



December 7, 2012

**IFYI HIGHLIGHTS**

TO: Mayor and Members of Council  
FROM: Denise Turner Roth, City Manager *DR*  
SUBJECT: Items for Your Information

- Lovett Street Sidewalks
- Performing Arts Center: Master Plan, Concept Design Estimate from Venue, Parking Availability
- NLC Congress of Cities and Exposition

**Council Follow-Up Items**

**Lovett Street Sidewalks**

As a follow-up to a request from Councilmember Bellamy-Small, at the November 20, 2012 City Council meeting, attached is a memorandum from Transportation Director Adam Fischer, dated December 4, 2012, regarding the upcoming sidewalk installation project on Lovett Street.

**Performing Arts Center**

As a follow-up to a request from Council at the December 4, 2012 City Council meeting, attached are the following:

- Master Plan: Attached is a copy of the Greensboro Performing Arts Center Master Plan PowerPoint.
- Concept Design Estimate from Venue
- Parking Availability: Attached is a memorandum from Transportation Director Adam Fischer, dated December 6, 2012, regarding public parking capacity and availability during the day.

**National League of Cities: Congress of Cities and Exposition**

The National League of Cities *Congress of Cities and Exposition* conference was November 28, 2012, through December 1, 2012. Councilmember Bellamy-Small attended the conference and returned with the 89<sup>th</sup> Annual Business Meeting book, which is available in the City Clerk's office, as well as online at the following website: <http://www.nlc.org/Documents/Influence%20Federal%20Policy/2012-ABM-BOOK.pdf>.

**Contact Center Feedback**

Attached is the weekly report generated by our Contact Center for the week of November 26, 2012 through December 2, 2012.

**Small Group Meetings**

Attached is the Small Group meeting report for the week of November 30, 2012 through December 6, 2012, between City Staff and [more than two but less than five] Councilmembers.

DTR/mm  
Attachments

cc: Office of the City Manager  
Global Media

Department of Transportation  
City of Greensboro



December 4, 2012

**TO:** Denise Turner Roth, City Manager  
**FROM:** Adam Fischer, Director of Transportation  
**SUBJECT:** Lovett Street Sidewalks

At the November 20, 2012, City Council Meeting, inquiries were made into the status of the upcoming sidewalk installation project on Lovett Street and about what information has been provided to affected property owners and neighborhood representatives.

Lovett Street sidewalks between Florida Street and Freeman Mill Road are included in City contract # 2010-1130 / NCDOT Project C-5555A. This contract is anticipated to be advertised for construction in the fall of 2013 and construction is expected to start by early 2014. Right of way acquisition is underway and expected to be completed in the next 8-12 months. Funding support for this project comes from federal CMAQ grant funds and 2008 Transportation Bond funds.

Public notice on the Lovett Street sidewalk plans started with the inclusion of sidewalks along Lovett Street in the voter-approved 2008 bond package. A series of public meetings to determine "Transportation Needs" leading up to the 2008 Transportation Bond referendum were held in the summer of 2008, which included the Lovett Street sidewalk project. Since that time, the Lovett Street sidewalk project has been noted in every informational map and list on upcoming sidewalk construction, including being listed continually on the City web site.

Property owners and occupants were first directly contacted in July 2009 (see attachment). All affected property owners have since been contacted by the Engineering and Inspections Department about surveying for the project and for right-of-way/easement negotiations. Lovett Street was part of the City Council approved municipal agreement for project C-5555A, approved on October 2, 2012.

Design Engineer Guy Ingle met with Brian Higgins on November 16, 2012, to review the plans and any concerns. Mr. Higgins did not express any immediate concern except there may be a few trees impacted that were in decent shape, but most trees had pretty much reached their life expectancy. Mr. Higgins was given a full-size set of plans informational materials to take for review by the Neighborhood Association, and Staff is available to meet with Association representative at their convenience.

AF/tm  
Attachments

cc: Jim Westmoreland, Deputy City Manager  
Tyler Meyer, GDOT Planning Manager

City of Greensboro  
North Carolina

July 13, 2009

JOHN L AZAR  
1510 LOVETT ST  
GREENSBORO, NC 27403-0000

**TAX MAP NO.: 00-00-0108-0-0005-00-005**

**REGARDING PROPERTY AT:** 1510 LOVETT ST  
GREENSBORO, NC 27403-0000

**RE.:** Lovett Street

Install sidewalk West side: Florida Street to Freeman Mill Road. East side: Florida Street to existing sidewalk north of Freeman Mill Road

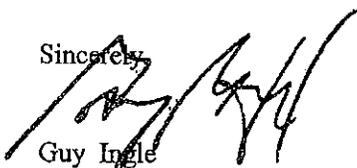
The City of Greensboro has been authorized by Departmental Memo to make certain public improvements within the limits listed above. The City's Engineering Division will need to conduct certain activities on your property in the near future.

The first phase of implementing the improvement(s) will involve making preliminary surveys and examinations of the affected property. These preliminary activities will consist mainly of locating property lines and corners, establishing control points, and gathering information needed by our Engineering staff to locate and design the proposed improvement(s). These activities will begin not less than thirty (30) days from the date of this letter.

As a precaution, please notify this office if you have underground sprinkler system and/or underground invisible fence that may be affected by the Proposed Improvements. Please refer the engineer listed at the bottom of this letter for any correspondence or telephone communication with regards to this improvement.

Following completion of the first phase, the project design will be completed and a determination made as to the necessity for additional easements or rights-of-way. In the event that additional easements or rights-of-way are required, a final survey will be conducted. When completed, land value appraisals will be made and affected property owners will be contacted by the City's Real Estate Agent assigned to the project. You will be notified by the City's Project Engineer before the construction of this improvement begins. Please note, this entire process may take place over an extended period of time. Also, right-of-way may not be required from all of the lands originally involved in the preliminary survey. Your cooperation and assistance is appreciated by our staff working on this City of Greensboro Project. If, for any reason, you object to our entering the property which you own or you need further information, please contact this office at (336) 373-2627.

Sincerely,



Guy Ingle  
Project Engineer  
Engineering Division  
P04840/0004W

City of Greensboro  
North Carolina



July 13, 2009

OCCUPANT  
1504 LOVETT ST  
GREENSBORO, NC

**TAX MAP NO.: 00-00-0108-0-0005-00-002**

**RE.:** Lovett Street

Install sidewalk West side: Florida Street to Freeman Mill Road. East side: Florida Street to existing sidewalk north of Freeman Mill Road

The City of Greensboro has been authorized by Departmental Memo to make certain public improvements within the limits listed above. The City's Engineering Division will need to conduct certain activities on the property which you occupy in the near future.

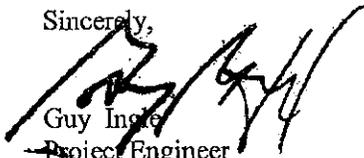
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Sincerely,



Guy Ingle  
Project Engineer  
Engineering Division  
P04840/0002W



Greensboro Performing Arts Center

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## **Concept Design Estimate**

**Greensboro Performing Arts Center**

4 December 2012



## Greensboro Performing Arts Center

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### Introduction

Concept Design Estimate  
Greensboro Performing Arts Center

4 December 2012

Index	Page
• Introduction	1 - 6
• Estimate Summary	7
• Building Cost Elemental Summary	8
• Elemental Summary Pie Chart	9
• Performance Equipment/AV and Seating	10
• Building Estimate	11 – 15
• Mechanical Estimate	16 – 21
• Electrical Estimate	22 – 25
• H3 Concept Plans	26 – 29

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## Greensboro Performing Arts Center

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### Introduction

AMS Planning & Research Corp has commissioned Venue to provide a concept design estimate for the H3 designed Greensboro Performing Arts Center. Venue submits this estimate to assist the Client and design team align program, quality and budget.

### Basis

H3 concept design drawings and documentation dated 12 November form the basis of this estimate. Theatre Consultants Collaborative preliminary list of spaces and performance equipment budget dated 12 October 2012 was also referenced, as was Akustiks Memorandum and sound and AV budget dated 13 November 2012. Reference was also made to extant site conditions.

### Financial Summary

The estimated total Project Cost for the 2,950 seat Greensboro Performing Arts Center in mid-2012 dollars is \$60.5 million. See estimate summary Page 7 and estimate details page 8 - 35.

### Building Summary

- 2,950 seat auditorium
- VIP rooms
- Public spaces
- Performance spaces
- Stage support
- Performer support
- Administration
- Services
- Public circulation
- Back-of-house circulation
- Mechanical and electrical
- Unusable/inaccessible

Gross floor area: 99,620 sf  
Footprint: 48,850 sf

### Estimate Methodology

Detailed quantities were measured from drawings provided and allowances included for systems not yet fully drawn. Current pricing and marketing conditions was confidentially obtained and this cost data included in the concept design estimate.

## Estimate Inclusions

### Typical construction costs:

- Demolition (site)
- Building shell
- Building interiors
- Mechanical & electrical services
- Performance equipment, AV and seating
- Sitework/utilities
- Design/pricing allowance
- General conditions, overhead and profit
- Escalation to mid-2014 bid date
- Construction change order contingency

### Typical soft costs:

- Owner purchase fixtures, fittings and equipment (FF&E)
- Soil borings, geotech, site and utility surveys
- Testing/inspections expenses
- Third party commissioning
- Permits and associated fees
- Professional fees and reimbursables
- Professional liability insurance
- Models, mockups, renderings
- Fundraising
- Public relations
- Legal fees and expenses
- Administrative expenses
- Project management expenses
- Gala pre-opening expenses
- Art allowance
- Owner's overall project contingency

Other Costs: Site Development/Park Pavilion

## Estimate Exclusions

- Contaminated soil treatment/disposal
- Relocation of existing main utilities
- Parking structure/general parking
- Endowment/subsidies
- Owner staff expenses
- Owner moving expenses
- Financing
- Land/site acquisition

## Definitions and Assumptions

The following helps define the terminology and assumptions in this report:

- Building shell includes:
  - Substructure: spread footings; basement & pit excavation; dewatering; no allowance for rock
  - Structure: steel/concrete frame; auditorium has two balconies
  - Acoustical isolation criteria of PNC 20 for the auditorium; no double walls where exposed to exterior; no attic slab to roof, no floating slabs to mechanical rooms and/or mechanical/electrical equipment isolated at source

## Definitions and Assumptions (Cont'd)

- Building shell includes (Cont'd):
  - Exterior enclosure comprise the following, or equal: Walls - western red cedar boards @\$20/sf, insulated metal panels @\$30/sf, corrugated metal siding @ \$10/sf, EIFS @\$8/sf, corrugated perforated mechanical screen @ \$20/sf, Kawneer curtainwall @ \$75/sf, aluminum sunshades @\$25/sf, Roofs - flat white EPDM @ \$10/sf; no skylights; smoke hatches; canopies; signage
- Building interiors include:
  - Partitions and doors: combination cmu-gypsum partitions; gasket and sealed doors to sound critical spaces
  - Conveying systems: Elevators - 2 public, 2 back-of-house, 2 handicapped lifts; Stairs – 5 flights public stairs, 20 flights back-of-house/exit stairs, theater stairs and steps
  - Finishes comprise the following, or equal:
    - Auditorium: Floors: sprung wood floor to stage @ \$28/sf, sealed concrete with carpet to aisles @ \$6/sf, wood floor to stage apron @ \$28/sf; Walls: 30% painted shaped plaster/gypsum @ \$10/sf, 60% acoustic fabric panels @ \$20/sf, 10% wood @ \$50/sf; Ceilings: 25% painted flat gypsum ceiling panels with fabric @ \$50/sf with ductliner to underside of roof decking, painted flat gypsum to underside of balconies @ \$10/sf; parapet rails to balconies @ \$300/sf
    - VIP Rooms: Floors: carpet @ \$7/sf; Walls: 50% fabric panels @ \$15/sf, 50% paint; Ceilings: painted flat gypsum @ \$20/sf
    - Lobbies and public circulation: - Floors: carpet @ \$7/sf; Walls: painted gypsum @ \$5/sf Ceilings: painted shaped gypsum to main lobby @ \$15/sf and painted gypsum to public circulation @ \$8/sf
    - Basic functional standard to balance of back-of-house spaces
- Performance equipment/AV and seating allowance includes:
  - Performance draperies
  - Performance curtain tracks
  - Performance manual rigging
  - Performance powered rigging
  - Audience seating wagons
  - Proscenium safety curtain
  - Adjustable proscenium and shell
  - Performance power and controls
  - Performance lighting instruments and accessories
  - Fixed performance seating
  - Main sound reinforcement system
  - Performance video and projection systems
  - Orchestra enhancement system



## Greensboro Performing Arts Center

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### Definitions and Assumptions (Cont'd)

- **Electrical** includes services and distribution, lighting, devices and controls, systems and ancillaries and performance equipment accommodation – specifically -
  - Distribution and Services - utility power feeds a new 2000KVA power transformer; normal power supplied at 3000A 277/480V through a new main switchboard; emergency power supplied by emergency batteries only; 1200A 120/208V distribution switchboard provides power to 6 dimmer racks; power connection to new mechanical equipment from a 1000A 480V mechanical distribution panel; new panels provide for mechanical and house loads; building and technical grounding systems; lightning protection system
  - Lighting, Devices and Heating - energy efficient fluorescent fixtures and LED fixtures fed from the normal and emergency power lighting panels; lighting control uses a central LV control panel interfaced with the production dimming systems; new devices installed to meet general maintenance and specialty requirements for production facilities; wiring for 20A dimmer circuits run from the dimmer racks to the outlets in the theater areas with the rigging power circuitry; power wiring and connections to the heating components of the mechanical equipment provided
  - Systems and Ancillaries - addressable fire alarm EVAC system, security access and CCTV, communications and PA; complete conduit and wiring system for the production equipment and AV; supply and installation of production equipment provided by others
- **Mechanical** allowances includes for plumbing and drainage, fire protection, Heating, Ventilating, Air Conditioning (H.V.A.C.) – specifically –
  - Plumbing and Drainage - high quality low water conserving electronically activated urinals in front-of-house and manual flush water closets and lavatories; central natural gas fired high efficiency potable water generation and storage; domestic hot, cold and recirculation potable water piping to fixtures and fittings throughout; gravity flow sanitary waste (and vent) collection system from fixtures, fittings, floor drains and equipment throughout connected to site sanitary services; oil interceptor at loading / receiving area; full flow storm drainage with roof drains complete with collection piping connected to site services and adjacent overflow system (daylight) spilling to grade; weeping tile / ground water and sanitary sump pump assemblies for below grade areas unable to flow by gravity (such as the orchestra pit); natural gas service to appliances and equipment throughout

