Expansion and Enhancement
Miami Beach Convention Center and Conference Facility

FINAL DRAFT

Janurary 31, 2010

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INTRODUCTION

East Elevatationo Along Washtington Avenue.

Exhibit Hall During a Trade Show

1.1 EXECUTIVE SUMMARY

The following Master Plan document formalizes the unified voices of a variety of stakeholders, filtered through the design team, into a graphic representation of the redefined vision for the Miami Beach Convention Center. It is an attempt to provide a possible design solution that incorporates many of the project needs discovered through the programming process. It also is a response to the strategic needs analysis completed late last year that recommended a series of planning and programming considerations for the facility.

Since the last renovation in the late Eighties, a series of expansion scenarios have been offered and developed to some degree, in an effort to respond to known inadequacies in the facility. Many reasons contributed to the lack of progress: lack of funding, possible short-sightedness, disagreements in ranking priorities as well as market fluctuations. In the meantime, annual capital expenditures from operating funds, temporary fixes as well as determination and hard work routinely kept the Convention Center reasonably updated and presentable. All agreed some level of refurbishment and expansion is necessary to allow the facility to reach its undeniable potential.

The strategic analysis was a starting point of discussion at the initial kickoff meeting with the City and the Steering Committee in January 2010. The analysis and dialogue formed the basis of a set of overall goals established for the Convention Center Expansion Project. The goals, enumerated and developed in detail later in this document, are not only quantitative space needs for the facility, but also embrace more qualitative and abstract issues, seeing beyond the current building parcel into the surrounding neighborhood. The design team was encouraged to “think outside the box” and offer possible building features that transcend physical space demands and provide avenues for redefining the current offering in the marketplace. Besides delivering a facility that best responds to the current set of users, the challenge was to vary the existing product and attract new possible user groups that have never been potential clients in the past.

The design team’s mandate, expressively stated at the Kickoff Meeting by Matti Herrera Bower, the Mayor Of the City of Miami Beach, and emotionally supported by both City leaders and concerned stakeholders alike, was to approach the design solution without budget constraints as a main limiting factor. The goal was to discover and propose a design that takes the Miami Beach Convention Center into “the next thirty years.” The Convention Center is a major source of revenue for the City, County and surrounding municipalities and deserves a suitable quality venue. Although designers must always have an eye on budgets and value for the design dollar, the directive from the outset was to provide best possible solutions, not a short-term remedy requiring a series of additional repairs and upgrades before any real difference is realized.

The south Miami Beach location has an historical, established allure to all tourists including visitors to the Convention Center. The combination of favorable weather, proximity to the ocean, and accessibility to a wide variety of attractions, including cultural events, sports, dining and retail, create a unique blend of characteristics that attract both national and international guests. This distinction really demands a unique design response unlike the traditional convention center prototype.

It became evident quickly in the discovery process that the venue could never favorably compete with some of the huge, expansive exhibit halls in Orlando, Atlanta or Las Vegas. Competing with these in terms of size on our distinctive site would only quickly erode the surrounding amenities that are a large part of the real attraction. There is a maximum defined volume (footprint and height) on this site that allows the center to complete most favorably against its competition in the industry without busting into the local fabric and destroying the foundation of its initial appeal. The height limitations and setbacks prescribed in the City's zoning regulations were initiated for a purpose; the response to the physical space needs must abide by them.

Another important consideration was the mandate for continued operations during the construction of any expansion or renovation. The MBCC could not afford a long-term closure and loss of future bookings and revenue to provide the improvements. Any recommendations would need to be phased in along with temporary Maintenance of Traffic (MOT) plans associated with each phase.

The design team spent the initial thirty days plus in retrieving background information on the existing facility and its surroundings, as well as studying previous master plan suggestions that were not developed further. Architects became familiar with the current spaces, adjacencies, finishes and their usage. Engineers became familiar with the current connected utilities, mechanical, electrical and life safety systems. We held interviews with the building operating staff and became acquainted with the list of both budgeted and planned compiled capital improvement initiatives for the next four years to understand identified needs required to keep the facility functioning as currently programmed. After lengthy analysis, the design team re-sorted the capital improvements list by priority, delaying or eliminating items that will be impacted or completely reconstructed in the proposed expansion. The expansion project will take time to review, approve, fund, initiate and construct so line items that are required to maintain the level of service (two years or more) were prioritized higher. Details of those findings are included in Section 5.1.

Next, the facility planners met with the sales staff and along with the design team, met with the stakeholder groups to listen and understand future needs and generate ideas on how to take the facility into the future. Summaries and outcomes of these workshops and discussions are provided in Section 3.3. These considerations, the strategic analysis and overall goals as well as our own expertise led to our new space program goals and layout.

The following items outline the basic highlights of the proposed Master Plan proposal:

1. New Multi-Purpose Ballrooms: 81,600 GSF
2. Additional Programmed Areas: 962,506 GSF
   - Exhibit Hall Space: 213,099 GSF
   - Meeting Space: 81,901 GSF
   - Prefunction (Lobby)/Concessions: 205,016 GSF
   - Food & Beverage: 38,228 GSF
   - Support Space: 315,893 GSF
     - Front of House 16,872 GSF
     - Back of House 260,059 GSF
     - Food & Beverage 38,962 GSF
3. Additional Parking Spaces: 438 Spaces
4. Reorganization of Basic Layout: Public Entrance (Pedestrian and Vehicular) and Formal Frontage, Service Entrance (Loading and Marshalling), Parking Access.
5. New Unified Aesthetic.
6. Incorporation of Courtyard Amenity and Connectors to Adjacent Venues. (Hotel District, Lincoln Road and beyond, New World Symphony and City Hall, Dade Canal Walk and Bass Museum, Botanical Garden and Holocaust Museum. This includes 35,200 GSF of new retail/restaurant space in three buildings and activating the courtyard.
7. Creation of Outdoor Meeting or Gathering Areas at Balconies or Roofs as Unique Meeting Alternatives.
8. Establish a Unified District with its own Materials Palette to Expand the Walkable Environment of Guests to Nearby Venues.
9. Phased Delivery to Allow for Continued Operations
10. .Identify Potential Headquarters Hotel Sites so that these areas remain free of convention center expansion and remain viable hotel development alternatives for the future.
11. Convenient Food & Beverage venues (Food Court and Concessions) and ample support.
12. Efficient Additional Parking that along with Surrounding Inventory Meets Projected Needs.
13. Covered Access to the Building for Both Guests and Exhibitors.
14. Recommendations for Upgraded Utilities and Connections, Drainage, Roadways and Pedestrian Walkways that Reflects Proposed Expansion Needs.
15. State of the Art Systems including District Connectivity, Lighting and Controls, Under-slab Power, HVAC and Controls, Graphics and Audio-Visual Display and Sound, full Life Safety Compliance.

The proposed master plan therefore responds to not only the required spatial needs to meet current needs and those in the near future, but also initiates a transformation from a basically prototypical meeting place into a catalyst for regional economic growth. The notion of a stand-alone building is traded for a unique district, recognizing synergies among its neighbors. The transformation begins instantly with the immediate impact of a new building orientation and nearly 400,000 Square Feet of core meeting space within a one million square foot total phase. Further improvements within the center's footprint as well as nearby venues and linkages within the District further contribute to the overall unified vision.

East Elevation on Convention Center Drive

1.2 MASTER PLAN TEAM

The team established to participate in the development of the Convention Center Expansion Master Plan consisted of several groups from a variety of viewpoints.

A project Steering Committee was created in an effort to obtain a wide variety of opinions from a range of viewpoints. The committee was made up of project stakeholders of various types and backgrounds: managers, users, sales staff, business partners, industry leaders, City and County leaders as well as local residents.

A selection of City staff was assigned to the project to assist the consultant design team and the Steering Committee through the development and approval process.

The consultant team assembled to develop the Master Plan consists of the following firms:

ARQUITECTONICA	Team Leader and Architectural Planning and Design
CONVENTIONAL WISDOM	Convention Center Programming and Planning
KIMLEY HORN	Civil Engineering and Traffic Control
DDA and ASSOCIATES	Structural Engineering
TLC Engineering for Architecture	Mechanical, Electrical, Fire Protection & Communications
SYSTEMS DESIGN, INTERNATIONAL	Food Services

1.3 SCOPE AND DELIVERABLES

Prior to commencement, a scope of services made up of a series of tasks was prepared, discussed, fine-tuned and finally agreed upon with the City of Miami Beach. These tasks were to cover what was necessary to develop a complete Master Plan, suitable for internal analysis, community review and input and finally, presentation to the City Commission for approval and recommendation. A summary of final approved scope consists of the following:

MASTER PLANNING SCOPE OF SERVICES SUMMARY

The purpose of this Project is to develop a Campus Master Plan that meets the City's functional requirements and recommended future needs, incorporates community input, and stays within established schedule and cost parameters.

The Planning Phase of the Project will include the following major tasks:

- Project Kick-off Meeting.
- Project site reconnaissance visit to include a comprehensive existing conditions report and background gathering.
- Initial planning session with the City and its Market Research Consultant (MRC) to explore and prepare alternatives.
- Meeting with the City to review alternatives and make refinements for CDW.
- Review meeting to finalize alternatives prior to Community Design Workshop.
- Community Design Workshop to present the Master Plan, and provide residents the opportunity to participate in the planning process.
- Preparation of a draft Basis of Design Report (BODR).
- Conduct a LEED Workshop and prepare conclusions for incorporation into plan
- Review of BODR with City departments.
- Preparation and presentation of a comprehensive final Master Plan and BODR for approval by the Mayor and City Commission.

TASK 1 – PROJECT KICK-OFF MEETING:

The CONSULTANT shall meet with the CITY and its MRC to review existing planning documents and receive copies of available reference documents. CITY shall provide general information regarding procedures and direction.

TASK 2 – PROJECT SITE RECONNAISSANCE VISIT AND BACKGROUND GATHERING:

The CONSULTANT and members of the each major design discipline including the MRC shall attend an initial Site Reconnaissance Visit. This site visit shall also be attended by applicable CITY staff. The intent of this task is to facilitate the CONSULTANT'S understanding of the Projects short and long-term needs. This may include document review, site and facility tours, department interviews and requests for additional information to be facilitated by the CITY.

TASK 3 – ATTEND INITIAL PLANNING SESSION TO EXPLORE AND PREPARE ALTERNATIVES:

The CONSULTANT shall attend an initial Planning Session to be scheduled with representatives of the CITY and the CONSULTANT. The purpose of the session shall be to clarify Project goals with the user group(s) so that viable conceptual alternatives can be explored. At this meeting, the CONSULTANT shall review the background information, program and site options in preparation for an open "brain-storming" discussion regarding the benefits and disadvantages of each. The group will discuss new options as well as options that have been considered in the past and either discarded or postponed for further development.

This planning session will establish the groundwork for the development of initial conceptual alternatives.

Based on the results of the initial planning session and site visit and materials presented at the Kick-off Meeting and during subsequent background gathering, and the discussion and conclusions made at the initial Planning Session the CONSULTANT shall develop preliminary conceptual alternatives that are responsive to the Project program, budget, and schedule. The CONSULTANT shall assemble graphic images identifying alternative Project design concepts, if applicable, to allow the CITY a full understanding of proposed short and long-term improvement alternatives.

TASK 4 – REVIEW ALTERNATIVES AND MAKE REFINEMENTS FOR COMMUNITY DESIGN WORKSHOP:

In this effort, the CONSULTANT shall meet with the CITY to review the various alternatives and discuss the benefits and disadvantages of each so that decisions can be made on the recommended alternatives and priorities. Each alternative will have a preliminary rough-order of magnitude (ROM) cost estimate with enough detail, equal to Phase I – Schematic Design level of detail, to be able to compare and differentiate each alternative and make planning decisions.

Upon completion of the work session the CONSULTANT shall make revisions to its proposed conceptual plan (Schematic Design level – Phase I), as necessary, to develop a Recommended Approach to the short and long-term goals of the facility. The approach may have simple options and/or phased development but not an exhaustive or inconclusive number of options beyond basic scope. This Recommended Approach that will be presented at the Community Design Workshop.

TASK 5 – REVIEW MEETING TO FINALIZE ALTERNATIVES PRIOR TO COMMUNITY DESIGN WORKSHOP:

The CONSULTANT shall meet with applicable CITY staff to review the progress set (Phase I – Schematic Design drawings) of materials and ensure that any and all concerns regarding Project scope, schedule and cost parameters are addressed prior to scheduling the Community Design Workshops (CDW).

TASK 6 - COMMUNITY DESIGN WORKSHOP (CDW):

The intent of the Community Design Workshop (CDW) is to provide the CONSULTANT the opportunity to present the proposed improvements to the community for the purpose of achieving general consensus with residents. Design workshops provide an opportunity for City residents to participate in the planning process for projects in their respective neighborhoods.

TASK 7 – PREPARATION OF DRAFT BASIS OF DESIGN REPORT:

The CONSULTANT shall prepare a draft Basis of Design Report (BODR) (outlining short and long-term goals) presenting the results of the Community Design Workshops and final consensus design plan (Phase I – Schematic Design drawings). The BODR shall include a summary of findings, site plan, and exhibit(s) illustrating all proposed improvements under each phase of the Project, inclusive of the demolition of existing facilities and engineering limitations, and construction of buildings; additional parking areas and improved vehicular access and pedestrian circulation/access.

TASK 8 – CONDUCT LEED WORKSHOP AND PREPARE CONCLUSIONS:

The CONSULTANT shall organize and conduct a LEED (Leadership in Energy and Environmental Design Green Building Rating System) workshop to be scheduled with appropriate representatives of the CITY and the CONSULTANT to explore the possibility of LEED registration and certification for the new facilities, existing facilities, or portions or the proposed Master Plan. The CITY shall make available any historical energy usage data for use in establishing base performance criteria. The Consultant's sustainability initiatives shall conform to Florida Statute 255.2575-"Energy – efficiency and sustainable buildings", and City Code Chapter 100-"Sustainability, Article 1. Green Building Ordinance", addressing LEED compliance requirements.

The CONSULTANT shall organize the discussion around the appropriate types USGBC LEED Version 2.3 Project Checklists (New Construction-NC, Existing Buildings-EB or Neighborhood Development.), and in compliance with City Code Chapter 100-"Sustainability, Article 1. Green Building Ordinance", addressing LEED compliance requirements.

TASK 9 – REVIEW OF DRAFT BODR WITH THE CITY DEPARTMENTS:

The CONSULTANT shall meet to receive, present and review the draft BODR with the following, but not limited to, CITY Departments:

City of Miami Beach Parks and Recreation Department

City of Miami Beach Police Department

City of Miami Beach Planning Department

City of Miami Beach Public Works Department

City of Miami Beach Fire Department

City of Miami Beach Parking Department

City of Miami Beach Tourism and Cultural Development Department

TASK 10 - FINAL MASTER PLAN / BASIS OF DESIGN REPORT (BODR):

The CONSULTANT shall prepare a final and comprehensive BODR based on comments and revisions implemented during the reviews with the various the CITY Departments / review entities as noted in Task 7.

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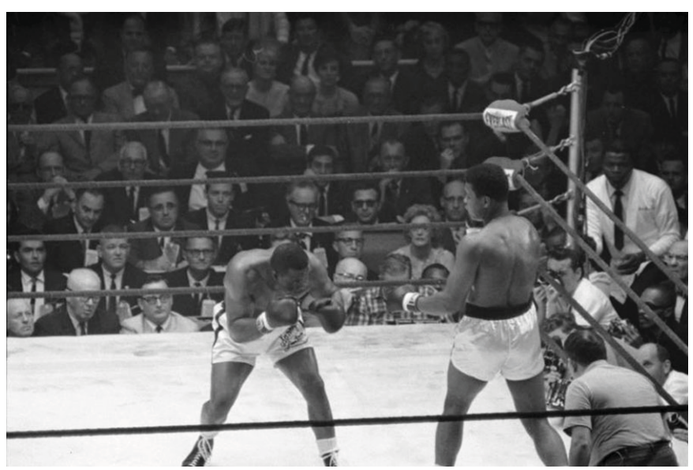
PROJECT CONTEXT



Cassius Clay (Mohammed Ali later) versus Sonny Liston on February 25, 1964 at the Convention Hall in Miami, FL

2.1 HISTORY, CONTEXT AND TRENDS

CHRONOLOGY AND MILESTONES

Opened in 1957, the facility originally named the Miami Beach Exhibition Hall included a 108,000 SF exhibition hall that could accommodate 15,000 people in arena style seating. The facility was by far the largest in the Southeast at that time and was built in response to the other large, multifunction halls that had been developed in the US. Major centers at that time including Atlantic City Convention Center (1929), Dallas Convention Center and Arena (1957), San Francisco's Cow Palace (1940's) and the Armory (1941) in Washington, DC. The Miami Beach facility preceded the development of the first wave of modern exhibition halls such as Atlanta's Georgia World Congress Center (1976), Chicago's McCormick Place (1960), Detroit's Cobo Hall and Arena (1960), Houston AstroDome Complex (1964) Las Vegas Convention Center and Arena (1959), and the Los Angeles Convention Center (1971).

Two programming philosophies were in play in the late 1950s; either develop a flexible exhibition space that could double as arena space when needed, or build an arena next to an exhibition hall. The former strategy was applied in Miami Beach, Boston, and eventually Orlando. The latter was employed in Anaheim, Dallas, and Detroit. The initial Miami Beach facilities offered a large floor space with the opportunity to add additional seating for arena-type events. These facilities could handle crowds that were significantly larger than the arenas and auditoriums of the day.

Two events that typified the use of this special feature were the 1961 Billy Graham Crusade and the world-famous Cassius Clay versus Sonny Liston boxing match in 1964. From 1968 through 1970, the facility hosted many of the home games for the (Miami) Floridians of the American Basketball Association. In 1968, an additional 130,500 square feet of exhibit space was completed prior to hosting the Republican National Convention for the first time. In 1972, Miami Beach became the only city other than Chicago to host both the Republican and Democratic National Conventions in same year; the conventions have not been held in the same city since. Miami Beach and Chicago are the only cities to host consecutively the Republican National Convention.

As the markets evolved, cities developed new large capacity arenas for concerts and sports teams and expanded the meeting and exhibition capacity at their convention centers. Additional support facilities were constructed at the Miami Beach Convention Center in 1974. In the 1980's, a second wave of convention center development redefined the characteristics of convention centers from a "box with docks" to facilities that contained iconic architecture and hospitality-grade finishes; New York's Jacob K. Javits Convention Center (1986) was a modern design achievement for I.M. Pei, although the interiors were lacking.

"Expansion" became the watchword for top-tier destinations, which enlarged their facilities on average every seven years during the 1980's and 1990's. Buildings that could not keep pace with this new parameter of expandability either lost market share or met an early demise. In 1986, Miami Beach began planning for a major expansion because of loss of market share. The Washington (DC) Convention Center, opened in 1983, was demolished and replaced with a larger facility on a nearby site in 2006 because it could not expand to meet the needs of its clientele. The need for arena space was replaced with the requirement for a large multi-function ballroom to accommodate dining and large plenary sessions.

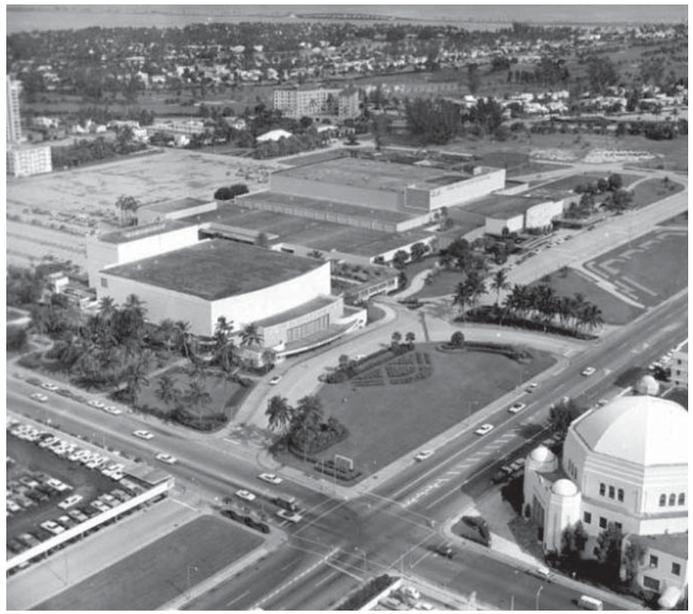
The last significant expansion of the Miami Beach Convention Center was completed in 1989, provided a destination-appropriate façade, and increased the total amount of exhibition space to 502,000 SF. By then, Miami Beach was facing strong regional competition from new centers in Atlanta (700,000 SF), Orlando (350,000 SF), New Orleans (700,000 SF). Each of these cities expanded again in the 1990's to achieve 1 million SF of exhibition space; today Atlanta, Orlando, and New Orleans have 1.4 MSF, 2.1 MSF and 1.3 MSF of exhibition space, respectively.

The inability of urban convention centers to expand contiguously in a horizontal manner has caused the development of vertically stacked convention centers. Seattle's Washington State Convention Center and Boston's Hynes Convention Center were the first of this genre in the late 1980s. Today, San Francisco's Moscone West, Washington (DC) Convention Center and the Phoenix Convention Center represent the state-of-the-practice in providing vertical facilities that integrate into their dense urban or culturally sensitive surroundings.

The Moscone Center in San Fransico, California

John B. Jynes Veterans Memorial Convention Center in Boston, Massachusetts

Phoenix Convention Center in Phoenix, Arizona



1957 South East Aerial View from Washington Avenue.

1957 North East Aerial View from Washington Avenue.

1972 Aerial View from East over Washington Avenue. (During Democratic National Convention.

Sen. George S. McGovern, right, and his presidential running mate Sen. Thomas F. Eagleton at the Democratic National Convention in 1972.

President Nixon and Vice President Agnew receive the acclamation of the 1972 Republican National Convention after their re-nomination.

CONVENTION CENTER HISTORY AND MARKET TRENDS

Convention centers continue to occupy a unique position at the end of the spectra of services provided by local and regional governments. Even though these facilities are a key component to regional economic development, their governance structure is typically tied to local governments as a municipal department or division, or as an authority structured by the local government. The fiscal woes of the greater governments are visited upon convention facilities, even if those facilities have dedicated and secure funding sources in place – all must share in the pain.

Facility demand is tied closely to national and regional economic cycles, but the demand for changes in the physical attributes of the facilities is driven by the market. In response to an evolving market, convention facilities have added a vast amount of meeting space over the past 30 years, improved quality levels of its product and services to match that offered by other hospitality-related venues, and embarked upon technological upgrades to keep pace with client demands and expectations. These necessary improvements often have not been accompanied by increases in rates or revenues to reflect the increased costs in providing a higher level of facilities and services.

Benchmarking and averaging have caused convention centers to become a homogenous product within the marketplace – like gallons of milk lining shelves in a supermarket - that has the perception of a low intrinsic value. Private sector competitors have reinforced this perception by providing “free” meeting space and exhibition space within their integrated convention/hotel/meeting complexes, while “cherry-picking” the most valuable convention business hosted within a community.

Many convention centers that have not adapted to the new market expectations and improved their facilities over time are now facing a crisis. As a limited amount of capital funds are available, expenditures must be targeted to obtain the greatest strategic impact. With the current economic environment, many facilities are mandated to reduce operating deficits. But caught with inadequate facilities that cannot support a value that commands a higher rate, operators are challenged to reduce costs significantly. Without the proper facilities that are well maintained, operated, and supported by competent staff that excels in providing service, the future for many of these convention centers seems bleak.

THE MISSION

A reexamination of the core business of convention centers is helpful in identifying the pathway to recovery. Convention centers continue to provide facilities that support three main missions to its clientele: 1) bring goods and services to market, 2) education, and 3) local cultural, social and entertainment events.

Bringing Goods and Services to Market

Whether on a business-to-business (B2B) level through trade shows or on a business-to-consumer (B2C) level through consumer shows, bringing goods and services to market is the primary activity within the exhibition space of a convention or trade center. Trade shows are one of the most cost-effective ways for buyers to meet sellers and experience a product first hand. All five human senses (sight-sound-smell-taste-touch) can be engaged at a trade show versus any electronic alternative. Trade shows are the last vestige of face-to-face marketing, but personal interactions both on and off of the trade show floor continues to be a primary benefit.

Education

Meetings and conventions continue to provide most of the adult continuing education in North America, especially through “continuing education units” (CEUs) required by most professions and licensing organizations. As meetings have evolved, there are few trade shows that do not have an educational component to their programming; most conventions have industry-related displays and exhibits to financially support educational programming.

Local Events and Activities

As the booking cycle for most conventions and trades shows follows a typical school year, many dates are available for local events and activities within a convention center. As the largest meeting and banquet spaces within their respective communities, convention facilities are the natural location for significant public events.

Original Late 1950s Washington Avenue Entry (Photo taken 1970s)

Mid 1960s Aerial From Dade Boulvard

1968 Aerial Of Entry from Convention Center Drive.

1968 Aerial Of Entry from Convention Center Drive.

Aerial Of Entry from Convention Center Drive.

FACILITY TRENDS

Exhibition Halls

Exhibition halls have evolved into “black box” theaters, where exhibits are designed to inform and entertain. High capacity data feeds, high voltage theatrical electrical services, accessible rigging points, and flexible lighting scenes are required to support these productions. Utility and flexibility is the key to success.

Meeting Spaces

The quantity and quality of meeting spaces have increased steadily throughout the years. Preprogrammed lighting scenes, flexible data services, high-voltage electrical services and sound systems that can be integrated and controlled by the user are standard in today’s flexible meeting spaces. A number of higher finished rooms with permanently set furniture and built in production capabilities are also common, including board rooms, conference centers, negotiation suites, multifunction ballrooms, and lecture halls.

Multi-function Ballroom

Since the mid-1990’s, the multi-function ballroom has been the most significant addition to the spaces provided by a convention center and is now considered to be a standard feature. The room should be sized to make it the largest banquet space in a community, thus avoiding direct competition with hotel ballrooms. Primary uses include banquet functions in support of conventions and trade shows (typically breakfast and/or lunch), lectures or similar presentations using theater-style seating, classroom seating with linear tables for teaching or testing purposes, and evening functions that may include cocktail receptions with dancing or other musical entertainment. These rooms have are one of the highest revenue generating spaces within a convention center.

Lecture Halls and Theaters

Other recent additions to convention centers include lecture halls (seating from 100-500 people) and presentation theaters (seating up to 5,000 people). These special rooms are included as part of the convention center’s meeting room inventory, but one should note that these rooms have not received the level of activity anticipated. Until more of these rooms are developed, meeting planners will be hesitant in requiring this type of space as part of their event prospectus, but as with multi-function ballrooms, these spaces will eventually be requested and required by show producers.

Conference Centers

Once the standard complement of exhibition, meeting and ballroom space is provided, special elements can be considered for incorporation into the convention facilities. One of the most popular additions is a conference center that can be operated as a stand-alone business unit. The International Association of Conference Centers (IAAC) has established programmatic and operational criteria to receive conference center accreditation. Permanently set furnishings and high-end finishes required do not lend these spaces to be part of the standard meeting room offering – they must be reserved for special users.

1957 Original Entry, Currently Access to Generator Room

East Concourse at Miami Beach Convention Center.

Ballroom at Miami Beach Convention Center.

West Concourse at Miami Beach Convention Center

City	Prime Exhibit	Meeting	MPR/Ballroom		BR 2	BR 3	Mtg + MPR/BR	M+MPR/PE	HQ Hotel
Anaheim	813,600	81,400	38,000	+	-	28,100	147,500	18%	ADJ
Atlanta	1,366,000	232,600	33,000	+			265,600	19%	ADJ
Boston	516,000	155,225	40,020	+			195,245	38%	ATT
Boston ++ Max	916,000	280,225	75,000		40,020		395,245	43%	ATT
Dallas	726,600	81,800	27,000	+	19,100		127,900	18%	ATT
Dallas ++	726,600	180,000	60,000		27,000	19,100	286,100	39%	ATT
Denver	580,000	96,700	47,700	+	34,800		179,200	31%	ADJ
Los Angeles	719,000	104,000	-		-		104,000	14%	ADJ
Los Angeles ++	719,000	134,000	50,000		-		184,000	26%	ADJ
Miami Beach	502,800	151,220	32,000				183,220	36%	NEAR
Miami Beach ++	700,000	220,000	60,000				280,000	40%	ATT
Nashville	375,000	90,000	60,000				150,000	40%	ADJ
New Orleans	1,068,500	227,900	36,400	+			264,300	25%	ATT
Orlando I-IV	1,103,500	253,800	62,200		-		316,000	29%	ADJ
Orlando V	950,300	166,100	-		-		166,100	17%	ADJ
Philadelphia	700,100	163,300	60,000	+	35,000	31,500	289,800	41%	ATT
Phoenix	584,500	167,200	45,600	+	45,200	28,000	286,000	49%	ADJ
San Antonio	423,800	102,500	39,600	+	28,300	21,200	191,600	45%	ATT
San Diego	525,700	118,700	41,000	+			159,700	30%	ATT
San Francisco	538,700	180,000	56,300	+			236,300	44%	NEAR
Washington	703,000	118,200	52,000				170,200	24%	ADJ

+ - Multiple ballrooms ++ New master plan
ADJ - Adjacent HQ Hotel ATT - Attached HQ Hotel NEAR - Nearby HQ Hotel

Miami International Boat Show at Miami Beach Convention Center.

Art Basel at Miami Beach Convention Center.

PRIORITIZING SPACE NEEDS

Exhibition space is still the primary measure of the ranking of a convention center within the marketplace; however, these centers must offer the proper balance of meeting spaces to compliment the available exhibition space. The amount and type of meeting space required is dependent upon the size of the facility and the primary market that the facility has targeted. A large, multi-function ballroom is required for facilities in top and second-tier markets.

Front-of-house spaces are only half of the story; exceptional service must accompany the facilities offered to convention and trade show planners and a cadre of service and support spaces must be provided to serve properly exhibition and meeting spaces. Production facilities, employee processing, locker rooms, workshops, secured storage areas for vendors and contractors, concierge kiosks, improved food service outlets and business centers are but a few of the additional areas that must be included in upgrading convention facilities. There is a significant positive impact in having these support areas and the services provided from these spaces.

Once the facilities are evaluated, the second step is an examination of operational policies, procedures and practices. “Excellence” and “value” are the watchwords for services, especially those provided as “exclusives”. The market will pay a fair rate for quality services, but poor service is too expensive even if it is offered for free. Armed with accurate data on facilities and services, convention center management can embark upon crafting a strategy to address both issues and begin the process of recovery.

ASSESSMENT OF EXISTING CONVENTION CENTER

Miami Beach Convention Center (MBCC) has a significant number of recurring annual trade and consumer shows, including the Miami International Boat Show, which require exhibition space and relatively little meeting space. The most-recent expansion in 1990 accommodated the needs of these shows by doubling the amount of exhibition space and adding some meeting space. However, throughout the 1990’s, the greater meetings marketplace dictated a major increase in the quantity and quality of meeting space. Top tier facilities that on average have expanded every ten years adapted to the changes in space demands during those expansion cycles.

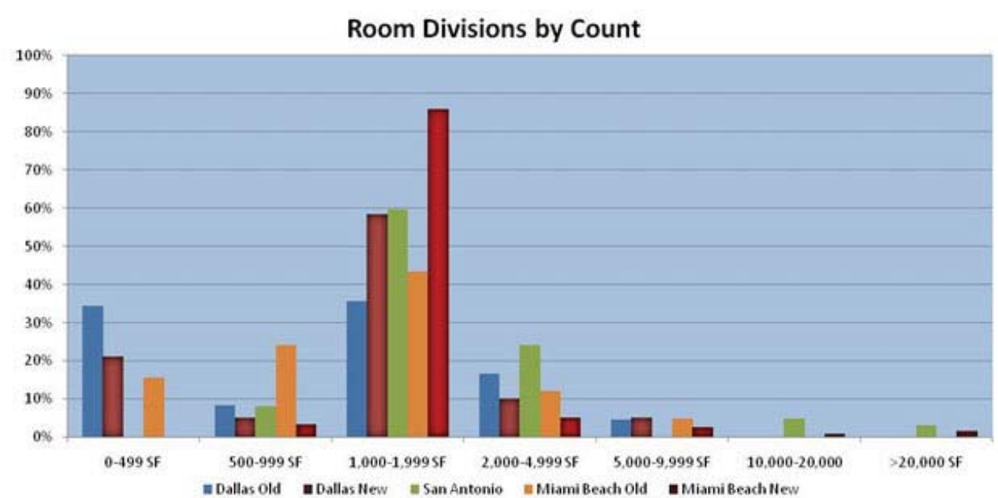
As this is the first expansion undertaken in 20 years, an examination of the inventory of spaces at the MBCC shows a lack of meeting and large multi-purpose ballroom space. These deficiencies were documented in CS&L’s recently updated market analysis which called for an increase in the total proportion of meeting/ballroom space and some additional exhibition space. The table below quantifies the amount and type of space needed in the facility as compared to the inventory of spaces in competing facilities:

Most of the facilities shown above that have a percentage of overall meeting/ ballroom to exhibition space (that is less than 40%) are presently taking steps to increase their inventory and add large multi-function ballrooms. The increased number of sessions and larger audiences needed to cover the cost of educational programming has fueled this growth in meeting space. Boston, Dallas, Houston, Los Angeles, New Orleans and San Antonio are planning to add multi-function ballrooms of between 50,000 SF and 75,000 SF to accommodate the plenary and dining needs of these larger audiences.

In addition to MBCC's overall lack of meeting and large multi-function ballroom space, the size of many existing meeting rooms is too small to meet the current and future needs of its clients. Conventional Wisdom is engaged presently in the examination of exhibition, meeting and ballroom space at two competing facilities to MBCC: Dallas Convention Center (DCC), which shares many developmental similarities to MBCC and the Henry B. Gonzalez Convention Center in San Antonio (SACC), which is one of the highest rated convention destinations in the country. Each of these facilities has acknowledged the trend for larger and more-sophisticated meeting and banqueting spaces to support their current inventory of exhibition space.

The following chart shows the distribution of meeting rooms by size for 1) the existing DCC inventory, 2) DCC inventory with the addition of the Upper D meeting room and conversion of the upper parking level to meeting space, 3) SACC's current meeting room inventory, 4) MBCC's current inventory, and 5) MBCC's inventory distribution after planned retrofit and expansion. Clearly, the shift in meeting space inventory is to eliminate meeting rooms that are less than 500 SF, reduce greatly number of rooms that are less than 1,000 SF in size and establish room divisions that are between 1,000 SF and 2,000 SF.

High quality meeting space requires proximate storage and dedicated back-of-house service and support access. The new plans for MBCC and SACC will correct these deficiencies in their current facilities and place them back in the mainstream for the required level of service offered by top tier facilities. The market has established these parameters and the private-sector has adopted them in the development of large hotel convention center complexes. Gaylord Hotels, Marriott Hotels and Resorts and the major Las Vegas convention properties are configured to minimize back-of-house travel and, consequently, operating expenses.



Way Finding Signage and Pavement Marker

View North on Washington Ave from 17th Street

View North on Convention Center Dr from 17th Street

View Southwest from Hall C entry *View West from Hall C (Across P-Lot to Meridan Ave.)* *View Northwest from Hall C entry (toward Botanical garden)*

2.2 EXISTING SITE CONDTIONS

MBCC SITE

The existing Miami Beach Convention Center (MBCC) site is bound by Washington Avenue to the east, the Fillmore Miami Beach at Jackie Gleason Theater and on-grade parking to the south, Convention Center Drive to the west and to the north the Collins Canal, Carl Fisher Clubhouse / Little Stage Theater and the City of Miami Beach Parks and Recreation Building.

The immediate site of the MBCC, consisting of the building and the loading areas to the north and south, is 25.2 acres or 1.1 million square feet. The majority of the site is the MBCC building footprint at 898,390 square feet, with the rest of the site dedicated to the loading and staging areas to the north and south of the building. The east and west sides of the building front Washington Avenue and Convention Center Drive with recessed entry drop-offs and large sidewalks, which are landscaped with palms and shade trees as well as some ground cover. Utilities are located under both Convention Center Drive and Washington Avenue with the connections primarily to the north side of MBCC. The majority of these utilities are dedicated to the MBCC but some also serve the neighboring buildings (refer to Section 3.1.1 for further discussion of the existing site utility conditions).

The site of the MBCC Expansion Master Plan also includes on-grade parking lots to the south (small) and west (large, extending over to Meridian Avenue) and Convention Center Drive. This expanded site area is therefore bound by Washington Avenue to the east; The Fillmore Miami Beach at Jackie Gleason Theater, 17th Street, City Hall and the new City Parking Garage to the south; Meridian Avenue to the west; and to the north the Holocaust Memorial, Miami Beach Botanical Gardens, Collins Canal, Carl Fisher Clubhouse / Little Stage Theater and the City of Miami Beach Parks and Recreation Building.

ADJACENT NEIGHBORHOODS

Immediately to the south of the MBCC is the civic / cultural district with City of Miami Beach administrative buildings and City Hall as well as The Fillmore Miami Beach at Jackie Gleason Theater. On the south side of 17th Street are the soon-to-be completed New World Symphony and Soundscape as well as two large parking garages. Two blocks south of MBCC is Lincoln Road, with its mix of restaurants, cafes, shops and galleries.

To the west of the MBCC is the large on-grade parking lot bordered by Meridian Avenue with the residential neighborhood of Palm View on the west side of Meridian. Palm View consists of mid-height multi-family buildings along Meridian Avenue and mostly single family homes further west.

North of the MBCC the civic / cultural district extends with the Holocaust Memorial, the Miami Beach Botanical Garden, Carl Fisher Clubhouse / Little Stage Theater and the City of Miami Beach Parks and Recreation Building. The pedestrian walkway along Collins Canal extends from Meridian Avenue and the Holocaust Memorial up to the Cultural District northeast of the MBCC, where the Bass Museum, Miami City Ballet and new Public Library are located.

On the east side of Washington Avenue is the multi-family residential neighborhood known as Collins Park, which is bound two blocks to the east by Collins Avenue with all the beachfront hotels.

Visitors to the existing MBCC have to walk multiple blocks to the activities of the surrounding neighborhoods, since the building's east and west entries are remote and the site is isolated by expansive paving to its west (Convention Center Drive and parking lot), north and south (loading/ staging areas fenced in for security).

ZONING

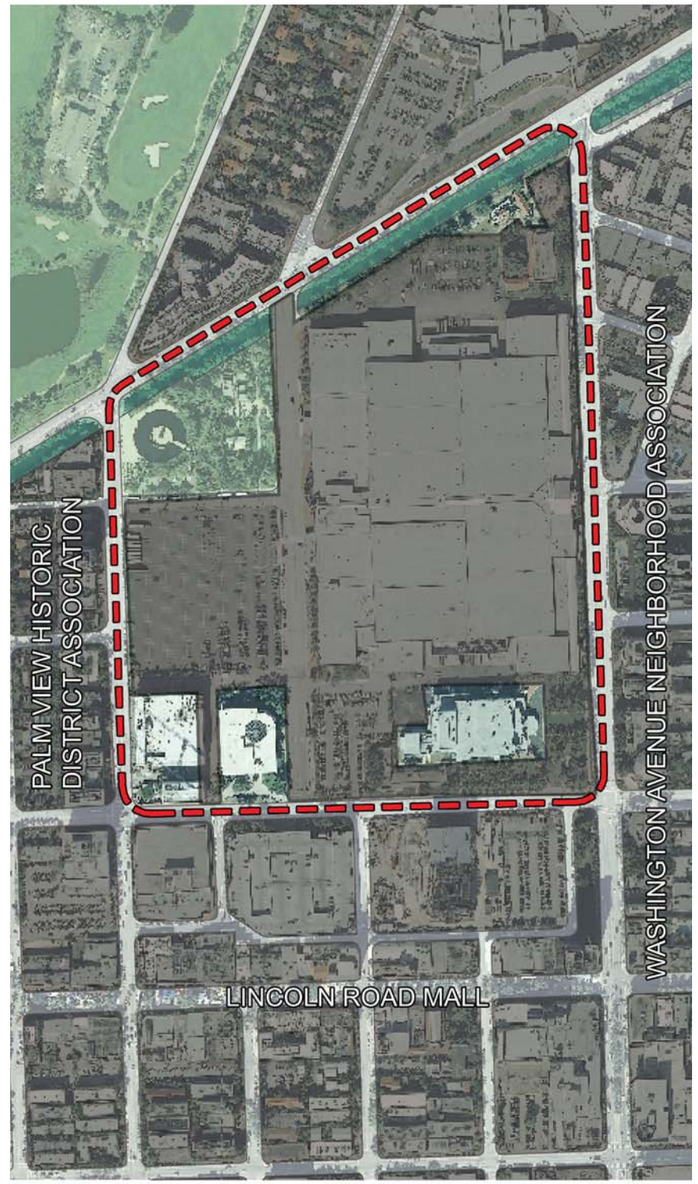
The MBCC is located in the Civic and Convention Center (CCC) District as per the City of Miami Beach Land Development Regulations. The development regulations for the CCC District are as follows:

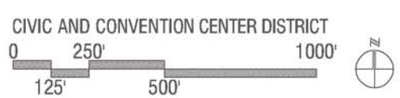
- Maximum Floor Area Ratio (FAR) = 2.75
- Maximum Building Height = 100' maximum
- Maximum Number of Stories = 11 Stories maximum
- Setback Requirements* = Front = 10'

  Side = 4'

  Rear = 5'

** Setbacks are the average of the requirements of the surrounding zoning districts: CD-2 (Medium Intensity Commercial) is located to the south; RM-2 (Medium Intensity Multi-Family) is located to the east and west.*



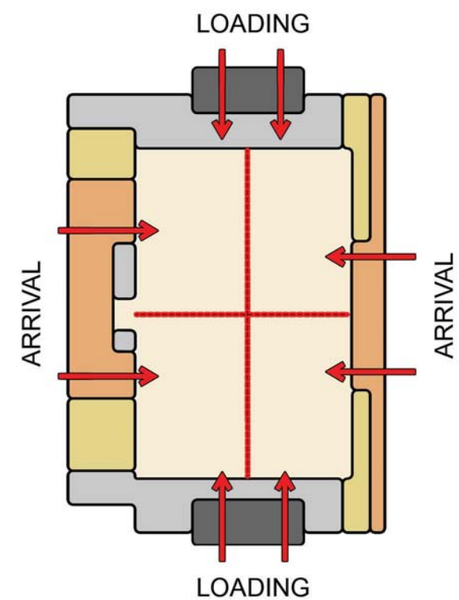


View South on Pennsylvania Avenue to Lincoln Road

View of Arrival Area in East Concourse

View of South End Loading Dock (Rear of Jackie Gleason on the Right)

ARRIVAL & LOADING
ACCESS DIAGRAM



MIAMI BEACH CONVENTION CENTER
EXISTING BUILDING CONDITIONS

HALL
LOBBY
MEETING
LOADING DOCK
BACK OF HOUSE

2.3 EXISTING BUILDING CONDITIONS

The Miami Beach Convention Center (MBCC) has evolved since it opened in 1957. The facility was originally named the Miami Beach Exhibition Hall and had a multi-function hall (108,000 square feet/SF) for exhibitions as well as arena events (for 15,000 people) such as boxing and basketball. When it was built it was the fourth largest convention center in the country and the largest in the Southeast. It was developed in response to the large multi-function halls in other major cities, but pre-dated the first modern exhibition halls / convention centers, such as Chicago's McCormick Place and the Los Angeles Convention Center from the 1960s and 1970s.

Over the years, the MBCC added on to the original building. The original MBCC was generally located where Hall C is now (southwest corner). Another 130,500 SF of exhibit space was added (where Hall D is now) in 1968. In 1974 the West Wrap was added with additional support facilities. The last major expansion of the MBCC, completed 1989, doubled its size to the current total area of 1.1 million SF by adding Halls A and B and the East Wrap (502,000 SF of exhibit hall space). The MBCC is now the 28th largest convention center in the country.

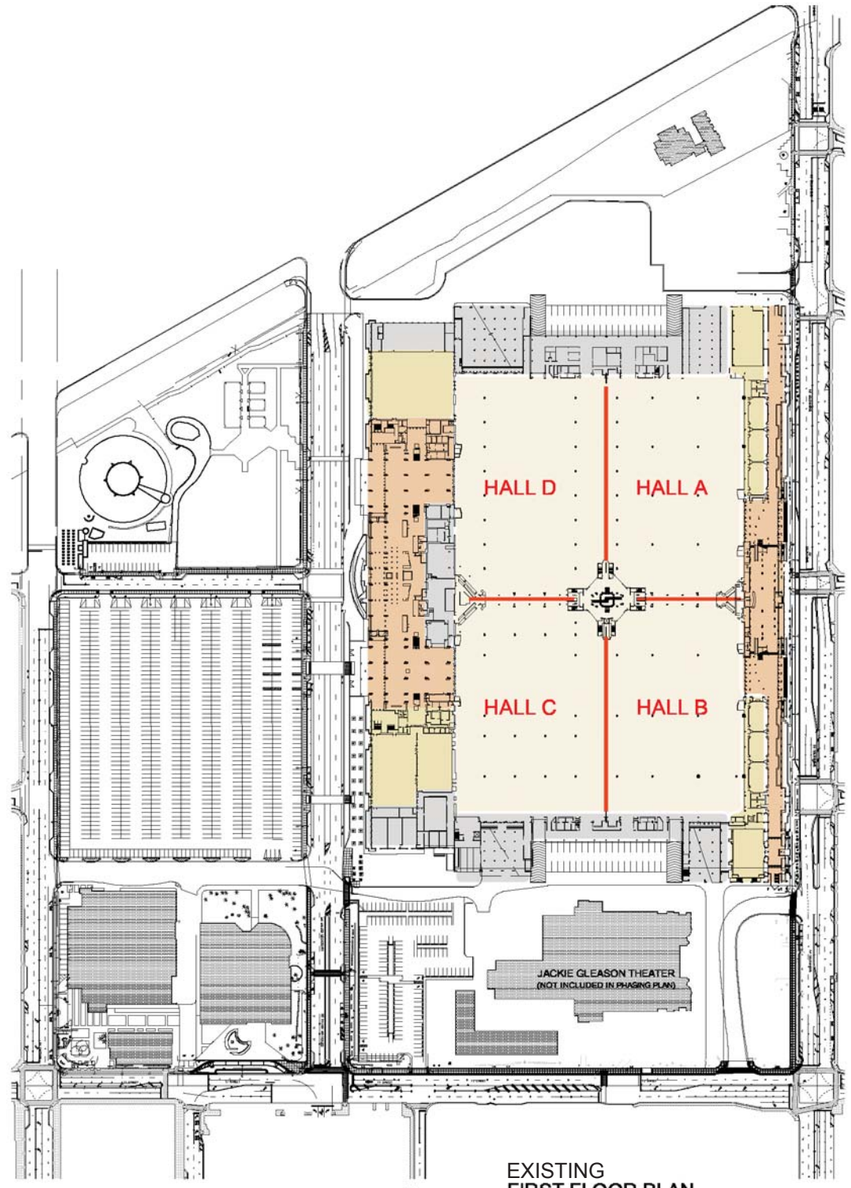
The current MBCC has four halls that are arranged in a four-square configuration. While this arrangement allows for flexibility in the sizing of different events, it necessitates two visitor entries (east and west) to access the individual halls, with the Sky Bridge used to cross from the east side to the west side. The official main entrance is on Washington Avenue but because more parking and drop-off lanes are available on the west side, the majority of visitors enter from Convention Center Drive on the west side of MBCC. Two separate loading/staging areas to the north and south are also needed due to this four quadrant arrangement.

The services for the existing MBCC are located as per the development of the facility and its four-square arrangement of the halls. The Food and Beverage service is divided into two kitchens since one was built during an early phase. A subsequent expansion necessitated expanded food service, which resulted in a second kitchen on the other side of the building that communicates with the original kitchen via service corridors in the Sky Bridge. The main mechanical chiller plant and electrical transformer vaults are located at the south end of the building while other services such as the fire sprinkler system are located at opposite sides of the MBCC in order to be closer to the areas being serviced.

Since the last expansion in 1989, the MBCC has had $50 million worth of upgrades of various components and systems (telecommunication and networking systems, restrooms, mechanical equipment, lighting, finishes). Since the MBCC is a large facility and considering its age and building history, there is a continuous program of maintenance and improvements. For instance the roof has been cleared of the majority of equipment to minimize the risk of hurricanes disrupting the functioning of the building and is reroofed on a regular basis. The existing MBCC has been maintained through the decades with a Capital Improvements Program (CIP) that currently has an annual budget ranging from $1 million to $4.5 million (*refer to section 5.1 for the allocation of the current CIP budget).*

Refer to Section 3.1 for functional analyses of each of the existing building's systems.

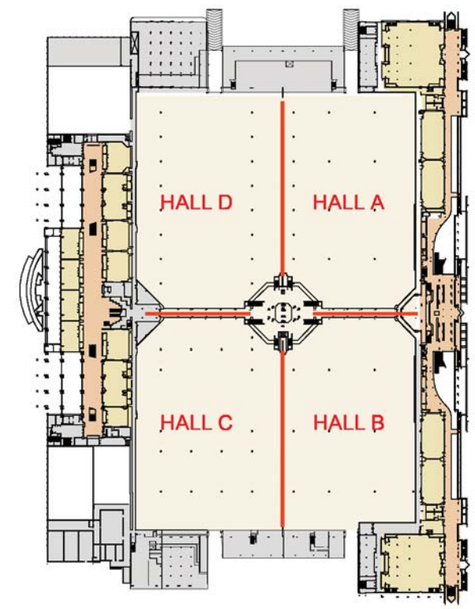
EXISTING FLOOR PLANS



EXISTING
FIRST FLOOR PLAN

N

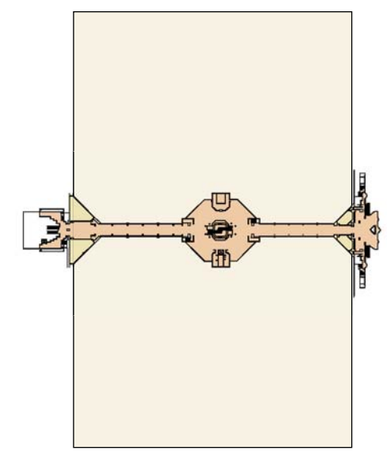
0 150' 600'
75' 300'



EXISTING
SECOND FLOOR PLAN

N

0 150' 600'
75' 300'



EXISTING
THIRD FLOOR PLAN

2.4 CS & L REPORT SUMMARY

The City of Miami Beach commissioned an independent study in 2008 to analyze the market demand of possible improvements to the Miami Beach Convention Center. The study was required to assist in determining and prioritizing both short and long term planning initiatives. Convention Sports and Leisure (CS&L), a nationally recognized consulting firm with a special expertise in this type of analysis was hired to perform the study.

The study process consisted of detailed research and analysis, incorporating a comprehensive set of market-specific information derived from the following:

- Review of existing facility and urban conditions at and surrounding the MBCC.
- In-person interviews/meetings with MBCC management, Greater Miami Convention & Visitors Bureau ("GMCVB") representatives, other local visitor industry professionals and City and County management and staff. A listing of individuals and organizations contacted during the study process is presented in Appendix 1.
- Review of historical MBCC operating data (event levels, space use, attendance, financial operations, etc.).
- Research and analysis of national convention and tradeshow industry trends.
- Analysis of facility data from 18 competitive and comparable facilities and markets.
- Interviews with facility management and convention and visitors bureau staff in competitive and comparable markets.
- Internet-based surveys with current, past and potential future MBCC users.

The study titled "Long-Range Strategic Facility Needs and Master Plan Analysis for the Miami Beach Convention Center" was completed in December of 2008 and presented and approved by the City Commission in January of 2009.

The findings of the study as summarized in its Section 7.0 became the backbone of this Master Planning scope and follows as an excerpt of that document:

7.0 MBCC Master Planning and Program Considerations

The previous sections of this report have addressed the visitor industry conditions in the greater Miami area and their impact on convention and tradeshow business, historical operating characteristics of the MBCC, comparable and competitive facility/market data, trends in the industry that impact facility development, interviews with current and past MBCC users and surveys of event planners nationally that represent potential business for the MBCC.

Taking these and other primary research findings into consideration, we have prepared an analysis of potential market-supportable convention industry development initiatives for the MBCC and surrounding area. The findings go beyond a focus on traditional building space to include the concept of the convention "experience" for event attendees, exhibitors and planners. Our research indicates that to surpass the traditional convention product offered by most competitors, this type of focus on the broader spectrum of initiatives is important.

Based on the research conducted as part of this study, we have presented our findings in three areas as described below.

Convention Center – focusing on both the program elements within the MBCC to meet the standards of competitive venues, and elements that are reflective of emerging trends in the industry.

Hotel Product – focusing on development that would address critical event planner criteria.

Destination Planning – focusing on the broader site area and how investment can work to create a highly unique and authentic experience for convention industry participants.

Development Initiatives – summary of the approach that should be considered in pursuing recommended program, hotel and destination elements.

Study findings for each of these areas are presented throughout the remainder of this section.

7.1 Convention Center Program Findings

Primary facility program elements in a convention center include multiuse/ballroom space, exhibit space and meeting space. Study findings with respect to each of the space elements are described below.

Multi-Use/Ballroom Space

The MBCC does not currently offer a multi-use ballroom, representing a significant shortfall in space with respect to competitive and comparable centers. Traditional multi-use/ballroom space is uniquely designed to accommodate food functions, general sessions, product demonstrations, seminars and related functions. Today, events held at the MBCC often use modified exhibit space to accommodate these functions. This can result in significant decorator costs for the event planner, and has the effect of taking a portion of exhibit space out of inventory. Planning for future MBCC investment should target 50,000 square feet of multi-use ballroom space, placing the MBCC towards the high end of comparable and competitive centers in terms of contiguous space, and near the median of centers reviewed in terms of total multi-use/ballroom space.

Exhibit Space

While MBCC exhibit space occupancy has increased over the past several years, the space has not achieved consistently full occupancy. In addition, many of the events that generate significant exhibit space use do not generate high levels of room nights. The potential exists to increase the room night generating event activity at the MBCC without substantial expansion of exhibit space and, as a result, no major expansion of exhibit space is recommended at this time.

Beyond market demand issues, we note that the approximate 500,000 square feet of MBCC exhibit space exists in a fairly sensitive urban and residential area. Centers across the country that offer large exhibit space totals (1.4 million in Atlanta, 2.0 million in Orlando, for example) exist outside or on the periphery of sensitive urban areas. The increase in truck, taxi and bus traffic associated with a significant increase in MBCC exhibit space may not be compatible with the overall urban planning goals of the area. The implications of retaining a "mid-sized" exhibit space status can be beneficial for the market. Any increase in convention and tradeshow demand for the MBCC would likely result in higher occupancy and room-night generation. Like centers in San Antonio and San Francisco that are also located in sensitive urban settings, higher demand offers opportunities to focus on high-impact events, foregoing events that may not generate significant room nights. This could also be the case for the MBCC over time, should additional convention and tradeshow demand materialize.

Meeting Space

The current MBCC meeting space level ranks near the mid-range of competitive and comparable facilities and is currently appropriately proportioned given the existing level of exhibit space. However, meeting space needs industry wide tend to increase at a faster rate compared to exhibit space. Future MBCC development initiatives should consider an addition of approximately 25,000 square feet of meeting space in conjunction with the development of the multi-use ballroom.

Unique Space Additions

Beyond the traditional convention center space elements outlined above, many centers throughout the North America are being developed or expanded with unique spaces such as plazas, terraces and roof-top gardens. Centers in Puerto Rico and Hawaii have created public spaces that are beautifully designed and highly used. The covered pavilion linking convention center

components in Seattle may offer a vision for linking the existing MBCC space with any development that may take place on adjacent parcels. The Henry B. Gonzalez Convention Center (in San Antonio) draws the highly unique elements of the Riverwalk directly into the center's campus. Our focus group research does indicate that use of such spaces by event planners may become an emerging trend.

The ultimate success of these types of spaces will likely depend on several factors, including the following:

- Functionality – the space must allow for convenient access by event attendees and for functional service from back-of-house (if food is served). Planners are looking to take advantage of unique settings; however, concern still exists that use of such space will add to overall event production costs and attendee dissatisfaction. Architectural planning for these spaces should therefore take these factors into consideration.
- Address a need – the space must serve a need or event component for the planner, rather than just offering a pleasing aesthetic. Gardens and terraces can be beautifully landscaped, but should also provide the planner with an opportunity to use the space to accommodate typical banquet, reception or other event needs.
- Unique and authentic – Any market can provide for a center that has ample green space, terraces and plazas. To distinguish these features from the competition, it is critical that the unique and authentic culture, architecture and artistic influences of the destination be integrally linked to any space added at the Center. In fact, MBCC architects should consider reviewing all existing and planned space, interior and exterior, in terms of improvements designed to draw out elements that are unique and authentic to the greater Miami area.

7.2 Hotel Findings

The large majority of major market convention centers benefit from an adjacent or attached headquarter hotel, typically ranging in room count from 700 to 1,200. In many markets, there are several large hotels adjacent to the center. The lack of such a property adjacent to the MBCC represents a competitive disadvantage when competing for high-impact conventions and tradeshows.

Offsetting this disadvantage, there are a significant number of smaller boutique hotels and large resort properties that can combine to form a large block of rooms to accommodate convention and tradeshow activity. The MBCC has successfully accommodated corporate and association events willing to use the existing inventory of hotels. However, in order to significantly increase convention and tradeshow demand for the MBCC, the development of a headquarter hotel would likely be needed.

The benefits that a headquarter hotel could provide to MBCC bookings do not translate to financial viability of the hotel project. In fact, it is highly unlikely that a private developer could generate the necessary return on investment to justify financing a headquarter hotel project. In reality, this is the situation that exists in nearly all markets in North America. As a result, the development of a headquarter hotel typically involves various forms of public participation, as was the case with the financing of the Lowes Hotel in Miami Beach.

It is beyond the scope of this study to evaluate potential methods of public participation in any headquarter hotel financing; however, it is likely that this participation would take one of two general forms, should such a project proceed.

selection criterion. This walkable environment should offer restaurant, retail, cultural and entertainment amenities that benefit event attendees and exhibitors. In addition, these amenities can provide a significant benefit to area residents.

First, the public sector can provide a developer/owner with a series of financial incentives designed to reduce the cost of the project for the developer, and thereby increase the return on investment to acceptable levels. Secondly, the public sector can use its authority to issue tax exempt bonds, working with a hotel developer to construct the project. The use of tax exempt bonds has the effect of significantly reducing the costs to finance the project.

7.3 Destination Planning and the Development of a Convention District

As discussed previously in this report, event planners have increasingly cited a "walkable" environment surrounding the convention center as an important site

Today, the areas surrounding the MBCC are developed at a low density, are very non-descript, and appear to lack significant elements that are unique and authentic to the Miami Beach area. However, we note that there are important elements nearby to the MBCC that have the potential to combine for the kind of environment desired by meeting planners.

The following aerial photograph highlights many of the elements in the neighborhood of the MBCC that could be linked together.

In addition, world-class retail options are available along Lincoln Road, a short distance from the MBCC.

The objective of any future MBCC development effort should be to create visual and pedestrian linkages between these assets, creating the feel of a coordinated district. Use of signage (perhaps branding a convention and entertainment district), landscaping, infill development (including potential MBCC space additions), potential demolition of structures that impede district creation, and other measures should be incorporated into this effort. Project architects and planners should be directed to explore these types of efforts, with the objective of creating a physical plan for a Miami Beach Convention Center entertainment and cultural district.

7.4 Summary of Future Development Approach

The research presented within this section and throughout this report serves to identify specific building program, hotel and destination characteristics that should be considered in order to improve the position of Miami Beach and the greater Miami area in the convention and tradeshow industry. The remainder of this section seeks to prioritize these development initiatives, and to summarize on-going planning efforts that should be considered.

MBCC Development – There is a clear deficiency with respect to the MBCC space program relating to a lack of ballroom/general session space. Consideration should be given to using the parking lot site to the west of the MBCC across Convention Center Drive and to the South of the Botanical Gardens to develop the recommended space. This new structure could be

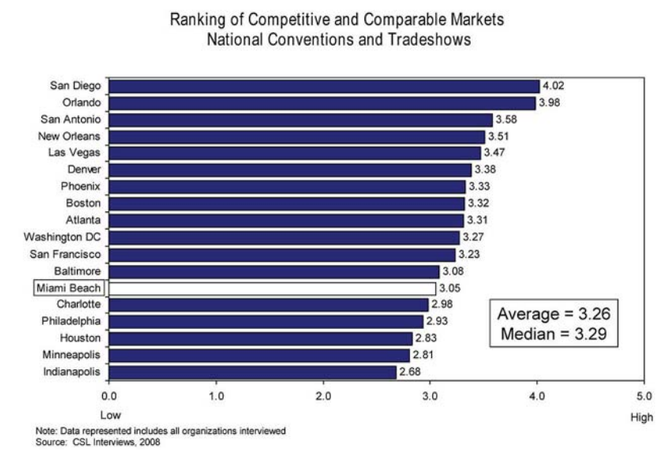
tied back into the MBCC using a covered pavilion that could also be used to physically create an outdoor plaza as described earlier in this section. Planning and development of this space should be considered a short term priority.

Hotel Development – The success of the MBCC space additions noted above will not be solely dependent on the development of a new headquarter hotel. However, the future ability of the MBCC to fully accommodate convention and tradeshow demand in the market will be impacted by whether or not a headquarter hotel attached or adjacent to

As noted above, there are several visitor industry assets in the area of MBCC, including the Fillmore Theater, The Botanicals Gardens, the Holocaust Memorial, the Miami Beach Golf Club and the New World Symphony project.

the Center is developed. Going forward, public officials and convention/visitor industry leaders should evaluate the creative methods being used to fund convention center headquarter hotels in other markets throughout the country. Undertaking this effort would not represent final public approval of such a development, but would provide elected officials, city management and convention/visitor industry leaders with financial, market, case study and financing information useful for future decision making purposes.

Destination Planning – This represents more of a long-term focus, with initiatives potentially requiring site acquisition, demolition, extensive landscaping and signage programs, and related efforts. Urban planners should be retained to begin a process of planning for the creation of a Convention and Entertainment District that encompasses the MBCC and surrounding visitor industry assets. It is likely hat fulfilling such a master plan would take place in numerous stages over an extended period of time.



2.5 GOALS AND OBJECTIVES

At the outset of the Master Planning process, the design team met with the City and the Expansion and Enhancement Steering Committee to try and establish the scope and timeline of the effort to best meet the expectations of the stakeholders. Although the recommendations of the findings from the CS&L Analysis was a good framework for the work ahead, other issues important to the group quickly surfaced and would need to be taken into consideration. The effort was clearly directed to not only provide short-term remedies to immediate shortfalls but to ensure that any recommendations provide far-reaching long-term benefits.

A more comprehensive list of goals and objectives was developed upon completion of some initial meetings where a variety of viewpoints were discussed. All suggestions, needs and desires were reviewed and incorporated in some way into the final document. Although some particular requests to meet individual needs seemed to conflict with each other, effort were made to accommodate each.

The list was then presented and discussed with the various sub-committees and served as a framework of our discussion and presentations as the design progressed.

Vancouver Convention Centre

Moscone Convention Centre, San Francisco

Houston Convention Center

Phoenix Convention Center

Puerto Rico Convention Center

OVERALL GOALS

Define the Specific Sellable Space Goals and Improvements to Existing MBCC Components

1. Meet or exceed the primary space elements found in competitive comparable markets by providing a minimum of 50,000 SF multi-use ballroom space and an additional 25,000 SF of meeting space.
2. Improve the current guest entry sequence by developing alternatives to integrate the dual frontages.
3. Establish a new unified identity and aesthetic for the facility.

Explore Emerging Convention Center Programming Ideas and Potential MBCC "Big Ideas"

4. Identify additional elements to incorporate into the facility or its surroundings that reflect emerging trends in the industry to amplify existing offerings or attract new niche markets. Also, identify new functions or relocate existing functions in under-utilized areas in the facility to improve overall efficiency.
5. Provide additional unique meeting venue(s) that are functional (conveniently accessed by attendees as well as serviceable), address a need or offer additional opportunity and is authentic to the Greater Miami area.
6. "Think Outside the Box Initiative" – Take what the group knows about the essence of South Florida in general and Miami Beach in particular and use it to brainstorm ideas suitable for the next generation MBCC. These can include ideas for within, outside, on top of, or other areas associated with the Center.

Explore Opportunities to Create a Successful Convention, Entertainment & Cultural District

7. Create a coordinated district that offers a walkable environment of restaurant, retail, cultural and entertainment amenities to attendees and exhibitors by providing linkages between nearby assets
8. Identify potential sites for a new headquarter hotel so that its ideal placement is not overtaken prematurely by other needs. At the same time, develop strategies to offset the lack of a proximate headquarters hotel.

Assess Parking and Other Vehicle/Service Needs

9. Assess the current and future parking and open space and marshalling needs for the facility and develop a plan on how to meet these needs in both the short and long terms.
10. Assess and prioritize the current infrastructure needs of the facility and develop a plan on how these needs will be executed in the short and long terms. (Not a topic for the charette)

Hawaii Convention Center

Denver Convention Center

San Diego Convention Center

Downtown & Convention Center, River Walk in San Antonio

3

PROJECT ANALYSIS

3.1 FUNCTIONAL SUMMARY

Generally speaking, the existing MBCC is functioning smoothly and as needed to have a full program of events although the building components and systems that have been addressed progressively need to have an overall upgrading (visitor circulation, life-safety, food service, finishes). The principal issue that keeps the MBCC from being competitive with the other main convention centers in the US is the configuration of the exhibit halls and lack of sufficient supporting amenities such as meeting rooms and multi-function facilities. As per the studies the City of Miami Beach has had done, particularly the 2008 CS&L Report (*see section 2.4 for a summary*), the expansion and upgrading that this Master Plan addresses is critical in order for the MBCC to regain the competitive edge that it had when it was first built in 1957.

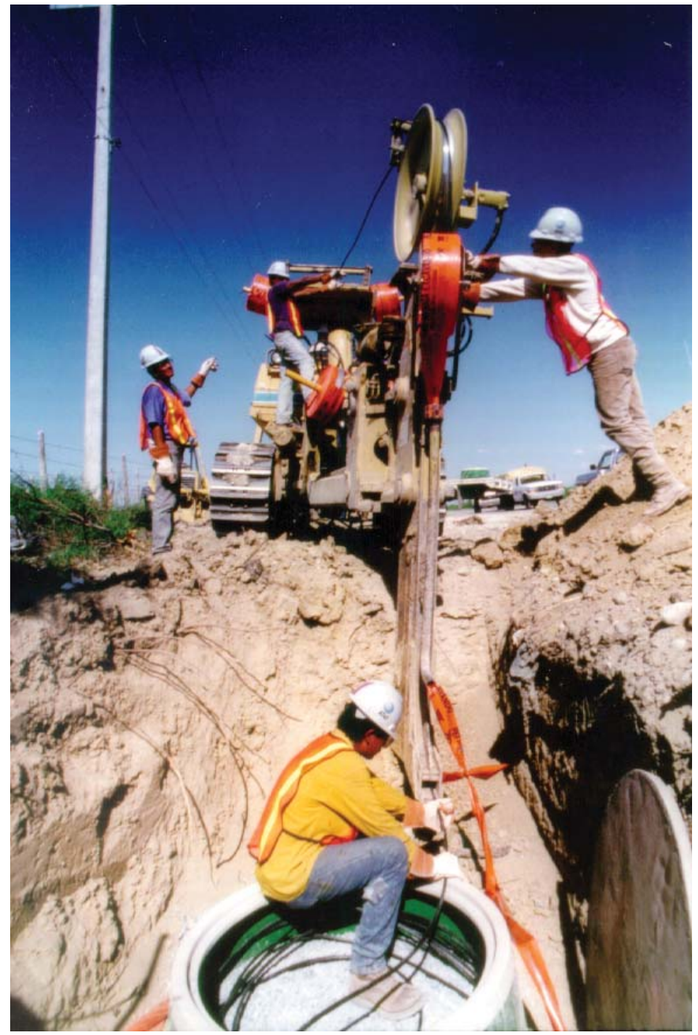
The following sections provide a summary of the analyses of the various aspects of the existing MBCC site and building that the MBCC Expansion Master Plan prepared, both in terms of its physical characteristics as well as planning issues. This Functional Analysis was the basis on which the proposed Master Plan was generated, along with the further sections analyzing the larger site and district as well as the discussions with the various stakeholders in the MBCC Expansion Master Plan.

Exhibit Hall at Miami Beach Convention Center During Art Basel

Ballroom at Miami Beach Convention Center

East Concourse at Miami Beach Convention Center

Exhibit Hall at Miami Beach Convention Center During Auto Show



3.1.1 CIVIL

CONVENTION CENTER DRIVE UTILITIES

Convention Center Drive between Dade Boulevard and 17th Street is a four (4) lane asphalt road oriented in the North/South direction. There is an existing storm water management system, with pipe diameters ranging from 15” to 42”, connecting to several catch basins and manholes within the right-of-way. The existing drainage structures are concentrated mainly between 18th Street and 19th Street. According to the as-builts obtained from the City of Miami Beach Public Works Department, there is an existing 20” water main along Convention Center Drive with multiple service connections which range from 8” to 12” in diameter. An existing 18” Terra Cotta sanitary gravity sewer runs from North to South along Convention Center Drive, starting approximately 300’ to the North of the intersection of Convention Center Drive and 19th Street. This existing sanitary sewer collection system connects to an existing manhole at 17th Street, and continues East thereafter. Convention Center Drive also houses a 30” force main between 18th Street and 19th Street, which will be relocated as part of the planned improvements.

WASHINGTON AVENUE UTILITIES

Currently Washington Avenue is a four (4) lane asphalt road between 17th Street and Dade Boulevard. There is an existing storm water management system with a 34” pipe within this roadway. A 20” water main is located in Washington Avenue; having several water services connected to this pipe.

An 8” sanitary sewer main (concrete and terracotta) also runs North to South along Washington Avenue with connections to other sanitary sewer main segments on 19th Street, 18t Street and 17th Street.

EAST-WEST UTILITIES

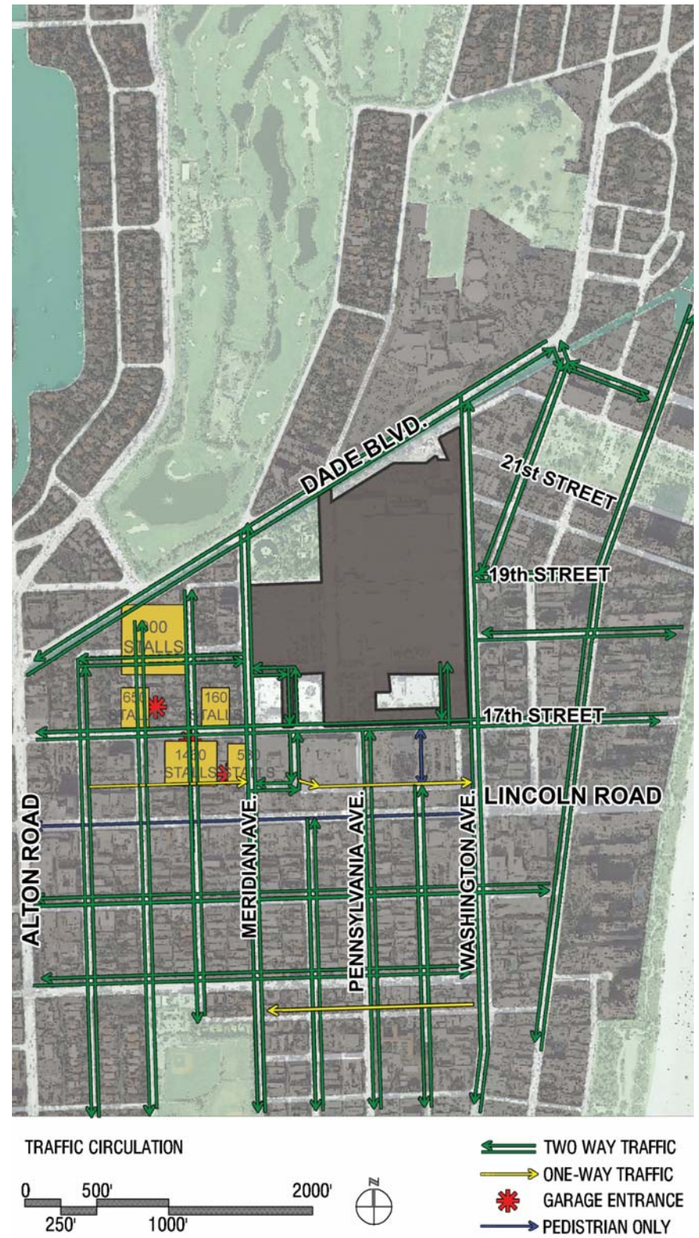
18th Street is an existing road with east/west traffic flow. A 12” and 8” storm water system is housed within the right-of way between Convention Center Drive and Washington Avenue.

In addition, an 8” water and 18" sanitary sewer main exist between Convention Center Drive and Washington Avenue. A 42" and 12" drainage pipe intersect the right-of-way of 19th St.

EXISTING PARKING TABLE

EXISTING MBCC EXHIBIT AREA	500,000	SF

PARKING LOCATION	EXISTING PARKING	
CMB P-Lot (On-Grade)	900	On-Grade Spaces
CMB 17th Street Garage	1,460	Spaces
TOTAL MBCC PARKING SPACES	2,360	SPACES
PARKING RATIO	*212*	*SF*
ADDITIONAL NEARBY GARAGES		
CMB 1775 Merician City Hall Garage	650	Spaces
CMB 17th St. / Convention Center Dr.	160	On-Grade Spaces
NWS Parking Garage	580	Spaces
TOTAL PARKING SPACES	3,750	SPACES
PARKING RATIO	*133*	*SF*



3.1.2 TRAFFIC

Vehicular traffic arrives at the Convention Center via 17th Street and Dade Boulevard. Visitors can also be dropped off at the east entries on Washington Avenue or the west entries on Convention Center Drive (*refer to Figure 1 for traffic patterns)*. Under existing conditions, visitor vehicular access to the Miami Beach Convention Center primarily occurs via Convention Center Drive to either the west entry drop-off or the following parking facilities in the area, providing a total of 3,750 parking spaces:

- 900-stall surface parking lot on the west side of Convention Center Drive south of 19th Street
- 160-stall surface parking lot on the east side of Convention Center Drive north of 17th Street
- 650-stall City Hall parking garage on 18th Street east of Meridian Avenue
- 1460-stall 17th Street parking garage on 17th Street east of Euclid Avenue
- 580-stall New World Symphony garage on 17th Street east of Pennsylvania Avenue

The following intersections provide signalized traffic control within the immediate vicinity of the Convention Center.

- Meridian Avenue and 17th Street
- Euclid Avenue and 17th Street (Pedestrian Signal)
- Convention Center Drive and 17th Street
- Washington Avenue and 17th Street
- Meridian Avenue and Dade Boulevard
- Convention Center Drive and Dade Boulevard

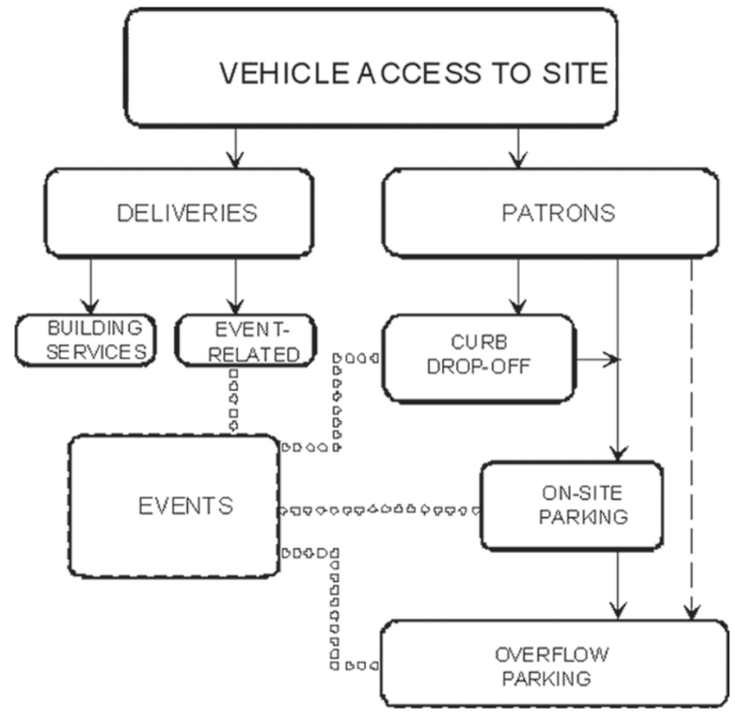
All major roadways in the vicinity of the Convention Center operate as two-way roadways.

There is also public bus service by Miami-Dade Transit (from the South Beach Local to multiple lines that serve all of Miami Beach and Miami-Dade County) and bicycle paths provide alternative transportation.

Service and vehicles going to / from the north and south loading areas typically access the two loading areas via Dade Boulevard and Convention Center Drive.

MBCC East Entrance Drop Off

MBCC West Entrance Drop Off



Functional Flow Diagram

3.1.3 FUNCTIONAL PLANNING

I. Description of Major Elements

The following paragraphs provide a brief description of each of the major spaces required for the convention facility. These short narratives explain the basic functional requirements for types of spaces and the necessary relationships to adjacent spaces. Where important to function, basic requirements for technical systems such as lighting and dimming, telephone and data utility distribution, and audio-visual equipment are also described.

Arrival Zone

Site access should provide for an arrival zone along one face of the building that is for shuttle buses, taxis and limousines to drop off their passengers. A bus lane will have access controlled by MBCC. The arrival zone configuration must accommodate the turning radius and loading for coach buses.

This open air space is the rain-protected outdoor entrance to the building and should clearly establish a visual demarcation line between pedestrians and vehicles. This separation may be composed of features such as color-banded accent pavement, bollards or planters that provide for free flow of pedestrians while restricting vehicular access. There should be no traditional “curb” or wheel stops that could be tripping hazards at this transition from exterior to interior space. An added benefit from this concept is complete ADA access.

Off-site, directional signage to the parking area should be provided on the major approaches to the property to separate attendees whose first stop is the parking area. On site, traffic flow should allow convenient access to parking for those private vehicles unloading passengers at the door.

For feature events and more formal functions - new product unveilings, black-tie dinners or receptions - a portion of this area may be converted to a ceremonial entrance. The “red carpet” treatment should be created with temporary decoration; built-in features are not desirable. For large multi-use / ballroom events, temporary provision for access and/or a staging area for limousine service and valet parking should be considered. Specialty lighting for the canopy will be important, setting the mood for formal evening gatherings. A combination of lighting sources will be required to allow for multiple scenes to be programmed.

Registration and Prefunction

Large-scale registration should occur in the prefunction space outside of the exhibition hall. The depth of the prefunction space should allow for registration nodes to be set up in lobby vestibules or in a widened concourse so as not to interfere with lateral circulation. There should be space available to leave a small number of registration booths set up outside the exhibit area for the entire event and to use the remaining lobby area for prefunction activities.

This configuration must provide ample depth in the registration area for queuing. The openness of the lobby space should allow enough space for flexible registration setup using either strip- or island configurations.

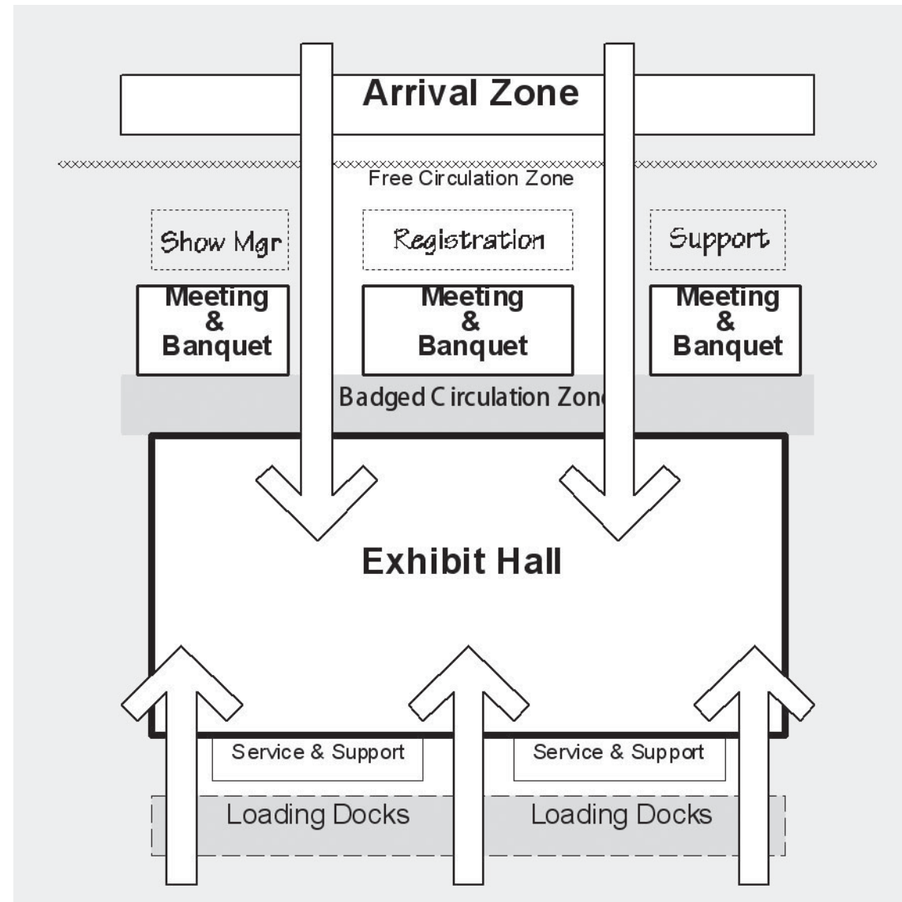
There should be adequate space in the prefunction concourses for tabletop registration for smaller events using only the meeting rooms.

