ball accents complements the brushed nickel finish, bringing a soft modern sensibility to your home.

Product Identification			
Manufacturer	Quoizel		
Collection	Downtown		
Category	Mirrors		
SKU	DW43222BN		
UPC	611728157879		
Design Information			
Finish	Brushed Nickel		
Dimensions and Weight (inches and pounds)			
Dimensions	LENGTH	WIDTH	HEIGHT
		22.00	32.00
Weight	19.00		
Bulb Information			
	PRIMARY	SECONDARY	
Number of Bulbs	0		
Max Wattage	0		

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WITH SPECIAL THANKS TO...

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Copper Carry Architects



Final Touch Ups



**LITHONIA WOMAN'S CLUB:  
RED AND GREEN SCENE OUTREACH COMMITTEE  
2012 PROJECT**

NOT INTENDED FOR CONSTRUCTION | PLANS ARE CONCEPTUAL ONLY AND SUBJECT TO CHANGES