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## Definitions and Assumptions (Cont'd)

### Mechanical (Cont'd)

- Fire Protection - sprinkler head and fire hose cabinet coverage to fully protect the building throughout via a combination fire standpipe and fire hose cabinet (FHC) and sprinkler system to suit local codes; auditorium stage has FHC's both sides; fire hose cabinets provided in exit stairs and general coverage throughout; fire extinguishers provided throughout; dry sprinkler coverage extends to the overhang areas outside the building footprint; deluge sprinkler system provided in lieu of a fire curtain at the proscenium stage opening
  
- Heating, Ventilating, Air Conditioning (H.V.A.C.) –
  - An air cooled chilled water comprising 2 no 175 ton low kw/ton consumption chillers, natural gas fired high efficiency heating boilers, circulation pumps with VFD's, air and expansion control and operating controls
  - Thermally insulated chilled and heating water piping extend from the packaged units to air handling units, and terminal units throughout
  - Generally high heat loss areas such as glazed walls provided with wall fin radiation and force flow heaters, and other low heat loss areas such as offices will be served from reheat coils in VAV boxes
  - Air handling units total 115,000 CFM with 4 units serving areas as follows:
    - Auditorium incl. orchestra pit: contract variable volume overhead system with low level sidewall returns
    - Balconies in auditorium: constant variable volume displacement under floor system
    - Stage: constant variable volume low level supply high level return
    - Back of house and VIP rooms: (one of two units) variable air volume overhead system
    - Lobby front of house: variable air volume overhead system
  - Custom single zone, outdoor rooftop mounted air handling units "fan wall" technology with noise-critical acoustic under-floor conditioned air distribution system to serve the auditorium (stage, audience chamber and orchestra pit) PNC 20
  - Custom VAV outdoor rooftop mounted air handling units with conditioned air distribution to front-of-house, semi-custom or standard high quality commercial outdoor roof mounted air handling units to serve back-of-house, administrative support and public areas PNC 25-40
  - Control/dimmer rooms and instrument storage / piano storage rooms have independent auxiliary special environmental cooling / conditioning systems to maintain precise temperatures
  
- Life Safety Support - outdoor self-contained generators assembly by Electrical contractor
  
- Controls and Automation - Fully distributed digital control and automation system to regulate, optimize and monitor building systems; air handling units and chiller/boiler plant units are factory supplied with BACnet control / operating system for interface / connection to building automation system



## Greensboro Performing Arts Center

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### Definitions and Assumptions (Cont'd)

#### Mechanical (Cont'd)

- General- all systems / services located and routed for acoustic sensitivity and noise transfer elimination; all systems seismically restrained; where required to meet life safety and building codes all materials are prime quality meeting or exceeding code requirements
- Sitework/utilities includes for basic mechanical and electrical work associated with the building
- Design/pricing contingency allows for ongoing design detailing that will occur until drawings are complete and for quantity measurement and pricing adjustments
- General conditions, overhead and profit includes all requirements for the general contractor (or construction manager), at a competitive rate
- Escalation to bid date allows for normal price increases that will likely occur between now and the projected mid 2014 bid date and for unforeseen pricing fluctuations and market conditions - it should be noted that the construction bidding climate in Greensboro is still very competitive due to the current economic situation, and this level of pricing has been utilized in the concept design estimate - there could be an uplift in the market between now and when the project is bid and this is allowed for in the escalation contingency which will be continually monitored between now and the bid date; however and any final adjustment to pricing can only be made with any certainty once market conditions at bid time are known
- Construction change order contingency is for ground conditions variances, coordination conflicts on the drawings and other minor errors and omissions that may occur during the construction phase of the project (owner changes not included)

Note: Venue has no control over the cost of labor, materials or equipment, the general contractor/construction manager's bid prices, competitive/negotiated bidding, or market conditions. Whilst Venue cannot warrant that bids or negotiated prices will not vary from any estimate prepared, we do however use our best endeavors and experience to ensure that our estimate closely reflects the anticipated bid cost.



**Greensboro Performing Arts Center  
Concept Estimate - Drawings Received 11/27/2012**

**Estimate Summary**

**4 December 2012**

<i>ITEM</i>		<i>AMOUNT</i>	
A Demolition (Site)		\$0	} \$ 394 /gsf
B Building Shell		\$13,865,000	
C Building Interiors		\$8,150,000	
D Mechanical & Electrical Services		\$10,625,000	
E Performance Equipment/AV & Seating		\$6,640,000	
F Utilities		\$370,000	
G Design/Pricing Contingency	7%	\$2,775,000	
H General Conditions, Overhead & Profit	11%	\$4,665,000	
I Escalation to mid 2014	4%	\$1,885,000	
<b>TOTAL BID COST IN MID 2014 DOLLARS</b>		<b>\$48,975,000</b>	<b>\$ 492 /gsf</b>
J Construction Change Order Contingency	3%	\$1,470,000	
<b>TOTAL CONSTRUCTION COST IN MID 2014 DOLLARS</b>		<b>\$50,445,000</b>	<b>\$ 506 /gsf</b>
K Soft Costs	20%	\$10,090,000	
<b>TOTAL PROJECT COST IN MID 2014 DOLLARS</b>		<b>\$60,535,000</b>	<b>\$ 608 /gsf</b>
<b>BUDGET</b>		<b>\$60,000,000</b>	
<b>BUDGET DIFFERENTIAL</b>		<b>\$535,000</b>	
<b>Overall Gross Floor Area</b>		<b>99,620</b>	<b>gsf</b>



**Greensboro Performing Arts Center**  
**Concept Estimate - Drawings Received 11/27/2012**

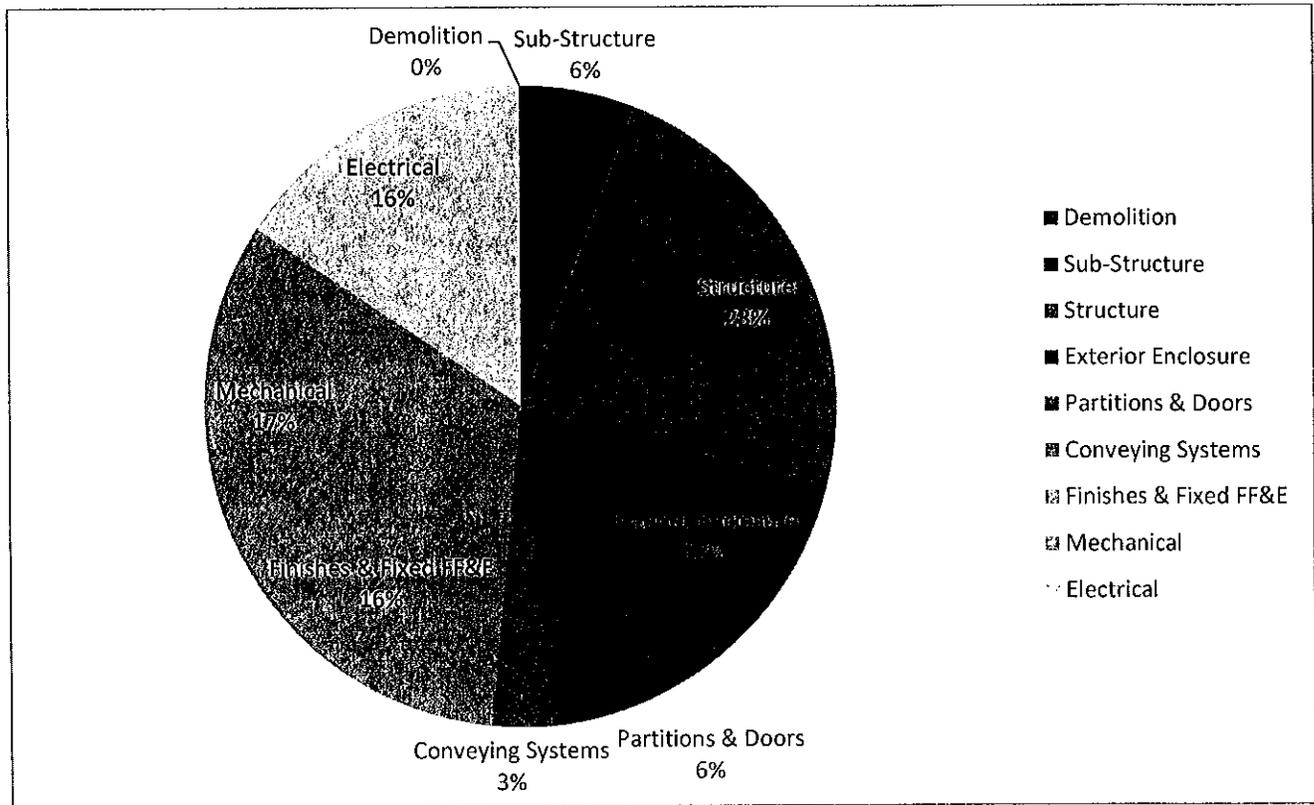
**Building Cost Elemental Summary**

**4 December 2012**

ELEMENT	Total	\$ per gsf	% ELEMENT
<b>A DEMOLITION</b>	\$0	\$0.00	0%
<b>B SHELL</b>	\$13,865,000		
<b>B1 Sub-Structure</b>	\$1,915,000	\$19.22	6%
B1.1 Excavation	\$445,000	\$4.47	
B1.2 Foundations	\$710,000	\$7.13	
B1.3 Slab-on-grade	\$385,000	\$3.86	
B1.4 Basement Walls	\$375,000	\$3.76	
<b>B2 Structure</b>	\$7,560,000	\$75.89	23%
B2.1 Structure	\$7,560,000	\$75.89	
<b>B3 Exterior Enclosure</b>	\$4,390,000	\$44.07	13%
B3.1 Roofs	\$675,000	\$6.78	
B3.2 Walls Above Grade	\$2,365,000	\$23.74	
B3.3 Windows & Exterior Doors	\$910,000	\$9.13	
B3.4 Projections	\$440,000	\$4.42	
<b>C INTERIORS</b>	\$8,150,000		
<b>C1 Partitions &amp; Doors</b>	\$1,955,000	\$19.62	6%
C1.1 Partitions	\$1,425,000	\$14.30	
C1.2 Interior Doors	\$530,000	\$5.32	
<b>C2 Conveying Systems</b>	\$1,010,000	\$10.14	3%
C2.1 Stairs	\$635,000	\$6.37	
C2.2 Elevators & Escalators	\$375,000	\$3.76	
<b>C3 Finishes &amp; Fixed FF&amp;E</b>	\$5,185,000	\$52.05	16%
C3.1 Performance & Public Spaces	\$4,325,000	\$43.41	
C3.2 Back-of-house Spaces	\$860,000	\$8.63	
<b>D MECHANICAL &amp; ELECTRICAL SERVICES</b>	\$10,625,000		
<b>D1 Mechanical</b>	\$5,535,000	\$55.56	17%
D1.1 Plumbing & Drainage	\$1,005,000	\$10.09	
D1.2 Fire Protection	\$485,000	\$4.87	
D1.3 Heating, Vent, Air Cond	\$3,605,000	\$36.19	
D1.4 Controls	\$440,000	\$4.42	
<b>D2 Electrical</b>	\$5,090,000	\$51.09	16%
D2.1 Service & Distribution	\$1,415,000	\$14.20	
D2.2 Lighting, Devices & Controls	\$2,385,000	\$23.94	
D2.3 Systems & Ancillaries	\$1,290,000	\$12.95	

<b>TOTAL BUILDING ELEMENTAL COST</b>	<b>\$32,640,000</b>	<b>\$327.65</b>	<b>100%</b>
<b>GROSS FLOOR AREA</b>	<b>99,620</b>		

Elemental Summary Pie Chart





**Greensboro Performing Arts Center**

**Concept Estimate - Drawings Received 11/27/2012**

**Performance Equipment/AV & Seating**

**4 December 2012**

**Performance Equipment Systems**

*per TCC*

Performance Draperies - 11062 / 11 61 43	\$64,775	
Performance Curtain Tracks - 11063 / 11 61 44	\$13,200	
Performance Manual Rigging - 11064 / 11 61 33	\$520,000	
Performance Powered Rigging - 11065 / 11 61 35	\$92,000	main drape, shell speaker hoists
Audience Seating Wagons - 11066 / 11 61 36	\$240,000	
Proscenium Safety Curtain - 11067 / 11 61 37	\$0	deluge system
Adjustable Proscenium & Shell - 11069 / 11 61 13	\$260,000	
Orchestra Pit Lifts - 11941 / 11 61 39	\$640,000	
Performance Power And Controls - 11961 / 11 61 61	\$351,540	
Performance Lighting Instruments And Accessories - 11964 / 11 61 64	\$308,269	
Performance Seating Fixed - 12710 / 12 61 13	\$1,050,000	

**Performance Audio, Video And Communications**

*Per Akustiks*

Main sound reinforcement system	\$1,100,000	
Performance, video & projection systems	\$1,500,000	
Orchestra enhancement system	\$500,000	

**Total Performance Equipment/AV & Seating**

**\$6,639,784**

**Greensboro Performing Arts Center**  
**Concept Estimate - Drawings Received 11/27/2012**

**Estimate**

**4 December 2012**

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Amount</i>	<i>Comments</i>
<b>A. DEMOLITION</b>					
<b>A.1.1 Demolition</b>					
Demolition of existing buildings		allowance		0	by City, if required
Removal of existing car park paving		allowance		0	by City, if required
<b>Total for Demolition</b>				<b>\$0</b>	
<b>B. BUILDING SHELL</b>					
<b>B1 Sub-Structure</b>					
<b>B.1.1 Excavation</b>					
Excavate and haul					
- soil	8,100	cy	18.00	145,800	
- rock				0	excluded
Imported backfill	12,500	cy	20.00	250,000	
Dewatering		allowance		50,000	
<b>Total for Excavation</b>				<b>\$445,800</b>	
<b>B.1.2 Foundations</b>					
Spread footings		allowance		650,000	
Elevator pits:					
- public	2	ea	15,000.00	30,000	
- boh/service	2	ea	15,000.00	30,000	
<b>Total for Foundations</b>				<b>\$710,000</b>	
<b>B.1.3 Slab-on-Grade</b>					
Basement level	5,600	sf	7.50	42,000	varying thickness
Grade level					
- sloping/stepped	8,900	sf	9.50	84,600	
- flat	34,350	sf	7.50	257,600	
Acoustic isolation joints				0	
<b>Total for Slab-on-Grade</b>				<b>\$384,200</b>	
<b>B.1.4 Basement Walls</b>					
12" thick	14,350	sf	26.00	373,100	
<b>Total for Basement Walls</b>				<b>\$373,100</b>	