Exhibition Space

This flexible space is the heart of the convention center. The exhibition hall should be adaptable to a wide range of event types and sizes, with easy access for move-in and tear-down, structural capacity for heavy floor and rigging loads (350 pounds per square foot, minimum), electrical service to power multiple displays or a large stage, and use operable wall panels to subdivide the space. The surfaces of the perimeter walls and structural columns should be durable and slightly “unfriendly” to human touch up to eight or nine feet above the floor to reduce maintenance and extend life cycles.

The basic layout of the hall follows a 30-foot by 30-foot grid derived from a 10-foot by 10-foot booth, the building block of the convention and trade show industry. The booth-aisle-booth module may be arranged along either axis depending on a particular event’s organization or preference for flow. It is generally a good idea to have the capability to locate booths so that they can back-up to the perimeter walls other than at entrances and emergency exits. Access doors into service and support areas should be limited to only where necessary to avoid moving equipment through public spaces and should be avoided for those spaces that will need to be used during events in the hall.

Column-free exhibition halls are not mandatory but are perceived as more desirable to meeting planners. If columns are used, their placement can sometimes be more critical than spacing. The proposed depth for the new hall is 270-300 feet. Lateral column spacing typically conforms to the 90-foot structural grid. If columns are used, maintain 90-foot square minimum column spacing.



Functional Space Relationship Diagram

Exhibit Hall at Miami Beach Convention Center

Exhibit Hall at Miami Beach Convention Center During International Boat Show

Exhbit Hall at Miami Beach Convention Center During Sarruga's "Insects" Exhibition

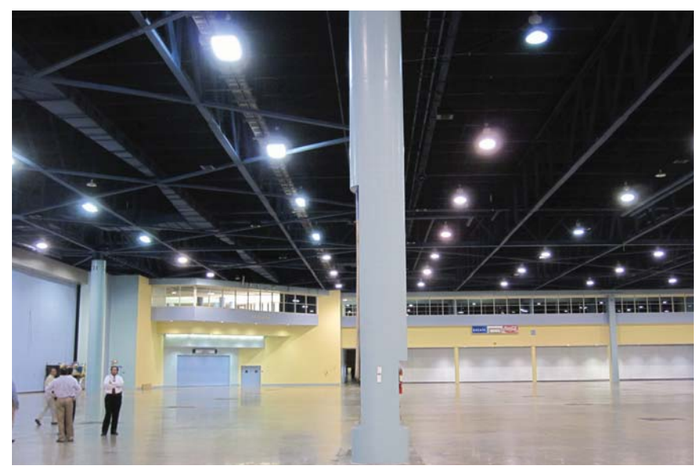


Exhibit Hall at Miami Beach Convention Center

The new exhibition hall should be divisible into two roughly equal sections with operable walls. The minimum clear height to any obstruction should be 35 feet to match the existing halls. The overhead structure should be designed to allow for lighting trusses, catwalks, projection screens, banners or other convention-related materials to be hung from the ceiling at specific locations. The connector hall between the old and the new halls should have a minimum of 18 feet clearance; a food court and connection to the level two meeting rooms occur in the space above this connector.

Design Loads

The floor should be designed to accommodate 350 pounds per square foot loading, which is the accepted "industry standard" for a trade show floor. Fixed hanging points shall be coordinated with the structure overhead, braced for lateral loading.

Utility Connections

Electrical power, telephone and data services should be provided in cast-in-place floor boxes on a 30-foot square layout grid. A combination of power configurations is required, including 208-volt 3-phase service and several 110 volt 20 amp circuits to convenience outlets.

For telecommunications, provide minimum of four individual Category 6 cables to each floor box for voice/data outlets with termination to patch panels located in a service tunnel. Provide single- and multi-mode fiber optic cables from every floor box to the nearest telephone closet, with access to a fiber optic backbone.

Provide empty conduits from selected floor locations to a service tunnel/ mezzanine or other service areas for use by technical support staff to temporarily route controls, microphones, additional power and other cables.

Water, drains and compressed air should be provided at perimeter walls and in floor boxes spaces at 90 feet on center.

Lighting

Traditionally a mix of non-dimmable metal halide and dimmable halogen light sources was used in exhibition halls. New trends in sustainable design and energy efficiency have resulted in a wide array of new products becoming available including LEDs and fixtures with clusters of compact fluorescent lamps to allow multiple lighting levels and increase flexibility for the standard conditions of use move in/out, trade show exhibits, public assembly and multimedia presentations. Care must be taken to match fixture selection to performance criteria for illumination levels, color correction, recovery from power cycles (on/off), zoned lighting control and control interface.

Provide for feature lighting, microphones and audiovisual connections at typical head table and stage locations in each division of the hall via flush floor boxes. Remote locations for control panels will be needed.

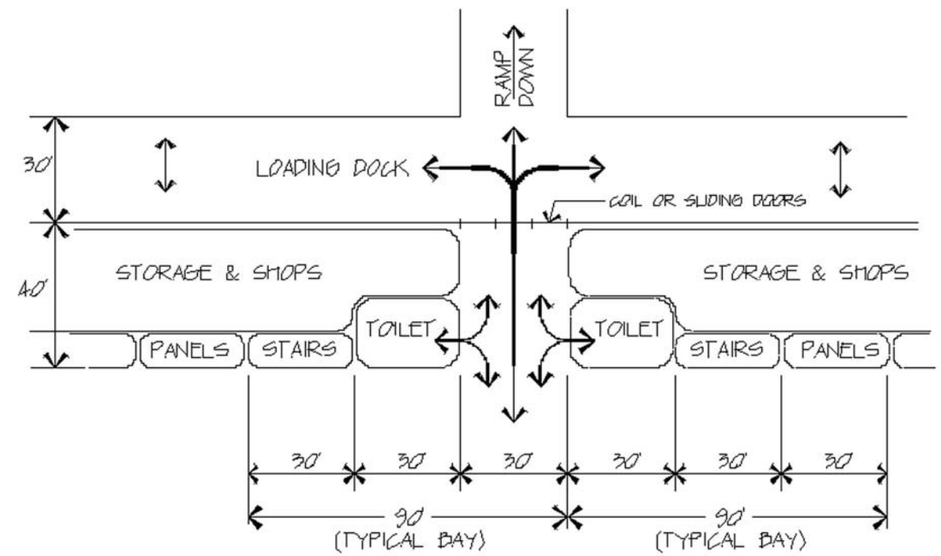
HVAC

Operation and control of environmental comfort systems should match the exhibition hall divisions. Equipment should be enclosed in mezzanines located around the perimeter and accessible from catwalks or from service areas without disturbing ongoing events. Minimize vibration and sound transmission between air handling equipment and the exhibition space.

Back-of-House and Loading Dock

Ideally, there should be direct access from the loading dock into the exhibition hall to facilitate move-in/move-out. Each hall division shall have its own service entrance. Cross circulation on the loading dock shall allow each vehicle parking space to have access to each hall service entrance. Service and freight elevators shall be accessible directly from the dock.

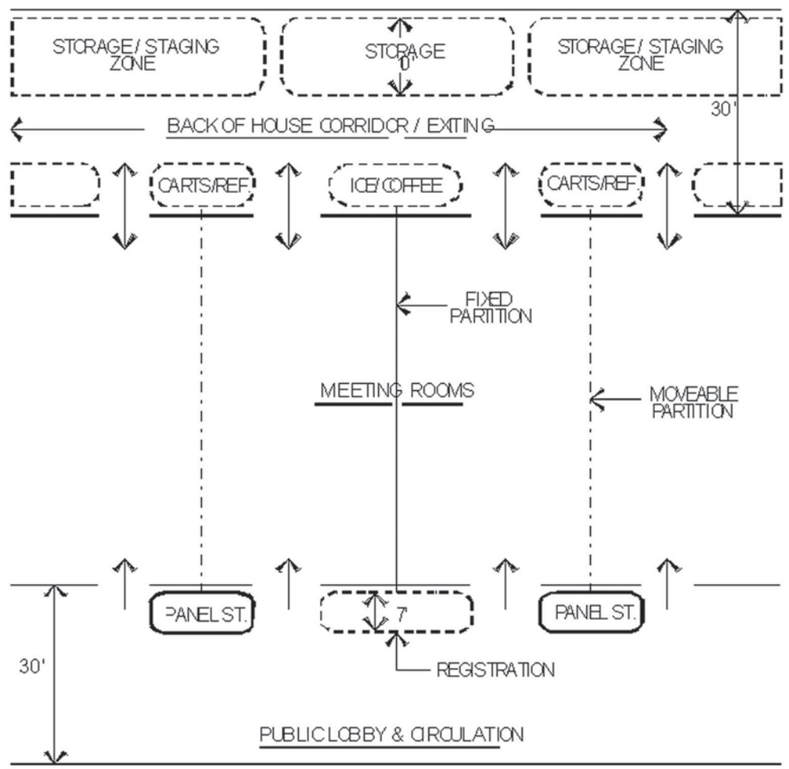
Numerous functions typically compete for space along the interior back wall of the exhibition hall. Public restrooms and food concessions require visibility and signage for attendee use. Support functions will include storage rooms, workshops or electrical and telephone equipment closets. Emergency exits from upper levels (if so configured) will either be stair towers or horizontal exits, depending on code requirements and the final strategy for life safety.



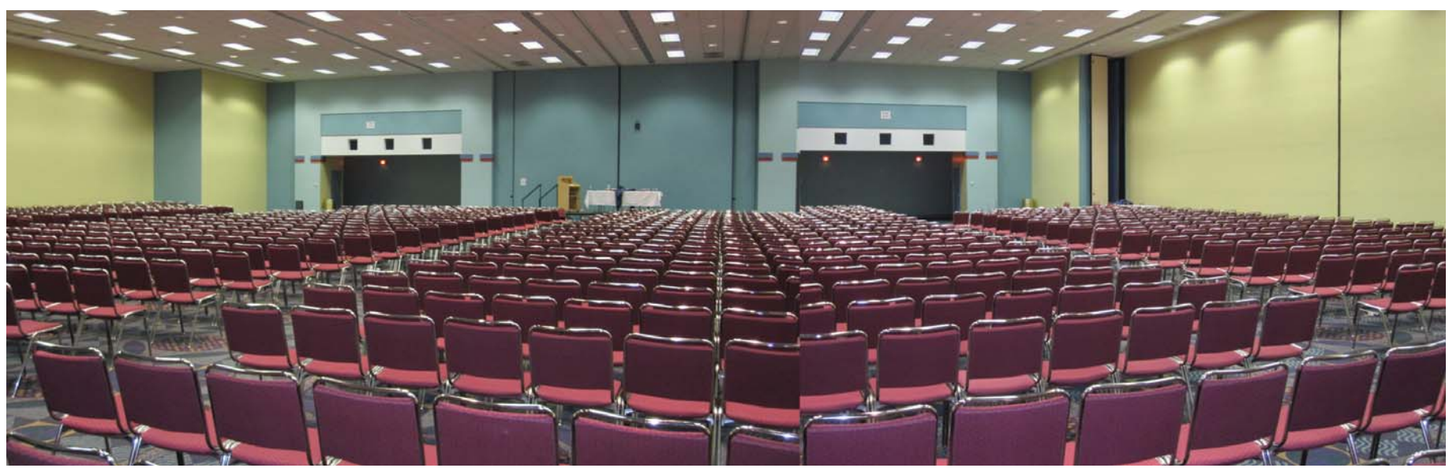
Functional Servicing Diagram

MBCC Loading Dock

MBCC South Ramp Access into Exhbiti Hall D



Meeting Space Functional Diagram



MIami Beach Convention Center East Meeting Room (Level 02)

Meeting Rooms

Groups of meeting rooms should be distributed throughout the facility. A mix of sizes is acceptable as long as access and support facilities such as restrooms, telephones and vertical circulation are conveniently located nearby, and visual cues are provided for orienting the user to the overall facility. Event registration can be set up in the concourse and/or at the entrance to individual rooms.

Rooms are to be subdivided with movable partitions at 30 feet on center, with the minimum room division a 30 foot x 60 foot module using a 30 foot structural grid. Optimal proportions for full-open meeting rooms are 1.5:1 and should not exceed 2:1 in any case. All divisible meeting rooms must have a 16-foot minimum ceiling height to accommodate the use of audiovisual projectors. Larger meeting rooms should increase the ceiling heights proportionally with a minimum of 20 foot height.

Each meeting room will have preprogrammed lighting scenes, connectivity for voice/video/data and access to nearby storage areas for stackable seating and tables. Each meeting room should have durable materials for at least the lowest four feet for wear protection and maintenance considerations. The rooms should be carpeted, using a border pattern at the perimeter and a geometric pattern repeat to assist room setup and furniture alignment.

Coffered ceilings should include a combination of incandescent and fluorescent lighting to be used for both general illumination and multiple standard scenes from multimedia presentation to Webcasting. Lighting controls for on/off and dimming shall be compatible with the room divisions. Provide for the use of voice reinforcement systems with jacks for microphones; recording and broadcast system connections for both audio and video will be required.

Service corridors provide access to the rear of meeting rooms. The layout should provide service access to all meeting and banquet rooms without excessive crossing of public spaces. Corridors must accommodate exiting, temporary storage and food service. If possible, a 30-foot modular width should be provided to accommodate all of these functions simultaneously.

Sound attenuation between meeting rooms, service corridors and pre-function lobbies must be addressed. Intrusive noise from mechanical equipment or structure-borne vibration is not acceptable.

Ballroom

The ballroom is a large, column free space that should be divisible into at least three sections, each a minimum of 20,000 gross square feet. Its features include a finished ceiling, a mixture of lighting types including fluorescent, incandescent and specialty lighting for architectural features and special events; and a high quality carpet. Clear height to ceiling obstructions should be 35 feet.

The highest level of service in the ballroom will be for banquet functions. At 60,000 square feet, this room should be able to serve almost 3,000 people comfortably using 72-inch diameter tables.

The layout is based on a structural grid with a 30-foot wide service corridor across the long dimension of this space. This corridor will be used as a staging area during events. Its 30-foot dimension includes table and chair storage in niches, food service work areas, and food cart staging areas. Maintain 20 feet clear for back of house circulation and exiting. The kitchen should have direct access to the service corridor as well as to dedicated food service elevators.

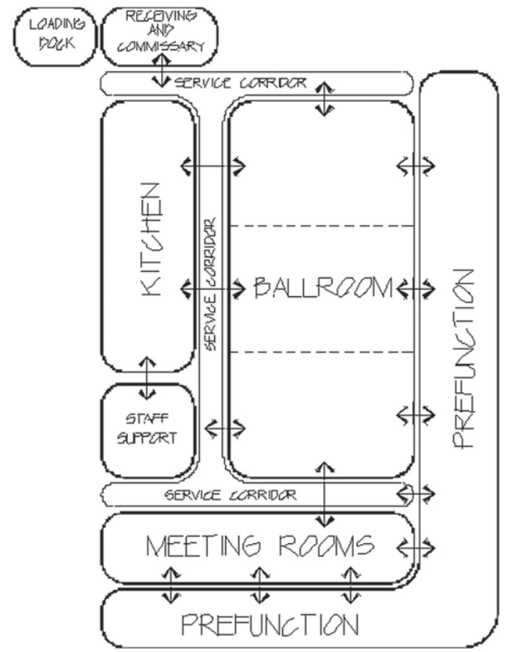
For general sessions or banquet presentations, lighting must have flexible circuiting and dimming controls zoned to the room divisions. The recent industry trend has been to use the ballroom for more theatrical presentations, resulting in an increased need for rigging capacity and electrical power for stage production lighting and sound systems.

The ballroom should have support for multiple head table locations. Typically, these will occur once in each individual room break and on two adjacent walls when the room is used in the full-open condition. Special features to occur at each location include:

- Microphone jacks.
- Individual light circuits for featuring key speakers or dimming for A/V use.
- Rigging and electrical power for lighting trusses.
- Overhead speakers wired to a kill switch to reduce feedback.

Central Kitchen

The central kitchen is initially expected to be a full-service banquet kitchen



Ballroom Functional Diagram

Proto-type of Retractable Tiered Seating in Multi-Purpose Room

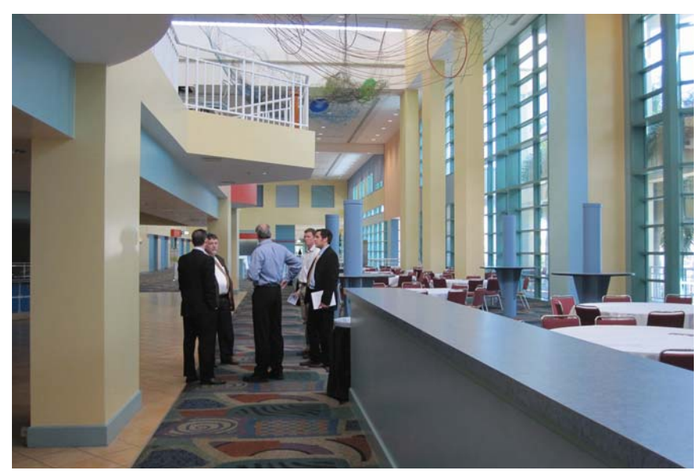
Banquet Arrangment in Ballroom at Miami Beach Convention Center

Table Arrangment in Ballroom at Miami Beach Convention Center

Miami Beach Convention Center Prep Kitchen

Miami Beach Convention Center Main Kitchen

Miami Beach Convention Center Service Corridor



Miami Beach Convention Center Main Kitchen

that will primarily serve the ballroom. Meals will also be served in the exhibition hall as well as the various meeting rooms. The design capacity for serving salad, soup, main course, vegetables and dessert shall be a production rate of 2,500 to 3,000 meals per hour.

A dedicated dock area shall be provided for kitchen deliveries. A vertical core for service elevators and trash between levels is required nearby, with back-of-house access to all areas on all levels required. Staff support areas should include facilities such as a locker alcove and briefing area nearby. An enclosed, air-conditioned garbage room at the dock must be provided.

Client Support Areas

A variety of spaces are required to support the clients of the facility, from convention attendees to show management. These include public restrooms, telephone alcoves, management offices and dedicated storage spaces.

Employee Support

Staff support areas should be centralized near a dedicated employee entrance and have easy access to the back-of-house service corridors. Once past the building security office, full time staff members will have access to locker areas. Uniforms will be issued to part-time food service staff from an office near the kitchen.

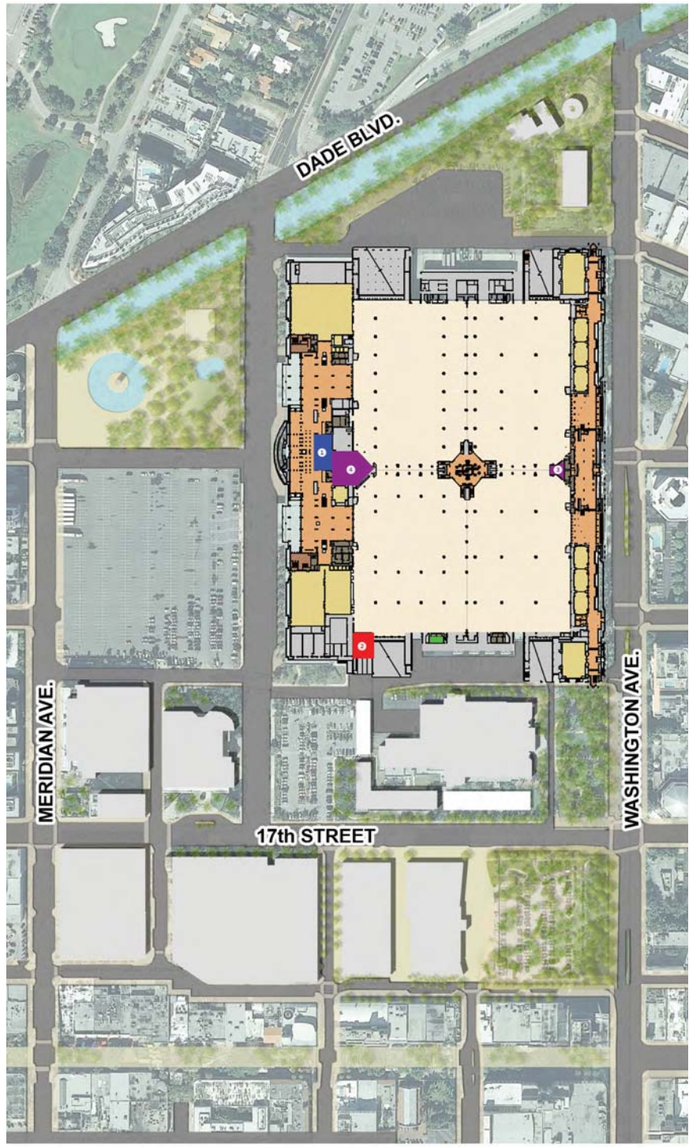
Technical support areas include central control and storage rooms for lighting, sound and distributed television systems. Telecommunications and data support shall be located with the switch near the service entrance to the building.

Engineering, electrical and maintenance shops should be located on an outside wall of the structure near the dock with easy access to the exhibition floor. This area will house carpentry shop, electrical and radio repair functions, setup and housekeeping crews and other non-technical staff who support the daily operation of the building.

3.1.4 FOOD SERVICE

In the existing convention center, large meeting rooms are utilized for banquet type functions. Currently, bulk storage, cold prep and hot production are located in different small kitchens located opposite each other in the building. This is the result of the original center not needing a large kitchen due to its relatively small size. When the demand for a convention center grew and an expansion was approved in 1989, a second kitchen was added to keep up with the higher demand for food services. Unfortunately, planning did not include a combined kitchen with the possibility of further expansion in the future. The proposed new expansion will rectify this problem and create a production kitchen large enough to combine all food service functions - storage, prep, production, and warewashing needs - for the entire facility. After the proposed expansion is complete and online, the former cold and production kitchens will be converted to support pantries as deemed necessary.

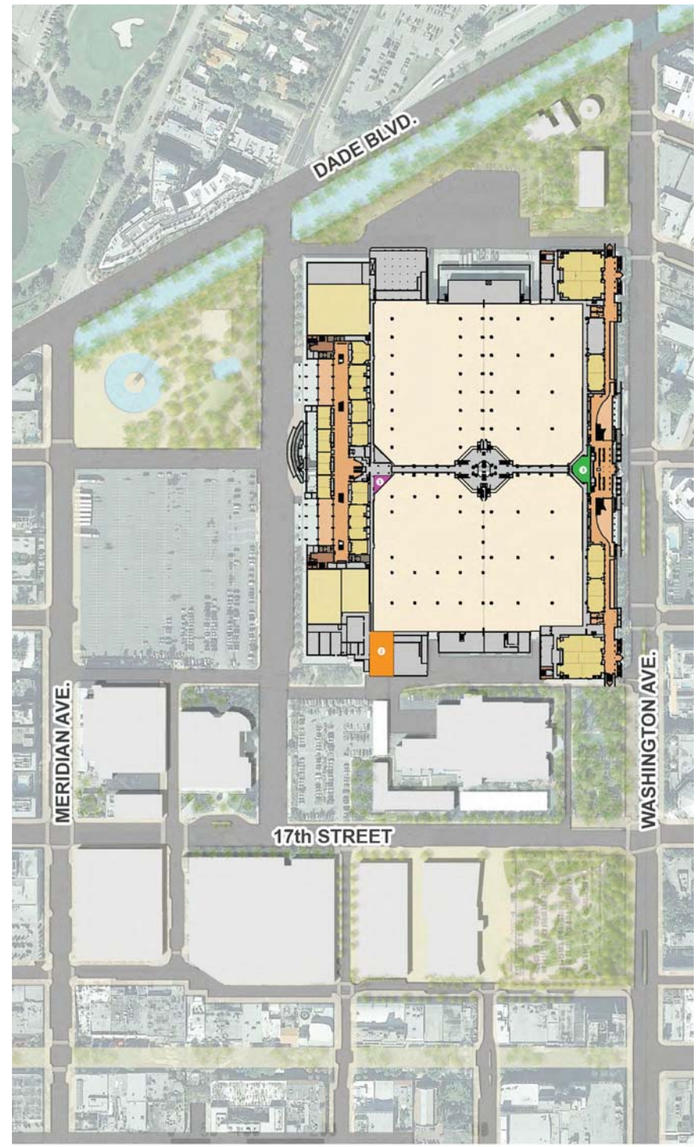
The convention center has just completed the construction of an approximately 950 square-foot kosher kitchen located in the space of an unused concession adjacent to an existing loading dock. Although the kosher kitchen has just been completed, it would be beneficial and strategically more economical to have the kosher kitchen next to or combined as part of the main production kitchen.



0 50 100 200 400

1 Servery
2 Temporary Storage/Delivery
3 Concession A/B
4 Concession C/D
5 Kosher Kitchen

EXISTING FIRST FLOOR PLAN



0 50 100 200 400

1 Meeting Room Pantry
2 Cold Kitchen
3 Production Kitchen

EXISTING SECOND FLOOR PLAN

EXISTING SPACE DESCRIPTION	Total	
	NET SF	GROSS SF
DOCK AREA		
Soiled Dock	350	403
Receiving Dock	980	1,176
Waste Management Area	580	725
Subtotal	1,910	2,304
MAIN PRODUCTION KITCHEN | BALLROOM LEVEL		
Food Storage Area	1,150	1,323
Dry Storage	2,110	2,532
Beverage Storage	1,200	1,440
Ice Production Area	260	312
Food Prep Area	2,900	3,625
Warewashing Area	2,380	2,975
Subtotal	10,000	12,207
KOSHER KITCHEN		
Storage Area	940	1,128
Prep Area	1,320	1,584
Warewashing Area	2,120	2,544
Subtotal	4,380	5,256
FOOD COURT		
Servery	5,480	7,672
Servery Support Area	2,840	3,550
Warewashing Area	960	1,152
Support Area	320	368
Public Seating	10,500	13,125
Subtotal	20,100	25,867
EMPLOYEE FACILITY		
Security & Uniform Issue	800	1,000
Employee Areas	4,718	5,898
Subtotal	5,518	6,898

FOOD SERVICE MANAGMENT OFFICE		
Offices	1,910	2,292
Subtotal	1,910	2,292
FOOD CONCESSIONS		
Exhibit Hall A/B	3,200	4,000
Exhibit Hall C/D	3,200	4,000
New Exhibit Hall	2,200	2,750
Subtotal	8,600	10,750
MEETING ROOM PANTRIES		
Meeting Room Pantry | Second Level	1,240	1,550
Meeting Room/Ballroom Pantry | Fourth Level	2,560	3,200
Meeting Room Pantry | Fifth Level	2,560	3,200
Subtotal	6,360	7,950
TOTAL	58,778	73,523

MBCC Concession Stand

MBCC Main Kitchen

Miami Beach Convention Center Exit

Miami Beach Convention Center Exit In Service Corridor

Miami Beach Convention Center Fire Hose Cabinet

Miami Beach Convention Center Fire Exit From Exhibit Hall

3.1.5 LIFE-SAFETY

The existing 1,170,000 square foot Miami Beach Convention Center (MBCC) has had two major expansions since it was originally built in the 1950s, the last one being in the 1980s. Therefore it has been constructed under previous codes although any renovations or upgrades of the building, small or large, have been constructed per the applicable code at the time. The MBCC maintains 24-hour security throughout the year to further ensure protection of the occupants and the property.

The MBCC Expansion Master Plan project is proposed to have a total of approximately 2,700,000 square feet, constructed in phases over several years. It will include the renovation of large portions of the existing building (primarily the four existing exhibit halls) as well as the addition of new exhibit space, meeting rooms, multi-function rooms, support area and attached multi-story parking garage. The new construction and the renovations will be designed and built as per the current applicable codes to form a unified facility that meets all current applicable codes.

The following codes are the applicable building codes for this project at this time:

City of Miami Beach Zoning Ordinance

2007 Florida Building Code: Building, including the 2009 Supplement (for new construction)

2007 Florida Building Code: Existing Building, including the 2009 Supplement

2007 Florida Building Code: Plumbing, including the 2009 Supplement

2007 Florida Building Code: Mechanical, including the 2009 Supplement

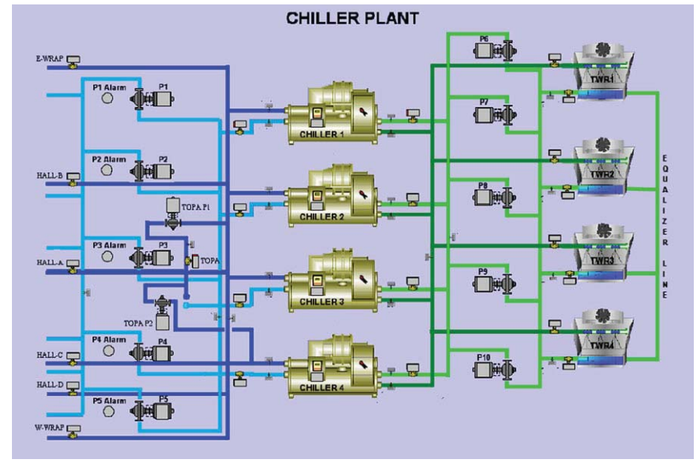
2007 Florida Building Code: Energy, including the 2009 Supplement

2007 Florida Fire Prevention Code

2011 National Electrical Code/NFPA-70

2007 ANSI / ASME A17.1 Safety Code for Elevators and Escalators, with 2008 and 2009 Addendum

Miami Beach Convention Center Chiller Pump Room (Ref #1)



Chiller Plan Layout (Figure #1)

Miami Beach Convention Center Cold Water Lines in Mechanical Room (Ref #3)

Miami Beach Convention Center Cooling Towers (Ref #2)

3.1.6 M/E/P/FP

MECHANICAL SYSTEMS

The Miami Beach Convention Center is currently air conditioned by a central Chilled water plant and associated system as described in the schematic layout (Figure #1). This plant consists of four (4) 1,200 tons chillers with a variable primary system. These chillers are in good operating condition with the oldest chiller being manufactured in 2003.

The condenser side of the chillers is connected to four (4) 1,200 tons induced draft Evapco cooling towers located at the roof. They contain (Ref 2) with 40 HP fan motors per cell with respective variable frequency drives for each fan motor. The condenser water is transported by five (5) constant volume condenser water pumps rated at 100 HP each. The pumps are in good operating conditions.

The chilled water plant provides chilled water utilizing a primary variable pumping system. The primary distribution has five (5) variable volume chilled water pumps each with 100HP motor in order to distribute the chilled water throughout the convention center. A secondary chilled water loop with (2) two pumps deliver chilled water to the Jackie Gleason theater. The main pump is 50 HP with a Variable Frequency Drive while the backup pump is a constant volume type with 40HP.

The chilled water system is distributed into 7 different piping zones (Halls A, B, C, D, West Wrap, East Wrap and The Jackie Gleason Theater.

The energy management system (EMS) controls the chilled water isolation valves which are provided for each of the Halls. The valve will open to allow water to flow if the hall is being occupied.

The Halls A, B, C and D are served by constant volume air handling units and the space temperature is controlled by varying the supply air temperature from the respective air handing. The East and west wrap building areas are served mainly by air handling unit with variable air volume boxes controlling the individual spaces (Figure 3).

FIGURE #1. CHILLER PLAN LAYOUT (COURTESY Johnson Controls)

ELECTRICAL SYSTEMS

GENERAL

This facility's electrical utility service is supplied by Florida Power and Light (FPL). It is distributed from two (2) Transformer Vault Room clusters, one located at the ground floor of the building south west area and the other at the second floor of the building south east area. The former was built with the original Convention Center facility and the latter with the expansion completed during the late 1980's.

The characteristics of the service entrance equipment connected to each of the vault rooms are as follows:

South West Transformer Vault *(See Ref 1)*

- Switchboard "SWH-1" (Main No. 1 of 2) with 4000 Amp, 480Y/277V, 3ph, 4w.

  Switchboard "SWH-2" (Main No. 2 of 2) with 4000 Amp, 480Y/277V, 3ph, 4w.

- (Both these switchboards are located in the south west Main Switchboard Room at the east side of the Transformer Vault Room. (See Ref 2.)

1. Switchboard "SWH-3" is built with four (4) mains and associated feeders which stub down in the Transformer Vault Room from the mechanical room above it. These switchboard "SWH-3" mains characteristics are as follows. (See Ref 3)

   - -4000 Amp, 480Y/277V, 3 ph, 4w
   - -4000 Amp, 480Y/277V, 3 ph, 4w
   - -4000 Amp, 480Y/277V, 3 ph, 4w
   - -1350 Amp, 480Y/277V, 3 ph, 4w

- There is one (1) additional 600 Amp, 480Y/277V, 3 ph, 4w main which serves one (1) three (3) section 1200 Amp, 208Y/120V, 3ph, 4w motor control center (*refer to Picture 4)* via a 300KVA, 480V, 3w primary to 208Y/120V, 3ph, 4w secondary step down transformer.

Miami Beach Convention Center FPL vault (Ref 1)

Miami Beach Convention Center SW Switchgear Room (Ref 2)

Miami Beach Convention Center SWH-3" (Ref 3)

Miami Beach Convention Center Motor Control Center (Ref 4)

Miami Beach Convention Center SE Main SWBD Rm (Ref 5)

Miami Beach Convention Center Exhibit Hall Floor Boxes (Ref 6)

Miami Beach Convention Center West Switchboards (Ref 7)

Miami Beach Convention Center East Switchboards (Ref 8)

South East Transformer Vault

- Switchboard “SE-1” (Main No. 1 of 3) with 4000 Amp, 480Y/277V, 3ph, 4w.
- Switchboard “SE-2” (Main No. 2 of 3) with 4000 Amp, 480Y/277V, 3ph, 4w.
- Switchboard “SE-3” (Main No. 3 of 3) with 4000 Amp, 480Y/277V, 3ph, 4w.
- These Switchboards are located in the South East Main Switchboard Room at the west side of the Transformer Vault Room at the second floor. (See Ref 5)

The configuration described above provides electrical distribution to the building for the east and west areas from grid line F as shown in the Borrelli, Frankel and Blitstein expansion construction documents from the late 1980’s. The (1) exception is Chiller No.4, which was installed during the 1980’s renovation in the new Chiller Room Plant. This Chiller is connected to SWH-3 located in the Main Switchgear Room at the South West building area.

DISTRIBUTION:

The building electrical distribution originates at each of the two (2) Main Switchgear Room clusters located at the south west and south east areas respectively.

West Areas

The electrical loads are supplied from the main switchgear equipment (See Ref 7) through the satellite electrical rooms located throughout the ground and third floor levels. Some characteristics of this system distribution are:

1. Switchboard “SWH-1” serves distribution panelboards which supply floor boxes (See Ref 6) for Hall “C” and “D”, air handling units and other loads.
2. Switchboard “SWH-2” serves distribution panelboards which supply floor boxes for Hall “C” and “D”, generator loads and motor loads.
3. Switchboard “SWH-3” serves chiller No. 4 and other mechanical, lighting and general power loads.

East Areas

The electrical loads are supplied from the main switchgear equipment (See Pics#8 and 9) through the satellite electrical rooms located throughout the ground and third floor levels. Some characteristics of this system distribution are:

1. Switchboard “SE-1” serves distribution panelboards which supply floor boxes for Hall “A” and “B”, and mechanical, lighting and general power loads.

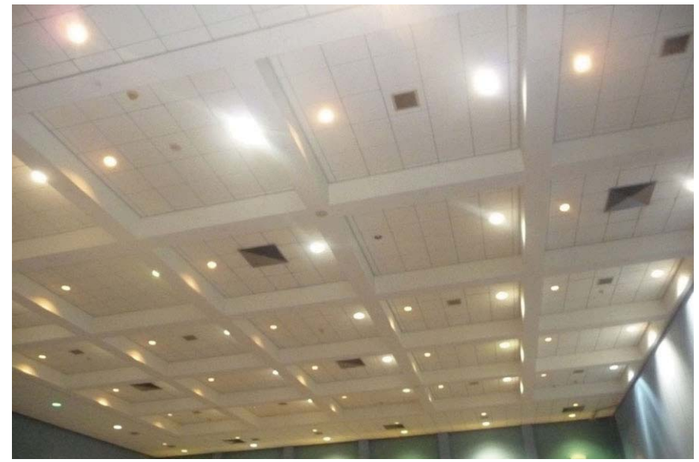
2. Switchboard “SE2” serves distribution panelboards which supply floor boxes for Hall “A” and “B”, and mechanical, lighting and general power loads. `

3. Switchboard “SE3” serves Chiller No. 1, No. 2 and No. 3. (See Ref 10)

Miami Beach Convention Center East Switchboards (Ref 9)

Miami Beach Convention Center MCC-A3” (Ref 10)

Miami Beach Convention Center Hall Lighting (Ref 11)



Miami Beach Convention Center Ballroom Lighting (Ref 12)

LIGHTING:

The exhibit halls lighting system consists of high bay metal halide luminaries. The lighting in the associated ballrooms consists of recessed metal halide down lights. (See Ref 11 & 12)

The existing lighting controls in some of the exhibit halls are Genesis controls. Some lighting systems in the east side areas are controlled by Lutron Lighting Controls. The current Genesis system installation does not provide the flexibility needed by the center maintenance and management group for the events. (See Ref 13 & 14)

Miami Beach Convention Center Lutron System (Ref 13)

Miami Beach Convention Center Genesis System (Ref 14)

FIRE ALARM SYSTEM:

The existing system is not in compliance with applicable Codes. Following are some of this systems characteristics:

Initiating Devices:

- There is no adequate coverage for the facility in common areas, meeting rooms, Halls, and service corridors.

Notification Appliance Devices:

- There is no visual appliance coverage in the entire facility except for the restrooms. The existing audible notification for the fire alarm system is via the existing public address system which does not conform to NFPA 101 (2009 Edition) 9.6.3.9.2 and Chapter 13 along with NFPA 72.

GENERATOR:

The facility is served by one (1) generator system with the following characteristics:

- Generator Set by ONAN Model NO. ODCLAKL/30660A 1000KW/1250KVA (1504 Amp) 480Y/277V, 3ph, 4w (See Pics#15 and16)
- Day Tank Assembly
- 2000gal Underground Fuel Tank Assembly.

The generator distribution is via a 480Y/277V, 3ph, 4W, 1600 Amp, lugs only Switchboard "EMPDP" (See Pic#17) with two (2) breakers. The breakers distribution is as follows:

- One (1) 1200 Amp connects to Distribution Panelboard "EMPDP-P" via the respective automatic transfer switch.
- One (1) 400 Amp connects to Distribution Panelboard "EMPDP-L" via the respective automatic transformer switch.

Both distribution panelboards serve general lighting, power and miscellaneous mechanical loads.

Miami Beach Convention Center Generator Room (Ref 15)

Miami Beach Convention Center Generator Remote Radiator (Ref 16)

Miami Beach Convention Center EMDP" (Ref 17)

Miami Beach Convention Center EMDP" (Ref 18)

Existing Equipment Table.1:

Equipt.	Location	Area Served	AMPs/Voltage	Comments
SWH-1	S.W MAIN SWITCH ROOM	Hall C AND D	4000A, 277/480V, 3PH	To be removed
SWH-2	SW MAIN SWITC ROOM	Hall C AND D	4000A, 277/480V, 3PH	To be removed
SWH-3	MEZZ MECH ROOM	4 Mains	3-4000A, 277/480V,3PH 1-1350A, 277/480V,3PH	To be removed
SE-1	S.E MAIN SWITC ROOM	Hall A AND B	4000A, 277/480V, 3PH	To remain
SE-2	S.E MAIN SWITC ROOM	Hall C AND D	4000A, 277/480V, 3PH	To remain
SE-3	S.E MAIN SWITCH ROOM	CHILLER No. 1, 2 AND 3	4000A, 277/480V, 3PH	To remain
MCC-A3	2nd Flr Mech	Chillers		To remain

Both FPL transformer vault rooms will remain and be retrofitted to accommodate the new distribution requirements.

The peak demand for the last 12 months on FPL Vault#1 is 2,459KW

The peak demand for the last 12 months on FPL Vault#2 is 2,364KW

PLUMBING SYSTEMS

Sanitary

The sanitary sewer is collected throughout the building and discharged through the east and west sides of the building into the city sewer system. The building has five (5) lift stations located within the building that collect the waste water from the convention center event areas. These lift stations discharge into the building sewer system and eventually routed to the city sewer system.

Grease Waste

The facility has two locations, one on the east and the other on the west side of the building in which the grease waste is collected into underground grease interceptors. The interceptor located on the east side is to remain while the one on the west side is to be removed due to the expansion.

Domestic Water

The domestic water system enters the building at three (3) locations of the building (east, south and west locations). These locations have backflow preventers and are connected to the city water main on Convention Center Drive and Washington Avenue. The available city pressure is adequate for proper operation of existing plumbing fixtures without the need of booster pumps. Two of the three backflow preventer locations (south and west) will need to be relocated due to the conflict with the new expansion.

Storm Water

The rain collected from the roof is routed to the rain water leaders collected under the first floor slab and directed towards the north end of the existing structure and conveyed further north for disposal through two (2) 30" storm sewer lines which drain into the canal running along Dade Boulevard.

Diesel Tank

There is an existing underground diesel fuel tank located on the south side of the building which feeds the emergency generator. The location of the tank is in conflict with the new expansion and will need to be relocated.

Natural Gas

One gas meter is located in the south east corner of the building which feed the kitchens and other miscellaneous gas requirements of the building. The location of the meter is in conflict with the new expansion and will need to be relocated.

FIRE PROTECTION SYSTEMS

The Convention Center is currently protected by a 10" looped wet-pipe sprinkler system. Two (2) identical diesel engine driven fire pumps (rated 2000 gpm, 95 psi each) located on the northwest and south west ends provide the requisite pressure to the sprinkler system. Fire department connections (FDC) have been integrated in the fire protection network.

There are fire (5) valve rooms inclusive of the fire pump rooms provided to accommodate the zone valves for halls A, B, C, D as well as the remaining occupied areas of the Convention Center.

The four (4) halls are provided with 1 1/2 " hose connection for fire-fighting needs through zone valves located within the valve rooms.

The facility has been provided with quick response sprinklers throughout with concealed, pendent, upright, and side-wall sprinklers installed depending on the ceiling type in the different areas. The zone valves a flow switch are connected to the F/A system for trouble and alarm signals.

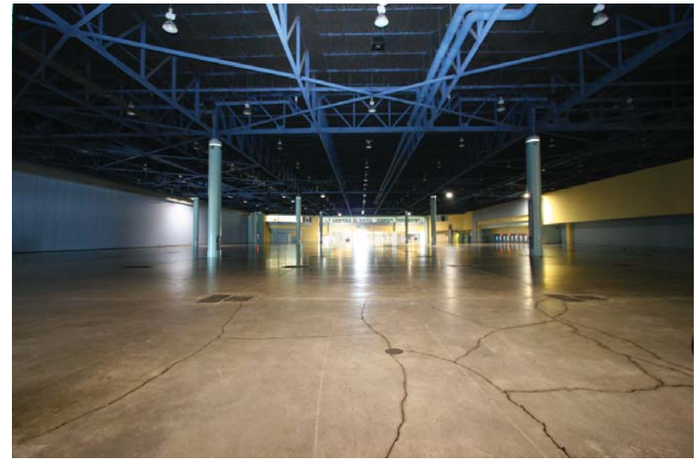
Miami Beach Convention Center Fire Pump Room

Miami Beach Convention Center Fire Pump Room

Miami Beach Convention Center East Concourse Interior Planter Subsiding from Exterior Wall

Miami Beach Convention Center Exibit Hall

Miami Beach Convention Center Sky Bridge



Miami Beach Convention Center Exhibit Hall

3.1.7 STRUCTURAL

The existing Miami Beach Convention Center was built over multiple decades, each with a structural system from its era although there are common structural systems used throughout.

EXHIBIT HALLS

The existing exhibit hall has steel columns, wrapped in concrete for the bottom half, with footings that are in good condition for the current loads. The roof is lightweight insulating concrete on metal deck supported on steel joists and steel trusses. The existing structure does not have any capacity to support additional loads. The floor is a slab on grade that shows substantial cracking but the footings themselves are deep enough and will not be affected by the excavation, removal and replacement with a new floor slab.

SKY BRIDGE

The structure of the sky bridge is independent of the roof structure and therefore can be removed completely and a new roof installed to span the void left by the demolished sky bridge.

WEST WRAP

The west wrap has concrete columns and the elevated floors and roof are concrete waffle slabs for the north half and precast joists for the south half with a concrete roof slab. Some of the footings along the west side may need to be re-worked as per coordination with a geotechnical engineer.

EAST WRAP

The east wrap has concrete columns precast joists for the elevated floors. The lower roof is constructed of metal deck and steel joists while the upper roof is a sloped concrete slab. The east perimeter floor slab is subsiding; it should be replaced during the expansion.

TRANSIT LINES

0 250' 500' 1000' 2000'

ROUTE 101
ROUTE 103
ROUTE 112
ROUTE 113
ROUTE 115
ROUTE 117
ROUTE 119
ROUTE 123

MBCC South Loading Dock Existing Recycling Signage

Miami Beach Bicycle Rack

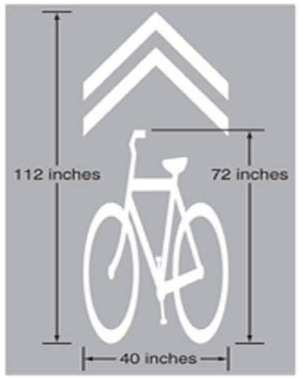
Miami Dade Transit Bus

3.1.8 SUSTAINABILITY MEASURES

The existing MBCC has inherent sustainable features as well as sustainable programs that have been put in place by the City of Miami Beach and Global Spectrum, the MBCC management company. The MBCC's urban location means it has the benefits of a dense community with many inter-related uses nearby (hotels, restaurants, retail, cultural venues, businesses, municipal services) and multiple public bus routes and shared infrastructure. Parking for the MBCC is the City of Miami Beach public parking, which has preferred parking spaces for alternative fuel / low-emitting vehicles.

There are also sustainable features at the existing MBCC building. The mechanical equipment is relatively new and well-maintained for optimal efficiency. The roofing is a light-colored material that keeps the interiors cooler and minimizes the heat-island effect for the surrounding area. A recycling program is in place throughout the MBCC, from the exhibit halls to the loading docks. All the light fixtures will soon be replaced with energy-efficient fixtures, which will reduce the heat load inside as well as the energy bill since it will require less air-conditioning to cool the building.

Based on these inherent sustainable features and programs and other aspects of the existing MBCC, the project could pursue green certification with the Leadership in Energy and Environmental Design for Existing Buildings (LEED-EB). As per the attached proposed LEED-EB checklist, there are potentially enough credits the existing MBCC is eligible for (50 out of 100) to be certified as a LEED-EB building.



City of Miami Beach Shared Lane Marking

Bike Way Network

Miami Beach Atlantic Greenway Network

DecoBike Rental Station

DecoBike Miami Beach Public Bicycle Sharing and Rental Program

DecoBike Rental Station

LEED 2009 for Existing Buildings: Operations & Maintenance

Proposed Project Checklist (For Demonstration Only) MBCC

Sustainable Sites — Possible Points: 26

Y	N	?			
13	4	9			
	4		Credit 1	LEED Certified Design and Construction	4
1			Credit 2	Building Exterior and Hardscape Management Plan	1
1			Credit 3	Integrated Pest Mgmt, Erosion Control, and Landscape Mgmt Plan	1
8		7	Credit 4	Alternative Commuting Transportation	3 to 15
		1	Credit 5	Site Development—Protect or Restore Open Habitat	1
1			Credit 6	Stormwater Quantity Control	1
1			Credit 7.1	Heat Island Reduction—Non-Roof	1
1			Credit 7.2	Heat Island Reduction—Roof	1
		1	Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 14

Y	N	?			
8	3	3			
Y			Prereq 1	Minimum Indoor Plumbing Fixture and Fitting Efficiency	
2			Credit 1	Water Performance Measurement	1 to 2
3		2	Credit 1	Additional Indoor Plumbing Fixture and Fitting Efficiency	1 to 5
2	2	1	Credit 1	Water Efficient Landscaping	1 to 5
1			Credit 1	Cooling Tower Water Management—Chemical Management	1
	1		Credit 1	Cooling Tower Water Management—Non-Potable Water Source Use	1

Energy and Atmosphere — Possible Points: 35

Y	N	?			
8	21	6			
Y			Prereq 1	Energy Efficiency Best Management Practices	
Y			Prereq 2	Minimum Energy Efficiency Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
2	14	2	Credit 1	Optimize Energy Efficiency Performance	1 to 18
2			Credit 2.1	Existing Building Commissioning—Investigation and Analysis	2
2			Credit 2.2	Existing Building Commissioning—Implementation	2
		2	Credit 2.3	Existing Building Commissioning—Ongoing Commissioning	2
1			Credit 3.1	Performance Measurement—Building Automation System	1
	1	1	Credit 3.2	Performance Measurement—System-Level Metering	1 to 2
	6		Credit 4	On-site and Off-site Renewable Energy	1 to 6
1			Credit 5	Enhanced Refrigerant Management	1
		1	Credit 6	Emissions Reduction Reporting	1

Materials and Resources — Possible Points: 10

Y	N	?			
7		3			
Y			Prereq 1	Sustainable Purchasing Policy	
Y			Prereq 2	Solid Waste Management Policy	
1			Credit 1	Sustainable Purchasing—Ongoing Consumables	1
1			Credit 2.1	Sustainable Purchasing—Electric	1
		1	Credit 2.2	Sustainable Purchasing—Furniture	1
1			Credit 3	Sustainable Purchasing—Facility Alterations and Additions	1
		1	Credit 4	Sustainable Purchasing—Reduced Mercury in Lamps	1
		1	Credit 5	Sustainable Purchasing—Food	1

Materials and Resources, Continued

Y	N	?			
1			Credit 6	Solid Waste Management—Waste Stream Audit	1
1			Credit 7	Solid Waste Management—Ongoing Consumables	1
1			Credit 8	Solid Waste Management—Durable Goods	1
1			Credit 9	Solid Waste Management—Facility Alterations and Additions	1

Indoor Environmental Quality — Possible Points: 15

Y	N	?			
8	3	4			
Y			Prereq 1	Minimum IAQ Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
Y			Prereq 3	Green Cleaning Policy	
1			Credit 1.1	IAQ Best Mgmt Practices—IAQ Management Program	1
1			Credit 1.2	IAQ Best Mgmt Practices—Outdoor Air	1
	1		Credit 1.3	IAQ Best Mgmt Practices—Increased Ventilation	1
		1	Credit 1.4	IAQ Best Mgmt Practices—Reduce Particulates in Air Distribution	1
		1	Credit 1.5	IAQ Mgmt Plan—IAQ Mgmt for Facility Alterations and Additions	1
		1	Credit 2.1	Occupant Comfort—Occupant Survey	1
		1	Credit 2.2	Controllability of Systems—Lighting	1
	1		Credit 2.3	Occupant Comfort—Thermal Comfort Monitoring	1
	1		Credit 2.4	Daylight and Views	1
1			Credit 3.1	Green Cleaning—High Performance Cleaning Program	1
1			Credit 3.2	Green Cleaning—Custodial Effectiveness Assessment	1
1			Credit 3.3	Green Cleaning—Sustainable Cleaning Products, Materials Purchases	1
1			Credit 3.4	Green Cleaning—Sustainable Cleaning Equipment	1
1			Credit 3.5	Green Cleaning—Indoor Chemical and Pollutant Source Control	1
1			Credit 3.6	Green Cleaning—Indoor Integrated Pest Management	1

Innovation in Operations — Possible Points: 6

Y	N	?			
4		2			
1			Credit 1.1	Innovation in Operations: Exemplary IEQc3.4 Cleaning Equip.	1
1			Credit 1.2	Innovation in Operations: Specific Title	1
		1	Credit 1.3	Innovation in Operations: Specific Title	1
		1	Credit 1.4	Innovation in Operations: Specific Title	1
1			Credit 2	LEED Accredited Professional	1
1			Credit 3	Documenting Sustainable Building Cost Impacts	1

Regional Priority Credits — Possible Points: 4

Y	N	?			
2		2			
1			Credit 1.1	Regional Priority: SSc7.2 Heat	1
		1	Credit 1.2	Regional Priority: EAc1 to 77 rating/27 percentile	1
		1	Credit 1.3	Regional Priority: WEc2 to 30%	1
1			Credit 1.4	Regional Priority: WEc3 to 50%	1

Total — Possible Points: 110

Y	N	?	
50	31	29	

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

3.2 SITE AND DISTRICT ANALYSIS

The design process for the Miami Beach Convention Center Expansion Master Plan studied the project from the exterior in its context with the city as a whole, to the interior and the intricacies of the interior planning. This internal and external analysis was critical to understanding MBCC's influence on and from the city and surrounding neighborhoods.

As the CS&L Report noted, the success of any convention center is impacted by its proximity to restaurants, retail and entertainment. One of the goals of the Master Plan process is to emphasize the uniqueness of MBCC, which is related to its location in a vibrant oceanfront city. Within walking distance can be found diverse interests such as the vitality of Lincoln Road with its restaurants, shops, theaters, galleries and entertainment; the cultural gems of the neighboring Holocaust Memorial, Miami Beach Botanical Garden; and the Cultural District nearby.

The analysis of the site and district focuses on how the surrounding city offers opportunities to the MBCC that have not been capitalized on to date as well as how the MBCC and its activities has the potential to influence the neighboring areas in more beneficial ways than it does currently.

3.2.1 SITE AND DISTRICT BOUNDARIES

The initial step was to establish the boundaries of the MBCC Expansion property as per discussion with the Steering Committee. The grey area of the Site Boundary diagram indicates the property that is part of the MBCC Expansion: To the east it is bounded by Washington Avenue and to the north, Collins Canal (parallel to Dade Boulevard), although the historic Little Stage Theater is not part of the property as it is to be preserved. The 26 acre MBCC building site is further increased by the 6 acre on-grade parking lot that is on the west side of Convention Center Drive, extending to Meridian Avenue and bounded by the Holocaust Memorial and the Miami Beach Botanical Gardens to the north and the City of Miami Beach City Hall building and parking garage to the south. East of City Hall, the MBCC Expansion boundary extends down to 17th Street and includes the existing on-grade lot to the west of the Jackie Gleason Theater but wraps around the Jackie Gleason, which is not part of the MBCC Expansion property. The open space east of the Jackie Gleason Theater along Washington Avenue is included in the property.

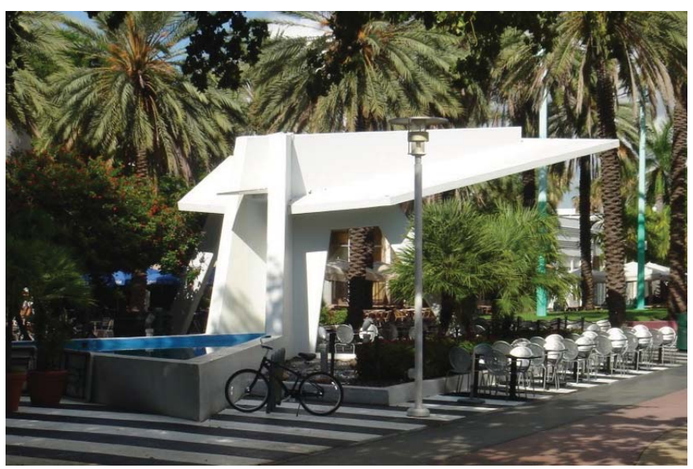
The MBCC Expansion Master Plan process defined a larger district that is based on the surrounding neighborhood, which is integrated--or has the potential to be better integrated—with the MBCC. This MBCC District extends to the south to Lincoln Road where MBCC visitors can go for refreshments, shopping, cultural events and entertainment, as well as to the New World Symphony, Lincoln Park and the Fillmore Miami Beach at Jackie Gleason Theater. It extends east to the oceanfront hotels and their restaurants and bars on Collins Avenue. It extends north to the Holocaust Memorial, the Miami Beach Botanical Gardens and the Little Stage Theater as well as to the Cultural District a few blocks away with the Bass Museum, Miami City Ballet and the Miami Beach Public Library.

This definition of the MBCC District is the focus of the MBCC Expansion Master Plan, while addressing all the zoning requirements of the Convention Center District, as defined by the City of Miami Beach Zoning Ordinance.

City of Miami Beach Garage

Lincoln Road

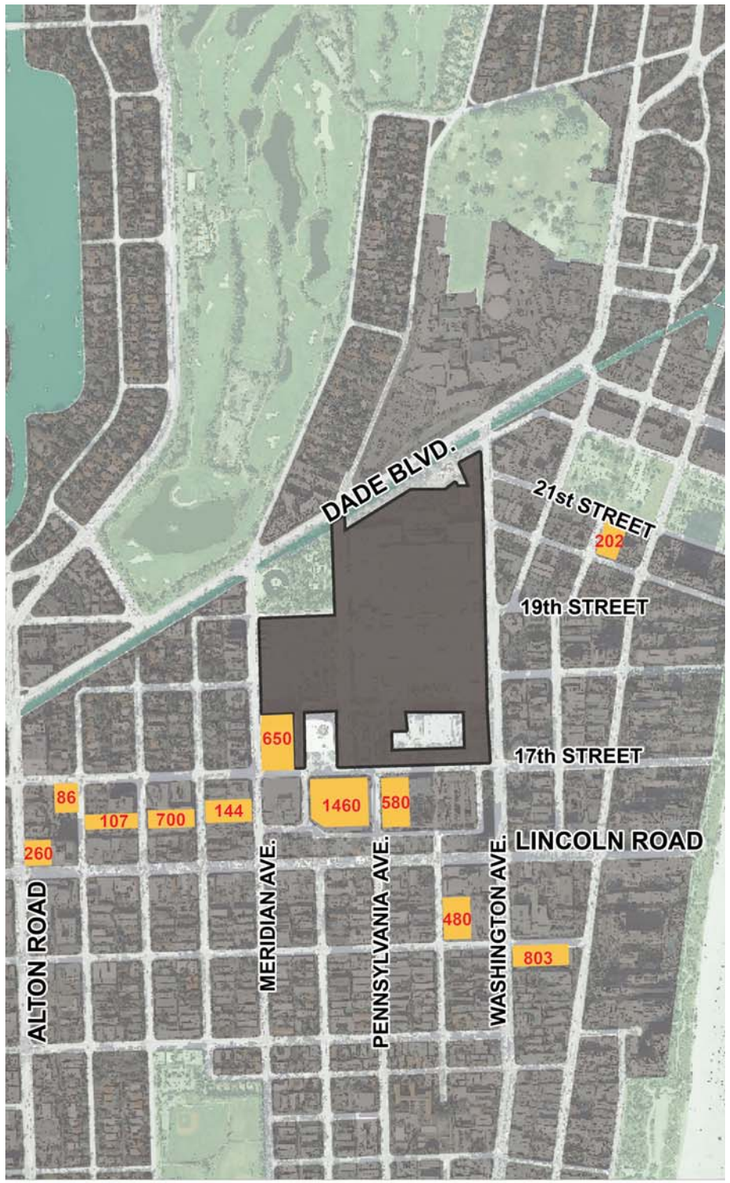
New World Symphony



Lincoln Road

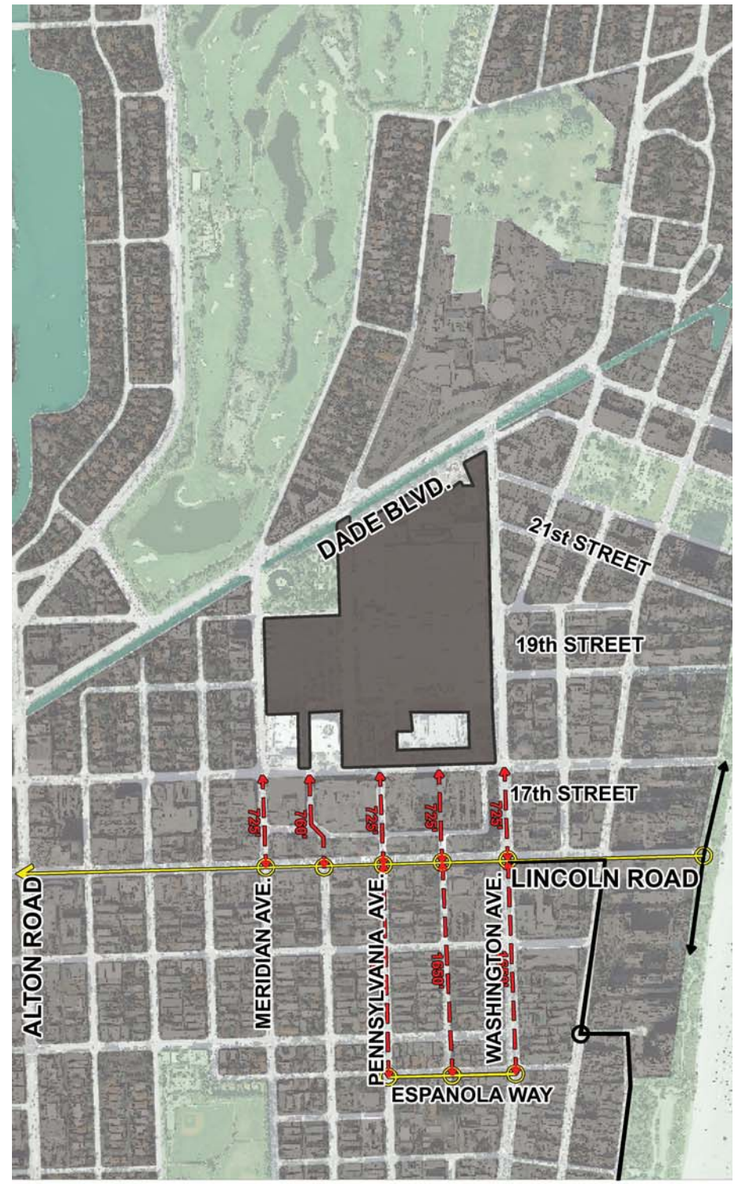
Espanola Way

New World Symphony



ACCESS TO PARKING

0 500' 2000'
250' 1000'



ACCESS TO PEDISTRIAN STREETS

0 500' 2000'
250' 1000'

3.2.2 SITE AND DISTRICT INFLUENCES

The early stages of the design process focused on understanding how critical aspects of the surrounding city influence the MBCC site. The Access to Pedestrian Streets diagram highlights key pedestrian destinations of conventioneers in Miami Beach to and from the MBCC, the most unique and popular of which is the beach. The principal and most powerful access to the beach is Lincoln Road, which provides access to the Beachwalk and the length of the beach and ocean front hotels. Of the surrounding destinations, Lincoln Road is the closest since it is a block and a half away and encompasses many and diverse venues. It is popular throughout the day as people take breaks during conventions for lunch and in the evening for dining, strolling and shopping. As the diagram also indicates, there are further connections to other destinations on Ocean Drive and Espanola Way.

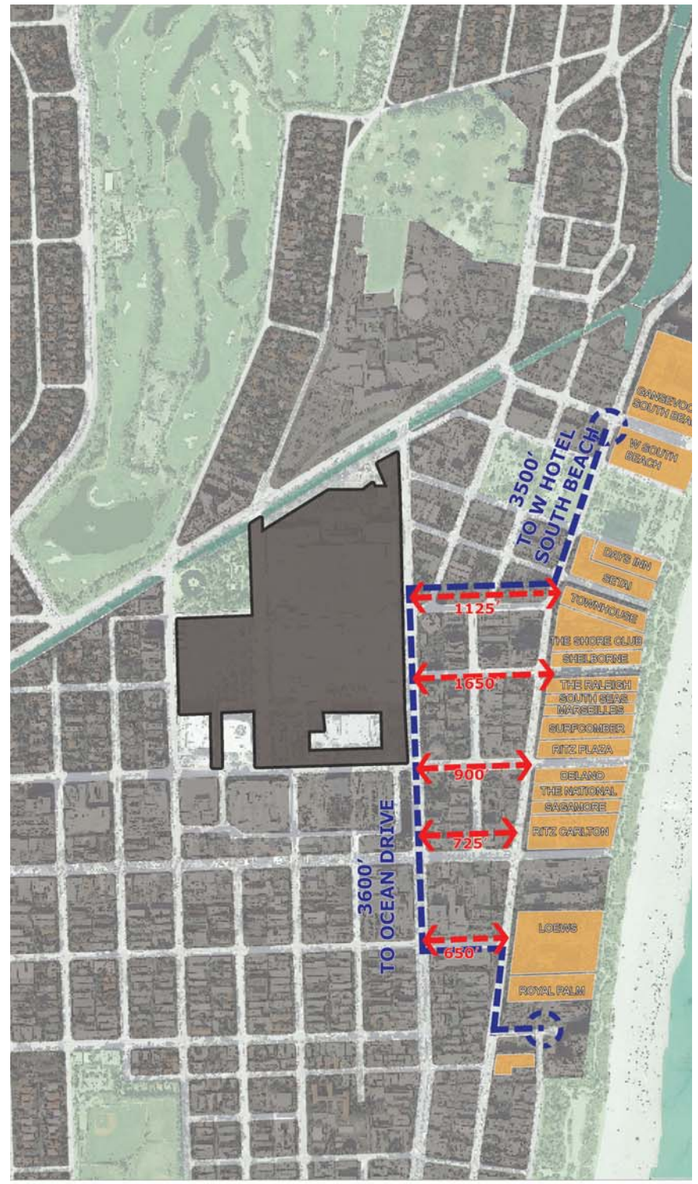
To address the reality that a large number of visitors come by car, the proximity of parking to the MBCC was considered as well. The Access to Parking diagram shows the location and number of existing parking spaces. The largest parking garage is the Public Garage on 17th Street, with 1,460 parking spaces. New nearby garages include the 580 space garage next to the New World Symphony and the 650 space parking garage next to City Hall. Since parking is a critical issue, the design assumption is that the parking spaces of the on-grade parking lots west and south of the MBCC will be replaced as part of the expansion plans, with added spaces proportionate to the added exhibit area.

The location of neighboring hotels is also a fundamental factor considered in the MBCC site design. In the absence of a real convention center headquarters hotel in Miami Beach, people stay in a variety of hotels that range in proximity to the MBCC. As shown on the Access to Hotels diagram, there are hotels further north on Collins or at the southern end of Miami Beach that are reached by taxi, bus or car. The closest hotels that can be reached by foot are primarily on Collins Avenue and to the south on Ocean Avenue. Conventioneers filter from the oceanfront hotels through the various streets from 15th Street up to 20th Street, back to the Washington Avenue entrance of the existing MBCC.

As shown on the Access to Venues diagram, there are multiple facilities in the MBCC area where people can go, including the event space at 1111 Lincoln Rd, the South Florida Arts Center, the New World Symphony, the Miami Beach Botanical Garden, the Holocaust Memorial, the Bass Museum, and the Little Stage Theater and the Jackie Gleason next to the MBCC. These provide many opportunities where people can go for a break from the conventions and some also offer venues for casual or ancillary meetings. For instance, the New World Symphony has the flexibility to be used for many other events than a conventional theater because of the nature of its configuration and its new media technology.

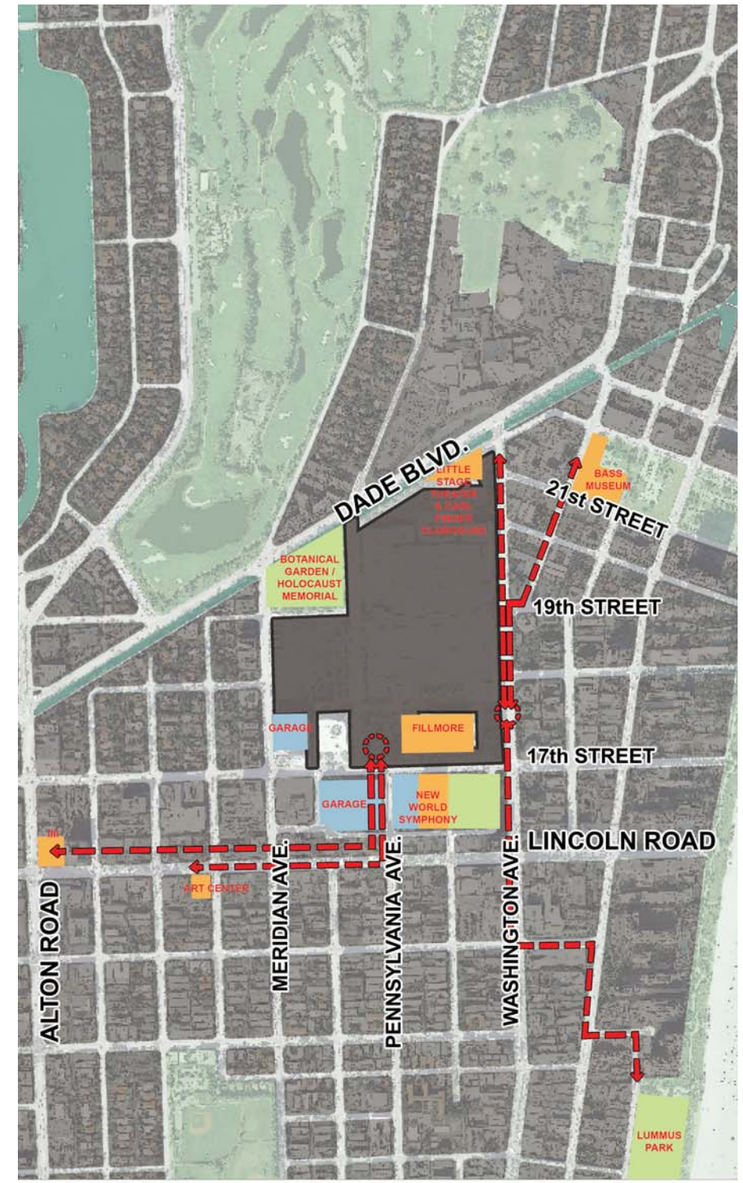
Another factor that was considered in developing the site design for the MBCC expansion was sustainability. The entry façade is the principal location for glazing since it wants to be transparent and inviting. The ideal orientation for a glass façade is to the south since the sun is more vertical and doesn't extend into the building. The morning and afternoon setting sun has a long low angle that heats up the interior, which is the case for the existing east and west entry facades.

All these influences from the surrounding city were recognized as being critical to understanding how the Miami Beach Convention Center can become an integral part of the larger urban area, and more importantly how it can draw from Miami Beach's strengths to make it current with the competitive market for convention centers.



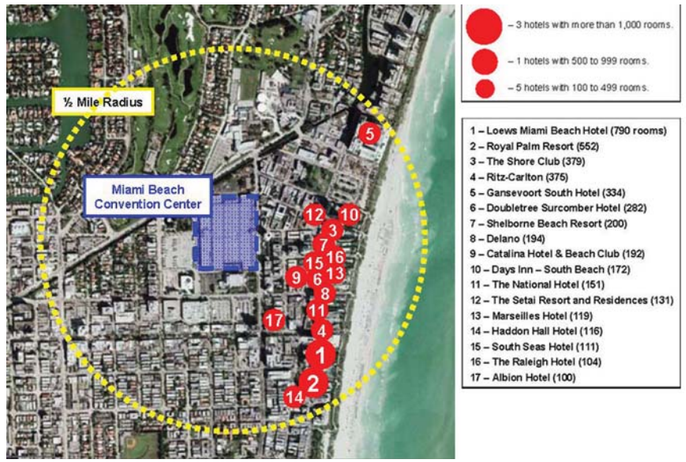
HOTELS WITHIN A 1/2 MILE RADIUS

0 500' 2000'
250' 1000'

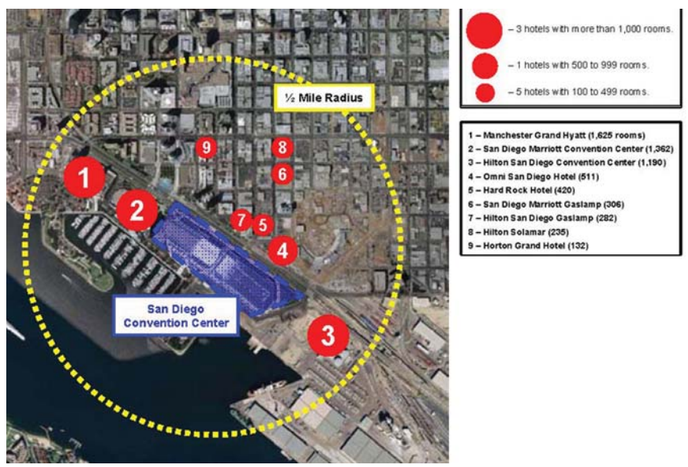


ACCESS TO VENUES

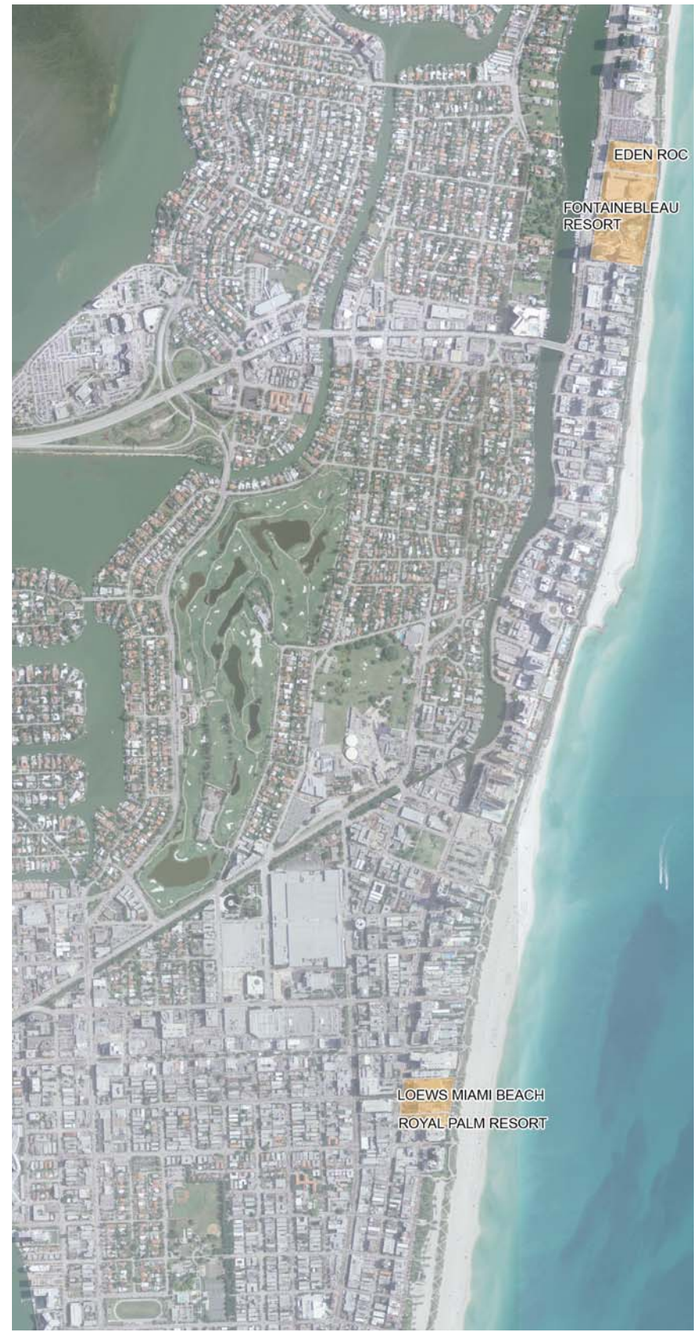
0 500' 2000'
250' 1000'



Miami Beach Convention Center (Courtesy of CS&L)



San Diego Convention Center (Courtesy of CS&L)



Proximity to Hotels

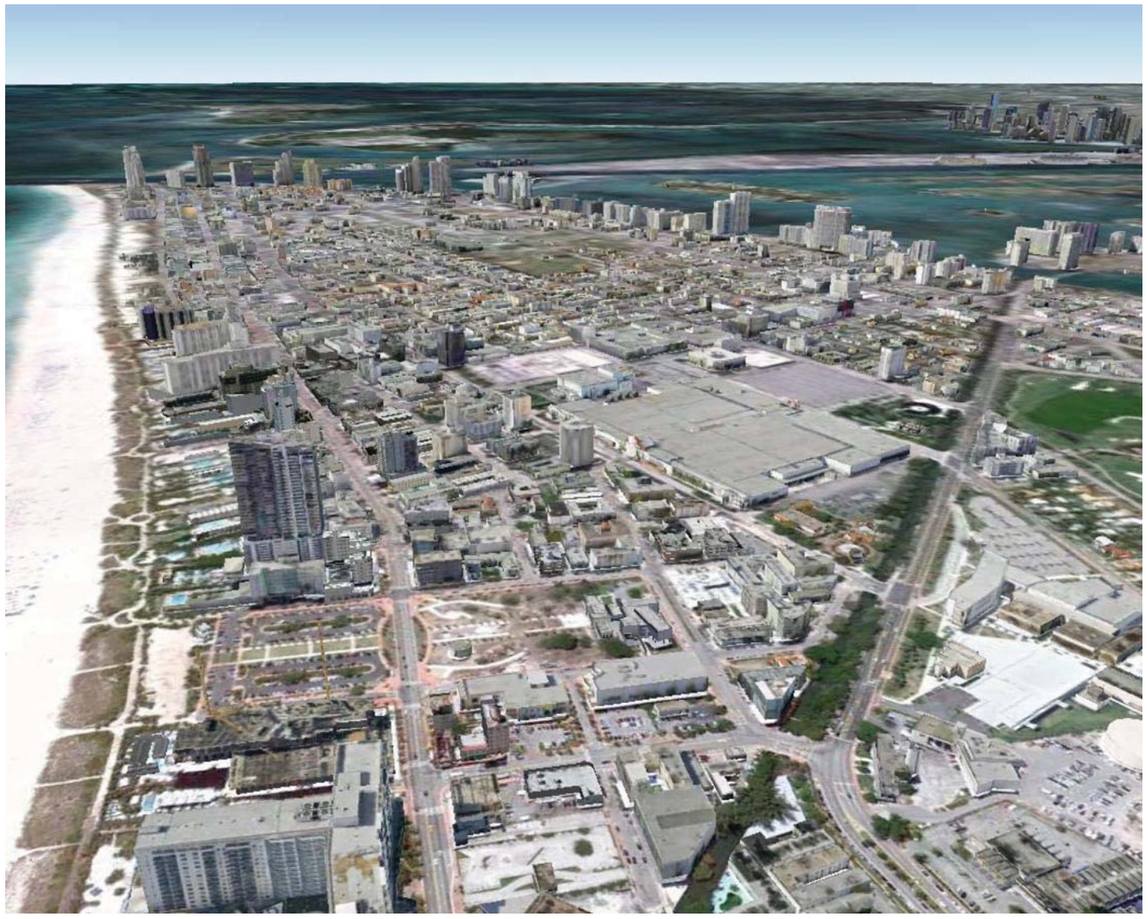
3.2.3 FUTURE CONVENTION CENTER HOTEL

There are five main criteria for top-tier convention centers today that are considered critical for meeting the needs of conventioneers. The criteria include the need for an adequately sized multi-function room/ballroom space, adequate ratio of prime exhibit space and meeting space, easy connectivity to a vibrant entertainment district, incorporation of unique elements and event spaces, and having an adjacent and preferably connected headquarters hotel. The CS&L Report and the MBCC Expansion Steering Committee have stated that these criteria are important to the long term success of the MBCC and the Master Plan process has addressed them.

The one criterion that is not directly included in the Master Plan scope is the convention hotel since it is not a part of the convention center building and would be built by a private developer and not by the City of Miami Beach. The scope of the Master Plan is to recommend sites for a potential future convention hotel so that the necessary site area for the hotel is considered and not used for the expansion.

Miami Beach's convention center was originally built in the 1950s and located a few blocks away from all the beachfront hotels. The hotel development in Miami Beach is focused on the beachfront so to date there isn't an existing hotel of adequate size next to the MBCC. As indicated on the Proximity to Hotels diagram, hotels over 500 rooms are limited, with only two within walking distance (1/2 mile) and one with over a thousand rooms (The Fontainebleau at Collins Avenue and 44th street.)

As part of the Master Plan process, an analysis will address potential sites that are adjacent to the MBCC as well as being integrated into the larger district which includes the hotel zone along Collins Avenue and the beachfront and the pedestrian activity along Washington Avenue and Lincoln Road.



Aerial of Miami Beach

3.3 PROJECT ANALYSIS SUMMARY

The stakeholders for this particular project are considerably large and varied in viewpoint. Besides the City leaders, support staff and Tourism Board that oversees the MBCC, important stakeholders include County leaders, as well as other neighboring municipalities, the facility operator, the Greater Miami Convention and Visitors Bureau (GMCVB), managers and users of adjacent facilities, representatives of the Center's traditional user groups, local hoteliers, restaurant and retail establishments, and many City residents that are impacted by process.

A significant portion of the master planning design process is about gathering information. Relevant information can be come in a variety of types and formats, but all to some extent form the background to the Basis of Design.

First, although members of the design team are generally familiar with the building and its surroundings, the design team has made several visits to the building, its surrounding site and neighboring buildings in the area. The initial overall building walk-thru and departmental interviews was supplemented with receipt of a large number of archived documents of past and existing conditions, listed as an appendix to the report. Reconnaissance type meetings to confirm particular conditions continued throughout the process and were documented in meeting notes or recounted in the preceding sections through narratives and/or photos.

Although these visits to the physical site and the discussions held with operations personnel help understand how the facility functions, considering both the daily successes as well as the routine failures, help formulate what to include and avoid in the new expansion.

Beyond gathering physical and historical background information, the team held a series of meetings with a variety of groups to review the process and preliminary analysis and extract thoughts on overall thoughts. Feedback received in these types of meetings can be equally important to arriving at joint solutions and synergies. These meetings were held with the project Steering Committee and its four Sub-Committees, City Departmental Staff and representatives within the immediate neighborhood. Findings are summarized in the sections that follow.

Lastly, the City held the first Community Design Workshop, open to the entire resident community to see and comment on the initial design concept. Again, important concerns and issues help mold design decisions as the process moves forward.

Communicating the progress of the design at various intervals and receiving reaction and commentary for team discussion and integration will continue as the design solidifies and matures beyond the master planning phase.

3.3.1 SITE AND BUILDING VISITS

The entire design team attended a MBCC facility walk-through on January 15, 2010 after a project kick-off meeting in the Executive Offices of the Convention Center and another on January 21, 2010. These initial reviews of the existing building and site were followed by a series of smaller visits in the following months to selected portions of the facility by team members. During the walk-through visits the Master Plan team observed many aspects of the MBCC, from the structural aspects; mechanical / electrical / lighting / plumbing / life-safety equipment; food service preparation and serving areas; delivery and service circulation; administrative offices; to the visitor circulation and experience. These site and building visits enabled the Master Plan team to complete their assessment of the existing conditions as well as formulate the basis of recommendations to follow.

In addition to the MBCC facility walk-through visits, the City staff was able to gather and transmit a series of archived documents of the existing MBCC building, site and surrounding area in response to the teams' request for information, most of which was received at the beginning of the process and supplemented by additional information as requested in the months that followed. These documents provided backgrounds from which the proposed MBCC Expansion Master Plan was developed. A list of the documents received follows.

MBCC Ballroom

MBCC Ballroom Control Panel

MBCC Generator & Fire Pump Room Doors.

MBCC Loading Dock

DOCUMENTS PROVIDED BY THE CITY OF MIAMI BEACH AND MIAMI BEACH CONVENTION CENTER OF EXISTING MIAMI BEACH CONVENTION CENTER BUILDING, SITE AND ADJACENT PROJECTS.

Date:	Description:
01.15.2010	1. Two full size sets of the City Center (Chen) plans for 9A and 9B and one CD containing same. 2. Existing Master Plans or studies of the facility or adjacent facilities. a. BODR — Botanical Garden b. BODR — Little Stage Theater Complex c. Zyscovich City Center Master Plan 3. Convention center's facilities guide and any printouts indicated the dimensions, areas and capacities of their leasable spaces. 4. Projected facility schedule of events. 5. New World Symphony update as 12-31-09. 6. FPL as-built utilities around the Convention Center 7. City of Miami Beach 2010— 1014 Capital Improvement Program for the Convention Center 8. Convention Center Long-term Capital Priority List 9. Base utilities plans and information (usage) for the building and its surroundings including abutting roadways, including but not limited to the following: a. Water and sewer atlas sheets including fire hydrants and services. b. Receiving pump station information and run times. c. Drainage atlas sheets for onsite and offsite (adjacent roadways). d. As-built drawings for FPL onsite and offsite including locations of existing vaults. e. Atlas sheets for gas lines if existing f. As-built drawings for all underground utilities within convention center drive. 10. Convention Center building bid plans. a. Architectural Plans b. Architectural Plans (Add Alternates) c. Structural Plans d. Mechanical, Electrical, & Plumbing Drawings e. F&B Equipment Plans 11. Previous capital cost improvement plans and cost estimates. 12. Background info used by CSL a. 1989 TVS Program Statement/Master Plan b. City of Miami Beach Convention Center and Multi-purpose Space Addition Presentation-202 c. City of Miami Beach Convention Center Enhancement Presentation (2006) d. CSL 2001 Convention Center Expansion Analysis e. Preliminary Stakeholder Expansion Priority List (2006)
01.19.2010	2010 Capital Projects for the Convention Center. (Excel)
01.22.2010	MBCC Bike Master Plan (PDF File) City of Miami Beach City Center Neighborhood #9 Basis of Design Report - Final 2005 Collins Park Cultural Campus BODR. 2005.09 City of Miami Beach: RDA City Center
01.21.2010	Botanical Garden BODR - 2010.01.13 City Center 17th Street BODR - 2002.12.19 Lincoln Park BODR - 2009.09 Little Stage Theater Complex BODR - 2010.01.15 Schedules Required for Energy Performance Contract
01.25.2010	MBCC 1st Floor Halls A-D (Autocad Files) MBCC 2nd Floor Halls A-D (Autocad Files) MBCC 3rd Floor Catwalk (Autocad Files)
02.02.2010	Miami Beach Manual on Way Finding Guidelines (PDF File)
02.12.2010	Miami Beach City Hall Parking Garage A-100 (Autocad Files) Miami Beach City Hall Parking Garage A-100 (PDF Files)
02.16.2010	Fillmore JGT Site Plan (PDF File) Fillmore JGT Level 01 Plan (PDF File) Fillmore JGT Level 02 Plan (PDF File) Fillmore JGT Level 03 Plan (PDF File)
03.10.2010	Collins Canal Walkway Expansion Draft Plans (MDI File)
03.17.2010	Collins Canal Walkway Expansion Draft Plans (Autocad File)
03.19.2010	Miami Beach Convention Center Survey (PDF File)
03.26.2010	Miami Beach City Center Mobilitiy Study (Data Collection) Miami Beach City Center Traffic Impact and Mobilitiy Study (Existing Condition) Miami Beach City Center Traffic Impact and Mobilitiy Study (Future Analysis and Recomendations)

3.3.2 STEERING COMMITTEE MEETINGS

A project Steering Committee was created in an effort to obtain a wide variety of opinions from a range of viewpoints. The committee was made up of project stakeholders of various types and backgrounds: managers, users, sales staff, business partners, industry leaders, City and County leaders as well as local residents.

The City, design team and Steering Committee along with other invited stakeholders first met on January 15, 2010 to kick-off the project and go over the expected process, goals from the market study and to recap the status of the current facility, both long and short term.

The market study looked at current industry trends, competitive/comparable facility analysis, existing and projected utilization and market demand analysis. The main points from the market study were listed and described:

- Multi-use/Ballroom Space needed
- Additional Meeting Space needed
- Unique Space Additions (e.g. outdoor venue)
- Adjacent or attached Convention Center Hotel
- Development of a Convention Center District with strong linkages to adjacent entertainment areas

The Committee reviewed the Master Plan scope and reiterated that it would include the current City codes and prior studies as well as continue to solicit input from the Steering Committee, other community stakeholders and produce short and long term master plan for the Convention Center.

Additionally, the Steering Committee was informed that a Stakeholder Group had been meeting with the City since 2005. In April 2009, the Stakeholder Group agreed that the following items should be prioritized in Arquitectonica's final master plan.

- Reconfiguration/Enhancement of existing ballroom
- Additional meeting rooms
- Executive Conference Center (west)/2nd Floor West Side Meeting Rooms
- Outdoor space/venue
- Exterior signage (west side marquee)
- Interior finishes
- Other infrastructure requirements

Upon completion of the discussion, the committee agreed to the following items to be explored and visited in subsequent meetings:

- The development of project goals and objectives that summarize all the issues
- The plan should work towards strengthening linkages to surrounding venues
- Explore additional clients in current markets as well as look into entering new markets.
- Establish subcommittees to explore specific details in more depth.

The group agreed to meet within a short time in a charette or workshop environment to study the points and physical options further.

A workshop was held on January 29, 2010 and attended by not only the Steering Committee but an expanded group of interested stakeholders eager to contribute to the process.

Everyone was reminded that the purpose of the meeting was to explore and brainstorm possibilities of the building and its expansion.

A complete list of overall goals were distributed to the Committee and generally endorsed. The primary category for goals which were as follows:

1. Meet competitive markets (with respect to meeting and ballroom space.
2. Maximize overall square footage for exhibit halls and meeting space.
3. Create a unified identity
4. Identify and strengthen linkages to Lincoln Road, Collins Park, Fillmore and Botanical Garden

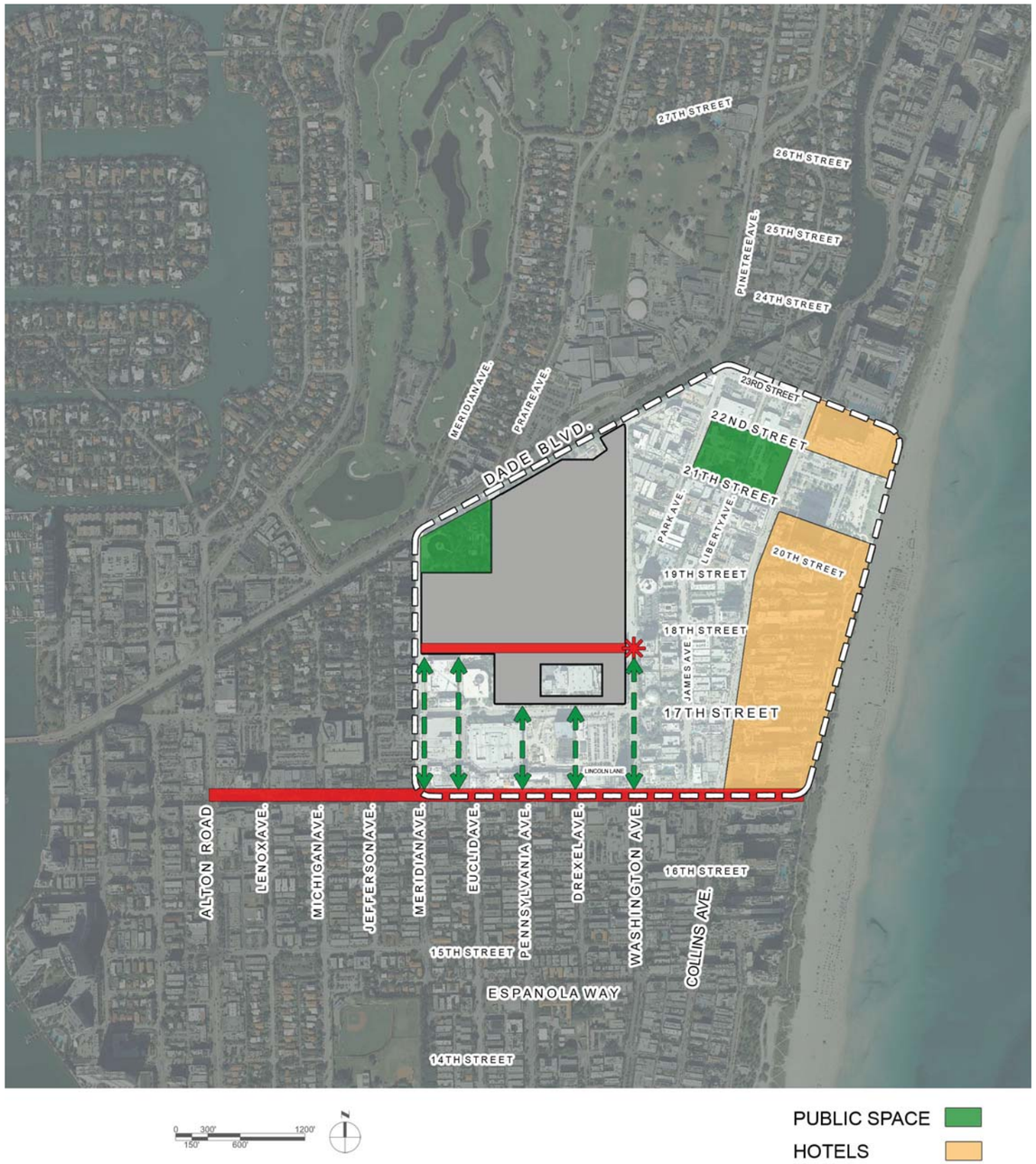
   Arquitectonica led the group in a series of issues that can be distilled in the following list of major topics of discussion:

   City leaders stated that the master planning effort should look towards best accomplishing the goals and objectives without feeling restrained by the available funds. The focus should be to determine the best steps needed to provide the best facility that can aggressively compete with its rivals in the industry.

5. Ongoing issues within the existing structure that are identified in the Capital Improvements Projects list should be reviewed again and re-prioritized given the new direction towards expansion. Since the facility must continue to successfully operate while the planning process develops, the ongoing maintenance and well-being of the facility must remain in focus.

STEERING COMMITEE & STAFF

Convention Center Expansion & Enhancement Steering Committee	Scott Berman Stuart Blumberg Michael Breslow Marco Giberti Jorge M. Gonzalez Saul Gross Elsie Howard Wendy Kallergis Alex Munoz Tom Mobley Cathy Rick-Joule William Talbert Robert Wennett Matthew Pinzer	Price Waterhouse Coopers CC Advisory Board, Co-Chair Jewelry Intl. Showcase Reed Exhibitions City Manager, Co-Chair Resident MB Visitor & Conv. Authority Greater Miami Beaches Hotel Assoc. Asst. City Manager Global Spectrum National Marine Manuf. Assoc. Greater Miami Convention & Visitors Bureau Resident, Lincoln Road Merchants Special Asst to Asst County Mgr.
Convention Center Expansion & Enhancement Steering Committee Support Staff	Hilda M. Fernandez Jorge Gomez Max Sklar Bob Balsam Charlie Carreno	Asst City Manager Asst City Manager Tourism & Cultural Dev Dir. General Mgr. MBCC CIP Director



PROPOSED CONVENTION CENTER DISTRICT

6. Options for expansion must take into account existing adjacent land area that may be optimal for the future development of a headquarters hotel. Potential parcels should be indentified so that the expansion does not interfere with the possibility of future hotel development into these optimal parcels.
7. The recommended 50,000SF multi-purpose space needs to be verified as when the required associated spaces are added (pre-function, bathrooms, registration, kitchens and pantries, storage and mechanical space) the total additional space required for the room can double. It was decided that since the latest large multi-purpose rooms being planned or in construction right now either meet or exceed this amount, a 60,000 SF area target was agreed upon.
8. Since the most viable location for this size of expansion is likely to be the large Preferred lot (P-Lot) consideration needs to be taken for the major shows currently using the facility as they have special needs for staging, exhibit space and access, parking and circulation as this expansion will immediately remove the land from any use in the future.
9. The boundaries of the project parcel were identified.
10. Linkages to the Lincoln Road shopping District and the prime hotel locations as well as other neighboring venues need to be identified and strengthened.
11. The importance of the arrival sequence, for both visitors and service vehicles, was recognized. Besides being the first impression, its size and ease of use in a facility of this type is one of the most significant elements that must be accommodated.
12. The concept of bringing in natural light and incorporating outdoor protected spaces was discussed and agreed with, as long as they can be controlled.
13. The design team established the importance of organizing the center with one principal “front” for visitors and a service side able to adequately accommodate the needs of the expanded facility.
14. The concept of “district-building” or looking beyond the immediate building footprint to strengthening surrounding paths and outdoor spaces would cut down the perceived isolation of the Center to its surroundings. The promotion of the use of a finish material palette including landscape/hardscape, exterior lighting and signage, and site furnishings will help identify the new District and encourage free passage and discovery to visitors and residents alike.
15. The reorienting the Center in the east/west direction facing south to best connect to adjacent venues and respond to traditional circulation paths was presented and accepted.

The group agreed to revisit these principles once a concept is established and continue to explore these issues with the subcommittees and main Steering Committee as the project develops.

SUB COMMITTEE MEMBERS

PROGRAMMING	FUNCTIONALITY	BIG VISION	COMMUNITY
Bill Talbert	Stuart Blumberg*	Jorge Gonzalez	Laura Jamieson (Botanical Garden)
Tom Mobley	Bob Balsam	Mayor Bower	Silvia Cubina
Marco Giberti	Cathie Rick-Joule	Stu Blumberg*	Griselle Nassar (LRM)
Scott Berman	Michael Breslow	Saul Gross	Ray Breslin (CPNA)
Elsie Howard*	Ita Moriarity*	Robert Wennett	Marlo Courtney (ODA)
Wendy Kallergis	Kay Hollander*	Alex Munoz	David Phillips (NWS)
Brandon Berry* (Live Nation rep)	Charlie Carreno	Steve Haas	Brandon Berry* (Live Nation rep)
Grisette Roque	Max Sklar*	Elsie Howard*	Max Sklar*
Ita Moriarity*	Hilda Fernandez*	Jorge Gomez	Hilda Fernandez*
Kay Hollander*		Max Sklar*	
Max Sklar*		Hilda Fernandez*	
Hilda Fernandez*			

*Denotes persons serving on more than one committee

3.3.3 SUB-COMMITTEE MEETINGS

The City, the Project Steering Committee and design team quickly realized the number of diverse issues that needed to be explored and discussed was going to be fairly extensive and time-consuming for just one diverse group. Four sub-committees were created, each with a more focused expertise, so that diverse issues could be more efficiently handled in more depth and detail. The four sub-committees and their general topics included:

PROGRAMMING:

Review the existing building space inventory quantity and size and proposed space allocation program for the expansion and compare it to other offerings in the marketplace. This includes programming any possible specialized spaces for potential new users with specific space needs to allow the Center to approach new clients that were not accommodated in the past.

FUNCTIONALITY:

Analyze benefits and deficiencies in the current facility and review the ongoing plan development to insure the newly proposed facility functions well for now and in the future.

BIG VISION:

This group is to look beyond the standard program and functional needs and explore more bold and innovative ideas within the building to expand its offerings and more easily compete in the market.

COMMUNITY:

Representatives of some of the existing adjacent public venues formed this group to focus on expanding the boundaries of the facility beyond its walls and develop synergies within the neighborhood to assist in creating a combined district.

OVERVIEW

Some members of the Steering Committee agreed to participate in individual sub-committees as well, and some sub-committee members served on more than one committee. Other members were drawn out from the area due to their valuable experience in the topic and interest to contribute. A list of the subcommittee members is in the adjacent table.

The City and design team met with the subcommittees and reviewed the progress of the conceptual design with a particular focus on the subject matter. Comments and recommendations were noted and incorporated into the conceptual design as appropriate. A summary of the various points include the following:

- The capacity and flexibility of new ballroom is vital as it should be able to handle a variety of configurations. The design team recommended the incorporation of retractable seating to expand the capacity of the seating when in theater mode to maximize seating capacity without diminishing site lines. The expanded use of zoned video monitors and speakers allow extended auditorium style seating to allow for additional views of the speaker are commonplace in the industry now and should be incorporated, especially in the larger function spaces. (Programming)

- There is a need for a smaller venue, separate from the Main Ballroom, with divisions using moving walls to allow for simultaneous meetings and a possible banquet, or sit-down meal for up to 800 people. It should be most convenient to proximate service areas as it will be the principal banquet area. (Programming)

- Much of the existing inventory was in smaller rooms that were too small to adequately contribute to the total inventory and should be combined or its area reused into a more efficient space. (Programming)

- A stand-alone lecture hall or auditorium may be attractive but not a main concern as this function if necessary can be handled at the adjacent auditorium. (Programming)

- An independent conference center is attractive to some select groups as long as it is fitted out with the prescribed requirements or standards that can allow it to be certified. These standards would probably require the creation of an independent suite of meeting rooms and ancillary spaces making up the conference center as a isolated subset of the entire function inventory. Given the cost and limited use of this type of feature, it does not seem cost effective

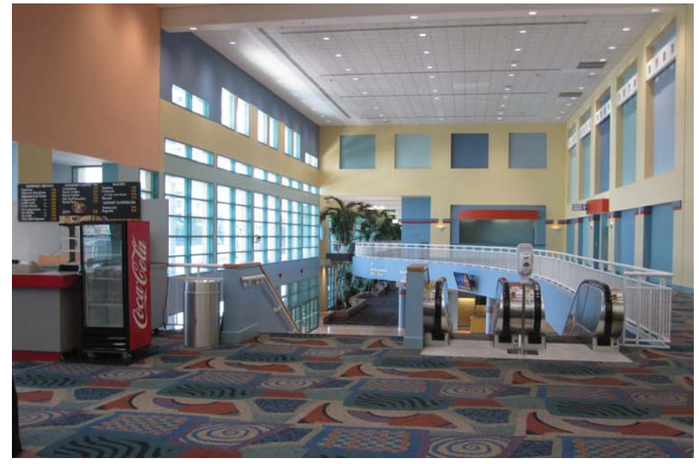
MBCC West Second Floor Pre-function

MBCC Ballroom

MBCC Service Corridor

MBCC West Second Floor Pre-function

MBCC East First Floor Pre-function



MBCC East Second Floor Pre-function

MBCC Service Corridor

MBCC Floor Boxes

to include it within the program for the sake of the standard rooms in the typical inventory. It was agreed that it might be best to give up that small amount of business and allow other local venues like business hotels or dedicated conferencing centers adjacent to small limited service hotels (Programming).

- Outdoor venues can be positive in our south Florida climate but they would have to incorporate functions to make them successful rather than burdensome. This includes:
  - Intermittent shade or sun protection
  - Proximity to an indoor function space in case of inclement weather
  - Proximity to support services
  - Controlled ventilation
  - Easy to operate and storm-friendly design including furnishings
- Further research should be done to accommodate special groups like medical (refrigeration), art/jewelry (secure storage), cooking on exhibit floor (code ramifications) and accommodations for sports teams (locker rooms, lighting, etc. (Programming)
- Service corridors should be wide enough for circulation, required fire egress widths and short-term storage or staging. (Functionality)
- Ample storage areas should be provided for mainly the chairs as tables are often left in the rooms. (Functionality)
- The typical meeting room module should be about 30’ x 60’ or 1,800 SF to fit approximately 150 people in theater (classroom) style seating. (Functionality)
- Avoid too many small rooms, or divisions within the larger ballrooms as small spaces with two or more movable walls and inordinately high ceilings are not desirable. (Functionality)
- Provide adequately sized freight elevators (10’ x 20’ x 10’h) with clear access including turning radii in pathways. (Functionality)
- Food & Beverage options should vary; trade shows prefer F&B areas within the exhibit floors for quick, short-term access while other groups with more meeting space requirements would also find a remote food court with a variety of options attractive as well. (Functionality)

- Consider high bay access to all halls from loading areas in the perimeter and possibly between halls. Special accommodations may be needed for the Boat Show or other high clearance exhibitory. (Functionality)

- Natural lighting can be considered on some halls and meeting rooms but the ability to control the light is always a requirement as a dark room is typically preferred. (Functionality)

- State of the Art connectivity and Information Technology systems (IT) need to be identified and accommodate as much as practicable. A district-wide “hot-spot” should be researched with the City IT department and current broadband carrier for potential options. (Functionality)

- The size of the exhibit hall expansion at nearly 1MSF was deemed appropriate as the next logical step would be to 1,350,000 SF which is beyond our footprint unless we consider a stacked exhibit halls. This was deemed illogical for the current site logistics. (Big Vision)

- The availability of a variety of nearby parking options was reiterated. (Big Vision)

- The success of expanding the Center into a district would depend on the success of the new open central court and the ability to filter through the municipal parking garage to the Lincoln Road shopping areas. The team needs to explore how to affect the edges to allow improve accessibility as well as possibly through the garage itself. (Community)

- The central courtyard should be shared open space to all its adjacencies (The Fillmore, NWS, City Hall) and programming should be created to take advantage of it. (Community)

- The impact of the large and tall expansion space on Meridian Avenue. Although absent now, care should be taken to improve pedestrian usage and by providing ample width, shade and protection from driveways. (Community)

- The entries to both the Botanical Garden and Holocaust Museum need to be analyzed in detail to separate vehicular and loading functions and retain or reinstate an improved approach and entry. (Community)

- Additional synergies between the Garden and the Center need to be explored as the merging of an outdoor venue can be an interesting bonus if handled correctly. The face of the connection between the facilities needs to be studied so that the Garden does not sense the visual and acoustical aspects of the loading and proximate vehicular traffic and a green edge can be installed and maintained. (Community)

MIami Beach Convention Center Exhibition Hall

Existing Outdoor Plaza

View South on Meridian Avenue from 18th Street

View North on Meridian Avenue from 17th Street

City Of Miami Beach City Hall

3.3.4 CITY STAFF MEETINGS

The design team met with several of the City's departmental staff to review the project analysis and conceptual design progress.

The City of Miami Beach departments include:

- Planning and Zoning
- Parking / Traffic
- Public Works
- Fire Department / Life-Safety, Sustainability
- Engineering (LEED Workshop)

A summary of the various discussion points include:

- Sensitivity to the adjacent neighborhoods is important as the Center abuts both commercial and residential neighborhoods. (Planning & Zoning)
- New or planned expansion into open space in and around the Parks & Recreation Building and adjacent historic structures should complement those functions and help promote the Canal Walk and connection to the Bass Museum to the east. (Planning & Zoning)
- Consider the current place placement of bus stops and consider their incorporation into the site design as well as a possible transfer station. (Planning & Zoning)
- Consider a portion of two-way traffic along the new Center frontage street (18th Street) to allow for garage access from the east. (Planning & Zoning)
- A more comprehensive transportation study of the immediate area should be undertaken to review the impacts to affected intersections. (Planning & Zoning)
- Develop drop-offs along new frontage road for unloading and thru-traffic. (Planning & Zoning)
- Consider signalization scheme at loading and visitor parking exit at Meridian Avenue to insure public safety. (Planning & Zoning).
- Consider an accessible service tunnel along current Convention Center Drive rather than a complete re-location and to allow for future utility servicing under the expansion building. (Public Works).

- Existing 8-in. force main should be upgraded to 24-in. for a short distance to James. Existing lift station can remain. (Public Works)
- Design for a fire water loop around the facility with hydrants spaced in accordance with the Fire Marshall. (Fire Dept)
- Decision to retain existing transformer vaults and add to them as necessary is recommended so that the redundant feeds can be retained. (Public Works)
- Review program and capacities with local service provider to receive current conditions and review telecom and IT options for Broadband/Wi-Fi/Fiber. (Public Works)
- New parking requirement should be the same or better than the existing ratio of exhibit space to available spaces. (Parking)
- The east edge of the existing municipal garage will be upgrade in the near future and should accommodate new pedestrian flows to Lincoln Road within the design. (Parking)
- Allow the ability for fire trucks to be able to enter, drive through and exit the proposed service drive at grade. (Fire Department)
- Consider providing remote parking pay stations along the new frontage road to alleviate attendant usage in garages.
- Recommend the use of occupancy sensors/counters along main ramps to improve garage flows rather than have visitors enter fully occupied side aisles. (Parking)

Walk on Collins Canal

View West on 17th Street

Miami Beach Convention Center FPL Transformer and Electrical Vault Room

17th Street Parking Garage

Public Workshop

Public Workshop

Public Workshop

3.3.5 COMMUNITY MEETINGS

Meetings with residential, cultural and institutional neighbors have occurred and are ongoing. Some of these groups include:

- Major Hoteliers
- Collins Park Neighborhood Association
- New World Symphony
- Miami Beach Botanical Garden
- Palm View Neighborhood Association
- Holocaust Memorial

A Community Design Workshop (CDW) was held at the MBCC the evening of May 13, 2010. The City of Miami Beach and the MBCC Expansion Master Plan design team made a presentation to the public about the intent and proposed design of the Master Plan (which is available on the City of Miami Beach website). Members of the public had the opportunity to make comments and ask questions of the participants. A video of the CDW is available on the City of Miami Beach website and minutes are included in Appendix A.

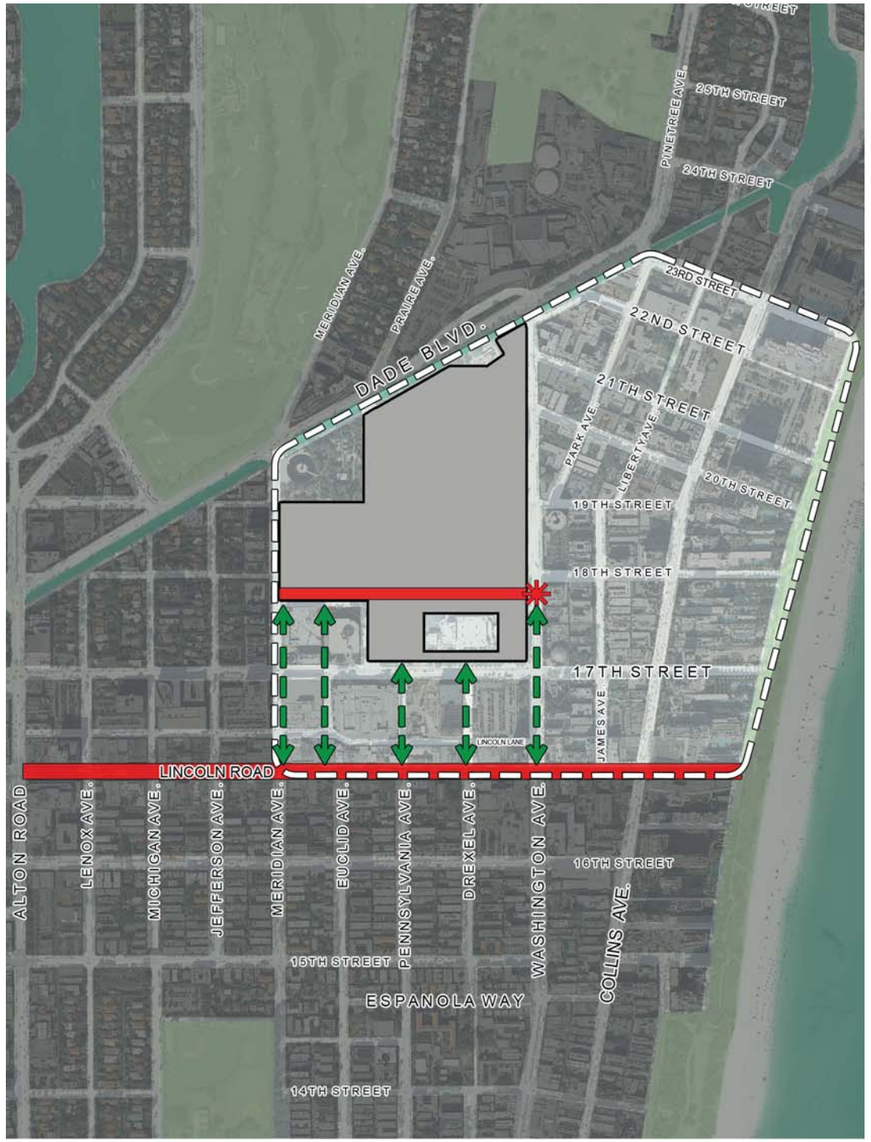
Issues and comments discussed in these meetings include:

- The schedule and phasing of construction and amount of continuous disruption is a concern and needs to be minimized and plans communicated.
- The shared courtyard space should be an important civic gathering space for several adjacent buildings. (NWS)
- Review current position of bus transfer station and possible relocation. (Hoteliers)
- Additional traffic, noise and fumes need to be considered along the edge of the new loading docks and parking above. (MBBG)
- The access to the existing Holocaust Memorial parking lot should not be impacted. (HM)
- Review the height of the new building for view impact and shadow impact in relation to its neighbors to the north and west. (PVNA, HM).
- A headquarters hotel in the northern site can be planned to share its open spaces with the historic buildings and energize the Canal Walk, possibly diverting visitors to the northeast portion of the site and promote the connection to the venues in that area including the Bass Museum.
- A future headquarters hotel to the south has more area to layout its required program and can be a good segue to the side streets towards Lincoln Road, if the ground floor contains public amenities like retail and restaurants.

4

PROJECT IMPLEMENTATION

4.1 PROPOSED MASTER PLAN SITE DESIGN



MIAMI BEACH CONVENTION CENTER
MASTER PLAN EXPANSION

PROPOSED
ORIENTATION

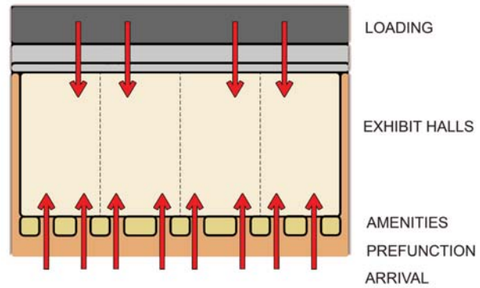
The approach to the design of the Miami Beach Convention Center Expansion Master Plan started with reviewing the various influences between the surrounding city and the MBCC, as discussed in Section 3.2. The existing MBCC is oriented to the east on Washington Avenue, which is where its original entry was located, and to the west on Convention Center Drive, which is where the entries of the added Halls C and D were located during the 1980s expansion. The current reality is that these entries don't relate to the surrounding city leading the design team to reconsider the orientation of the building entry.

The principal means of integrating the MBCC with the surrounding city is to have its frontage be to the south, since the shortest distance to Lincoln Road is to the south. This enables the conventioneers to easily filter to and from a pedestrian street that provides the visitors with amenities and easy access to the many other uniquely Miami Beach locations such as the beach and other venues. A close relationship between the MBCC entry and Lincoln Road also provides the local businesses with a large and varied clientele. Since the hotels and beach are to the east it is logical to have the primary entry focus to the southeast, closest to the conventioneers' principal destinations.

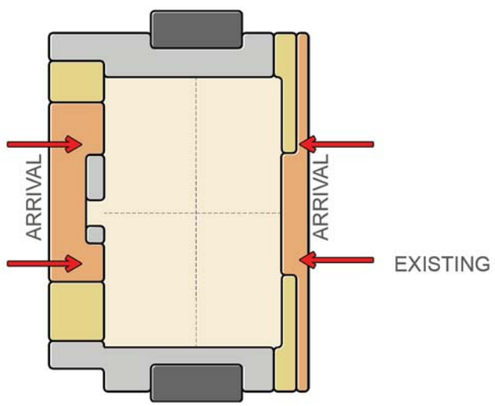
As shown in the Proposed Orientation diagram, the master plan design for the MBCC expansion re-orients the building to have the entry along the south side with the existing Washington Avenue entry as a secondary access that is connected to the principal south entry. This eliminates the confusion of the existing entries on two opposite sides of the MBCC. The new entry drive is accessed from the southeast corner on Washington Avenue.

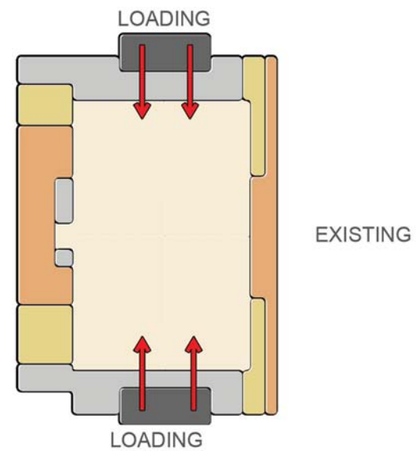
The new entry on the south side also is better oriented from a sustainable point of view, since the southern exposure will have less light and heat coming into the glazed pre-function areas. The deep overhangs provide the dual function of covering the entry drop-off area and shading the glass façade.

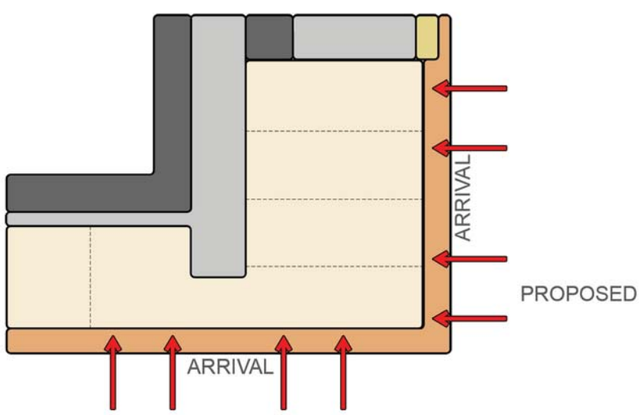
The MBCC is a large economic engine for the city and its visitors are a large potential market and should go into the city and consume. The underlying strategy for the master plan design of the MBCC expansion is to encourage the flow of people between the MBCC and the city.



OPTIMAL FLOW DIAGRAM



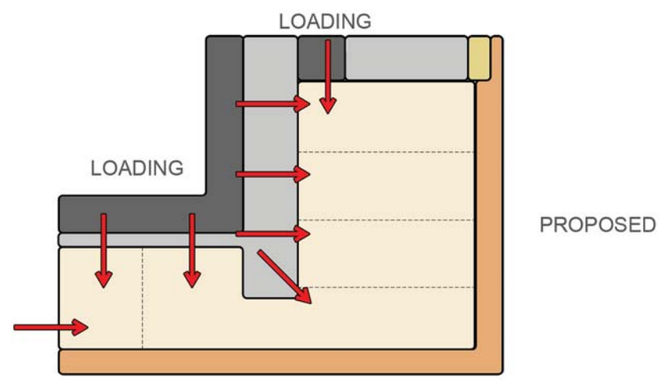




MIAMI BEACH CONVENTION CENTER
MASTER PLAN EXPANSION

ARRIVAL ACCESS
ANALYSIS

BALLROOMS
HALL
VERTICAL CIRCULATION
FOOD
LOBBY
BACK OF HOUSE
MEETING
EXISTING
FRONT OF HOUSE



MIAMI BEACH CONVENTION CENTER
MASTER PLAN EXPANSION

LOADING ACCESS
ANALYSIS

BALLROOMS
HALL
VERTICAL CIRCULATION
FOOD
LOBBY
BACK OF HOUSE
MEETING
EXISTING
FRONT OF HOUSE

4.2 PROPOSED BUILDING MASTER PLAN

As part of the planning for the Miami Beach Convention Center Expansion the design team looked at the fundamentals of planning of a convention center. They are generally organized around an arrival zone which has to have enough lanes to disembark people from their buses, vans and taxis quickly and efficiently without interrupting traffic. It is also important to have a proper pre-function area through which one traverses to amenities such as restrooms, elevators and fire stairs, into an exhibit hall that is sub-divisible depending on the size of the event. The exhibit hall is typically serviced by loading docks and receiving areas and other services at the other end of the facility. Generally these services are linear and located at the other side from the visitor entry and pre-function area as shown in the Typical Arrival / Loading diagram.

The MBCC is not organized in the typical industry standard as a result of its earlier expansions which added halls by mirroring the original halls. The building also has two different service/loading zones, one at the north end and one to the south, next to the Jackie Gleason. The four exhibit halls are sub-divided into a square with a cross-shape divider so that there are also two pre-function space and therefore two front doors. For a visitor this is confusing as to which entry to use. If the hall is on the opposite side, the Skywalk was built so visitors can walk up and over the exhibit halls to the other entry and pre-function. The existing MBCC with its two entries also doesn't have a clear dedicated drop-off, which was a principal issue the design team addressed in the master plan.

Part of the design process was to re-organize the MBCC to be more like the typical planning of the halls with arrival on one side and a continuous service zone on the other side. Since the expansion couldn't extend to the south of the existing MBCC site, the master plan design utilizes the large area of the on-grade parking to the west. This results in the pre-function and arrival being an L-shape that wraps around the existing halls and the additional halls. With this plan, there is a proper visitor drop-off area along a new dedicated drop-off avenue (the former 18th Street) on the south side and a secondary arrival on Washington Avenue. On the opposite side of the halls is a single unified loading/service area that can service in all directions. The Existing and Proposed Arrival diagram and Existing and Proposed Loading diagram illustrate the comparison of the existing organization of the halls in relation to their arrival and service zones.

The Existing Site Plan shows how the property is currently organized with some of the existing conditions such as the two loading docks on opposite sides, the two adjacent parking lots and the square exhibit hall arrangement. Since the master plan is the expansion of the existing MBCC and not a new design on an empty site, the existing conditions affected the planning significantly. The design team did an extensive analysis of the existing facility, such as electrical rooms and transformer vaults that can't be moved, utilities, pre-existing structural conditions and different floor levels that were already established. The intent of the master plan is to create a better, larger and more marketable convention center while maintaining the existing exhibit halls as well as visitor and service access to them so there is no interruption to the event schedule. There are many important aspects of the MBCC Expansion master plan project that the design process took into consideration from the visitors experience to the equally essential operational functioning.

N EXISTING SITEPLAN

0 150' 600'

75' 300'

LOBBY
HALL
EXISTING
BALLROOMS
MEETING ROOM
FOOD
VERTICAL CIRCULATION
FRONT OF HOUSE
BACK OF HOUSE

N

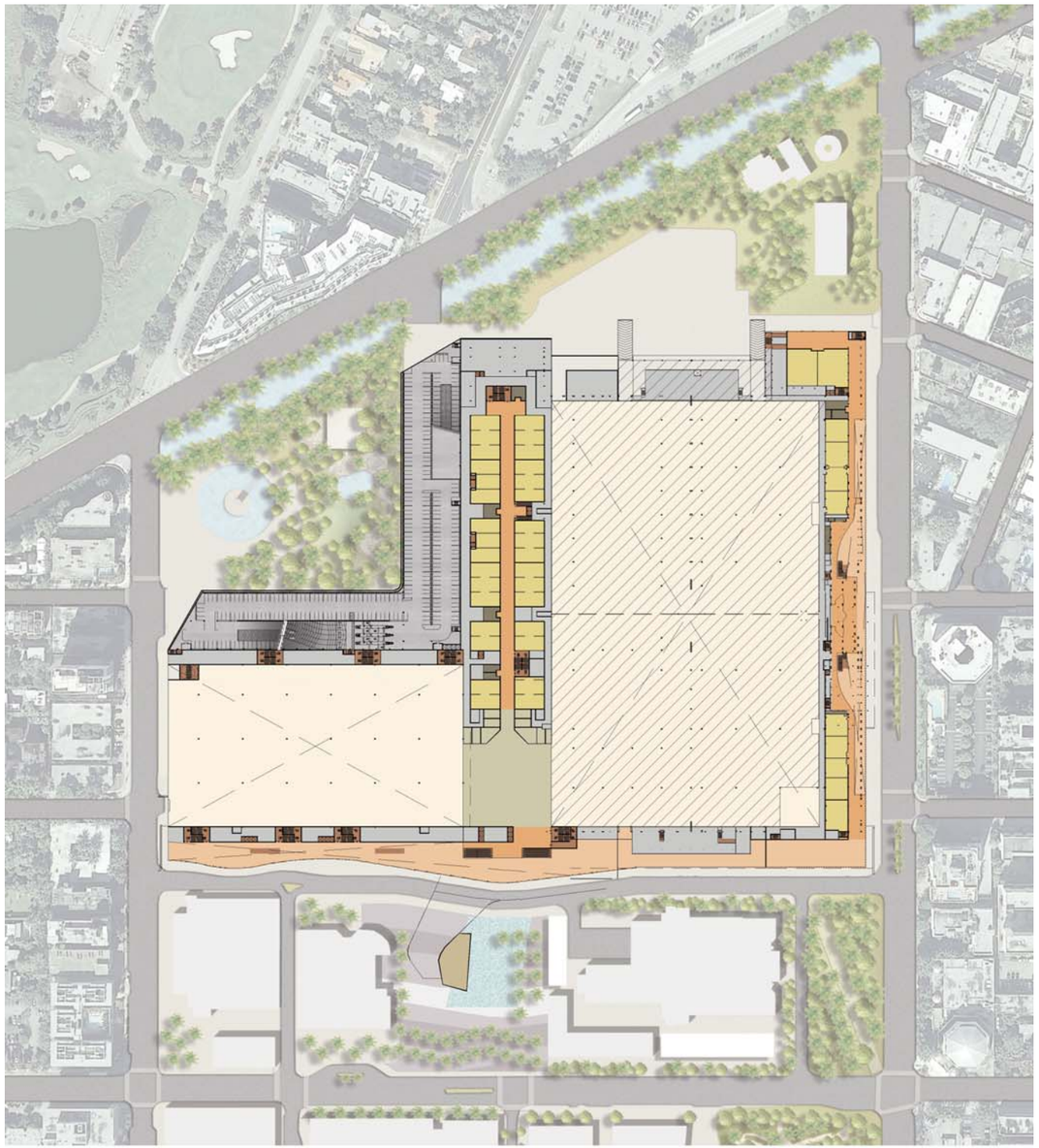
FIRST FLOOR PLAN

0 150' 600'
75' 300'

The cross-hatched area on the First Floor Plan of the master plan indicates the area of the existing exhibit halls but now in organized to be four rectangular halls that follow the classic planning diagram of arrival on side and service on the other side. On the east side of the existing halls is the renovated pre-function, which in its existing configuration is complicated with stairs and planters that make circulation difficult. The proposed plan is to eliminate the obstacles and make it easy for visitors to move from the arrival, through the pre-function to the exhibit halls. The new pre-function to the south accesses the existing halls as well as the new exhibit halls added to the west. The continuous pre-function on the south and east sides of the halls allows visitors to access all of the halls and the rest of the event facilities.

Additional loading docks on the other side of the exhibit halls were included in the master plan to meet the typical ratio of one per 10,000 SF of exhibit space. The current MBCC is deficient in loading docks in comparison to the ratio, which creates long waiting queues beyond the loading dock areas, invading areas that don't belong to the MBCC loading zone. This issue has been resolved in the master plan by having an increased number of loading docks that are concealed from the streets and neighbors. The loading docks are also covered so the exhibit materials are protected from the tropical rains. The back-of-house areas of the existing MBCC are also deficient, with complaints about the size of the kitchens and catering facilities, as well as staff locker rooms and staff facilities. The back-of-house facilities have been increased and upgraded so that the MBCC can function with the proper support to provide the optimal visitor experience of being efficient but invisible.

Running east-west above the center of the existing halls is a Skywalk that interrupts the clear height of the exhibit halls so that it requires accessing the halls from the north and south sides, creating another obstacle particularly for shows like the boat show. The proposed plan improves this situation by eliminating the Skywalk so the existing exhibit hall space is a large flexible space without any height restriction. Located above the transition between the existing and new exhibit halls, as per the Second Floor Plan, is a new mezzanine with a food court, which doesn't exist now in the MBCC and is typical in other convention centers.

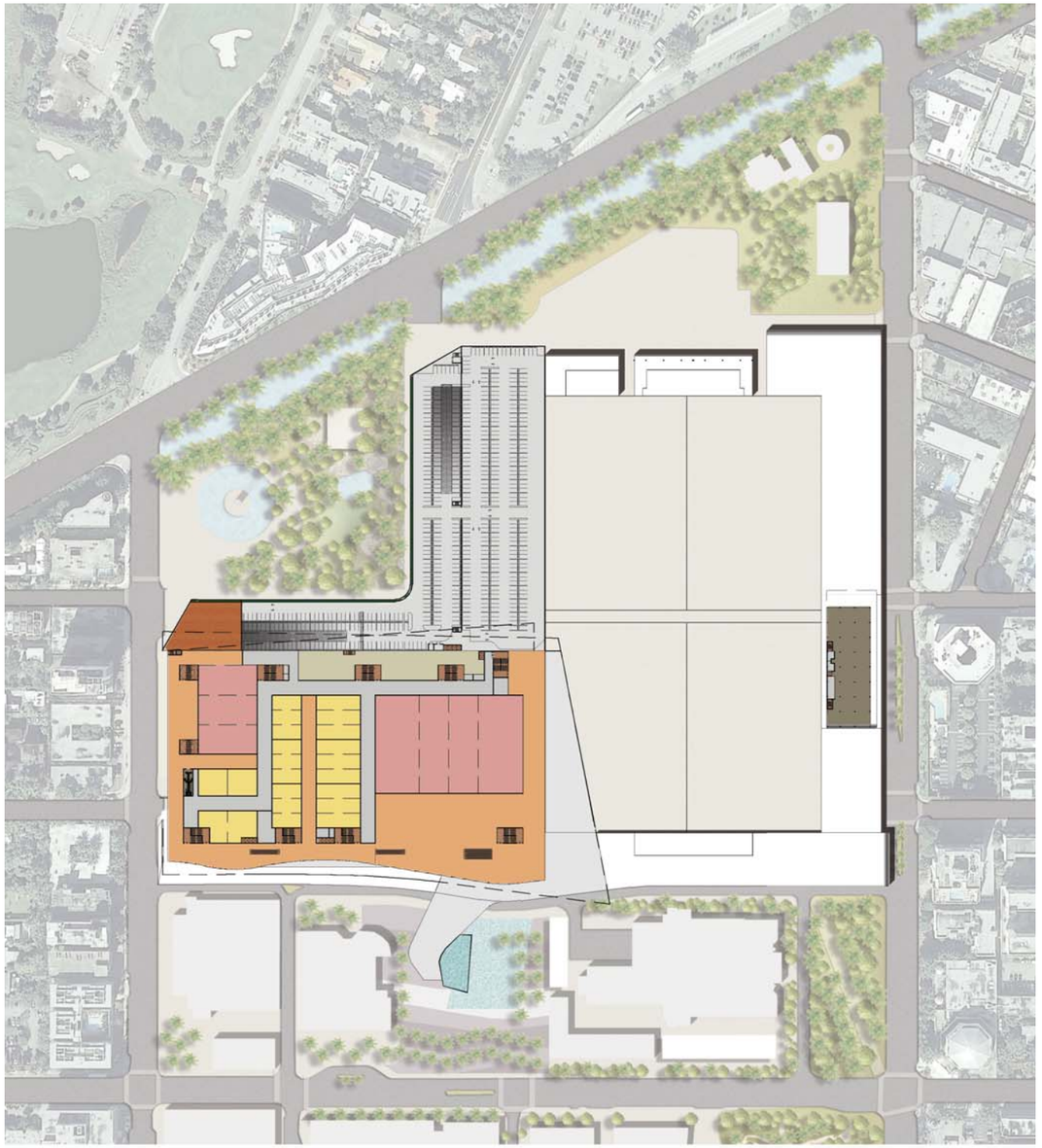


LOBBY
HALL
EXISTING
BALLROOMS
MEETING ROOM
FOOD
VERTICAL CIRCULATION
FRONT OF HOUSE
BACK OF HOUSE

N

SECOND FLOOR PLAN

0 150' 600'
75' 300'



LOBBY
HALL
EXISTING
BALLROOMS
MEETING ROOM
FOOD
VERTICAL CIRCULATION
FRONT OF HOUSE
BACK OF HOUSE

N

THIRD FLOOR PLAN

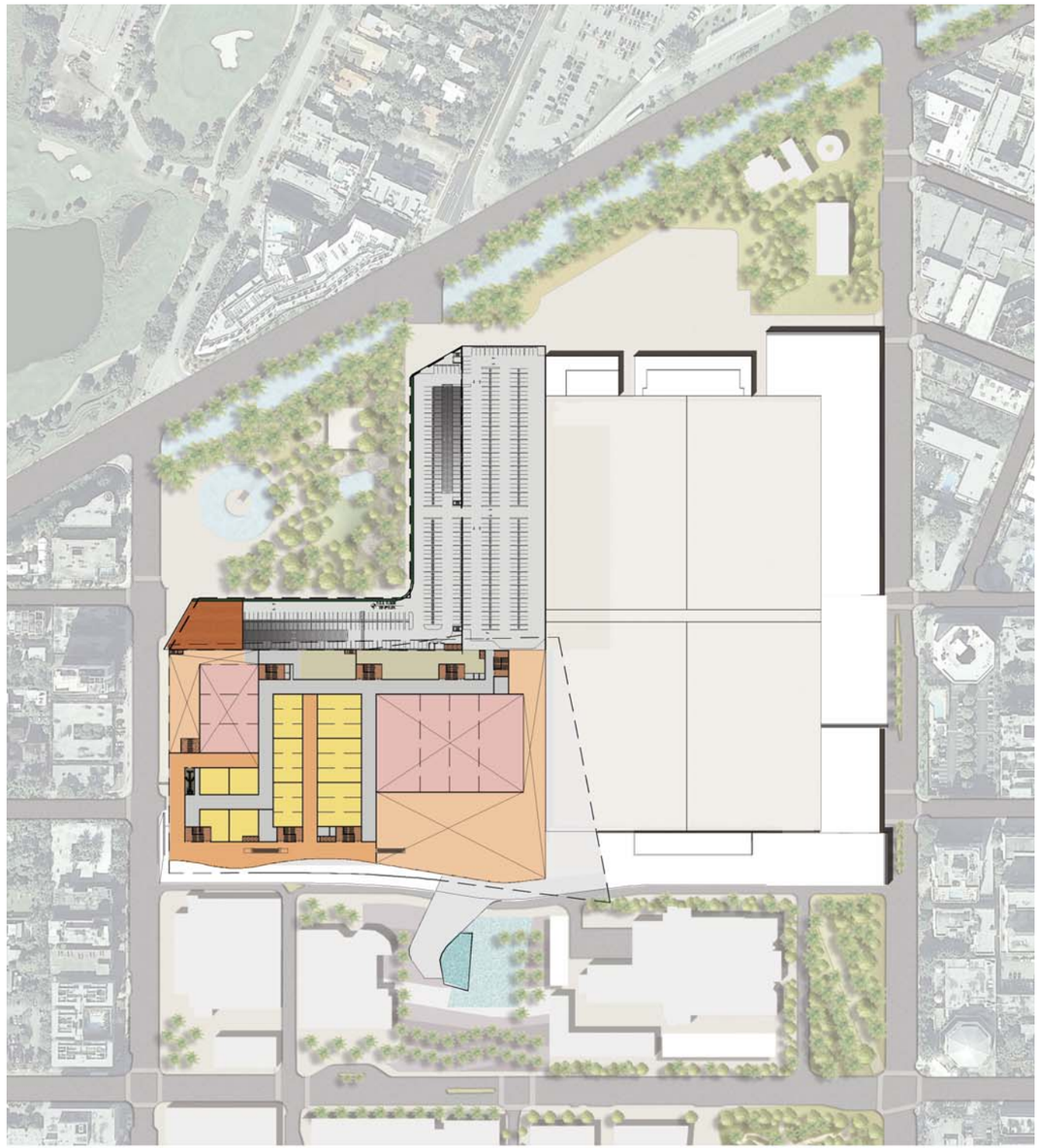
0 150' 600'
75' 300'

On the north and west interior sides of the expanded MBCC is the new garage that replaces the existing parking spaces on the two surface lots as well as providing additional spaces proportionate to the added exhibit area. The two existing surface lots currently provide 900 parking spaces and 160 parking spaces and will be replaced by the new garage with 1,500 parking spaces. This new public garage will feed directly to the expanded MBCC and will also be useful for visitors to the Holocaust Memorial, the Botanical Garden as well as the Little Theater and the Collins Canal landscaped pedestrian path to Collins Park. In comparison to the existing on-grade parking lots the new garage will have covered spaces providing protection from the heat and rain. The garage levels have planters along the perimeter that steps back at each level to create a landscaped façade that is an angled vertical extension of the landscaping in the adjacent Botanical Gardens and Holocaust Memorial.

The traffic engineers have studied the preliminary traffic patterns so that the garage entries have entry and exit configurations to ensure logical traffic flows with minimal impact to the surrounding traffic. The garage and traffic issues have been reviewed with Public Works, who had interesting ideas that have been incorporated into the design to deal with the garage access/egress. The traffic circulation for the bus and vans dropping off visitors was also studied, with the resulting entry drive having three lanes, one dedicated for the buses, one for passenger car drop-off and pick-up and the third for passing so there is minimal congestion. The goal of the traffic circulation was to locate all the drop-off and pick-up circulation on the new entry drive so that it doesn't interfere with traffic on Meridian and Washington Avenues. (Refer to Section 4.3.2 for Transporation)

One of the main issues that was the genesis for the MBCC redevelopment is that the existing MBCC doesn't have a multi-use / ballroom. This is unusual compared to all the other convention centers in the US. The CS&L report stated a minimum 50,000 square feet multi-use / ballroom is necessary to make the MBCC competitive. The **Third Floor Plan** of the proposed expansion locates a sub-divisible 60,000 square foot multi-use ballroom. The size and configuration of the proposed multi-use / ballroom is appropriate for the size of the expanded MBCC and is competitive with other convention center ballrooms. It has direct access from the garage, which allows people to conveniently arrive directly and reduces people having to cross the surrounding streets from other garages. It also encourages people going to a ballroom event to go to the upper levels of the garage instead of the lower levels. Also on this level is an additional 22,000 SF multi-use room for smaller events.

Additional meeting rooms that will support the exhibit hall activities for break out meetings, related seminars and business meetings are located at both the Third Floor and the Fourth Floor, addressing the need for more meeting room space by nearly doubling the amount of meeting space in the existing MBCC. The existing MBCC doesn't have enough meeting rooms in relation to the exhibit space so the expansion addresses this need. Convention centers continue to be important to our society because this is where people finally get to meet face-to-face and not just by e-mail, phone and video-conferencing. The expanded MBCC will represent the value of the human interaction that makes convention centers a thriving business.



LOBBY
HALL
EXISTING
BALLROOMS
MEETING ROOM
FOOD
VERTICAL CIRCULATION
FRONT OF HOUSE
BACK OF HOUSE

N

FOURTH FLOOR PLAN

0 150' 600'
75' 300'

N

ROOF PLAN

0 150' 600'

75' 300'

Both multi-use / ballrooms have pre-function spaces for gathering before the event, sized as per the industry standard to be about a third of the multi-use / ballroom area. Each pre-function space has an outdoor terrace to take advantage of Miami Beach's fine weather for an indoor-outdoor experience as well as natural light. The north pre-function has a terrace that overlooks the Botanical Garden and sunset view. The south pre-function space extends to the east and south, with views of the beach and the Art Deco district. The south terrace also overlooks a new public plaza where there is currently a surface parking lot at the corner of 17th Street and Convention Center Drive.

The new plaza will become the main square of the City. It is not only an anteroom and forecourt to the expanded MBCC but also to City Hall on its west side, creating a ceremonial and functional space for the city that can have events coordinated with those at the neighboring New World Symphony. In the center of the plaza, supporting the extended terrace above, is a restaurant pavilion that will animate it with outdoor tables and dining, like a Mediterranean piazza, with friendly pedestrian activity. The plaza also opens up the expanded MBCC entry area to the south and access to Lincoln Road along the arcade and shops that front the garage on Pennsylvania Avenue. The plaza will be landscaped and have a reflecting fountain, evoking South Florida's natural geography of vegetation and water. The reflecting fountain is proposed to be a shallow sheet of water, mirroring the natural environment of Miami Beach. The fountain can also be easily drained to become a large plaza animated by public events.

In addition to the central plaza, at the corner of Washington Avenue and 17th Street, our established access 'hub', there is a diagonal pedestrian path that takes people across a new park to the new MBCC entry. Arriving by vehicle, the entry is accessed from Washington Avenue with the desired linear drop-off that has a small bend, which addresses the practical aspect of keeping the existing transformer vaults while also making an interesting form in both the entry drive and the building.

The roof plan shows the various building heights, from the existing exhibit hall roof at about 50 feet, with a high point of 60 feet along Washington Avenue that drops down to 35 feet at other areas. The new building goes up to the maximum height of 100 feet where the multi-use / ballroom is located above the new exhibit halls. The new building drops to 50 feet for the parking garage along the sides of the Holocaust Memorial and the Botanical Gardens. Shadow studies done to analyze the impact to the neighbors led to dropping the height of the garage to the proposed 50 feet. From the east the sun is more horizontal so the 50 foot height has longer shadows in the morning while to the south, where the sun is more vertical, the shadows don't extend as far. There is a canopy, lower than the main roof, for the drop-off at the top level of the garage and the north event terrace, as it overlooks the Holocaust Memorial, Botanical Gardens

MIAMI BEACH CONVENTION CENTER
MASTER PLAN EXPANSION

VOLUMETRIC STUDY
VIEW FROM SE

MIAMI BEACH CONVENTION CENTER
MASTER PLAN EXPANSION

VOLUMETRIC STUDY
VIEW FROM NW

MIAMI BEACH CONVENTION CENTER
MASTER PLAN EXPANSION

VOLUMETRIC STUDY
VIEW FROM SW

MIAMI BEACH CONVENTION CENTER
MASTER PLAN EXPANSION

VOLUMETRIC STUDY
VIEW FROM NE

MARCH 21

9:00 AM

12:00 PM

6:00 PM

JUNE 21

9:00 AM

12:00 PM

6:00 PM

SEPTEMBER 21

9:00 AM

12:00 PM

6:00 PM

DECEMBER 21

9:00 AM

12:00 PM

6:00 PM

and over to the City Golf Course.

The Volumetric Study views show the first analyses of the building heights as well of the new terrace and garage, the existing exhibit hall, the new construction and the new plaza. These views also show the connections of the MBCC to the surrounding city. The connections to Lincoln Road are through all the north-south streets—Washington Avenue to the corner park and new entry, Pennsylvania Avenue that connects to the new plaza in the middle, Meridian Court and Meridian Avenue. The other views show the relationship to the neighbors, with the building massing stepping down as per the shadow studies to the Holocaust Memorial, Botanical Garden, Collins Canal, Little Theater and community center.

The building sections show how the new loading is hidden under the garage so that loading activity is out of the way and invisible from the neighbors. The parking garage is also screened with perimeter planters that step back so that at each level the cars are not seen and the overall massing of the garage is low, as per the sun study and sight-line analysis. The sections also show the vertical organization of the existing and new exhibit halls, meeting rooms, multi-use /ballrooms and other building functions.

The building elevations show the vertical fins and overhangs that are direct solar protection elements on multiple facades. In the South Elevation the line of the roof wraps around and creates a canopy over the drop-off for protection from the rain and sun and then continues to be the overhang for the pre-function terrace above. The East Elevation along Washington Avenue shows how 18th Street is on axis with the gap between the two lower roof elements as the building drops down to 35 feet as it extends to the north. Along Meridian Avenue the curving forms on the West Elevation separate to create a portion of the façade that has greater height to provide access to the exhibit halls for the boats during the boat show. The garage planters are seen on the North and West Elevations, cascading down to the Botanical Garden and Holocaust Memorial.

The aerial rendering views of the project show the pre-function terraces overlooking the plaza to the south and the Holocaust Memorial and Botanical Gardens to the north. The pedestrian level rendering view from the new plaza shows the waterfall from the terrace above into the reflecting fountain, with the canopy extending to protect the cars at the drop-off area. Through the transparent skin can be seen the escalators inside that bring visitors from the entry pre-function to the upper levels. The pedestrian level view of the drop-off also shows the new pre-function at the entry level that accesses the existing exhibit halls as well as the new exhibit halls and up to the upper level multi-use /ballrooms, a critical component in making the expanded MBCC successful.

NORTH FROM DADE BLVD

0 25 50 100 200

EAST ELEVATION FROM WASHINGTON

0 25 50 100 200

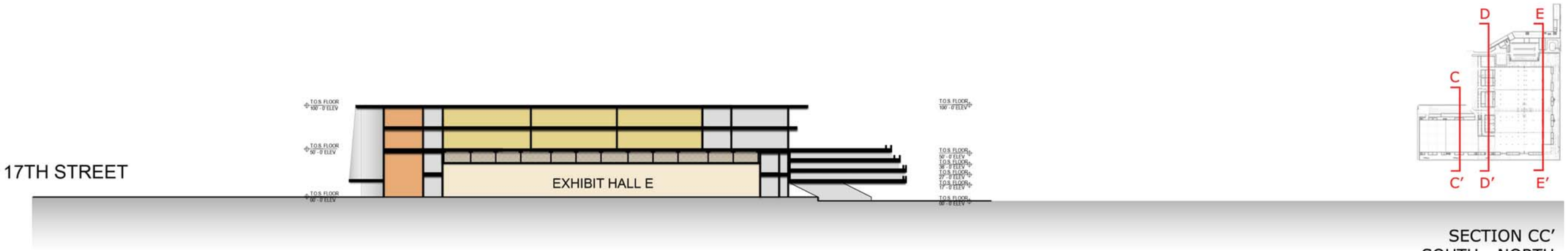
WEST ELEVATION ALONG MERIDIAN

0 25 50 100 200

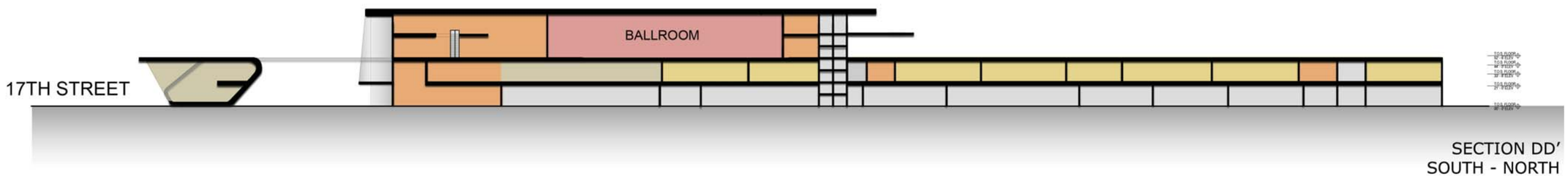
SOUTH FROM “18TH STREET” (ENTRY DRIVE)

0 25 50 100 200

FINAL DRAFT



SECTION CC′
SOUTH - NORTH



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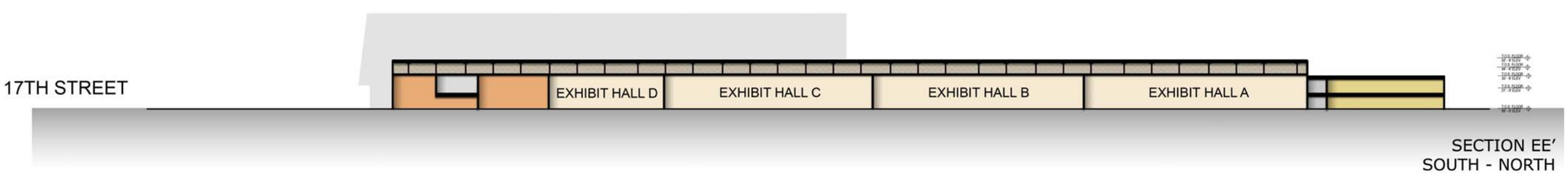
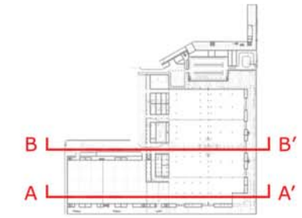
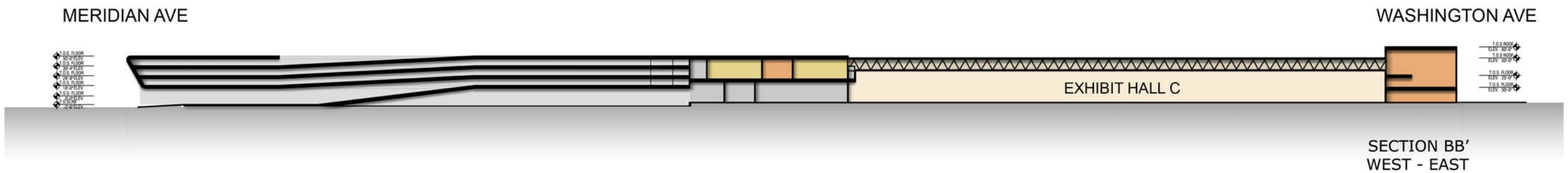
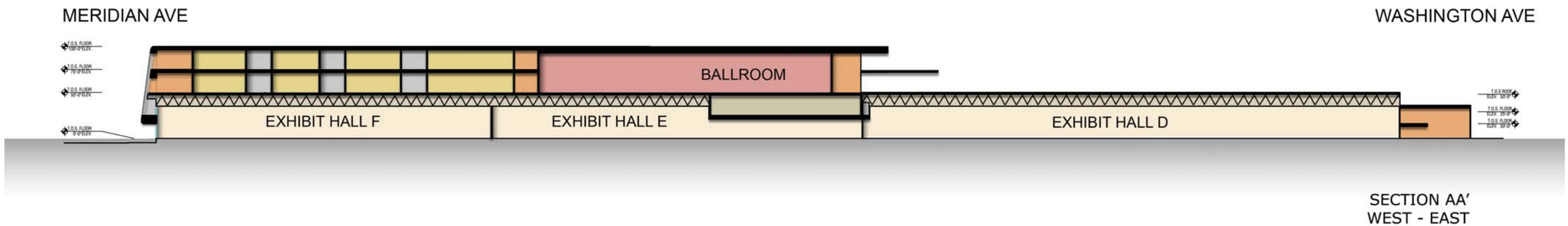
SOUTH - NORTH



SECTION EE′
SOUTH - NORTH







MIAMI BEACH CONVENTION CENTER MASTER PLAN EXPANSION

0 25 50 100 200

SECTION

- BALLROOMS
- HALL
- VERTICAL CIRCULATION
- FOOD
- LOBBY
- BACK OF HOUSE
- MEETING
- EXISTING
- FRONT OF HOUSE

AERIAL VIEW FROM WASHINGTON AVENUE

AERIAL VIEW FROM DADE BOULVARD

PLAZA VIEW FROM 17th STREET

ENTRY DRIVE VIEW FROM WASHINGTONG AVENUE

FACILITY SUMMARY AREA TABULATION, EXISTING AND PLANNDED

LEVEL / FUNCTION	EXISTING AREA BY FUNCTION	EXISTING AREA BY LEVEL	PROPOSED TOTAL AREA BY FUNCTION	PROPOSED TOTAL AREA BY LEVEL	DIFFERENCE
Level 1:		**849,483 SF**	715,197 SF (6 Halls)	1,213,921 SF	364,438
Exhibit Halls	*502,098 SF (4 Halls)*		715,197 SF (6 Halls)		213,099
Meeting Rooms	*68,131 SF*		11,919 SF		-56,212
Lobby / Pre-Function	*107,619 SF*		166,072 SF		58,453
Concession / Food Court	*7,450 SF*		2,478 SF		-4,972
Food Service Kitchen / Storage	*4,238 SF*		0		-4,238
Front of House Support	*18,500 SF*		17,661 SF		-839
Back-of-House / Service	*126,388 SF*		273,710 SF		147,322
Vertical Circulation	*15,059 SF*		26,884 SF		11,825
Level 2:		**298,320 SF**		389,086 SF	90,766
Meeting Rooms	57,768 SF		86,826 SF		29,058
Lobby / Pre-Function	55,708 SF		39,120 SF		-16,588
Front of House Support	26,494 SF		36,451 SF		9,957
Concession / Food Court	0 SF		43,200 SF		43,200
Food Service Kitchen / Storage	3,408 SF		4,475 SF		1,067
Back-of-House / Service	154,942 SF		161,624 SF		6,682
Vertical Circulation	0		17,390 SF		17,390
Level 3:		**15,000 SF**		362,738 SF	347,738
Meeting Rooms			54,895 SF		54,895
Ballrooms			81,600 SF		81,600
Lobby / Pre-Function			126,490 SF		126,490
Food Service Kitchen / Storage			18,531 SF		18,531
Front of House Support	15,000 SF (Admin. Office)		21,716 SF		6,716
Back-of-House / Service			47,575 SF		47,575
Vertical Circulation			11,931 SF		11,931
Level 4:		**0 SF**		159,564 SF	159,564
Meeting Rooms			54,160 SF		54,160
Lobby / Pre-Function			36,661 SF		36,661
Front of House Support			1,038 SF		1,038
Back-of-House / Service			58,480 SF		58,480
Vertical Circulation			9,225 SF		9,225
TOTAL AREA:		**1,162,803 SF**		2,125,309 SF	962,506

Note, not included in the above Proposed Area are the new 6,300 SF restaurant and a total of 28,900 SF retail, which are to the south of the expanded MBCC in the new plaza.

PARKING LOCATION	EXISTING PARKING	EXISTING EXHIBIT AREA	PROPOSED PARKING	PROPOSED EXHIBIT AREA
Proposed MBCC Garage			1,498 Spaces	
CMB P-Lot (On-Grade)	900 Spaces		Removed	
CMB 17th Street Garage	1,460 Spaces		1,460 Spaces	
TOTAL MBCC PARKING SPACES	**2,360 SPACES**	502,098 SF	**2,958 SPACES**	**715,197 SF**
PARKING RATIO	*1 Space per*	*213 SF*	*1 Space per*	242 SF
ADDITIONAL NEARBY GARAGES				
CMB 1775 Merician City Hall Garage	650 Spaces		650 Spaces	
CMB 17th St. / Convention Center Dr.	160 Spaces		Removed	
NWS Parking Garage	580 Spaces		580 Spaces	
TOTAL PARKING SPACES	**3,750 SPACES**		**4,188 SPACES**	
PARKING RATIO	*1 Space per*	*134 SF*	*1 Space per*	171 SF

Additional Program Spaces	
Exhibit Halls	213,099
Meeting Rooms	81,901
Ballrooms	81,600
Lobby / Pre-Function	205,016
F&B	38,228
Front Support	16,872
Back Support	260,059
F&B Support	38,962
	315,893
Additional Car Spaces	438

4.3 FUNCTIONAL REPORTS

The Miami Beach Convention Center Expansion Master Plan design team addressed the functional aspects of the new facility while developing the planning issues since the strength of a design is in the details as well as the overall concept. For a large convention center to be successful, the behind-the-scenes operations need to be carefully studied so that they have sufficient space and are fully coordinated with the final project. These are all important aspects of the project that the design process took into consideration.

The following sections describe the systems that were developed and coordinated with the overall design of the expanded MBCC, to the extent feasible during the Master Plan phase. The design team consultants have studied the existing facility (as discussed in Section 3.3) in relation to the expanded program and estimate the scope of the systems for the expanded MBCC. The intent of these Functional Reports is to anticipate as many aspects of the expanded MBCC project that will need to be developed once it proceeds from Master Plan Phase to building design.

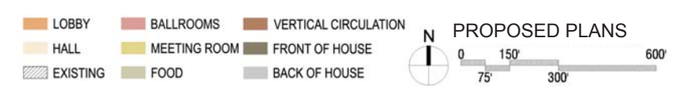
The scope of work addressed in these sections was included in the cost analysis that was prepared as part of the Master Plan (refer to Section 5).

First Floor Plan

Second Floor Plan

Third Floor Plan

Fourth Floor Plan



4.3.1 CIVIL / UTILITY WORK

The following is a summary of our preliminary review of the documents provided to date. KHA is requesting further as-built information on 17th St. west of Convention Center Drive (CC Drive) and on Meridian Ave. north of 17th Street. Some utilities in these two rights-of-way may need to be upgraded to provide sufficient service to the expanded convention center.

ASSUMPTIONS:

Vertical clearance between the road surface and the ceiling of the proposed parking deck is sufficient for the City of Miami Beach PWks. Dept. to maintain proposed and existing utilities within 19th Street (between CC Drive & Meridian Ave.) and within CC Drive (between 19th St. & Dade Blvd.) under the proposed structure.

STORMWATER

- North Side of Convention Center – demolish existing drainage utilities under the proposed footprint and connect rain water leaders (RWL) for proposed expansion to existing piping that discharges into Collins Canal in various locations. The existing 30-inch stormwater transmission line to be demolished on north side of CC may require the existing transmission line on Washington Ave. to be replaced with a larger diameter pipe and a new outfall in the same location.

- CC Drive (between 19th St. & Dade Blvd.) – demolish existing catch basins and install new to collect runoff in proposed loading areas. Connect proposed RWL's on west side of CC to new piping and use existing Collins Canal outfalls NW of CC Drive.

- 19th Street (between CC Drive & Meridian Ave.) – demolish existing catch basins and install new to collect runoff in proposed loading areas. Connect proposed RWL's on west side of CC to new piping and use existing Collins Canal outfalls north of 19th St.

- Meridian Ave. (between 18th St. & 19th St.) – replace existing drainage with large diameter pipes which connect to existing catch basins on Meridian Ave. and transmit stormwater from the south half of the CC and 18th St. north to 19th St.

- 18th Street (between CC Drive & Meridian Ave.) – replace existing drainage with large diameter pipes which connect to existing catch basins on 18th St. and transmit stormwater from the south half of the CC west to Meridian Ave. Also, demolish stormwater piping connection to Parking lot to the north and reconnect the stormwater lines that run north to 18th St. from the City Hall.

- 18th Street (between Washington Ave. & CC Drive) – install new drainage structures and piping for new 18th St. roadway construction. Connect RWL's from south side of CC and connect the existing transmission piping (in existing surface parking lot) from existing 17th Street box culvert to new 18th St. drainage system.

- CC Drive (between 17th St. & 19th St.) – according to the City's information provided, no drainage utilities exist between 17th St. and 18th St. Existing roadway drainage utilities will be demolished. Existing RWL's that connect to the CC along CC Drive between 18th St. & 19th St. need to be rerouted to connect to proposed catch basins along 18th St. or the 19th St. loading area.

- General Comments – maintain all existing outfall connections to Collins Canal and existing connections to large box culvert on 17th Street. The impervious area remains relatively consistent for pre-construction and post-construction conditions. The local drainage authority (DERM) may require some additional pretreatment improvements to be installed prior to discharge into the Collins Canal outfalls.

POTABLE WATER

- North Side of Convention Center – replace existing water main, hydrants, and connections to CC with new proposed 12-inch minimum water main, hydrants per code, and new fire & domestic service connections where required. Connect to existing 20-inch water mains on both Washington Ave. and CC Drive.

- CC Drive (between 19th St. & Dade Blvd.) –maintain existing 20-inch water main. Demolish existing fire and domestic services and hydrants and add new as required.

- 19th Street (between CC Drive & Meridian Ave.) – install new 20-inch water main and hydrants per code to loop back to CC Drive at 18th St.

- Meridian Ave. (between 18th St. & 19th St.) – install new 20-inch water main and hydrants per code.

- 18th Street (between CC Drive & Meridian Ave.) – install new 20-inch water main, domestic services, fire services, and hydrants per code. Connect existing loop around City Hall and continue east along 18th Street.

- 18th Street (between Washington Ave. & CC Drive) – install new 20-inch water main and hydrants per code. Reconnect existing services and hydrants as necessary and tie into existing 20-inch main within Washington Ave.

- CC Drive (between 17th St. & 18th St.) – allow existing 20-inch water main to remain in its existing location and strategically design/install proposed planting/hardscape improvements over/around the existing water main utilities.

- CC Drive (between 18th St. & 19th St.) – demolish the existing water main and disconnect all existing services.

SANITARY SEWER

- North Side of Convention Center – demolish existing 8-inch gravity sewer and reconnect services from proposed CC expansion directly to existing gravity sewer within Washington Ave.
- CC Drive (between 19th St. & Dade Blvd.) – maintain the existing gravity sewer main in its existing location and modify lateral connections as required.
- 19th Street (between CC Drive & Meridian Ave.) – make minimal connections, if absolutely necessary to the existing gravity sewer main within 19th St. Reroute the existing north-to-south 30-inch force main west on 19th St. to Meridian Ave.
- Meridian Ave. (between 18th St. & 19th St.) – no proposed changes or new connections to the gravity sewer. Install relocated 30-inch force main.
- 18th Street (between CC Drive & Meridian Ave.) – install 30-inch force main along 18th Street and reconnect to the existing 30-inch main at the northwest corner of the City Hall property.
- 18th Street (between Washington Ave. & CC Drive) – extend the existing 8-inch gravity main west from Washington Ave. to make necessary lateral connections to the south side of the CC.
- CC Drive (between 17th St. & 18th St.) – maintain the existing 18-inch gravity sewer main in its existing location and strategically design/install proposed planting/hardscape improvements over/around the existing gravity sewer main.
- CC Drive (between 18th St. & 19th St.) – replace existing 18-inch gravity sewer piping between the existing manholes in 18th and 19th Streets with C-900 PVC and sleeve the main with a 24- inch C-900 PVC pipe, and allow the pipe to run under the building. Demolish the existing 30-inch force main.

GAS

To be determined. Typically, with a project of this magnitude, the local gas company will provide installation of mains and services to the project at no cost to the owner according to the owner's schedule.

ELECTRICAL

See page 138 for projected electrical expansion needs.

TELEPHONE / FIBER

Further discussion required regarding the extension of the high-speed fiber optic line from its existing location at Pennsylvania Ave. and Lincoln Lane to the CC.

PHASING OF CONSTRUCTION

Water, sewer, and drainage utility relocations will have to be substantially complete prior to construction of any structures in areas impacting those existing utilities.