**Greensboro Performing Arts Center  
Concept Estimate - Drawings Received 11/27/2012**

**Estimate**

**4 December 2012**

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Amount</i>	<i>Comments</i>
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**B.2 Structure**

**B.2.1 Structure**

Framed floor/roof structure	101,422	sf	61.50	6,237,500	
Stage grid	6,210	sf	39.00	242,200	
Forestage rigging beams		allowance		60,000	
M&E roof dunnage		allowance		20,000	
Catwalks:					
- stagehouse galleries	150	lf	525.00	78,800	
- lighting catwalks	550	lf	450.00	247,500	
Fireproofing		allowance		210,000	
Acoustic premiums:					
- floating slabs at M&E spaces				0	excluded
Acoustic isolation joints				0	excluded
Miscellaneous metals		allowance		400,000	
Firesafing		allowance		65,000	

**Total for Structure** **\$7,561,000**

**B3 Exterior Enclosure**

**B.3.1 Roofs**

White EPDM roofing	50,650	sf	10.00	506,500	incl flashings, etc.
Smoke hatches		allowance		80,000	
Rough carpentry		allowance		90,000	

**Total for Roofs** **\$676,500**

**B.3.2 Walls Above Grade**

Western Red Cedar boards on prefabricated metal stud panels (elsewhere) in panels size 20' x 5'	37,540	sf	20.00	750,800	
Insulated metal panels w/ Kawneer finish on prefabricated metal stud panels (elsewhere) in panels size 20' x 5'	15,000	sf	30.00	450,000	
Corrugated metal siding	5,000	sf	10.00	50,000	mechanical wells
EIFS	8,300	sf	8.00	66,400	
Rear of parapets	5,700	sf	13.00	74,100	
Backup	65,840	sf	12.00	790,100	

**Greensboro Performing Arts Center**  
**Concept Estimate - Drawings Received 11/27/2012**

**Estimate**

**4 December 2012**

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Amount</i>	<i>Comments</i>
<b>B3 Exterior Enclosure (Cont'd)</b>					
<b>B.3.2 Walls Above Grade (Cont'd)</b>					
Copings	1,900	lf	35.00	66,500	
Louvers				0	not required
Caulking & sealing	allowance			115,000	
Acoustic isolation joints				0	
<b>Total for Walls Above Grade</b>				<b>\$2,362,900</b>	
<b>B.3.3 Windows and Exterior Doors</b>					
Kawneer curtainwall	7,850	sf	75.00	588,800	
24" deep aluminum sun shades	7,850	sf	25.00	196,300	
Punched windows	1,000	sf	40.00	40,000	
Doors					
- glazed	10	ea	3,500.00	35,000	
- metal	10	ea	1,750.00	17,500	
- overhead	3	ea	10,000.00	30,000	
<b>Total for Windows and Exterior Doors</b>				<b>\$907,600</b>	
<b>B.3.4 Projections</b>					
Soffits					
- truck dock	1,800	sf	30.00	54,000	
Screen walls including supporting structure					
- 24" Kawneer aluminum shades	910	sf	50.00	45,500	entrance lobby
- corrugated perforated screen wall	4,550	sf	30.00	136,500	mech wells
Loading dock					
- receiving dock	allowance			25,000	
- truck dock paving	942	sf	8.00	7,500	
- loading dock equipment	3	ea	15,000.00	45,000	
Projections, canopies, etc.	allowance			50,000	
Exterior signage	allowance			75,000	
<b>Total for Projections</b>				<b>\$438,500</b>	

**Greensboro Performing Arts Center**  
**Concept Estimate - Drawings Received 11/27/2012**

**Estimate**

**4 December 2012**

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Amount</i>	<i>Comments</i>
<b>C. INTERIORS</b>					
<b>C1.1 Partitions</b>					
Glazed	1,000	sf	50.00	50,000	
Block/gypsum	148,000	sf	9.00	1,332,000	
Acoustic isolation joints				0	
Firesafing		allowance		45,000	
<b>Total for Partitions</b>				<b>\$1,427,000</b>	
<b>C1.2 Interior Doors</b>					
Oversized STC	2	pr	25,000.00	50,000	
Gasket and sealed	85	lvs	2,500.00	212,500	allowance
Balance	145	lvs	1,500.00	217,500	
Fire shutters		allowance		50,000	
<b>Total for Interior Doors</b>				<b>\$530,000</b>	
<b>C2.1 Stairs</b>					
Public	5	flts	55,000.00	275,000	
Auditorium		allowance		90,000	
Fire exiting	20	flts	13,500.00	270,000	
<b>Total for Stairs</b>				<b>\$635,000</b>	
<b>C2.2 Elevators &amp; Escalators</b>					
Public, 3 stops	2	ea	100,000.00	200,000	
Boh, 3 stops	1	ea	75,000.00	75,000	
Boh, 2 stops	1	ea	60,000.00	60,000	
Handicapped lifts	2	ea	20,000.00	40,000	
<b>Total for Elevators &amp; Escalators</b>				<b>\$375,000</b>	

**Greensboro Performing Arts Center**  
**Concept Estimate - Drawings Received 11/27/2012**

**Estimate**

**4 December 2012**

<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Amount</i>	<i>Comments</i>
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**C. INTERIORS (CONT'D)**

**C3 Finishes & Fixed FF&E**

**C3.1 Performance & Public Spaces**

Stage/orchestra shell	6,478	sf	36.00	233,200	
Audience chamber/orch pit	28,685	sf	63.00	1,807,200	
Public lobby/circulation	21,612	sf	50.00	1,080,600	
Public restrooms	7,915	sf	54.00	427,400	
VIP Rooms	2,608	sf	67.00	174,700	
Perf equipment accommodation		allowance		100,000	
Scaffolding					
- auditorium		allowance		500,000	
Donor recognition					excluded

**Total for Performance & Public Spaces**

**\$4,323,100**

**C3.2 Back-of-House Spaces**

Control/dimmer rooms/box office	1,117	sf	49.00	54,700	
Catering/BOH toilets/dressing/lockers	5,860	sf	39.00	228,500	
Offices/lounges	2,460	sf	11.00	27,100	
Workshops	2,462	sf	9.00	22,200	
Piano/instrument/general storage	3,673	sf	8.00	29,400	
BOH circulation/S&LL's	10,731	sf	10.00	107,300	
MEP spaces	1,859	sf	10.00	18,600	
Unusable/inaccessible	4,162	sf		0	
Restroom accessories		allowance		195,000	
Interior signage		allowance		125,000	
Acoustical isolation joints				0	
Rough carpentry		allowance		50,000	
Food service equipment					excluded

**Total for Back-of-House Spaces**

**\$857,800**

MECHANICAL ESTIMATE SUMMARY  
 GREENSBORO PERFORMING ARTS CENTER  
 CONCEPT ESTIMATE  
 DECEMBER 4, 2012



Gross Floor Area **99,622 SF**

Description Element\Sub-Element	Specialty Sub Break down	Sub Element Total	Element Total	\$ per SF Sub Element	\$ per SF Element	% Element
<b>D1 Mechanical</b>						
<b>D1.1 Plumbing &amp; Drainage</b>			<b>\$1,002,760</b>		<b>\$10.07</b>	<b>18.1%</b>
D1.11 - Plumbing Fixtures		\$262,646		\$2.64		
D1.12 - Domestic Water		\$210,000		\$2.11		
D1.13 - Sanitary Waste & Vent		\$197,658		\$1.98		
D1.14 - Storm		\$127,018		\$1.28		
D1.15 - Natural Gas		\$49,811		\$0.50		
D1.16 - Specialty Systems:		\$25,404		\$0.26		
- D1.16.1 - Softened Water	\$0					
- D1.16.2 - Seismic / Hurricane Restraints	\$25,404					
- D1.16.3 - LEED / Sustainability	\$0					
D1.17 - Miscellaneous Works and General Accounts		\$130,223		\$1.31		
<b>D1.2 Fire Protection</b>			<b>\$484,334</b>		<b>\$4.86</b>	<b>8.8%</b>
D1.21 - Standpipe		\$74,717		\$0.75		
D1.22 - Sprinklers		\$374,731		\$3.76		
D1.23 - Seismic / Hurricane Restraints		\$29,887		\$0.30		
D1.24 - Fire Extinguisher		\$5,000		\$0.05		
D1.25 - Miscellaneous Works and General Accounts		\$0		\$0.00		
<b>D1.3 Heating, Ventilation &amp; Air Conditioning</b>			<b>\$3,603,733</b>		<b>\$36.17</b>	<b>65.2%</b>
D1.31 - Heating System		\$0		\$0.00		
D1.32 - Cooling System		\$905,126		\$9.09		
D1.33 - Humidification		\$73,313		\$0.74		
D1.34 - Air Distribution		\$1,714,032		\$17.21		
D1.35 - Exhaust Systems		\$74,717		\$0.75		
D1.36 - Specialty Systems		\$0		\$0.00		
D1.37 - Support Systems and Works		\$364,617		\$3.66		
- D1.37.1 - Noise and Vibration Isolation	\$99,622					
- D1.37.2 - Mechanical Wiring and Starters	\$29,887					
- D1.37.3 - Balancing and Commissioning	\$99,622					
- D1.37.4 - Stage Smoke Exhaust	\$0					
- D1.37.5 - Smoke Exhaust	\$0					
- D1.37.6 - LEED / Sustainability	\$0					
- D1.37.7 - Seismic / Hurricane Restraint	\$50,807					
- D1.37.8 - Acoustic Treatments	\$84,679					
- D1.37.9 - 24/7 Cooling Systems	\$0					
- D1.37.10 - Generator Support	\$0					
D1.38 - Miscellaneous Works and General Accounts		\$471,930		\$4.74		
<b>D1.4 Controls</b>			<b>\$438,194</b>		<b>\$4.40</b>	<b>7.9%</b>
D1.41 - Controls and Automation		\$438,194		\$4.40		
D1.42 - Miscellaneous Works and General Accounts		\$0		\$0.00		
<b>Total Building (D1) Mechanical</b>			<b>\$5,529,021</b>		<b>\$55.50 Per SF</b>	

No.	Description	Quant.	Unit	Rate	Total	Cost/SF
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**D1. SERVICES - MECHANICAL**

**D1.1 Plumbing & Drainage**

**D1.11 - Plumbing Fixtures**

\$262,646	\$2.64
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Water conserving, commercial quality plumbing fixtures and fittings (total 303 no) will be provided including:

- Water closets with manual flush valves in public areas (103no)
- Water closets with manual flush valves in private areas (16no)
- Urinals with electronic no touch flush valves in public areas (31no)
- Lavatories with manual faucets in public areas (96no)
- Lavatories with manual faucets in private areas (22no)
- Janitor mop basins in custodial closets (5no)
- Bath tubs / Showers in change rooms (16no)
- Dual level drinking fountains - refrigerated (6no)
- Dish washer, faucet, laundry hook-ups (8no)

**D1.12 - Domestic Water**

\$210,000	\$2.11
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Domestic cold water will be extended from the new incoming municipal water service to the building to fixtures and fittings throughout, as well as kitchenette, laundry and bars equipment, mechanical systems and general interior and exterior hose bibb coverage. All domestic cold water will be thermally insulated.

Domestic hot water will be extended from central natural gas high efficiency hot water storage tanks / heaters (2 @ 200 gallons) to plumbing fixtures and fittings throughout. All domestic hot water will be thermally insulated. Recirculation loop and pump will be provided.

A water booster pump set is not required

**D1.13 - Sanitary Waste & Vent**

\$197,658	\$1.98
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A complete system of sanitary waste and vent collection will be provided to serve plumbing fixtures, floor drains and equipment throughout. Service will be connected to municipal street sanitary sewer. Drainage unable to flow by gravity will be pumped via a duplex sanitary sump pump assemblies.

**D1.14 - Storm**

\$127,018	\$1.28
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A complete systems of roof/storm cast iron, water drainage will be provided to collect rainwater from roofs. Service will connected to municipal street site storm sewer. Adjacent overflow drains will be spilled to daylight at grade.

Foundation weeping tiles will be connected to the building storm drainage via a duplex pumping assembly.

Provisions for rain water harvesting cistern and grey water supply to water closets and urinals have not been included

Loading / Receiving area will be provided with an area drain (see site estimate)

**D1.15 - Natural Gas**

\$49,811	\$0.50
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A complete system of natural gas will be provided to serve boilers, domestic hot water heaters, laundry equipment and heating / cooling plant equipment and the like. The incoming meter / regulator assembly will be provided at no cost by the gas utility company.