17th Street Garage Traffic Analysis							
Time Period	Total Vehicles Per Day	P.M. Peak Hour Total	P.M. Peak Hour Entry Volume	P.M. Peak Hour Exit Volume	Traffic Percentage During P.M. Peak Hour	P.M. Peak Hour Entry Percentage	P.M. Peak Hour Exit Percentage
Average Convention Day	8,986	738	361	377	8%	49%	51%
Typical Weekday	5,450	448	196	252	8%	44%	56%
Converntion Traffic	3,536	290	165	125	8%	57%	43%
City Hall Garage Traffic Analysis							
Time Period	Total Vehicles Per Day	P.M. Peak Hour Total	P.M. Peak Hour Entry Volume	P.M. Peak Hour Exit Volume	Traffic Percentage During P.M. Peak Hour	P.M. Peak Hour Entry Percentage	P.M. Peak Hour Exit Percentage
Average Convention Day	1,676	199	10	189	12%	5%	95%
Typical Weekday	1,207	161	6	155	13%	4%	96%
Converntion Traffic	469	38	4	34	8%	11%	89%
P-Lot (1)							
	Total Vehicles Per Day	P.M. Peak Hour Total	P.M. Peak Hour Entry Volume	P.M. Peak Hour Exit Volume	Traffic Percentage During P.M. Peak Hour	P.M. Peak Hour Entry Percentage	P.M. Peak Hour Exit Percentage
Converntion Traffic	2,117	189	77	112	9%	41%	59%
Total Convention Center Traffic	6,122	517	246	271	8%	48%	52%
Total Convention Center Square-Footage	1,037,227						
Trip Generation Rate Per 1,000 Square-Footage	5.902	0.498	0.237	0.261	8%	48%	52%
Total Expansion Convention Center Square-Footage	2,151,433						
Proposed Site Expansion Trip Generation	12,698	1,072	510	562	8%	48%	52%

Note: (1) P-Lot in operation only during convention. P-Lot P.M. peak hour volumes were calculated based on peak hour data from City Hall Garage and 17th Street Garage.

TABLE 1: Trip Genearation Summary

4.3.2 TRANSPORTATION

TRANSPORTATION IMPACTS

The expansion of the Miami Beach Convention Center (MBCC) is anticipated to affect transportation conditions in the surrounding areas. The expansion of the facility will allow for events to occur with higher frequency and simultaneously as preparation/set-up for one event can be held as another event is occurring/torn-down. The proposed expansion will also alter parking supply/demand within the parking facilities in the area, and the proposed modifications to the existing street network will divert existing traffic to different roadways

Traffic Volumes

The proposed expansion represents an increase of approximately 200,000 square feet of exhibition area, 96,780 square feet of meeting space, and 60,000 square feet of ballroom space. Although the expansion will provide area for larger conventions/events, the increase in building area is not expected to increase the associated traffic volumes for a typical event. The increase will allow for events to occur with higher frequency as preparation/set-up for one event can be held simultaneously as an event is occurring/torn-down. Therefore, peak traffic volumes associated with MBCC events will occur more often throughout a calendar year after the venue is expanded.

Trip generation calculations are typically performed using the latest version of the Institute of Transportation Engineer's (ITE) Trip Generation Manual. However the Trip Generation Manual does not provide trip generation rates or equations for convention center and ballroom land uses. Therefore, trip generation calculations were developed based on an area parking utilization comparison. Trip generation calculations were developed based on the vehicular traffic accessing the nearby parking facilities including Surface Lot P, City Hall Parking Garage, and the 17th Street Parking Garage. A comparison of vehicles entering and exiting the nearby parking facilities on days when events occur and typical days when events were not in operation was made. The additional amount of traffic entering and exiting the parking facilities on days when events occur is expected to be a result of events at MBCC, as a result this traffic is assumed as the trip generation for the MBCC. The existing MBCC is estimated to generate approximately 517 peak hour trips. A trip generation rate per 1,000 square-feet was calculated based on the square-footage of the existing facility. This trip generation rate was then applied to the proposed expansion square-footage and results in an estimated trip generation of 1,072 P.M. peak hour trips. Table 1 summarizes the results of the comparison of vehicular traffic and convention center trip generation.

Parking Demand/Supply

The proposed expansion is expected to increase parking demand in the surrounding area as the frequency of events increases. However, the peak parking demand is not necessarily expected to increase at the same rate of the expansion. The most significant anticipated affect of the expansion is the increase in event frequency rather than an increase in event intensity. Furthermore, a new 1,498-sapce parking facility is proposed as part of the MBCC expansion.

Currently, parking for the MBCC is primarily provided by two (2) adjacent surface lots. The larger lot containing 900 parking spaces is located west of Convention Center Drive and to the south of 19th Street and the second lot is located east of Convention Center Drive and to the north of 17th Street. The subject surface parking lots will no longer be available for patrons once the expansion project is completed. A replacement 1,498-space parking facility will be constructed in the area of the 19th Street surface parking lot, providing direct pedestrian access to the MBCC. The proposed garage is expected to replace the existing parking demand for the existing MBCC facility as well as provide additional parking for the expansion. Vehicular access to the new garage is currently planned along Meridian Avenue at 19th Street. Current vehicular access to the Miami Beach Botanical Gardens and the Holocaust Memorial may be impacted as the result of this construction.

Traffic Patterns

In addition to the increased frequency of events and the change in traffic patterns associated with the relocation of the existing parking supply, several roadway network modifications are planned as part of the expansion project. The expansion proposes to eliminate public use of Convention Center Drive from 17th Street to Dade Boulevard. A portion of Convention Center Drive will remain from Dade Boulevard to the new facility to accommodate delivery vehicles. However, north-south through access will no longer be permitted. In addition, 19th Street between Meridian Avenue and Convention Center Drive will be eliminated as part of this expansion. This area is planned to accommodate the new parking facility for the site. The missing portion of 18th Street along the expansion's frontage from Washington Avenue to Meridian Avenue will be constructed. The expansion plan proposes for 18th Street to operate as a one-way westbound roadway from Washington Avenue to the existing north-south City Hall parking garage access road (aligning with Meridian Court) while two-way traffic will be maintained from this access road to Meridian Avenue. The plan also calls for the extension of the access road providing vehicular access from 18th Street to 17th Street.

As part of these traffic pattern changes, the truck delivery route for MBCC will be altered. Under existing conditions, loading docks for MBCC truck traffic are provided on the north and south side of the building. The north loading dock is accessible via Convention Center Drive and Washington Avenue. The south loading dock is only accessible via Convention Center Drive. The proposed master plan calls for an "L-shaped" loading area.

Proposed Delivery Truck Circulation Route

Deliveries will arrive through the intersection of Dade Boulevard and Convention Center Drive and exit at the intersection of 19th Street and Meridian Avenue. The trucks will exit on to Meridian Avenue northbound toward Dade Boulevard.

Summary

The planned expansion is anticipated to have significant transportation impacts within the vicinity of the project site. The increase in facility size is expected to increase the intensity and frequency of event traffic volumes in the surrounding area. The relocation of site parking areas/access points will alter traffic impacts in the area and will potentially increase traffic volumes along roadways such as Meridian Avenue. Additionally, delivery routing changes may require geometric improvements to roadways along the proposed route.

FUTURE TRANSPORTATION ANALYSIS

The impacts associated with the planning expansion will be addressed in future stage of project implementation. The following sections summarize the issues that require further examination.

Operational/Capacity Impacts

The most significant issue related to the proposed expansion project is the impact of the changes in traffic volumes and patterns along roadways and intersections in the vicinity of the site. Operational deficiencies created by the project's traffic should be addressed in a effort of provide adequate access and mobility for both residents and visitors.

At a minimum, a detailed operational/capacity analysis is recommended to include the following corridors: Meridian Avenue, 17th Street, Washington Avenue, and Dade Boulevard. At a minimum, it is recommended that the analysis examine the following intersections:

- Washington Avenue and Lincoln Road
- Washington Avenue and 17th Street
- Washington Avenue and 18th Street/18th Court
- Washington Avenue and 19th Street
- Washington Avenue and Dade Boulevard
- 17th Street and Meridian Avenue
- 17th Street and Meridian Court
- 17th Street and Convention Center Drive
- 17th Street and Pennsylvania Avenue
- Meridian Avenue and Meridian Court
- Meridian Avenue and 18th Street
- Meridian Avenue and 19th Street
- Meridian Avenue and Dade Boulevard
- Dade Boulevard and Convention Center Drive

A future operational analysis during a typical facility event peak hour will best identify the impacts associated with the expansion. It may also be informative to perform a similar analysis during the typical P.M. peak period to weekend night peak period to determine the impacts associated with average peak hour traffic conditions in the area.

In addition to an evaluation of the impacts associated with solely the expansion of the facility, it is essential that the operational analysis account for the changes to roadway network in the MBCC area, the relocation of parking supply, and the proposed MBCC truck delivery routes. These changes may have major impact of the operational characteristics of the intersections and roadways in which traffic patterns will change. Additionally, this analysis can identify the need for additional signalization at major intersections such as the proposed parking garage entrance along 19th Street and the extension of Meridian Court at 17th Street. Additional signalization and proposed street network modifications will need to be coordinated with Miami-Dade County's Public Works Department.

It is essential for improvements to account for these additional impacts are identified during the analysis process. Given the limited availability of right-of-way within the area, non-traditional improvements that increase the roadway network capacity should be evaluated. Improvements may include converting existing two-way streets to one-way operation, eliminating on-street parking to accommodate additional laneage, and improving infrastructure associated with alternative modes (i.e. pedestrian, bicycle, and transit). Although it is unlikely that the majority of patrons to the Convention Center will utilize these alternative modes, improvements to the infrastructure may reduce the number of single-occupant vehicles associated within residents and commuters in the project's vicinity.

Neighborhood Traffic Intrusion

The increase in both frequency and the intensity of MBCC event traffic may create unintended neighborhood traffic impacts. As roadways/ intersections become increasingly congested, motorists may choose to utilize neighborhood streets to avoid areas with excessive delay. As a result, future investigation of potential traffic intrusion in to adjacent neighborhoods such as Palm View is recommended. This investigation should evaluate the potential increase in traffic through residential streets and identify the appropriate required traffic calming countermeasures. Additionally, restrictive signage or neighborhood gateway treatments can be installed on the residential streets that intersect Meridian Avenue as a means to deter heavy vehicle (truck and bus) traffic from entering the residential area.

Improvements addressing the project's impact on local transportation network must not be limited to conventional roadway/intersection improvements as right-of-way limitations and the City's urban environment limit significant opportunity to increase roadway capacity. Therefore, it is recommended that future evaluation of the infrastructure associated with other modes (pedestrian, bicycle, and transit) be conducted in future stages of implementation.

Example Transit Superstop

Miami Dade Metro Bus

Miami Beach Deco Bike Rental Location

Pedestrians

An evaluation of both the existing and proposed pedestrian network is recommended for future implementation stages. The network evaluation should examine issues including both pedestrian connectivity as well as the pedestrian environment. Connectivity should address the availability of sidewalks to/from major pedestrian origins/destinations. A review of the pedestrian environment should include the frequency and quality of amenities including canopy trees, benches, etc. The connectivity evaluation should address sidewalks to the Holocaust Memorial and Miami Beach Botanical Gardens located at the southeast quadrant of Meridian Avenue and Dade Boulevard.

Bicycle Facilities

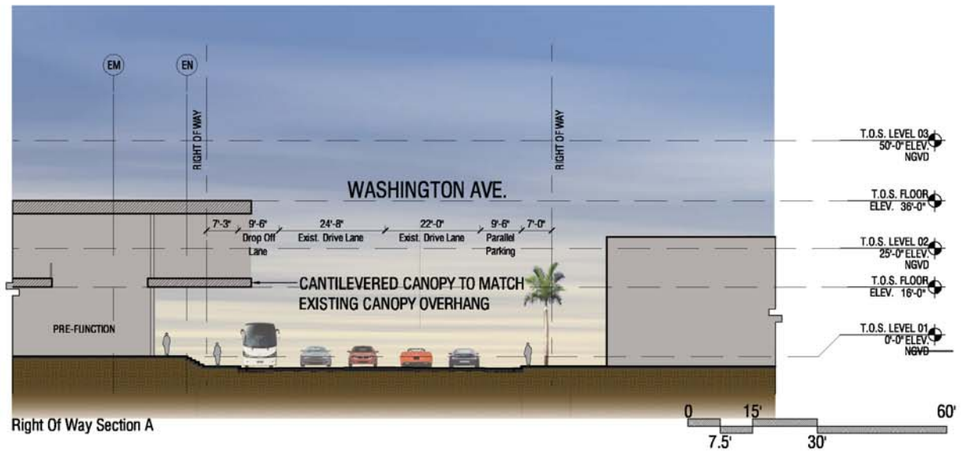
Future development stages of the expansion project should include an evaluation of existing and planned bicycle facilities along the corridors adjacent the site. The City's current bicycle network plan includes significant proposed facilities along 19th Street, Convention Center Drive, and Dade Boulevard that will be impacted by the proposed expansion. Further evaluation of these facilities may include the location of secure bicycle storage and bike rack for employees in and around the facilities to promote this alternative mode.

Public Transit

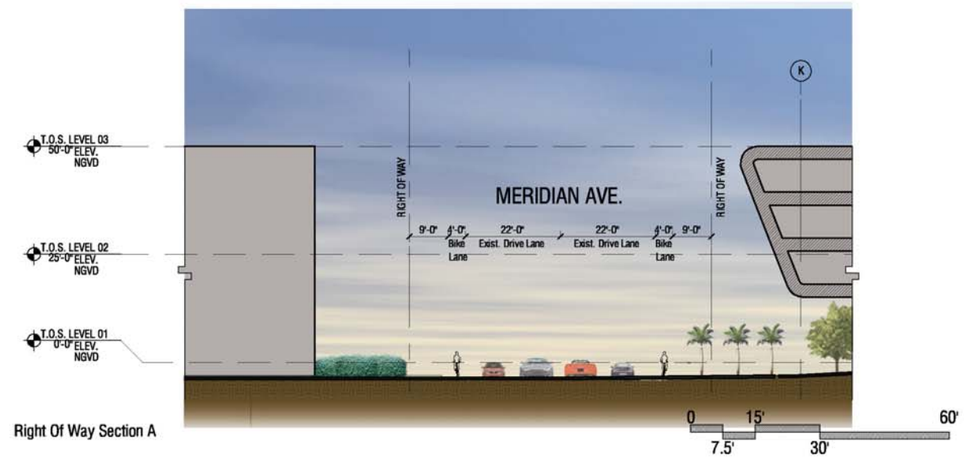
South Beach's urban development patterns have generated significant public ridership demands. As a result, it is recommended that public transit infrastructure be evaluated as part of the redevelopment of the Convention Center. The proximity of the site to Lincoln Road, Washington Avenue and Collins Avenue make it a centralized location for transit boardings, alightings, and transfers. Currently, seven (7) Miami-Dade Transit (MDT) Metrobus routes operate along 17th Street within the vicinity of MBCC. Therefore it is recommended that future development stages examine the need and potential locations for a transit superstop. The superstop would consist of several "saw tooth" bus bays, shelter, benches and other transit amenities. The location should be convenient for both pedestrians and transit buses to access.

Summary

It is recommended that future stages of the development of MBCC's expansion plan further evaluate impacts on the transportation network. Conventional traffic capacity/operational analysis should be conducted to quantify the additional impacts of the expansion of both exhibition area and ballroom space. It is essential that the analysis examine the impacts of the proposed modifications to the surrounding roadway network as well as identify countermeasures to reduce traffic intrusion into nearby neighborhoods. Finally, future stages of the master plan should examine potential improvements to enhance other modes in the area including pedestrian, bicycle, and transit. These evaluations will ensure that the project will become an asset to the community.



Right Of Way Section A



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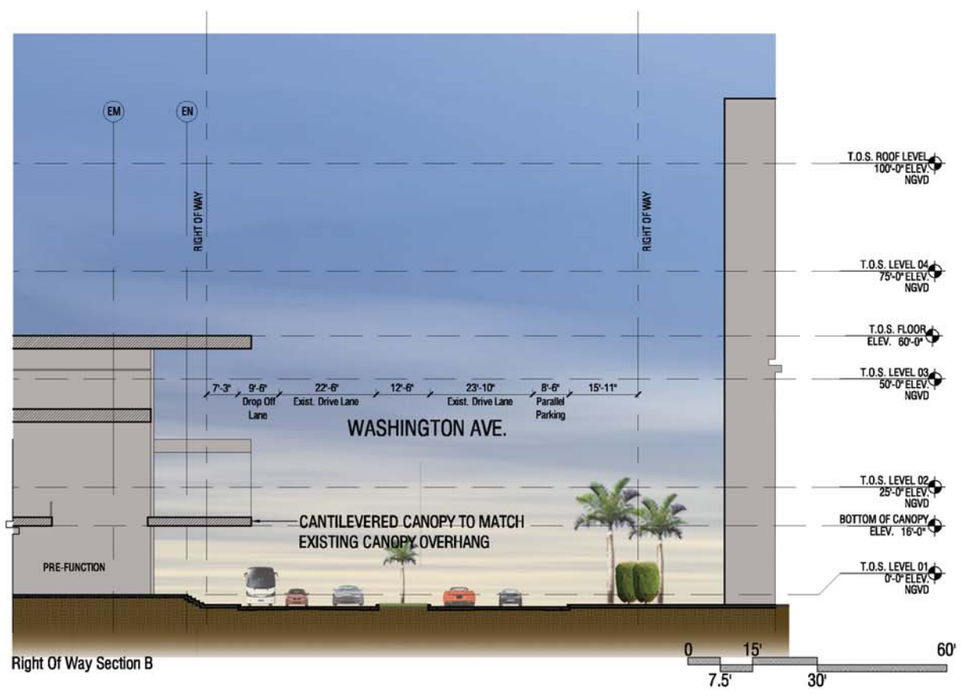

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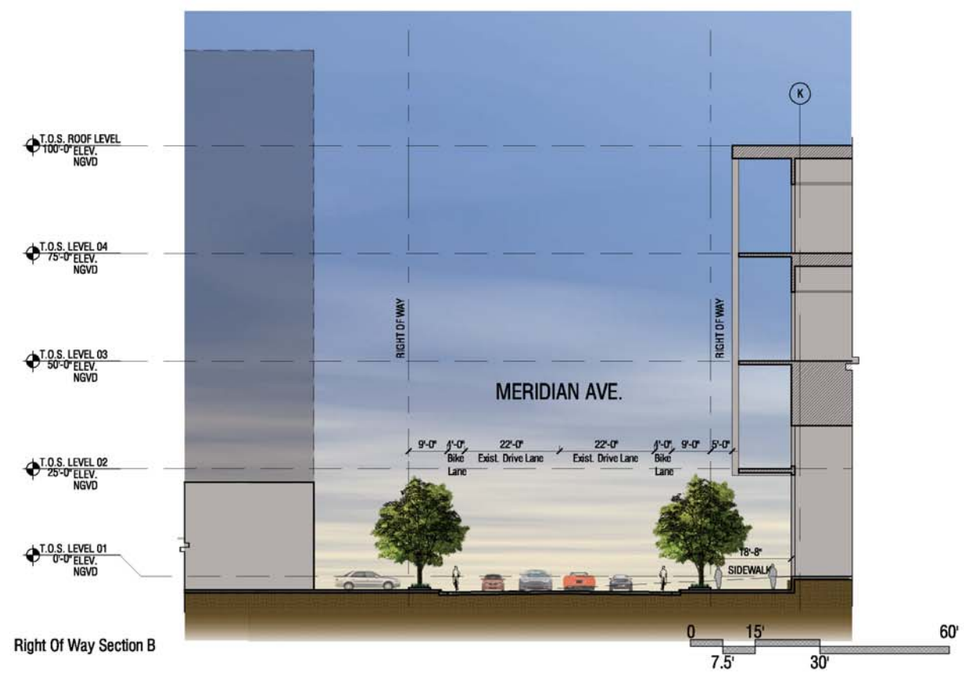

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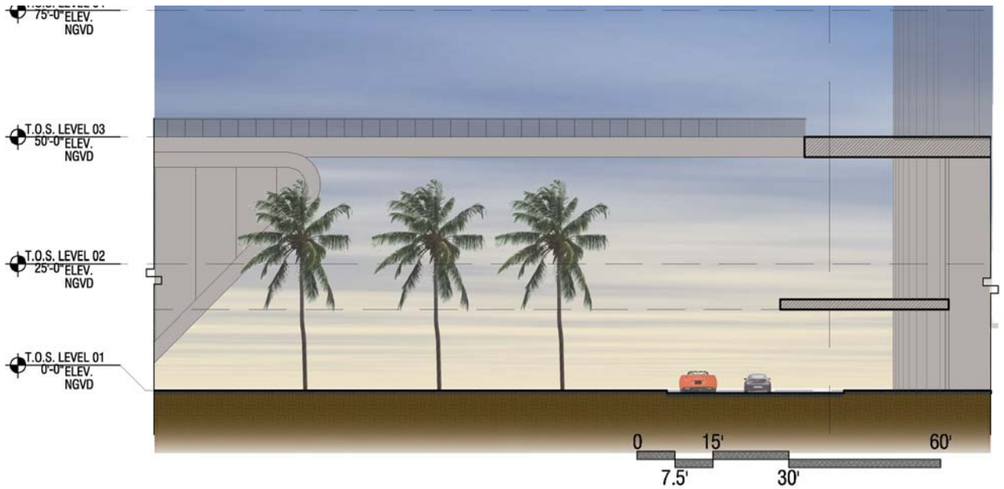
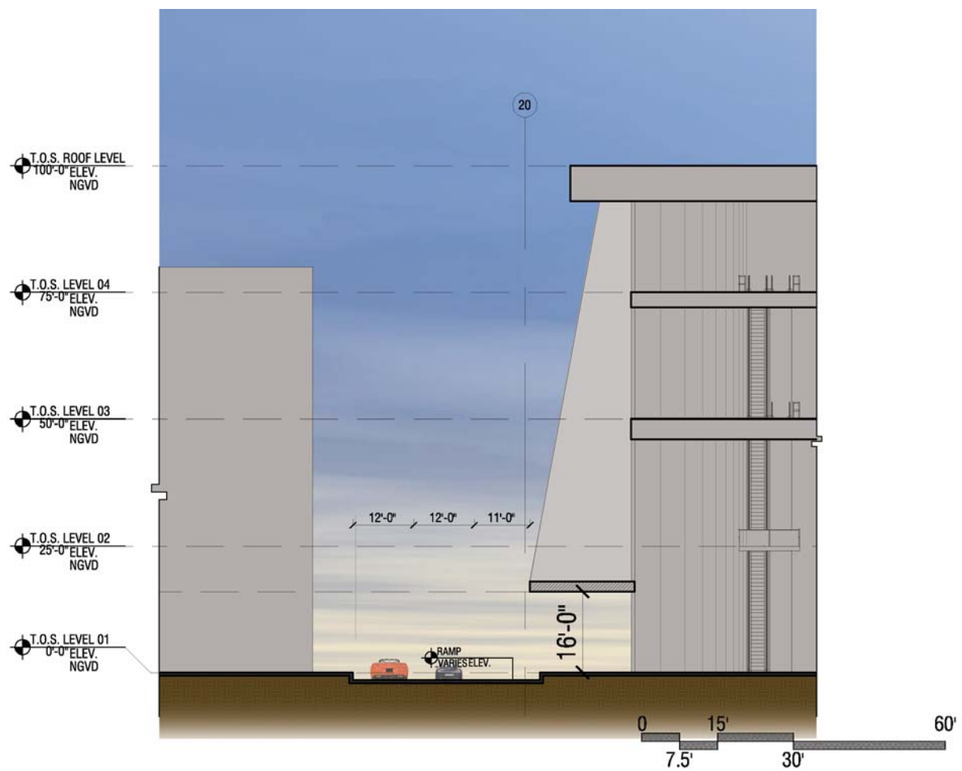


Right of Way from Convention Center Drop Off (New 17th Street)



Right of Way from Convention Center Drop Off (New 17th Street)

4.3.3 PLANNING

The principal planning issues that impacted the Master Plan for the Miami Beach Convention Center Expansion were the 100 foot height limit and how the building addressed each of the streets it faces.

The zoning regulations for the Civic and Convention Center (CCC) District, where the MBCC is located, restrict the building height to 100 feet maximum. The direction from the City of Miami Beach was that this height limit could not be exceeded since a referendum would be required. While other convention centers in dense urban locations have stacked the exhibit halls in order to provide the necessary space to be competitive but on a limited footprint, that scenario is not feasible for the MBCC. Since the parking lot to the west of the existing MBCC allowed the site to increase, the program for the expanded MBCC was accommodated in a horizontal layout within the 100 feet height.

The setback requirements for the CCC District are not as specific as those for the building height, stating that they are to be an average of the requirements of the surrounding zoning districts and confirmed by the Planning and Zoning Department. The design for the expanded MBCC proposes the setbacks be as per either the existing MBCC setback, where applicable, or as per the setbacks of adjacent buildings. Street View Sections were prepared in order to study the relationship of the proposed building façade to the streetscape, including the width of the street, the height of the buildings across the street and the pedestrian experience.

Sections A and B are Street View Sections along Washington Avenue (A taken at the north end and B at the south end). The façade is at the same distance from the street as the existing Washington Avenue façade, with a canopy and screen wall extending out over the Washington Avenue drop-off to the same extent as the existing canopy. Section B at the south end of building along Washington Avenue has a higher roof than at the north end, corresponding to the greater height of the buildings across the street.

Sections C and D are Street View Sections along Meridian Avenue. Section C is taken at the north end through the garage, which is 50 feet high. The façade of the new garage angles up and out from the street level garage entry to a setback of 18 feet at the Second Floor and 4 feet at its roof. Section D shows the relationship of the new exhibit hall and meeting room levels above to the street. The façade is setback 18'-8" to align with the façade of the City of Miami Beach Parking Garage / Office building so that there is a consistent frontage on the east side of Meridian, which is also the case for the frontage on the west side. The sidewalk here will be wider than the existing sidewalk and covered by the overhanging open screen / balcony, which shields the facades of the meeting room pre-function rooms above.

Sections E and F are Street View Sections along the new entry drive, with Section E taken at the new plaza and Section F taken at the west end opposite the City of Miami Beach Parking Garage / Office building. To protect visitors getting into and out of their vehicles along the drop off, the roof wraps down and around to become a canopy that extends out to the edge of the street, approximately 20 feet.

4.3.4 FOOD SERVICE

See Section 3.1.3 for an Overview of the existing MBCC food services.

Expansion Areas

The following is an audit of the food service spaces, which will be included in and part of the new expansion of the Miami Beach Convention Center:

Loading Dock

Primary food deliveries will be received at the facility's food service clean dock area. Space for the offloading of food and other supplies for the food service operation will be provided. The loading dock area needs to include one (1) dedicated loading zone for food service products and one (1) dedicated compactor. This is highly recommended because the delivery of food service products occurs throughout the day and food delivery trucks carrying perishable items cannot wait for offloading or unloading in an unprotected area in the general receiving area.

The dock area should be located with direct access through the back-of-house service corridor system and service elevators to the food storage areas and the main production area for quick delivery of perishable products. The new system shall be designed to accommodate the HACCP requirements.

Receiving Area

The receiving area shall be directly adjacent to the loading dock. This area shall include a receiving scale that will be located, so all incoming food products can be weighed and checked for quality and quantity upon arrival, ensuring proper food cost and inventory controls. A receiving office is needed. This office can consist of an open area with a wall-mounted desk, if space is restricted. A staff member of the kitchen will be present whenever food products are being delivered and a space is needed to check and sign off on deliveries.

Ideally, the receiving area will include a small walk-in refrigerator and freezer to keep delivered products at the correct and safe temperature until they can be transported to the food storage area or main production kitchen. During large functions with meal service in the exhibit halls, this cooler can also be used to temporarily keep cold foods at the correct temperature before service. A small space, protected from the elements, should also be available for the temporary storage of dry goods.

The receiving area needs to be enclosed, properly conditioned for food deliveries, and shall be adjacent to a service elevator that connects with the back-of-house service corridor system. A security office needs to be in place at the receiving dock, so no unwanted deliveries or persons can enter the facility at this location.

Waste Management Room

The waste management room is a holding area for trash, empties, and recyclable material generated throughout the facility. Due to the high temperature and high humidity conditions in Miami Beach, the trash room needs to be refrigerated. This will eliminate unpleasant odors as well as keep vermin and rodents under control. The trash room will contain a pulping system. The unit will reduce the food and paper waste volume by 30-40 percent. The pulp trash can then be easily transferred to the trash/ wet trash container for pick up. There are options available for transporting pulped material directly into the trash container.

A sufficient allowance for recycling containers needs to be made. Depending on the level of recycling desired by the owner, recycling bins for glass, aluminum, paper, plastic and food waste need to be accessible, as does a boiler.

An alcove or area for food service cart and can sanitizing is required at the soiled dock.

Food And Beverage Storage

The basic requirements of the food storage area are accommodating the receiving and holding of and dry, cold and frozen foods within HACCP guidelines. This space shall be located adjacent to the service elevators and the back-of-house corridor system. All deliveries of food and nonfood food service products will be taken from the loading dock directly to the food storage area. The area will include dry food storage, walk-in refrigerators and walk-in freezers, as well as a storage room for nonfood products, such as napkins, tablecloths, backup china, silverware, detergent, and cleaning supplies.

In addition to food and supply products, ample space will be needed for beverages. Beverage storage shall be divided into alcoholic and nonalcoholic beverages, and shall include a large beverage cooler for beverage precoding.

The storage facilities are ideally situated between the main kitchen and the kosher kitchen. Having all bulk storage in the same location will simplify the transport of goods from the loading dock.

Main Production Kitchen

The basic requirement of the main production kitchen is to perform cooking and assembly for the entire facility. The production kitchen shall be sized to provide production and cooking for all the typical functions, which are the normal size for the convention facility, with the understanding that there are times when “large” banquet functions may be booked, requiring the use of the exhibition hall. Although this is not a daily occurrence, it does happen and the space, tools, and planning need to address these functions through additional operational procedures. This may call for adding temporary refrigerated and nonrefrigerated trucks at the loading dock, renting additional serviceware, chairs, and other support equipment.

The main kitchen shall be located directly adjacent to the food storage area and the back-of-house service corridor system that connects with all food service outlets within the facility, both new and existing. The flow of the kitchen needs to be in such a way that unnecessary journeys for staff are reduced to a minimum, which will ensure an optimum work environment with maximum quality and productivity.

Food items will be prepared, weighed, measured, assembled, cooked and portioned in the production kitchen, which will produce all food for the entire convention center - the new expansion, and the existing facilities. The production kitchen will be utilized for food production designated for service to the ballroom, meeting rooms and food service and display in the new and existing food courts. In addition, the kitchen will also assist in the food production for the new and existing concessions. Both large production cooking equipment, such as kettles, braising pans, combi and convection ovens, and high-production finishing equipment, such as chargrills, open burner ranges, and griddle tops will be installed. It is recommended that all production equipment be natural-gas fired. Cooking with gas-fired equipment will ensure a consistent high quality product and the production time will be reduced from cooking with electrical equipment. In addition to cooking efficiency, the cost of energy is lower when cooking with gas.

Foods prepared for service in the ballroom, will be plated in the kitchen, and then be transported and held in mobile heated or refrigerated banquet carts in designated food service alcoves in the service corridor to avoid interference with emergency egress paths. Food designated for the meeting rooms in the existing part of the convention center, will be transported in bulk in mobile heated or refrigerated carts. The service corridors will serve as a critical point of communication and transportation of food and other back-of-house services to the ballroom and meeting rooms. It will be important to create a system that works well and does not interfere with fire egress from the ballroom. The former production kitchen and room service room will be converted to finishing kitchens and will serve as the plating areas for meals served in the nearby meeting rooms.

Even though the concessions have a limited cooking capability, the bulk of the food items offered in the concessions adjacent to the exhibit halls will be prepared in the kitchen. They will then be transported in mobile heated carts to the concession area for finishing and display.

With a new system in mind, the new production kitchen shall be able to produce food for a just-in-time system utilizing cook-chill technology.

All soiled dishes from the ballroom or meeting rooms will be returned to the main warewashing area of the kitchen. The area will include general and secure storage for dishes, glasses and silverware. The warewashing room will be separated from the food production area to avoid cross contamination. However, it needs to be directly adjacent to the kitchen, so staff can return to the kitchen immediately after dropping of soiled ware and clean dishes can easily travel from the dish storage area to the food production area. In addition to the dishroom, a pot washing area will be provided for quick turnaround of pots, pans, and utensils to the cooks.

The kitchen will include two (2) offices for the executive chef and the sous chef. A small tasting room will be incorporated within the office area.

Kosher Kitchen

A kosher kitchen is needed for the preparation of meals for kosher events within the facility. Having the ability to prepare such foods increases the convention center’s ability to market itself to a larger group of potential attendees. The basic requirement of the kosher kitchen is to perform, cooking and assembly for kosher events.

The kosher kitchen shall be located adjacent to the main production kitchen, the food storage area and the back-of-house service corridor system. It will require separate food storage areas, so none of the food products can mix with the nonkosher items.

Food items will be prepared, weighed, measured, assembled, cooked and portioned in the kosher kitchen, which will produce all food for such events in the convention center - the new expansion, and the existing facilities. Such events can take place in the new and existing meeting rooms and even in the ballroom.

Food designated for the meeting rooms, will be transported in bulk in mobile heated or refrigerated carts. In the ideal scenario, there will be a designated kosher pantry nearby each meeting room block. However, it will be possible to prepare the standard support pantries in such a way that they can be used as a kosher pantry prior to the kosher event. Foods prepared for service in the ballroom, will be plated in the kosher kitchen, and then be transported and held in mobile heated and refrigerated banquet carts, which will be parked in the service corridor.

All soiled dishes from kosher events will be returned to the kosher dishwashing area in the kosher kitchen. All utensils, china, silverware, etc., will be kept strictly separated from the main dishes.

Support Pantries

Food pantry areas adjacent to the back-of-house corridor system should be provided for the staging of banquet food service. Here, ice, water, coffee, and other beverage service originate. An ice machine is located in this area. Heated mobile carts are held here connected to an electrical receptacle. A walk-in refrigerator will be in place in this area to hold cold food items, such as plated salads, desserts, and cold beverages. The alcove will also provide a workspace for the initial clean-up process following an event, i.e., plate scraping, etc.

Ideally, there will be additional small pantries dedicated to kosher events. The equipment should include roll-in and reach-in refrigerators to temporarily hold cold foods, a plating area and an area for beverage production. In case that kosher pantries are not feasible, the regular support pantries will have to be koshered prior to a kosher event. This will restrict the use of the pantry to one type of event at a time as kosher and nonkosher events cannot be facilitated in the same pantry at the same time.

Ballroom

· The 60,450 square-foot ballroom will seat approximately 3,000 people using 20 square feet per person. It is assumed that the ballroom will be broken down for smaller functions on a regular basis. The 21,500 square-foot junior ballroom will seat approximately 1,000 people. The ballroom can be booked by the exhibitors or by companies and members of the general public for weddings, birthday parties or other special events. A separate entrance to the ballroom will be provided, so guests will not have to walk through the main convention center to reach it. This will allow for separate functions to take place at the same time in the ballroom and the exhibit halls without commingling the attendees to a great extent.

Service to the ballroom can consist of either a la carte items served to each guest or a buffet style service can be set up within the room. The buffet can be attended by staff and the food be served or it can be set up for self-service by the guests.

Prefunction Bars

The prefunction bars are located in the prefunction space directly in front of the ballroom. The bars will serve alcoholic and nonalcoholic beverages to guests attending an event. It will have to be determined, if only wine and beer will be served, or if a selection of hard liquor will also be available. The bars will be a mobile type, but will have a furniture look to provide interior integration within the space, and they will appear to be a fixed element within the facility. Up to three (3) bars will be present, depending on the size and nature of the event. Each bar will be staffed by one (1) to two (2) bartenders, depending on the level of business at any given time. The bars will include a backbar, which can either be mobile as well or built into the prefunction lobby furniture. The mobile front bars will be stored in a back-of-house area when not needed and will be rolled out prior to an event that requires bar service.

A limited menu of hot and cold appetizers can be served in the prefunction lobby. The food will be prepared in the main kitchen and be transported to the prefunction area via mobile heated or refrigerated carts. The foods will then be displayed on hot or refrigerated plates that can be set up for each event.

Food Court

A food court will be part of the expansion and will provide retail food and beverage outlets. We recommend that it be conveniently located on the mezzanine floor, overlooking the hall, with quick access to stairways and/or escalators to capture as much foot traffic as possible.

The food court will serve hot and cold meals in a variety of stations. There will be themed and standard stations, so a wide range of tastes can be satisfied. Because of the tropical association with Florida, it is suggested to include a local themed station serving tropical fruit salads, sandwiches and wraps. The Cuban influence on Miami is also strong, so a Cuban station would be a good choice. Here, rice and beans, shredded pork and beef meals could be served. Pasta and pizza are always popular and could be included; a heart-healthy station also should be included, as well as other quick-serve type offerings.

All stations need to be set up in a scatter system with adequate and colorful signage, so patrons will easily identify the stations and can approach the one of their choice. Display cooking should be part of each station, for example, a pizza oven out in the open, so patrons can see their pizza being made freshly and induction tops for tossing of meats or seafood with vegetables and sauce. A custom pasta station and other offerings should be available. In addition, desserts and beverages are sold and a grab-and-go case with premade items, such as salads and sandwiches will be located near the cashier station.

Stations can be opened on an as-needed basis. Large events in the exhibit halls will warrant the entire food court to be open during exhibit hours. For smaller events, only appropriately chosen stations should be open for business.

New Exhibit Hall Concessions

Due to the addition of exhibit hall space in the expansion, an additional concession to the existing concession spaces is necessary. The concession area is required to provide retail food service for the new exhibit hall in the expansion building. The primary function of the outlet is to provide quick service of food and beverages to event attendees, in minimum time, via counter service. The concession should sell a variety of hot and cold food items as well as beverages and prewrapped treats. The concessions can also provide support for exhibit hall catered events.

The concessions should be designed so they can be open or closed depending on exhibition capacity, which will provide full flexibility during an exhibition.

Employee's Facility

The employee's facility should be located strategically near the food service department, which has quick access to service corridors within the facility. The employee's facility shall be sized to accommodate uniform dispensing, a locker/shower area and a grooming area. Staff will be served daily meals from a cafeteria-style serving line that can be augmented, and which is flexible enough to accommodate the fluctuating number of employees during events. Also, a buffet line should be available to assist when the facility is at full capacity. The buffet should be designed and sized to serve several hundred employees during large events.

Existing Areas

Receiving Area

· The former food service receiving area will become obsolete once the production kitchen and new loading dock with receiving area are in place. This area may be converted to a different function.

Kosher Kitchen

The recently completed kosher kitchen is small and short of a standard kosher kitchen that can comply with all the Kashrut requirements; however, it may provide the needed service in the interim, until the facility is renovated and the new kitchen is built.

The dishwashing area is located too close to the cooking area and needs to be physically separated from all food production, so cross-contamination between soiled dishes and food are eliminated.

No frozen food storage is provided, and the refrigerated storage should be divided into produce, dairy, and meat according to kosher regulations.

The line-up of the cooking equipment should be restudied to avoid placing deep-fat fryers next to open-flame equipment, such as chargrills, as this may be a fire hazard.

An area for food prep should be provided to ensure that Kashrut rules can be maintained without mixing utensils.

The proposed location for the expansion of the kosher kitchen is adjacent to the main production kitchen, and next to the service corridors and vertical transportation.

Support Kitchen A (Former Production Kitchen)

· The former production kitchen will convert to a support and finishing kitchen when the new production kitchen is operational. Preprepared foods will be brought to this location in bulk from the main kitchen and be held in refrigerators until retheramlizing and finishing prior to an event in the exhibit hall or meeting rooms in the existing part of the convention center.

The support kitchen will also provide a workspace for the initial clean-up process following an event.

Support Kitchen B (Former Prep Kitchen)

· The former prep kitchen will convert to a banquet storage room for mobile carts and mobile bars. There is no exhaust hood currently in place to allow for rethermalizing foods in the future. With the new production kitchen in place and the support kitchen (former production kitchen), it is unnecessary to install an exhaust hood in this space. The room can be used for storage. Staging for the meeting rooms will be done in the meeting breakout room and rethermalizing of foods will take place in the support kitchen (former production kitchen)

Meeting Breakout Room (Former Room Service Room)

The meeting breakout room is located directly behind a large block of meeting rooms and will function as a support pantry. Food needed for the meeting rooms will be prepared in the production kitchen and will be transported to and held in the breakout room. Coffee breaks, breakfast, lunch or dinner meals are plated in the breakout room just prior to service. In case of buffet style meals, the food will be held here until final assembly of the buffet tables. All beverage services for the meeting rooms originate from here. An ice machine is located in this area. The breakout room will also provide a workspace for the initial clean-up process following a meeting.

Service Alcoves

The existing service alcoves scattered throughout the convention center will remain. However, it is recommended that the walk-in coolers be replaced due to their high signs of wear and tear. Most of the cooler panels and corners are damaged and show cracks. These coolers are needed for food service to meeting rooms and the exhibit hall because the new main kitchen will be a long distance away and refrigerated food products require to be kept at temperature (35°-40°F) during the holding period.

The coffee alcoves also remain with new coffee brewing equipment. These areas aid in serving the existing meeting rooms with beverage service.

Exhibit Hall Concessions A/B & C/D

The concession areas are required to provide retail food service for the exhibit hall A/B and for the exhibit hall C/D. The primary function of each of these outlets is to provide quick service of food and beverages to event attendees, in minimum time, via counter service. Both concessions currently have limited cooking capabilities. They depend, in part, on prepared foods from the main kitchen. The concessions should sell a variety of hot and cold food items as well as beverages and prewrapped treats.

Concession C/D is located directly adjacent to the lobby of C/D Exhibit Hall and once they are renovated and revamped, they will provide food merchandising to the lobby and exhibit hall during exhibits.

The concessions will be positioned with full flexibility to support not only food merchandising sales, but also to provide support for exhibit hall catered events.

Lobby Food Court A/B

There are food and beverage services available in the lobby of exhibit halls A/B caters to the prefunction crowd. It provides retail food and beverage service to the exhibitors during an event. It serves quick hot and cold meals with a mixture between prepared to order and prewrapped items. The food court is only fully set up and operational during large events. Customers depart with their food purchase and consume it on the exhibit hall floor or in other designated areas provided close by.

Lobby Food Court C/D

The existing food court in the lobby of exhibit halls C/D caters to the prefunction crowd. It provides retail food and beverage service prior and during an event and is conveniently located in front of the entrance doors to the exhibit space. It serves hot and cold meals in three (3) stations plus a soft-drinks station that is set up based on the scatter system. Food sold is a mixture between prepared to order and prewrapped items. This food court is only fully set up and operational during large events. Customers depart with their food purchase and consume it on the exhibit hall floor or in other designated areas.

Sustainable Design

As part of the project and the design commitment to sustainable design, the back-of-house and food service kitchen areas in particular, can contribute greatly to this effort. Some of the tools and methods available to the food service industry today include the following:

Aerators on hand sinks, as well as process sinks, which will reduce overall water consumption.

New technology, LEED goals for dishwashing systems, proper water formulation, and control of pH levels through filtration will protect equipment and result in a longer life span.

Refrigeration-based equipment will use Refrigerant R-22.

The base specifications will include as much Energy-Star rated equipment as possible.

Kitchen exhaust systems will use the latest state-of-the-art VSE systems, reducing the amount of makeup air and air-conditioned air in the kitchen.

Pulping systems will reduce the amount of organic waste from the waste stream of the kitchen.

A recycling program will be instituted for food product packaging.

Example of Concession Pay Area

Example of Concessions Area

SPACE DESCRIPTION	Total	
	NET SF	GROSS SF
DOCK AREA		
Soiled Dock	350	403
Receiving Dock	980	1,176
Waste Management Area	580	725
Subtotal	1,910	2,304
MAIN PRODUCTION KITCHEN | BALLROOM LEVEL		
Food Storage Area	1,150	1,323
Dry Storage	2,110	2,532
Beverage Storage	1,200	1,440
Ice Production Area	260	312
Food Prep Area	2,900	3,625
Warewashing Area	2,380	2,975
Subtotal	10,000	12,207
KOSHER KITCHEN		
Storage Area	940	1,128
Prep Area	1,320	1,584
Warewashing Area	2,120	2,544
Subtotal	4,380	5,256
FOOD COURT		
Servery	5,480	7,672
Servery Support Area	2,840	3,550
Warewashing Area	960	1,152
Support Area	320	368
Public Seating	10,500	13,125
Subtotal	20,100	25,867
EMPLOYEE FACILITY		
Security & Uniform Issue	800	1,000
Employee Areas	4,718	5,898
Subtotal	5,518	6,898
FOOD SERVICE MANAGMENT OFFICE		
Offices	1,910	2,292
Subtotal	1,910	2,292
FOOD CONCESSIONS		
Exhibit Hall A/B	3,200	4,000
Exhibit Hall C/D	3,200	4,000
New Exhibit Hall	2,200	2,750
Subtotal	8,600	10,750
MEETING ROOM PANTRIES		
Meeting Room Pantry | Second Level	1,240	1,550
Meeting Room/Ballroom Pantry | Fourth Level	2,560	3,200
Meeting Room Pantry | Fifth Level	2,560	3,200
Subtotal	6,360	7,950
TOTAL	58,778	73,523

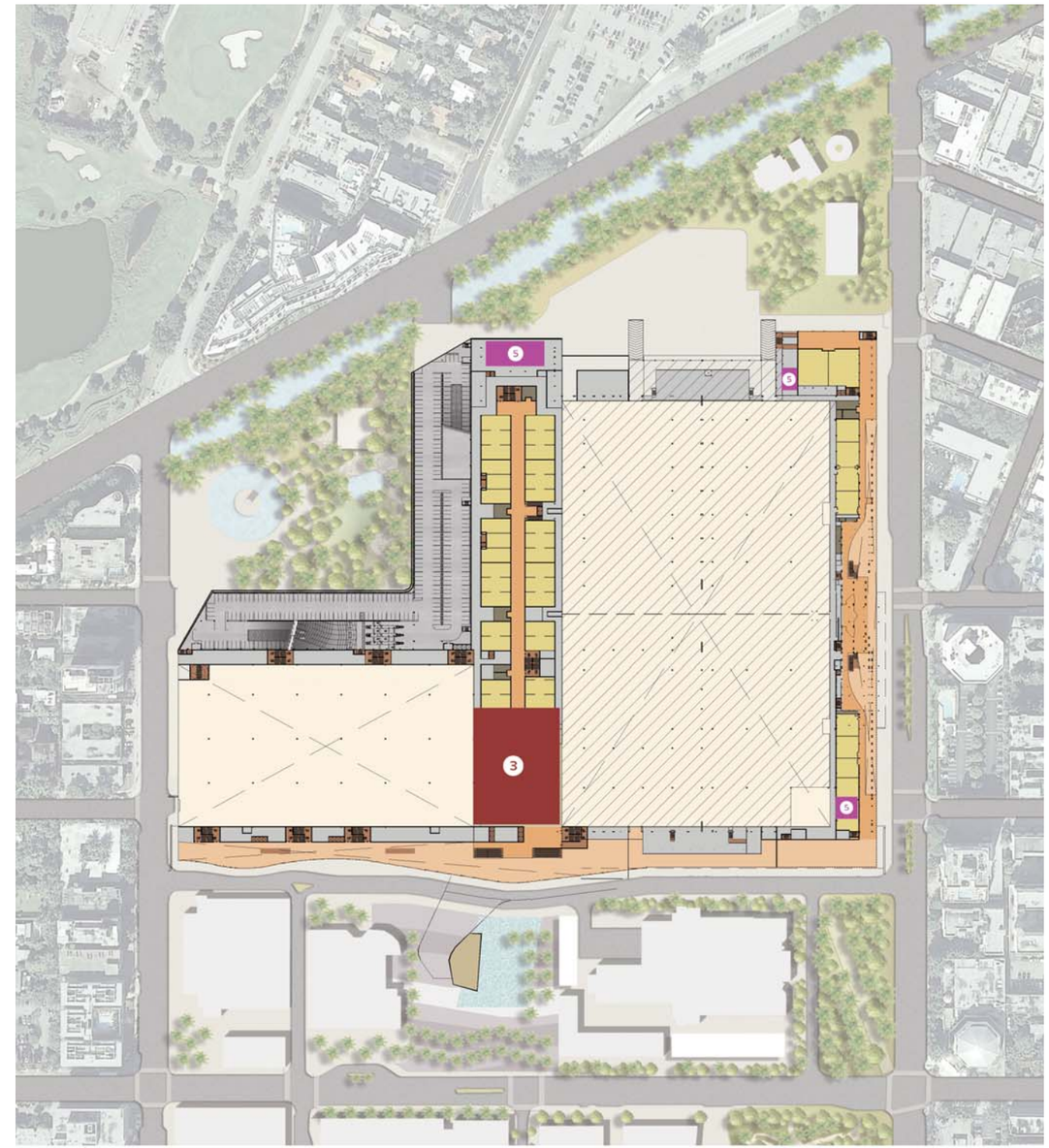
FINAL DRAFT

1 Loading Dock | Trash Room
2 Receiving | Storage
4 Exhibit Hall Concessions

N

FIRST FLOOR PLAN

0 150' 600'
75' 300'

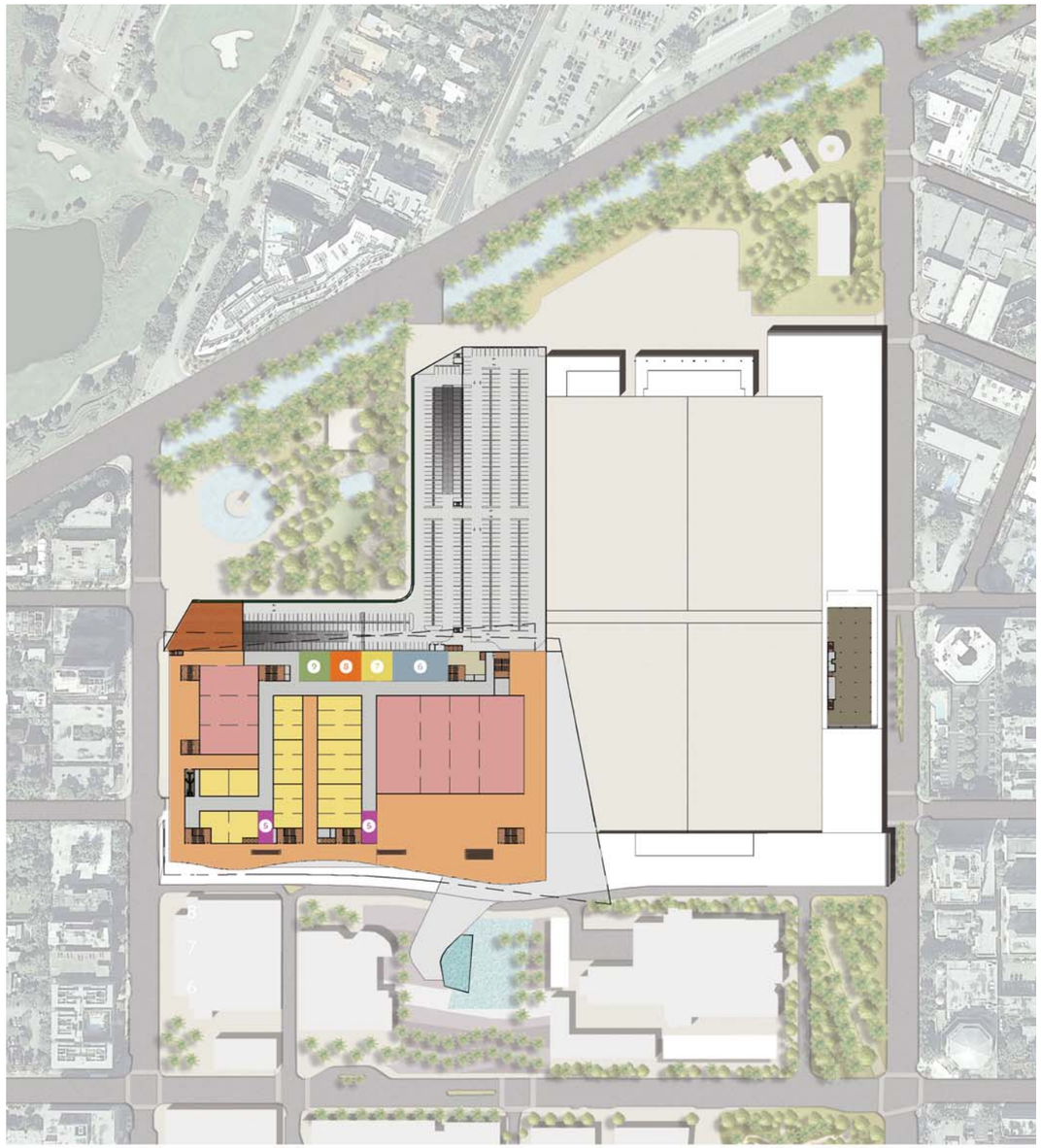


3 Food Court
5 Meeting Room Pantry

N

SECOND FLOOR PLAN

0 150' 600'
75' 300'

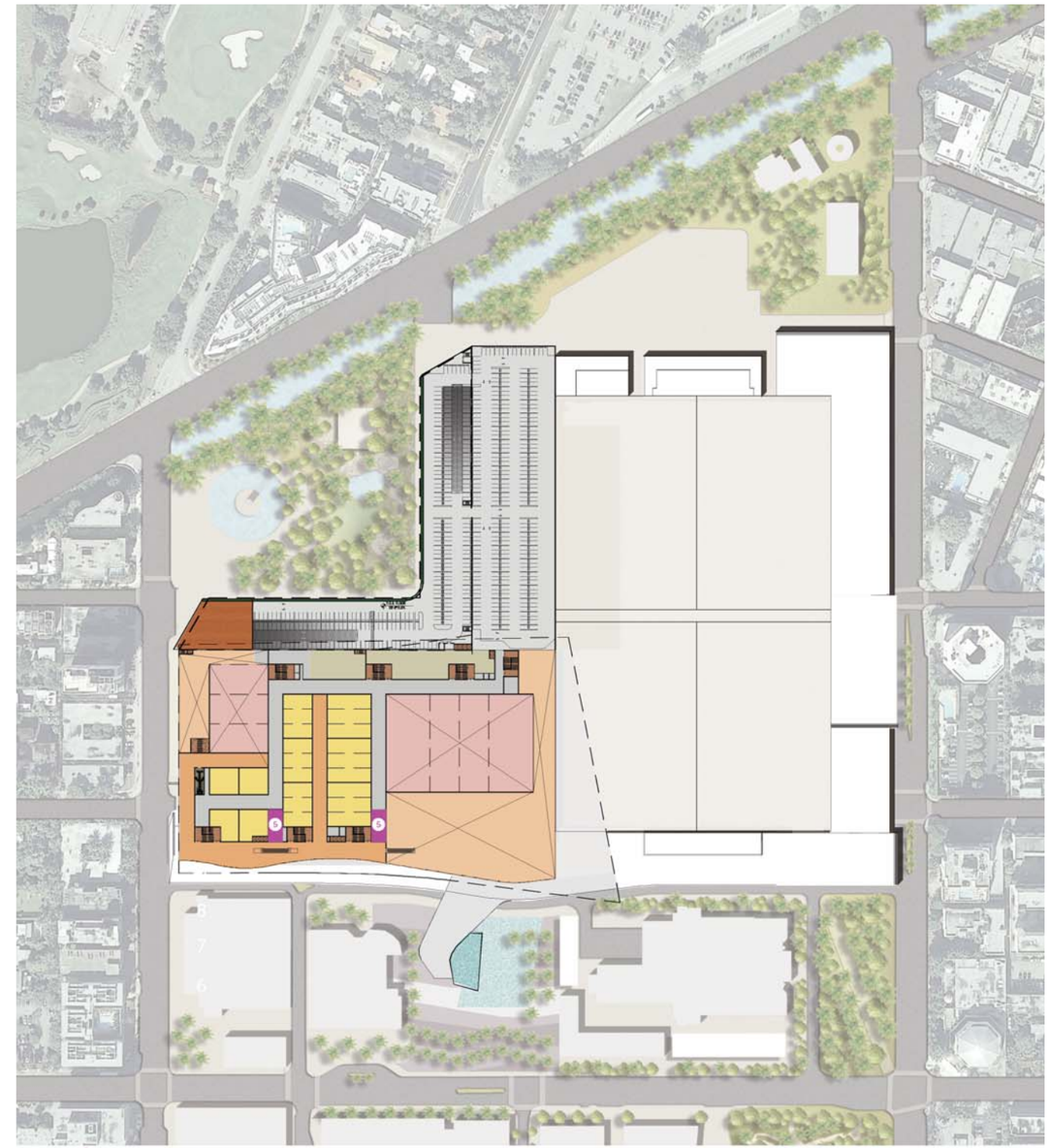


5 Meeting Room Pantry
6 Main Production Kitchen & Warewashing
7 Kitchen Storage
8 Kosher Kitchen, Warewashing & Storage
9 Employee Facilities

N

THIRD FLOOR PLAN

0 150' 600'
75' 300'



5 Meeting Room Pantry

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FOURTH FLOOR PLAN

0 150' 600'
75' 300'

FINAL DRAFT

SPACE DESCRIPTION	QTY	NSF	TOTAL SF	NOTES

Dock Area

Located on CC Level 1.

SOILED DOCK				
Trash Compactor/Dumpster (Wet)	1	0	0	In architectural program.
Trash Compactor/Dumpster (Dry)	1	0	0	In architectural program.
Can/Cart Wash Area	1	150	150	
Trash Cooler	1	200	200	
TOTAL NSF			**350**	
15% Circulation			53	
GROSS SF			**403**	

RECEIVING DOCK				
Receiving Office	1	100	100	
Breakdown Area	1	250	250	
Refrigerated Holding				
Walk-in Cooler	1	200	200	
Walk-in Freezer	1	100	100	
Dry Food Holding	1	150	150	
Secured Storage	1	80	80	
Security Office	1	100	100	
TOTAL NSF			**980**	
20% Circulation			196	
GROSS SF			**1,176**	

WASTE MANAGEMENT AREA			
Recycling Area	1	400	400
Bailer Area	1	80	80
Empties/Returns	1	100	100
TOTAL NSF			**580**
25% Circulation			145
GROSS SF			**725**

Main Production Kitchen | Ballroom Level

Ballroom Level 3.

FOOD STORAGE AREA			
Refrigerated Storage			
General Cooler	1	400	400
General Freezer	1	200	200
Meat Cooler	1	150	150
Fish Cooler	1	100	100
Meat/Fish Freezer	1	120	120
Vegetable Cooler	1	180	180
TOTAL NSF			**1,150**
15% Circulation			173
GROSS SF			**1,323**

DRY STORAGE			
Dry Food Storage	1	1,000	1,000
Nonfood (Paper Storage)	1	400	400
Nonfood (Detergent Storage)	1	150	150
Secured Storage	1	100	100
Prep & Long-Term Storage	1	180	180
Chinaware/Glassware/Silverware Storage	1	200	200
Food Control/Issue Office	1	80	80
TOTAL NSF			**2,110**
20% Circulation			422
GROSS SF			**2,532**

BEVERAGE STORAGE			
Soft Drink/Water Storage	1	500	500
Bag-in-Box Storage	1	150	150
Liquor Storage	1	300	300
Beverage Cooler	1	250	250
TOTAL NSF			1200
20% Circulation			240
GROSS SF			1440

ICE PRODUCTION AREA				
Ice Making Room	1	140	140	
Ice Storage Freezer	1	120	120	-20 degrees Fahrenheit.
TOTAL NSF			260	
20% Circulation			52	
GROSS SF			312	

FOOD PREP AREA			
Cold Prep (Garde Manger)	1	320	320
Garde Manger Cooler	1	120	120
Meat/Fish Prep	1	280	280
Meat/Fish Cooler	1	100	100
Hot Prep Area	1	300	300
Bulk Cooking	1	400	400
Chef's Cooler	1	180	180
Finishing	1	210	210
Plating Area	1	260	260
Holding Cooler	1	180	180
Holding Freezer	1	80	80
Cart Park Area	1	200	200
Chef's Office	1	100	100
Janitor's Closet	1	50	50
Toilets	2	60	120
TOTAL NSF			2,900
25% Circulation			725
GROSS SF			3,625

WAREWASHING AREA			
Trash Holding	1	120	120
Cart Wash Area	1	80	80
Janitor's Closet	1	50	50
Detergent Closet	1	40	40
Soiled Cart Holding	1	400	400
Warewashing	1	600	600
Pulper Room	1	100	100
Clean Dish Holding	1	250	250
Clean Cart Holding	1	200	200
Pot & Pan Washing	1	420	420
Clean Staging	1	120	120
TOTAL NSF			2,380
25% Circulation			595
GROSS SF			2,975

Kosher Kitchen

Located on Level 3, next to Kosher Event Facility or Production Kitchen.

STORAGE AREA

Dairy Cooler	1	100	100
Produce Cooler	1	120	120
Meat/Poultry Cooler	1	120	120
Fish Cooler	1	100	100
General Freezer	1	120	120
Dry Food Storage	1	120	120
Passover Dish Storage	1	100	100
Paper Storage	1	100	100
Detergent Storage	1	60	60
TOTAL NSF			940
20% Circulation			188
GROSS SF			1,128

PREP AREA

Meat Prep Area			
Meat Cooler	1	80	80
Prep Area	1	200	200
Meat Cooking Area	1	220	220
Assembly Area	1	120	120
Dairy Prep Area			
Dairy Cooler	1	80	80
Prep Area	1	150	150
Meat Cooking Area	1	100	100
Assembly Area	1	80	80
Parve Area			
Parve Prep	1	210	210
Parve Assembly	1	80	80
TOTAL NSF			1,320
20% Circulation			264
GROSS SF			1,584

WAREWASHING AREA

Pot Washing			
Meat Pot Wash	1	180	180
Dairy Pot Wash	1	180	180
Meat Dishwashing			
Soiled Holding	1	100	100
Soilded Dishtable	1	80	80
Dishwashing Area	1	210	210
Clean Holding	1	120	120
Dairy Dishwashing			
Soiled Holding	1	70	70
Dishwashing	1	200	200
Clean Holding	1	710	710
Office	1	90	90
Janitor's Closet	1	50	50
Trash Holding	1	80	80
Toilet	1	50	50
TOTAL NSF			2,120
20% Circulation			424
GROSS SF			2,544

FOOD COURT

Located on Level 2. Dual-sided servery designed for quick service.

SERVERY

Short-order Cooking	2	400	800
Pizza/Pasta	2	420	840
Daily Sandwiches	2	240	480
Soup & Salad	2	300	600
Dessert & Ice Cream	2	280	560
Coffee Kiosk	2	300	600
Grab & Go Areas	8	70	560
Beverage Centers	4	140	560
Check-out Stations	12	40	480
TOTAL NSF			5,480
40% Circulation			2,192
GROSS SF			7,672

SERVERY SUPPORT AREA

Walk-in Cooler	2	200	400
Walk-in Freezer	2	100	200
Dry Storage	1	300	300
Paper Storage	1	420	420
Prep Area			0
Hot Prep	1	200	200
Cold Prep	1	200	200
Cooking Area	1	420	420
Assembly Area	1	300	300
Finish Baking Area	1	200	200
Holding Cooler/Finished Products	1	200	200
TOTAL NSF			2,840
25% Circulation			710
GROSS SF			3,550

WAREWASHING AREA

Pot & Pan Wash	1	400	400
Warewashing	1	320	320
Detergent Storage	1	40	40
Janitor's Closet	1	50	50
Trash Holding	1	80	80
Pulper Room	1	70	70
TOTAL NSF			960
20% Circulation			192
GROSS SF			1,152

SUPPORT AREA

Servery Manager	1	100	100
Cash Room	1	100	100
Toilet	2	60	120
TOTAL NSF			320
15% Circulation			48
GROSS SF			368

PUBLIC SEATING

Seating Area	700	15	10,500	2 seating zones x 350 seats each = 700 seats. 700 seats x 2.5 turns = 1,750 served.
TOTAL NSF			10,500	
25% Circulation			2,625	
GROSS SF			13,125	

Employee Facility
Located next to Main Production Kitchen, Ballroom Level 3.

SECURITY & UNIFORM ISSUE				
Security Office	1	0	0	Part of Receiving, Loading & Dock Area.
Arrival Security	1	200	200	Verify security level desired; to be confirmed by security consultant.
Employee Uniform Issue	1	600	600	Verify uniform system desired: manual or automated, full-time or part-time employee.
TOTAL NSF			800	
25% Circulation			200	
GROSS SF			1,000	

EMPLOYEE AREAS

Changing Rooms			
Male Toilets	6	28	168
Male Grooming	1	150	150
Female Toilets	6	30	180
Female Grooming	1	200	200

Lockers

Male Lockers	140	3	210	Half size.
Female Lockers	100	3	150	Half size.
Janitor's Closet/Supplies	1	60	60	
Employee Dining	150	15	2,250	
Servery	1	1200	1,200	
Vending	1	150	150	
TOTAL NSF			4,718	
25% Circulation			1,180	
GROSS SF			5,898	

Food Service Managment Office

OFFICES			
General Manager	1	120	120
Executive Chef	1	100	100
Director of Sales	1	110	110
Sales Associate	2	80	160
Director of Operations	1	110	110
Concessions Manager	1	100	100
Food Court Manager	1	100	100
Purchasing Manager	1	80	80
Human Resources Manager	1	100	100
Catering Manager	1	100	100
Controller	1	110	110
Accounting (A/P)	1	80	80
Accounting (A/R)	1	80	80
Reception	1	120	120
Conference/Training Room	1	240	240
Supplies/Material Storage	1	100	100
Safe Deposit	1	80	80
Toilet	2	60	120
TOTAL NSF			2,010
20% Circulation			402
GROSS SF			2,412

Food Concessions

Each Exhibit Hall will have (1) Grill Concession, (1) Pizza Concession, (2) Noncooking Concession, and (6) POS Stations.

EXHIBIT HALL A/B			
Grill Concession	2	400	800
Pizza Concession	2	400	800
Noncooking Concession	4	300	1,200
Support Pantry	1	400	400
TOTAL NSF			3,200
25% Circulation			800
GROSS SF			4,000

EXHIBIT HALL C/D			
Grill Concession	2	400	800
Pizza Concession	2	400	800
Noncooking Concession	4	300	1,200
Support Pantry	1	400	400
TOTAL NSF			3,200
25% Circulation			800
GROSS SF			4,000

NEW EXHIBIT HALL			
Grill Concession	1	400	400
Pizza Concession	1	400	400
Sandwich/Daily Concession	1	400	400
Noncooking Concession	2	300	600
Support Pantry	1	400	400
TOTAL NSF			2,200
25% Circulation			550
GROSS SF			2,750

Meeting Room Pantries

Located next to service elevator, as close as possible to center of meeting room. Meeting Room Pantries will provide all beverage support, hot and cold food cart parking, setup tables, and back-of-house support. Verify with operation whether all dishes will be stored in the pantries.

MEETING ROOM PANTRY | SECOND LEVEL			
Finishing Area	1	200	200
Setup Area	1	200	200
Hot/Cold Food Cart Park	1	180	180
Beverage/Ice	2	80	160
Warewashing Area	1	300	300
Storage	1	100	100
Employee Toilets	2	50	100
TOTAL NSF			1,240
25% Circulation			310
GROSS SF			1,550

MEETING ROOM/BALLROOM PANTRY | THIRD LEVEL			
Finishing Area	1	300	300
Setup Area/Dish-Out	2	150	300
Hot/Cold Food Cart Park	2	150	300
Beverage/Ice	4	100	400
Warewashing Area	1	860	860
Dish Storage	1	200	200
Toilets	2	50	100
Office	1	100	100
TOTAL NSF			2,560
25% Circulation			640
GROSS SF			3,200

MEETING ROOM PANTRY | FOURTH LEVEL			
Finishing Area	1	300	300
Setup Area/Dish-Out	2	150	300
Hot/Cold Food Cart Park	2	150	300
Beverage/Ice	4	100	400
Warewashing Area	1	860	860
Dish Storage	1	200	200
Toilets	2	50	100
Office	1	100	100
TOTAL NSF			2,560
25% Circulation			640
GROSS SF			3,200

Miami Beach Convention Center Exhibit Hall

4.3.5 LIFE SAFETY

INTRODUCTION

This document is the Fire Life Safety Report for the Miami Beach Convention Center Expansion Master Plan. This report provides the basic fire protection and life safety code requirements for the design and construction of the convention center. The purpose of this document is to provide basic code criteria to help coordinate the efforts of the design team with regard to life safety requirements.

GENERAL DESCRIPTION

The project will be a convention center of approximately 2,700,000 square feet located in the City of Miami Beach between Washington and Meridian Avenues and 18th Street and the Collins Canal at Dade Boulevard.

The project consists which will be constructed in phases over several years will consist of an exhibit space and meeting room addition to the existing convention center which will be renovated to form a unified facility and an attached multi-story parking garage.

APPLICABLE CODES

The following codes are the applicable building codes for this project. This report, however, is based on the fire and life safety requirements found in the International Building Code and the International Fire Code only.

City of Miami Beach Zoning Ordinance

2005 International Building Code, with City Amendments

2005 International Fire Code, with City Amendments

2005 National Electrical Code/NFPA-70

2005 International Mechanical Code, with City of Amendments

2005 International Energy Conservation Code, with 2004 supplement, and City Amendments

2004 A17.1 Safety Code for Elevators and Escalators

2003 A18.1 Safety Standard for Platform Lifts and Stairway Chair Lifts

FIRE PROTECTION OUTLINE

I. OCCUPANCY CLASSIFICATION

The building will be a mixed-use building in accordance with IBC 302.3. The overall building classification will be an A-3 occupancy. The following table assigns the occupancy classifications for the areas of the building.

The IBC provides the designer with a choice for dealing with mixed occupancies. The building can comply with the non-separated use requirements, separate use requirements, or a combination thereof.

The non-separated use option does not require fire resistive separations between occupancies. However, the most restrictive type of construction and fire protection system requirements for the occupancies involved must be provided throughout the non-separated use area.

The separate use option requires that occupancies be separated from one another by fire barriers as prescribed in IBC Table 303.3.2.

This project will proceed with a combination of the separated and non-separated approach. The separated approach will apply to the Generator Room as it is an H-3 occupancy. The non-separated approach will apply to the rest of the building.

To satisfy the non-separated use requirements the construction type as discussed in the following section allows all occupancies involved to be of unlimited height and area.

II. CONSTRUCTION

A. Construction Classification

1. The building will be of Type I-B construction as permitted by IBC 403.3, which allows Type I-A construction to be reduced to Type I-B when supervised sprinkler control valves and water-flow devices are installed on every floor. Sprinkler system requirements are further described in Section IV. The Type I-A allowable height and area apply to this building, both of which are unlimited.

B. Minimum Fire Resistance Ratings

1. Exterior Walls
   a) Bearing - 2-hour rating
   b) Non-bearing - 1-hour rating where fire separation1 is 30 feet or less; non-rated in all other areas.

Based on proximity to property line the following wall ratings are applied to the project. The podium walls facing the streets are of non-rated construction. The tower walls are all non-rated. Opening protection in these walls is addressed in Section II.D.3 Exterior Wall Openings.

2. Interior Walls
   a) Bearing – 2-hour, 1-hour where supporting roof only
   b) Nonbearing – Non-rated
3. Structural frame – 2-hour, 1-hour where supporting roof only
4. Shafts
   a) 2-hour for exit stairs and elevators connecting four stories or more, and all other shafts.
5. Roof – 1-hour
6. Floor – 2-hour

C. Fire Resistive Separations

1. Corridors – ½-hour fire partition where serving guestrooms, non-rated elsewhere.
2. Exit Passageways –1-hour fire barrier as it is connected to 1¬hour stairs.
3. Horizontal Exit – 2-hour fire barrier
4. Walls separating sleeping units – 1-hour fire partition
5. Waste chute and laundry chute access and termination rooms – 1-hour fire barrier
6. Elevator machine rooms – 2-hour fire barrier
7. Fire pump room – 1-hour fire barrier
8. Fire Command Center – 1-hour fire barrier
9. Generator room – 2-hour fire barrier
10. Switch gear - The emergency power source and its transfer switch must be separated from the normal power transformers and switch gear by a minimum of a 1-hour fire barrier.
11. Dry transformers – 2-hour fire barrier
12. Parking garages – 1-hour fire barrier.
13. Protection of Openings

D. Openings in fire resistive separations are required to be protected in accordance with IBC 715.

1. The following table summarizes Opening Protection Requirements Based on IBC Tables 715.3 and 715.4
2. Fire doors and fire windows must be installed in accordance with NFPA 80 Standard for Fire Doors and Fire Windows, 1999 Edition. NFPA 80 Table 1-11.4 prescribes the maximum clearance under fire doors as follows:
   a) Raised noncombustible sills - 3/8 inch
   b) Floor where no sill exists - 3/4 inch
   c) Rigid floor tile - 5/8 inch
   d) Floor coverings - 1/2 inch
3. Exterior wall openings – The total allowable area of unprotected openings and protected openings in an exterior wall is based on the overall area of the wall itself. The following table summarizes the allowable area of the openings as a percentage of the wall area.

III. MEANS OF EGRESS

A. Occupant Load Factors

B. Number of Exits or Exit Accesses

1. A minimum of two exits or exit accesses will be provided from each space when the common path of travel would be exceeded, or when the occupant loads exceed the following:
   a) Assembly, Mercantile, Business – 50
   b) Residential – 10
   c) Storage, Parking – 30
2. Three exits are required where the occupant load exceeds 500, and four exits are required where the occupant load exceeds 1000.
3. Separation of Exits – Where two exits or exit accesses are required, they are separated from one another by a minimum of one-third the overall diagonal of the space.

C. Exit Width/Capacity

1. 0.20 inches per occupant for stairs
2. 0.15 inches per occupant for other egress components

D. Stairs

1. Stairs will be a minimum of 44 inches wide. Actual widths of the stairs, as necessary to accommodate the building occupant loads, are described in Section III.A.
2. Stair risers will be a maximum of 7 inches high and a minimum of 11 inches deep.
3. Headroom inside the stair will not be less than 80 inches.
4. Handrails will be provided on either side of the stairs.
5. Openings into the stair are limited to those necessary for egress from normally occupied spaces.
6. Where the exit stair continues below the level of exit discharge, an approved barrier is provided to prevent occupants from unknowingly continuing below grade.
7. Stairs which serve floors greater than 75 feet above the level of Fire Department access will be constructed as smoke proof enclosures. All other stairs will not be constructed as smoke proof enclosures.

E. Handrails

1. Height must be 34 to 38 inches above the leading edge of the tread.
2. Handrails must return to wall, guard or walking surface, or be continuous to an adjacent handrail. Where not continuous, handrails must extend at least 12 inches horizontally beyond the top riser, and continue to slope for a depth of one tread, plus the width of one tread beyond the bottom riser.
3. Handrails must be provided within 30 inches of all stair width required for egress.
4. Handrails must have a circular cross section with an outside diameter of not less than 1.25 inches, and not more than 2 inches. If other than a circular shape, the perimeter dimension will not be less than 4 inches and not more than 6.25 inches with the longest cross section dimension 2.25 inches or less.

F. Exit Signs

1. Exit and exit access doors will be marked by an exit sign, visible from any direction of egress travel. Access to exits will be marked by exit signs where the path is not immediately visible to occupants. No point in an exit access corridor will be more than 100 feet from the nearest visible exit sign. (1011.1)
2. Tactile exit signs, complying with ICC A117.1, will be provided adjacent to each door to an exit stair, exit passageway and the exit discharge. (1101.3)
3. Exit signs are not required in rooms where only one exit or exit access is required, at main exit doors clearly identifiable as exits, or within sleeping units. (1011.1)
4. Exit signs will be internally illuminated.
5. Exit signs will be illuminated at all times. (1011.4)
6. Exit signs will be connected to the onsite generator and/or battery standby power to ensure illumination for a minimum of 90 minutes after the loss of primary power. (1011.5.3)

G. Means of Egress Illumination (1006)

The means of egress, including the exit discharge, will be illuminated at all times the building is occupied. (1006.1)

1. Illumination level will be not less than 1 foot-candle at the floor level. (1006.2)
2. In the event of failure of the normal power supply, emergency electrical systems will automatically illuminate exit access corridors, exit stairs, exit passageways, and that portion of the exterior exit discharge immediately adjacent to the exit discharge doors. (1006.3)
3. Means of egress illumination will not be provided within sleeping units. (1006.1)
4. Normal power supply for the means of egress lighting is provided by the building's utility electric supply.
5. Emergency power for the egress lighting will be provided by the onsite generator and/or battery standby power for a period of not less than 90 minutes. (1006.3)

H. Doors

1. Doors will have a minimum clear width of 32 inches.
2. Doors will swing in the direction of egress travel, where the door serves an occupant load of 50 or more.
3. Doors in the required means of egress will be readily openable without the use of a key, special knowledge or effort.

I. Exit Passageways

1. The Exit passageway serving Stair 2 will have a minimum 1¬hour rating.
2. Openings will be limited to those necessary for egress from normally occupied spaces.

J. Horizontal Exits

1. Horizontal exits are allowed to account for up to 50 percent of the occupants exiting from a space.
2. The horizontal exit will completely separate the floor served by the exit into two compartments. The separation will be a 2-hour fire barrier, and extend from exterior wall to exterior wall.
3. Openings in the horizontal exit will be self-closing. Doors in the horizontal exit will have a 90-minute fire resistance rating.
4. The refuge area for the horizontal exit is sized to accommodate the original occupants of the space, plus the occupants horizontally exiting into the space at a ratio of at least three square feet per person.

K. Exit Discharge

1. Exits must discharge to the exterior of the building. However, up to 50 percent of the number and capacity of exits may discharge through areas on the level of exit discharge.
2. In order to comply with the 50 percent exit discharge provisions, the building meets the following criteria.
   a) A path of egress to the exterior of the building is clear, unobstructed, and readily visible from the point of exit discharge.
   b) The first floor is separated from the lower level by a minimum of 2-hour construction.
   c) The entire building is protected throughout by an automatic sprinkler system.

L. Travel Distance

1. Residential, Assembly, Mercantile – 250 feet
2. Business – 300 feet
3. Parking, Storage, Mechanical – 400 feet
4. Common path of travel is limited to 75 feet, except the parking garage and business occupancies, which may have a common path of travel of 100 feet.
5. Dead end corridors are limited to 20 feet.

M. Intervening Rooms

Exit access will not pass through adjoining or intervening rooms, unless the adjoining rooms are accessory to the areas served. Exit access will not pass through kitchens, storage rooms, closets or similar spaces, or spaces which can be locked to prevent egress.

IV. SUPPRESSION

A. Automatic Sprinkler Protection

1. A hydraulically designed automatic sprinkler system will be provided throughout the entire building, designed and installed in accordance with NFPA 13, Standard for the Installation of Sprinkler System.
2. Sprinklers – Quick response sprinklers will be used throughout the light hazard areas. Residential sprinklers will be used within the sleeping units.
3. Zones – Sprinkler zones will not exceed 52,000 square feet. Each floor will comprise a minimum of one zone. Water flow devices will be provided for each zone.
4. Valves – Control valves and water-flow devices will be provided at the lateral connection of the riser to each floor, which satisfies the requirements of IBC 403.3 to allow a reduction in construction type. Control valves will also be provided at standpipes, fire pump and sectional valves.

B. Standpipes

1. A Class I wet standpipe system designed and installed in accordance with IBC 905 and NFPA 14, Standard for the Installation of Standpipe and Hose Systems, will be provided.

   a) Hose connections will be provided as follows: (905.4)

      (1) At each intermediate landing between floor levels in every required exit stairway.

      (2) In each exit passageway at the entrance from the building areas into the passageway.

      (3) At the highest landing of stairways with access to a roof, or on the roof where stairways do not access the roof. An additional hose connection shall be provided at the top most hydraulically most remote standpipe for testing purposes.

      (4) One each side of the wall adjacent to the exit openings of a horizontal exit. As the horizontal exits in this building have numerous openings all in close proximity to one another, a single standpipe connection on either side of the wall for each subdivided portion of the ballrooms will be provided. This equates to approximately five standpipe connections per ballroom.

2. As more than one standpipe is provided, all risers will be interconnected at the bottom. (905.4.2)
3. Vertical standpipes risers not located within an enclosed stairway will be protected by a degree of fire resistance equal to that required for vertical enclosures. (905.4.1)

C. Water supply – Water for the automatic sprinkler system and the standpipe system will be supplied by the municipal water system.

D. Fire Pump – A fire pump will be required based on the height of the building. The engineer of record will be responsible for sizing and designing the fire pump system. The pump will be located in 1-hour fire resistance rated room in basement level 2.

E. Fire Extinguishers

1. Fire extinguishers will be provided throughout the building in accordance with the Life Safety Fire Code.
2. Low and moderate hazard areas involving Class A combustibles will have a maximum travel distance of 75 feet. Minimum rating is 2-A. Low hazard areas include guestroom areas, offices, and lobbies. Moderate hazard areas include dining areas, mercantile shops, and support services areas of low hazard occupancies.
3. Moderate hazard areas for hazards involving Class B flammables will have a maximum travel distance of 30 feet for extinguishers with a 10-B rating and a maximum travel distance of 50 feet for extinguishers with a 20-B rating. Such areas include parking garages.
4. High hazard areas for hazards involving Class A combustibles will have a maximum travel distance of 75 feet. Such areas include convention display areas. Minimum rating is 4-A. High hazard areas for hazards involving Class B flammables will have a maximum travel distance of 30 feet for extinguishers with a 40-B rating and a maximum travel distance of 50 feet for extinguishers with an 80-B rating. Such areas include cooking areas, and the Generator Room.

V. FIRE DETECTION AND ALARM SYSTEMS

The structure will be provided with a fire alarm system in accordance with IBC 907 and NFPA 72. The fire alarm system will include automatic fire detection, emergency voice/alarm communication and Fire Department communication. The fire alarm control panel will be located in the Fire Command Center.

A. Initiation Devices

1. Sprinkler System Devices – The fire alarm system will monitor the sprinkler system water-flow devices, valve tamper switches, and the fire pump status. (903.4)
2. Smoke Detectors – Smoke detectors will be located in mechanical rooms, electrical rooms, transformer rooms, telephone rooms, elevator machine rooms, elevator lobbies, the top of each elevator shaft, and adjacent to smokeproof enclosure entrances.
3. Manual Fire Alarm Stations – A manual fire alarm station will be provided in the Fire Command Center. Manual fire alarm stations are not required throughout the building as the sprinkler water-flow will initiate notification appliances.
4. Duct Detectors – Duct detectors will be located in the main return and exhaust air plenums of each air-conditioning system having a capacity of greater than 2,000 cfm, downstream of the last duct inlet. In addition, each connection to a vertical duct riser serving two or more stories from a return air duct or plenum of an air-conditioning system will have a duct detector.

B. Indicating Devices

1. The fire alarm system will include an emergency voice/alarm communication system. The operation of any automatic fire detector, sprinkler water-flow device, or manual fire alarm station will automatically sound an alert tone, followed by voice instructions. The voice instructions will give general and selective information approved by the Fire Department.

   At a minimum the alarm will be given on the floor of incident, the floor above and the floor below. The following locations require an audible announcement: elevator lobbies, corridors, rooms and spaces exceeding 1,000 square feet, sleeping units, and areas of refuge.

   The system will have a manual override for voice communication in all paging zones. The system will also have the capability to provide live voice communication through speakers located in elevators, exit stairs, and throughout selected floors.

2. Audible/Visual Alarm Indicating Appliances

   a) Audible alarm notification appliances will be located throughout the building to provide a sound intensity at least 15 dBA above the average ambient or 5 dBA above the maximum sound level having a duration of at least 60 seconds in every occupied space within the building.

      (1) At least 90 dBA should be provided in mechanical equipment rooms and 70 dBA in all other areas.

      (2) The maximum sound pressure level for an audible alarm indicating appliance is 120 dBA at the minimum hearing distance from the audible appliance.

      (3) The alarm notification device shall sound a distinct sound used for no other purpose than the fire alarm.

   b) Visible alarms will be installed in all areas accessible to the public.

C. Power Supply

The primary power supply source for the fire alarm system will be from the normal utility service. Emergency power will be from a battery backup power supply sized in accordance with NFPA 72. The system will also be supplied by the emergency generator.

D. Special Functions

1. The fire alarm system will initiate elevator recall.
2. The fire alarm system will initiate stairway pressurization.
3. The fire alarm system will include an approved, two-way, Fire Department communication system. It will operate between the Fire Command Center and all elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside enclosed exit stairs on each level in each stair.

E. Single and multiple station smoke alarms

1. Location - Single and multiple station smoke alarms will be provided according to Code.
2. Power supply – Smoke alarms will receive their primary power from the building electrical system. Secondary power will be provided either by battery backup or by the building emergency power system. The wiring will be free from disconnects other than those required for over-current protection.
3. Interconnection – Where more than one smoke alarm is required in an area, all smoke alarms within that area will sound when a single detector is activated.
4. The single and multiple station smoke alarms will not initiate the building fire alarm system.

VI. SMOKE MANAGEMENT SYSTEM

A. Dedicated exhaust fans located for each zone.

B. Pressurized adjacent zones.

VII. FIRE COMMAND CENTER

A. The facility will be provided with a Fire Command Center. The Fire Command Center is intended to be the core of Fire Department operations in the event of a fire or life safety emergency in the building.

The Fire Command Center is located on the north side of the first floor of the building, accessible from the porte-cochere. It will be separated from the building by 1-hour construction and will be a minimum of 96 square feet with a minimum dimension of eight feet.

B. The Fire Command Center will contain the following features. A layout of the Fire Command Center and all of the required features will be submitted to the Fire Department for approval prior to installation.

1. Emergency voice/alarm communication system
2. Fire detection and alarm annunciator
3. Elevator status panel indicating elevator location and operational status
4. Fan status panel for smokeproof enclosures
5. Sprinkler valve and water-flow display panel
6. Emergency and standby power status indicator
7. Telephone, with access to the public telephone system, for Fire Department use
8. Fire pump status indicator
9. Schematic building plans
10. Worktable
11. Generator supervision device, manual start and transfer features

VIII. ELEVATORS

A. Elevators will conform to ASME A17.1, Safety Code for Elevators and Escalators, 2004 Edition.

B. A minimum of one elevator will provide service for Fire Department emergency access to all floors. The elevator cab will be of such a size to accommodate an ambulance cot 24 inches by 76 inches in its horizontal open position. The elevator will be identified by the international symbol for emergency medical service.

C. All elevators will be equipped with the following:

1. Elevators will be provided with standby power.
2. Each elevator will be provided with Phase I emergency recall and Phase II emergency in-car operations in conformance with ASME A17.1.

D. The alternate floor of recall will be the second floor.

E. Heat detectors located in elevator shafts and machine rooms will automatically disconnect the main line power supply to the affected elevator(s) when activated.

F. Venting of elevator hoist ways is required for elevator hoist ways that connect more than three stories.

G. An approved pictorial sign of a standardized design shall be posted adjacent to each elevator on all floors instructing occupants to use the stairs, not the elevator, in case of fire. The sign should read, “In fire emergency, do not use elevator. Use exit stairs.”

H. Plumbing and mechanical systems are not permitted in an elevator shaft and plumbing equipment is prohibited in elevator machine rooms.

1. Floor drains; sumps and sump pumps are permitted at the base of a shaft if they are indirectly connected to the plumbing system.

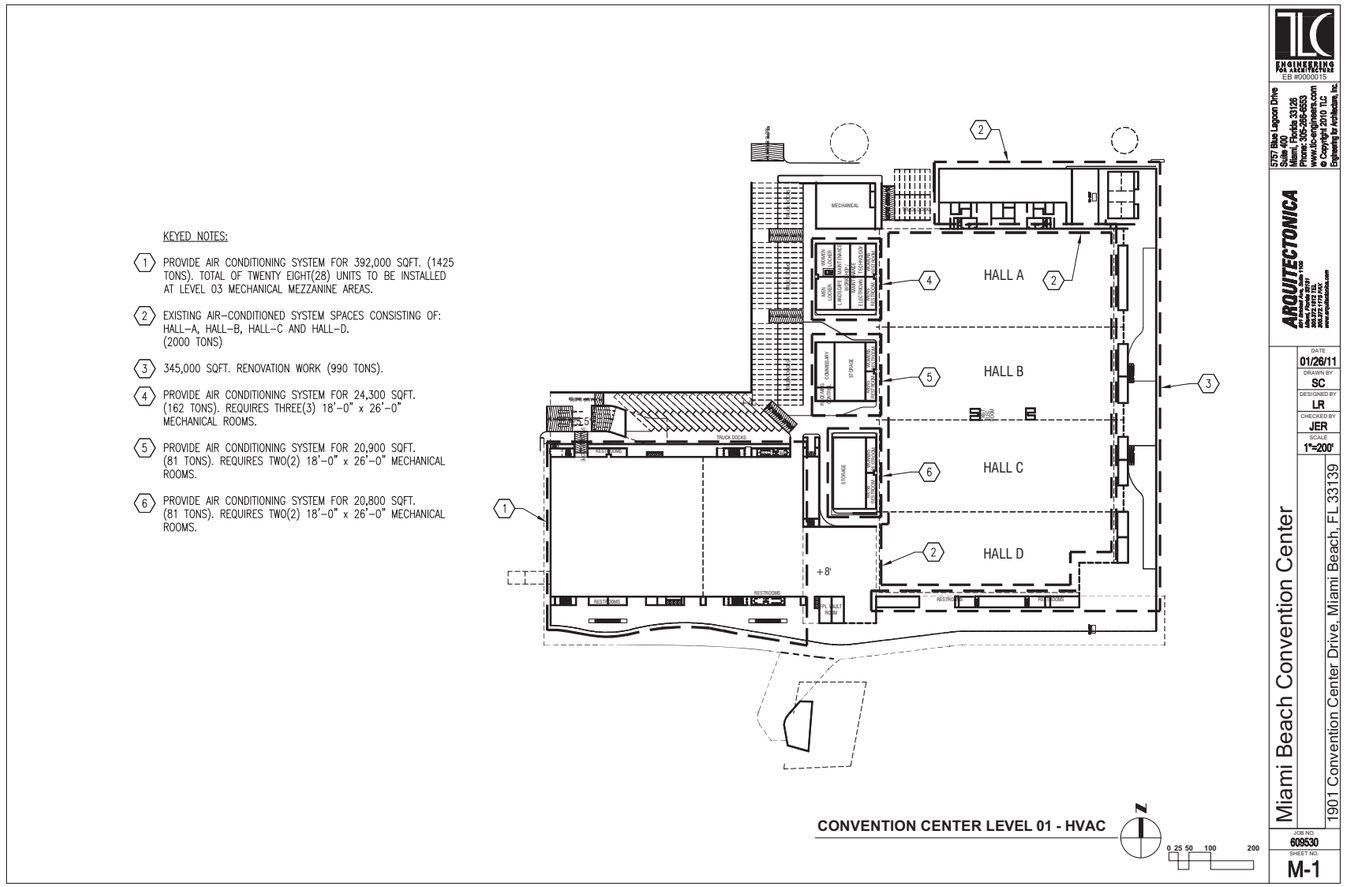
I. An approved means of access shall be provided to elevator machine rooms and overhead machinery space.

J. Elevator machine rooms containing solid-state equipment for elevator operation shall be provided with an independent ventilation or air conditioning system capable of maintaining a temperature established for elevator equipment. The air conditioning system will also be on standby power.

IX. EMERGENCY ELECTRICAL AND STANDBY POWER SYSTEMS

A. Emergency Electrical System

1. Emergency electrical systems and standby power systems will conform to NFPA 70, NFPA 110 and NFPA 111.
2. Emergency electrical and standby power systems are required as follows:
   a) Standby power loads
      (1) Elevators
      (2) Elevator equipment room air conditioning
      (3) Smokeproof enclosures
      (4) Electrical fire pump
      (5) Power and lighting for the Fire Command Center
   b) Emergency power loads
      (1) Exit signs and means of egress illumination
      (2) Elevator car lighting
      (3) Automatic fire detection systems
      (4) Fire alarm systems
      (5) Stairwell door unlocking systems



4.3.6 M/E/P/FP

MECHANICAL

(Refer to Section 3.1.6 for a review of the Existing MBCC HVAC Systems)

I. PROPOSED DEMOLITION:

In order to accommodate the proposed expansion/renovation of the convention center some of the HVAC equipment needs to be replaced. This will include the air-handling unit, chilled water piping and exhaust fans.

1. AIR HANDLER UNITS:

The following table #1 lists air handling units and associated variable air volume boxes and with possible action. Refer to drawing MD-1 and MD-2 "HVAC Demolition" for equipment location.

TABLE #1 . AIR HANDLER UNITS

Equip.	Location	Area Served	VAV #	Comment
AHU-1	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-2	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-3	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-4	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-5	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-6	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-7	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-8	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-9	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-10	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-11	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-12	Cat Walk	Hall C	N/A	EXIST. TO REMAIN
AHU-13	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-14	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-15	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-16	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-17	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-18	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-19	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-20	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-21	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-22	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-23	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-24	Cat Walk	Hall A	N/A	EXIST. TO REMAIN
AHU-25	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-26	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-27	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-28	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-29	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-30	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-31	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-32	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-33	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-34	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-35	Cat Walk	Hall B	N/A	EXIST. TO REMAIN
AHU-36	Cat Walk	Hall B	N/A	EXIST. TO REMAIN

TABLE #1 . AIR HANDLER UNITS

Equip.	Location	Area Served	VAV #	Comment
AHU-37	Cat Walk	106	VAV 1	EXIST. TO REMAIN
		107	VAV 2	EXIST. TO REMAIN
		108	VAV 3	EXIST. TO REMAIN
		109	VAV 4	EXIST. TO REMAIN
		110	VAV 6	EXIST. TO REMAIN
		111	VAV5	EXIST. TO REMAIN
AHU-38	Cat Walk			EXIST. TO REMAIN
		112	VAV 7	EXIST. TO BE REMOVED
		113	VAV 8	EXIST. TO BE REMOVED
		114	VAV 9	EXIST. TO BE REMOVED
		115	VAV 10	EXIST. TO BE REMOVED
		116	VAV 11	EXIST. TO BE REMOVED
		117	VAV 12	EXIST. TO BE REMOVED
AHU-39	Cat Walk			EXIST. TO REMAIN
		212A	VAV 25	EXIST. TO BE REMOVED
		212B	VAV 26	EXIST. TO BE REMOVED
		213B	VAV 27	EXIST. TO BE REMOVED
		213A	VAV 28	EXIST. TO BE REMOVED
AHU-40	Cat Walk			EXIST. TO REMAIN
		210A	VAV 21	EXIST. TO BE REMOVED
		210B	VAV 22	EXIST. TO BE REMOVED
		211B	VAV 23	EXIST. TO BE REMOVED
		211A	VAV 24	EXIST. TO BE REMOVED
AHU-41	Cat Walk			EXIST. TO REMAIN
		208A	VAV 17	EXIST. TO BE REMOVED
		208B	VAV 18	EXIST. TO BE REMOVED
		209B	VAV 19	EXIST. TO BE REMOVED
		209A	VAV 20	EXIST. TO BE REMOVED
AHU-42	Cat Walk			EXIST. TO REMAIN
		206A	VAV 13	EXIST. TO BE REMOVED
		206B	VAV 14	EXIST. TO BE REMOVED
		207A	VAV 15	EXIST. TO BE REMOVED
		207B	VAV 16	EXIST. TO BE REMOVED
AHU-43	Storage 1st FL South Side	118	VAV 74	EXIST. TO BE REMOVED
		119	VAV 72	EXIST. TO BE REMOVED
		120A	VAV 76	EXIST. TO BE REMOVED
		120B	VAV 75	EXIST. TO BE REMOVED
		121	VAV 71	EXIST. TO BE REMOVED
		122	VAV 73	EXIST. TO BE REMOVED
		R1BCA	VAV 77	EXIST. TO BE REMOVED
		R1BCB	VAV 78	EXIST. TO BE REMOVED
		R1BPA	VAV 79	EXIST. TO BE REMOVED
		R1BPB	VAV 80	EXIST. TO BE REMOVED
		R1BPC	VAV 81	EXIST. TO BE REMOVED
		R1-SERV	VAV 82	EXIST. TO BE REMOVED
AHU-44	Storage East Side	101	VAV 43	EXIST. TO BE REMOVED
		102	VAV 42	EXIST. TO BE REMOVED
		103A	VAV 46	EXIST. TO BE REMOVED
		103B	VAV 45	EXIST. TO BE REMOVED
		104	VAV 41	EXIST. TO BE REMOVED
		105	VAV 44	EXIST. TO BE REMOVED
		R1ACN	VAV47	EXIST. TO BE REMOVED
		R1ACS	VAV48	EXIST. TO BE REMOVED
		R1AAA	VAV52	EXIST. TO BE REMOVED
		R1AAB	VAV 51	EXIST. TO BE REMOVED
		R1AAC	VAV 50	EXIST. TO BE REMOVED
		R1AAD	VAV 49	EXIST. TO BE REMOVED
		R1ASERV	VAV 53	EXIST. TO BE REMOVED

TABLE #1 . AIR HANDLER UNITS

Equip.	Location	Area Served	VAV #	Comment
AHU-45	Storage 2nd Fl South Side	216B	VAV 86	EXIST. TO BE REMOVED
		215B	VAV 87	EXIST. TO BE REMOVED
		215A	VAV 88	EXIST. TO BE REMOVED
		514A	VAV 89	EXIST. TO BE REMOVED
		214B	VAV 90	EXIST. TO BE REMOVED
		R2BCB	VAV 91	EXIST. TO BE REMOVED
		R2BPA	VAV 95	EXIST. TO BE REMOVED
		R2BPB	VAV 96	EXIST. TO BE REMOVED
		R2BPC	VAV 97	EXIST. TO BE REMOVED
		R2BSA	VAV 98	EXIST. TO BE REMOVED
		R2BSB	VAV 99	EXIST. TO BE REMOVED
		CORR-SERV	VAV 100	EXIST. TO BE REMOVED
AHU-46				EXIST. TO BE REMOVED
		217A	VAV 83	EXIST. TO BE REMOVED
		217B	VAV84	EXIST. TO BE REMOVED
		216A	VAV 85	EXIST. TO BE REMOVED
		R2BCA	VAV 92	EXIST. TO BE REMOVED
		218A	VAV 93	EXIST. TO BE REMOVED
		218B	VAV 94	EXIST. TO BE REMOVED
AHU-47				EXIST. TO BE REMOVED
		202A	VAV 54	EXIST. TO BE REMOVED
		202B	VAV 55	EXIST. TO BE REMOVED
		203B	VAV 56	EXIST. TO BE REMOVED
		201A	VAV 60	EXIST. TO BE REMOVED
		201B	VAV 61	EXIST. TO BE REMOVED
		201C	VAV 62	EXIST. TO BE REMOVED
AHU-48				EXIST. TO BE REMOVED
		203A	VAV 57	EXIST. TO BE REMOVED
		204B	VAV 58	EXIST. TO BE REMOVED
		204A	VAV 59	EXIST. TO BE REMOVED
		R2ACB	VAV 63	EXIST. TO BE REMOVED
		205B	VAV 64	EXIST. TO BE REMOVED
		205A	VAV 65	EXIST. TO BE REMOVED
		R2APA	VAV 66	EXIST. TO BE REMOVED
		R2APC	VAV 67	EXIST. TO BE REMOVED
		R2APD	VAV 68	EXIST. TO BE REMOVED
			VAV 69	EXIST. TO BE REMOVED
		R2AS	VAV 70	EXIST. TO BE REMOVED
		R2SERV	VAV A	EXIST. TO BE REMOVED
AHU-49	Cat Walk	1ST & 2ND Level Concourse		EXIST. TO REMAIN
AHU-50	Cat Walk	Lobby & Box Office		EXIST. TO REMAIN
AHU-51	Cat Walk	1ST & 2ND Level Concourse		EXIST. TO REMAIN
AHU-52	Cat Walk	Lobby	N/A	EXIST. TO REMAIN
AHU-53	Cat Walk	?	N/A	EXIST. TO REMAIN
AHU-54	Cat Walk	East Kitchen	N/A	EXIST. TO REMAIN
AHU-55	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-56	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-57	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-58	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-59	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-60	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-61	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-62	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-63	Cat Walk	Hall D	N/A	EXIST. TO REMAIN

TABLE #1 . AIR HANDLER UNITS

Equip.	Location	Area Served	VAV #	Comment
AHU-64	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-65	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-66	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-67	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-68	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-69	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-70	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-71	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-72	Cat Walk	Hall D	N/A	EXIST. TO REMAIN
AHU-76	2nd Fl Mech. Rm.	Lobby		EXIST. TO BE REMOVED
AHU-73	2nd Fl South Side	C Ballroom 125	N/A	EXIST. TO BE REMOVED
AHU-74	2nd Fl South Side	C Ballroom 126	N/A	EXIST. TO BE REMOVED
AHU-77	2nd Fl Mechanical Room	Lobby	N/A	EXIST. TO BE REMOVED
AHU-78	2nd Fl Mechanical Rm.	219A	VAV 159	EXIST. TO BE REMOVED
		219B	VAV 160	EXIST. TO BE REMOVED
		219C	VAV 161	EXIST. TO BE REMOVED
		219D	VAV 162	EXIST. TO BE REMOVED
AHU-79		Lobby	N/A	EXIST. TO BE REMOVED
AHU-80	2nd Fl Mechanical Rm.	223A	VAV 149	EXIST. TO BE REMOVED
		223B	VAV 150	EXIST. TO BE REMOVED
		224A	VAV 151	EXIST. TO BE REMOVED
		224B	VAV 152	EXIST. TO BE REMOVED
AHU-81	2nd Fl Mechanical Rm.	233A	VAV 125	EXIST. TO BE REMOVED
		233B	VAV 126	EXIST. TO BE REMOVED
		234A	VAV 127	EXIST. TO BE REMOVED
		234B	VAV 128	EXIST. TO BE REMOVED
AHU-82	2nd Fl Mechanical Room	235A	VAV 110	EXIST. TO BE REMOVED
		235B	VAV 111	EXIST. TO BE REMOVED
		236A	VAV 112	EXIST. TO BE REMOVED
		236B	VAV 113	EXIST. TO BE REMOVED
AHU-83		Lobby D	N/A	EXIST. TO BE REMOVED
AHU-84	2nd Fl Mechanical Room	240A	VAV 114	EXIST. TO BE REMOVED
		240B	VAV 115	EXIST. TO BE REMOVED
		241A	VAV 116	EXIST. TO BE REMOVED
		241B	VAV 117	EXIST. TO BE REMOVED
		241C	VAV 118	EXIST. TO BE REMOVED
AHU-85		2nd Level Concourse D		EXIST. TO BE REMOVED
AHU-86		D Ball Room 130/131		EXIST. TO BE REMOVED
AHU-87		D Ball Room 128/131		EXIST. TO BE REMOVED
AHU-88		D Ball Room 128/129		EXIST. TO BE REMOVED
AHU-89		D Lobby		EXIST. TO BE REMOVED
AHU-90		231A	VAV 133	EXIST. TO BE REMOVED
		231B	VAV 134	EXIST. TO BE REMOVED
		232A	VAV 135	EXIST. TO BE REMOVED
		232B	VAV 136	EXIST. TO BE REMOVED
AHU-91		229A	VAV 129	EXIST. TO BE REMOVED
		229B	VAV 130	EXIST. TO BE REMOVED
		230A	VAV 131	EXIST. TO BE REMOVED
		230B	VAV 132	EXIST. TO BE REMOVED
AHU-92		227A	VAV 145	EXIST. TO BE REMOVED

TABLE #1 . AIR HANDLER UNITS

Equip.	Location	Area Served	VAV #	Comment
		227B	VAV 146	EXIST. TO BE REMOVED
		228A	VAV 147	EXIST. TO BE REMOVED
		228B	VAV 148	EXIST. TO BE REMOVED
AHU-93		225A	VAV 141	EXIST. TO BE REMOVED
		225B	VAV 142	EXIST. TO BE REMOVED
		226A	VAV 143	EXIST. TO BE REMOVED
		226B	VAV 144	EXIST. TO BE REMOVED
				EXIST. TO BE REMOVED
AHU-94		127A	VAV 137	EXIST. TO BE REMOVED
		127B	VAV 138	EXIST. TO BE REMOVED
		127C	VAV 139	EXIST. TO BE REMOVED
		127D	VAV 140	EXIST. TO BE REMOVED
AHU-95		Box Office/First Aid		EXIST. TO BE REMOVED
AHU-96		Box Office/First Aid		EXIST. TO BE REMOVED
AHU-97	First floor	?	?	EXIST. TO BE REMOVED
AHU-98		City Storage		EXIST. TO BE REMOVED
AHU-99		Electrical Rm 2nd Fl		EXIST. TO BE REMOVED
AHU-100		West Food Court		EXIST. TO BE REMOVED
				EXIST. TO BE REMOVED
AHU-101		220A	VAV 153	EXIST. TO BE REMOVED
		220B	VAV 154	EXIST. TO BE REMOVED
		221A	VAV 155	EXIST. TO BE REMOVED
		221B	VAV 156	EXIST. TO BE REMOVED
		222A	VAV 157	EXIST. TO BE REMOVED
		222B	VAV 158	EXIST. TO BE REMOVED
AHU-102		NW Dinning		EXIST. TO BE REMOVED
AHU-103		Behind C Box Office		EXIST. TO BE REMOVED
AHU-104		237A	VAV 119	EXIST. TO BE REMOVED
		237B	VAV 120	EXIST. TO BE REMOVED
		238A	VAV 121	EXIST. TO BE REMOVED
		238B	VAV 122	EXIST. TO BE REMOVED
		239A	VAV 123	EXIST. TO BE REMOVED
		239B	VAV 124	EXIST. TO BE REMOVED
AHU-105	3RD Floor Executive off			EXIST. TO BE REMOVED
		304	VAV 200	EXIST. TO BE REMOVED
		308	VAV 201	EXIST. TO BE REMOVED
		306	VAV 202	EXIST. TO BE REMOVED
		302	VAV 203	EXIST. TO BE REMOVED
		S.EXEC	VAV 204	EXIST. TO BE REMOVED
		303	VAV 205	EXIST. TO BE REMOVED
		301	VAV 206	EXIST. TO BE REMOVED
		300 S.	VAV 207	EXIST. TO BE REMOVED
		S. RECEP	VAV 208	EXIST. TO BE REMOVED
				EXIST. TO BE REMOVED
AHU-106	3RD Floor	318	VAV 209	EXIST. TO BE REMOVED
		300 N.	VAV 210	EXIST. TO BE REMOVED
		317	VAV 211	EXIST. TO BE REMOVED
		316	VAV 212	EXIST. TO BE REMOVED
		314	VAV 213	EXIST. TO BE REMOVED
		303	VAV 214	EXIST. TO BE REMOVED
		311	VAV 215	EXIST. TO BE REMOVED
		312	VAV 216	EXIST. TO BE REMOVED
AHU-107		D Studio-Lobby		EXIST. TO BE REMOVED

TABLE #1 . AIR HANDLER UNITS

Equip.	Location	Area Served	VAV #	Comment
AHU-108		D Studio-Lobby		EXIST. TO BE REMOVED
AC-9				EXIST. TO BE REMOVED
AC-13				EXIST. TO BE REMOVED
AC-14		GND Floor		EXIST. TO BE REMOVED
RTU-1	Roof			EXIST. TO REMAIN
RTU-2	Roof			EXIST. TO REMAIN
RTU-3A	Roof			EXIST. TO REMOVE
RTU-3B	Roof			EXIST. TO REMOVE
RTU-4	Roof			EXIST. TO REMAIN
RTU-5	Roof			EXIST. TO REMAIN
RTU-6A	Roof			EXIST. TO REMAIN
RTU-6B	Roof			EXIST. TO REMAIN
AC-7	Roof			EXIST. TO REMOVE
AC-8	Roof			EXIST. TO REMOVE
AC-15	Roof			EXIST. TO REMOVE
AC-15	Roof			EXIST. TO REMOVE

2. EXHAUST /SUPPLY FANS:

The following table #2 listed the fans and possible action to accommodate demolishing/ expansion of the convention center. Refer to drawing MD-3 "HVAC Demolition" for fan equipment location.

TABLE #2 . EXHAUST FANS

Equipment	Area Served	Comments
EF-1		EXISTING TO REMAIN
EF-2		EXISTING TO REMAIN
EF-3A		EXISTING TO REMAIN
EF-4A		EXISTING TO REMAIN
EF-5		EXISTING TO REMAIN
EF-6		EXISTING TO REMAIN
EF-7		EXISTING TO REMAIN
EF-8		EXISTING TO REMAIN
EF-9		EXISTING TO REMAIN
EF-10		EXISTING TO REMAIN
EF-11A		EXISTING TO REMAIN
EF-12		EXISTING TO REMAIN
EF-13		EXISTING TO REMAIN
EF-14		EXISTING TO REMAIN
EF-15		EXISTING TO REMAIN
EF-16A		EXISTING TO REMAIN
EF-17		EXISTING TO REMAIN
EF-18A		EXISTING TO REMAIN
EF-19		EXISTING TO REMAIN
EF-20A		EXISTING TO REMAIN
EF-21A		EXISTING TO REMAIN
EF-22A		EXISTING TO REMAIN
EF-23A		EXISTING TO REMAIN
EF-24A		EXISTING TO REMAIN
EF-25		EXISTING TO REMAIN
EF-26		EXISTING TO REMAIN
EF-27		EXISTING TO REMAIN
EF-28		EXISTING TO REMAIN
EF-29A		EXISTING TO REMAIN
EF-30A		EXISTING TO REMAIN
EF-70		EXISTING TO REMAIN
EF-93		EXISTING TO REMAIN
EF-94		EXISTING TO REMAIN
EF-95		EXISTING TO REMAIN
EF-96		EXISTING TO REMAIN
EF-97		EXISTING TO REMAIN
EF-98		EXISTING TO REMAIN
EF-99		EXISTING TO REMAIN
EF-100		EXISTING TO REMAIN
EF-101		EXISTING TO REMAIN
EF-102		EXISTING TO REMAIN

TABLE #2 . EXHAUST FANS

Equipment	Area Served	Comments
EF-114		EXISTING TO REMAIN
EF-115		EXISTING TO REMAIN
EF-120		EXISTING TO REMAIN
EF-121		EXISTING TO REMAIN
EF-122		EXISTING TO REMAIN
EF-126		EXISTING TO REMAIN
EF-127		EXISTING TO REMAIN
EF-128		EXISTING TO REMAIN
EF-129		EXISTING TO REMAIN
EF-133		EXISTING TO REMAIN
EF-134		EXISTING TO REMAIN
EF-135		EXISTING TO REMAIN
EF-136		EXISTING TO REMAIN
EF-137		EXISTING TO REMAIN
EF-138		EXISTING TO REMAIN
EF-139		EXISTING TO REMAIN
EF-140		EXISTING TO REMAIN
EF-A		EXISTING TO BE REMOVED
EF-B		EXISTING TO BE REMOVED
EF-C		EXISTING TO BE REMOVED
EF-D		EXISTING TO BE REMOVED
EF-E		EXISTING TO BE REMOVED
EF-F		EXISTING TO BE REMOVED
EF-G		EXISTING TO BE REMOVED
EF-H		EXISTING TO BE REMOVED
EF-I		EXISTING TO BE REMOVED
EF-J		EXISTING TO BE REMOVED
EF-3B		EXISTING TO BE REMOVED
EF-4B		EXISTING TO BE REMOVED
EF-11B		EXISTING TO BE REMOVED
EF-20B		EXISTING TO BE REMOVED
EF-21B		EXISTING TO BE REMOVED
EF-22B		EXISTING TO BE REMOVED
EF-23B		EXISTING TO BE REMOVED
EF-29B		EXISTING TO BE REMOVED
EF-30B		EXISTING TO BE REMOVED
EF-31B		EXISTING TO BE REMOVED
EF-32		EXISTING TO BE REMOVED
EF-36		EXISTING TO BE REMOVED
EF-37		EXISTING TO BE REMOVED
EF-38		EXISTING TO BE REMOVED
EF-39		EXISTING TO BE REMOVED
EF-40		EXISTING TO BE REMOVED

TABLE #2 . EXHAUST FANS

Equipment	Area Served	Comments
EF-41		EXISTING TO BE REMOVED
EF-42		EXISTING TO BE REMOVED
EF-43		EXISTING TO BE REMOVED
EF-50		EXISTING TO BE REMOVED
EF-52		EXISTING TO BE REMOVED
EF-53		EXISTING TO BE REMOVED
EF-54		EXISTING TO BE REMOVED
EF-55		EXISTING TO BE REMOVED
EF-123		EXISTING TO BE REMOVED
EF-124		EXISTING TO BE REMOVED
EF-125		EXISTING TO BE REMOVED
EF-130		EXISTING TO BE REMOVED
EF-131		EXISTING TO BE REMOVED

3. CHILLED WATER PIPING:

The chilled water pipe serving the east wrap area is to be removed. Existing remaining chilled water pipes are to be re-located as needed to accommodate for the south expansion. Refer to MD-2 " HVAC Demolition" for main piping routing and proposed demolition.

II. NEW WORK

1. COOLING SYSTEM

Refer to table #3 " cooling load" for the anticipated total air conditioning load. Refer to drawings M-1 to M-5 for areas to be air conditioned.

TABLE #3 . COOLING LOAD

	AREA (SQFT)	SQFT/TON	TONS
Existing Level 1 (Hall-A, B, C & D)	500000	note:1	2,000
Existing renovated Level 1	345000	350	990
Proposed Expansion Level 1	392000	275	1425
Existing/renovated Level 2	300000	350	860
Expansion Level 3		note: 1	
Expansion Level 4	229000	275	833
Expansion Level 5	229000	275	833
Jackie Gleason Theater			350
TOTAL		note:1	7,291

NOTES:

1. Existing connected load to remain
2. Expansion level 3 is a double height space from 2nd floor auxiliary space only. spaces only

The new expected sum of the loads is 7,300 tons which will be handled by the four (4) existing 1,200 ton chillers and two (2) new 1,200 ton chillers. Due to the diversity of the entire facility the new chiller plant will be able to handle the new anticipated load.

2. SMOKE CONTROL SYSTEM:

A new smoke control system will be provided for the existing and proposed expansion of the convention center. The smoke evacuation system will operate with dedicated exhaust fans while the adjacent zones are pressurized. The fans will be strategically located for each zone. The smoke zones will need to be coordinated with fire sprinkler zones and fire alarm zones. Elevators and stairs will be pressurized with dedicated pressurization fans

3. AHU SYSTEM:

The convention center will be provided with new variable air volume units with variable frequency drives. Units to be provided with two way chilled water valves. The individual spaces will use VAV boxes to maintain space temperature. The perimeter VAV will have electric heaters. The design temperatures shall be 68° to 72°F and the relative humidity shall be 45 to 50 percent. The outside air will be controlled by carbon dioxide (CO_2) sensors located in densely occupied areas. The ductwork will be sized for a velocity not to exceed 1500 feet per minute on the supply and 1000 feet per minute on the return. The first 15 feet of ductwork from the mechanical room shall be double wall with perforated inner lining. The VAV boxes shall be properly selected and located to reduce the noise generated by the boxes.

Independent HVAC units will be provided for all the elevator machines rooms.

4. GARAGE VENTILATION:

The proposed garage located on the NW side of the convention center will need to be mechanical ventilated. Refer to table#3 for anticipated requirements. Garage fans will be controlled by carbon monoxide (CO) sensor located throughout the garage.

TABLE #4. GARAGE VENTILATION

TABLE #4 . GARAGE VENTILATION

	AREA (SQFT)	EXHAUST (CFM)
Garage Level 1	126000	151200
Garage Level 2	136000	163200
Garage Level 3	126000	151200
Garage Level 4	118000	141600
TOTAL	506000	

3. CONTROLS:

The convention center is currently controlled by a new DDC building management system provided by Johnson Controls Metasys® EMS. This system was interface with the old pneumatic system. Some AHU are still controlled by the pneumatic system. During the expansion all the New and remaining HVAC and ventilation equipment will be tie into the Metasys EMS. The Pneumatic system shall be face out.

The Metasys system is easy to configure, no special training is required to use it. It is enhanced Ready Access Portal (RAP) with graphics capability, combined with the tenant user setup capabilities, deliver targeted views of data to any building occupants. The Metasys Advanced Reporting System take the existing data and present it in an organized and informative way; providing a full suite of easy-to-configure, easy-to-use.

Metasys provided BACnet® interoperability and enhanced wireless performance. This allows thousands of different hardwired and wireless systems, devices and equipment to talk to each other on a single platform.

ELECTRICAL SYSTEMS

(Refer to Section 3.1.6 for a review of the Existing MBCC Electrical Systems)

I. PROPOSED DEMOLITION:

The following electrical systems will be removed:

1. The electrical rooms which currently house panelboards and electrical equipment designated to be removed, will also be demolished.
2. All existing bus ducts running throughout the Halls, corridors, and on the roof, will be removed.

Table 2 – Existing Switchgear to be Removed:

Equip.	Location	Area Served	AMPs/Voltage	Comments
SWH-1	S.W MAIN SWITCH ROOM	Hall C AND D	4000A, 277/480V, 3PH	To be removed
SWH-2	SW MAIN SWITC ROOM	Hall C AND D	4000A, 277/480V, 3PH	To be removed
SWH-3	MEZZ MECH ROOM	4 Mains	3-4000A, 277/480V,3PH 1-1350A, 277/480V,3PH	To be removed
Generator	Generator room	Life Safety	1000KW, 277/480V,3PH	To be removed and replaced
SWBD-1A	Center SWGR Room	Hall A-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-1B	Center SWGR Room	Hall A-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-1C	Center SWGR Room	Hall C-Floor Boxes	1600A,120/208V, 3PH	To be removed in phases
SWBD-1D	Center SWGR Room	Hall D-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-2A	Elec room	Hall A-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-2B	Elec room	Hall B-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-2C	Elec room	Hall C-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-2D	Elec room	Hall D-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-3A	Elec room	Hall A-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-3B	Elec room 1-10	Hall B-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-3C	Elec room 1-29	Hall C-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases
SWBD-3D	Elec room	Hall D-Floor Boxes	1600A, 120/208V, 3PH	To be removed in phases

3. Existing Fire Command Room is to be relocated depending on the location of the new Hotel. If the Hotel site is to be to the North, the Fire Command Room will be relocated to the North side of the proposed expansion, if to the South, and then it will remain.
4. Switchboards serving the Hall's floor boxes will be removed and replaced when the floors are replaced.

II. PROPOSED EXPANSION

Preliminary Calculations:

Proposed West Expansion: (1,188,000sqft)

Lighting@1.3W/sqft	=	1,544,400W
Power@2W/sqft	=	2,376,000W
HVAC@6W/sqft	=	7,128,000W
Misc@0.5W/sqft	=	594,000W
Elevators & Escalators	=	150,000W
Kitchen Equipment	=	148,500W
TOTAL:	= 11,940,900W = 11.9MW	

New Parking Garage: (380,000sqft)

Lighting@0.9W/sqft	=	342,000W
Power@.25W/sqft	=	95,000W
Exhaust Fans	=	112,500W
Elevators	=	150,000W
TOTAL:	= 699,500W = 700KW	

POWER DISTRIBUTION:

The electrical power distribution will be as follows:

- Existing 1st floor and 2nd floor South side FPL vaults will remain and be retrofitted per the expansion and renovation load needs.
- The proposed high rise expansion will be served from a new 20'x 20' FPL Vault located on the NW corner of the expansion. This Vault will also serve the Parking garage.
- Each exhibition hall will have (2) 12'X18' electrical rooms, one on the West side and one on the East side, for all power distribution to the individual Hall.
- A new Main Electrical room will be located at the North side of the new expansion. Room will be 20' x 30'. This room will house (4) 4000 Amps main switchboards to serve the required load.
- Individual 12'x18' electrical rooms will be located symmetrically throughout the expansion building and on all floors for flexibility of service:
  - o 1st floor - (2) on the south side, (1) on the North side.
  - o 2nd floor - (2) on the South side.
  - o 3rd floor - (1) on the South side.
  - o 4th & 5th floor - (2) on the North side, (2) on the South side.
- Parking garage will have individual 12'x18' electrical rooms for power distribution:
  - o 1st floor Parking Garage – (1) on the East side.
  - o 2nd & 3rd floor Parking Garage – (2) on the East, (1) on the South.
  - o 4th floor Parking Garage- (1) on the North side.
- The existing Center building service will be divided into a North and South sections:
- A cluster serving the North half of the building will be located on the 1st floor, West side and will have (1) 20'x 30' main electrical room. This room will house (2) 2000 Amps main distribution switchboards.
- A cluster serving the South half of the building will be located on the 2nd floor, South side and will have (1) existing main electrical room. This room will house (2) 2000 Amps main distribution switchboards.

GENERATORS:

New generators will be required for the high rise expansion, for the parking garage, and for the existing building.

- The generators for the expansion will be located as part of the main power cluster on the North side of the new building. The room will be 30'x 40' and will house (2) 1000KVA generators.
- The generator for the Parking Garage will be located in a 20'x 20' room on the West side of the existing building, east of the garage. The room will house (1) 450KVA generator.
- The generators for the existing building will be located as part of each power cluster (North and South) described above. Each room will be 30'x 40' and will house (1) 750KVA generator.

Refer to attached drawings for proposed locations

TELECOMMUNICATIONS:

The Telecommunications system will be configured as follows:

- Existing Main Telephone room will remain.
- The proposed expansion will be provided with a new 10'x 20' Main Telephone room as part of the main distribution cluster on the North side of the building.
- 10'x 10' satellite telephone rooms will be provided through the expansion and parking garage as follows:
  - 3rd floor – (1) on the East side of the garage, (1) on the North side of the expansion.
  - 4th floor – (1) on the South side of the garage, (1) on the North side of the expansion.
  - 5th floor – (1) on the South, (2) on the North, and (1) on the East side of the expansion.

LIGHTING:

The Lighting system will be configured as follows:

- Lighting for the Exhibition Halls will be provided by:
  - LED high bay fixtures providing the 35 footcandles required by Illuminating Engineering Society of North America (IESNA).
  - Lighting will be provided with automatic controls for each individual Hall with the capability of providing different lighting schemes.
- Meeting halls, offices, and common areas will have a combination of downlights, linear indirect and decorative fixtures. Lamp source shall be fluorescent for energy efficiency.
- New parking garage will be provided with:
  - Fluorescent or LED fixtures to meet the required 5 footcandle average.
  - Lighting control will be by timeclocks and daylight sensors.

FIRE ALARM SYSTEM:

The new expansion and renovation work will be changed as follows::

- Existing Fire alarm system will be upgraded to a voice addressable system with full notification appliance devices coverage throughout the existing facility..
- Proposed expansion will be served via a Fire Alarm Panel that will be a slave to the Main upgraded Fire Alarm Control Panel (FACP) to be located in the existing fire command room.
- Proposed parking garage will be served via a Fire Alarm Panel that will be a slave to the Main upgraded FACP in the existing fire command room.
- New system will consist of:
  - Voice notification appliance devices (speakers)
  - Visual notification appliance devices (strobes)
  - Manual pull stations
  - Smoke and duct detectors
  - Supervisory connections will be provided to the smoke evacuation panel, generator annuciator panels, fire pump, and fire sprinklers flow and tamper switches.
- New system topography will be designed with consideration for future additions to the system. This will be a Master-Slave system designed as a Campus setting.

PLUMBING

(Refer to Section 3.1.6 for a review of the Existing MBCC Plumbing Systems)

I. NEW WORK:

The new expansion and renovation of the convention center will require a review of the existing sewer capacity to check for the proper pipe sizing and inverts of the existing pipe. Any new sewer connection will need to be coordinated with the civil engineer for proper connection to the city sewer system.

Sanitary

The sanitary greasy waste system shall be sized based on the requirement of the latest edition of Florida Building Code (Plumbing) with the sanitary grease line located near the kitchen. The discharge of the sanitary grease waste shall be connected to external grease interceptors (minimum capacity 750 gallons) connected in series and the effluent from the interceptors routed to the building sanitary sewer. The anticipated size of the greasy waste system shall be between 4" and 8". Piping materials for the greasy waste system will be cast iron or PVC. Cast iron piping will be specified with hub-less type aboveground and bell/spigot for underground locations.

Generally a gravity system will convey all wastes through a house sewer network, ultimately connecting to existing sanitary sewers. The sanitary sewer system will be sized based on the latest edition of the FBC (Plumbing) and the anticipated sewer mains shall be between 8" and 16". Piping materials for the sanitary waste system will be cast iron or PVC. Cast iron piping will be specified with hub-less type aboveground and bell/spigot for underground locations.

Storm

The new expansion will increase the roof area in which a new storm water disposal system will be routed though the building. In general, a gravity system will accomplish this purpose. The new disposal of the storm will be coordinated with the civil engineer for the exact routing and discharge. The anticipated storm sewer shall be between 10" and 18".

Piping materials for the storm sewer will be the same as for the sanitary system.

Domestic Water

From existing water main, service will be extended thru a backflow preventer and a water meter to the building. Following general energy conservation measures we will use the available city pressure to serve all plumbing fixtures. Only low consumption water plumbing fixtures will be specified.

Hot water will be distributed thru the kitchen area and will be generated with gas fired water heaters located as close as possible.

Piping material for the domestic water system will be copper. Hot water lines will be insulated.

Type “L” copper for piping above ground and level type “K” with bitumastic cover if underground. Dielectric fittings will be used when dissimilar metals must come in contact.

The domestic water system will require a new duplex pressure booster pump assembly due to the height of the building. The pumps will be housed in a 10 x 15 room located on the ground floor.

The new diesel tank will be located near the new emergency generators at the west side of the building. The new tank is to be double wall type with monitoring wells.

The new natural gas meter will be located at the northeast corner of the building located close to the new kitchen.

FIRE PROTECTION

(Refer to Section 3.1.6 for a review of the Existing MBCC Fire Protection Systems)

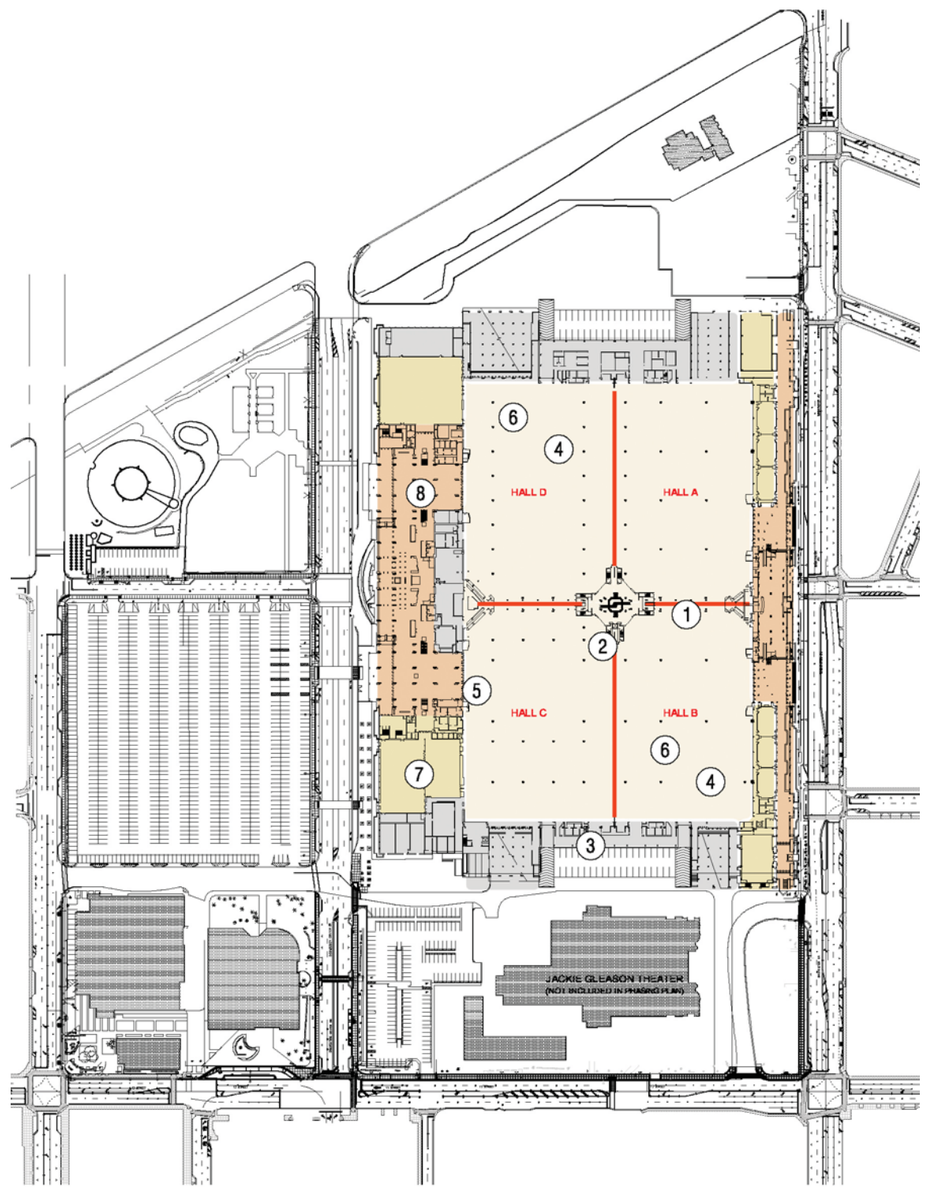
I. PROPOSED DEMOLITION:

The fire pumps and the associated zone valves will be removed. The valve room on the west side next to the entrance will be demolished. The remaining valve rooms will be demolished or relocated to a new area to meet the square footage limitations imposed by the code.

II. NEW WORK

The change in floor areas for the renovation and expansion will impact the significantly the fire protection system. Refer to the architectural drawings for actual floor areas.

Due to the architectural changes proposed, a combination standpipe/ sprinkler system will be required. Due to the increased pressure requirements of the high rise expansion, two (2) new identical fire pump will be furnished to provide a minimum of 100psi at the most remote fire hose connection on the standpipe system. A loop wet pipe sprinkler system will serve the four halls. Sprinkler zone valves shall be located in four rooms including the fire pump room to serve each fire zone area based on 52,000 sq.ft. limitation. Quick-response heads will be installed throughout with concealed, upright, pendent, and side-wall sprinkler head type provided in different areas based on ceiling provisions.



4.3.7 STRUCTURAL

1. Removal of sky bridge and columns

The sky bridge is a structure independent from the roof structure. It can be removed completely including the roof. For shearwalls see below. At the roof level new steel joists need to be introduced to fill the void caused by the removal of the sky bridge roof. These joists will span from the existing steel trusses on each side of the roof opening. The existing steel trusses may need to be reinforced as a result of the new loads. An expansion joint will have to be provided on one of the two sides of the new roof.

2. Removal of shearwall near sky bridge

The shearwalls in questions are No.1 and No. 4. These shearwalls were introduced during the remodeling and expansion in the 1980's as a result of the then exterior wall being removed in the north-south direction. The shearwalls are also supporting the existing roof. They can be removed, but a column will have to be introduced and an alternative method of resisting the lateral loads will have to be designed.

3. Possible conflict of structure at north end of loading dock

The existing structure has two floors in this area. The second floor is a concrete flat plate and the roof consists of steel joists supported on concrete beams. If some areas of the structure are to be removed as a result of architectural requirements, it can be done. We recommend that the structure be removed from bay to bay as to minimize the impact.

4. Possibility of additional loads on the exhibit hall structure

The existing exhibit hall structures are framed with lightweight insulating concrete, metal deck supported on steel joists and steel trusses. The existing structure as is, has no capacity to support any additional loads.

5. Possible problems with existing footings of exhibit halls and new footings

We do not anticipate any problems as no additional loads can be added at the roof structure of the exhibit halls. There could be some issues with the footings at the west side of the structure. Coordination will have to be done with the geotechnical engineer to minimize differential settlement.

6. Removal and installation of floors in exhibit halls

This can be accomplished without much difficulty. The footings are deep enough that they will not be affected by the excavation, removal and replacement of the concrete slab. The concrete slab should be laid in a honeycomb fashion to resist shifting and settling.

7. **Adding three levels of meeting rooms and parking in the existing west building**

The existing structure will have to be reinforced to add meeting rooms and parking. The footings will have to be increased in size or piles added, the columns will have to be reinforced with additional concrete or structural steel and shearwalls will have to be added in order to support the additional gravity and lateral loads.

Another option, if the cost is excessive, is to demolish the building and construct a new one.

Several columns in the west building will need to be removed to allow for access for trucks

Our recommendation is to demolish the portion of the building where the columns are to be removed. Additional floors are contemplated in this area and it is not feasible to shore the remaining structure, place new transfer girders and reinforce the columns and footing supporting the transfer beams.

Sky Walk to be Demolished

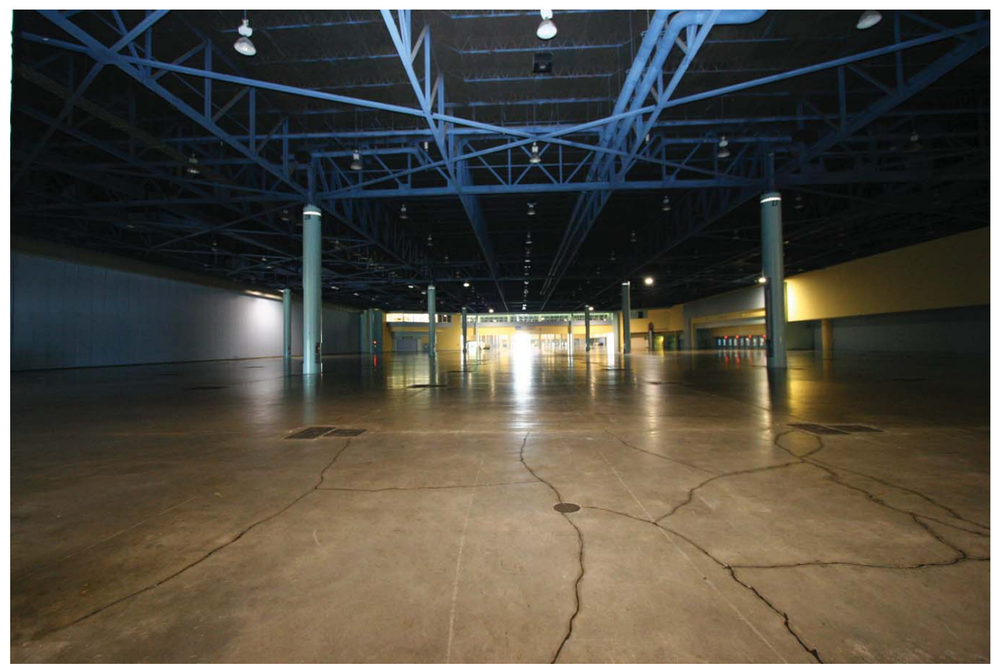


Exhibit Hall Structure

AERIAL VIEW FROM DADE BOULVARD

4.3.8 SUSTAINABILITY MEASURES

The proposed design for the MBCC Expansion Master Plan incorporates passive sustainable features, which are in many ways more sustainable than the more visible (and expensive) features such as solar panels on the roof or a green roof. The passive sustainable features include the following:

- Orienting the main components of a convention center with glazing to be south facing so that there is less heat gain than east and/or west exposures. The pre-function area has been reoriented to face south instead of the existing pre-function which face east and west. Deep vertical fins on this elevation will block the heat from the rising and setting sun (coming from the southeast and southwest) while still maximizing the indoor-outdoor relationship between the pre-function and the activities to the south—the new plaza, Lincoln Road, NWS and Lincoln Park. While there is still pre-function on the east side, this is lower and has deep overhangs and vertical fins to minimize solar heat gain inside. The pre-function area on the west side of the upper ballroom and meeting room levels have balconies and vertical fins, providing horizontal and vertical shading to the afternoon sun from the west.

- The largest component of the MBCC Expansion program (and therefore the largest energy user) is the exhibit space, which is insulated from solar heat gain in the proposed layout but being wrapped by the pre-function on the east and south (with minimal west frontage) and the loading/services areas to the north and west.

- Arquitectonica and its consultants coordinated with Ameresco to ensure the geothermal plant they have designed for CMB works with the proposed MBCC Expansion layout. A loop from the Ameresco geothermal plant will tie into the existing and future MBCC equipment at the south mechanical mezzanine. Geothermal plants are considered one of the most energy efficient systems, utilizing the naturally occurring temperature differentials to produce large quantities of energy.

Added sustainable features such as solar panels and green roofs can contribute to the overall project although there are cost and practical considerations to be factored in to determine if they are included in the

project.

- The structural engineer, DDA, has confirmed that the existing exhibit hall roof can support solar panels but the existing columns and foundations can't support the heavier green roof. Part of the final Master Plan deliverables will address options that could be considered in the future, such as a green roof over the entire project, and what would be needed for each of these options to be implemented.

- Solar panel options have been researched to determine which will provide the most energy for the available area. They have also been gathering preliminary information on tax rebates and other cost-defraying means that are available with the installation of solar panels and other sustainable features.

- Fuel cell generators such as those from Bloom Energy are in development but are still in the development phase. Depending on the schedule of the MBCC Expansion, these might be available to be used for the project.

- CMB has already contracted Ameresco to design a geothermal plant for the CMB campus that includes the MBCC. Ameresco's scope also includes updating the existing MBCC exhibit hall lighting to be more energy efficient fixtures.

- There are various programs available that the MBCC and/or CMB could study that are not design-related but could be beneficial. These include carbon offset programs, as well as federal and state programs. Miami Beach is one of two pilot communities for the Florida Energy Economic Zone (see http://www.dca.state.fl.us/fdcp/dcp/EnergyEZ/index.cfm) and this project could be coordinate with that program as well.

In summary, sustainable features provide long-term savings but have an initial cost that will need to be considered as the project progresses from the Master Plan to the funding of the building projects that will make up the MBCC Expansion project; the design of these building projects will need to be coordinated with the CMB / MBCC funding and sustainable goals.

NARRITIVE OF POTENTIAL LEED-NC MECHANICAL, ELECTRICAL AND PLUMBING CREDITS

I. Mechanical, Electrical, and Plumbing Credits:

WE PR1: Water Reduction

EA PR1: Fundamental Commissioning of the building

EA PR2: Minimum Energy Performance

EA PR3: Fundamental Refrigerant Management

EA CR1: Optimize Energy Performance

EA CR2: On-Site Renewable Energy (Maybe column)

Use Photovoltaic panels on roof of existing building (375,000 square feet).

Approximate 1.2 to 1.4 Megawatts of power can be provided by solar panels.

Approximate Cost is between $7 and $9 million.

Backup power is by FPL grid; if battery backup is desired, it will add additional cost for the batteries and a room to house such.

Possible uses-Complete Convention Center lighting including garage lighting, water heating, special areas City wants to highlight for example decorative fountain pumps.

EA CR2: Enhanced Commissioning of the building

EA CR3: Enhanced Refrigerant Management

EA CR5: Measurement and Verification

EA CR6: Green Power (Maybe column)

Based on the energy usage as calculated on the Model, or the project square footage.

EQ PR1: Minimum IAQ Performance

EQ CR1: Outdoor Air Delivery monitoring

EQ CR5: Indoor chemical and pollutant source control

EQ CR6.1: Controllability of Systems: Lighting

EQ CR7.1: Thermal Comfort: Design

EQ CR6.1: Thermal Comfort: Verification

ID CR1.2: Low mercury lamps

ID CR1.4: Exemplary WE CR3-Water use reduction by 45%

LEED 2009 for New Construction and Major Renovation
Project Checklist

22	2	2	**Sustainable Sites**		**Possible Points:**	**26**
Y	N	?				
Y			Prereq 1	Construction Activity Pollution Prevention		
1			Credit 1	Site Selection		1
5			Credit 2	Development Density and Community Connectivity		5
	1		Credit 3	Brownfield Redevelopment		1
6			Credit 4.1	Alternative Transportation—Public Transportation Access		6
1			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms		1
3			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles		3
2			Credit 4.4	Alternative Transportation—Parking Capacity		2
		1	Credit 5.1	Site Development—Protect or Restore Habitat		1
		1	Credit 5.2	Site Development—Maximize Open Space		1
1			Credit 6.1	Stormwater Design—Quantity Control		1
1			Credit 6.2	Stormwater Design—Quality Control		1
1			Credit 7.1	Heat Island Effect—Non-roof		1
1			Credit 7.2	Heat Island Effect—Roof		1
	1		Credit 8	Light Pollution Reduction		1

6	0	4	**Water Efficiency**		**Possible Points:**	**10**
Y			Prereq 1	Water Use Reduction—20% Reduction		
2		2	Credit 1	Water Efficient Landscaping		2 to 4
2			Credit 2	Innovative Wastewater Technologies		2
2		2	Credit 3	Water Use Reduction		2 to 4

9	18	8	**Energy and Atmosphere**		**Possible Points:**	**35**
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems		
Y			Prereq 2	Minimum Energy Performance		0
Y			Prereq 3	Fundamental Refrigerant Management		
2	15	2	Credit 1	Optimize Energy Performance		1 to 19
	3	4	Credit 2	On-Site Renewable Energy		1 to 7
2			Credit 3	Enhanced Commissioning		2
2			Credit 4	Enhanced Refrigerant Management		2
3			Credit 5	Measurement and Verification		3
		2	Credit 6	Green Power		2

6	5	3	**Materials and Resources**		**Possible Points:**	**14**
Y			Prereq 1	Storage and Collection of Recyclables		0
1	1	1	Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof		1 to 3
	1		Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements		1
1		1	Credit 2	Construction Waste Management		1 to 2
	2		Credit 3	Materials Reuse		1 to 2

Materials and Resources, Continued

Y	N	?			
2			Credit 4	Recycled Content	1 to 2
2			Credit 5	Regional Materials	1 to 2
	1		Credit 6	Rapidly Renewable Materials	1
		1	Credit 7	Certified Wood	1

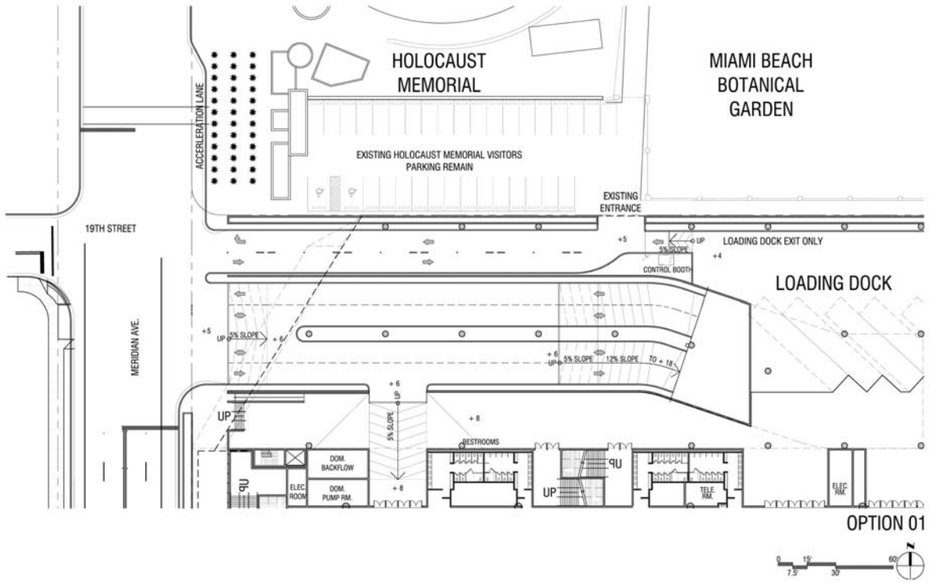
10	4	1	**Indoor Environmental Quality**		**Possible Points:**	**15**
Y			Prereq 1	Minimum Indoor Air Quality Performance		0
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control		0
1			Credit 1	Outdoor Air Delivery Monitoring		1
	1		Credit 2	Increased Ventilation		1
1			Credit 3.1	Construction IAQ Management Plan—During Construction		1
		1	Credit 3.2	Construction IAQ Management Plan—Before Occupancy		1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants		1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings		1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems		1
1			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products		1
1			Credit 5	Indoor Chemical and Pollutant Source Control		1
1			Credit 6.1	Controllability of Systems—Lighting		1
	1		Credit 6.2	Controllability of Systems—Thermal Comfort		1
1			Credit 7.1	Thermal Comfort—Design		1
1			Credit 7.2	Thermal Comfort—Verification		1
	1		Credit 8.1	Daylight and Views—Daylight		1
	1		Credit 8.2	Daylight and Views—Views		1

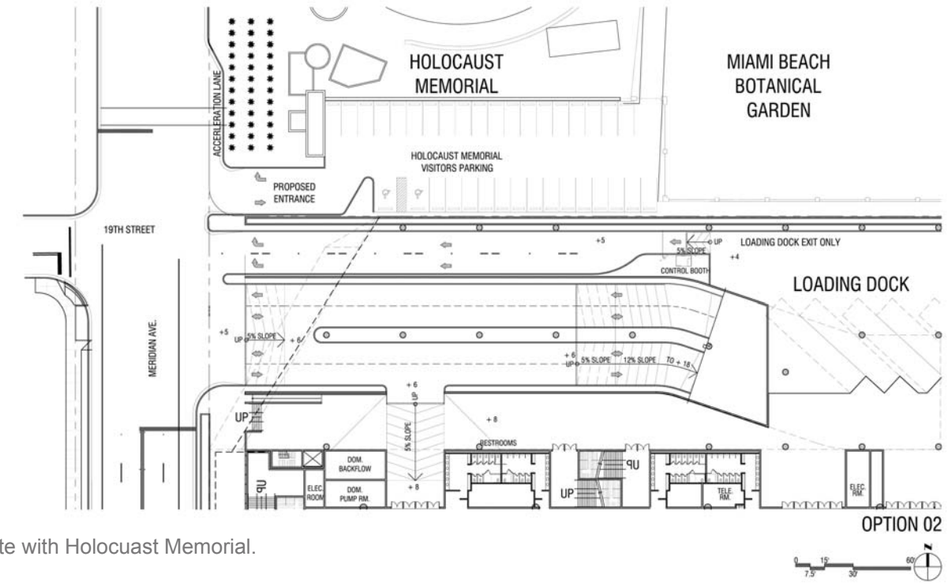
6	0	0	**Innovation and Design Process**		**Possible Points:**	**6**
1			Credit 1.1	Innovation in Design: Green Building Program (by contractor)		1
1			Credit 1.2	Innovation in Design: Low Mercury Lighting		1
1			Credit 1.3	Innovation in Design: Green Cleaning		1
1			Credit 1.4	Innovation in Design: Exemp. WEc3 Water Use Reduced to 45%		1
1			Credit 1.5	Innovation in Design: Exemplary SSc4.1 Public Transportation		1
1			Credit 2	LEED Accredited Professional		1

1	0	3	**Regional Priority Credits**		**Possible Points:**	**4**
		1	Credit 1.1	Regional Priority: SSc5.2 Maximize Open Space, Case 3 to 20%		1
		1	Credit 1.2	Regional Priority: MRc1.1 Building Re-use to 75%		1
		1	Credit 1.3	Regional Priority: WEc2 Innovative Wastewater Technologies		1
1			Credit 1.4	Regional Priority: MRc5 Regional Materials to 20%		1

60	29	21	**Total**		**Possible Points:**	**110**

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110





Garage / Loading access Options to Coordinate with Holocuast Memorial.

4.4 NEIGHBORHOOD INTERFACE

As discussed in Section 3.3.5, meetings were held with neighbors of the Miami Beach Convention Center to discuss the project in general as well as in the particulars that relate to each neighbor. The Master Plan for the expanded MBCC incorporates many of the comments from the neighbors and the continued process of bringing the MBCC Expansion to reality will incorporate comments from its neighbors and the community. Some of the concerns raised by the neighbors were studied and resulted in alternate designs that are presented in this section.

The representatives of the Miami Beach Botanical Garden and the Holocaust Memorial were concerned that the new garage would cast shadows on their properties and dominate their views to the south and east (for the Botanical Garden). Shadow studies were done early during the design process since it was anticipated there would be concern regarding the height of the garage (*refer to Section 4.2, page 93*). There is minimal shadow to the north of the proposed expanded MBCC since the north façade of the garage steps back 20'-4" above ground level and at each level steps back with planters to its total height of 50'. The 100' high structure that houses the new exhibit halls and multi-function rooms is on the south side of the project and therefore its shadow falls on the garage roof and not beyond the north boundary line of the MBCC. The proposed garage was designed with the stepped planters in order to address its neighbors to the north, both in terms of massing and shadow. The planters extend the greenery of the Botanical Gardens and will create a more cooling environment to its neighbors compared to the heat island created by the existing on-grade parking lot.

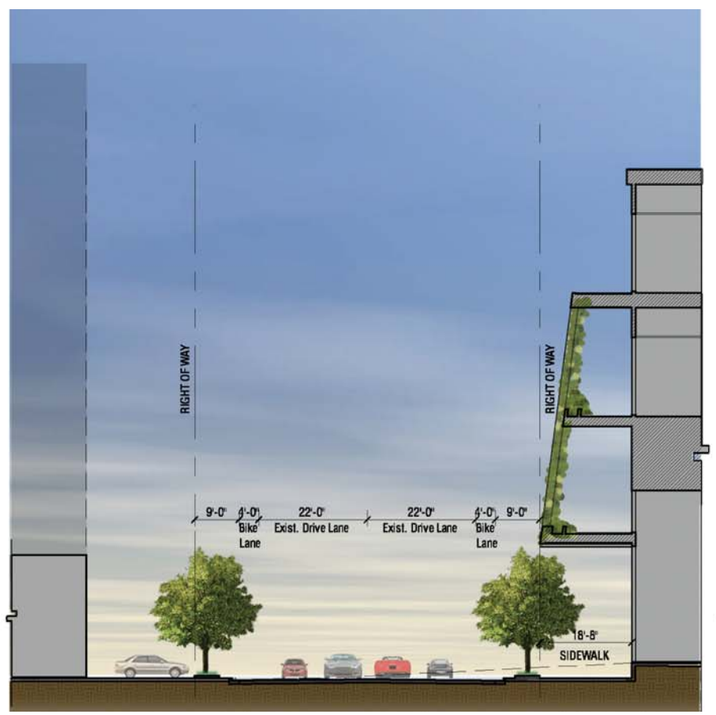
The Holocaust Memorial requested the access/egress to the parking garage and loading area be revisited so that it didn't change the layout of the parking lot dedicated to the Holocaust Memorial since their docents need the close proximity of the parking to the Memorial. Two proposed options were developed, as shown in the Holocaust Memorial Parking Study Option 1 and Option 2 (*refer to page 147*). Option 1 maintains the existing entry to the parking lot by shifting back the loading area gate to east of the parking lot. Option 2 keeps the loading circulation separate from the parking lot by creating a new entry to the parking lot directly on Meridian Avenue, with a revised location to the Memorial's restrooms. The intent of both options is to minimize the impact of the expanded MBCC on access to the Holocaust Memorial.

Sightline Diagrams of South Elevation

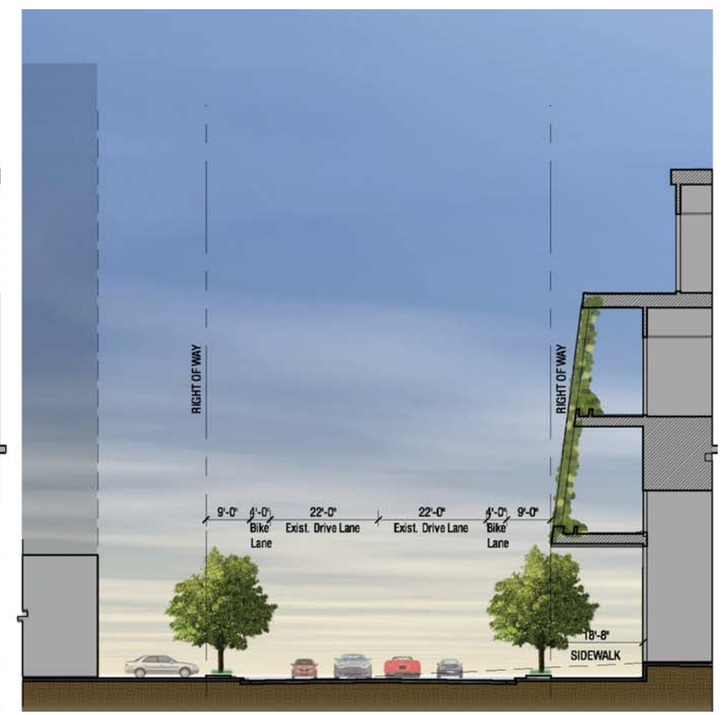
Sightline Diagrams of South Elevation

Alternate Option A

Alternate Option B



Alternate Option A Section

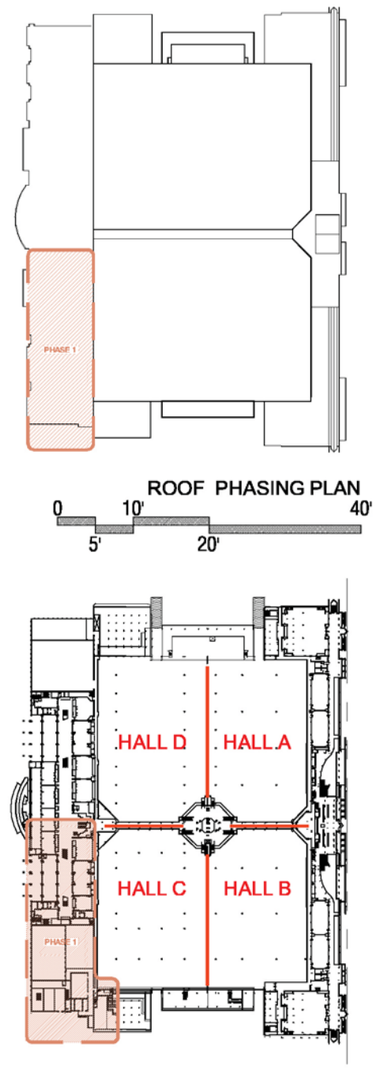


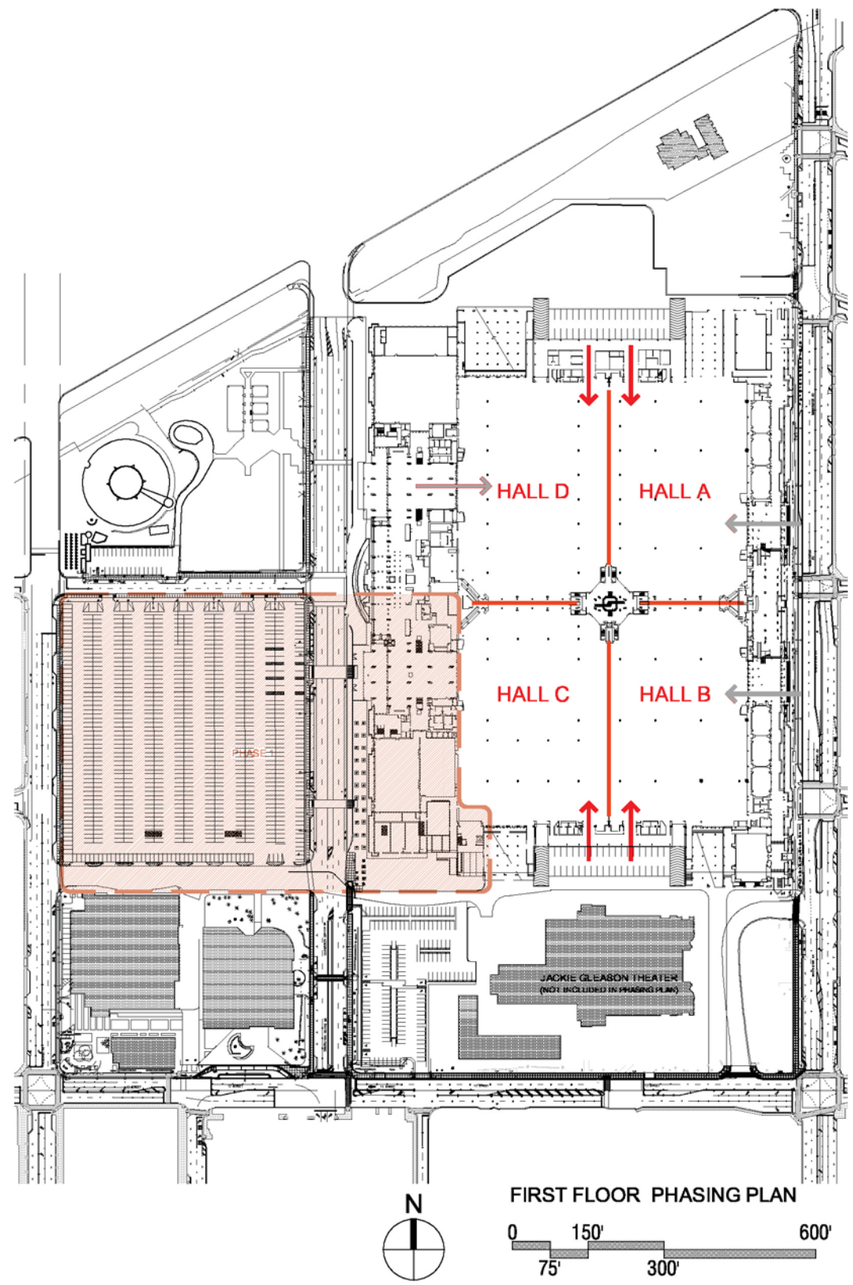
Alternate Option B Section

The relationship of the expanded MBCC with the Holocaust Memorial is shown in the Detailed Elevation Studies (*refer to page 148*) of the north and west elevations. As demonstrated with the sightlines, the view of the garage is minimal since the trees to the south of the Holocaust Memorial black the view of the proposed garage. In addition. the existing Holocaust Memorial parking lot is fairly wide, providing distance between the Memorial and the proposed stepped garage. The taller portion of the MBCC Expansion is much further south. The north elevation also shows the landscaped wall of the ground level loading area that will provide visual and acoustic screening of the loading area.

The residents of the Palm View neighborhood to the west side of Meridian Avenue voiced concern about the 100 foot façade of the expanded MBCC on Meridian Avenue. Section 4.3.3 discusses how the Master Plan design addresses setbacks as well as the maximum building height. While the 100' height is needed in order to fit the expanded MBCC program, there are two options on how to reduce the height along the face of the street. As per Meridian Avenue Alternate 1 on this page, the open balconies and vertical screen are angled back so that at the bottom the overhang is extended to cover the 18'-8" wide sidewalk and at the roof is set back the same 18'-8" (this setback is equal to that of the City of Miami Beach Parking Garage / Office to the south of the expanded MBCC on Meridian Avenue). Meridian Avenue Alternate 2 has the meeting room pre-function spaces cut back so there is a setback of over 30 feet along portions of the Meridian Avenue façade. Both of these options have planters integrated with the angled screen so that the west façade is shaded with a large scale trellis, creating a vertical garden that will be more visually appealing than the existing on-grade parking lot.

Consideration of the neighbors has been discussed during the entire design process and will continue to be part of the process in order to make the final MBCC Expansion an improvement over the existing MBCC in all ways. The proposed MBCC Expansion will balance the current one-sided streetscape of Meridian Avenue and bring a new vitality to the neighborhood. This includes improving the overall quality of the neighborhood by creating a better urban connection between the pedestrian activity on Lincoln Road to the Holocaust Memorial and Botanical Garden, and further along the canal path to the Collins Park, with wider sidewalks shaded by improved landscaping as well as the arcade-like feature along Meridian Avenue. The master plan design intent is to integrate the expanded MBCC with the surrounding city to improve the neighborhoods as well as the MBCC.





4.5 PHASING AS PER CONTINUED OPERATIONS

1.0 PHASE 1 (EXISTING HALLS A, B, C AND D IN OPERATION WITH ACCESS FROM EAST PREFUNCTION)

1.1 Utility work needs to be completed prior to commencement of rest of Phase 1 scope.

1.2 Center portion of Convention Center Drive (CC Drive) demolished (west of Hall C); access to south loading area for service/loading access maintained.

1.3 Demolish P-Lot.

1.4 Demolish West Wrap of Hall C.

1.5 New construction as per High-Rise fire code requirements.

1.6 New construction of new exhibit hall space and meeting room/multi-function room level.

1.7 West half of new entry drive constructed.

1.8 New rooms and equipment for domestic water pump and fire pump.

1.9 New rooms and equipment for electrical rooms and switchgear.

1.10 New AHUs and kitchen exhaust.

1.11 Reconfigure sprinkler zone within existing Sprinkler Zone Vault rooms.

1.12 Add 2 new cooling towers and 2 new chillers (@ 1200 tons) to existing cooling tower area at upper south end of existing halls (area is outside of main Phase 1 scope). Note, the cooling towers may not be needed if Ameresco geothermal plant is constructed before this phase.

1.13 Add new generator to existing cooling tower area at upper south end of existing halls (area is outside of Phase 1 scope). Retrofit and transfer connection of existing cooling tower (at upper south end of existing halls) to new generator.