**D1.16 - Specialty Systems:**

\$25,404	\$0.26
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No.	Description	Quant.	Unit	Rate	Total	Cost/SF
	<b>D1.16.2 - Seismic / Hurricane Restraints</b>				\$25,404	\$0.26
	Premium for seismic / hurricane restraint bracing					
	<b>D1.16.3 - LEED / Sustainability</b>				\$0	\$0.00
	Not included					
	<b>D1.17 - Miscellaneous Works and General Accounts</b>				\$130,223	\$1.31
	Supervision, site office, head office overheads, submittals, premium of loss of productivity time, small tools, rentals and the like.					
	<b>TOTAL FOR MECHANICAL - Plumbing &amp; Drainage</b>	1.00	99,622 SF	\$10.07	\$1,002,760	
	<b><u>D1.2 Fire Protection</u></b>					
	<b><u>D1.21 - Standpipe</u></b>				\$74,717	\$0.75
	Fire water main will be extended from incoming municipal water service					
	The building shall be provided with a combination fire standpipe and fire hose cabinet (FHC) and sprinkler system to suit local codes. Main Hall stage shall have FHC's at both sides. Fire hose cabinets shall be provided in exit stairs and general coverage throughout.					
	<b><u>D1.22 - Sprinklers</u></b>				\$374,731	\$3.76
	The building will be fully fire sprinkler protected with wet system to local codes and NFPA regulations, for ordinary hazard coverage on stage and light hazard coverage elsewhere.					
	A dry zone will be provided for the loading / receiving area					
	A fire water booster pump assembly will be provided to boost service pressure @ 500gpm to serve the building					
	A deluge system will be provided at the Proscenium Stage opening					
	<b><u>D1.23 - Seismic / Hurricane Restraints</u></b>				\$29,887	\$0.30
	Premium for seismic / hurricane restraint bracing					
	<b><u>D1.24 - Fire Extinguisher</u></b>				\$5,000	\$0.05
	Individual fire extinguishers will be provided to meet local codes and NFPA regulations. Extinguishers will be surface mounted in secondary areas and in cabinets in common (public) areas.					
	<b><u>D1.25 - Miscellaneous Works and General Accounts</u></b>				\$0	\$0.00
	Supervision, site office, head office overheads, submittals, premium of loss of productivity time, small tools, rentals and the like.					
	Included in above rates					
	<b>TOTAL FOR MECHANICAL - Fire Protection</b>	1.00	99,622 SF	\$4.86	\$484,334	

No.	Description	Quant.	Unit	Rate	Total	Cost/SF
<b><u>D1.3 Heating, Ventilation &amp; Air Conditioning</u></b>						
	<b><u>D1.31 - Heating System</u></b>				\$0	\$0.00
	See D1.32 below					
	<b><u>D1.32 - Cooling System</u></b>				\$905,126	\$9.09
	The cooling plant will consist of two 175 ton nominal capacity air cooled chillers and two high efficiency condensing boilers each c/w circulation pumps w/VFD's, air and expansion control and operating controls					
	Thermally insulated chilled water and heating water piping will be extended from the HVAC plant to air handling unit coils, terminal units and perimeter heating units throughout.					
	<b><u>D1.33 - Humidification</u></b>				\$73,313	\$0.74
	Humidification will be achieved by electric humidifiers at each AHU.					
	<b><u>D1.34 - Air Distribution</u></b>				\$1,714,032	\$17.21
	Ventilation and cooling air will be delivered to all occupied areas of the building via custom quality central outdoor rooftop mounted air handling units each with cooling section, heating section, filter section and 100% outdoor air economizer mixing section and access section, totaling 115,000 CFM and supplemented with localized spot cooling units to suit special purpose needs. Constant variable volume AHU's with noise-critical acoustic overhead conditioned air distribution system will serve the Main Hall PNC 25. Semi-custom or standard commercial high quality variable air volume AHU's feeding conditioned air distribution to back of house and administration support and public areas PNC 25-40, will supply conditioned air to the spaces via a network of sheetmetal ducts to localized air control terminals (VAV boxes and/or VAV w/ reheat coils) and supply air diffusers.					
	- Main Hall: Contract variable volume overhead system with low level sidewall returns and Balconies in hall: Constant variable volume displacement under floor system					
	- Stage: Constant variable volume low level supply high level return					
	- Back of house and VIP rooms: variable air volume overhead system					
	- Lobby front of house: variable air volume overhead system					
	- Park pavilion (not in day one scope except for infrastructure capacity): variable volume overhead system					
	Provision for auxiliary 24/7 cooling systems for dimmer rooms / control rooms, instrument / piano storage rooms and the like					
	Generally, air will be recirculated to conserve energy, with adequate outside air introduced to ensure proper outdoor air volumes are maintained as well as making up sufficient air to exhaust system such as washrooms and catering support areas. Ceiling voids will be utilized to convey return air to main riser shaft locations. Free cooling via introduction 100% outdoor air during suitable outdoor conditions will also be provided.					
	<b><u>D1.35 - Exhaust Systems</u></b>				\$74,717	\$0.75
	Multiple central washroom / change room and support areas exhaust systems with exhaust fans, sheetmetal ductwork and grilles					
	<b><u>D1.36 - Specialty Systems</u></b>				\$0	\$0.00
	No work required					

No.	Description	Quant.	Unit	Rate	Total	Cost/SF
	<b><u>D1.37 - Support Systems and Works</u></b>				\$364,617	\$3.66
	<b>D1.37.1 - Noise and Vibration Isolation</b>				\$99,622	\$1.00
	Vibration isolators and ductwork silencers will be provided to ensure quiet operation and to ensure noise levels from operation do not exceed PNC25 in the Main Hall, PNC25-40 in other occupied spaces.					
	<b>D1.37.2 - Mechanical Wiring and Starters</b>				\$29,887	\$0.30
	Each motorized item of mechanical equipment will be provided with a motor control center, loose starter and/or disconnect switch to isolate power supply and to stop/start equipment.					
	<b>D1.37.3 - Balancing and Commissioning</b>				\$99,622	\$1.00
	The HVAC systems will be balanced to design flow rates and equipment placed into prime operating condition via enhanced commissioning practices.					
	<b>D1.37.4 - Stage Smoke Exhaust</b>				\$0	\$0.00
	A central stage smoke exhaust hatch and ductwork will be provided to serve the Main Hall - By G.C. - System will be activated by fire alarm system.					
	<b>D1.37.5 - Smoke Exhaust</b>				\$0	\$0.00
	Via air handling systems if required					
	<b>D1.37.6 - LEED / Sustainability</b>				\$0	\$0.00
	Not included					
	<b>D1.37.7 - Seismic / Hurricane Restraint</b>				\$50,807	\$0.51
	Premium for Seismic / Hurricane restraint bracing					
	<b>D1.37.8 - Acoustic Treatments</b>				\$84,679	\$0.85
	Provision for duct lagging, vinyl wrap, sound traps and the like for stage / auditorium distribution system					
	<b>D1.37.10 - Generator Support</b>				\$0	\$0.00
	Self contained unit by Electrical Contractor					
	<b><u>D1.38 - Miscellaneous Works and General Accounts</u></b>				\$471,930	\$4.74
	Supervision, site office, head office overheads, submittals, premium of loss of productivity time, small tools, rentals and the like.					
	<b>TOTAL FOR MECHANICAL - HVAC</b>	1.00	99,622	SF	\$36.17	\$3,603,733

No.	Description	Quant.	Unit	Rate	Total	Cost/SF
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**D1.4 MECHANICAL - Controls**

**D1.41 - Controls and Automation**

\$438,194	\$4.40
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A central building management and control system will be provided to optimize energy conservation and comfort and to control, report and alarm mechanical systems. The system will be web based using DDC technology and will have central head end computer work station within the building. Generally the central cooling / heating plant packaged units and air handling units will be provided with factory installed BACnet controls interfaced to this management system. Ventilation rates will be controlled by main duct run mounted carbon dioxide sensors throughout the building.

**D1.42 - Miscellaneous Works and General Accounts**

\$0	\$0.00
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Supervision, site office, head office overheads, submittals, premium of loss of productivity time, small tools, rentals and the like.

Included in above rates

**TOTAL FOR MECHANICAL - Controls**

1.00	99,622	SF	\$4.40	\$438,194
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Total Mech Unit Rate 

\$57.46
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Description Element\Sub-Element	Sub Element Total	Element Total	\$ per SF Sub Element	\$ per SF Element	% Element
<b>D2 Electrical</b>					
<b>D2.1 Service &amp; Distribution</b>		<b>\$1,417,464</b>		<b>\$14.23</b>	<b>27.8%</b>
D2.11 - Incoming Power Service	\$200,000		\$2.01		
D2.12 - Emergency Power	\$64,125		\$0.64		
D2.13 - Distribution	\$360,000		\$3.61		
D2.14 - Feeders	\$355,000		\$3.56		
D2.15 - Motor Controls & Wiring	\$150,000		\$1.51		
D2.16 - Grounding	\$103,000		\$1.03		
D2.17 - General Requirements	\$185,339		\$1.86		
<b>D2.2 Lighting, Devices &amp; Heating</b>		<b>\$2,385,799</b>		<b>\$23.95</b>	<b>46.8%</b>
D2.21 - Lighting	\$1,571,000		\$15.77		
D2.22 - Branch Devices & Wiring	\$487,500		\$4.89		
D2.23 - Heating	\$9,000		\$0.09		
D2.24 - General Requirements	\$318,299		\$3.20		
<b>D2.3 Systems &amp; Ancillaries</b>		<b>\$1,289,728</b>		<b>\$12.95</b>	<b>25.3%</b>
D2.31 - Fire Alarm System	\$170,000		\$1.71		
D2.32 - Security System	\$190,000		\$1.91		
D2.33 - Communications Systems	\$100,000		\$1.00		
D2.34 - Public Address (P.A.) System	\$635,000		\$6.37		
D2.35 - Miscellaneous	\$25,000		\$0.25		
D2.36 - General Requirements	\$169,728		\$1.70		
<b>Total Building (D2) Electrical</b>		<b>\$5,092,991</b>		<b>\$51.12 Per SF</b>	

No.	Description	Quant.	Unit	Rate	Total	Cost/SF
<b><u>D2.1 ELECTRICAL - Service &amp; Distribution</u></b>						
	<b><u>D2.11 - Incoming Power Service</u></b>				\$200,000	\$2.01
	The incoming 3000A secondary feeder will terminate in a 3000A 277/480V main switchboard with main ACB and solid state distribution breakers feeding the main distribution and mechanical panels.					
	<b><u>D2.12 - Emergency Power</u></b>				\$64,125	\$0.64
	Life safety will be provided by emergency battery units only					
	Kitchen equipment such as walk-in coolers & freezers will <u>(not)</u> be connected to a back-up emergency power source.					
	During periods of prolonged power outages the building will be generally unoccupied and non-functional.					
	<b><u>D2.13 - Distribution</u></b>				\$360,000	\$3.61
	Distribution equipment will be provided and shall consist of (277/480V) power panels for mechanical loads; 120/208V power panels for lighting and device loads throughout.					
	Production distribution equipment will be provided and shall consist of (277/480V) power panels for rigging loads; 10-120/208V power panels and associated K13 transformers for lighting and device loads, 6-400A, 1-200A and 7-100A company switches throughout the production area of the facility.					
	Power transformers and distribution panels will be arranged and located in close proximity to the equipment that they feed while accommodating the need to ensure no sound transmission into performance areas.					
	<b><u>D2.14 - Feeders</u></b>				\$355,000	\$3.56
	All power feeders will be copper conductor with required ground and shall be installed in EMT conduit. Flexible conduit and cabling will be utilized for final connections to vibrating equipment.					
	<b><u>D2.15 - Motor Controls &amp; Wiring</u></b>				\$150,000	\$1.51
	The electrical division will install loose starters provided by the mechanical division and load and line side wiring for mechanical equipment. Final terminations to any vibrating equipment will be done using flexible conduit and stranded conductors to eliminate sound transmission.					
	<b><u>D2.16 - Grounding</u></b>				\$103,000	\$1.03
	A building grounding system to meet code requirements, and technical grounding system to meet the requirements of the production equipment shall be provided.					
	The building shall be provided with a building lightning protection system with air terminals, ground conductors connected to a perimeter ground loop.					
	<b><u>D2.17 - General Requirements</u></b>				\$185,339	\$1.86
	Supervision, site office, head office overheads, submittals, premium of loss of productivity time, small tools, rentals and the like.					
	Seismic / Hurricane Restraints included in above rates					
	<b>TOTAL FOR ELECTRICAL - Service &amp; Distribution</b>	1.00	99,622	SF	\$14.23	\$1,417,464

No.	Description	Quant.	Unit	Rate	Total	Cost/SF
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**D2.2 ELECTRICAL - Lighting, Devices & Heating**

**D2.21 - Lighting**

\$1,571,000	\$15.77
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General

Lighting in the public areas shall provide decorative ambient lighting achieved by the use of decorative recessed, wall mounted or suspended fixtures with energy efficient fluorescent light sources; lighting in the private room areas shall be provided by recessed direct / indirect or compact fluorescent fixtures. Lighting in storage, back of house and service areas shall be provided using HID suspended industrial fixtures.

Given the subjective nature of the approach to lighting, this estimate is an allowance to which the above description and ultimate design should adhere.

Exit lights and emergency battery units will be provide to meet code requirements

Theatrical

Power and control wiring will be provided by the electrical division for production lighting equipment provided by others.

**D2.22 - Branch Devices & Wiring**

\$487,500	\$4.89
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General maintenance receptacles will be provided throughout the facility. Receptacles for office, dressing rooms... will be provided to accommodate the specific usage of each area.

Theatrical branch wiring providing 400, 20A circuits in the production area

Theatrical power wiring providing power to 7-600A, 4-400A, and 1-200A dimmer racks in the production area

A central programmable lighting control and dimming system for lighting control in the public areas shall be provided. Service and non public areas shall have lighting controlled by localized switching or occupancy sensors.

**D2.23 - Heating**

\$9,000	\$0.09
---------	--------

Electric heating will be achieved by units supplied by the Mechanical. The electrical division will install, wire and terminate these unit.

**D2.24 - General Requirements**

\$318,299	\$3.20
-----------	--------

Supervision, site office, head office overheads, submittals, premium of loss of productivity time, small tools, rentals and the like.