1.14 Existing Transformer Vaults located in SE corner of Phase 1 site to be kept operational during this phase.

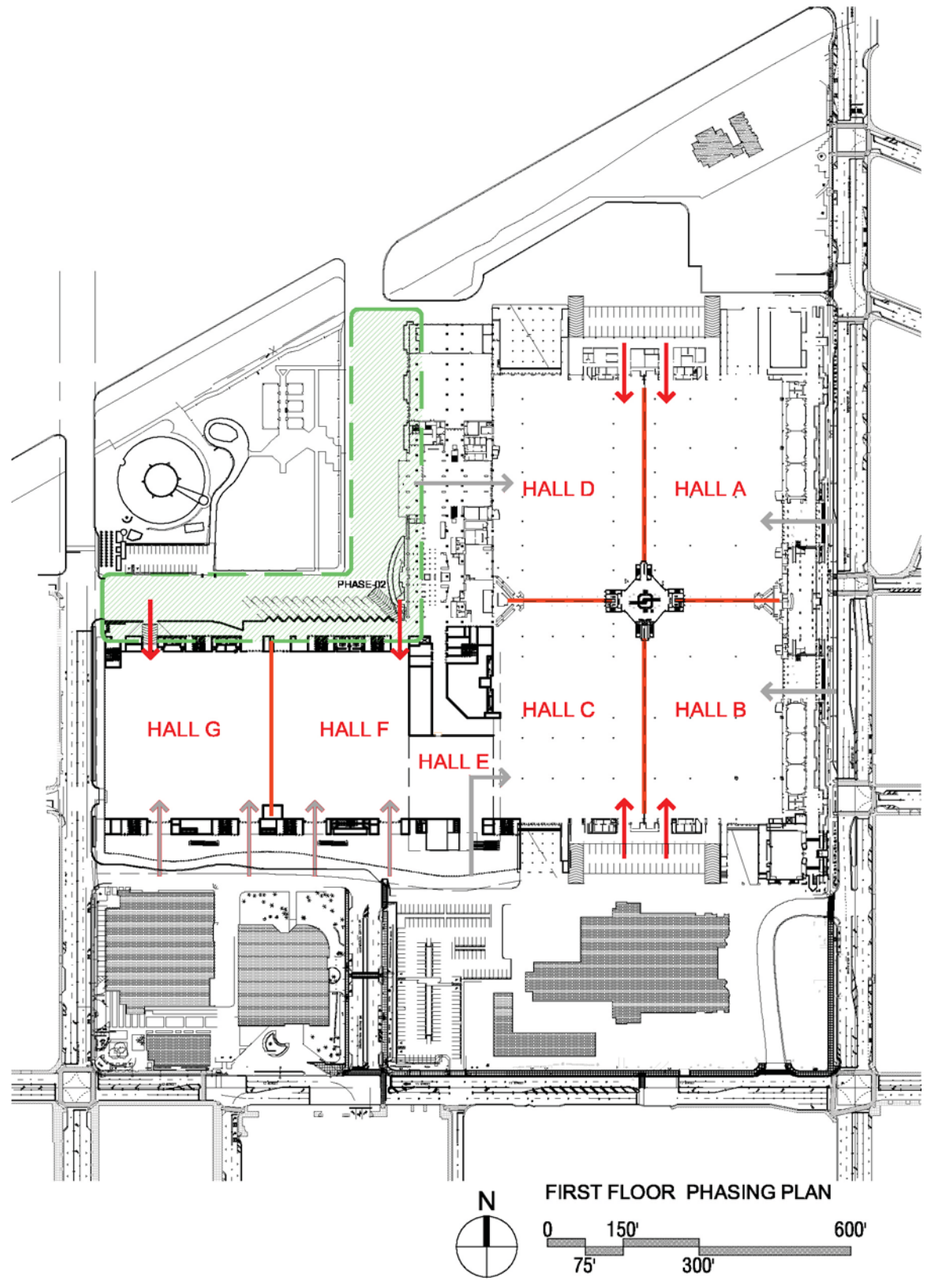
1.15 New grease interceptors located in Level 1 driveway (for Phase 1 scope).

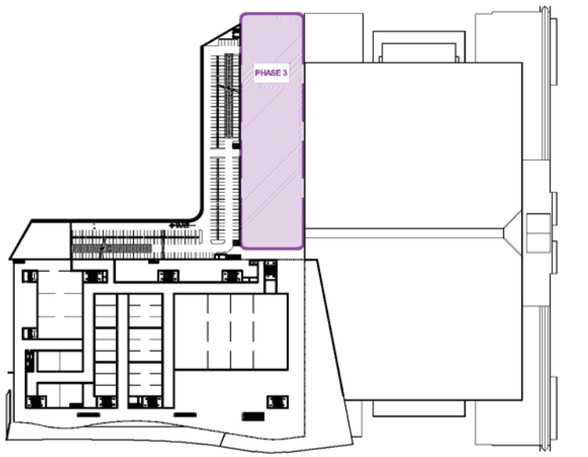
2.0 PHASE 2 (EXISTING AND NEW HALLS A, B, C, F AND G IN OPERATION)

2.1 North half of CC Drive closed and demolished.

2.2 New construction of Garage.

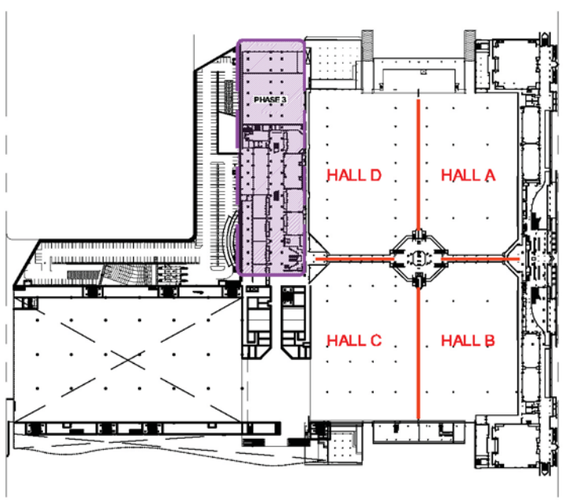
2.3 New m/e/p rooms and equipment for generator, switchgear room, small transformer vault and electrical rooms.





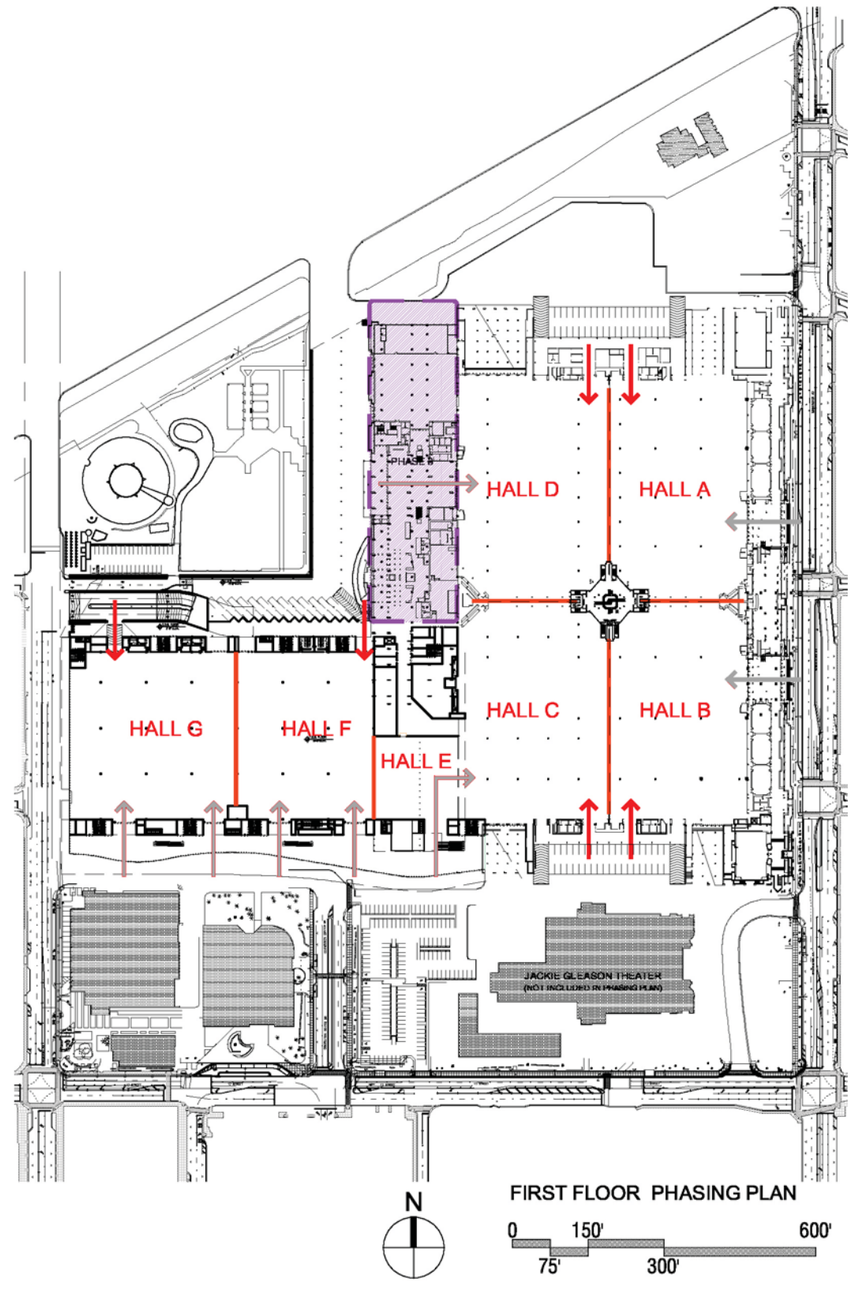
ROOF PHASING PLAN

0 10' 40'
5' 20'



SECOND FLOOR PHASING PLAN

0 200' 800'
100' 400'



FIRST FLOOR PHASING PLAN

0 150' 600'
75' 300'

3.0 PHASE 3 (EXISTING AND NEW HALLS A, B, C, F AND G IN OPERATION)

3.1 New West Wrap (Level 1 loading/BOH area, Level 2 meeting rooms, garage levels above) (west of Hall D).

3.2 SkyWalk modified since existing West access is blocked.

3.3 Existing Fire Pump and m/e/p rooms demolished.

3.4 New Fire Pump Room at North end of this phase (with new electrical fire pump). Note, the existing fire pump at the SW end of the building can cover the existing building during this phase although there won't be any redundancy until new fire pump installed.

3.5 New Fire Command Center (FCC) constructed as per high-rise requirements but not necessarily fully operational at end of Phase 3 since existing FCC to remain operational until later phase.

3.6 New rooms and equipment for generator, switchgear room, small transformer vault and electrical rooms.

3.7 New AHUs installed.

4.0 PHASE 4 (EXISTING AND NEW HALLS A, B, C, F AND G IN OPERATION WITH ACCESS FROM EAST PREFUNCTION)

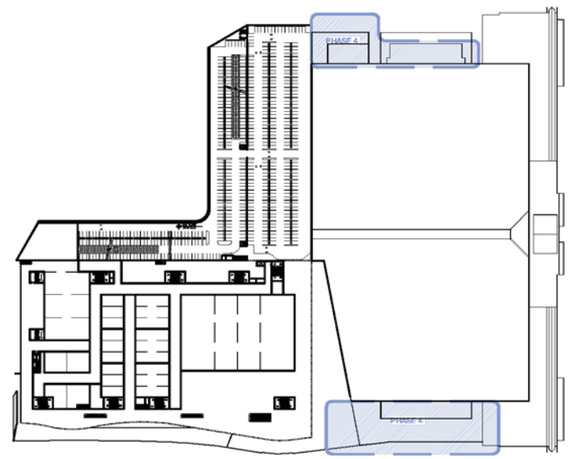
4.1 Demolish south loading dock area (Level 1 only); Upper level m/e/p area to remain.

4.2 New construction of SE Prefunction; new façade/cladding of upper level m/e/p area.

4.3 New entry drive completed (with grease interceptors below for Phase 6 restaurants in plaza).

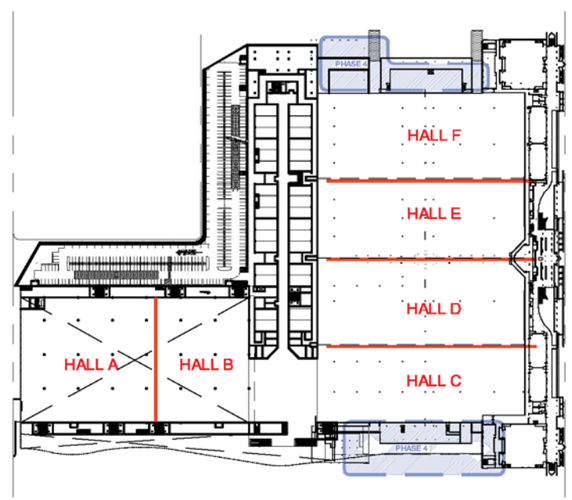
4.4 Rework air distribution and fire alarm system as per new prefunction.

4.5 No major new m/e/p equipment.



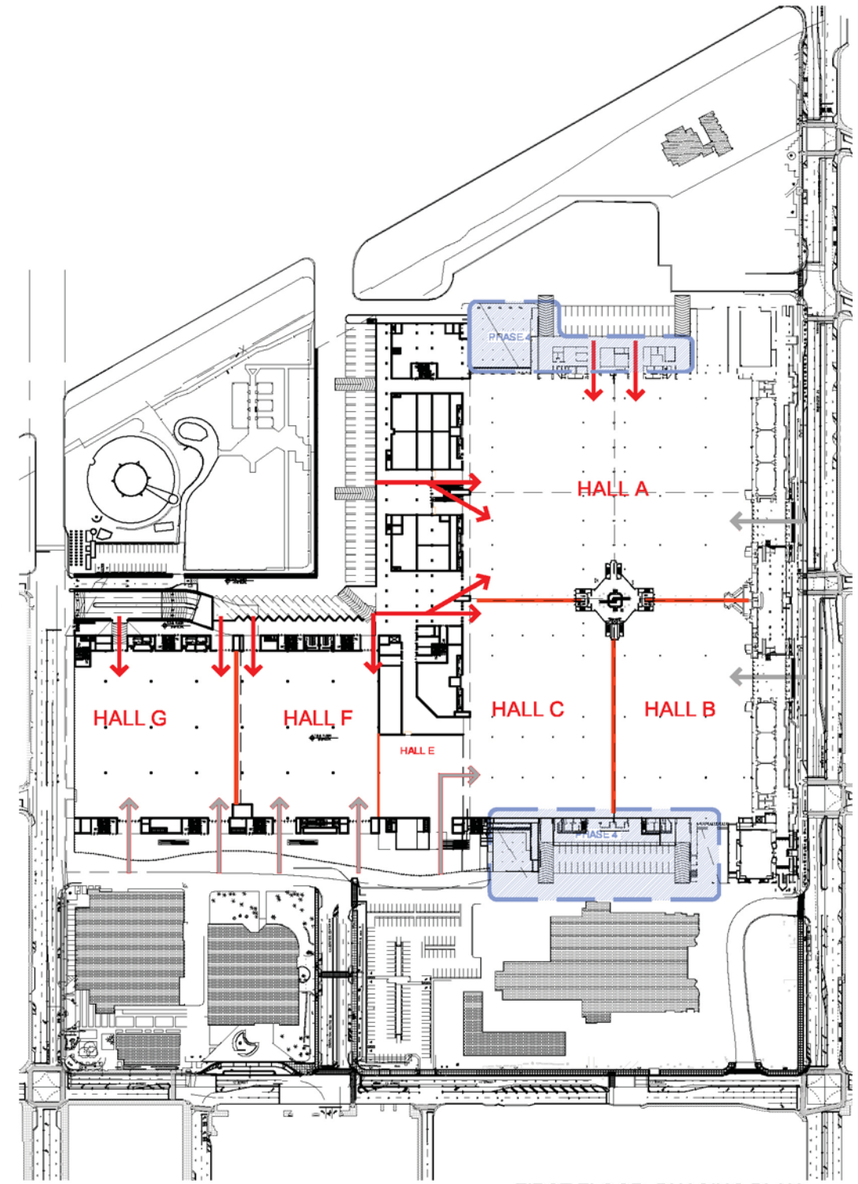
ROOF PHASING PLAN

0 200' 800'
100' 400'



SECOND FLOOR PHASING PLAN

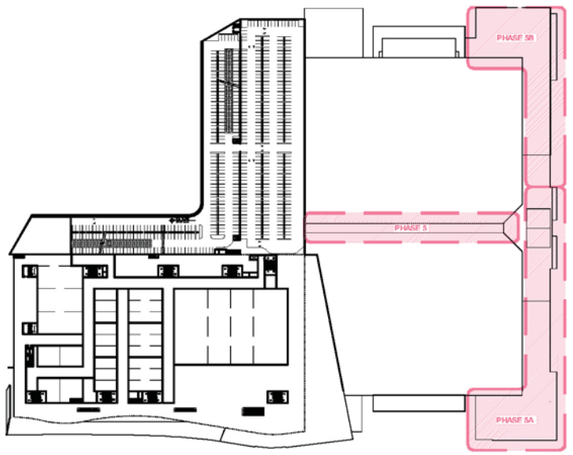
0 200' 800'
100' 400'



FIRST FLOOR PHASING PLAN

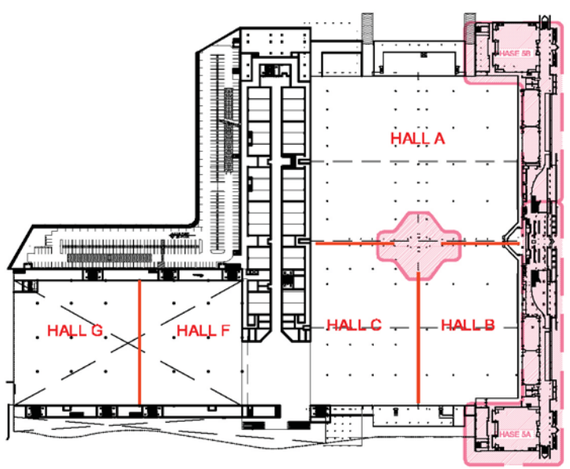
0 150' 600'
75' 300'

4.5 PHASING AS PER CONTINUED MBCC OPPERATIONS



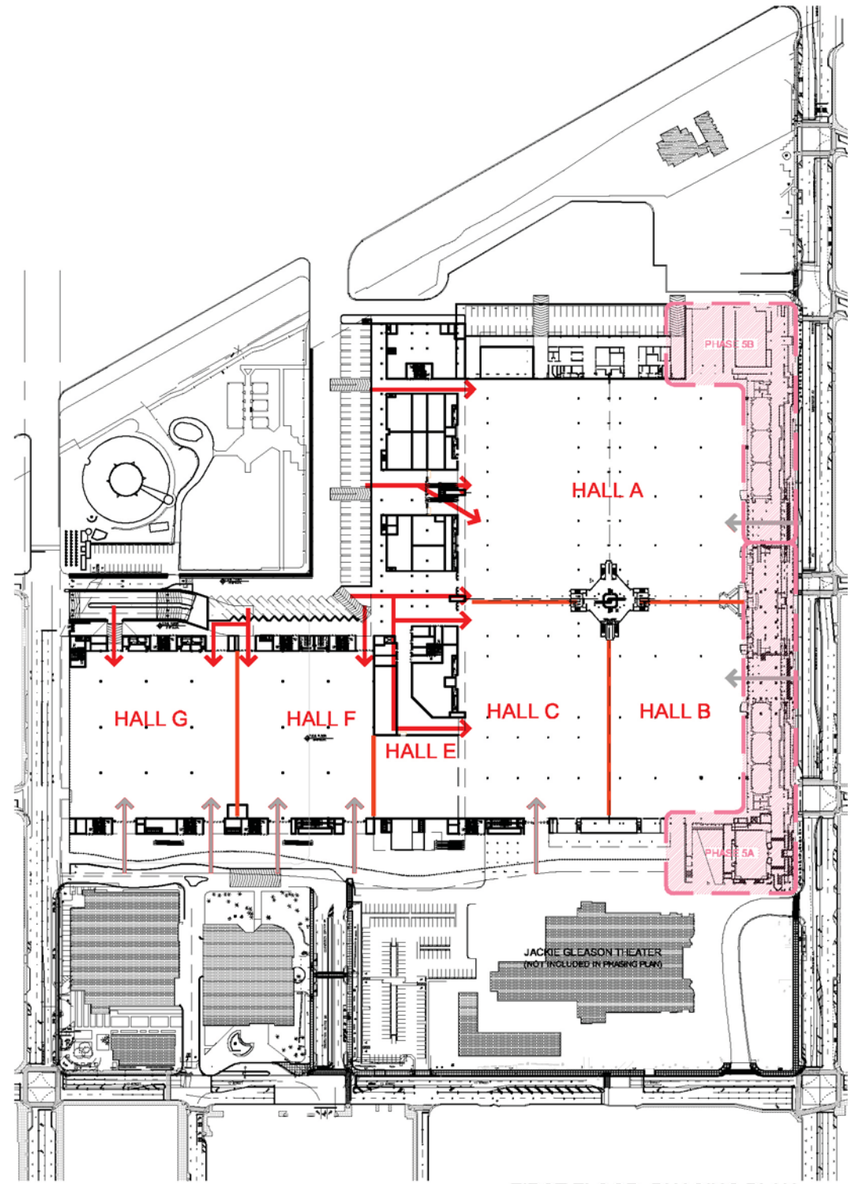
ROOF PHASING PLAN

0 200' 800'
100' 400'



SECOND FLOOR PHASING PLAN

0 200' 800'
100' 400'



FIRST FLOOR PHASING PLAN

0 150' 600'
75' 300'

5.0 PHASE 5 (EXISTING AND NEW HALLS A, B, C, E, F AND G IN OPERATION)

5.1 Existing East Wrap structure remains; patch and repair as needed.

5.2 New east façade with new ground level edge slab.

5.3 New demising walls for exhibit hall entries, meeting rooms, prefunction, visitor amenities (restrooms, etc.).

5.4 New finishes.

5.5 NE corner (existing gridline 1 to existing gridline 3) to be renovated only (meeting rooms).

5.6 SE corner demolished full height and replaced with new construction.

5.7 Existing mechanical rooms and equipment to remain. Only low pressure ductwork to be removed and new installed as per new layout.

5.8 Existing Sprinkler Zone Valve Room and equipment to remain. Only change heads, etc.

5.9 Update existing Fire Command Center, Transformer Vault and Fire Alarm Room which are outside of Phase 1 scope (at north side of building for FCC and FAR; south side for TV) as per new Phase 1 program.

5.10 Add new fire alarm panel in existing Electrical Room.

5.11 Add Power Logic panels for lighting, etc. in existing Electrical Room.

6.0 PHASE 6 (NEW HALLS A, B, C, D, E, F AND G IN OPERATION WITH ACCESS FROM NEW ENTRY DRIVE AND EAST PREFUNCTION)

6.1 Skywalk demolished.

6.2 Phase 6A and 6B (sequentially, with 6A first): Demolish existing floor slab, install new slab with electrical, plumbing and possibly gas lines. Install new lighting in halls (unless already done as per Ameresco project).

6.3 Phase 6C: Demolish south end of original CC Drive. Construct new plaza and restaurant (shell space) and Level 3 Prefunction Terrace.

6.4 Phase 6D and 6F: Construct new 1-story retail/restaurant buildings (shell space). Heat pumps to be installed, connected to MBCC cooling towers. Electrical provisions to be connected to MBCC transformer vault.

6.5 Phase 6E: Renovate existing 1-story building to be retail/ restaurant buildings (shell space). Heat pumps to be installed, connected to MBCC cooling towers. Electrical provisions to be connected to MBCC transformer vault.

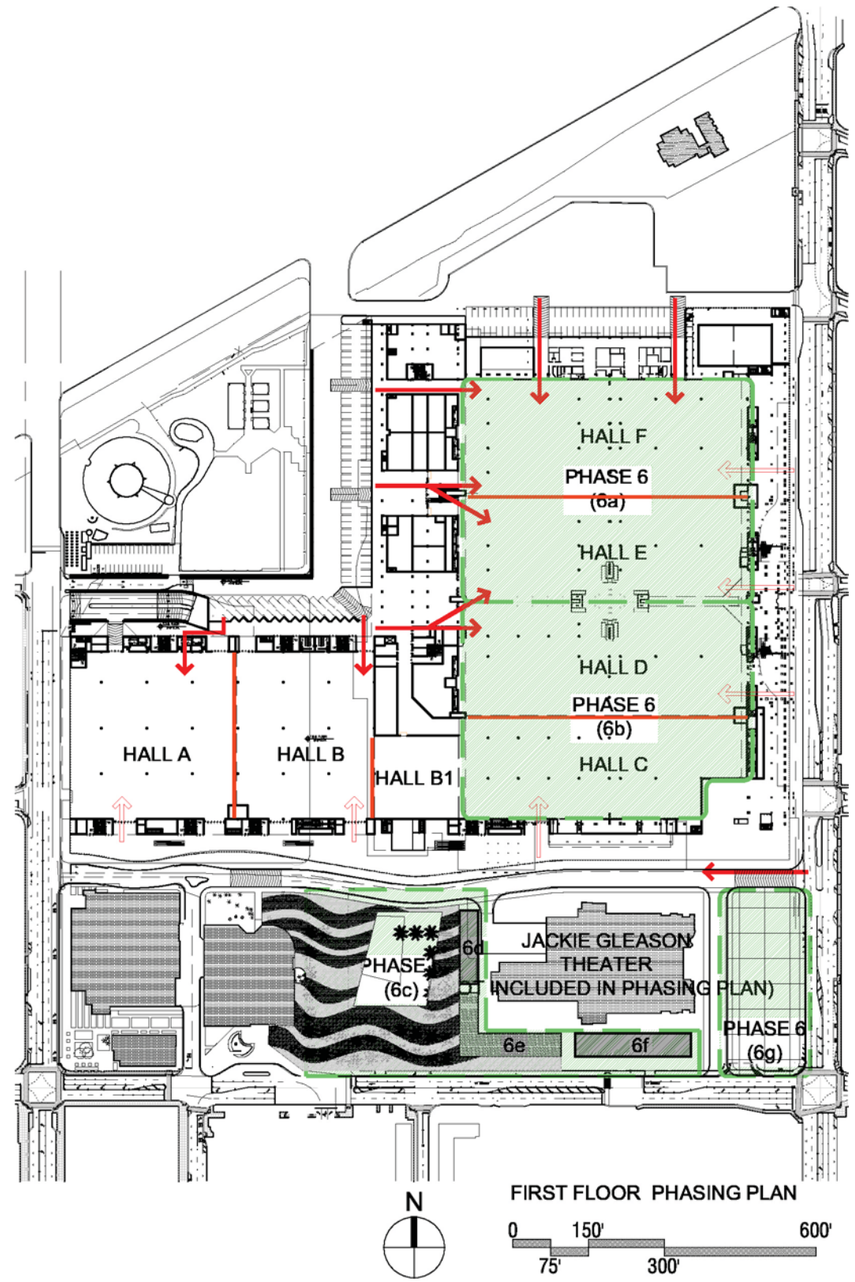
6.6 Phase 6G: New landscaping.

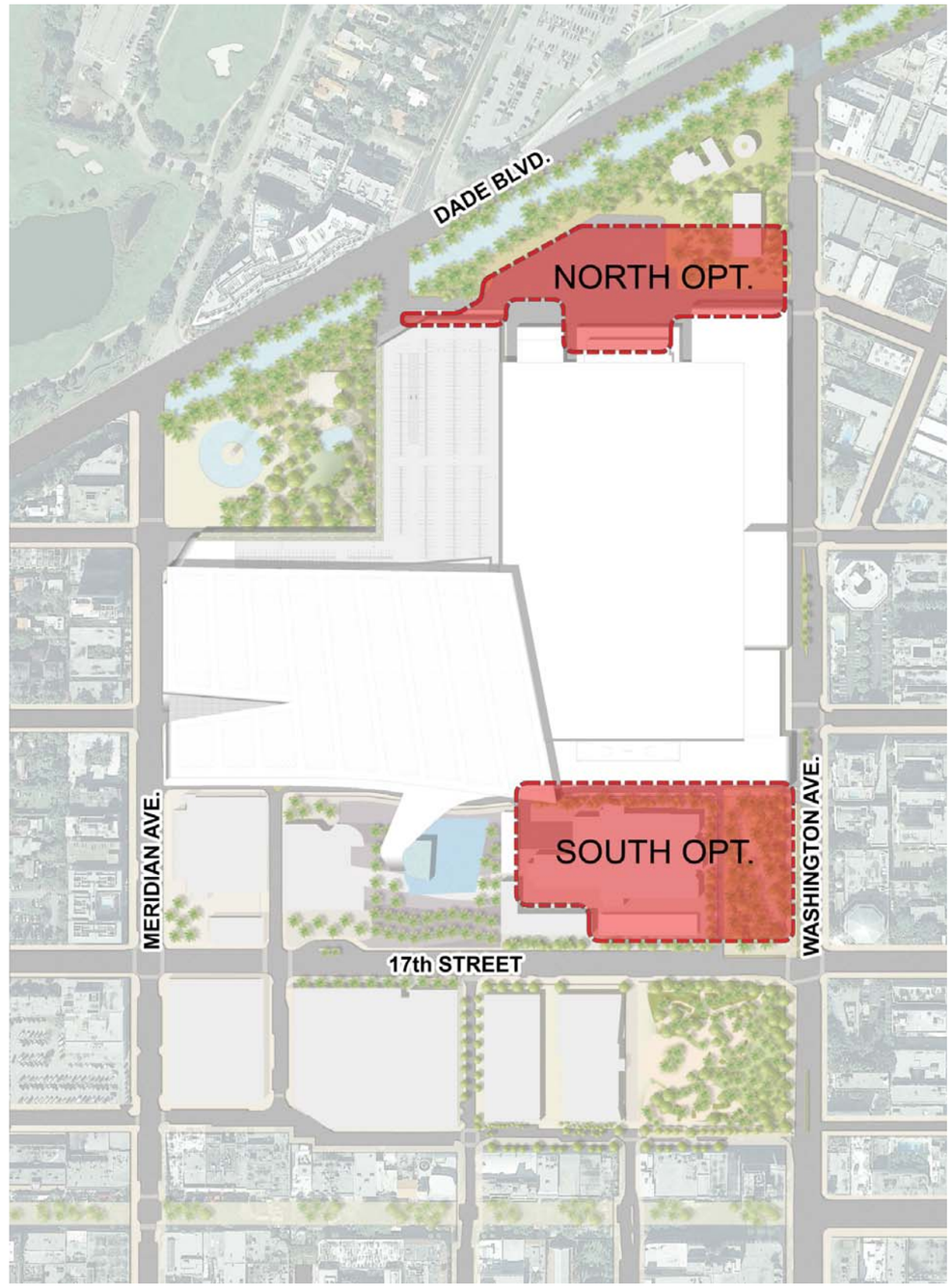
ESTIMATED CONSTRUCTION SCHEDULE BY PHASE

(A three-month inactive period is used between each phase but may fluctuate to accommodate the facility's actual booking schedule and is not included in the durations noted below.)

- Phase 1: 24 months
- Phase 2: 8 months
- Phase 3: 12 months
- Phase 4: 8 months
- Phase 5A: 12 months
- Phase 5B: 12 months
- Phase 6: 12 months

(Refer to Section 5.2.1 for discussion regarding the estimated construction schedule and escalation.)





4.6 POTENTIAL CONVENTION CENTER HOTEL SITES

Although a convention center hotel is not part of the scope of the MBCC Expansion Master Plan, a study was done to ensure that the expanded MBCC allowed for at least one feasible site for a convention center hotel, should one be developed in the future. Typical convention center planning and the CS&L report state that having an adjacent 700 to 1200 guestroom hotel is critical for a convention center to be competitive. As per Section 7.2 of the CS&L report: “In many markets, there are several large hotels adjacent to the center. The lack of such a property to the MBCC represents a competitive disadvantage when competing for high-impact conventions and tradeshows.”

If and when an adjacent convention center hotel is built, two possible locations were determined to be to the north of the MBCC along Washington Avenue and Collins Canal and next to the Little Theater. Another possible location is to the south of the MBCC, where the existing Jackie Gleason Theater is located. The two sites took into consideration how a future hotel would coordinate with the necessary aspects of the MBCC and how the hotel would connect to the expanded MBCC in the future. The analysis was based on the logical assumption that a hotel could fit as per the current zoning with a 100 feet height limit. The Potential Hotel Locations diagram indicates the two options for sites for where a convention center hotel could be fit and be located when the time comes.

Either of the possible convention center hotel locations would allow Miami Beach to have what many other cities around the country (such as San Diego, Houston, Chicago, Nashville) have today, namely a hotel that has a physical connection with the convention center and also has enough rooms (800 to 1000 rooms) to accommodate conventioneers who expect the convenience of adjacency to the convention center. These potential locations will address a necessary component for the Miami Beach Convention Center to be competitive.

AERIAL VIEW FROM WASHINGTON AVENUE

4.7 LONG TERM OPTIONS

A series of alternative components were considered in the design process that were not incorporated into the proposed design but remain important for consideration in the future. These items are not essential to the completed plan but reside high up on a "wish list" of items adding significant value to the facility. The order of magnitude pricing is estimated for each of the items.

- **Solar Panels on the Roof of the Existing Exhibit Halls:**

  Solar panels have been recommended the early phases of the new construction as their weight support detailing can be readily incorporated in new construction, but not any of the existing roofs. Proper waterproofing and accommodating the sheer weight of the fully operating panels would require retrofitting the affected areas of the existing long-span roof over the exhibit halls. This extent of renovation will not provide a level of payback to offset the high retrofit cost, unless further benefits are included like including additional upper storey sellable space.

  The panels are to be highly efficient crystalline photovoltaic panels, not a photo-voltaic membrane, and would be installed along with a new roofing membrane so that the necessary pedestal and membrane penetrations are all sealed and waterproofed at the same time.

  Order of Magnitude Pricing: $8.00 per SF for flat system; $10.00 per SF for tilted system

- **Vegetated Roof on Existing Exhibit Halls:**

  A high degree of planting including areas of vegetated roofs have been recommended for the proposed design within the new construction. Incorporating any occupied or vegetated roof areas over the existing halls would require redesigning the structural frame under these areas. This may include upgrading existing foundations, vertical support or wrapping existing columns and additional horizontal support framework as well as new roofing irrigation provisions.

  Vegetated roof systems discussed have ranged from both non-public green roof areas to as well as publicly accessible roof and planted areas.

  Order of Magnitude Pricing: $50.00 to $80.00 per SF

- **Additional Ballroom Space:**

  Since the new ballroom construction proposed in the master plan occurs in the SW area of the facility, additional ballroom space near the NE corner, close to Halls 5 & 6, could more readily serve users at that end of the expanded facility. Existing long-span roof trusses over existing areas are not able to support additional live loads without temporary closure for the required significant structural retrofit. For this reason, ballroom space in addition to the new construction area was left as a more long-term initiative.

  The alternative involves additional new construction on the north side of the NE corner of the site for approximately 6,000 SF in two levels, with support areas and circulation, allowing for a new 15,000 SF Jr. Ballroom. The project would include site work to provide a new vehicular drop-off off Washington Avenue as well as service access from the existing north loading/service area.

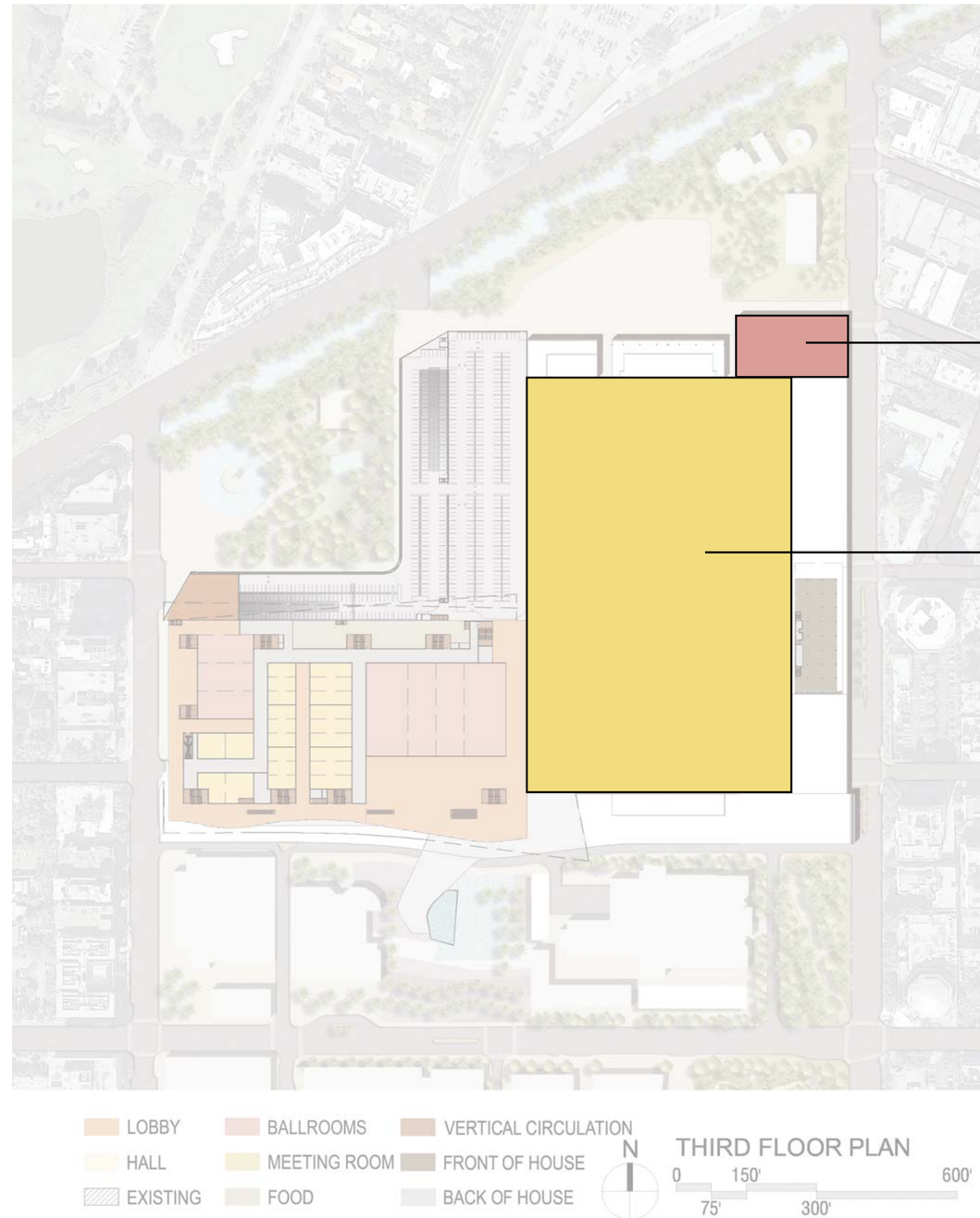
  Order of Magnitude Pricing: $80.00 to $100.00 per SF

- **New Exhibit and Meeting Space over the Existing Halls:**

  The proposed new exhibition space in Phase One of the plan along with the renovation of the existing halls in later phases is sized to meet and exceed the Center's exhibition needs for at least 12 to 15 years into the future. However, if future trends prove that an increase of sellable exhibit space is deemed necessary, we would not recommend a horizontal expansion that negatively impacts the adjacent community. Instead, additional meeting space can be accommodated by stacking over existing halls to deliver up to an additional 500,000 SF. This would allow for the public entries and service to remain as per the newly configured plan. The new space can be proportioned to provide an additional 200,000 SF of exhibition space plus 120,000 SF of new meeting space and ballrooms.

  A renovation of this type will require the demolition of existing exhibit hall structure and the construction of a new two level, 100-foot overall height facility. Along with the meeting space, the associated public/visitor vertical circulation from east and south prefunction areas including elevators, escalators and stairs would be needed. Also any associated service vertical circulation from west and north service areas would be included to serve a new loading dock at +50 feet along the north side of the building accessed via a helix ramp 120' in diameter.

  Order of Magnitude Pricing: $300.00 to $325.00 per SF



5 COST ANALYSIS

5.1 ALLOCATION OF CURRENT BUGDET

The Miami Beach Convention Center is one of the many varied assets that the City oversees and funds as part of the overall Miami Beach Capital Improvements Budget. Although funds have been available for some undetermined level of improvement or expansion for several years, any repairs or improvements that are approved generally come from a pre-established facility operating budget from the annual general fund. Therefore, the center's facility management routinely generates an ongoing list of items that need attention and funding. The list contains systems, equipment, finishes and furnishings for either repair or full replacement. The list is constantly re-evaluated and re-prioritized since the items certainly fluctuate significantly in degree of importance and estimated cost due to the limitations in annual funding. The operating budget is routinely able to handle immediate and impeding emergencies and refurbishment or replacement of long-overdue issues.

This current master planning process is understood to take time to develop, review, approve, fund, prepare a detailed design and finally construct. During that time, the existing facility must continue to not only honor their obligations for booked business, but also continue to sell future business. The current list of known operating improvements needs continual analysis as usual. However, the analysis must be made with a good understanding of the eventual approved improvements; items must be prioritized with a new set of criteria. There is obviously no point in expending already limited funds on items that are planned for replacement in the expansion/ renovation plan.

The management and design team worked together to gather any and all items that have been considered for repair, refurbishment or replacement and visited and re-prioritized each, in light of the planned new proposed Master Plan. The following list is a snapshot list of the recommended re-prioritized and categorized list.

	TASKS	CONTRACTOR	PLANNED/ ACTUAL START DATE	PLANNED/ ACTUAL FINISH DATE	STATUS	BUDGET	NOTES	TYPE	PRIORITY	COMMENTS
55.	Vinyl wall covering for operable wall panels		In Progress				Sense of place	Arch	0	
66.	Air wall refurbishment				Bids done	$2,200,000	Sense of place	Arch	0	
18.	Installation of transformers in Hall C for shows					$70,000	Operational improvement	Elec	0	
69.	Buss duct testing	JOC proposal			In Progress	$275,000		Elec	0	
70.	Audio system integration w/life safety annunciation	Honeywell			Complete	$118,740		Elec	0	
26.	Tables and chairs		In Progress		Vendor review	$500,000	Sense of place	Furn	0	
35.	Furniture replacement throughout		In Progress?			$1,000,000	Beyond service life	Furn	0	
24.	Cleaning equipment - high-speed buffer, commercial carpet extraction and scrubbers		Done			$50,000	Sense of place / maintenance	Maint	0	
39.	Carpet replacement throughout facility		Done? All/part?			$1,500,000	Sense of place	Maint	0	
54.	West side escalator replacement w/stairs		Hall C 6/25 Hall D 8/31	Hall C 9/16 Hall D 11/18	Complete	$1,600,000	Beyond service life, sense of place	Maint	0	
65.	Re-roof cooling tower areas					$190,000		Maint	0	
16.	Replacement of inoperative outside air dampers		In Progress		Complete	$50,000	Energy conservation	Mech	0	
50.	Replace roof-mounted package units		In Progress		Complete	$1,961,721	Energy conservation	Mech	0	
67.	Insertion of backflow preventers in domestic water lines				Complete	$150,000		Mech	0	
68.	Chiller surge protection	JOC proposal			Complete	$70,000		Mech	0	
12.	Garbage and recycling containers				Complete	$200,000	Sense of place	Ops	0	
30.	Manlifts and forklifts for maintenance					$300,000	Maintenance of facilities	Ops	0	
47A	Upgrade meeting rooms					$1,500,000	Sense of place	Arch	1	Adapt for phasing & impacts
3A	Electrical switchgear testing / preventative maintenance / replacement of switchgear					$500,000	Prevent catastrophic failure /safety	Elec	1	Split task; safety issues a priority
5A	Fire alarm control system upgrades					$1,000,000	Life safety	Elec	1	Assume head-end replaced first
11.	Landscaping exterior and interior					$150,000	Sense of place	Exterior	1	
53.	Repairs to exterior stairs					$350,000	Safety	Exterior	1	
38.	Main kitchen upgrades - dishwasher, walk-in coolers, freezers, cooking appliances					$90,000	Food service	Food	1	
4.	Installation of panic bars on hall doors				Complete	$119,000	Security / safety	Hdwe	1	
15.	Catwalk, beams, light fixtures and mechanical equipment cleaning					$15,000	Safety	Maint	1	
17.	Replace leaking glass block windows on east side					$1,200,000	Building integrity	Maint	1	
32.	Loading dock repairs					$80,000	Safety	Maint	1	
44.	Replace roof skylight panels					$400,000	Building integrity	Maint	1	
52.	Replace 4 loading dock roll-up doors					$300,000	Energy conservation	Maint	1	
43.	Roof drain ventilation system					$1,000,000	Improve drainage	Mech	1	
46.	Storage ramp exhaust fans					$250,000	Safety and air circulation	Mech	1	
25.	Operations truck					$20,000	Maintenance of facilities	Ops	1	
8.	Exhibit hall floor repairs					$800,000	Safety / sense of place	Arch	2	
19.	Sensor switches for lighting	Ameresco				$20,000	Energy conservation	Elec	2	

#	TASKS	CONTRACTOR	PLANNED/ ACTUAL START DATE	PLANNED/ ACTUAL FINISH DATE	STATUS	BUDGET	NOTES	TYPE	PRIORITY	COMMENTS
20.	Lighting control systems replacement					$700,000	System failing / equipment obsolete	Elec	2	
21.	Meeting room lighting dimmer controls	Ameresco				$500,000	System upgrade / equipment obsolete	Elec	2	
22.	Exhibit halls lighting upgrade	Ameresco				$400,000	Energy conservation	Elec	2	
40.	Replace telephone infrastructure and switching equipment					$400,000	Beyond service life	Elec	2	
56.	Upgrade/replace energy management system					$2,000,000	Operational improvement	Elec	2	
5B	Fire alarm control system upgrades					$1,000,000	Life safety	Elec	2	A/B split undefined
61.	Replace chilled water piping, insulation & repair					$250,000	Energy conservation, beyond service life	Maint	2	
62.	Replace three-way with two-way valves for air handlers					$750,000		Maint	2	
6.	Installation of exhaust / smoke evacuation fans	JOC proposal				$100,000	Life safety	Mech	2	May be Priority 0; TLC review for impacts to overall HVAC system
23.	Replacement of C/D lobby air handlers					$300,000	Obsolete unit 30 years old	Mech	2	
58.	Replace electric scooters					$100,000	Beyond service life	Ops	2	
10.	Ballroom upgrades				Complete	$500,000	Sense of place	Arch	3	
42.	Hurricane impact-resistant glass					$4,000,000	Building integrity	Arch	3	Partially affected by renovation
45.	Old chiller room renovations					$300,000	Storage space	Arch	3	
47B	Upgrade meeting rooms					$2,000,000		Arch	3	A/B split undefined
3B	Electrical switchgear testing / preventative maintenance / replacement of switchgear					$800,000	Prevent catastrophic failure /safety	Elec	3	Split task; later work w/ renovation
27.	Floor pocket electrical connector replacement					$700,000	Electrical code compliance	Elec	3	
28.	Replacement of hall sound system				Scope Def'n	$300,000	Beyond service life	Elec	3	
31.	Video information system					$150,000	Operational improvement / source of income	Elec	3	
34.	Exterior marquees and information system					$1,800,000	Sense of place	Elec	3	
37.	Replace backlit meeting room signage					$50,000	Signage upgrade to LED technology	Elec	3	
57.	Upgrade outside lighting					$75,000	Energy conservation	Elec	3	
14.	East and west exterior sidewalk replacement / brick pavers installation				On Hold	$200,000	Safety / sense of place	Exterior	3	
41.	Concession stand renovations					$50,000	Fresh look / new appliances	Food	3	
48.	Renovate west kitchen					$1,000,000	Food service	Food	3	
36.	Executive office furniture replacement					$300,000	Beyond service life	Furn	3	
2.	New grand master key system / exterior doors and locks					$9,000	Security / safety	Hdwe	3	
9.	Re-key interior of facility					$20,000	Security / safety	Hdwe	3	
13.	Fresh exterior look / repairs, waterproofing and painting				In Progress	$850,000	Sense of place	Maint	3	
33.	Replacement of east side doors					$500,000	Doors beyond service life	Maint	3	
51.	Repave north and south loading dock parking areas					$500,000	Lots in disrepair	Maint	3	
59.	Terrazzo floor replacement in lobbies					$500,000	Sense of place	Maint	3	
60.	Carpet replacement D128-D131					$1,650,000	Sense of place	Maint	3	

#	TASKS	CONTRACTOR	PLANNED/ ACTUAL START DATE	PLANNED/ ACTUAL FINISH DATE	STATUS	BUDGET	NOTES	TYPE	PRIORITY	COMMENTS
64.	Inspection, repair, repainting & reinsulation of structural steel/decking					$700,000		Maint	3	
1.	Security system and upgraded camera system for gates					$40,000	Security	Security	3	
7.	Security system / camera upgrades / additional security equipment					$600,000	Security / safety	Security	3	
49.	Install rubber flooring in service corridors					$350,000	Safety and noise control	Arch	4	
63.	Remodel executive office entrance & bathrooms					$500,000		Arch	4	
29.	Solar energy	Ameresco				$3,000,000	Green initiatives	Sust Des	4	
	TOTAL ESTIMATED REPAIRS & UPGRADES					$45,973,461				
							ACTIVITY TYPE			
						$12,150,000	Architectural			
						$10,858,740	Electrical			
						$700,000	Exterior			
						$1,140,000	Food Service			
						$1,800,000	Furniture			
						$148,000	Hardware			
						$11,035,000	Maintenance			
						$3,881,721	Mechanical			
						$620,000	Operations			
						$640,000	Security			
						$3,000,000	Sustainability / Green Init			
									PRIORITY	
						$10,235,461	Funded and under way		0	
						$6,974,000			1	
							to be funded in short term			
						$7,320,000	secondary priority, best as part of overall MP improvement effort		2	
						$17,594,000	Hold for MP		3	
						$3,850,000	Hold for MP wish list		4	

5.2 COST ESTIMATE SUMMARY

The hard construction cost estimate for the proposed Master Plan was developed by an independent cost estimating firm and follows this narrative. It involves a rigorous accounting of all design elements in the concept design, both shown and un-shown, but known through experience to eventually exist, through all its phases. Although independent prices were not solicited from local subcontractors, as they would be in a normal bid process, many of the specialty finishes and systems were checked with local vendors and installers to capture the most realistic data as possible.

In addition, the design team solicited the assistance of two large local general contractors that have previous experience in this type of work, to obtain independent probable construction cost estimates for comparison. As predicted, both resulted in lower total hard costs (2.0% for one, and 7.8% for the other, as one would expect in their efforts to demonstrate value without any real risk at this juncture. Rather than submit a possibly over-anxious scenario which may not be able to be replicated in the future, the consultant analysis was used in the summary document.

The estimate begins with a summary of all the phases, in the recommended order and schedule. Then, each phase is broken down with its own summary sheet and detailed estimate by system.

A 15% design and construction contingency is added to the hard costs, including the contractor's General Conditions and Profit, also estimated at 15%. This contingency is kept fairly high due to the level of detail expected from a conceptual set of drawings. The percentage is an industry norm for a set of design drawings for a building of this size and level of complexity. It may, of course, be reduced at the Owner's discretion, if there is a good outlook for a favorable buy-out after full drawings are completed during the bidding and negotiation phase. The Contractor's mark-ups are what separate one bidder from the next, assuming materials and labor has been calculated approximately equally. Beyond the bare minimum level, these mark-ups can always be negotiated to some extent, depending on the current construction climate and risk and backlog.

The cost is also escalated for both materials and labor per phase to allow for an estimated inflation rate. Also, a 3% allowance is added for additional cost incurred due to the need to keep the existing facility functioning safely and isolated as much as possible from construction areas. These contingencies and allowances may be high or low at various times and should therefore be considered as an average. In addition to these estimated costs, a 1.5% allowance has also been added for public artwork, as mandated by Miami-Dade County.

Indirect costs, those that are not for actual materials and labor but are part of the normal construction process, are placeholders in the estimate as they are negotiated at time of purchase. These mostly include insurance costs for personal liability, property damage, material & performance bonds, builder's risk and sales tax.

MIAMI BEACH CONVENTION CENTER EXPANSION MASTER PLAN

MIAMI BEACH, FLORIDA

TOTAL COST SUMMARY WORKSHEET

		Consultant	Budget		Notes
	Description	**Area**	**Totals**	**$/S.F.**	
1	Convention Center New Construction	1,000,855	$192,298,799	$192.13	
2	Garage	486,480	$29,529,448	$60.70	
3	Convention Center West Wrap	393,360	$47,405,428	$120.51	
4	Convention Center So. Prefunction/No. Loading	98,615	$17,567,375	$178.14	
5A	Convention Center Hall B & Façade	97,452	$15,441,693	$158.45	
5B	Convention Center Hall A & Façade	138,428	$15,945,238	$115.19	
6	Convention Center Renovation of Existing Halls	534,613	$39,884,005	$74.60	489,184 SF
6C	Restaurant				6,276 SF
6D	Retail/Restaurant				5,578 SF
6E	Renovate Retail/Restaurant				12,543 SF
6F	Retail/Restaurant				10,820 SF
1	***TOTAL DIRECT COST***	2,749,803	***$358,071,986***	***$130.22***	
2	General Conditions/Overhead/Profit	15.00%	$53,710,798	$19.53	Budgeted max to be negotiated
3a	***TOTAL CONSTRUCTION COST***		***$411,782,784***	***$149.75***	Per Estimate
3b	***TOTAL CONSTRUCTION COST***	90%	***$370,604,506***	***$134.77***	Approved Budget (10% Reduction)
	CONTINGENCIES & ALLOWANCES	**% of CC**			
4	Labor and Material Escalation	Varies	$47,724,887	$17.36	1% to 6% equally per phase
	Subtotal		$418,329,392	$152.13	
5	Design and Construction Contingencies	15.00%	$62,749,409	$22.82	To be reduced to 5% as design develops
	Subtotal		$481,078,801	$174.95	
6	Phasing Allowance	3.00%	$14,432,365	$5.25	Average allowance for temp controls and mobilzation
	Subtotal		$495,511,166	$180.20	
7	Artwork Allowance	1.50%	$7,432,667	$2.70	Per local agency requirements
8	***Subtotals w/ Contingencies/Allowances***		***$502,943,833***	***$182.90***	
	INDIRECT COSTS				
9	Personal Liability and Property Damage Insurance	1.06%	5,331,205	$1.94	Avg. to be Negotiated
10	Payment & Performance Bond		In Builder's Risk	$-	Avg. to be Negotiated
11	Builders Risk Insurance	0.16%	804,710	$0.29	Avg. to be Negotiated

Beyond these hard construction costs, all construction projects also incur soft costs that must also be accounted for in their funding. These include a variety of likely development costs and fees that can vary greatly and are therefore budgeted and tracked separately. The design fees include not only the basic architectural services (basic structural, mechanical, electrical and fire protection) but also full-time representation during the construction process as well as contribution from the large number of specialty consultants that usually are required during the design process. These include, but are not limited to the following:

- Geotechnical Consultation (Soils)
- Land Surveying
- Environmental Consultant
- Civil Engineering
- Traffic & Signalization
- Landscape Architecture
- Telephone & Data
- Glazing Consultant
- Interior Design
- Security Consultant (Surveillance and Hardware)
- Acoustical Consultant
- Sustainability Consultant (LEED)
- Vertical Circulation (Elevators) Consultant
- Life Safety Consultant
- Audio/Visual Consultant
- Architectural Lighting
- ADA Consultant
- Food Services Consultant
- Parking Specialty Consultant
- Artwork Selection & Procurement
- Graphic Design
- Waterproofing Consultant (Roofing/Caulking)
- Furniture & Fixtures Procurement
- Threshold Inspection

The cost estimation process for the Master Plan proposal to date has proven to be a reasonable accounting of hard costs and well within the norm to be able to make rational planning and funding decisions.

12	G C Bond (or Subguard Insurance Cost)	1.10%	5,532,382	$2.01	Avg. to be Negotiated
13	Sales Tax		0	$-	In Direct Cost Item 3
14	***TOTAL INDIRECT COST***	***2.32%***	***11,668,297***	***$4.24***	
15	**TOTAL CONSTRUCTION COST**		**$514,612,130**	**187.15**	
	DEVELOPMENT FEES				Assumes all phases
16	Fixtures, Furnishings and Equipment (FF&E)	5.000%	25,147,192	$9.15	Kitchen Eqpt in Direct
17	Operating Supplies and Equipment (OSE)	1.500%	7,544,157	$2.74	
18	Information Technology/Telecomm	2.500%	12,573,596	$4.57	
19	Pre-Opening Budget	2.000%	10,058,877	$3.66	To Be Negotiated with Operator
20	Permits and Plan Check Fees	0.080%	402,355	$0.15	
21	Survey, Plats etc.	0.018%	88,015	$0.03	
22	Environmental Testing, Geotech and Archaeology	0.015%	75,442	$0.03	
23	Operator's Technical Services	0.080%	402,355	$0.15	Additional to existing costs
24	Legal & Closing	0.015%	75,442	$0.03	Estimated
25	Owner's Development Services	0.050%	251,472	$0.09	Additional to existing costs
3.00%					
26	***SUBTOTAL DEVELOPMENT FEES***		***$56,618,902***	***$20.59***	
	OFFSITE, PERMITS, TESTING, FEES				
27	Central Plant Costs	0.000%	-	$-	No connections to a central plant
28	3rd Party Testing	0.089%	450,000	$0.16	Materials & Systems Testing
29	LEED Commissioning	0.070%	350,000	$0.13	Average Estimate
30	Permit Cost, Sewer & Utility Connection, Impact Fees	0.150%	754,416	$0.27	
31	Adacent Improvements Fund	1.000%	5,029,438	$1.83	Allowance added to current
32	Owner's Contingency	5.000%	25,147,192	$9.15	Industry Standard for permissable change orders
33	***SUBTOTAL FEES***		***$31,731,046***	***11.54***	
	DESIGN & PRECONSTRUCTION FEES				
34	Design Fees	9.00%	45,264,945	$16.46	All Basic & Special Services incl FT Representation (on Direct Costs only)
					Including Soft Costs
	TOTAL PROJECT COST		**$648,227,022**	**$235.74**	126%

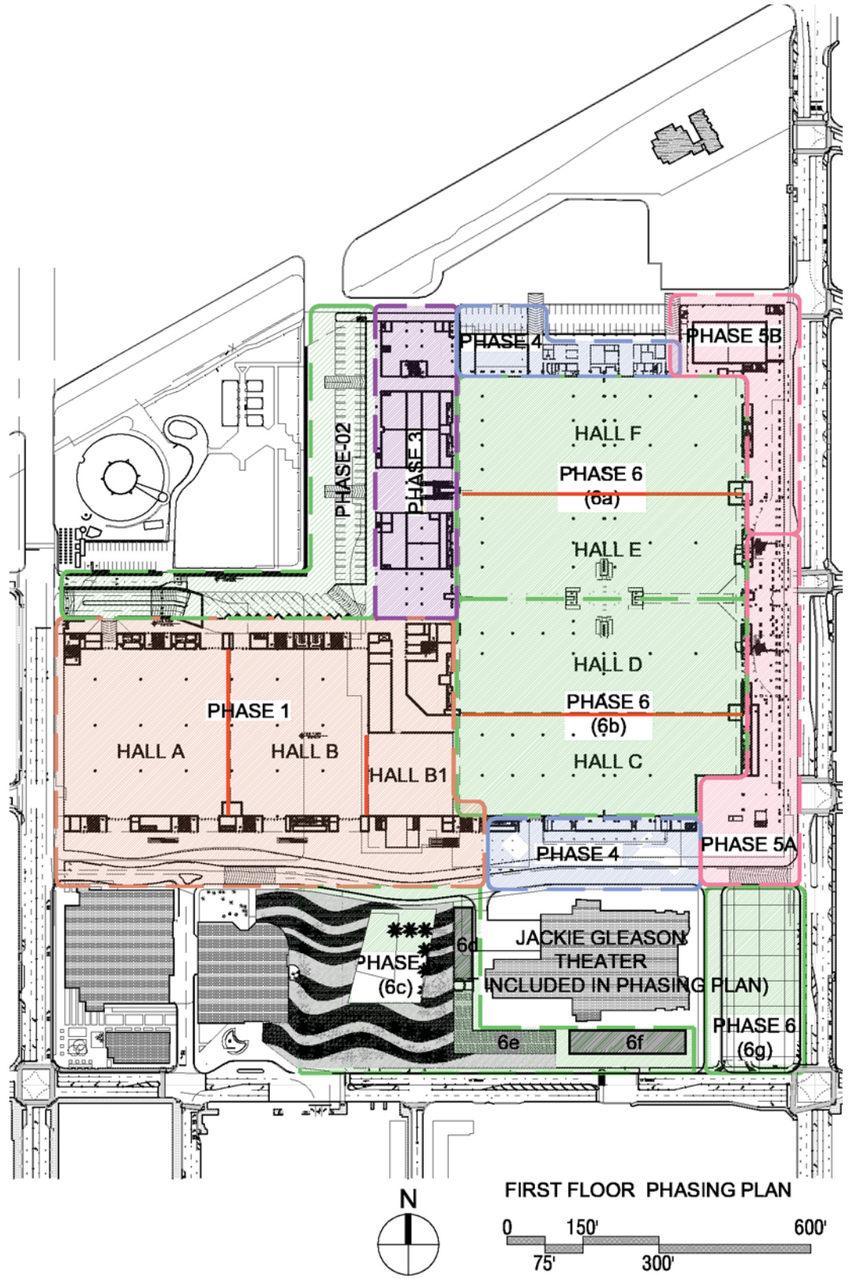
5.3 DETAIL CONSTRUCTION COST ESTIMATE

PURPOSE OF THE ESTIMATE

This estimate has been prepared, pursuant to an agreement between Arquitectonica and Faithful + Gould, for the purpose of establishing a probable cost of construction at theConcept stage of design.

PROJECT DESCRIPTION

This scope of this project includes renovation of the existing Convention Center as well as expansion and new addition. The result of this expansion / renovation will result in about 2.158 million square feet of functional space as well as about 591,000 square feet of new parking structure. At the end of the seven phases, the facility will have about 388,000 SF of public lobbies, concourses and registration, 686,000 SF of exhibit halls, 82,000 SF of ballrooms, 205,000 SF of meeting rooms, 84,000 SF of food service area and the balance in front of house support and back of house services. The project also included extensive site development.



PROJECT PHASING

Phase 1 – Existing Halls A, B, C and D in Operation

- CC Drive redirected
- Demolish parking lot and CC Drive as needed
- New construction of exhibit halls E,F &G , meeting rooms, kitchen
- West end of new entry drive constructed
- MEP systems, Central Energy Plant upgraded equipment
- Site improvements and Utility Improvements

Phase 2 – Existing Halls A, B, C & D with new Exhibit Halls E, F & G in operation

- New construction of parking garage

Phase 3 – Existing Halls A, B, C & D with new Exhibit Halls E, F & G in operation

- North half of West wrap demolished
- New construction of west wrap
- Site improvements and Utility Improvements

Phase 4 – Existing Halls B, C & A and D combined & new Exhibit Halls E, F & G in operation

- Demolish north loading dock area as required
- Demolish south loading dock area (level 1 only)
- New storage area and façade at North
- New construction at South pre-function, new façade of upper level
- New entry drive completed
- Site improvements and Utility Improvement

Phase 5A – Existing Halls B, C & A and D combined & new Exhibit Halls E, F & G in operation

- New façade – on Washington Avenue South (Hall B)
- New demising walls for exhibit hall entries, meeting rooms
- New finishes
- Modification of MEP systems
- Site improvements and Utility Improvement

Phase 5B – Existing Halls B, C & A and D combined & new Exhibit Halls E, F & G in operation

- New façade – on Washington Avenue North (Hall A)
- New demising walls for exhibit hall entries, meeting rooms
- New finishes
- Modification of MEP systems
- Site improvements and Utility Improvement

Phase 6 – Existing Halls A, B, C & D with new Exhibit Halls E, F & G in operation

- Demolish existing floor slab, new slab with MEP utilities
- Demolish remainder of original CC Drive. Construct new plaza and restaurant (shell space) and level 3 pre-function terrace
- Construct new one story retail / restaurant building (shell space)
- Renovate existing one story building to be retail / restaurant (shell space)

BASIS OF ESTIMATE

This estimate was prepared from documents received from Arquitectonica on June 1, 2010 as well as conversations with members of the design team and equipment suppliers. Any design and engineering changes and/or addition produced subsequent to these documents are not included in this estimate.

This estimate is based upon the measurement of quantities where possible. For the remainder, parametric measurements were used in conjunction with references from similar projects recently estimated by Faithful + Gould.

ESTIMATE FORMAT

The Uniformat cost classification format has been used for the preparation of this estimate. It is followed by sub-category which classifies costs by building system and or construction trade.

BASIS FOR PRICING

Pricing shown reflects probable construction costs obtainable in Miami Beach area, on the date of this statement of probable costs. The intention of this estimate is to reflect fair market value for the construction of this project. It is not a prediction of low bid. The fair market value pricing is based upon competitive bidding, a minimum of 3 bidders for all subcontracted work, and a minimum of 3 bids from general contractors.

CONSTRUCTION SCHEDULE AND ESCALATION

The scheduled construction period for this project is approximately 88 months .To be able to apply escalation factors a possible scenario for this project has Phase 1 beginning 18 months from now with a 24 month construction period. Phase 2 could begin 3 months after the completion of Phase 1 with an 8 month construction duration. Phase 3 could begin 3 months after the completion of Phase 2 with a construction period of 12 months. Phase 4 could begin 3 months after the completion of Phase 3 with a construction duration of 8 months. Phase 5A could commence 3 months after the completion of Phase 4 with a construction period of 12 months. Phase 5B could begin 3 months after Phase 5A with a construction duration of 12 months. Phase 6 could begin 3 months after the completion of 5B with a construction time of 12 months.

Potential escalation factors for the course of this project might be 2% for the year 2011, 3% for the years 2012 through 2016, 4% for 2017 and 5% for the years 2018 through 2020.

Combining the possible scheduling sequence with the potential inflation factors yields the following escalation factors calculated to the midpoint of construction: Phase 1 has a 6% escalation factor, Phase 2 has 10%, Phase 3 has 14%, Phase 4 has 18%, Phase 5A has 22%, Phase 5B has 28% and Phase 6 has a 35% escalation factor.

Any costs for excessive overtime to meet stringent milestone dates are not included in this estimate.

CONTRACTOR MARKUPS

Subcontractors' markups have been included in each line item unit price. These markups cover the cost of field overhead, home office overhead and profit and can range from 15% to 25% of the raw cost for that particular item of work.

We have included 15% for General Contractor's Overhead (consisting of job site general conditions, home office overhead, and bond) and Fee in this estimate.

CONTINGENCIES

Based on the project scope and the detail design shown in the concept submittal documents, we have included 15% for Design Contingencies to the project summary.

A 3% Phasing Contingency has been added to the summary sheet to cover the cost of temporary partitions, multiple mobilizations and demobilizations, additional cost of labor for work done other than during normal working hours, as well as other costs incurred during a phased construction project.

An Art Allowance of 1.5% has also been included on the Summary Pages.

ITEMS AFFECTING THE COST ESTIMATE

Items which may changes the estimated construction cost include, but are not limited to:

- Modifications to the scope of work included in this estimate
- Unforeseen subsurface conditions
- Special Phasing requirements
- Restrictive technical specifications or excessive contract conditions
- Non-competitive bid conditions
- Sole source specifications of materials or products
- Bids delayed beyond the projected schedule

ITEMS EXCLUDED FROM THIS ESTIMATE

Items that are not in included in this estimate include but are not limited to:

- Impact Fees and Permits
- Land acquisition and real estate fees - N/A since City owned property
- Asbestos / Lead / Contaminated Soil removal
- Professional design and consulting fees
- Owner's field inspection costs
- General building permit N/A since a City project
- Testing fees
- Owner furnished items and Owner move-in costs
- Off-site work
- Telephone equipment
- Items marked on plans as N.I.C.
- Furniture fittings and equipment other than Food Service Equipment

STATEMENT OF PROBABLE COST

Faithful + Gould has no control over the cost of labor and materials, the general contractor's or any subcontractor's method of determining prices, or competitive bidding and market conditions. This opinion of probable cost of construction is made on the basis of experience, qualifications, and best judgment of a professional construction consultant familiar with the construction industry. Faithful + Gould cannot and does not guarantee that proposals, bids or actual construction costs will not vary from this or subsequent cost estimates.

Faithful + Gould has no control over the quality, completeness, intricacy, constructability, or coordination of design documents, or over the amount of funds available for this project. Therefore, Faithful + Gould is not responsible for design revision costs in the event that the estimate is in excess of the established budget.

Faithful + Gould's staff of professional cost consultants has prepared this estimate in accordance with generally accepted principles and practices. This staff is available to discuss its contents with any interested party.

INCLUSIONS AND ASSUMPTIONS

Foundations

- Piles & Grade Beams at new construction
- Slab on Grade
- Assumed dewatering

Superstructure

- Floor Steel Framing
- Large Span Floor Steel Framing
- Concrete Slab on Metal Deck
- Roof Steel Framing
- Large Span Steel Roof Framing
- Roof Metal Deck

Exterior Closure

- 1-5/16" Insulated Laminated Glass Curtainwall
- Metal Wall / Soffit Panels & Substrate
- Storefront Doors

Roofing

- Membrane Roofing

Interior Construction

- Drywall and CMU Partitions
- Misc Steel Supports
- Doors and interior glazing

Specialties

- Bathroom Specialties
- Moveable Partitions
- Building Specialties
- Signage (Static and Electronic)
- Built-ins and Casework

Staircase Construction & Finishes

- Egress Stairs

Interior Finishes

- Wall Finishes
  - Paint
  - Acoustic Panels
  - Wood panels in ballrooms
  - Ceramic Tile
  - Porcelain Tile
  - Stone
  - Column Cladding
  - Floor Finishes
  - Carpet / carpet tile
  - Ceramic Tile
  - Porcelain Tile
  - Quarry Tile
  - Terrazzo Tile
  - Sealer / hardener
  - ь VCT

Ceiling Finishes

- ACT Suspended system
- Paint exposed structure
- Gyp Board Ceilings

Conveying Systems

- Passenger Elevators / Service Elevators
- Freight Elevators
- Escalators

Mechanical

- Plumbing
  - Plumbing Fixtures with rough-in
  - Sanitary sewer modifications in the renovated areas
  - New Sanitary in the addition
  - Grease interceptor modifications
  - Domestic water modifications in the renovated areas
  - New Domestic Water systems in the addition
  - Relocation of Back Flow Preventers
  - New Pressure Booster Pump assembly
  - Rainwater roof drainage system in the new addition
  - New Diesel Fuel Oil Tank
  - Natural Gas system modifications and extension into the new addition
- HVAC

Equipment and distribution modifications to existing systems in the renovated areas.

  - Variable air volume AHU with variable frequency drives
  - Complete HVAC distribution for the addition
  - Chilled water piping re-routing on the east wrap
  - Two new 1200 Ton Chillers in the CEP
  - Two New Cooling towers in the CEP
  - Smoke Control System
  - DDC Management controls
  - Garage ventilation system
- Fire Protection
  - Modification to the existing due to reconfiguration
  - Two new Fire Pumps
  - Wet and Dry Systems in the new addition

Electrical

- Service & Distribution
  - Switchgear modifications and additions served from the FP&L Transformer Vault
  - New panel boards and Feeders at the addition
  - New Generator at the CEP
- Lighting & Branch Wiring
  - High Bay LED lighting in the exhibit halls
  - Fluorescent and HID in all areas
  - Lighting controls and Dimming
  - Wiring Devices and equipment connections
  - Service to the floor boxes
- Special Systems
  - Security and Access control – all room to have card access
  - Building Management System
  - Tele / Data conduit and wiring system
  - PA sound allowance
  - Broadband / Wi-Fi
  - Technology – structured wiring allowance
  - Fire Alarm System
  - Lightning Protection System / Grounding
- Equipment
  - Kitchen Equipment
  - Loading Dock Equipment
- Furnishings
  - Window Blinds
- Building Site work
  - Site Improvements
  - Demolition
  - Road and pavement removal
  - New roads
  - Pedestrian Pavement
  - Landscaping
  - Planters and Benches
  - Traffic Control
- Site Mechanical Utilities
  - Relocation of major utilities
  - Sanitary Sewer system
  - Potable Water / Fire system
  - Storm Water Collection
  - Diesel Fuel system
  - Natural Gas System
- Site Electrical Utilities
  - Fiber optic duct bank
  - Site Lighting
  - Lighting on top level of parking deck

Miami Beach Convention Center

3. Corrected Final Concept, Rev. A

Summary - PROJECT COMPONENTS **Project GFA: 2,749,803**

Description	Quantity	Unit	Rate USD	Amount USD	Cost/sf USD	%
Phase 1	1,000,855	sf	281.59	281,826,213	102.49	50.4
Phase 2	486,480	sf	92.32	44,910,403	16.33	8.1
Phase 3	393,360	sf	189.95	74,719,141	27.17	13.3
Phase 4	98,615	sf	290.63	28,660,769	10.42	5.2
Phase 5A	97,452	sf	267.28	26,046,759	9.47	4.6
Phase 5B	138,428	sf	203.85	28,218,890	10.26	5.1
Phase 6	534,613	sf	139.25	74,444,305	27.07	13.3
Total				558,826,480	203.21	100

PHASE 1

Summary - Phase 1 Ref. Description	Rate USD	Amount USD	Area: 1,000,855 Cost/sf USD	%
CONVENTION CENTER	192.13	192,298,799	192.13	68.2
General Conditions / Overhead & Profit	15.00	28,844,820	28.82	10.3
Sub Total		221,143,619	220.95	78.5
Escalation	6.00	13,268,617	13.26	4.7
Sub Total		234,412,236	234.21	83.2
Design Contingency	15.00	35,161,835	35.13	12.5
Sub Total		269,574,071	269.34	95.7
Phasing	3.00	8,087,222	8.08	2.8
Sub Total		277,661,293	277.42	98.5
Art Allowance	1.50	4,164,919	4.16	1.5
	Total	281,826,212	281.58	100

Summary Detail - Phase 1 Area: 1,000,855

Ref.	Description	Rate USD	Amount USD	Cost/sf USD	%
	CONVENTION CENTER				
A10	FOUNDATIONS	13.07	13,078,094	13.07	4.6
B10	SUPERSTRUCTURE	33.31	33,336,249	33.31	11.8
B20	EXTERIOR ENCLOSURE	37.54	37,570,130	37.54	13.3
B30	ROOFING	5.44	5,448,250	5.44	1.9
C10	INTERIOR CONSTRUCTION	16.2	16,213,320	16.2	5.8
C20	STAIRS	1.19	1,192,000	1.19	0.4
C30	INTERIOR FINISHES	19.22	19,239,126	19.22	6.8
D10	CONVEYING	4.44	4,440,000	4.44	1.6
D20	PLUMBING	3.67	3,672,303	3.67	1.3
D30	HVAC	21.56	21,582,655	21.56	7.7
D40	FIRE PROTECTION SYSTEMS	1.77	1,767,364	1.77	0.6
D50	ELECTRICAL	20.17	20,188,396	20.17	7.2
E10	EQUIPMENT	8.4	8,408,809	8.4	3
E20	FURNISHINGS	0.62	618,408	0.62	0.2
F20	SELECTIVE BUILDING DEMOLITION	0.93	935,200	0.93	0.3
G10	SITE PREPARATION	3.13	3,135,738	3.13	1.1
G20	SITE IMPROVEMENTS	0.82	817,660	0.82	0.3
G30	SITE MECHANICAL UTILITIES	0.63	630,098	0.63	0.2
G40	SITE ELECTRICAL UTILITIES	0.02	25,000	0.02	0
	Total		192,298,800	192.13	68.1

PHASE 2

Summary - Phase 2 Ref. Description	Rate USD	Amount USD	Area: 486,480 Cost/sf USD	%
GARAGE	60.70	29,529,448	60.7	65.8
General Conditions / Overhead & Profit	15.00	4,429,417	9.11	9.8
Sub Total		33,958,865	69.81	75.6
Escalation	10.00	3,395,887	6.98	7.6
Sub Total		37,354,752	76.79	83.2
Design Contingency	15.00	5,603,213	11.52	12.5
Sub Total		42,957,965	88.31	95.7
Phasing	3.00	1,288,739	2.65	2.8
Sub Total		44,246,704	90.96	98.5
Art Allowance	1.50	663,701	1.36	1.5
	Total	44,910,405	92.32	100

Summary Detail - Phase 2 Area: 486,480

Ref.	Description	Rate USD	Amount USD	Cost/sf USD	%
A10	FOUNDATIONS	6.31	3,068,459	6.31	6.8
B10	SUPERSTRUCTURE	39.22	19,078,182	39.22	42.5
B20	EXTERIOR ENCLOSURE	5.07	2,468,081	5.07	5.5
B30	ROOFING	0.65	316,684	0.65	0.7
C10	INTERIOR CONSTRUCTION	0.97	470,654	0.97	1
C20	STAIRS	0.66	320,000	0.66	0.7
C30	INTERIOR FINISHES	0.87	424,179	0.87	0.9
D10	CONVEYING	1.23	600,000	1.23	1.3
D20	PLUMBING	0.48	233,510	0.48	0.5
D30	HVAC	1.33	647,018	1.33	1.4
D40	FIRE PROTECTION SYSTEMS	0.6	291,888	0.6	0.6
D50	ELECTRICAL	2.9	1,410,792	2.9	3.1
E10	EQUIPMENT	0.41	200,000	0.41	0.4
	Total		29,529,447	60.7	65.4

PHASE 3

Summary - Phase 3 Area: 393,360

Ref. Description	Rate USD	Amount USD	Cost/sf USD	%
CONVENTION CENTER	120.51	47,405,428	120.51	63.4
General Conditions / Overhead & Profit	15.00	7,110,814	18.08	9.6
Sub Total		54,516,242	138.59	73
Escalation	14.00	7,632,274	19.4	10.2
Sub Total		62,148,516	157.99	83.2
Design Contingency	15.00	9,322,277	23.7	12.5
Sub Total		71,470,793	181.69	95.7
Phasing	3.00	2,144,124	5.45	2.8
Sub Total		73,614,917	187.14	98.5
Art Allowance	1.50	1,104,224	2.81	1.5
	Total	74,719,141	189.95	100

Summary Detail - Phase 3 Area: 393,360

Ref.	Description	Rate USD	Amount USD	Cost/sf USD	%
CONVENTION CENTER					
A10	FOUNDATIONS	8.72	3,430,732	8.72	4.6
B10	SUPERSTRUCTURE	34.64	13,625,496	34.64	18.2
B20	EXTERIOR ENCLOSURE	12.33	4,849,940	12.33	6.5
B30	ROOFING	0.58	228,840	0.58	0.3
C10	INTERIOR CONSTRUCTION	10.57	4,156,628	10.57	5.6
C20	STAIRS	0.61	240,000	0.61	0.3
C30	INTERIOR FINISHES	5.33	2,095,422	5.33	2.8
D10	CONVEYING	0.61	240,000	0.61	0.3
D20	PLUMBING	3.27	1,285,479	3.27	1.7
D30	HVAC	11.24	4,420,187	11.24	5.9
D40	FIRE PROTECTION SYSTEMS	1.13	444,658	1.13	0.6
D50	ELECTRICAL	13.58	5,343,590	13.58	7.2
E10	EQUIPMENT	1.93	759,238	1.93	1
F20	SELECTIVE BUILDING DEMOLITION	3.84	1,512,000	3.84	2
G10	SITE PREPARATION	4.43	1,741,158	4.43	2.3
G20	SITE IMPROVEMENTS	3.19	1,253,340	3.19	1.7
G30	SITE MECHANICAL UTILITIES	3.28	1,288,720	3.28	1.7
G40	SITE ELECTRICAL UTILITIES	1.25	490,000	1.25	0.7
	Total		47,405,428	120.53	63.4

PHASE 4

Summary - Phase 4 Area: 98,615

Ref. Description	Rate USD	Amount USD	Cost/sf USD	%
CONVENTION CENTER	178.14	17,567,375	178.14	61.3
General Conditions / Overhead & Profit	15.00	2,635,106	26.72	9.2
Sub Total		20,202,481	204.86	70.5
Escalation	18.00	3,636,447	36.88	12.7
Sub Total		23,838,928	241.74	83.2
Design Contingency	15.00	3,575,839	36.26	12.5
Sub Total		27,414,767	278	95.7
Phasing	3.00	822,443	8.34	2.8
Sub Total		28,237,210	286.34	98.5
Art Allowance	1.50	423,558	4.3	1.5
	Total	28,660,768	290.64	100

Summary Detail - Phase 4 Area: 98,615

Ref.	Description	Rate USD	Amount USD	Cost/sf USD	%
CONVENTION CENTER					
A10	FOUNDATIONS	3.6	354,826	3.6	1.2
B10	SUPERSTRUCTURE	8.42	830,223	8.42	2.9
B20	EXTERIOR ENCLOSURE	70.31	6,933,230	70.31	24.2
B30	ROOFING	2.86	282,430	2.86	1
C10	INTERIOR CONSTRUCTION	7.6	749,538	7.6	2.6
C20	STAIRS	0.49	48,000	0.49	0.2
C30	INTERIOR FINISHES	13.4	1,320,977	13.4	4.6
D20	PLUMBING	4.49	442,766	4.49	1.5
D30	HVAC	16.79	1,656,193	16.79	5.8
D40	FIRE PROTECTION SYSTEMS	1.56	154,226	1.56	0.5
D50	ELECTRICAL	19.37	1,909,730	19.37	6.7
E10	EQUIPMENT	0.83	82,250	0.83	0.3
E20	FURNISHINGS	1.33	131,112	1.33	0.5
F20	SELECTIVE BUILDING DEMOLITION	14.43	1,423,033	14.43	5
G10	SITE PREPARATION	2.34	230,951	2.34	0.8
G20	SITE IMPROVEMENTS	5.01	493,590	5.01	1.7
G30	SITE MECHANICAL UTILITIES	4.96	489,300	4.96	1.7
G40	SITE ELECTRICAL UTILITIES	0.35	35,000	0.35	0.1
	Total		17,567,375	178.14	61.3

PHASE 5a

Summary - Phase 5A Area: 97,452

Ref. Description	Rate USD	Amount USD	Cost/sf USD	%
CONVENTION CENTER	158.45	15,441,693	158.45	59.3
General Conditions / Profit & Overhead	15.00	2,316,254	23.77	8.9
Sub Total		17,757,947	182.22	68.2
Escalation	22.00	3,906,748	40.09	15
Sub Total		21,664,695	222.31	83.2
Design Contingency	15.00	3,249,704	33.35	12.5
Sub Total		24,914,399	255.66	95.7
Phasing	3.00	747,432	7.67	2.8
Sub Total		25,661,831	263.33	98.5
Art Allowance	1.50	384,927	3.95	1.5
	Total	26,046,758	267.28	100

Summary Detail - Phase 5A Area: 97,452

Ref.	Description	Rate USD	Amount USD	Cost/sf USD	%
CONVENTION CENTER					
A10	FOUNDATIONS	0.54	52,702	0.54	0.2
B10	SUPERSTRUCTURE	7.09	690,752	7.09	2.7
B20	EXTERIOR ENCLOSURE	51.53	5,021,490	51.53	19.3
B30	ROOFING	3.36	327,590	3.36	1.3
C10	INTERIOR CONSTRUCTION	6.33	616,636	6.33	2.4
C20	STAIRS	0.49	48,000	0.49	0.2
C30	INTERIOR FINISHES	26.11	2,544,484	26.11	9.8
D10	CONVEYING	1.74	170,000	1.74	0.7
D20	PLUMBING	3.33	324,435	3.33	1.2
D30	HVAC	19.71	1,921,232	19.71	7.4
D40	FIRE PROTECTION SYSTEMS	0.87	84,989	0.87	0.3
D50	ELECTRICAL	9.91	966,087	9.91	3.7
E10	EQUIPMENT	6.91	673,050	6.91	2.6
E20	FURNISHINGS	1.25	121,944	1.25	0.5
F20	SELECTIVE BUILDING DEMOLITION	11.64	1,134,224	11.64	4.4
G10	SITE PREPARATION	1.82	177,298	1.82	0.7
G20	SITE IMPROVEMENTS	3.88	377,980	3.88	1.5
G30	SITE MECHANICAL UTILITIES	1.42	138,800	1.42	0.5
G40	SITE ELECTRICAL UTILITIES	0.51	50,000	0.51	0.2
	Total		15,441,693	158.44	59.6

PHASE 5b

Summary - Phase 5B Ref.	Description	Rate USD	Amount USD	Area: 138,428 Cost/sf USD	%
	CONVENTION CENTER	115.19	15,945,238	115.19	56.5
	General Conditions / Overhead & Profit	15.00	2,391,786	17.28	8.5
	Sub Total		18,337,024	132.47	65
	Escalation	28.00	5,134,367	37.09	18.2
	Sub Total		23,471,391	169.56	83.2
	Design Contingency	15.00	3,520,709	25.43	12.5
	Sub Total		26,992,100	194.99	95.7
	Phasing	3.00	809,763	5.85	2.8
	Sub Total		27,801,863	200.84	98.5
	Art Allowance	1.50	417,028	3.01	1.5
		Total	28,218,891	203.85	100

Summary Detail - Phase 5B Area: 138,428

Ref.	Description	Rate USD	Amount USD	Cost/sf USD	%
	CONVENTION CENTER				
A10	FOUNDATIONS	0.37	50,870	0.37	0.2
B10	SUPERSTRUCTURE	6.81	942,982	6.81	3.3
B20	EXTERIOR ENCLOSURE	22.38	3,098,660	22.38	11
B30	ROOFING	0.76	104,520	0.76	0.4
C10	INTERIOR CONSTRUCTION	5.78	800,768	5.78	2.8
C20	STAIRS	0.35	48,000	0.35	0.2
C30	INTERIOR FINISHES	32.44	4,490,579	32.44	15.9
D10	CONVEYING	1.48	205,000	1.48	0.7
D20	PLUMBING	2.74	379,917	2.74	1.3
D30	HVAC	10.83	1,498,837	10.83	5.3
D40	FIRE PROTECTION SYSTEMS	0.88	122,491	0.88	0.4
D50	ELECTRICAL	10.9	1,508,648	10.9	5.3
E10	EQUIPMENT	5.19	718,200	5.19	2.5
E20	FURNISHINGS	0.4	55,504	0.4	0.2
F20	SELECTIVE BUILDING	6.92	957,743	6.92	3.4
G10	DEMOLITION SITE PREPARATION	0.52	71,903	0.52	0.3
G20	SITE IMPROVEMENTS	1.69	234,460	1.69	0.8
G30	SITE MECHANICAL UTILITIES	4.38	606,156	4.38	2.1
G40	SITE ELECTRICAL UTILITIES	0.36	50,000	0.36	0.2
	Total		15,945,238	115.18	56.3

PHASE 6

Summary - Phase 6 Ref.	Description	Rate USD	Amount USD	Area: 534,613 Cost/sf USD	%
	CONVENTION CENTER	70.52	35,216,880	65.87	47.3
	6C RESTAURANT BUILDING	320.19	2,009,500	3.76	2.7
	6D RETAIL / RESTAURANT	120.00	669,360	1.25	0.9
	6E RENOVATE RETAIL / RESTAURANT	55.00	689,865	1.29	0.9
	6F RETAIL / RESTAURANT	120.00	1,298,400	2.43	1.8
	General Conditions / Overhead & Profit	15.00	5,982,601	11.19	8
	Sub Total		45,866,606	85.79	61.6
	Escalation	35.00	16,053,312	30.03	21.6
	Sub Total		61,919,918	115.82	83.2
	Design Contingency	15.00	9,287,988	17.37	12.5
	Sub Total		71,207,906	133.19	95.7
	Phasing	3.00	2,136,237	4	2.8
	Sub Total		73,344,143	137.19	98.5
	Art Allowance	1.50	1,100,162	2.06	1.5
		Total	74,444,305	139.25	100

Summary Detail - Phase 6 Area: 534,613

Ref.	Description	Rate USD	Amount USD	Cost/sf USD	%
	CONVENTION CENTER				
A10	FOUNDATIONS E	7.37	3,679,854	6.88	4.9
B10	SUPERSTRUCTURE	3.72	1,857,876	3.48	2.5
B30	ROOFING	0.35	174,330	0.33	0.2
C10	INTERIOR CONSTRUCTION	7.76	3,875,792	7.25	5.2
C20	STAIRS	0.10	48,000	0.09	0.1
C30	INTERIOR FINISHES	2.96	1,478,712	2.77	2
D10	CONVEYING	0.21	105,000	0.20	0.1
D20	PLUMBING	0.24	122,296	0.23	0.2
D30	HVAC	12.25	6,117,032	11.44	8.2
D40	FIRE PROTECTION SYSTEMS	0.74	367,446	0.69	0.5
D50	ELECTRICAL	11.81	5,897,668	11.03	7.9
E10	EQUIPMENT	1.00	500,000	0.94	0.7
	GARAGE INTERIOR GLASS CORRIDOR	3.64	1,819,200	3.40	2.4
F20	SELECTIVE BUILDING	9.31	4,648,417	8.69	6.2
G10	DEMOLITION SITE PREPARATION	1.11	556,357	1.04	0.7

Summary Detail - Phase 6 (Continued)

G20	SITE IMPROVEMENTS	7.35	3,668,900	6.86	4.9
G40	SITE ELECTRICAL UTILITIES	0.60	300,000	0.56	0.4
	Total		35,216,880	65.88	47.1
	6C RESTAURANT BUILDING				
	6C RESTAURANT - SHELL SPACE	320.19	2,009,500	3.76	2.7
	Total		2,009,500	3.76	2.7
	6D RETAIL / RESTAURANT				
	6D RETAIL / RESTAURANT - SHELL SPACE	120	669,360	1.25	0.9
	Total		669,360	1.25	0.9
	6E RENOVATE RETAIL / RESTAURANT 6E RENOVATE RETAIL / RESTAURANT - SHELL SPACE	55	689,865	1.29	0.9
	Total		689,865	1.29	0.9
	6F RETAIL / RESTAURANT				
	6F RETAIL / RESTAURANT - SHELL SPACE	120	1,298,400	2.43	1.7
	Total		1,298,400	2.43	1.7

PHASE 1

Phase 1 - CONVENTION CENTER

Area:1,000,855

No.	Description	Quantity	Unit	Unit Cost USD	Amount USD
	FOUNDATIONS				
1	Piles & Grade Beams Foundation	368,397	sf	30.00	11,051,910
2	Slab on Grade	368,397	sf	5.50	2,026,184
	Total				13,078,094
	SUPERSTRUCTURE				
3	Floor Steel Framing	428,178	sf	17.50	7,493,115
4	Large Span Floor Steel Framing	198,000	sf	52.50	10,395,000
5	Concrete Slab on Metal Deck	626,178	sf	8.50	5,322,513
6	Roof Steel Framing	267,867	sf	14.00	3,750,138
7	Large Span Steel Roof Framing	100,530	sf	24.50	2,462,985
8	Roof Metal Deck	368,397	sf	2.00	736,794
9	Overhang Structure	176,428	sf	18.00	3,175,704
	Total		sf		33,336,249
	EXTERIOR ENCLOSURE				
10	Insulated Laminated Glass Curtainwall	154,602	sf	95.00	14,687,190
11	Metal Wall / Soffit Panels & Substrate	378,049	sf	60.00	22,682,940
12	Paired Storefront Doors	30	pr	6,000.00	180,000
13	Loading Dock R/U Doors	4	ea	5,000.00	20,000
	Total				37,570,130
	ROOFING				
14	Membrane Roof System	544,825	sf	10.00	5,448,250
	Total				5,448,250
	INTERIOR CONSTRUCTION				
15	Partitions / Doors / Specialties	1,000,855	sf	9.00	9,007,695
16	Moveable Partitions	114,750	sf	60.00	6,885,000
17	Moveable Partitions Support	4,275	lf	75.00	320,625
	Total				16,213,320
	STAIRS				
18	Painted Steel Extra Wide Egress Stairs	19	flt	40,000.00	760,000
19	Painted Steel Wide Egress Stairs	12	flt	34,000.00	408,000
20	Painted Steel Egress Stairs	1	flt	24,000.00	24,000
	Total				1,192,000
	INTERIOR FINISHES				
21	Lobbies, Concourses & Registration	239,533	sf	45.00	10,778,985
22	Exhibit Halls	197,502	sf	3.00	592,506
23	Ballrooms	81,600	sf	38.00	3,100,800
24	Meeting Rooms	115,495	sf	18.00	2,078,910
25	Restrooms	9,637	sf	28.00	269,836
26	Corridor / Front of House / Office	17,085	sf	12.00	205,020
27	Back of House Areas	204,557	sf	2.00	409,114
28	Kitchen	22,947	sf	20.00	458,940
29	Food Court	44,005	sf	15.00	660,075
30	Vertical Circulation	68,494	sf	10.00	684,940
	Total				19,239,126
	CONVEYING				
31	Passenger Elevators	30	ea	35,000.00	1,050,000
32	Freight elevators	22	ea	45,000.00	990,000
33	Escalators	12	ea	200,000.00	2,400,000
	Total				4,440,000
	PLUMBING				
34	Public Lobbies, Concourses & Registration	239,533	sf	1.00	239,533
35	Exhibit Halls	197,502	sf	0.25	49,376
36	Restrooms	6,532	sf	25.00	163,300
37	Restrooms	1,029	sf	25.00	25,725
38	Restrooms	1,038	sf	25.00	25,950
39	Restrooms	1,762	sf	25.00	44,050
40	Restrooms	1,762	sf	25.00	44,050
41	Food Service - Kitchen	18,531	sf	50.00	926,550
42	Food Service - Food Court	43,000	sf	25.00	1,075,000
43	Rainwater Drainage	1,000,855	sf	0.90	900,770
44	Grease Interceptor	1	ea	45,000.00	45,000
45	Back Flow Preventor	2	ea	6,500.00	13,000
46	Fuel Oil Tank	1	ea	50,000.00	50,000
47	Gas Meter	1	ea	15,000.00	15,000
48	Water Pressure Booster Pump	1	ea	55,000.00	55,000
	Total				3,672,304
	HVAC				
49	Public Lobbies, Concourses & Registration	239,533	sf	23.85	5,712,862
50	Exhibit Halls	197,502	sf	24.44	4,826,949
51	Ballrooms	81,600	sf	27.40	2,235,840
52	Meeting Rooms	115,495	sf	15.75	1,819,046
53	Front of House Support Areas	26,722	sf	17.75	474,316
54	Back of House Service Areas	204,577	sf	14.75	3,017,511
55	Food Service Areas	66,952	sf	24.10	1,613,543
56	Vertical Circulation - Smoke Evacuation	68,494	sf	2.00	136,988
57	Remove VAV Box	18	ea	200.00	3,600
58	Remove AHU	16	ea	2,000.00	32,000
59	New 1200 Ton Chillers	2	ea	700,000.00	1,400,000
60	New Cooling Towers	2	ea	130,000.00	260,000
61	New Connecting piping & valves	1	ls	50,000.00	50,000
	Total				21,582,655
	FIRE PROTECTION SYSTEMS				
62	Public Lobbies, Concourses & Registration	239,533	sf	1.80	431,159
63	Exhibit Halls	197,502	sf	1.80	355,504
64	Ballrooms	81,600	sf	2.00	163,200
65	Meeting Rooms	115,495	sf	1.80	207,891
66	Front of House Support Areas	26,722	sf	1.80	48,100
67	Back of House Service Areas	204,557	sf	1.50	306,836
68	Food Service Area	66,952	sf	1.50	100,428
69	Vertical Circulation	68,494	sf	0.50	34,247
70	Fire Pumps	2	ea	60,000.00	120,000
	Total				1,767,365
	ELECTRICAL				
71	Public Lobbies, Concourses & Registration	239,533	sf	21.00	5,030,193
72	Exhibit Halls	197,502	sf	23.20	4,582,046
73	Ballrooms	81,600	sf	27.15	2,215,440
74	Meeting Rooms	115,495	sf	13.95	1,611,155
75	Front of House Areas	26,722	sf	24.00	641,328
76	Back of House Service Areas	204,557	sf	19.00	3,886,583
77	Food Service Areas	66,952	sf	25.65	1,717,319
78	Vertical Circulation	68,494	sf	3.10	212,331
79	Remove Switchboards	6	ea	2,000.00	12,000
80	New Generator	1	ea	280,000.00	280,000
	Total				20,188,395
	EQUIPMENT				
	Main Production Kitchen				
81	General Storage	1	ls	60,000.00	60,000
82	General Freezer	1	ls	30,000.00	30,000
83	Meat Cooler	1	ls	22,500.00	22,500
84	Fish Cooler	1	ls	15,000.00	15,000
85	Meat / Fish Freezer	1	ls	18,000.00	18,000
86	Vegetable Cooler	1	ls	27,000.00	27,000
87	Dry Food Storage	1	ls	90,000.00	90,000
88	Nonfood (Paper Storage)	1	ls	36,000.00	36,000
89	Nonfood (Detergent Storage)	1	ls	13,500.00	13,500
90	Secured Storage	1	ls	11,000.00	11,000
91	Prep & Long-Term Storage	1	ls	16,200.00	16,200
92	Chinaware / Glassware / Silverware	1	ls	18,000.00	18,000
93	Soft Drink / Water Storage	1	ls	45,000.00	45,000
94	Liquor Storage	1	ls	33,000.00	33,000
95	Beverage Cooler	1	ls	37,500.00	37,500
96	Ice Maker Room	1	ls	28,550.00	28,550
97	Ice Storage Freezer	1	ls	18,000.00	18,000
98	Cold Prep (Garde Manager)	1	ls	87,600.00	87,600
99	Garde Manager Cooler	1	ls	18,000.00	18,000
100	Meat / Fish Prep	1	ls	53,200.00	53,200
101	Meat / Fish Cooler	1	ls	15,000.00	15,000
102	Hot Prep Area	1	ls	66,000.00	66,000
103	Bulk Cooking	1	ls	350,000.00	350,000
104	Chef's Cooler	1	ls	27,000.00	27,000
105	Finishing	1	ls	146,200.00	146,200
106	Plating Area	1	ls	45,500.00	45,500
107	Holding Cooler	1	ls	117,000.00	117,000
108	Holding Freezer	1	ls	12,000.00	12,000
109	Cart Park Area	1	ls	28,000.00	28,000
110	Trash Holding	1	ls	8,100.00	8,100
111	Cart Wash Area	1	ls	13,500.00	13,500
112	Detergent Closet	1	ls	1,000.00	1,000
113	Soiled Cart Holding	1	ls	44,000.00	44,000
114	Warewashing	1	ls	176,000.00	176,000
115	Pulper Room	1	ls	72,800.00	72,800
116	Clean Dish Holding	1	ls	27,500.00	27,500
117	Clean Cart Holding	1	ls	22,000.00	22,000
118	Pot & Pan Washing	1	ls	73,500.00	73,500
119	Clean Staging	1	ls	13,200.00	13,200
	Sub Total				1,936,350
	Kosher Kitchen				
120	Dairy Cooler	1	ls	15,000.00	15,000
121	Produce Cooler	1	ls	18,000.00	18,000
122	Meat / Poultry Cooler	1	ls	18,000.00	18,000
123	Fish Cooler	1	ls	15,000.00	15,000
124	General Freezer	1	ls	18,000.00	18,000
125	Dry Food Storage	1	ls	10,800.00	10,800
126	Passover Dish Storage	1	ls	9,000.00	9,000
127	Paper Storage	1	ls	9,000.00	9,000
128	Detergent Storage	1	ls	5,400.00	5,400
129	Meat Cooler	1	ls	12,000.00	12,000
130	Prep Area - meta	1	ls	28,800.00	28,800
131	Meat Cooking Area	1	ls	89,400.00	89,400
132	Assembly Area - meta	1	ls	21,000.00	21,000
133	Dairy Cooler - prep area	1	ls	12,000.00	12,000
134	Prep Area - dairy	1	ls	34,600.00	34,600
135	Meat Cooking area	1	ls	40,635.00	40,635
136	Assembly Area - dairy	1	ls	14,000.00	14,000
137	Parve Prep	1	ls	33,600.00	33,600
138	Parve Assembly	1	ls	14,000.00	14,000
139	Meat Pot Wash	1	ls	28,400.00	28,400
140	Dariy Pot Wash	1	ls	28,400.00	28,400
141	Soiled Holding - meat	1	ls	7,200.00	7,200
142	Soiled Dishtable - meat	1	ls	7,870.00	7,870
143	Dishwashing Area - meat	1	ls	46,200.00	46,200
144	Clean Holding - meat	1	ls	8,640.00	8,640

145	Soiled Holding - dairy	1	ls	5,040.00	5,040
146	Dishwashing - dairy	1	ls	42,000.00	42,000
147	Clean Holding - dairy	1	ls	51,120.00	51,120
148	Trash Holding	1	ls	5,760.00	5,760
	Sub Total				648,865
	Food Court				
149	Short-order Cooking	1	ls	240,000.00	240,000
150	Pizza / Pasta	1	ls	252,000.00	252,000
151	Daily Sandwiches	1	ls	144,000.00	144,000
152	Soup & Salad	1	ls	180,000.00	180,000
153	Dessert & Ice Cream	1	ls	168,000.00	168,000
154	Coffee Kiosk	1	ls	180,000.00	180,000
155	Grab & Go Areas	1	ls	168,000.00	168,000
156	Beverage Cenhters	1	ls	168,000.00	168,000
157	Check-out Stations	1	ls	144,000.00	144,000
158	Walk-in Cooler	1	ls	60,000.00	60,000
159	Walk-in Freezer	1	ls	30,000.00	30,000
160	Dry Storage	1	ls	27,000.00	27,000
161	Paper Storage	1	ls	37,800.00	37,800
162	Hot Prep Area	1	ls	38,000.00	38,000
163	Cold Prep Area	1	ls	34,000.00	34,000
164	Cooking Area	1	ls	199,200.00	199,200
165	Assembly Area	1	ls	52,500.00	52,500
166	Finish Baking Area	1	ls	54,000.00	54,000
167	Holding Cooler / Finished Products	1	ls	30,000.00	30,000
168	Pot & Pan Wash	1	ls	56,000.00	56,000
169	Warewashing	1	ls	158,000.00	158,000
170	Detergent Storage	1	ls	800.00	800
171	Trash Holding	1	ls	5,760.00	5,760
172	Pulper Room	1	ls	75,850.00	75,850
	Sub Total				2,502,910
	Employee Facility				
173	Employee Uniform Issue	1	ls	33,500.00	33,500
174	Servery	1	ls	60,000.00	60,000
	Sub Total				93,500
175	Supplies / Material Storage	1	ls	7,200.00	7,200
	Food Concessions				
176	Grill Concessions - new exhibit Hall	1	ls	60,000.00	60,000
177	Pizza Concession - new exhibit hall	1	ls	60,000.00	60,000
178	Sandwich / Daily Concession - new exhibit hall	1	ls	52,500.00	52,500
179	Noncooking Concessions - new exhibit hall	1	ls	84,000.00	84,000
180	Support Pantry - new exhibit hall	1	ls	84,000.00	84,000
	Sub Total				340,500
	Meeting Room Pantries				
181	Finishing Area - 2nd level	1	ls	50,000.00	50,000
182	Setup Area - 2nd level	1	ls	30,000.00	30,000
183	Hot / Cold Food Cart Park - 2nd level	1	ls	39,600.00	39,600
184	Beverage / Ice - 2nd level	1	ls	24,000.00	24,000
185	Warewashing Area - 2nd level	1	ls	52,500.00	52,500
186	Storage - 2nd level	1	ls	11,000.00	11,000
187	Finishing Area - 3rd level	1	ls	75,000.00	75,000
188	Setup Area - 3rd level	1	ls	45,000.00	45,000
189	Hot / Cold Food Cart Park - 3rd level	1	ls	66,000.00	66,000
190	Beverage / Ice - 3rd level	1	ls	60,000.00	60,000
191	Warewashing Area - 3rd level	1	ls	120,000.00	120,000
192	Storage - 3rd level	1	ls	22,000.00	22,000
193	Finishing Area - 4th level	1	ls	75,000.00	75,000
194	Setup Area - 4th level	1	ls	45,000.00	45,000
195	Hot / Cold Food Cart Park - 4th level	1	ls	66,000.00	66,000
196	Beverage / Ice - 4th level	1	ls	60,000.00	60,000
197	Warewashing Area - 4th level	1	ls	120,000.00	120,000
198	Storage - 4th level	1	ls	22,000.00	22,000
	Sub Total				983,100
199	Delivery, Installation, Set-in PLace	1	ls	976,864.00	976,864
	Projection Screen Equipment				
200	Projection Screens	2,600	sf	60.00	156,000
201	Projector Mounts	26	ea	450.00	11,700
	Sub Total				167,700
	Loading Dock Equipment				
202	Dock Bumpers	26	ea	70.00	1,820
	Sub Total				1,820
	Exterior Signage				
203	Signage Budget	1	ls	750,000.00	750,000
	Sub Total				750,000
	Total				8,408,809
	FURNISHINGS				
204	Aluminum Horizontal Blinds	154,602	sf	4.00	618,408
	Total				618,408
	SELECTIVE BUILDING DEMOLITION				
205	Building Demolition	2,338,000	cf	0.40	935,200
	Total				935,200
	SITE PREPARATION				
	Pavement Demolition				
206	Saw Cut Pavement	4,880	lf	3.00	14,640
207	Remove Street Pavement	26,809	sy	20.00	536,180
208	Haul Disposal	4,466	cy	25.00	111,650
	Sub Total				662,470
	Earthwork				
209	Grading / Dewatering	353,324	sf	7.00	2,473,268
	Sub Total				2,473,268
	Total				3,135,738
	SITE IMPROVEMENTS				
	Roadways				
210	Concrete Paving	1,000	sy	50.00	50,000
211	Resurface Asphalt Roadway	4,200	sy	15.00	63,000
212	Asphalt Paving	1,708	sy	30.00	51,240
213	Asphalt Patching	1,209	sy	35.00	42,315
214	Concrete Curb	3,000	lf	18.00	54,000
	Sub Total				260,555
	Sidewalks				
215	Pedestrian Paving	30,047	sf	15.00	450,705
	Sub Total				450,705
	Improvements				
216	Dock Wall	94	cy	600.00	56,400
217	Modifications to Streets	1	ls	50,000.00	50,000
	Sub Total				106,400
	Total				817,660
	SITE MECHANICAL UTILITIES				
	Potable Water				
218	New 12” DI Water Main	640	lf	70.00	44,800
219	New 12” Valves	5	ea	3,200.00	16,000
220	New 12” Fittings	6	ea	2,200.00	13,200
221	New Fire Hydrant Assemblies	1	ea	4,000.00	4,000
222	12” x 12” M.J. Tapping Sleevs / Valves	1	ea	2,500.00	2,500
223	Excavation	853	cy	12.00	10,236
224	Backfill and Compaction	640	cy	10.00	6,400
225	Trench Box	6	day	500.00	3,000
226	Misc Demo	1	ls	25,000.00	25,000
	Sub Total				125,136
	Sanitary Sewer				
227	Remove 8” Sanitary Sewer Main	575	lf	20.00	11,500
228	New 8” DI Gravity Main	600	lf	45.00	27,000
229	New 48” Man-Hole	3	ea	3,200.00	9,600
230	6” DI Sanitary Laterals, Fittings,Cleanout	6	ea	1,800.00	10,800
231	Demolish Manhole	1	ea	500.00	500
232	Misc Demo	1	ls	25,000.00	25,000
	Sub Total				84,400
	Stormwater				
233	42” PVC Storm Pipe	1,200	lf	65.00	78,000
234	42” HDPE Storm Pipe	600	lf	85.00	51,000
235	Excavation	5,511	cy	12.00	66,132
236	Backfill and Compaction	4,133	cy	10.00	41,330
237	Trench Box	18	day	500.00	9,000
238	New Catch Basins / Manholes	14	ea	3,200.00	44,800
239	Demolish 12” Storm Pipe	450	lf	12.00	5,400
240	Demolish 15” Storm Pipe	150	lf	12.00	1,800
241	Demolish 18” Storm Pipe	100	lf	14.00	1,400
242	Demolish 24” Storm Pipe	600	lf	16.00	9,600
243	Demolish Catch Basins	11	ea	500.00	5,500
244	Connect New Rain Water Leaders	5	ea	1,200.00	6,000
245	Haul	1	ls	10,000.00	10,000
246	Misc Modifications	1	ls	35,000.00	35,000
	Sub Total				364,962
	Miscellaneous Improvements				
247	Drainage Wells	2	ea	5,000.00	10,000
248	18” Pipe	600	lf	20.00	12,000
249	Structures	5	ea	3,000.00	15,000
250	Excavation	800	cy	12.00	9,600
251	Backfill and Compaction	600	cy	10.00	6,000
252	Trench Box	6	day	500.00	3,000
	Sub Total				55,600
	Total				630,098
	SITE ELECTRICAL UTILITIES				
253	Allowance	1	ls	25,000.00	25,000
	Total				25,000

PHASE 2

	Phase 2 - GARAGE			Area: 486,480	
	FOUNDATIONS			USD	USD
254	Standard & Special Foundations	120,795	sf	25.33	3,059,737
255	Slab on Grade	1,277	sf	6.83	8,722
	Total				3,068,459
	SUPERSTRUCTURE				
256	CIP Parking Levels	485,203	sf	39.32	19,078,182
	Total				19,078,182
	EXTERIOR ENCLOSURE				
257	Exterior Walls	486,480	sf	4.21	2,048,081
258	Planter Walls	600	cy	700.00	420,000
	Total				2,468,081
	ROOFING				
259	Sealer to Top Level	110,150	sf	1.09	120,064
260	Function Floor	13,108	sf	15.00	196,620
	Total				316,684
	INTERIOR CONSTRUCTION				
261	Partitions / Doors / Bldg Specialties	486,480	sf	0.78	379,454
262	Precast Wheelstops	1,140	ea	80.00	91,200
	Total				470,654
	STAIRS				
263	Stair Construction & Finishes	20	flt	16,000.00	320,000
	Total				320,000
	INTERIOR FINISHES				
264	Interior Finishes	448,715	sf	0.79	354,485
265	Back of House	2,922	sf	2.00	5,844
266	Vertical Circulation	6,385	sf	10.00	63,850
	Total				424,179
	CONVEYING				
267	Elevators	20	stop	30,000.00	600,000
	Total				600,000
	PLUMBING				
268	Plumbing Fixtures	486,480	sf	0.03	14,594
269	Domestic Water Distribution	486,480	sf	0.02	9,730
270	Sanitary Waste	486,480	sf	0.02	9,730
271	Rain Water Drainage	486,480	sf	0.40	194,592
272	Other Plumbing Systems	486,480	sf	0.01	4,865
	Total				233,511
	HVAC				
273	Ventilation Systems	486,480	sf	1.25	608,100
274	Controls & Instrumentation	486,480	sf	0.05	24,324
275	Systems Testing & Balancing	486,480	sf	0.03	14,594
	Total				647,018
	FIRE PROTECTION SYSTEMS				
276	Sprinklers	486,480	sf	0.10	48,648
277	Standpipes System	486,480	sf	0.50	243,240
	Total				291,888
	ELECTRICAL				
278	Electrical Service & Distribution	486,480	sf	0.50	243,240
279	Lighting & Branch Wiring	486,480	sf	1.50	729,720
280	Communication & Security	486,480	sf	0.75	364,860
281	Other Electrical Systems	486,480	sf	0.15	72,972
	Total				1,410,792
	EQUIPMENT				
	Exterior Signage				
282	Signage Budget	1	ls	50,000.00	50,000
	Sub Total				50,000
	Parking Control Equipment				
283	Ticket Dispenser / Gates / Booth	1	ls	150,000.00	150,000
	Sub Total				150,000
	Total				200,000

PHASE 3

Phase 3 - CONVENTION CENTER — Area: 393,360

	FOUNDATIONS				
284	Piles & Grade Beams Foundation	116,296	sf	24.00	2,791,104
285	Slab on Grade	116,296	sf	5.50	639,628
	Total				3,430,732
	SUPERSTRUCTURE				
286	Floor Steel Framing	171,996	sf	17.50	3,009,930
287	Concrete Slab on Metal Deck	171,996	sf	8.50	1,461,966
288	Roof Steel Framing for Parking	114,420	sf	70.00	8,009,400
289	Roof Metal Deck for Parking	114,420	sf	10.00	1,144,200
	Total				13,625,496
	EXTERIOR ENCLOSURE				
290	Metal Wall / Soffit Panels & Substrate	77,249	sf	60.00	4,634,940
291	Loading Dock R/U Doors	43	ea	5,000.00	215,000
	Total				4,849,940
	ROOFING				
292	Concrete Roof Sealer	114,420	sf	2.00	228,840
	Total				228,840
	INTERIOR CONSTRUCTION				
293	Partitions / Doors / Specialties	288,292	sf	9.00	2,594,628
294	Skywalk Modified / Temp Lobby	1	ls	200,000.00	200,000
295	Moveable Partitions	21,120	sf	60.00	1,267,200
296	Moveable Partitions Support	960	lf	75.00	72,000
297	Precast Wheelstops	285	ea	80.00	22,800
	Total				4,156,628
	STAIRS				
298	Painted Steel Extra Wide Egress Stairs	6	flt	40,000.00	240,000
	Total				240,000
	INTERIOR FINISHES				
299	Meeting Rooms	50,697	sf	18.00	912,546
300	Restrooms	4,734	sf	28.00	132,552
301	Corridor / Pre-Function	23,087	sf	12.00	277,044
302	Back of House Areas	183,825	sf	2.00	367,650
303	Kitchen / Pantry	14,614	sf	20.00	292,280
304	Vertical Circulation	11,335	sf	10.00	113,350
	Total				2,095,422
	CONVEYING				
305	Passenger Elevators	3	ea	35,000.00	105,000
306	Freight elevators	3	ea	45,000.00	135,000
	Total				240,000
	PLUMBING				
307	Restrooms	1,776	sf	25.00	44,400
308	Restrooms	2,958	sf	25.00	73,950
309	Back of House Services Areas	183,825	sf	5.00	919,125
310	Kitchen	3,279	sf	50.00	163,950
311	Parking Roof Top Drainage	105,068	sf	0.80	84,054
	Total				1,285,479
	HVAC				
312	Meeting Rooms	50,697	sf	15.75	798,478
313	Front of House Support Areas	27,821	sf	17.75	493,823
314	Back of House Service Areas	183,825	sf	14.75	2,711,419
315	Kitchen	14,614	sf	24.10	352,197
316	Vertical Circulation - Smoke Evacuation	11,335	sf	2.00	22,670
317	Remove VAV Box	28	ea	200.00	5,600
318	Remove AHU	18	ea	2,000.00	36,000
	Total				4,420,187
	FIRE PROTECTION SYSTEMS				
319	Meeting Rooms	50,697	sf	1.80	91,255
320	Front of Hosue Support Areas	27,821	sf	1.80	50,078
321	Back of House Service Areas	183,825	sf	1.50	275,738
322	Kitchen	14,614	sf	1.50	21,921
323	Vertical Circulation	11,335	sf	0.50	5,668
	Total				444,660
	ELECTRICAL				
324	Meeting Rooms	50,697	sf	13.95	707,223
325	Front of House Support Areas	27,821	sf	24.00	667,704
326	Back of House Service Areas	183,825	sf	19.00	3,492,675
327	Kitchen	14,614	sf	25.65	374,849
328	Vertical Circulation	11,335	sf	3.10	35,138
329	Remove Switchboards	3	ea	2,000.00	6,000
330	Parking Lights on Roof	20	ea	3,000.00	60,000
	Total				5,343,589
	EQUIPMENT				
	Soiled Dock				
331	Can / Cart Wash Area	1	ls	9,500.00	9,500
332	Trash Cooler	1	ls	30,000.00	30,000
	Sub Total				39,500
	Receiving Dock				
333	Breakdown Area	1	ls	13,500.00	13,500
334	Walk-in Cooler	1	ls	30,000.00	30,000
335	Walk-in Freezer	1	ls	15,000.00	15,000
336	Dry Food Holding	1	ls	16,500.00	16,500
337	Secured Storage	1	ls	8,800.00	8,800
	Sub Total				83,800
	Waste Management Area				
338	Recycling Area	1	ls	36,000.00	36,000
339	Empties / Returns	1	ls	12,750.00	12,750
	Sub Total				48,750
340	Delivery, Installation, Set-in place	1	ls	25,808.00	25,808
	Projection Screen Equipment				
341	Projection Screens	2,600	sf	60.00	156,000
342	Projector Mounts	26	ea	450.00	11,700
	Sub Total				167,700
	Loading Dock Equipment				
343	Loading Dock Levelers	37	ea	10,500.00	388,500
344	Dock Bumpers	74	ea	70.00	5,180
	Sub Total				393,680
	Total				759,238
	SELECTIVE BUILDING DEMOLITION				
345	Building Demolition	3,780,000	cf	0.40	1,512,000
	Total				1,512,000
	SITE PREPARATION				
	Pavement Demolition				
346	Saw Cut Pavement	8,980	lf	3.00	26,940
347	Remove Street Pavement	14,340	sy	20.00	286,800
348	Remove Sidewalk	800	sy	9.00	7,200
349	Haul Disposal	2,524	cy	25.00	63,100
	Sub Total				384,040
	Earthwork				
350	Grading / Dewatering	193,874	sf	7.00	1,357,118
	Sub Total				1,357,118
	Total				1,741,158
	SITE IMPROVEMENTS				
	Roadways				
351	Concrete Paving	9,300	sy	50.00	465,000
352	Asphalt Paving	7,500	sy	30.00	225,000
353	Asphalt Patching	1,796	sy	35.00	62,860
354	Concrete Curb	2,660	lf	18.00	47,880
	Sub Total				800,740
	Improvements				
355	Dock Wall	271	cy	600.00	162,600
356	Modifications to Streets	1	ls	50,000.00	50,000
357	Traffic Signal System	1	ls	200,000.00	200,000
	Sub Total				412,600
358	Garage Planter Landscape Plants	1	ls	40,000.00	40,000
	Total				1,253,340
	SITE MECHANICAL UTILITIES				
	Potable Water				
359	Remove Fire Hydrant	4	ea	500.00	2,000
360	Remove 20” Water Main	570	lf	30.00	17,100
361	New 20” DI Water Main	1,770	lf	160.00	283,200
362	New 20” Valves	14	ea	5,200.00	72,800
363	New 20” Fittings	18	ea	8,000.00	144,000
364	New Fire Hydrant Assemblies	8	ea	4,000.00	32,000
365	20” x 20” M.J. Tapping Sleevs / Valves	3	ea	9,800.00	29,400
366	Excavation	2,360	cy	12.00	28,320
367	Backfill and Compaction	1,770	cy	10.00	17,700
368	Trench Box	18	day	500.00	9,000
369	Misc Demo	1	ls	30,000.00	30,000
	Sub Total				665,520
	Sanitary Sewer				
370	Remove 18” Sanitary Sewer Main	400	lf	25.00	10,000
371	New 30” DI Gravity Main	1,500	lf	180.00	270,000
372	New 30” Valves	12	ea	10,000.00	120,000
373	New 30” Fittings	15	ea	6,500.00	97,500
374	Excavation	2,000	cy	12.00	24,000
375	Backfill and Compaction	1,500	cy	10.00	15,000
376	Trench Box	15	day	500.00	7,500
377	Misc Demo	1	ls	25,000.00	25,000
	Sub Total				569,000
	Stormwater				
378	Demolish Catch Basins	4	ea	500.00	2,000
379	Install Drainage Inlets	6	ea	3,000.00	18,000
380	New 18” Storm Pipe	300	lf	33.00	9,900
381	Misc Modifications	1	ls	15,000.00	15,000
382	Excavation	400	cy	12.00	4,800
383	Backfill and Compaction	300	cy	10.00	3,000
384	Trench Box	3	day	500.00	1,500
	Sub Total				54,200
	Total				1,288,720
	SITE ELECTRICAL UTILITIES				
	Telephone / Fiber				
385	Fiber Optic Duct Bank	1,200	lf	200.00	240,000
	Sub Total				240,000
	Power Distribution				
386	Relocation Allowance	1	ls	200,000.00	200,000
	Sub Total				200,000
387	Lighting allowance	1	ls	50,000.00	50,000
	Total				490,000

PHASE 4

Phase 4 - CONVENTION CENTER

Area: 98,615

	FOUNDATIONS				
388	Piles & Grade Beams Foundation	12,028	sf	24.00	288,672
389	Slab on Grade	12,028	sf	5.50	66,154
	Total				354,826
	SUPERSTRUCTURE				
390	Floor Steel Framing	3,301	sf	17.50	57,768
391	Concrete Slab on Metal Deck	3,301	sf	8.50	28,058
392	Roof Steel Framing	12,028	sf	14.00	168,392
393	Roof Metal Deck	12,028	sf	2.00	24,056
394	Overhang Structure	16,215	sf	18.00	291,870
395	Patch & Repair Structure as Needed	86,693	sf	3.00	260,079
	Total				830,223
	EXTERIOR ENCLOSURE				
396	Insualated Laminated Glass Curtainwall	32,778	sf	95.00	3,113,910
397	Metal Wall / Soffit Panels & Substrate	61,822	sf	60.00	3,709,320
398	Paired Storefront Doors	10	pr	6,000.00	60,000
399	Loading Dock R/U Doors	10	ea	5,000.00	50,000
	Total				6,933,230
	ROOFING				
400	Membrane Roof System	28,243	sf	10.00	282,430
	Total				282,430
	INTERIOR CONSTRUCTION				
401	Partitions / Doors / Specialties at Renovated Area	88,181	sf	8.50	749,538
	Total				749,538
	STAIRS				
402	Painted Steel Egress Stairs	2	flt	24,000.00	48,000
	Total				48,000
	INTERIOR FINISHES				
403	Lobbies, Concourses & Registration	23,381	sf	45.00	1,052,145
404	Restrooms	2,528	sf	28.00	70,784
405	Back of House Areas	71,237	sf	2.00	142,474
406	Offices	3,407	sf	12.00	40,884
407	Vertical Circulation	1,469	sf	10.00	14,690
	Total				1,320,977
	PLUMBING				
408	Public Lobbies, Concourses & Registration	23,381	sf	1.00	23,381
409	Restrooms	2,528	sf	25.00	63,200
410	Back of House Service Areas	71,237	sf	5.00	356,185
	Total				442,766
	HVAC				
411	Public Lobbies, Concourses & Registration	23,381	sf	23.85	557,637
412	Front of House Support Areas	2,528	sf	17.75	44,872
413	Back of House Service Areas	71,237	sf	14.75	1,050,746
414	Vertical Circulation	1,469	sf	2.00	2,938
	Total				1,656,193
	FIRE PROTECTION SYSTEMS				
415	Public Lobbies & Registration	23,381	sf	1.80	42,086
416	Front of House Support Areas	2,528	sf	1.80	4,550
417	Back of House Service Areas	71,237	sf	1.50	106,856
418	Vertical Circulation	1,469	sf	0.50	734
	Total				154,226
	ELECTRICAL				
419	Public Lobbies, Concourses & Registration	23,381	sf	21.00	491,001
420	Front of House Support Areas	2,528	sf	24.00	60,672
421	Back of House Service Areas	71,237	sf	19.00	1,353,503
422	Vertical Circulation	1,469	sf	3.10	4,554
	Total				1,909,730
	EQUIPMENT				
	Projection Screen Equipment				
423	Projection Screens	500	sf	60.00	30,000
424	Projector Mounts	5	ea	450.00	2,250
	Sub Total				32,250
	Exterior Signage				
425	Signage Budget	1	ls	50,000.00	50,000
	Sub Total				50,000
	Total				82,250
	FURNISHINGS				
426	Aluminum Horizontal Blinds	32,778	sf	4.00	131,112
	Total				131,112
	SELECTIVE BUILDING DEMOLITION				
427	Building Demolition	578,074	cf	0.40	231,230
428	Refurbish Demolition	13,841	sf	1.75	24,222
429	Renovation Demolition	72,852	sf	8.00	582,816
430	Exterior Wall Demolition	6,516	sf	5.00	32,580
431	Exterior Window Demolition	724	sf	1.85	1,339
432	Miscellaneous Exterior Demolition	86,693	sf	0.50	43,346
433	Rubbish Handling	300	cy	25.00	7,500
434	Skywalk Demolition	1	ls	500,000.00	500,000
	Total				1,423,033
	SITE PREPARATION				
	Pavement Demolition				
435	Saw Cut Pavement	75	lf	3.00	225
436	Remove Street Pavement	4,900	sy	20.00	98,000
437	Haul Disposal	817	cy	25.00	20,425
	Sub Total				118,650
	Earthwork				
438	Grading / Dewatering	16,043	sf	7.00	112,301
	Sub Total				112,301
	Total				230,951
	SITE IMPROVEMENTS				
	Roadways				
439	Concrete Pavement	2,200	sy	50.00	110,000
440	Asphalt Paving	4,900	sy	30.00	147,000
441	Concrete Curb	1,180	lf	18.00	21,240
	Sub Total				278,240
	Sidewalks				
442	Pedestrian Paving	7,690	sf	15.00	115,350
	Sub Total				115,350
	Improvements				
443	Modifications to Streets	1	ls	50,000.00	50,000
	Sub Total				50,000
444	Landscape / Site Furnishings	1	ls	50,000.00	50,000
	Total				493,590
	SITE MECHANICAL UTILITIES				
	Potable Water				
445	New 20” DI Water Main	1,100	lf	160.00	176,000
446	New 20” Valves	8	ea	5,200.00	41,600
447	New 20” Fittings	11	ea	8,000.00	88,000
448	New Fire Hydrant Assemblies	3	ea	4,000.00	12,000
449	20” x 20” M.J. Tapping Sleevs / Valves	2	ea	9,800.00	19,600
450	Excavation	1,467	cy	12.00	17,604
451	Backfill and Compaction	1,100	cy	10.00	11,000
452	Trench Box	11	day	500.00	5,500
453	Misc Demo	1	ls	30,000.00	30,000
	Sub Total				401,304
	Stormwater				
454	Install Catch Basin / Manholes	4	ea	3,000.00	12,000
455	New 24” HDPE Storm Pipe	1,000	lf	30.00	30,000
456	Misc Modifications	1	ls	15,000.00	15,000
457	Excavation	1,333	cy	12.00	15,996
458	Backfill and Compaction	1,000	cy	10.00	10,000
459	Trench Box	10	day	500.00	5,000
	Sub Total				87,996
	Total				489,300
	SITE ELECTRICAL UTILITIES				
460	Allowance	1	ls	35,000.00	35,000
	Total				35,000

PHASE 5A

Phase 5A - CONVENTION CENTER — Area: 97,452

	FOUNDATIONS			
461	Piles & Grade Beams at Addition	556 sf	24.00	13,344
462	Slab on Grade	556 sf	5.50	3,058
463	Slab on Grade Infill	4,840 sf	7.50	36,300
	Total			52,702
	SUPERSTRUCTURE			
464	Floor Steel Framing	556 sf	17.50	9,730
465	Concrete Slab on Metal Deck	556 sf	8.50	4,726
466	Roof Steel Framing	556 sf	14.00	7,784
467	Roof Metal Deck	556 sf	2.00	1,112
468	Overhang Structure	8,700 sf	18.00	156,600
469	Patch & Repair Structure as Needed	96,340 sf	3.00	289,020
470	Roof Structure Repairs	11,089 sf	20.00	221,780
	Total			690,752
	EXTERIOR ENCLOSURE			
471	Insulated Laminated Glass Curtainwall	30,486 sf	95.00	2,896,170
472	Metal Wall / Soffit Panels & Substrate	34,222 sf	60.00	2,053,320
473	Paired Storefront Doors	12 pr	6,000.00	72,000
	Total			5,021,490
	ROOFING			
474	Membrane Roof System	32,759 sf	10.00	327,590
	Total			327,590
	INTERIOR CONSTRUCTION			
475	Partitions / Doors / Specialties	41,372 sf	8.00	330,976
476	Moveable Partitions	4,416 sf	60.00	264,960
477	Moveable Partitions Support	276 lf	75.00	20,700
	Total			616,636
	STAIRS			
478	Painted Steel Egress Stairs	2 flt	24,000.00	48,000
	Total			48,000
	INTERIOR FINISHES			
479	Lobbies, Concourses & Registration	40,800 sf	45.00	1,836,000
480	Meeting Rooms	30,989 sf	18.00	557,802
481	Restrooms	3,066 sf	28.00	85,848
482	Back of House Areas	20,837 sf	2.00	41,674
483	Consession Stand	1,112 sf	15.00	16,680
484	Vertical Circulation	648 sf	10.00	6,480
	Total			2,544,484
	CONVEYING			
485	Refurbish Elevators / Escalator	1 ls	100,000.00	100,000
486	Passenger Elevators	2 ea	35,000.00	70,000
	Total			170,000
	PLUMBING			
487	Public Lobbies, Concourses & Registration	40,800 sf	1.00	40,800
488	Restrooms	1,475 sf	25.00	36,875
489	Restrooms	1,591 sf	25.00	39,775
490	Back of House Services Areas	20,837 sf	5.00	104,185
491	Concession Stand	1,112 sf	25.00	27,800
492	Rainwater Drainage	1 ls	75,000.00	75,000
	Total			324,435
	HVAC			
493	Public Lobbies, Concourses & Registration	40,800 sf	23.85	973,080
494	Meeting Rooms	30,989 sf	15.75	488,077
495	Front of House Support Areas	3,066 sf	17.75	54,422
496	Back of House Service Areas	20,837 sf	14.75	307,346
497	Vertical Circulation - Smoke Evacuation	14,006 sf	2.00	28,012
498	Concession Stand	1,112 sf	25.00	27,800
499	Vertical Circulation	648 sf	2.00	1,296
500	Remove VAV Box	42 ea	200.00	8,400
501	Remove AHU	4 ea	2,000.00	8,000
502	Remove Chilled Water Piping	1,240 lf	20.00	24,800
	Total			1,921,233
	FIRE PROTECTION SYSTEMS			
503	Public Lobbies Concourses & Registration	40,800 sf	0.90	36,720
504	Meeting Rooms	30,989 sf	0.90	27,890
505	Front of House Support Areas	3,066 sf	0.90	2,759
506	Back of House Service Areas	20,837 sf	0.75	15,628
507	Concession Stand	1,112 sf	1.50	1,668
508	Vertical Circulation	648 sf	0.50	324
	Total			84,989
	ELECTRICAL			
509	Public Lobbies, Concourses & Registration	40,800 sf	10.50	428,400
510	Meeting Rooms	30,989 sf	6.97	215,993
511	Front of House Support Areas	3,066 sf	12.00	36,792
512	Back of House Service Areas	20,837 sf	10.00	208,370
513	Concession Stand	1,112 sf	25.65	28,523
514	Vertical Circulation	648 sf	3.10	2,009
515	Remove Switchboards	3 ea	2,000.00	6,000
516	New Fire Alarm Panel	1 ea	20,000.00	20,000
517	Power Logic panels	1 ls	20,000.00	20,000
	Total			966,087
	EQUIPMENT			
	Food Concession			
518	Grill Concession	1 ls	120,000.00	120,000
519	Pizza Concession	1 ls	120,000.00	120,000
520	Noncooking Concession	1 ls	168,000.00	168,000
521	Support Pantry	1 ls	84,000.00	84,000
	Sub Total			492,000
522	Delivery, Installation, Set-in PLace	1 ls	73,800.00	73,800
	Projection Screen Equipment			
523	Projection Screens	500 sf	60.00	30,000
524	Projector Mounts	5 ea	450.00	2,250
	Sub Total			32,250
	Exterior Signage			
525	Signage Budget	1 ls	75,000.00	75,000
	Sub Total			75,000
	Total			673,050
	FURNISHINGS			
526	Aluminum Horizontal Blinds	30,486 sf	4.00	121,944
	Total			121,944
	SELECTIVE BUILDING DEMOLITION			
527	Building Demolition	791,630 cf	0.40	316,652
528	Refurbish Demolition	54,968 sf	1.75	96,194
529	Renovation Demolition	41,372 sf	8.00	330,976
530	Saw Cut Slab on Grade	726 lf	5.00	3,630
531	Remove Slab	4,840 sf	7.50	36,300
532	Exterior Wall Demolition	16,198 sf	5.00	80,990
533	Exterior Window Demolition	11,882 sf	1.85	21,982
534	Pitch Roof Demolition	4,745 sf	10.00	47,450
535	Clerestory & Structure Demolition	6,344 sf	20.00	126,880
536	Miscellaneous Exterior Demolition	96,340 sf	0.50	48,170
537	Rubbish Handling	1,000 cy	25.00	25,000
	Total			1,134,224
	SITE PREPARATION			
	Pavement Demolition			
538	Saw Cut Pavement	1,880 lf	3.00	5,640
539	Remove Street Pavement	1,359 sy	20.00	27,180
540	Remove Curb	680 lf	5.50	3,740
541	Remove Sidewalk	2,120 sy	9.00	19,080
542	Remove Planter Wall	992 sf	4.00	3,968
543	Haul	936 cy	25.00	23,400
	Sub Total			75,000
	Misc Demolition			
544	Remove Traffic Signal Head	1 ea	2,000.00	2,000
545	Remove Pedestrian Signal Assembly	1 ea	1,500.00	1,500
	Sub Total			3,500
	Earthwork			
546	Grading / Dewatering	12,970 sf	7.00	90,790
	Sub Total			90,790
	Total			177,298
	SITE IMPROVEMENTS			
	Roadways			
547	Asphalt Patching	316 sy	35.00	11,060
548	Concrete Curb	825 lf	18.00	14,850
	Sub Total			25,910
	Sidewalks			
549	Pedestrian Paving	20,138 sf	15.00	302,070
550	Plantings / Site Furnishings	1 ls	50,000.00	50,000
	Total			377,980
	SITE MECHANICAL UTILITIES			
	Sanitary Sewer			
551	Remove 8” Sanitary Sewer Main	600 lf	20.00	12,000
552	New 12” DI Gravity Main	600 lf	70.00	42,000
553	New 48” Man-Hole	2 ea	3,200.00	6,400
554	6” DI Sanitary Laterals, Fittings,Cleanout	9 ea	1,800.00	16,200
555	Excavation	800 cy	12.00	9,600
556	Backfill and Compaction	600 cy	10.00	6,000
557	Trench Box	6 day	500.00	3,000
558	Misc Demo	1 ls	20,000.00	20,000
	Sub Total			115,200
	Stormwater			
559	Connect New Rain Water Leaders	3 ea	1,200.00	3,600
560	Misc Modifications	1 ls	20,000.00	20,000
	Sub Total			23,600
	Total			138,800
	SITE ELECTRICAL UTILITIES			
561	Allowance	1 ls	50,000.00	50,000
	Total			50,000

PHASE 5B

Phase 5B - CONVENTION CENTER

Area: 138,428

	FOUNDATIONS				
562	Slab on Grade Extension	5,424	sf	5.50	29,832
563	Slab on Grade Infill	2,805	sf	7.50	21,038
	Total				50,870
	SUPErSTRUCTURE				
564	Patch & Repair Structure as Needed	108,226	sf	3.00	324,678
565	Roof Structure Repairs	5,028	sf	20.00	100,560
566	Floor Steel Framing	3,224	sf	17.50	56,420
567	Concrete Slab on Metal Deck	3,224	sf	8.50	27,404
568	Roof Steel Framing for Parking	5,424	sf	70.00	379,680
569	Roof Metal Deck for Parking	5,424	sf	10.00	54,240
	Total				942,982
	EXTERIOR ENCLOSURE				
570	Insulated Laminated Glass Curtainwall	13,876	sf	95.00	1,318,220
571	Metal Wall / Soffit Panels & Substrate	28,474	sf	60.00	1,708,440
572	Paired Storefront Doors	12	pr	6,000.00	72,000
	Total				3,098,660
	ROOFING				
573	Membrane Roof System	10,452	sf	10.00	104,520
	Total				104,520
	INTERIOR CONSTRUCTION				
574	Partitions / Doors / Specialties	79,396	sf	8.00	635,168
575	Moveable Partitions	2,545	sf	60.00	152,700
576	Moveable Partitions Support	172	lf	75.00	12,900
	Total				800,768
	STAIRS				
577	Painted Steel Egress Stairs	2	flt	24,000.00	48,000
	Total				48,000
	INTERIOR FINISHES				
578	Lobbies, Concourses & Registration	84,827	sf	45.00	3,817,215
579	Meeting Rooms	8,356	sf	18.00	150,408
580	Restrooms	7,602	sf	28.00	212,856
581	Offices	20,132	sf	12.00	241,584
582	Back of House Areas	14,178	sf	2.00	28,356
583	Consession Stand	1,366	sf	15.00	20,490
584	Vertical Circulation	1,967	sf	10.00	19,670
	Total				4,490,579
	CONVEYING				
585	Refurbish Elevators / Escalator	1	ls	100,000.00	100,000
586	Passenger Elevators	3	ea	35,000.00	105,000
	Total				205,000
	PLUMBING				
587	Public Lobbies, Concourses & Registration	84,827	sf	1.00	84,827
588	Restrooms	5,350	sf	25.00	133,750
589	Restrooms	1,707	sf	25.00	42,675
590	Restrooms	545	sf	25.00	13,625
591	Back of House Service Areas	14,178	sf	5.00	70,890
592	Concessions	1,366	sf	25.00	34,150
	Total				379,917
	HVAC				
593	Public Lobbies, Concourses & Registration	84,827	sf	11.92	1,011,138
594	Meeting Rooms	8,356	sf	7.88	65,845
595	Front of House Support Areas	27,734	sf	8.88	246,278
596	Back of House Service Areas	14,178	sf	7.37	104,492
597	Concessions	1,366	sf	25.00	34,150
598	Vertical Circulation - Smoke Evacuation	1,967	sf	2.00	3,934
599	Remove VAV Box	31	ea	200.00	6,200
600	Remove AHU	4	ea	2,000.00	8,000
601	Remove Chilled Water Piping	940	lf	20.00	18,800
	Total				1,498,837
	FIRE PROTECTION SYSTEMS				
602	Public Lobbies, Concourses & Registration	84,827	sf	0.90	76,344
603	Meeting Rooms	8,356	sf	0.90	7,520
604	Front of House Support Areas	27,734	sf	0.90	24,961
605	Back of House Service Areas	14,178	sf	0.75	10,634
606	Concessions	1,366	sf	1.50	2,049
607	Vertical Circulstion	1,967	sf	0.50	984
	Total				122,492
	ELECTRICAL				
608	Public Lobbies, Concourses & Registration	84,827	sf	10.50	890,684
609	Meeting Rooms	8,356	sf	6.97	58,241
610	Front of House Support Areas	27,734	sf	12.00	332,808
611	Back of House Service Areas	14,178	sf	10.00	141,780
612	Concessions	1,366	sf	25.65	35,038
613	Vertical Circulation	1,967	sf	3.10	6,098
614	Remove Switchboards	2	ea	2,000.00	4,000
615	New Fire Alarm Panel	1	ea	20,000.00	20,000
616	Power Logic panels	1	ls	20,000.00	20,000
	Total				1,508,649
	EQUIPMENT				
	Food Concessions				
617	Grill Concessions	1	ls	120,000.00	120,000
618	Pizza Concessions	1	ls	120,000.00	120,000
619	Noncooking Concession	1	ls	168,000.00	168,000
620	Support Pantry	1	ls	84,000.00	84,000
	Sub Total				492,000
621	Delivery, Installation, Set-in Place	1	ls	73,800.00	73,800
	Projection Screen Equipment				
622	Projection Screens	1,200	sf	60.00	72,000
623	Projector Mounts	12	ea	450.00	5,400
	Sub Total				77,400
	Exterior Signage				
624	Signage Budget	1	ls	75,000.00	75,000
	Sub Total				75,000
	Total				718,200
	FURNISHINGS				
625	Aluminum Horizontal Blinds	13,876	sf	4.00	55,504
	Total				55,504
	SELECTIVE BUILDING DEMOLITION				
626	Refurbish Demolition	59,032	sf	1.75	103,306
627	Renovation Demolition	70,748	sf	8.00	565,984
628	Saw Cut Slab on Grade	421	lf	5.00	2,105
629	Remove Slab	2,805	sf	7.50	21,038
630	Exterior Wall Demolition	20,076	sf	5.00	100,380
631	Exterior Window Demolition	13,384	sf	1.85	24,760
632	Pitch Roof Demolition	5,028	sf	10.00	50,280
633	Miscellaneous Exterior Demolition	129,780	sf	0.50	64,890
634	Rubbish Handling	1,000	cy	25.00	25,000
	Total				957,743
	SITE PREPARATION				
	Pavement Demolition				
635	Saw Cut Pavement	6,490	lf	3.00	19,470
636	Remove Street Pavement	922	sy	20.00	18,440
637	Remove Curb	490	lf	5.50	2,695
638	Remove Sidewalk	1,120	sy	9.00	10,080
639	Remove Planter Wall	992	sf	4.00	3,968
640	Haul	690	cy	25.00	17,250
	Sub Total				71,903
	Total				71,903
	SITE IMPROVEMENTS				
	Roadways				
641	Asphalt Patching	420	sy	35.00	14,700
642	Concrete Pavement Patching	356	sy	55.00	19,580
643	Concrete Curb	490	lf	18.00	8,820
	Sub Total				43,100
	Sidewalks				
644	Pedestrian Paving	10,424	sf	15.00	156,360
	Sub Total				156,360
645	Plantings / Site Furnishings	1	ls	35,000.00	35,000
	Total				234,460
	SITE MECHANICAL UTILITIES				
	Potable Water				
646	Remove 8" Water Main	1,000	lf	20.00	20,000
647	New 12" DI Water Main	1,000	lf	70.00	70,000
648	New 12" Valves	8	ea	3,200.00	25,600
649	New Fire Hydrant Assemblies	3	ea	4,000.00	12,000
650	20" x 12" M.J. Tapping Sleevs / Valves	2	ea	7,000.00	14,000
651	Back Flow Preventer Assemblies	6	ea	6,500.00	39,000
652	Water Meter	6	ea	15,000.00	90,000
653	Double Detector Check Valve	2	ea	5,000.00	10,000
654	Excavation	1,333	cy	12.00	15,996
655	Backfill and Compaction	1,000	cy	10.00	10,000
656	Trench Box	10	day	500.00	5,000
657	Misc Demo	1	ls	25,000.00	25,000
	Sub Total				336,596
	Sanitary Sewer				
658	Remove 8" Sanitary Sewer Main	2,000	lf	20.00	40,000
659	New 12" DI Gravity Main	1,400	lf	70.00	98,000
660	Remove 48" Manhole	3	ea	800.00	2,400
661	New 48" Man-Hole	3	ea	3,200.00	9,600
662	6" DI Sanitary Laterals, Fittings,Cleanout	11	ea	1,800.00	19,800
663	Modify Existing Sanitary Manholes	2	ea	750.00	1,500
664	Excavation	1,880	cy	12.00	22,560
665	Backfill and Compaction	1,410	cy	10.00	14,100
666	Trench Box	14	day	500.00	7,000
667	SS Reconnection	4	ea	1,500.00	6,000
668	Misc Demo	1	ls	25,000.00	25,000
	Sub Total				245,960
	Stormwater				
669	Connect New Rain Water Leaders	3	ea	1,200.00	3,600
670	Misc Modifications	1	ls	20,000.00	20,000
	Sub Total				23,600
	Total				606,156
	SITE ELECTRICAL UTILITIES				
671	Allowance	1	ls	50,000.00	50,000
	Total				50,000

PHASE 6

Phase 6 - CONVENTION CENTER

Area: 534613

	FOUNDATIONS			USD	USD
672	Slab on Grade Infill	489,184	sf	7.50	3,668,880
673	Piles & Grade Beams at Addition	372	sf	24.00	8,928
674	Slab on Grade	372	sf	5.50	2,046
	Total				3,679,854
	SUPERSTRUCTURE				
675	Patch & Repair Structure as Needed	489,184	sf	3.00	1,467,552
676	Roof Structure Repairs	17,061	sf	20.00	341,220
677	Floor Steel Framing	744	sf	17.50	13,020
678	Concrete Slab on Metal Deck	744	sf	8.50	6,324
679	Roof Steel Framing for Parking	372	sf	70.00	26,040
680	Roof Metal Deck for Parking	372	sf	10.00	3,720
	Total				1,857,876
	ROOFING				
681	Membrane Roof System	17,433	sf	10.00	174,330
	Total				174,330
	INTERIOR CONSTRUCTION				
682	Moveable Partitions	58,378	sf	60.00	3,502,680
683	Moveable Partitions Support	1,717	lf	75.00	128,775
684	Signage	488,675	sf	0.50	244,338
	Total				3,875,793
	STAIRS				
685	Painted Steel Egress Stairs	2	flt	24,000.00	48,000
	Total				48,000
	INTERIOR FINISHES				
686	Exhibit Halls	489,184	sf	3.00	1,467,552
687	Vertical Circulation	1,116	sf	10.00	11,160
	Total				1,478,712
	CONVEYING				
688	Passenger Elevators	3	ea	35,000.00	105,000
	Total				105,000
	PLUMBING				
689	Exhibit Halls - modification	489,184	sf	0.25	122,296
	Total				122,296
	HVAC				
690	Exhibit Halls - modification	489,184	sf	12.50	6,114,800
691	Vertical Circulation - Smoke Evacuation	1,116	sf	2.00	2,232
	Total				6,117,032
	FIRE PROTECTION SYSTEMS				
692	Exhibit Halls - Modification	489,184	sf	0.75	366,888
693	Vertical Circulstion	1,116	sf	0.50	558
	Total				367,446
	ELECTRICAL				
694	Exhibit Halls	489,184	sf	12.00	5,870,208
695	Vertical Circulation	1,116	sf	3.10	3,460
696	Remove Switchboards	12	ea	2,000.00	24,000
	Total				5,897,668
	EQUIPMENT				
	Exterior Signage				
697	Signage Budget	1	ls	500,000.00	500,000
	Sub Total				500,000
	Total				500,000
	GARAGE INTERIOR GLASS CORRIDOR				
698	Garage Interior Glass Connector	9,096	sf	200.00	1,819,200
	Total				1,819,200
	SELECTIVE BUILDING DEMOLITION				
699	Refurbish Demolition	489,184	sf	0.50	244,592
700	Saw Cut Slab on Grade	99,180	lf	3.25	322,335
701	Remove Slab	489,184	sf	7.50	3,668,880
702	Exterior Wall Demolition	5,400	sf	5.00	27,000
703	Pitch Roof Demolition	17,061	sf	10.00	170,610
704	Miscellaneous Exterior Demolition	1	ls	50,000.00	50,000
705	Rubbish Handling	6,600	cy	25.00	165,000
	Total				4,648,417
	SITE PREPARATION				
	Pavement Demolition				
706	Saw Cut Pavement	1,535	lf	3.00	4,605
707	Remove Steet Pavement	14,347	sy	20.00	286,940
708	Remove Sidewalk	3,800	sy	9.00	34,200
709	Haul Disposal	3,025	cy	25.00	75,625
	Sub Total				401,370
	Earthwork				
710	Grading / Dewatering	22,141	sf	7.00	154,987
	Sub Total				154,987
	Total				556,357
	SITE IMPROVEMENTS				
	Roadways				
711	Asphalt Paving	989	sy	30.00	29,670
712	Asphalt Patching	341	sy	35.00	11,935
713	Concrete Curb	1,180	lf	18.00	21,240
	Sub Total				62,845
	Sidewalks				
714	Pedestrian Paving	37,820	sf	15.00	567,300
715	Plaza Paving	78,026	sf	25.00	1,950,650
	Sub Total				2,517,950
	Improvements				
716	Water Feature	1	ls	750,000.00	750,000
717	Planters / Benches / Trash Receptacles	1	ls	100,000.00	100,000
	Sub Total				850,000
	Landscaping				
718	Trees	52	ea	1,000.00	52,000
719	Palm Trees	52	ea	3,000.00	156,000
720	Sod	40,140	sf	0.75	30,105
	Sub Total				238,105
	Total				3,668,900
	SITE ELECTRICAL UTILITIES				
721	Site Lighting Allowance	1	ls	250,000.00	250,000
722	Service entrance modification	1	ls	50,000.00	50,000
	Total				300,000
Phase 6 - 6C RESTAURANT BUILDING					
723	6C Restaurant - Shell Space	6,276	sf	200.00	1,255,200
724	Canopy Walkway	15,086	sf	50.00	754,300
	Total				2,009,500
Phase 6 - 6D RESTAURANT BUILDING					
725	6D Restaurant - Shell Space	5,578	sf	120.00	669,360
	Total				669,360
Phase 6 - 6E RENOVATE RETAIL / RESTAURANT					
726	6E Retail / Restaurant - Shell Space	12,543	sf	55.00	689,865
	Total				689,865
Phase 6 - 6F RETAIL / RESTAURANT - SHELL SPACE					
726	6F RETAIL / RESTAURANT - SHELL SPACE	10,820	sf	120.00	1,298,400
	Total				1,298,400

APPENDIX A
MEETING MINUTES

MIAMIBEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov
TOURISM AND CULTURAL DEVELOPMENT DEPARTMENT

Convention Center Master Plan Steering Committee Meeting
January 15, 2010

Meeting Summary

Committee Members Present:	Ex-Officio Members Present:	Others Present:
Mr. Jorge M. Gonzalez Mr. Stuart Blumberg Mr. Robert Wennett Mr. Marco Giberti Mr. Michael Breslow Mr. Alex Munoz Mr. Scott Berman Ms. Wendy Kallergis Mr. Tom Mobley Ms. Elsie Howard Mr. William Talbert	Ms. Hilda Fernandez Mr. Jorge Gomez Mr. Max Sklar Mr. Bob Balsam	Mayor Matti Bower Matthew Pinzur Gaston Isoldi Ita Moriarty Barry Moskowitz Mr. John Kaatz Sergio Bakas Anne Cotter Bryan Alzati David O'Neal Rick Schmidt Katia Beck Angel Lorenzo Mr. Larry Otto Mr. Angelo Grande Frank Delvecchio Scott Pacheco Bill Frogameni

Jorge Gonzalez welcomed everyone to the kick-off meeting of the Convention Center Master Plan Steering Committee and everyone in attendance introduced themselves.

Mr. Gonzalez and Ms. Hilda Fernandez presented the history of the Convention Center and the history of the current master plan and expansion. The Miami Beach Convention Center expansion which was originally constructed in 1957 and the last major expansion concluded in 1986 and brought the facility to its current size of 1.1 million square feet and 502,000 square feet of exhibit space. Since 1996 the facility has received over $50 million of improvements. The 1986 master plan and subsequent multi-purpose/ballroom space options were also reviewed.

A recap of the City of Miami Beach and Miami-Dade County Interlocal Agreement was provided. The Second Amendment to the 1996 Interlocal Agreement (2004) shifted Convention Development Tax (CDT) funding designated for MBCC and replaced it with funding from Miami-Dade County General Obligation Bond Funds (if approved). On November 2, 2004 voters of Miami-Dade County approved the Building Better Communities Bond Program (BBC GOB). The BBC GOB provided $55 million for Expansion/Enhancement of the Miami Beach Convention Center. An Interlocal Agreement between the City and County was executed in October 2009 for $600,000 to fund the Master Plan.

The Committee was also informed that in April 2008 the City and County Mayors and Managers meet to discuss the Convention Center expansion project. It was agreed at that time that a Master Plan would be developed with research driven information. The master plan would look beyond the four walls of the current facility to identify short term and long term facility needs to make the facility competitive in the future, not just now. This would include identifying short and long term funding needs.

In 2001 CSL completed a space and needs assessment study for MBCC, that study was updated, on behalf of the Greater Miami Convention and Visitors Bureau (GMCVB) in 2005 and subsequently in 2009. The most recent study looked at current industry trends, competitive/comparable facility analysis, existing and projected utilization and market demand analysis. CSL presented their 2009 findings which included the following:

- Multi-use/Ballroom Space needed
- Additional Meeting Space needed
- Unique Space Additions (e.g. outdoor venue)
- Adjacent or attached Convention Center Hotel
- Development of a Convention Center District with strong linkages to adjacent entertainment areas

Mr. Fernandez advised the Committee that in May 2008, RFQ 31-07/08 was issued for master planning services for the expansion and enhancement of the Miami Beach Convention Center. The City received six responsive proposals and the Evaluation Committee recommended Arquitectonica. The City Commission adopted Resolution No. 2008-26883 awarding the RFQ to Arquitectonica and the Administration negotiated the Agreement, which was approved by City Commission June, 2009 and was executed November, 2009.

Ms. Fernandez also informed the Committee that Arquitectonica will look at city codes and prior studies, solicit input from the Steering Committee, other community stakeholders and produce short and long term master plan for the Convention Center. Additionally, the Steering Committee was informed that a Stakeholder Group had been meeting with the City since 2005. In April 2009, the Stakeholder Group agreed that the following items should be prioritized in Arquitectonica's final master plan.

- Reconfiguration/Enhancement of existing ballroom
- Additional meeting rooms
- Executive Conference Center (west)/2nd Floor West Side Meeting Rooms
- Outdoor space/venue
- Exterior signage (west side marquee)
- Interior finishes
- Other infrastructure requirements

Arquitectonica presented some initial ideas and concepts to the Steering committee. General discussion from the Committee ensued. Mr. Wennett expressed that it was important for the Committee to establish a set of goals and he felt the goals should be big and outrageous in order to ensure that good dialogue and brainstorming would occur. Some of the subsequent comments included the need to strengthen the connection to Lincoln Road, the New World Symphony, Fillmore Miami Beach at the Jackie Gleason Theater and the public spaces in between.

Mr. Giberti stated that the Miami Beach Convention Center doesn't compete with Orlando or Las Vegas and that 5 to 10 shows like Art Basel Miami Beach and the Boat Show need to be developed. There is a need to focus in on specific industries or sectors that the community wants to attract to the Convention Center and determine what infrastructure is needed to accommodate them. Those needs should be designed into the building during this expansion/enhancement.

The Committee decided it was best to have another meeting quickly that would be conducted like a charrette. The Committee agreed to meet on January 29th at 11:00 am; Arquitectonica would lead the charrette. Additionally, subcommittees were to be established grouped by communities of interest (e.g. Functionality Subcommittee, Programming Subcommittee, Community Subcommittee and Big Vision/Picture). Additionally, Mr. Wennett requested a package of pertinent information be provided to the Committee Members prior to the charrette.

F:\cmgr\$ALL\HFernandez\Tourism and Cultural Development\Tourism\Convention Center\1 15 10 Kickoff Mtg Summary.doc

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MIAMIBEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov
TOURISM AND CULTURAL DEVELOPMENT DEPARTMENT

Convention Center Master Plan Steering Committee Meeting
January 29, 2010

Meeting Summary

Committee Members Present:	Ex-Officio Members Present:	Others Present:
Mr. Jorge M. Gonzalez Mr. Stuart Blumberg Mr. Robert Wennett Mr. Scott Berman Steven Haas Saul Gross Mr. Tom Mobley Ms. Elsie Howard Mr. William Talbert	Ms. Hilda Fernandez Mr. Jorge Gomez Mr. Max Sklar Mr. Bob Balsam Charlie Carreno	Mayor Matti Bower Sally Heyman Dave Anderson, Global Spectrum Brian Altazi Sergio Bakas, Arquitectonica Bernardo Brescia, Arquitectonica Ray Breslin Bruce Brosch, NBWW Architects Anne Cotter, Arquitectonica Jose Galan Angelo Grande, MBCC Jason Grayam, Block 53 Kay Hollander, MBCC George Kousoucas, Block 53 David Kelsey Roly Morante Barry Moskowitz, GMCVB Ita Moriarty, GMCVB Larry Otto, MBCC Scott Pacheco, Miami Today Leslie Pantin, Arteamericas Grisette Roque, VCA Betty Sanchez, URS Eric Silva, MD Planning & Zoning David Smiley Vivian Suarez

Mr. Jorge Gonzalez welcomed everyone and reminded everyone that the purpose of the meeting was to explore the possibilities of the building and brainstorming. Mr. Gonzalez also welcomed Commissioner Sally Heyman. Commissioner Sally Heyman introdcued Vivian Suarez from her office and advised the group that Ms. Suarez will be sitting in for her for most of the meetings. Commission Heyman stated that she was excited to see the master plan get underway. Mr. Gonzalez then turned the meeting over to Mr. Brescia who reviewed the primary goals, which were as follows:

1. Meet competitive markets(in respect to meeting and ballroom space)
2. Maximize overall square footage for exhibit halls and meeting space
3. Create a unified identity
4. identify and strengthen linkages to Lincoln Road, Collins Park, Fillmore and Botanical Garden

A complete list of overall goals were distributed to the Committee and generally endorsed.

Mr. Brescia emphasized that from a programming perspective Arquitectonica believes the Convention Center needs new kitchens. Additionally, they will investigate and make recommendations for the loading docks and parking. However, their primary focus is to determine what the best use of available land is.

There was brief discussion regarding the possibility of constructing a new Convention Center Hotel. Mr. Brescia stated that a new hotel would definitely add value to the center. Mr. Gonzalez added that there will be time to talk about the hotel at a future date but we should concentrate more on other ideas today.

Subsequently the discussion focused on the Multi-purpose / Ballroom space and how big it should be. Although the CSL report stated the space should be approximately 50,000 sq ft, there was discussion that it would be best to target 60,000 sq. ft. as part of the design. At that size, the Convention Center could be competitive within the industry well into the future. It was also clarified that this space would serve more as a multi-purpose space and just a ballroom.

Mr. Blumberg stated that in the design phase thought should be given the needs of the Boat Show when designing the use of the P-Lot. He also mentioned that consideration needs to be given to the staging needs of shows that use the Convention Center.

There was discussion on the impacts of the convention center expansion on the adjacent buildings. Specifically, the Botanical Garden was discussed and how to best work with them in their renovation plans to ensure there isn't a conflict. The location of their entrance was also discussed.

Mr. Brescia asked about the future of the 21st Street Community Center and whether or not that property could be used in the master plan. Mr. Gonzalez said he preferred to work around it at this time because is serves a valuable role in the community.

Mr. Talbert said that the Convention Center needed a clear passage from Lincoln Road to the Center. He also said that a majority of attendees coming from the Eden Roc & Fontainebleau needed direct arrival space for their shuttle buses.

Mr. Brescia advised that there will be a covered drop-off area for buses but he didn't want to loose sight of the attendees who were walking from the nearby hotels.
Following a brief recess, Mr. Brescia discussed the arrival experience. The arrival is very important because it is the first impression that people get of the Convention Center. The idea would be to have two ten foot traffic lanes, a 15ft drop-off lane, and a 20 foot sidewalk. There would be an overhang covering the drop-off section.

Parking was discussed and Mr. Brescia said that it was possible to construct a garage on Convention Center Drive close to the garden, but they were still working on options to replace the parking lost in the P-Lot.

Mr. Brescia was interested in the idea of having a sky light. Mr. Mobley said it would not be a good idea. It would cause a cooling problem as well as cause problems with audio visual because sometimes you need a room to be completely dark.

The main concept discussed was re-orienting the Convention Center to have the main entrance along 18th street facing south. There was general consensus from those in attendance that this concept was a good idea and that Arquitectonica should continue to work on designs centered around this concept.

The next Master Plan Steering Committee will be held on March 3, 2010. Subcommittees are to be held prior to the next Steering Committee meeting.

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Meeting Notes

ARQUITECTONICA

Project Miami Beach Convention Center Master Plan

Project Number ARQ 2696

Meeting Location Miami Beach Convention Center Board Room

Meeting Date and/or Time 18 February 2010 2:15PM

☐ Via Telephone

Meeting Subject Master Plan Progress Meeting Programming Subcommitee

Meeting Number MP-03

File 021810MM

This is page 1 of 2

Attendees
Max Sklar: Miami Beach Tourism & Cultural Affairs
Stu Blumberg: Steering Committee
Wendy Kallergis: GMBHA
Brandon Berry, Live Nation
Bob Balsom, Tom Mobley, Kay Hollander, MBCC/GS
Ita Moriarty, Barry Moscowitz: GMCVB
Sergio Bakas: Arquitectonica
Rick Schmidt: Conventional Wisdom

Distribution M. Sklar, S. Bakas will distribute internally as needed.

Prepared by Sergio S. Bakas

Arquitectonica will rely on these notes as the approved record of matters discussed and conclusions reached during this meeting unless written notice to the contrary is received within seven calendar days of the issue date of these meeting notes.