Seismic / Hurricane Restraints included in above rates

**TOTAL FOR ELECTRICAL - Lighting, Devices & Heating**

1.00	99,622	SF	\$23.95	\$2,385,799
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**D2.3 ELECTRICAL - Systems & Ancillaries**

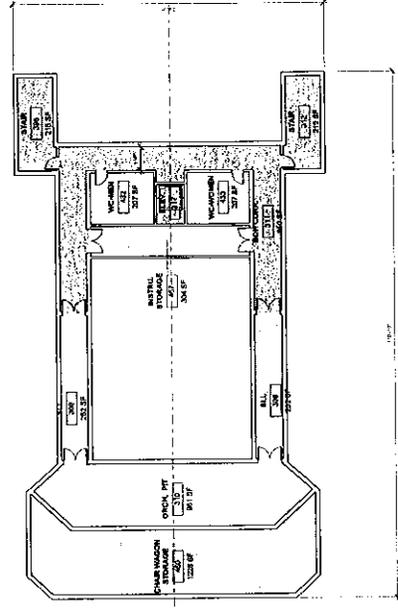
**D2.31 - Fire Alarm System**

\$170,000	\$1.71
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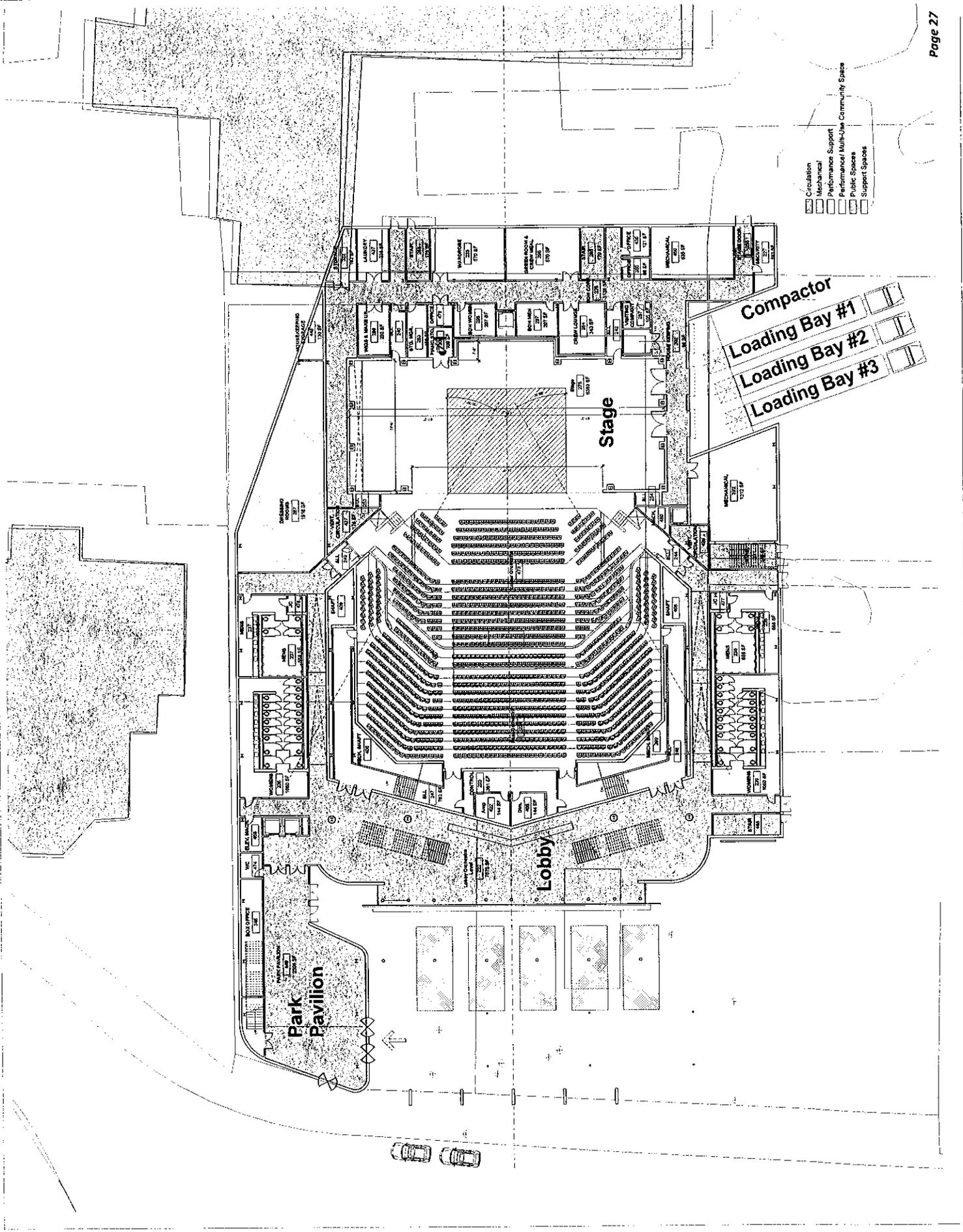
A single stage addressable EVAC fire alarm system will be provided in the facility to suit local code requirements. System will include central panel, annunciator, bells/horns/strobes, heat/smoke detectors, pull stations... throughout.

No.	Description	Quant.	Unit	Rate	Total	Cost/SF
	<b><u>D2.32 - Security System</u></b>				\$190,000	\$1.91
	A security access and CCTV system shall be provided to suit the end user needs. It is assumed that this system will monitor exterior doors, provide access through security doors only and provide cameras to monitor the building perimeter only.					
	<b><u>D2.33 - Communications Systems</u></b>				\$100,000	\$1.00
	<b><u>General</u></b>					
	The electrical division will provide an infrastructure raceway system to accommodate a CAT 6 structured cabling system with horizontal and backbone cabling throughout the facility to meet the clients requirements. Telephony and active hardware will be provided by others.					
	<b><u>Clock</u></b>					
	A clock system will not be required. Time will be displayed by the information screens and/or PC devices.					
	<b><u>D2.34 - Public Address (P.A.) System</u></b>				\$635,000	\$6.37
	The electrical division will provide a complete empty conduit infrastructure for Tele conferencing and Tele broadcasting system-equipment cost included in Architectural estimate					
	<b><u>Audio/Visual - Performance</u></b>					
	The electrical division will provide a complete empty conduit infrastructure system to accommodate the requirements of the production equipment provided by the production equipment provider.					
	<b><u>D2.35 - Miscellaneous</u></b>				\$25,000	\$0.25
	Miscellaneous systems such as two way voice "airphones" and bells/alarms, etc. are provided to suit end user needs, for areas such as loading docks, mechanical rooms and the like.					
	<b><u>D2.36 - General Requirements</u></b>				\$169,728	\$1.70
	Supervision, site office, head office overheads, submittals, premium of loss of productivity time, small tools, rentals and the like.					
	Seismic / Hurricane Restraints included in above rates					
	<b>TOTAL FOR ELECTRICAL - Systems &amp; Ancillaries</b>	1.00	99,622	SF	\$12.95	\$1,289,728
		Total Elec Unit Rate			\$51.12	

- Circulation
- Mechanical
- Performance Support
- Performance/Multi-Use
- Community Space
- Public Spaces
- Support Spaces



- Circulation
- Mechanical
- Performance Support
- Performance/Multi-Use Community Space
- Public Spaces
- Support Spaces



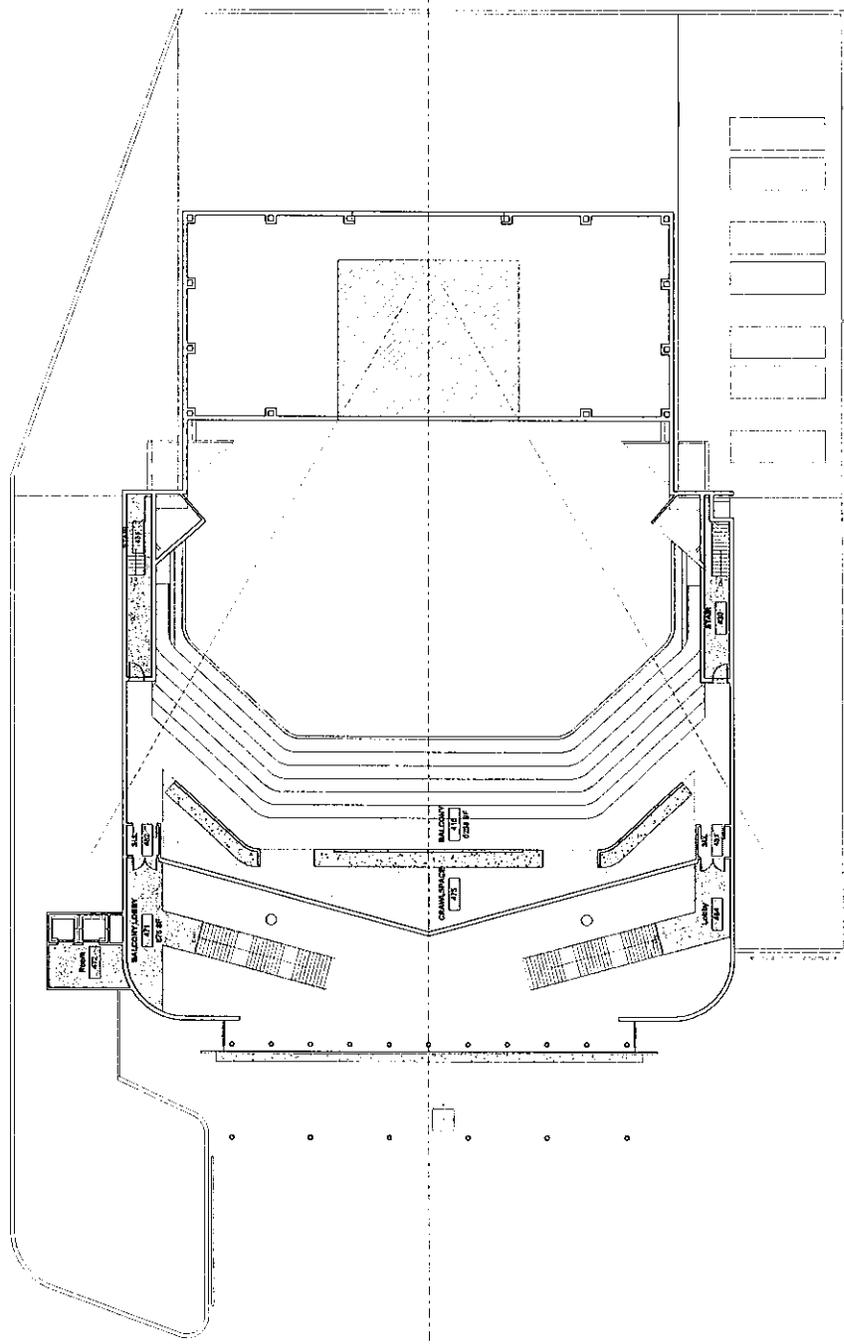
Compactor  
 Loading Bay #1  
 Loading Bay #2  
 Loading Bay #3

Stage

Lobby

Park Pavilion





- Circulation
- Mechanical
- Performance Support
- Performance/Multi-Use
- Community Space
- Public Spaces
- Support Spaces



December 6, 2012

**TO:** Denise Turner Roth, City Manager  
**FROM:** Adam Fischer, Director of Transportation  
**SUBJECT:** PAC Parking Availability

In response to an inquiry about parking availability for the PAC at the December 4, 2012 City Council meeting the following information is provided in regards to public parking capacity and availability during the daytime (8am to 5:30 PM) as well as private parking capacity. GDOT evaluated the availability of parking at the Bellemeade Street Deck, Davie Street Deck, and the Church Street Deck as well as on-street parking availability and the private parking capacity within close proximity (1200' is considered a reasonable distance to park and walk to a special event) of the proposed PAC site.

**Public Parking:**

**Bellemeade Street Deck: Daytime parking availability for PAC = 165**  
(Deck capacity = 1276)

**Davie Street Deck: Daytime parking availability for PAC = 111**  
(Deck capacity = 415)

**Church Street Deck: Daytime parking availability for PAC = 273**  
(Deck capacity = 417)

**On street parking:** There are 456 on-street parking spaces within close proximity (1200') of the PAC site. An inventory of these spaces shows that on an average day that **304** of these spaces would be available for daytime PAC parking.

**Total Public Parking Availability: On average, 853 public parking spaces should be available for daytime PAC parking.**

**Private Parking Lots:** There are 1605 parking spaces in private parking lots within (1200') of the PAC site. We do not have current occupancy rates for these private parking lots and do not know daytime parking availability.

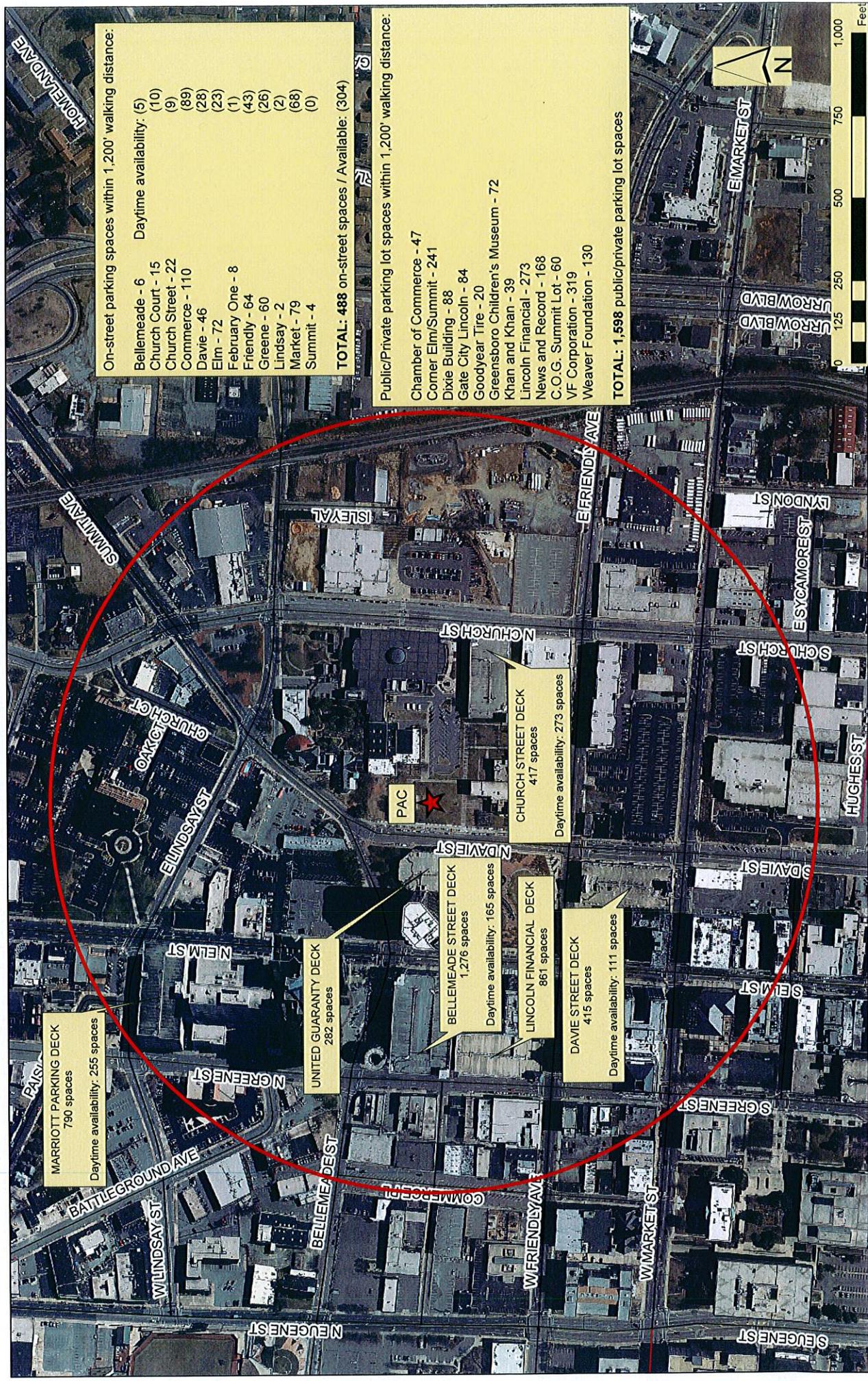
**Private Parking Decks:** There are 3 private parking decks in close proximity to the proposed PAC site: Lincoln Financial Deck = 661 spaces, United Guarantee Deck = 282 spaces, and the Marriot Deck = 790 spaces. The Lincoln Financial Deck and the United Guarantee Deck are used primarily for employ parking during the day. There is public parking allowed in the Marriot Parking deck and a quick inventory of this deck indicates that there may be up to **255** spaces available for public parking that could be available for daytime PAC parking.