Discussion	Action / Decisions Pending / Follow up
1. **Background:**	
1.1 We reviewed the site analysis depicting neighborhood, pathways, parking and distances, and presented the current scheme including new prefunction edge, new service edge, improvement of neighborhood linkages.	
1.2 We reviewed the recommendations from the CS&L study and our team goals as well as the current assumptions for additional space for comment.	
2. **Main Considerations:**	
2.1 We discussed the industry standard for optimal ratio desired of meeting space to ballroom space of 40%. We also reviewed the need for flexibility although not to divide it so much that the individual meeting spaces now no longer work well for either. There was interest in the retractable seating to add flexibility into the ballroom and discussion about scale and required ceiling heights for this option.	Agreed
2.2 We first discussed the target sizing for the multi-purpose meeting space/Main Ballroom. The design team suggested a 40,000 SF would be a minimum size but several competing venue have a 50,000 SF plus. We agreed that we should strive to include up to a 60,000 SF room if possible, which would take care of most need and place MBCC into a good position in the marketplace. This assumes 12.5 SF/Person (4,800) for theater style seating and 20SF/Person (3,000) for banquet style.	Will Incorporate
2.3 We also discussed the need for a smaller venue as a possible banquet (sit-down meal) to accompany the large multi-purpose at a comfortable size of about 30,000 SF as a combination of smaller rooms.	Will Incorporate
2.4 These new facilities would be services from a central Main Kitchen/Commissary or through a proximate banquette kitchen.	Agreed

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Meeting Notes, continued

ARQUITECTONICA

Project: **Miami Beach Convention Center Master Plan Programming Subcommittee**

Project Number: ARQ 2696

Meeting Date: 18 February 2010

This is page: 2 of 2

Discussion	Action / Decisions Pending / Follow up
2.5 Inventory of existing spaces was a bit high on smaller rooms which are too small to really contribute to the total inventory. We agreed to verify the inventory and make a recommendation in the total area required and a size distribution for the meeting spaces as well as suggested divisibility of the ballrooms spaces to maximize efficiency.	Will Incorporate
3 **Additional Considerations**: We opened the floor for any suggestions for additional programmed spaces that might be added to be able to attract a new type of group/client that has not been interested in the past.	
3.1 A stand-alone Lecture Hall may be attractive but not a main concern as that need can be satisfied with the adjacent Fillmore.	Agreed
3.2 The possibility for a separate Conferencing Center had been suggested in the past and was also discussed. An appropriate Conferencing Center would have to be certified and meet separate standards, not a real subset of the recommended meeting space for the entire facility. It would function best as a remote section of rooms that is fitted out to meet the standard; higher finish cost and adjacent banquet facility to be able to hold a set group agenda over a series of days. This is best done in conjunction with a connected hotel facility, which we are currently lacking. It was decided that the amount of investment required providing the appropriate program to meet the standard, would not help the facility as a whole or be very cost effective, given the current or future lost demand.	Agreed
3.3 Other special spaces like outdoor venues were also discussed. The idea of an outdoor venue can be a positive for our south Florida climate but it would have to have various built-in functions to make it successful, rather than burdensome:	Agreed to look into possibilities for discussion.
3.3.1 Sun and rain protection: Should be shaded and protected from the elements or adjacent to a protected area in case of inclement weather, possibly with permanent sliding glass panels.	
3.3.2 Ventilation or air conditioning	
3.3.3 Lighting/access to services	
3.3.4 Easy to operate and storm-friendly.	
3.3.5 Must be done well if at all or will cause more problems than value.	
3.4 Special accommodations for certain types of groups like medical (refrigeration), art/jewelry (secure storage), cooking on exhibit floor and code ramifications, sports teams (lockers/toilets).	Agreed
3.5 Also discussed the current quantity and distribution of toilet facilities and suggested program, incl. "swing" toilet bays to accommodate occasional same-sex user groups (Mary Kay) could be looked into, but preferred traditional distribution instead.	Agree to maintain traditional ratios by code.
3. **Next Steps:** Additional workshops will be scheduled to continue to follow through with the evolved program and keep everyone aware of progress.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach Convention Center Board Room	**Meeting Date and/or Time**	22 February 2010 12:30PM
☐ Via Telephone			
Meeting Subject	Master Plan Progress Meeting Community Subcommitee	**Meeting Number**	MP-04
		File	022210MM
		This is page	1 of 1
Attendees	Max Sklar, Miami Beach Tourism & Cultural Affairs Sergio Bakas, Anne Cotter: Arquitectonica David O'Neal, Conventional Wisdom David Phillips, New World Symphony Ray Breslin, CPNA Laura Jamieson, Miami Beach Botanical Garden		
Distribution	All above who will distribute internally as needed.		
Prepared by	Sergio S. Bakas		

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Discussion	Action / Decisions Pending / Follow up
1. **Background:**	
1.1 We reviewed the site analysis depicting neighborhood, pathways, parking and distances, and presented the current scheme including new prefunction edge, new service edge, inclusive "District" mindset to improve neighborhood linkages	
1.2 We discussed the removal of CC Drive and the idea for the new CC "front" and how it would affect the current service function.	
2. **Considerations:**	
2.1 We discussed the idea of filtering through the new open space and finding comfortable pedestrian linkages to the shopping districts to the south and how we may influence the narrow streets and service areas, including possible enhancements.	
2.2 Discussed the current thinking of the new shared open space and some of the programming that might go on.	Agreed
2.3 We discussed the impact this might have on Meridian and how to best return a pedestrian feel along the center that is currently harsh unshaded.	Will need to schedule a workshop with R. Jungles to discuss further.
2.4 We discussed the wrapping of the Botanical Garden with parking and the need for relocating the main entrance that would become inaccessible, to the NE corner along Dade or at the shared Holocaust Museum entrance. It was understood that the NE corner now is a service entrance so there would have to be some study as to how to integrate a new entrance there.	
2.5 Shading of the garden from the parking structure was less of a concern than how to accommodate a new entrance and accommodate service.	
2.6 Discussed the continuation of shared facilities and how to best enhance that circulation path.	
3 Next Steps: Additional workshops will be scheduled to continue to merge the neighbors into the plan and keep everyone aware of the progress of the design.	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach City Hall, 4th Floor Conf Room	**Meeting Date and/or Time**	3 March 2010
Meeting Subject	Master Plan Steering Committee	**Meeting Number**	MP-07
		File	030310MM
		This is page	1 of 1

Attendees

City of Miami Beach (CMB): M Bower, J Gonzalez, J Gomez, H Fernandez, M Sklar, I Diaz, K Crowder, J Heffernan, W Cary

Steering Committee: S Blumberg, T Mobley, M Breslow, C Rick-Joule, W Kallergis, S Berman, W Talbert, E Howard, R Wennet

Miami Dade County (MDC): V Sanchez, J Galan, S Basu

Greater Miami Conv. & Visitors Bureau (GMCVB): B Moskowitz, I Moriarty, G Roque Marcos

MB Conv. Center (MBCC): V Velasquez, B Balsam, D Anderson

MB Botanical Garden: L Jamisson

Arquitectonica (ARQ): B Fort-Brescia, S Bakas, A Cotter, B Alzati

Conventional Wisdom (CW): D O'Neal

Kimley-Horn (KH): A Buchler, J McWilliams

M Gaffrey, G Isoldi

☒Via Telephone

Distribution M. Sklar,
S. Bakas who will distribute internally as needed.

Prepared by Anne Cotter

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Discussion	Action / Decisions Pending / Follow up
1. **Program:** Review of the existing MBCC program, the ideal program and the proposed program.	
1.1 The CMB City Manager asked if the proposed 700,000 SF exhibit space is the appropriate area for MBCC or is based on any constraints such as the CSL study, future hotel, etc. CW noted 700,000 SF is recommended for the target market; the next bigger target market would need 1 million SF (comparable to Las Vegas, Orlando). GMCVB said 1 million SF was not needed for the MBCC market.	
1.2 ARQ and CW noted that if there are future needs for 1 million SF it could be accommodated as a future phase by building a second level above the existing MBCC exhibit halls, although this would require demolishing the existing halls in phases. CMB asked for a plan of potential future phases to be provided in the Master Plan as an addendum.	The final Master Plan will include an Addendum with potential future phases.
2. **Comments to the current Master Plan design proposed by ARQ:** 2.1 Connections to and from Lincoln Rd. from the MBCC via Meridian, Pennsylvania	The final Master

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Programming Subcommittee**	Project Number	ARQ 2696
Meeting Date	9 April 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
and through the NWS park (in line with Drexel). The NWS garage along the east side of Pennsylvania will have an arcade and retail; CMB said the ground floor of the CMB garage can be renovated to have retail also.	Plan will include a District Plan that shows these connections.
2.2 The impact of the proposed MBCC on the other areas of the district were discussed. The Botanical Garden entry is proposed to be moved to the northeast corner; ARQ will meet with Raymond Jungles to discuss. Connections to the Canal Walk are to be highlighted.	ARQ to meet with Raymond Jungles to discuss the Botanical Gardens.
2.3 The exhibit halls should have meeting rooms nearby. Existing Exhibit Hall A (at the northeast corner) is the most remote from the new meeting rooms; existing meeting rooms in this area are being kept to maintain proximity.	
2.4 The convention center hotel is a separate phase since it needs to make business sense for a hotel developer beyond just the convention center market and considering it is not on the water.	
2.5 W Cary (CMB Planning Department) suggested the proposed hotel at the north of the MBCC be extended west to the Botanical Gardens to reduce/eliminate the north leg of the hotel along Washington Avenue. This would reduce the impact of the hotel on the Carl Fischer Clubhouse and on the residential neighborhood on the other side of Washington Avenue.	ARQ to study the hotel to minimize impact to the neighbors.
2.6 It was noted that marshalling may have to be done off-site (ie. Watson Island) although the area to the north will still be available unless developed in the future as a hotel.	
2.7 The City Manager asked if there could be some recreational area over the west wrap. There was also discussion of having some graphics or signage (possibly revenue producing) on the roofs.	
2.8 Box office locations were discussed; these may be portable or fixed.	
3. **Next Steps:** The following schedule of meetings, presentations and deliverables was discussed: • Sub-committee meetings to review the engineering analysis and cost estimate • CMB Internal Design Review meeting with CMB departments • Next Steering Committee: April 19th • Community Design Workshop: Mid-May • Draft Basis of Design and Draft Master Plan: June • Master Plan and City Commission hearing: July (or September due to August recess)	

End of Minutes

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach City Hall, 4th Floor Conf Room	**Meeting Date and/or Time**	18 March 2010
Meeting Subject	Hoteliers Workshop	**Meeting Number**	MP-08
		File	031810MM
Attendees	*City of Miami Beach (CMB)*: Max Sklar *Hoteliers: Greg Cook, Wendy Kallergis, Tim Nardi, Melinda Weeks, Daniele Lomoriello, Scott Flexler, Shawn Hauver, Robert Hill, Timur Sentruk* *Arquitectonica (ARQ)*: S Bakas, A Cotter	**This is page**	1 of 1
		☒Via Telephone	
Distribution	M. Sklar, S. Bakas who will distribute internally as needed.		
Prepared by	Anne Cotter		

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Discussion	Action / Decisions Pending / Follow up
1. ARQ gave an overview of the master plan project to date and the proposed layout of the renovated and expanded Miami Beach Convention Center (MBCC).	
2. Loews noted they like the idea of the new entry being on the south side, closer to Lincoln Road. The biggest concern is that between Washington and Collins Avenues, Lincoln Road is not attractive enough for guests to walk since it has a bus terminal mid-block.	
3. Relocating the bus terminal was discussed. The bus terminal requires 100 linear feet of curb. Possible relocation sites considered to date include the south side of the Botanical Gardens or at the north end of Washington Avenue. ARQ was asked to consider incorporating a bus terminal in the MBCC master plan.	
4. Fountainbleu asked about the intended market being targeted for the expanded MBCC and recommended provisions be included or be planned for future provision, such as freezers and electrical provisions for medical conventions; higher security for art and jewelry shows; provisions for spa conventions, IT conventions. All agree flexibility is the most important planning criteria instead of specialization.	
5. The phasing of the MBCC is proposed to have construction start around 2013, allowing time for planning, construction document preparation, permitting and bidding. The phasing will be staggered so that the MBCC will be operational at all times, with ongoing events and exhibits.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	☒ Via Telephone	**Meeting Date and/or Time**	22 March 2010 2:15PM
Meeting Subject	Master Plan Progress Meeting Collins Park Design Review	**Meeting Number**	MP-09
		File	032210MM
		This is page	1 of 1
Attendees	Sergio Bakas: Arquitectonica Jamie Maslyn Larson: West 8 New York Matthew Barry: Hines		
Distribution	All attendees plus M. Sklar, who will distribute internally as needed.		
Prepared by	Sergio S. Bakas		

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Discussion	Action / Decisions Pending / Follow up
1. **Background:** 1.1 We reviewed the site analysis depicting neighborhood, pathways, parking and distances, and presented the current scheme including new prefunction edge, new service edge, improvement of neighborhood linkages.	
2. **Main Considerations:** 2.1 We discussed the desire to review to work together to have a cohesive design that reflects the goals of the convention center neighborhood or district.	Agreed
2.2 We first discussed the current park pathway design as a result of the circulation analysis that was done and agreed that the new public frontage on 17th and new focus on the SE corner may impact the current thinking. Jamie thought the major impact would be on that SE corner and its connection to the east and will consider that node in future plan development.	Will review and confer
2.3 We discussed the use of some of the current park vocabulary that might be used in other edges or pathways to extend the neighborhood. The freestanding pergola may reappear in other areas or derivations of it may serve as attachments to garage facades with bougainvillea accents as well. (Municipal Garage) or pedestrian connection along Dade Canal to areas to the east.	Will review and confer
2.4 Matthew thought the filtering of guests to the south through a series of streets would be difficult but important and should be studied as many of these connections are service areas or too narrow to be a true, inviting linkage.	Agreed
3. **Next Steps:** W8NY agreed to review the progress drawings with the remainder of the team and discuss impacts and opportunities of enhancement to each and reconvene.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project Miami Beach Convention Center Master Plan

Project Number ARQ 2696

Meeting Location Miami Beach Tourism Board Conference Center

Meeting Date and/or Time 26 March 2010 11:30AM

☐ Via Telephone

Meeting Number MP-10

Meeting Subject

Master Plan Progress Meeting
Parking/ Traffic Review

File 032610MM

This is page 1 of 2

Attendees
Max Sklar, Miami Beach Tourism & Cultural Affairs
Saul Frances: Miami Beach Parking Department
Sergio Bakas: Arquitectonica
John McWilliams; Kimley Horn
(John.McWilliams@kimley-horn.com)

Distribution All above who will distribute internally as needed.

Prepared by Sergio S. Bakas

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Discussion	Action / Decisions Pending / Follow up
1. **Background:**	
1.1 We reviewed the site analysis and presented the current scheme including new Prefunction edge, new service edge, inclusive "District" mindset to improve neighborhood linkages and proposed traffic movements and parking garage entry/exit and sizing assumptions:	
1.2 Traffic pattern as per latest design including one way traffic and continuous linear drop off along 17th for cars, motor coaches, valet, etc.	
1.3 Two bypass lanes additional all west. Possible entrance to future hotel on opposite side creating a new major street, with central courtyard with balcony above that most of the halls will empty into and filter through to retail opportunities to the south and hotels to the east.	
1.4 New exit off new municipal garage to the south rather than currently to the north.	
1.5 Currently assuming that we will replace any displaced existing spaces at a minimum and work together to arrive at a logical demand factor for expansion.	Agreed
2. **Considerations:**	
2.1 Care should be taken on discharge onto Meridian of both cars and trucks, incl poss signalization and proper queuing/stacking, auto gate controls poss right only (no left). Currently difficult congestion exiting municipal garage at CC Drive and 17th so this new spot may need police assistance during major peak times as well.	Agreed
2.2 Add remote pay stations along improved 17th to relieve need for attendants at garage.	
2.3 Consider new parking garage to be a higher flat rate to improve flow in and out and allow the remote garages to be less expensive hourly rate option.	Agreed

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Meeting Notes, continued

ARQUITECTONICA

Project	Project Number
Miami Beach Convention Center Master Plan	ARQ 2696
Meeting Date	This is page
26 March 2010	2 of 2

Discussion	Action / Decisions Pending / Follow up
2.4 Design for poss 300 max valet spaces in new garage in side aisle, off main circulation. Valet pick-up and drop-off can be along Washington (2), 17th (2) and along Meridian (1) and new garage entrance, prior to committing to self park operated as needed depending on demand.	Will accommodate
2.5 Side aisles should have occupancy sensors/counters and graphics depicting any vacancies per floor.	
2.6 Consider additional floors as needed to meet the parking demand.	
2.7 Provide ample pay stations per floor to reduce labor; 100% automation is the goal.	Will calculate ratio, demand and new height required.
2.8 Existing municipal garage to the south to have a new pedestrian entry at NE corner and east corridor enhancement could commence as one package.	Agreed
2.9 Plan new parking demand based on existing ratio of meeting space to cars; same linear formula.	
2.10 Consider using vacant loading areas, possibly in secure blocks, for overflow valet parking.	
3. **Next Steps:** Team will keep Parking Department aware of the progress of the design.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach City Hall, 4th Floor Conf Room	**Meeting Date and/or Time**	6 April 2010
Meeting Subject	Preliminary Master Plan Life Safety Review	**Meeting Number**	MP-11
		File	040610MM
Attendees	*City of Miami Beach (CMB)*: Max Sklar *City of Miami Beach Fire Department (CMBFD)*: Sonia Machen (Fire Marshall), Sonny Moore *Arquitectonica (ARQ)*: S Bakas, A Cotter, B Alzati *TLC Engineering (TLC)*: A Lorenzo, M Borino, V McNish, L Ruiz	**This is page**	1 of 2 ☒Via Telephone
Distribution	M. Sklar, S. Bakas who will distribute internally as needed.		
Prepared by	Anne Cotter		

Arquitectonica will rely on these notes as the approved record of matters discussed and conclusions reached during this meeting unless written notice to the contrary is received within seven calendar days of the issue date of these meeting notes.

Discussion	Action / Decisions Pending / Follow up
1. **General:** ARQ gave an overview of the master plan project to date and the proposed layout of the renovated and expanded Miami Beach Convention Center (MBCC).	
1.1 The phasing is to build the new structure (exhibit halls, ballroom, parking) on the P-Lot so the existing hall can continue being operational. The new garage may be a separate phase from the new halls/ballroom structure, depending on funding and the final phasing plan.	
1.2 The current approach is to have separate building permits for each phase. Construction won't start until 2012 or later.	
2. **Life Safety review:** 2.1 TLC discussed the meeting they had with FPL, when it was noted that the existing substations would cost $2 million to relocate. More importantly, a new transformer vault would not be able to provide the extra redundancy that the current transformer vaults have. Therefore the decision has been to design around the existing transformer vaults, with the prefunction and drop-off revised accordingly.	
2.2 CMBFD said the current Fire Command Center can be maintained where it is in the NE corner and have a new annunciator panel at the new south entry, as long as the current FCC is kept accessible.	
2.3 CMBFD said it was acceptable to have the separate fire pumps, generator rooms, etc. for the existing and new spaces as long as access to both is maintained. ARQ noted the intent is for the final building to be one unified functioning building but with zones that factor in the existing as well as new systems.	
2.4 CMBFD noted the existing MBCC is deficient in some life safety systems (ie. no smoke control, fire alarm) and should be brought up to code. They noted there was a report done about 10 years ago (which has not been endorsed by the CMBFD to date) that notes the recommendations at the time for improvements to the life-safety systems, some of which have been implemented.	CMBFD will forward a copy of the noted report to ARQ.

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Programming Subcommittee**	Project Number	ARQ 2696
Meeting Date	9 April 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
2.5 CMBFD stated the existing systems that are deficient or would become inaccessible with the new layout (such as the existing FCC) should be replaced and/or relocated to be in an area such as the new loading/service area with an annunciator panel in the entry area.	
2.6 CMBFD noted that if a hotel is connected to the MBCC then the fire panel for the MBCC needs to be sized and designed accordingly.	
2.7 For fire truck access, CMBFD said the service road is typically open to the sky and not under a structure such as the proposed garage. This needs to be reviewed with the Fire Chief. *By e-mail 7 April 2010, CMBFD confirmed that the ground level of the service area had sufficient vertical clearance to the first garage level above to be considered acceptable as a route for a rescue/EMS vehicle. The access needs to be straight through the L-shaped service drive with access/egress at both ends without backing up. 90 degree turns must be possible in either direction. It was also noted that FDCs and hydrants will be needed along all three sides of the perimeter, which may require upgrades to the existing hydrants and mains.*	
2.8 The travel distance for the reconfigured existing exhibit halls is 280', which is 30' more than the 250' maximum for assembly occupancy (as per FBC 2007). CMBFD said if the halls have smoke control then the 280' travel distance would be acceptable.	
2.9 CMBFD noted the egress corridors that are between the food service area and the ballrooms/meeting rooms need to be designed to provide areas for the food service carts to be kept out of the required width of the fire egress path.	
2.10 ARQ noted the existing skywalk at the upper level of the existing exhibit halls is proposed to be demolished. There is an electrical room at the ground level of the central circulation core to the skywalk that might be kept if the existing vertical bus ducts need to stay. If the existing exhibit hall floor is demolished and replaced then these bus ducts will be relocated along with the electrical room.	
2.11 It was noted that a new pedestrian bridge connecting MBCC with Lincoln Road should be considered. ARQ noted various types of connections to Lincoln Road were being considered.	

End of Minutes

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach City Hall, 4th Floor Conf Room	**Meeting Date and/or Time**	09 April 2010 1:00PM
Meeting Subject	Master Plan Progress Meeting Internal City Design Review	**Meeting Number**	MP-12
		File	040910MM
Attendees	Joyce Meyers, Richard Lorber, William Cary, Planning Jorge Gomez,CMO Max Sklar, Tourism & Cultural Development Xavier Falconi, Kevin Smith, Public Works Saul Frances, Parking Kevin Crowder, Economic Development Bernardo Fort-Brescia, Anne Cotter, Bryan Altazi, Sergio Bakas, Arquitectonica David O'Neal, Conventional Wisdom	**This is page** ☐Via Telephone	1 of 2
Distribution	M. Sklar, who will distribute internally as needed.		
Prepared by	Sergio S. Bakas, A		

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Discussion	Action / Decisions Pending / Follow up
1. **Background:**	
1.1 We reviewed the site analysis depicting neighborhood, available parking and distances to hotels, shopping, and presented the current scheme including new prefunction edge, new service edge, and improvement of neighborhood linkages. Discussed use of new and existing vocabulary for creation of a "district."	
2. **Main Considerations:**	
2.1 We discussed the desire to review to work together to have a cohesive design that reflects the goals of the convention center neighborhood or district and possible examples.	Agreed
2.2 Need to program the makeup of the new three lane feeder street: Does it need to be four? Can the last block of the street closest to Meridian increase to four lanes along the parking garage to allow for the garage traffic. Drop-offs for valet, taxi, cars need to be included.	Will review and confer with traffic consultant.
2.3 Impacts of new traffic pattern needs to be reviewed for recommendation to Public Works; this will likely include an expansion of scope for KH, the traffic consultant.	Will review and confer with traffic consultant to prepare proposal for added scope.
2.4 Analyze area for possible relocation of bus transfer station, poss three pull-in lanes along Meridian.	Will review and confer with traffic consultant.
2.5 Hotel parcel Option 2 at Fillmore was preferred to Option 1 off Dade Canal. Less residential impact and more room to develop the proper hotel. Also allows for extended use for marshalling and expansion of the Center to the north.	
2.6 Proposed open space and courtyard with water feature was well received.	noted

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Programming Subcommittee**	Project Number	ARQ 2696
Meeting Date	9 April 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
2.7 Need to develop area along Meridian to be more people friendly and active, especially prior to Community Workshop.	Agreed
3. **Next Steps:** Agreed to review new proposal with public works and continue progress for meeting April 19 prior to CDW.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach City Hall, 4th Floor Conf Room	**Meeting Date and/or Time**	14 April 2010 3:30PM
Meeting Subject	Master Plan Progress Meeting Internal City Design Review	**Meeting Number**	MP-13
		File	041410MM
		This is page	1 of 1
Attendees	Sergio Bakas, Arquitectonica Angel Lorenzo, Vincent McNish, TLC Aaron Buchler, Kimley Horn Jose Perez, Public Works	☒Via Telephone	
Distribution	M. Sklar, S. Bakas who will distribute internally as needed.		
Prepared by	Sergio S. Bakas, A		

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Discussion	Action / Decisions Pending / Follow up
1. **Background:**	
1.1 ABuchler agreed to prepare full notes to attach to this cover.	
1.2 We reviewed the new site layout and focused on the existing areas that would be impacted and thoughts for relocation for each utility. Convention Center drive, the Convention Center parcel and the Fillmore are platted as one large parcel, so CC Drive is not a platted ROW.	
2. **Main Considerations:**	
2.1 Reviewed the proposed loading area and parking decks above as well as the evacuation and closure of Convention Center Drive. Discussed the possibility of designing a proper service tunnel (or accessible box) that can house the utilities rather than try to allow for ample overhead access (16.5 ft state mandate on highways) for every eventuality. (Mike Galbreath, Fernando Vasquez to review).	Agreed to review the tunnel concept and design and propose a solution for review,
2.2 Discussed the alternative of relocating along Meridian which is mostly free of utilities.	Agreed
2.3 Storm: We indicated our initial goal not to affect any of the existing outfalls.	Agreed
2.4 Force Main: Upgrade along short distance at James from 8"-to 24" may be all that is needed. Retain existing Lift Station. Consider removal of internal pumps in future hall improvements.	Agreed
2.5 Water: See marked up print.	Agreed
2.6 Fire: Need to retain loop and consider upgrade considering new hydrants.	Agreed
2.7 Electric: Transformers to remain. Need to resolve relocation at CC thru FPL.	
3. **Next Steps:**	
Agreed to review new proposal with the following representatives for the utilities: • Marta Chavez or Joshua Myers 305/552-2862 FPL Liaison • Andres Hernandez, 305/756-4613 AT&T • David McBride, 305/970-2130 Atlantic Broadband • Ariel Sosa, CMB IT Dept 305/673-7000 #5710 for Sprint/Nextel and WiFi • TECO	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach Convention Center,	**Meeting Date and/or Time**	19 April 2010 10:00AM
Meeting Subject	Master Plan Progress Meeting Steering Committee	**Meeting Number**	MP-14
		File	041910MM
		This is page	1 of 2
Attendees	TMobley, BBalsam, AGrande: Global Spectrum MBower, HFernandez, JGomez, WCary JHeffernan, JGonzalez, MSklar: CMB SBerman, SGross, WKallergis, SBlumberg, MBreslow, EHoward, RWennick, AMunoz, WTalbert: Steering Co. MPinzur, ESilva: Miami Dade County BMoscowitz, IMoriarty, SFogg, ICastillo, SHaas:GMCVB BFBrescia, SBakas, ACotter, Baltazi:ARQ RSchmidt, CW ABuchler, KH LFrankel, JWeiner, GRoque, VDiberi, CRitch	☐Via Telephone	
Distribution	MSklar, who will distribute internally as needed		
Prepared by	Sergio S. Bakas, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. **Plan Development:** We discussed items that were developed on changed to respond to issues discovered since the last meeting:	
1.1 Existing Transformer Vaults offer redundant feed which we can't receive in a new transformer vault. Need to offset the prefunction and entry drive (new 18th Street) as well as provide access for maintenance in the future.	
1.2 Need for a two-way portion of the new 18th Street front access road at the far west end prior to Meridian. A temporary two way of the street on off event days should be studied.	A more extensive scope for the traffic implication on 18th as well as Wash and Meridian should be studied.
1.3 High bay entrance needed off Meridian to align from across the street for boat show day access directly into the exhibit hall.	
1.4 Restaurant at central courtyard is reduced and the water feature became a wet feature during non event days and a dry larger courtyard to enlarge the space during event days.	
1.5 A possible location for a metro bus transfer station was discussed on the east side of Meridian. This possible location was deemed undesirable and the solution for relocating the transfer station would be found elsewhere.	
1.6 The possibility of use of The Fillmore site for a future hotel site emerged since the last discussion, especially since the hotel package is likely to be a distant phase. This option is now considered more advantageous than the north canal site: Better location for a future hotel developer and a good connector to Lincoln Road to the south and Collins to the east.	This second site was widely deemed favorable.

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Meeting Notes, continued

ARQUITECTONICA

Project	Project Number
Miami Beach Convention Center Master Plan Steering Committee	ARQ 2696
Meeting Date	This is page
19 April 2010	2 of 2

Discussion	Action / Decisions Pending / Follow up
2. **Main Considerations:**	
2.1 Botanical Garden design and possibilities for a new entrance as well as a connection to the Convention Center will be studied in a joint workshop. The planning dept has developed the South Side of canal through the Glavovic design that should be incorporated in the plan.	To be incorporated
2.2 Junior Ballroom with window to the west and possibly to the north from the outdoor terrace as windows to the north from the ballroom itself is blocked by the service corridor. We may consider switching the prefunction to the north side with glass and access to the top parking floor, west end, for an outdoor terrace.	To be studied and incorporated.
2.3 Access to Hall A along Washington should remain so the hall doesn't become isolated and hard to sell. Consider a secondary drop-off at north east corner that can access the hall, or a widening at the last block of Washington for a wider recessed bus drop-off. (Currently two lanes in each direction with a median plus a recessed drop-off lane.)	Widened recessed drop-off to be studied and accommodated.
2.4 Review for an alternative or second smaller Multi-Purpose room and meeting room block should be analyzed and offered in the Master Plan so the NE end of the center isn't left isolated and requires a long connection to any meeting space.	Options over exhibit hall A or in NE canal open space will be studied as an option or for a future phase.
3 **Next Steps:**	
3.1 Team to develop as per discussion in preparation for the CDW.	

End of Minutes

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	New World Symphony Offices	**Meeting Date and/or Time**	3 May 2010, 10:00AM
Meeting Subject	New World Symphony Workshop	**Meeting Number**	MP-15
		File	050310MM
Attendees	D Phillip, B Clinton, N Kasdin, C Hall, V Roger: NWS H Fernandez, M Sklar: CMB S Bakas, A Cotter: ARQ	**This is page**	1 of 2
		☐Via Telephone	
Distribution	MSklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. **Master Plan Progress Presentation:** 1.1 ARQ gave an overview of the Master Plan project to date and discussed the proposed conceptual layout and design of the renovated and expanded Miami Beach Convention Center (MBCC).	
1.2 ARQ noted that the Master Plan goals were based on the CSL study, which included proposed programming. One of the Master Plan deliverables is to detail the program, which is to address the present as well as future MBCC needs. The main program priorities are the following: • 50,000 to 60,000 SF multi-function room (with tiered seating that can fold away); • Convention Center hotel; • Event space that has an exterior component and is uniquely Miami Beach; and • Integrate MBCC with the overall neighborhood/district.	
1.3 Including a conference center was discussed. As per previous meeting discussions, a conference center has specific requirements, which make it difficult to be flexible for multiple uses.	
1.4 ARQ reviewed the site analysis issues, which lead to the idea of creating an east-west axis that is aligned with the previous 18th Street between Washington Ave. and Meridian Ave.	
2. **NWS Considerations:** 2.1 NWS asked if the Fillmore didn't exist, what could be done so the MBCC would relate better to the new NWS across 17th Street. ARQ noted that the proposed Master Plan included new retail/restaurant buildings (and renovating the existing coral CMB building) along Washington Avenue and extending into the new plaza. These would provide more street activity along the south side of the existing Fillmore than currently exists.	

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Steering Committee**	Project Number	ARQ 2696
Meeting Date	19 April 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
2.2 ARQ is also proposing to renovate the park at the NW corner of Washington Ave. and 17th St. so there will be continuity from the Lincoln Park that is to the east of the new NWS.	A separate meeting to be scheduled to discuss the relationship between the two parks.
2.3 NWS noted that the 100' height limit should be reconsidered in order to make the future convention center hotel count more viable at 1200 keys, since 800 to 1000 isn't enough to compensate for the fact the hotel wouldn't be located on the ocean.	
2.4 NWS stated the south option for the future convention center hotel was preferable due to its closer location to Lincoln Road and the other neighborhood amenities.	
2.5 NWS will forward the latest rendering of the new NWS so it can be accurately shown in the MBCC renderings.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	City of Miami Beach City Hall, City Manager's Conference Room	**Meeting Date and/or Time**	10 May 2010, 3PM
Meeting Subject	Pre-Community Design Workshop review	**Meeting Number**	MP-16
		File	051010MM
Attendees	H Fernandez, J Gomez, M Sklar: CMB B Fort-Brescia, S Bakas, A Cotter: ARQ	**This is page**	1
		☐Via Telephone	
Distribution	M Sklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. CMB noted the City Manager will start the Community Design Workshop (CDW) with an intro, which will include a discussion regarding the potential future hotel locations. CMB has prepared a powerpoint presentation for this intro that they will forward to ARQ to insert at the beginning of their powerpoint presentation.	
2. The presentation by ARQ should be 15 to 20 minutes long. It will be followed by a public question/comment period mediated by the City Manager.	
3. Typically 70 to 80 people attend CDWs and the comments typically deal with traffic, noise and lights. ARQ will coordinate to ensure that KH attends to deal with traffic issues.	
4. Along with the powerpoint presentation, ARQ should prepare full size boards of the floor plans (including roof plan) and renderings. CMB will provide the easels.	
5. All agreed to switch the ballroom with the east meeting rooms so that the ballroom is closer to the event space (over the 17th Street plaza) and the parking access.	
6. Discussion of potential sustainable features include solar panels on the existing roof and vegetated on the new roof (the structural engineer has confirmed the existing building can't support a vegetated roof). CMB said these features can be discussed but shouldn't be shown for now. The final Master Plan report is to list the potential sustainable features and their associated approximate costs.	
7. CMB noted that the potential locations for the future hotel should only be indicated on a separate slide (north and south options) but not shown on the plans, elevations or renderings. The hotel should be shown at the next Steering Committee meeting.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	MBCC Room C220-222	**Meeting Date and/or Time**	13 May 2010, 6PM
Meeting Subject	Community Design Workshop	**Meeting Number**	MP-17
		File	051310MM
Attendees	CMB: Mayor M Bower, J Gonzalez, H Fernandez, M Sklar MBCC/Global Spectrum: A Grande Conventional Wisdom/CW: D O'Neal Kimley-Horn/KH: A Buchler, A Dabkowoski ARQ: B Fort-Brescia, S Bakas, A Cotter, B Alzati	**This is page**	1 to 3
		☐Via Telephone	
Distribution	M Sklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
Note: The CMB video-taped the Community Design Workshop (CDW).	
1. **Presentation:**	
1.1 The City Manager introduced the MBCC Expansion Master Plan project, discussing the role of the MBCC, the last major renovation in 1989, the importance of being competitive and the goals as defined by the CSL report.	
1.2 ARQ noted that the directive from the beginning was to think out of the box so ARQ started by defining the boundaries of the site, the influences on the site, and the ideal circulation for visitors and loading. ARQ then reviewed how the proposed design addresses these issues.	
2. **Public Comments / Questions (the list includes general and specific issues):**	
2.1 Generally favorable comments to the design of the MBCC expansion.	
2.2 Generally there were comments opposing the potential south location for the future hotel since people didn't want to lose the Jackie Gleason/Fillmore due to its history and its contribution to the music and culture of Miami Beach.	
2.3 Generally there were comments in favor of the potential north location for the future hotel.	
2.4 One comment noted that there were plenty of hotels in Miami Beach and that another hotel, not located on the ocean, wouldn't be viable.	
2.5 A specific comment noted that the proposed MBCC Expansion plan cut off access to the Botanical Garden from Lincoln Rd. CMB/ARQ responded that there was discussion with the Botanical Garden to relocate their entrance to be either on Meridian (linked to Lincoln Rd) or the Collins Canal (linked to the Bass	

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Meeting Notes, continued

ARQUITECTONICA

Project	Project Number
Miami Beach Convention Center Master Plan **Community Design Workshop**	ARQ 2696
Meeting Date: 13 May 2010	This is page: 2 of 3

Discussion	Action / Decisions Pending / Follow up
Museum and Cultural District).	
2.6 A specific comment noted that stadium seating was needed. ARQ noted that the ballroom would have removable stadium seating.	
2.7 A specific comment asked for a plan showing the Bike Lanes. ARQ responded that there will be a bike lane along Collins Canal (as part of a separate CMB project for the Collins Canal) as well as the existing bike lanes the CMB has in place.	
2.8 A specific question asked what the target market would be for the expanded MBCC. CW responded that the intent was to be a larger size in order to be competitive to make it available to markets currently not able to book here, such as medical events.	
2.9 A specific question asked if an additional 440 parking spaces was enough for the expanded MBCC. The response was that the ratio of parking to exhibit space for the existing and proposed expanded MBCC was approximately the same.	
2.10 A specific question asked about connecting the MBCC to the beach. The response was that the connection to Lincoln Road was more critical since visitors would like to go there for the restaurants and retail. The proposed main entrance at the southeast corner also is closer to the beach via 17th St. than the current MBCC entrances.	
2.11 A specific question asked if the hotel could go on the P-Lot. The response was that since there is a 100' height limit, there was insufficient room to have the hotel on the P-Lot since this space was needed for the additional exhibit space and ballroom/meeting rooms (which take up the entire 100' height limit as proposed).	
2.12 A specific comment noted there should be shade trees along Meridian Avenue. The response was that this was the intent and the landscaping along the streets would be shown on future plans.	
2.13 A specific question (by David Kelsey) asked how the expanded MBCC would be financed. The City Manager responded that the first priority was to think big and consider all the possibilities and then phase the project as funding is made available.	
2.14 The representative of the Holocaust Memorial asked to schedule a separate meeting to discuss their relationship to the expanded MBCC.	ARQ has contacted the Holocaust Memorial but a meeting hasn't been scheduled yet.
2.15 A specific question asked if the MBCC expansion will deal with reducing the flooding that happens in the neighborhood. KH responded that the stormwater design for the MBCC expansion will have the same or less impervious area which will make the storm drainage conditions better.	
2.16 A specific question asked about the schedule for the current Washington Avenue streetscape construction and how the MBCC expansion schedule would relate to it. The City Manager noted the MBCC expansion construction wouldn't	

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Meeting Notes, continued

ARQUITECTONICA

Project	Project Number
Miami Beach Convention Center Master Plan **Community Design Workshop**	ARQ 2696
Meeting Date	This is page
13 May 2010	3 of 3

Discussion	Action / Decisions Pending / Follow up
start for a few more years.	
2.17 A specific question asked why a convention center hotel is needed since Miami Beach is known for its beachfront hotels. CW discussed the established criteria for a competitive convention center, which includes an adjacent/connected convention center hotel as one of the top five critical issues.	
2.18 The City Manager asked for a hand vote as to how many attendees considered a future convention center hotel necessary or not. The result was about 50/50.	
2.19 The City Manager asked for a hand vote as to how many attendees thought the future convention center hotel should be located at the north location. The majority of people voted for the north location.	
2.20 The City Manager asked for a hand vote as to how many attendees thought the future convention center hotel should be located at the south location. A few people voted for the south location.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Expansion Master Plan	**Project Number**	ARQ 2696
Meeting Location	City of Miami Beach Public Works Conference Room	**Meeting Date and/or Time**	17 May 2010, 10AM
Meeting Subject	Traffic Engineering Review	**Meeting Number**	MP-19A
		File	051710MM
		This is page	1
Attendees	City of Miami Beach/CMB: W Cary, R Lorber CMB Public Works/CMB-PW: X Falconi Kimley-Horn/KH: J McWilliams, A Dabkowski	☐Via Telephone	
Distribution	M Sklar (who will distribute internally as needed)		
Prepared by	John McWilliams, KH		

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Discussion	Action / Decisions Pending / Follow up
1. **Traffic Impact Analysis:** All City staff desired to have a comprehensive traffic impact study to determine the impacts of both the expansion and the changes to the roadway network. We spent some time discussing the issue of connecting the current parking garage roadway (west of City Hall) on the north side of 17th Street (aligning with Meridian Court) to 17th Street. The group discussed the potential of making this roadway segment (18th Street to 17th Street) a one-way southbound roadway. Based upon the preliminary methodology information provided by Xavier that includes the analysis of over 15 intersections, we anticipate this effort to be $35-40k. For your information, traffic impact analyses are typically completed at the time the applications are filed for site plan approval (DRB, HRB, etc.). I understand this project to be a preliminary master plan which would typically be a step before filing these types of applications. Therefore, I am not sure if the timing if this study is appropriate at the master plan stage or a later stage in the process.	*Post-meeting note: To confirm the scope of services for the traffic engineering component of the MBCC Master Plan, a follow up meeting was scheduled with the CMB, KH and Arquitectonica for 24 May 2010. Please refer to these minutes.*
2. **Transit Superstop Location Feasibility Review**: City staff stressed the desire to locate a transit hub within the project stating that this property would be a fitting place to locate one. We discussed the type of amenities needed would include bus bays/sawtooths, benches, shelter, pay station, vending machines, etc. it would not be a large facilities. City staff discussed several location options both within the site and within the vicinity of the site. The review would examine the feasibility of each location with regards to access to existing transit routes, general size and orientation of the facilities within each site etc. Base upon our preliminary understanding of what was requested from staff, we estimate this effort to be $10-15k. I indicated to staff that I was not sure that this work would be within the prevue of the Convention Center project, but I would discuss it with our team.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach Botanical Garden Conference Room	**Meeting Date and/or Time**	19 May 2010, 2PM
Meeting Subject	Miami Beach Botanical Garden Workshop	**Meeting Number**	MP-18
		File	051910MM
Attendees	Botanical Garden/MBBG: Richard Toledo, Laura Jamieson, Benoit Jonckheer Raymond Jungles/RJ: Raymond Jungles, Corey Seltenright Arquitectonica/ARQ: A Cotter, B Alzati	**This is page** ☐Via Telephone	1 of 2
Distribution	MBBG, RJ, M Sklar (who will distribute internally as needed)		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. ARQ reviewed the Miami Beach Convention Center (MBCC) Expansion Master Plan to date, including the preliminary analysis of the site and district and the proposed design based on the analysis.	
2. MBBG noted two main issues regarding the MBCC Expansion: the renovation and expansion of the existing MBCC is necessary for it to be successful; and parking is a critical issue for the city and MBCC. They recognize both are necessary but they impact the MBBG.	
3. MBBG noted they are currently progressing with the landscaping redesign, which is scheduled to have the work completed in one year. The CD phase is 50% complete.	
4. RJ noted that the proposed plan for the MBCC expansion makes sense and is attractive but having the loading and parking next to the MBBG is not desirable considering the noise and fumes from that area. ARQ noted that the ground level loading area will have a wall treatment that will be attractive and also minimize transmittance of noise and fumes. The above-ground garage levels have are stepped back at each level and have a planter along the perimeter, minimizing the impact of the garage height as well as creating a vertical green landscape.	
5. RJ suggested the MBBG consider moving to the Fillmore site. MBBG noted that there was earlier discussion of relocating but that the current site is preferred since it is a distinct space. They don't want the MBBG considered a city park.	
6. MBBG noted that since the MBCC expansion construction and completion does not have a confirmed schedule and is expected to be completed in 5 to 10 years, they will proceed with the work they have in progress. Once the MBCC expansion plans and schedule are confirmed they will address any necessary changes that might be needed to coordinate with the MBCC expansion.	
7. MBBG asked if the MBCC expansion master plan could keep the Convention Center Dr. in place for the portion that is directly east of the MBBG to keep a buffer between	

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Community Design Workshop**	Project Number	ARQ 2696
Meeting Date	19 May 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
the MBBG and the proposed MBCC loading area. ARQ noted that this area was critical for the success of the proposed MBCC expansion. The concerns with the noise and fumes from the loading area will be addressed with the design of the wall facing MBBG.	
8. The MBBG noted that at this time they will study alternate entries (at the NE or SW corners) since their current entry at the SE corner will need to be relocated in the future to coordinate with the MBCC expansion. ARQ suggested the SW corner, where there is currently a small parking lot (that will be replaced by the MBCC expansion parking garage). This location is on Meridian and would have a direct link to Lincoln Road.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Expansion Master Plan	**Project Number**	ARQ 2696
Meeting Location	City of Miami Beach Public Works Conference Room	**Meeting Date and/or Time**	24 May 2010, 10AM
Meeting Subject	Traffic Engineering Review	**Meeting Number**	MP-19B
		File	052610MM
Attendees	City of Miami Beach/CMB: J Gomez, M Sklar, R Lorber CMB Public Works/CMB-PW: F Vasquez, X Falconi Kimley-Horn/KH: J McWilliams, A Dabkowski Arquitectonica/ARQ: A Cotter	**This is page** ☐Via Telephone	1 of 2
Distribution	M Sklar (who will distribute internally as needed)		
Prepared by	Anne Cotter, Arquitectonica		

Arquitectonica will rely on these notes as the approved record of matters discussed and conclusions reached during this meeting unless written notice to the contrary is received within seven calendar days of the issue date of these meeting notes.

Discussion	Action / Decisions Pending / Follow up
1. The scope of the traffic engineering work in the MBCC Expansion Master Plan was confirmed by KH to be very conceptual and basically a support role. It does not include a full analytical traffic report, which is typically done when a project is submitting for planning approval. It was noted that the scope of traffic analysis the CMB had requested at the May 19th meeting (MP-19A) was more detailed than the conceptual scope included in the MBCC Master Plan scope. 2. CMB asked if the MBCC Master Plan scope would analyze the closure of Convention Center Drive (CC Dr.) in order to ensure that approving the MBCC Master Plan wouldn't trigger an undesirable impact to the surrounding streets. KH said they would need to do a traffic analysis in order to fully confirm the impact of the CC Dr. 3. CMB noted that during large events there are already traffic events, which they expect will continue particularly with NWS next door. 4. CMB noted that there is an existing traffic model for Drexel Avenue that they could provide to KH for reference. KH noted that this model would need to extend further north since it the current scope of that model doesn't extend north of Lincoln Road. 5. All agreed that the MBCC Master Plan traffic section is to discuss the recommended strategies for future traffic studies to be done when the MBCC Expansion is designed for planning and building approval. The intent of the traffic section of the MBCC Master Plan is to anticipate possible scenarios so that there aren't any surprises after the Master Plan is approved. KH will prepare the traffic portion as a technical memo. 6. CMB noted that the adjacent neighborhoods (such as Palm View) were concerned about the impact of increased traffic in their neighborhoods due to the MBCC Expansion. 7. It was noted that at an earlier Steering Committee meeting, CMB had said the MBCC Master Plan should not locate an intermodal. It was agreed that KH should include a soft recommendation as to potential locations for an intermodal. **End of Minutes**	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Expansion Master Plan	**Project Number**	ARQ 2696
Meeting Location	City of Miami Beach City Manager's Conference Room	**Meeting Date and/or Time**	4 June 2010, 2PM
Meeting Subject	Sustainability / LEED Workshop	**Meeting Number**	MP-20
		File	060410MM
		This is page	1 of 2
Attendees	City of Miami Beach/CMB: M Sklar, R Middaugh CMB Public Works/CMB-PW: L Botero Global Spectrum/ MBCC: B Balsam Arquitectonica/ARQ: S Bakas, A Cotter TLC: A Lorenzo, M Borino	☐Via Telephone	
Distribution	CMB/M Sklar, TLC, KH, ARQ, ARQ GEO		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. CMB asked Arquitectonica to have the BODR and the drawings include items, with estimated cost for each in the BODR, of sustainable features that may be feasible for the project either in the short term or long term.	
2. It was noted that the CMB Zoning Ordinance requires all new construction to be LEED certified.	
3. CMB noted the BODR Sustainability section should discuss the multiple LEED credits that features such as a green roof contribute to.	
4. The draft LEEDv3-NC checklist prepared by Arquitectonica and the consultants was reviewed, as per the annotated checklist. At the start of the meeting the credits were 51 YES, 29 MAYBE, 26 NO. It was noted that the BODR would include the non-annotated checklist that has YES/NO/MAYBE columns. The annotated checklist is for internal review only.	
5. Sustainable Sites credits (at start of meeting 19 YES, 5 MAYBE, 2 NO):	
5.1 SSc4.2 (Alternative Transportation: Bicycle storage and changing rooms): CMB noted they are implementing a city-wide bicycle share program so there should be bike racks located around the site. In addition, CMB and MBCC said bike racks for employees and visitors are to be provided. Showers for the employees are already part of the changing rooms so there is no additional cost beyond the MBCC program for this credit.	
5.2 SSc4.3 (Alternative Transportation: Low-emitting and fuel efficient vehicles): CMB said they already have a program in place for providing preferred parking spaces for low-emitting and fuel-efficient vehicles.	SSc4.3 will be revised to be a YES instead of a MAYBE.
5.3 SSc5.1 and 5.2 (Site Development): CMB noted that the site area could include the Botanical Gardens, Holocaust Memorial and Collins Canal, as well as the new plaza and the landscaped area east of the Jackie Gleason. This makes these two credits possible as long as there is a green roof on the new building.	SSc5.1 and 5.2 will be revised to be a strong MAYBE.
5.4 At the end of the Sustainable Sites discussion the credits were revised to be 22	

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Meeting Notes, continued

ARQUITECTONICA

Project	Project Number
Miami Beach Convention Center Expansion Master Plan Sustainability / LEED Workshop	ARQ 2696
Meeting Date: 4 June 2010	This is page: 2 of 3

Discussion	Action / Decisions Pending / Follow up
YES, 2 MAYBE and 2 NO.	
6. Water Efficiency credits (at start of meeting 4 YES, 6 MAYBE, 0 NO):	
6.1 WEp1 (Water Use Reduction 20%): MBCC noted that they have waterless urinals in the existing MBCC but they are not easy to maintain so they don't want to use them for the MBCC Expansion. Low-flow fixtures and fittings will be sufficient to meet the pre-requisite requirements.	
6.2 WEc1.2 (Water Efficient Landscaping): CMB and MBCC said cisterns could be located in the plaza so that it may be possible to have no portable water needed for irrigation.	
6.3 WEc2 (Innovative Wastewater Technologies): The cisterns (noted above) would make this credit feasible. It was noted a green roof on the new building would also contribute to this credit.	WEc2 will be revised to be a YES instead of a MAYBE.
6.4 At the end of the Water Efficiency discussion the credits were revised to be 6 YES, 4 MAYBE and 0 NO.	
7. Energy & Atmosphere credits (at start of meeting 7 YES, 10 MAYBE, 18 NO):	
7.1 EAp3 (Fundamental Refrigerant Management): MBCC noted that all the existing cooling towers and chillers are non-CFC now.	
7.2 EAc1 (Optimize Energy Performance): ARQ and TLC noted that due to the South Florida climate it is difficult to get more than 4 of the 19 possible points for this credit (projects that don't need air-conditioning and can have natural ventilation are more eligible).	
7.3 EAc2 (On-Site Renewable Energy): CMB asked that the solar panels be priced in quadrants as per how much area would be needed to light certain aspects of the MBCC (ie. offices, garage, etc.).	
7.4 EAc4 (Enhanced Refrigerant Management): TLC confirmed the existing and new cooling towers and chillers would meet this credit's requirements.	EAc4 will be made a YES instead of a MAYBE.
7.5 At the end of the Energy & Atmosphere discussion the credits were revised to be 9 YES, 8 MAYBE and 18 NO.	
8. Materials & Resource credits (at start of meeting 5 YES, 7 MAYBE, 2 NO):	MRc1.1 will be made a MAYBE instead of a NO.
8.1 MRc1.1 (Building Re-use Shell): It was noted that it was possible 75% of the existing shell could be re-used to get an extra point.	
8.2 MRc1.2 (Building Re-use Non-Structural): It was noted that the existing interiors will be substantially gutted so meeting the 50% requirements isn't feasible.	MRc1.2 will be made a NO instead of a MAYBE.
8.3 MRc3 (Materials Re-use): It was noted that minimal existing buildings materials or products would be reused so this credit isn't feasible.	MRc3 will be made a NO instead of a MAYBE.
8.4 MRc6 (Rapidly Renewable Materials): It was noted that the materials for the MBCC do not fall into the category of rapidly renewable materials (there is limited wood, etc.) so this credit isn't feasible.	MRc6 will be made a NO instead of a MAYBE.
8.5 At the end of the Materials & Resource discussion the credits were revised to be 5 YES, 4 MAYBE and 5 NO.	
9. Indoor Environmental Quality credits (at start of meeting 10 YES, 1 MAYBE, 4 NO):	
9.1 IEQc3 (Construction IAQ Management Plan): MBCC noted that they require an IAQ plan during construction. ARQ and TLC noted that doing an IAQ prior to	

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Meeting Notes, continued

ARQUITECTONICA

Project	Project Number
Miami Beach Convention Center Expansion Master Plan Sustainability / LEED Workshop	ARQ 2696
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occupancy requires a significant amount of time after construction has been completed and before occupancy, which doesn't work with the intent of keeping the MBCC operational during the phased construction.	
9.2 There was no change to the credit distribution.	
10. Innovation & Design credits (6 YES, 0 MAYBE, 0 NO). ARQ reviewed the possible means of meeting the ID credits and noted there were other back-up methods if one (ie. exemplary WEc3) is not feasible.	
11. Regional Priority credits (0 YES, 4 MAYBE, 0 NO). ARQ noted that the Regional Priority Credits may be difficult to meet for a building of this size and use.	
12. The final tally of credits after the meeting (as per attached revised LEEDv3-NC checklist is 60 YES, 21 MAYBE, 29 NO. The number of points required for Gold Level is 60 so the project has a possibility of attaining this certification level, though a number of the MAYBE credits will need to be confirmed as feasible.	
13. The Ameresco proposal for a geo-thermal plant was discussed. It was noted that there is some concern that a geo-thermal plant is not feasible in South Florida. CMB noted that Ameresco has done site exploration and had favorable results. Ameresco has been approved to proceed with the geo-thermal plant as well as with installing new lighting in the existing MBCC and should be completed within 3 years. It may be that the geo-thermal plant will provide the additional cooling for the MBCC expansion so no additional cooling towers would be needed. The Master Plan will note this as a possibility but will include the additional cooling towers in order to address the more expensive scenario. ARQ and TLC noted they hadn't received a copy of the Ameresco report yet.	CMB to forward a copy of the Ameresco report to ARQ/TLC.
14. ARQ noted that the Ameresco geo-thermal system requires a number of large underground wells that will need to be coordinated with the location of the proposed cisterns in the plaza and new 19th Street / MBCC entry drive.	
15. ARQ reviewed the draft phasing plans that are in 6 phases to address the need to keep the MBCC operational during the construction of the expansion. It was noted that during the last phase when the existing halls can be closed down to be updated (after the new exhibit halls are available for use), the controls for the light fixtures (already updated as per the Ameresco project) will be installed. ARQ will proceed with the phasing plans as per the minor modifications discussed at the meeting.	

End of Minutes

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Expansion Master Plan	**Project Number**	ARQ 2696
Meeting Location	David's Café II, Lincoln Road	**Meeting Date and/or Time**	15 June 2010, 10AM
Meeting Subject	Presentation to Tuesday Morning Breakfast Club	**Meeting Number**	MP-21
		File	061510MM
		This is page	1 of 2
Attendees	City of Miami Beach/CMB: H Fernandez CMB Commissioner Ed Tobin TMBC: D Kelsey, F Delvecchio, D Desilits and about 30 other people Arquitectonica/ARQ: S Bakas, A Cotter	☐Via Telephone	
Distribution	CMB/M Sklar, ARQ		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up

1. DK introduced ARQ and noted the Tuesday Morning Breakfast Club's primary concern was regarding the funding for the MBCC expansion.
2. SB noted that ARQ is doing the master plan for the MBCC expansion. The CMB has been studying the need to expand the MBCC in order to stay competitive for a number of years, with a study by CSL being done a few years ago that noted four issues need to be addressed to be competitive: add a ballroom/multi-function room; add more meeting rooms: add a unique/ outdoor event space; add a convention center hotel. ARQ noted that they were directed by the CMB to think out of the box, to think about what is the ideal and not just proposed quick fixes (band-aids) that would only address current needs and not future needs as well.
3. ARQ studied the existing MBCC and its internal as well as external influences. The two existing entrances (on Washington and CC Dr) make for very inefficient and confusing visitor circulation. The proposed master plan is to re-orient the entries to be an L facing south to Lincoln Rd and east to Washington. The exhibit halls are also L-shaped so they are linear and not back to back, with loading/service on the other side. A parking garage above the loading area provides more parking than the existing on-grade lot. Unique outdoor event spaces are provided with the ballroom level outdoor terraces on the south, east and north sides as well as the street level plaza.
4. Questions for the Tuesday Morning Breakfast Club:
   a. *How is this going to be paid for?* The plan is to phase the expansion so the MBCC is always operational.
   b. *Where is the future hotel to be located?* The master plan only includes possible locations for a future hotel (north and south).
   c. *Will this go to City Referendum?* A referendum isn't required since the MBCC expansion is as of right, within zoning and city property.
   d. *Will the City use eminent domain to take over land for the hotel?* This isn't

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Meeting Notes, continued

ARQUITECTONICA

Project	Project Number
Miami Beach Convention Center Expansion Master Plan **Presentation to Tuesday Morning Breakfast Club**	ARQ 2696
Meeting Date	This is page
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Discussion	Action / Decisions Pending / Follow up

being considered now since it isn't needed as per the proposed master plan.

e. *Will the County review the project?* After the Master Plan is complete then it will be presented to the County to discuss the phasing.

f. *What is the timing for the project?* The start of construction is unknown at this time since it the Master Plan needs to be approved and then funding determined.

g. *What is the process for selecting sub contractors?* As per city requirements.

h. *What inconveniences will this cause residents?* The phasing will

i. *What impact will this have on the city?* An expanded MBCC will be more competitive and be beneficial for the city at many levels (construction, tourism, etc.).

j. *How much more parking is being added?* There is additional parking above the existing parking, proportionate to the added exhibit space.

k. *Is there a way to make it more permeable to introduce the exterior into the exhibit halls that are traditionally dark*? There are a lot of terraces from the prefunction areas.

l. *Has there been a determination that the MBCC could be a location for a intermodal center?* There has been discussion about having a bus transfer location around the site, as well as an intermodal center, but not a final determination one way or another, only possible locations.

m. Deborah Desilits asked the following questions:
   i. *What is the process for naming the building?* This is outside of the scope of the Master Plan phase.
   ii. *Has there been study of the impact of the potential hotel locations on the adjacent sites (casting shadows)?* The scope of the Master Plan phase is to propose potential sites only. Also, since the zoning limits the building height to 100' there is minimal impact.
   iii. *What if the zoning is changed and the hotel becomes 250' at the Fillmore site?* Currently the zoning is 100' and there has been no discussion of changing the zoning to go higher.

n. Frank DelVecchio noted that this site is the right location for an expansion of this scale. There might wind up being two hotels to address the financial viability. There is always the possibility of gambling being brought into this area.

End of Minutes

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach Convention Center,	**Meeting Date and/or Time**	19 July 2010 2:00 PM
Meeting Subject	Master Plan Progress Meeting Steering Committee	**Meeting Number** **File**	MP-22 071910MM
Attendees	TMobley, BBalsam, AGrande, JWatson, JBarnett: MBCC/Global Spectrum MBower, JGonzalez, HFernandez, MSklar, RWakefield, DFontani, JHoanshat, KCrowder: CMB SGross, WKallergis, SBlumberg, MBreslow, CRick-Joule, EHoward, RWennett, WTalbert: Steering Comm. RMarante, FBarrila, ESilva: Miami Dade County JBetancourt, RGeitner: Miami DDA BMoscowitz, IMoriarty: GMCVB SBakas, ACotter, BAlzati: ARQ DO'Neal: CW MBorino, LRuiz: TLC BChen: Chen & Assoc.	**This is page** ☐Via Telephone	1 of 3
Distribution	MSklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up

1. **Review of May 13th Community Design Workshop (CDW) presentation :**
   - 1.1 The City Manager summarized the CDW presentation and the comments. The 150 attendees noted uniformly that the design of the proposed MBCC Expansion master plan was well-received.
   - 1.2 ARQ reviewed the sustainability aspects of the proposed MBCC Expansion as well as reviewing the sustainable features and programs of the existing MBCC.
   - 1.3 ARQ noted that a vegetated roof on the new structure could be made accessible to the public but this would add to the structural load and building cost as well as increase the egress requirements. There are multiple exterior terraces at the Function Room level that are already designed for public access.
   - 1.4 It was noted that the Ameresco study had concluded the cost return for solar panels is 100 years unless a large grant becomes available to reduce the installation cost.
   - 1.5 It was noted the new construction should be designed to accommodate structural loads for a 200' high building in case the 100' height limit is increased in the future.
   - 1.6 As per the request of Miami-Dade Commissioner Jose Diaz, ARQ reviewed the Hong Kong Convention and Exhibition Centre (HKCEC) to see if any aspects of it could be incorporated into the MBCC Expansion master plan, particularly in regards to size, vertical programming and transit integration. ARQ and CW noted that HK generally and HKCEC have different sites, markets and cultures. The proposed MBCC expansion area program is comparable to the HKCEC and even larger in

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Steering Committee**	Project Number	ARQ 2696
Meeting Date	19 July 2010	This is page	2 of 3

Discussion	Action / Decisions Pending / Follow up

some aspects (meeting rooms). The HKCEC has specialized spaces which the MBCC Steering Committee had previously reviewed and decided flexible spaces were preferable for Miami.

2. **Current Master Plan Phase Status:**
   - 2.1 ARQ reviewed the current design noting that a new exterior terrace was added at the northwest corner for the Junior Ballroom, with views north to the Botanical Garden and the golf course.
   - 2.2 Cathy Rick-Joule asked how large items could be brought to the Level 3 ballroom. ARQ noted that anything that couldn't be brought up via the service lifts could be driven up the parking garage to a 16' high service door.
   - 2.3 ARQ noted the new exhibit hall at ground level has a 30' high by 30' wide door on Meridian Ave for boat show access. Since there will be limited access, the disturbance to Meridian Ave and the neighboring Palm View neighborhood would be minimal (19th St. would only be needed to make a three point turn into the exhibit hall—no through traffic).
   - 2.4 ARQ noted they met with the Botanical Garden board and have contacted the Holocaust Memorial board of directors to set up a meeting when they are back at the end of summer.
   - 2.5 The conclusion of the Botanical Garden meeting was that they would proceed with the improvements that are in design now and will address future changes as per the MBCC expansion when the time comes. The impact to the Botanical Gardens was summarized: relocate entry to NE or SW corner (from SE corner), minimal shadows from the new garage, noise and views from the loading area to be minimized with architectural treatment.
   - 2.6 ARQ reviewed the phasing plans developed to date, which are based on keeping the MBCC operational during all the construction work. Stu Blumberg noted that the phasing needs to be coordinated with the event planners; this will be done once the start of construction is determined.
   - 2.7 The estimated construction schedule is 18 months for Phases 1 and 2 combined, 2 years for Phase 3, 2 years for Phase 4 and 18 months for Phases 5 and 6 combined; a total of 7 years. The MBCC would be kept operational throughout the construction. It was noted that two shifts or double hours should be considered to minimize construction disturbance.
   - 2.8 The draft cost estimate prepared by Faithful & Gould was reviewed. The draft cost estimate of $530 million is for hard costs and includes some escalation for the phasing, GC markups (overhead, profit, bonds), site work, design contingency of 12.5% and an art allowance of 1.5%. Soft costs were estimated to be an additional 25-35% for FF&E, operating costs. The hotel is not included in the draft cost estimate.
   - 2.9 The City Manager noted the funding would come from multiple sources, possibly from the County, a penny tax, garage revenue bonds and other sources.
   - 2.10 Stu Blumberg noted the hotel should be included in the master plan since having the beds is critical to the expanded MBCC success. In response to existing hotels being nervous about adding a new hotel to the market, it was noted a new convention center hotel that would not be on the beach will only improve business at the

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Miami Beach Convention Center Master Plan Steering Committee	ARQ 2696
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Discussion

Action / Decisions Pending / Follow up

existing beachfront hotels.

2.11 The convention center hotel would take about three years to complete and should be completed by the time the MBCC expansion is completed (approx. 7 years from start of construction).

2.12 It was noted that the majority of convention center hotels have been publicly funded.

2.13 The City Manager asked for a estimated cost for a convention center hotel at the Jackie Gleason site.

2.14 The majority of the MBCC Steering Committee voted that the convention center hotel site should be the Jackie Gleason and the MBCC expansion cost estimate should include an estimate for the hotel (as a separate line item since the hotel is technically not part of the master plan scope).

Post-meeting note: The City Manager asked for a brief list of alternate expansion plans that would range from façade work only, smaller expansions within the existing MBCC footprint, or within the MBCC block (not using the P-Lot), to using the Jackie Gleason site for a hotel with ballroom for MBCC use.

3 **Public Comments:**

3.1 A Palm View resident (Jane Marson) expressed concern about the massing/ setbacks of the proposed MBCC expansion design and would like to meet with the MBCC expansion master plan design team. The City Manager noted that currently the project is in master plan phase and her concerns would be able to be addressed more accurately during the building design phase.

End of Minutes

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach Convention Center,	**Meeting Date and/or Time**	17 August 2010, 3PM
Meeting Subject	Sustainability Committee Meeting	**Meeting Number**	MP-23
		File	081710MM
		This is page	1 of 2
Attendees	Sustainability Committee: Commissioner Jonah Wolfson, PPastor, EHealy, DLeibowitz, LRodrigues, LFurst, MNovick, GVanBryce CMB: MSklar, LBotero Ameresco: TGallentine ARQ: ACotter TLC: ALorenzo, MBorino	☐Via Telephone	
Distribution	MSklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. **Ameresco presentation :** 1.1 Tracey Gallentine of Ameresco gave an update on the Ameresco project for the CMB. The CMB approved measures to date total $14 million. Work has started on the lighting upgrades. She noted that all the work is required to be self-financed by the return on investment and annual savings. 1.2 The next Ameresco projects to proceed are the domestic water improvements ($541,000 cost, 4.7 year ROI, $114,700 annual savings) and HVAC Controls ($2 million cost, 18.1 year ROI). 1.3 The Geothermal and Chiller Upgrade project has started. It has a 23 month construction schedule; $2.8 million cost; 24.8 year ROI and $100,000 annual cost savings. 1.4 It was noted that about half of the Power Transformer Replacements would be at the MBCC. 2. **Arquitectonica presentation:** 2.1 ARQ and TLC made a presentation on the possibility of installing solar panels on the roof of the existing MBCC roof. The large area of the existing MBCC roof allows for approximately 375,000 SF of solar panels, which would be one of the largest installations in South Florida. A quick solar panel calculation indicates that this large area and South Florida's great solar rating would mean the system could provide about 3.8 megawatt hours annually or $approximately $670,000 to $1.7 million annual savings. The solar panel system would cost approximately $22.6 million but would be eligible for about $6.7million of Federal tax credits, Modified Accelerated Cost Recovery System funds and depreciation for a net cost of $15.8 million. 2.2 It was noted that a hotel located adjacent to the expanded MBCC would be more sustainable as there would be less vehicular travel for attendees to get to the MBCC.	

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Sustainability Committee Meeting**	Project Number	ARQ 2696
Meeting Date	17 August 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
2.3 It was noted that the CMB had a fiscal responsibility regarding the costs of solar panels, from the installation costs to the annual savings. The ROI for the solar panels is 30 years; TLC noted that the solar panels typically need to be replaced every 25 to 30 years so at best the panels pay for themselves but are unlikely to save the CMB money. 2.4 ARQ noted that while the solar panels are expensive with no expected net savings, there were the associated benefits such as reduced fossil fuel use, in line with the objectives of the CMB Sustainability Master Plan and an important element of the CMB's public education on sustainable options. 2.5 Gabriole Van Bryce, appointed by Commissioner Michael Gongora, made a motion to ask the City Commissioners to include solar panels in the MBCC expansion master plan. It was seconded and approved so Commissioner Wolfson will add it to the next City Commission agenda. **End of Minutes**	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Greater Miami Jewish Foundation	**Meeting Date and/or Time**	18 August 2010, 3PM
Meeting Subject	Holocaust Memorial	**Meeting Number**	MP-24
		File	081810MM
		This is page	1 of 2
Attendees	Holocaust Memorial Board of Directors (HM): Rabbi SSchiff, ABrick-Turin, CBrick-Turin, JKuperman, SHorowitz CMB: MSklar ARQ: ACotter	☐Via Telephone	
Distribution	MSklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. **MBCC Expansion Master Plan presentation :** 1.1 CMB and ARQ reviewed the Master Plan process and proposed design. 1.2 ARQ noted that the proposed parking garage to the south of the Holocaust Memorial will be stepped back to minimize shadows to the north and have continuous planters to make the garage façade a vertical extension of the Holocaust Memorial and Botanical Garden landscaping. 1.3 It was noted that the proposed garage would be a public garage, available for visitors to the Holocaust Memorial as well as to the MBCC.	
2. **Holocaust Memorial Board of Director (HM) comments:** 2.1 Access to the Holocaust Memorial is critical for the visitors and the docents. The close proximity of the existing public parking lot to the south of the Holocaust Memorial needs to be maintained. Parking in the proposed garage is too far for the elderly docents. 2.2 ARQ noted the existing parking lot is to be maintained with a proposed new entry directly from Meridian Avenue, instead of 19th Street. This would mean the existing restroom structure would need to be relocated. HM asked if the existing access could be maintained via the proposed ground level service drive. ARQ to study this. 2.3 HM noted they have a grant from Homeland Security to install security bollards along Meridian Avenue. 2.4 HM noted there is a homeless situation, particularly along the Collins Canal, and asked if the CMB would have funds available to maintain the property. CMB will look into this but noted is a separate issue from the MBCC Master Plan. 2.5 HM asked if they have a voice in the approval process of the Master Plan. CMB said the Master Plan and subsequently the building project for the MBCC Expansion would be go through all the typical public hearings to be approved; HM and all of the public would have the opportunity to comment on the project. 2.6 The potential impact of the increased noise from event shuttle buses and trucks was discussed since they would be traveling along Meridian to get to Dade Boulevard. 2.7 HM asked if a lane along Meridian Avenue could be eliminated in order to increase	*ARQ to study accessing the existing parking lot from the proposed service drive.*

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan** **Holocaust Memorial Meeting**	Project Number	ARQ 2696
Meeting Date	18 August 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
the distance between the traffic and the Holocaust Memorial so that the docents can be heard over the noise of the traffic. ARQ said they would coordinate with the traffic engineers for the Master Plan project to study the feasibility of this.	
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	Miami Beach Convention Center,	**Meeting Date and/or Time**	24 August 2010, 3PM
Meeting Subject	Ameresco-MBCC Coordination Meeting	**Meeting Number**	MP-25
		File	082410MM
Attendees	CMB: MSklar, FBeckman (Public Works) Ameresco: TGallentine, ESchott, MHuq, JAntelo ARQ: SBakas, ACotter TLC: ALorenzo	**This is page** ☐Via Telephone	1 of 2
Distribution	MSklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. **Geothermal Plant:**	
1.1 The process wells (spaced every 50') are to extend below grade and pumps were originally proposed to be above ground since submerged pumps are not as efficient as above grade pumps. The pumps are grouped together in an area of about 15' x 30' x 12' high (50 decibels at 20' away).	
1.2 To locate the system on the north side of MBCC, where it would be out of public view, is very inefficient since it is far away from the chiller plant. The geothermal system should be within 200' of the existing chiller plant.	
1.3 To have the pumps below grade they would need to be submersible pumps or in a pump vault that would need to be flood proofed.	
1.4 To locate the pumps high is also expensive and inefficient.	
1.5 Since the approved Geothermal project has a cost of $3 million and a 23 month schedule, a decision needs to be made now if any aspect of the project is to be changed in anticipation of the MBCC expansion master plan.	
1.6 It was noted that the MBCC expansion and possible future hotel are not confirmed at this time. The City Manager and County Manager are to meet at the earliest in September to discuss the financing for the project. It was agreed that the only area the Geothermal project should avoid is the northeast corner of the City Hall property.	
1.7 There are three options for the Geothermal project coordinating with the future MBCC expansion: 1.7.1 Submerged pumps at the south side, out of view of the future MBCC entry drive/drop-off; 1.7.2 Locate the Geothermal system within 200' of the chiller plant and the potential south hotel location will have to plan around the Geothermal system; 1.7.3 Locate the Geothermal system as currently designed. The City Manager will review and advise as to his decision. Ameresco to provide rough estimates on the cost of options 1 and 2. Ameresco noted that options 1 and 2 will reduce the energy savings compared to option 3 (current design of the system).	*Ameresco to provide rough estimates on the cost of options 1 and 2.*
1.8 The reject wells were originally proposed to be in the P-lot but can be relocated to	

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan** **Ameresco-MBCC Coordination Meeting**	Project Number	ARQ 2696
Meeting Date	24 August 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
the west end of the proposed entry drive (near Meridian Avenue).	
1.9 Ameresco noted the Geothermal system as currently designed was based on the current base loads but the expanded MBCC would have increased zones so the cooling towers will be used more. Part of the MBCC expansion could be to add more wells and pumps (this is not part of the current Ameresco project). It was noted the sizing of the pipe running from wells to chiller plant should be considered in anticipation of the MBCC expansion as opposed to the current MBCC.	
1.10 Ameresco to consider the expansion for each of the three options. ARQ to forward the TLC mechanical narratives to Ameresco.	*ARQ to forward the TLC mechanical narratives to Ameresco.*
2. **Other Ameresco CMB projects:**	
2.1 Ameresco discussed the other energy and water saving projects that relate to the MBCC.	
2.2 ECM11 is for Energy Savings	
2.3 ECM1 is for lighting and control upgrades. An original report was done based on fluorescent fixtures for the MBCC but the CMB has asked for an LED version of this project, which Ameresco is working on in order to make it economically viable (the initial cost of LED fixtures is higher than those for fluorescent fixtures). MBCC/Global Spectrum wants LED fixtures since they don't need to be replaced as often. CMB noted a decision needs to be made soon and asked Ameresco to issue an assessment that CMB will address with MBCC/Global Spectrum.	*Ameresco to issue an assessment on LED fixtures for MBCC.*
2.4 TLC noted the initially proposed T5 light fixtures have a glare issue. Ameresco to address this (they had not previously heard of this issue.	*Ameresco to address the T5 glare issue.*
2.5 ARQ asked for a copy of the ECMs related to the MBCC (only ECMs 6 and 11 have been received to date; ECMs 1, 3, 5 and 10 are requested). Ameresco noted ECMs 1, 3, 5, 6, 7 and 10 have been approved and are moving forward.	*Ameresco/CMB to forward a copy of ECMs 1, 3, 5 and 10 to ARQ.*

End of Minutes

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	City of Miami Beach conference room	**Meeting Date and/or Time**	24 September 2010
Meeting Subject	City of Miami Beach Coordination Meeting	**Meeting Number**	MP-26
		File	092410MM
Attendees	CMB: MSklar ARQ: SBakas, ACotter	**This is page**	1 of 1
		☐Via Telephone	
Distribution	MSklar, who will distribute internally as needed		
Prepared by	Anne Cotter, Arquitectonica		

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Discussion	Action / Decisions Pending / Follow up
1. **Botanical Garden meeting:** 1.1 CMB reviewed comments from a recent meeting the CMB Planning Department had with the Botanical Garden. The BG wants the future entrance to be at the southwest corner by reconfiguring the existing parking lot on 19th Street to have 4 ADA parking spaces and a landscape pedestrian access from Meridian Avenue to the new BG entrance, along with a reconfigured restroom structure for the Holocaust Memorial. 1.2 BG asked for the wall screening the proposed MBCC Expansion loading dock area to be a vegetated wall. ARQ noted that this was already the design proposal. 1.3 BG asked to have a delivery/loading zone within the proposed MBCC Expansion loading area. ARQ said this could be incorporated easily. 1.4 BG also asked for a visitor drop-off area for large events, which would be either at the southwest or northeast corner of the BG. This would have to be separate from the loading dock area, which is for commercial vehicles only.	
2. **BODR:** 2.1 The BODR is to have a section that addresses how the proposed design interfaces with the neighbors (BG, Holocaust Memorial, Palm View, New World Symphony). 2.2 CMB noted that the next step is for the City Manager to meet with the Dade County Manager to show them the original design.	.
End of Minutes	

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Meeting Notes

ARQUITECTONICA

Project	Miami Beach Convention Center Master Plan	**Project Number**	ARQ 2696
Meeting Location	City Managers Conference Room, 4th Floor City Hall	**Meeting Date and/or Time**	15 Dec 2010, 4PM
Meeting Subject	Palm View Neighbors Workshop	**Meeting Number**	MP-27
		File	121510MM
		This is page	1 of 2
		☐Via Telephone	

Attendees
CMB: M Sklar
ARQ: S Bakas
Palm View Community: Sheryl Gold, Ross Yasgur, Jane Losson, Jay Levy

Distribution M Sklar, who will distribute internally as needed

Prepared by S Bakas, Arquitectonica

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Discussion	Action / Decisions Pending / Follow up
A meeting/work session was requested and held with the neighbors to the west that make up the Palm View residential district to listen to their reactions and concerns so that the City and MP team can respond and incorporate any revisions to the proposed Master Plan submittal.	Noted.
1.0 Discussion: The group began listing their concerns individually and there was discussion on each point.	
1.1 There is a concern about the overall height and massing of the new addition portion of the plan and its suitability with the existing scale of the residential neighborhood across the street and if this level of expansion was necessary. We first discussed how the City and design team arrived at the area program and need for expansion of meeting spaces that comes with additional public spaces, support space and parking. It was understood that there was no desire to compete with some of the expansive convention facilities in Orlando and Las Vegas and overbuild our current boundaries but remain more moderate in size so that the current local appeal is always maintained. The group understood the need for stacking of uses on the site to accommodate the needs.	Understood.
1.2 With that said and accepted, there is still a concern over the perception of the seemingly incongruous scale and solid wall. We reviewed the current west façade elevation and section through Meridien and explained the 18 ft deep, 25 ft. high arcade setback at grade, equal to the new parking garage to the south as well as the commitment to use shade trees, not palms, along the sidewalk. This would offer a continuous shaded path to the museum and garden as well as other venues to the north, a huge improvement over the existing path.	Arcade and shade trees accepted.
1.3 There was concern that the façade seemed solid and not "green" enough. The façade isn't "solid" although it might be perceived that way from the oblique perspective. Besides discussing our planned overall sustainability goals, we discussed the current use of vertical louvers along deep balconies that serve the ballroom and meeting room prefunction area, so that daylight is controlled along the west façade. We understood that a façade treatment more similar to the tiered garage planting so that upper stories can recede and a more landscaped wall would be much more acceptable. At a minimum, balcony parapet walls could be planted to soften the building face.	We agreed to study into how a similar treatment could be accommodated to the west façade and what that kind of treatment could cause to the usable spaces inside.

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Meeting Notes, continued

ARQUITECTONICA

Project	**Miami Beach Convention Center Master Plan Palm View Workshop**	Project Number	ARQ 2696
Meeting Date	15 Dec 2010	This is page	2 of 2

Discussion	Action / Decisions Pending / Follow up
1.4 The sidewalk on the west side of Meridian is narrow and in disrepair, pathways blocked by trees and lampposts also in disrepair; the neighborhood has seemingly been forgotten and needs attention. The City explained that although not detailed at this point, funds have been allocated in the MP Expansion budget to accommodate a variety of neighborhood improvements like this, rather than a quick repair without any planning or forethought.	MSklar agreed and explained that improvements to the area have been postponed so that it can be done along with the expansion, rather than a hasty repair now.
1.5 The traffic diagram showing guest and service vehicle traffic. Traffic impact is a major concern, both around the neighborhood perimeter as well as within the neighborhood by additional tourist traffic as well support vehicles. We reviewed and discussed the proposed Traffic Analysis that accompanies the MP submittal which calls for traffic studies at a number of important intersections. This will lead to recommendations for new markings and signalization. We discussed the sensitivity towards creating an environment conducive to a walking district with easy connectivity within and to surrounding venues, rather than focusing on accommodating vehicular ingress and egress only.	Noted.
1.6 The oversized entry doors in the west façade are required for oversized exhibits or yacht masts to enter that portion of the exhibit hall; they are not intended for routine use and would only be needed occasionally. Loading vehicles would need to back into the neighborhood at 18th Street to use the doors to access the hall.	Understood.
1.7 The neighborhood would like to be kept in the information loop and be notified of any upcoming meetings so they can participate.	Understood.
End of Minutes	

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APPENDIX B
MASTER PLAN
SCHEMATIC DRAWINGS

ENLARGED SECTIONS	
A2.50	ENLARGED SECTION
A2.51	ENLARGED SECTION
A2.52	ENLARGED SECTION
A2.53	ENLARGED SECTION
A2.54	ENLARGED SECTION
A2.55	ENLARGED SECTION
A2.56	ENLARGED SECTION
A2.57	ENLARGED SECTION
M / E / P / FP	
MECHANICAL	
MD-1	HVAC DEMOLITION FIRST FLOOR PLAN
MD-2	HVAC DEMOLITION SECOND FLOOR PLAN
M-1	HVAC FIRST FLOOR PLAN
M-2	HVAC SECOND FLOOR PLAN
M-3	HVAC MEZZANINE FLOOR PLAN
M-4	HVAC THIRD FLOOR PLAN
M-5	HVAC FOURTH FLOOR PLAN
M-6	HVAC ROOF PLAN
ELECTRICAL	
ED-1	ELECTRICAL DEMOLITION FIRST FLOOR PLAN
ED-2	ELECTRICAL DEMOLITION SECOND FLOOR PLAN
E-1	ELECTRICAL FIRST FLOOR PLAN
E-2	ELECTRICAL SECOND FLOOR PLAN
E-3	ELECTRICAL MEZZANINE FLOOR PLAN
E-4	ELECTRICAL THIRD FLOOR PLAN
E-5	ELECTRICAL FOURTH FLOOR PLAN
E-6	ELECTRICAL ROOF PLAN
PLUMBING	
PD-1	PLUMBING DEMOLITION FIRST FLOOR PLAN
P-1	PLUMBING FIRST FLOOR PLAN
FIRE PROTECTION	
FPD-1	FIRE DEMOLITION FIRST FLOOR PLAN
FP-1	FIRE FIRST FLOOR PLAN

DRAWING INDEX

COVER SHEET

SHEET NO.	SHEET CONTENTS
ARCHITECTURE	
PHASING	
PHASE-1.1	SITE PLAN/FIRST FLOOR PLAN
PHASE-1.2	SECOND FLOOR PLAN
PHASE-1.3	ROOF PLAN
PHASE-2.1	SITE PLAN/FIRST FLOOR PLAN
PHASE-2.2	SECOND FLOOR PLAN
PHASE-2.3	ROOF PLAN
PHASE-3.1	SITE PLAN/FIRST FLOOR PLAN
PHASE-3.2	SECOND FLOOR PLAN
PHASE-3.3	ROOF PLAN
PHASE-4.1	SITE PLAN/FIRST FLOOR PLAN
PHASE-4.2	SECOND FLOOR PLAN
PHASE-4.3	ROOF PLAN
PHASE-5.1	SITE PLAN/FIRST FLOOR PLAN
PHASE-5.2	SECOND FLOOR PLAN
PHASE-5.3	ROOF PLAN
PHASE-6.1	SITE PLAN/FIRST FLOOR PLAN
DEMOLITION	
D1.01	FIRST FLOOR DEMOLITION PLAN
D1.02	SECOND FLOOR DEMOLITION PLAN
D1.03	ROOF DEMOLITION PLAN
PLANS	
A1.00	CONVENTION CENTER SITE PLAN
A1.01	FIRST FLOOR & LOADING DOCK MASTER PLAN
A1.02	OVERALL SECOND FLOOR & GARAGE PLAN
A1.03	OVERALL THIRD FLOOR & GARAGE PLAN
A1.04	OVERALL FOURTH FLOOR & GARAGE PLAN
A1.05	OVERALL ROOF PLAN
A1.06	OVERALL GARAGE FLOOR PLANS
ELEVATIONS	
A2.00	SOUTH ELEVATIONS
A2.01	NORTH ELEVATIONS
A2.02	EAST ELEVATIONS
A2.03	WEST ELEVATIONS
SECTIONS	
A2.10	SOUTH TO NORTH TRANSVERSE SECTIONS
A2.11	SOUTH TO NORTH TRANSVERSE SECTIONS
A2.12	SOUTH TO NORTH TRANSVERSE SECTIONS
A2.13	NOT USED
A2.14	WEST TO EAST TRANVERSE SECTIONS
A2.15	WEST TO EAST TRANVERSE SECTIONS
A2.16	WEST TO EAST TRANVERSE SECTIONS