The building committee indicates that the maximum seating arrangement for the PAC is about 3000 and that the maximum number of parking spaces needed for a sold out event is about 1000. It appears that there would be adequate available parking through public parking (**853 spaces**) and private parking (**apparent 255 spaces in the Marriot Deck**) along with other available parking in surrounding private parking lots.

See attached map which indicates parking supply and availability within close proximity of the proposed PAC site.

AF  
Attachments

cc: Jim Westmoreland, Assistant City Manager

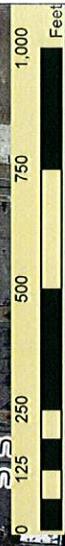


**On-street parking spaces within 1,200' walking distance:**

Bellemeade - 6	Daytime availability: (5)
Church Court - 15	(10)
Church Street - 22	(9)
Commerce - 110	(89)
Davie - 46	(28)
Elm - 72	(23)
February One - 8	(1)
Friendly - 64	(43)
Greene - 60	(26)
Lindsay - 2	(2)
Market - 79	(68)
Summit - 4	(0)
<b>TOTAL: 488 on-street spaces / Available: (304)</b>	

**Public/Private parking lot spaces within 1,200' walking distance:**

Chamber of Commerce - 47
Corner Elm/Summit - 241
Dixie Building - 88
Gate City Lincoln - 84
Goodyear Tire - 20
Greensboro Children's Museum - 72
Khan and Khan - 39
Lincoln Financial - 273
News and Record - 168
C.O.G. Summit Lot - 60
VF Corporation - 319
Weaver Foundation - 130
<b>TOTAL: 1,598 public/private parking lot spaces</b>



**Public Affairs  
Contact Center Weekly Report  
Week of 11/26 – 12/2/12**

**Contact Center**

5979 calls answered this week

**Top 5 calls by area**

Water Resources

Balance Inquiry – 1436  
IVR/Pay by Phone – 327  
Bill Extension – 222  
New Sign up – 197  
General Info – 166

Field Operations

Loose Leaf Collection – 320  
E-Waste Collection – 92  
Bulk Guidelines – 77  
No Service/Garbage – 66  
No Service/Recycling – 48

All others

Police/Watch Operations – 321  
Courts/Sheriff – 67  
Privilege License – 56  
HR/Employment – 35  
Collections – 26

**Comments**

We received a total of 7 comments this week:

**Field Operations - 6 comments:**

- Customer would like it to be mandatory that leaves have to be bagged and that the bags have to be tied. She also thinks neighborhoods with schools should have leaf collection first.
- Caller very upset about the way we schedule the leaf pick up. She said we are working too slow and should have three pickups instead of two. Also, we should let the citizens know what day and time we will pick up in an area.
- Wants fines and someone enforcing that people should not be blowing leaves into streets and on to cars.
- I very much appreciate the annual leaf collection. The crews work hard and do a terrific job. I do have one suggestion that you might consider for the future. My neighborhood has lots of mature white oaks. I have at least a dozen in my yard. It seems every year recently the first pick up in our area occurs at the beginning of the cycle, and that is before many of the oak leaves have started to fall. By two weeks later most of the oak leaves have fallen and I have them ready for pick up. But then they sit there for several weeks until the next cycle begins. It would help enormously if the first pick up were delayed for our street for a week or two. Thanks for considering this suggestion. And, again, thank you for your good and hard work with the leaf pickup.
- Customer thanks us for doing such a great job getting her leaves. She had called and complained but now she wants to apologize and thank the city for doing a wonderful job.
- Caller wishes to thank the driver for his kindness. He went beyond the call of duty. Caller is handicapped and driver was very, very helpful!

**Water Resources – 1 comment:**

- Caller wishes to say thank you for prompt service from Construction and Maintenance personnel to restore water service.

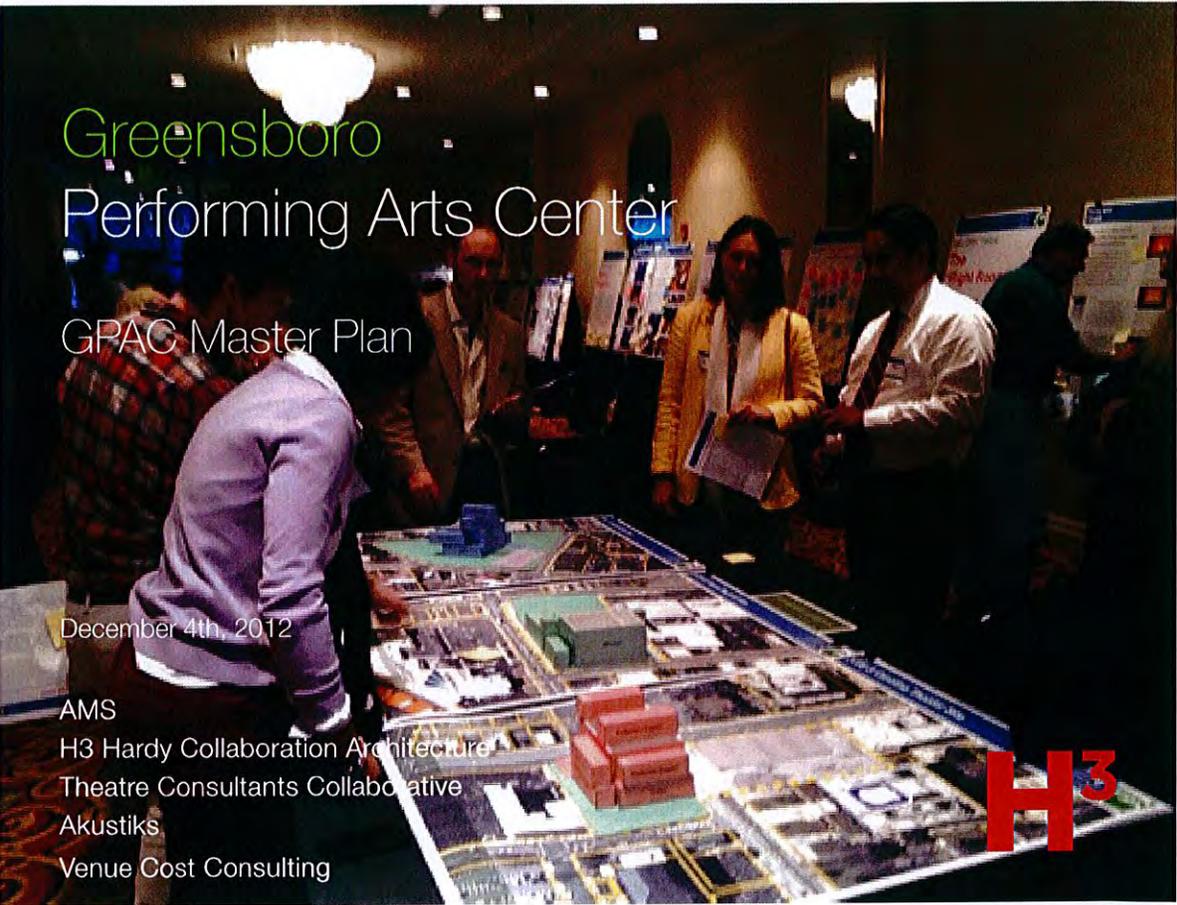
**Overall**

Calls about loose leaf collection continued to increase last week. Otherwise, we received the normal mix of calls. Call volume was very busy through the end of the week.



## SMALL GROUP MEETINGS

Date	Councilmember	Department / Person Contacted	Subject	Council Notification Date
December 6, 2012 10:30 to 11:30	Councilmember Abuzuaiter Councilmember Hoffmann Councilmember Vaughan	City Manager Roth Assistant City Manager Neerman, Assistant City Manager Scott, Parks & Recreation Interim Director Chris Wilson	War Memorial Stadium & NC A&T Master Plan	December 7, 2012
December 6, 2012 1:30 to 2:30	Mayor Perkins Councilmember Bellamy-Small, Councilmember Kee Councilmember Matheny	City Manager Roth Assistant City Manager Neerman, Assistant City Manager Scott, Parks & Recreation Interim Director Chris Wilson	War Memorial Stadium & NC A&T Master Plan	December 7, 2012
December 6, 2012 2:30 to 3:30	Councilmember Kee, Councilmember Matheny	City Manager Roth, Assistant City Manager Scott	Economic Development	December 7, 2012



We were assigned to answer 3 questions



- What is it?
- Where does it go?
- How much does it cost?
- A theater for the 21<sup>st</sup> Century

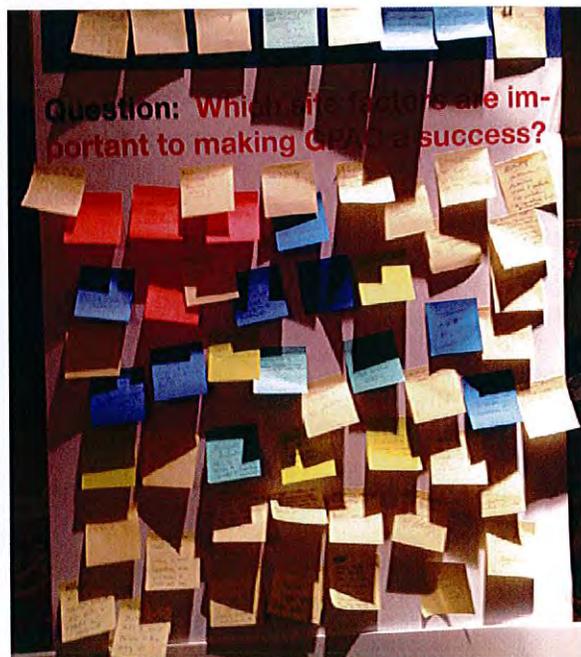
## Citizen Engagement: Charette



- 3 day charrette
- October 16<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup>, 2012
- Announced in advance
- Excellent attendance
- 1,000+ comments
- Group meetings
- Open to the public and the press

## What do you want to see in the venue?

- Public outdoor spaces
  - Outdoor use 9 months a year
- Flexibility
  - Variety of uses & quick turn around
  - 21<sup>st</sup> Century technology
- Inspired design
  - An important civic building
- Catalyst for development
- Active day & night
- Nearby parking
- Great patron experience
  - Access, comfort, VIP
- Sustainability



## Decision Making Process

Use  
~3,000 seats & flexibility  
is  
Program  
65,000 nsf  
is  
How much floor area and volume  
100,000 gsf & quality  
is  
Construction cost  
\$50,00,000 +/-  
is  
Project cost  
\$60,00,000 +/-

## Use = Program

### Use Overview:

- 1/3: Touring Broadway shows & theatrical spectacle
- 1/3: Popular entertainment
  - Urban arts
  - Bryan Lecture Series
  - Concerts
  - Comedy shows
  - Electronic arts
- 1/3: Traditional Arts
  - Symphony
  - Ballet
  - Opera
  - Community use
- Flexibility is essential
- For all ages

### Program Overview:

- Seat count ~ **3,000**
- Adaptable to ~ 1,500 seats
- 65,000 net square feet
- 100,000 gross square feet
- 1.55 grossing ratio
- 50'x120' stage house
- 3 loading bays
- 3 story lobby
- Back-of-house support

A 21<sup>st</sup> Century Solution. A Unique Design for Greensboro.

Unique

Competitive

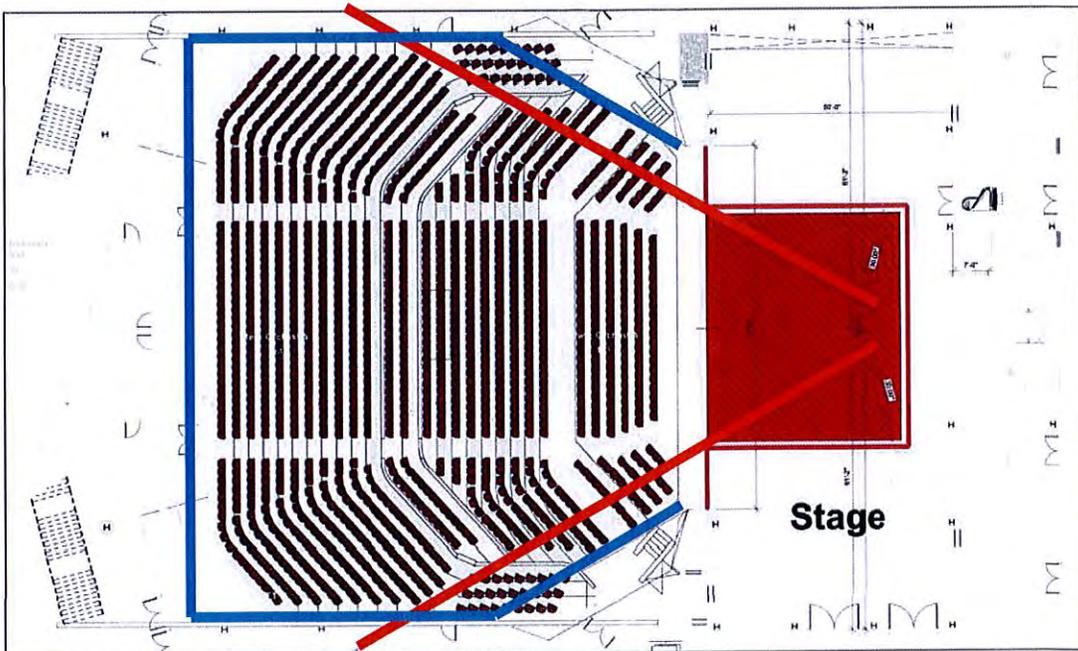
Cost effective to build and run

Successful for multiple uses

Designed for integrated video

Specific to Greensboro

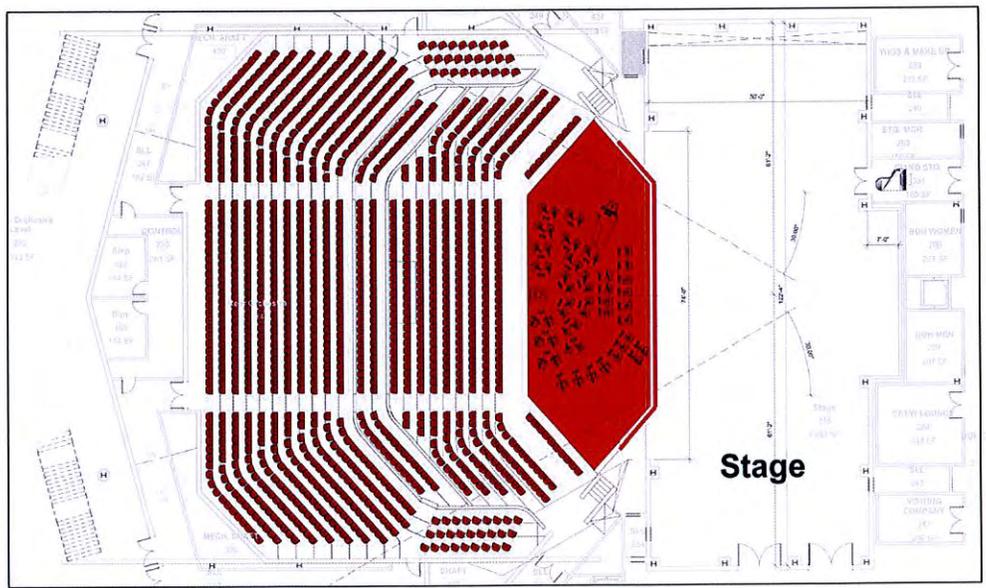
Sightlines that Define Room Width





Broadway Show Format

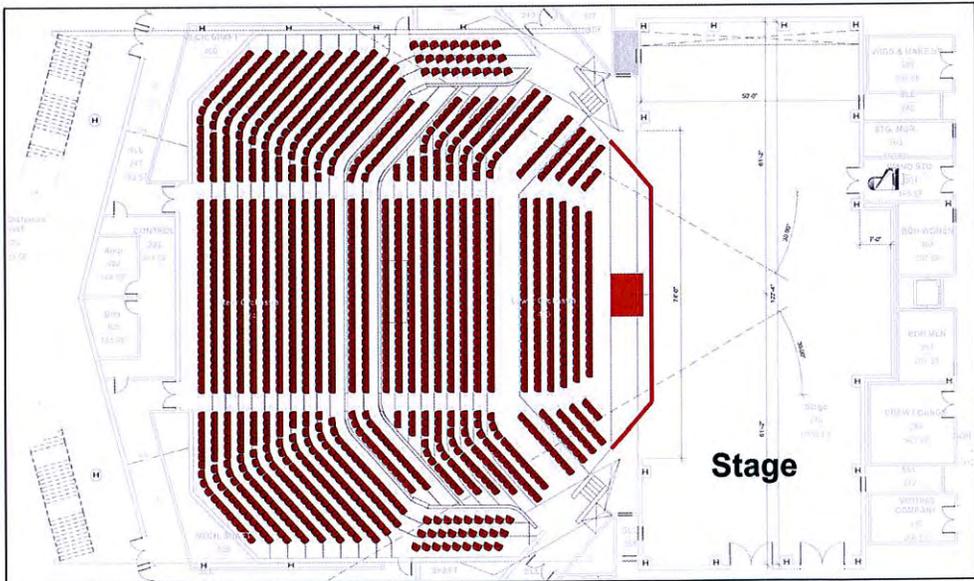
Stage Flexibility – Symphony

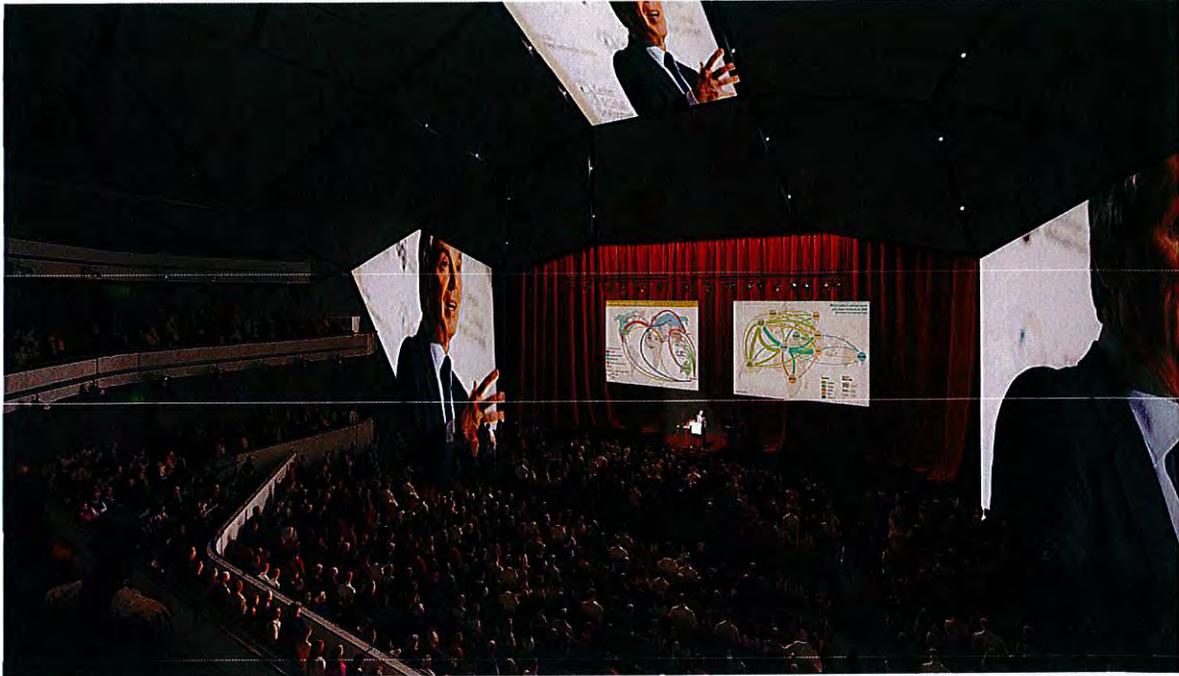




Symphony Format

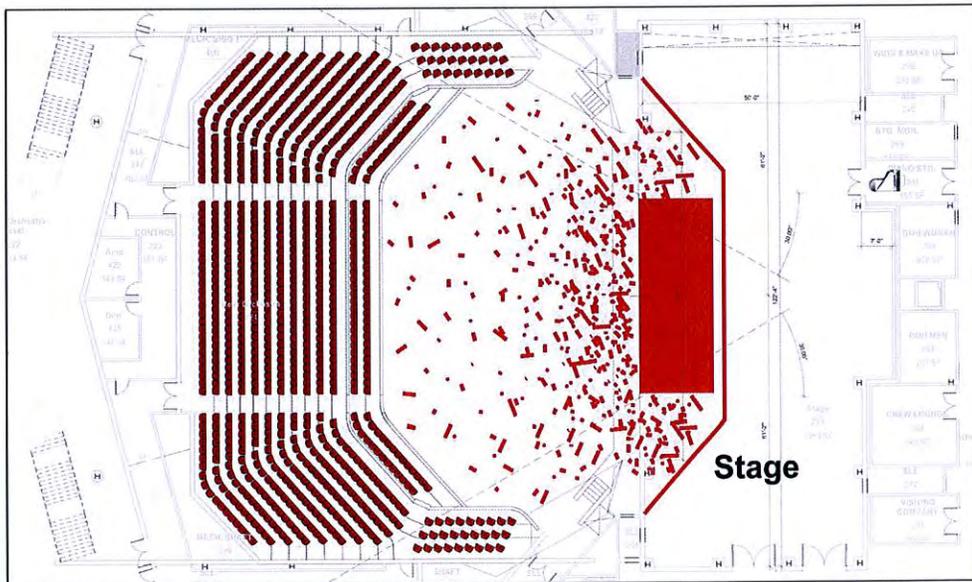
Stage Flexibility – Lecture





Lecture Format

Stage Flexibility – Concerts / Pop Entertainment





Flat Floor Format

### How does it compare to Durham PAC?

#### GPAC

- Seats: ~ 3,000
- Stage: 50'x120'
- Floor area: 100,000 gsf
- Flexible stage: yes
- Loading bays: 3

#### Durham

- Seats: 2,700
- Stage: 50'x110'
- Floor area: 108,000 gsf
- Flexible stage: no
- Loading bays: 3

## Budget



- Construction Cost
- Project Cost
- Site Cost Differences

## Budget Overview

### Budget Overview

- \$50,000,000 construction cost
- \$10,000,000 soft costs @ 20%
- \$60,000,000 project cost
  
- Bid date of 2<sup>nd</sup> quarter 2014
- 100 year building

### 93% of construction not discretionary

- Foundations
- Steel structure
- Concrete slabs
- Electrical
- Mechanical
- Plumbing
- Fire protection
- Gypsum wall board
- Lighting
- Roof
- Paint

Use = Program = Floor Area = Cost

### Construction Cost Overview

- 100,000 gsf
- @ \$340/sf
- = \$34,000,000
  
- + Performance equipment
- + Utilities
- + 2.5 years escalation @ 4.0%
- + CM costs
- + Contingencies
  
- = \$50,000,000

### Soft Cost Overview

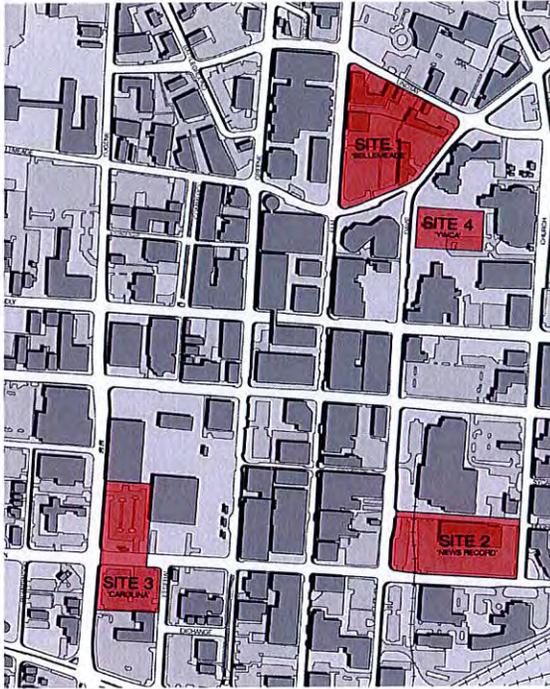
- Furniture
- Equipment
- Signage
- Scope contingency
- Design team fees
- Legal fees
- Opening events

How is the building concept efficient?

### Keep it simple

- Symmetry
- Simple structural grid
  
- Minimize excavation
- Few curves
  
- Straight seat layout
- Modest materials
- Minimize glass façade area

## Site Options



### Initial Charrette Site Options

- Bellemeade
- News Record
- Carolina

### Additional Site

- YWCA
- 3D Model Discussion

## How were the sites evaluated?

- 20 criteria

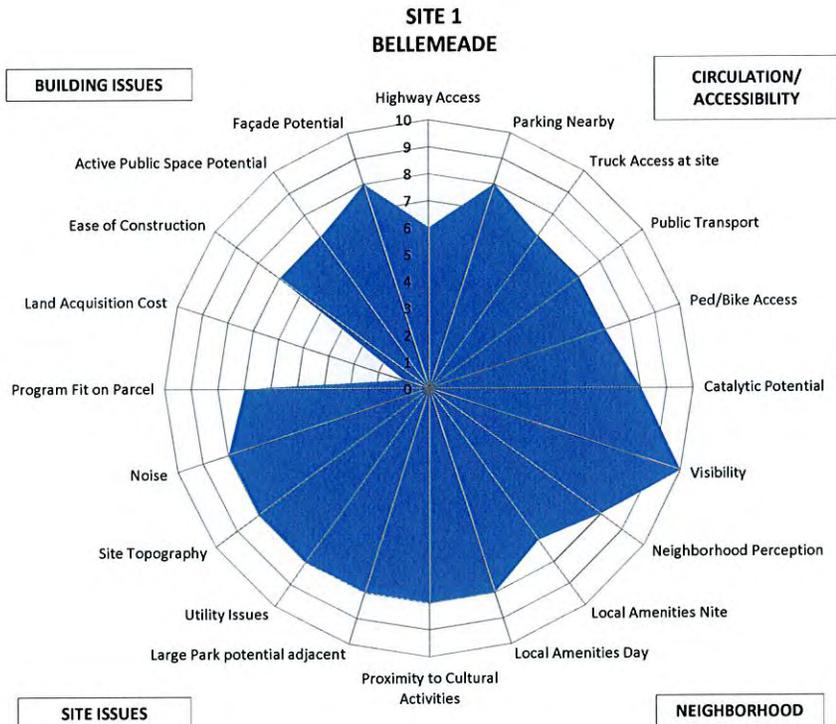
### Issues

- Cost
- Civic prominence
- Future potential

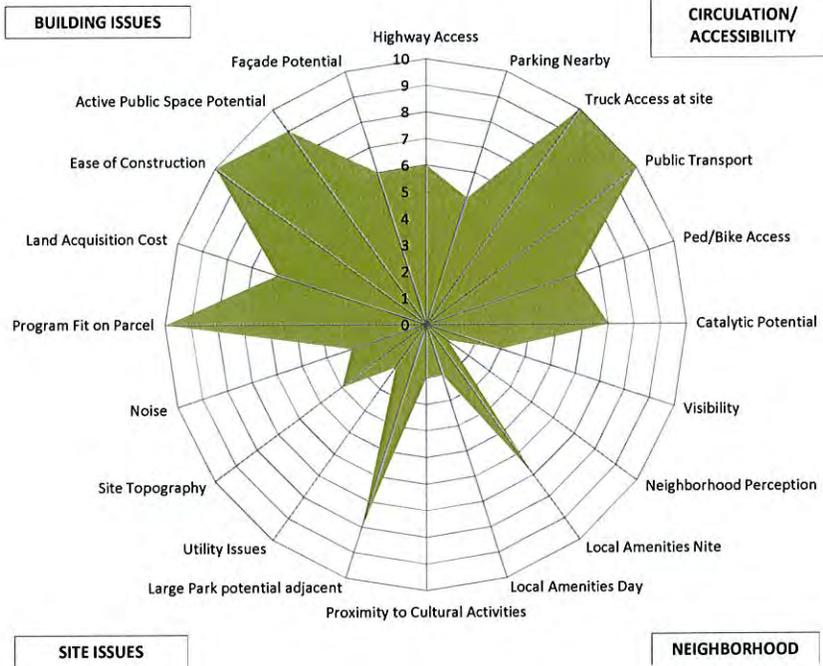
### 4 Categories

- Circulation
- Neighborhood
- Site Issues
- Building Issues

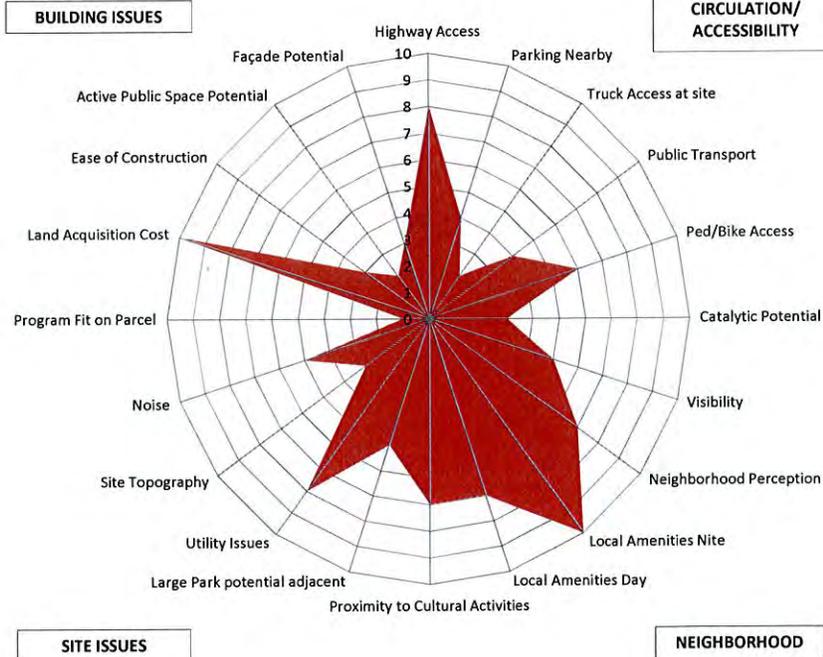
Category	Criteria	Site 1 Bellemeade	Site 2 News-Record	Site 3 Carolina	Site 4 CC-YWCA
<b>CIRCULATION</b>	Highway Access	6	6	8	6
	Parking Nearby	8	5	4	10
	Truck Access at site	7	10	2	7
	Public Transport	7	10	4	7
	Ped/Bike Access	7	6	6	7
<b>NEIGHBORHOOD</b>	Catalytic Potential	8	7	3	8
	Visibility	10	3	5	9
	Neighborhood Perception	8	1	7	8
	Local Amenities Nite	7	7	10	7
	Local Amenities Day	8	2	7	8
<b>SITE ISSUES</b>	Proximity to Cultural Activities	8	2	7	10
	Large Park potential adjacent	8	8	5	10
	Utility Issues	8	2	8	8
	Site Topography	8	4	3	8
	Noise	8	3	5	8
<b>BUILDING ISSUES</b>	Program Fit on Parcel	7	10	1	10
	Land Acquisition Cost	1	6	10	10
	Ease of Construction	7	10	3	7
	Active Public Space Potential	7	9	2	9
	Façade Potential	8	6	3	8
		146	117	103	165

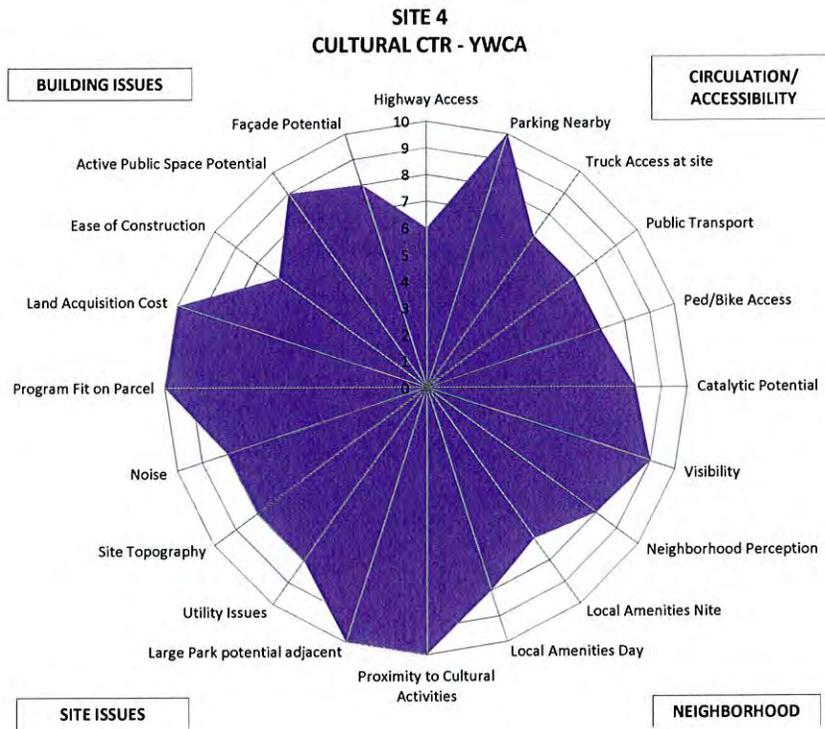


### SITE 2 NEWS-RECORD



### SITE 3 CAROLINA





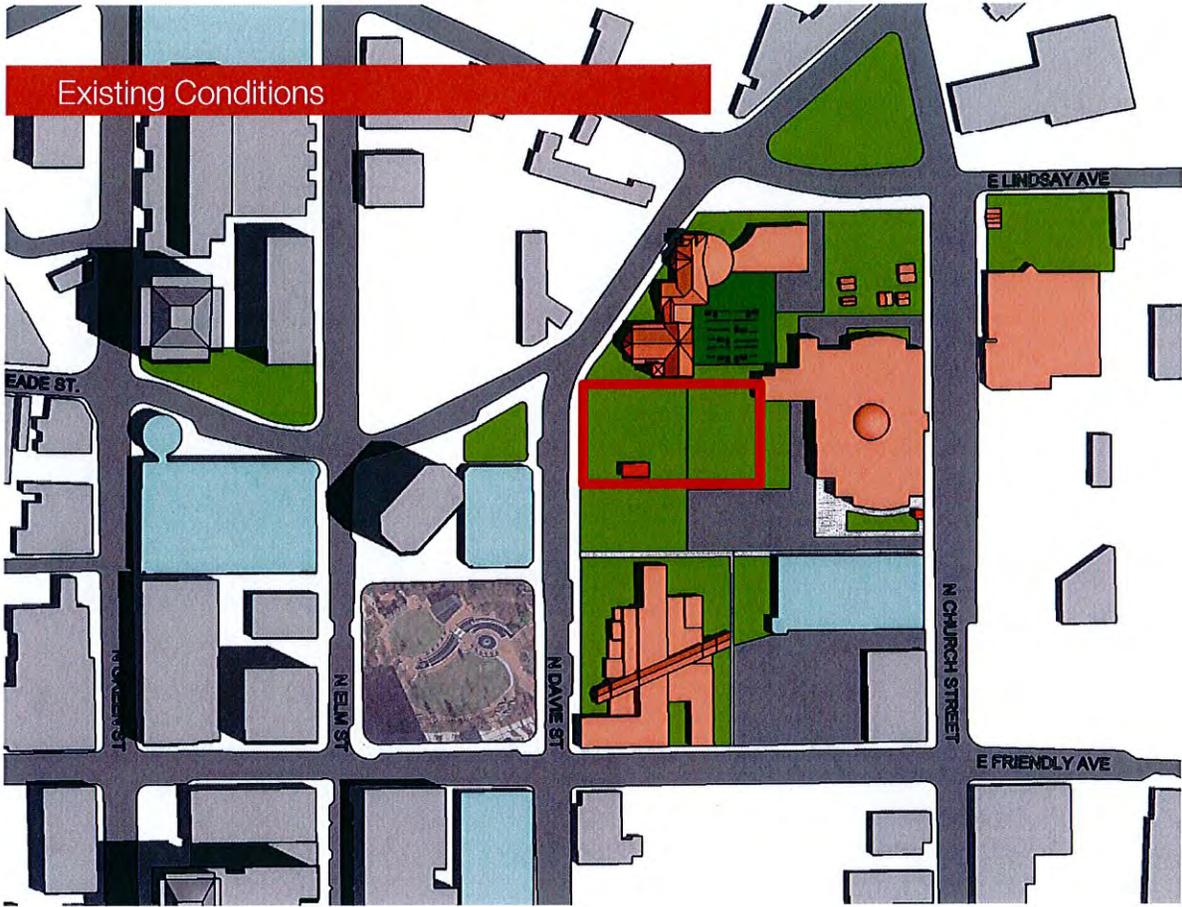
## Site Budget Comparison Example

### Bellemeade

- \$45,000,000 construction cost
- \$5,000,000 land acquisition
- \$10,000,000 soft costs @ 20%
- **\$60,000,000 project cost**
- Demolition is extensive

### YWCA

- \$50,000,000 construction cost
- \$10,000,000 soft costs @ 20%
- **\$60,000,000 project cost**
- City owned land
- Demolition is minimal



## Site Recommendation

### YWCA Site

#### Cost

- City owned land
- Limited demolition cost
- \$60M project cost is all put to building

#### Civic Prominence

- Centerpiece of Cultural Arts District
- Includes a prominent civic plaza & "Festival Park"

A Special Opportunity – LeBauer Park



A Special Opportunity – LeBauer Park

West Lake Square, Seattle

## A Special Opportunity – LeBauer Park

GPAC = GPARK

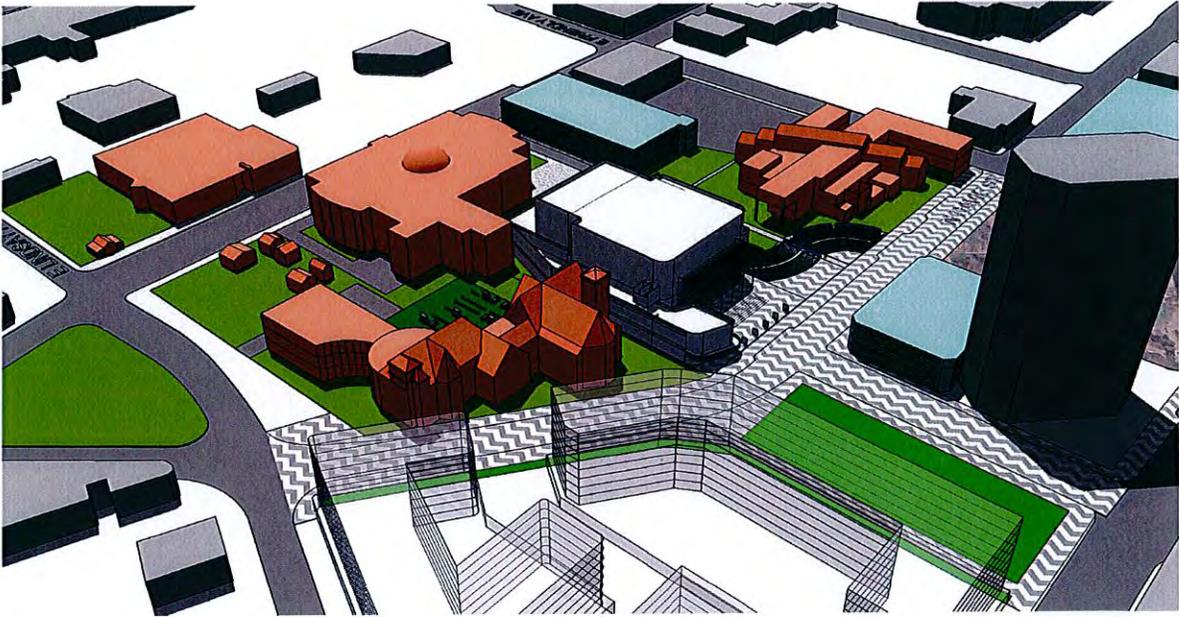
- Outdoor public Space
- Iconic architecture
- Open & welcoming to all
- Natural materials of region
- A 21<sup>st</sup> Century theater
- What's going on inside?



## Proposed Site Plan



Proposed Site Plan + Development



Exterior Experience – View from Center City Park

Thank you Greensboro

