APPENDIX "B"

W.A. FISHER AUDITORIUM
PERFORMING ARTS CENTRE
SCHEMATIC DESIGN REPORT

Barrie

LETT ARCHITECTS INC.

TABLE OF CONTENTS

PROJECT CONTEXT 01

A PERFORMING ARTS CENTRE IN BARRIE

TIMELINE

- In 2016, the Barrie Central Collegiate Institute held its Celebrate BCC closing ceremonies
- HIP Developments purchases building and site
- City of Barrie undertook the task of assessing the viability of saving the W.A. Fisher Auditorium to create a performing arts space
- In 2017, the City of Barrie hired Cobalt Connects to complete a W.A. Fisher Auditorium Study which included: Barrie cultural nodes, cultural capacity and the economic and social impacts of a new theatre
- Lett Architects Inc. was hired to look at opportunities of renovating and adding to the existing W.A. Fisher Auditorium to create a one-of-a-kind theatre within the city's new entertainment district

A GATEWAY TO THE WEST

- The school has a strong alumni and set of followers who support a new and vibrant reimagination of the site,school and surrounding area
- Opportunity to redevelop the site and surrounding neighbourhood as a new Entertainment District for the City of Barrie
- Offers connections between the existing community and cultural partners to come together in a new facility
- Aids in cultural growth by creating a new performing arts and entertainment experience in the west end of the city

CAFETERIA
- Storage
- Kitchen
- Servery

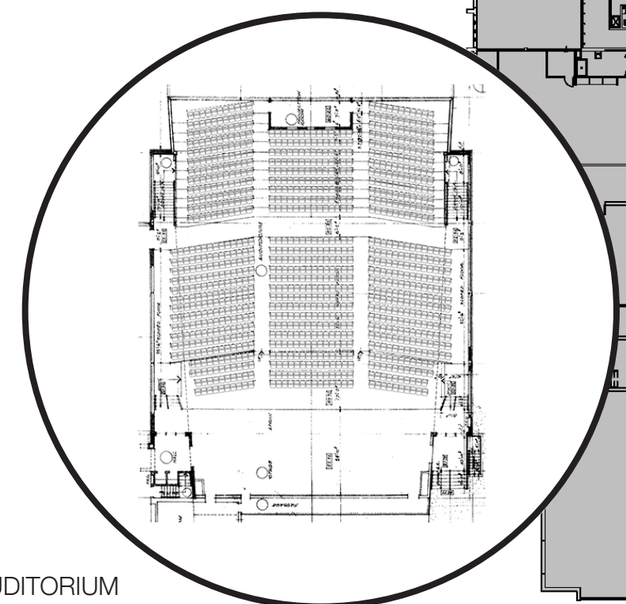
MUSIC + INSTRUMENTAL ROOM

AUDITORIUM
- Over 900 seats
- No sound + light locks
- Narrow aisles and rows
- Poor acoustics + sound quality

STAGE
- No proscenium
- Challenging to reconfigure
- Uses valuable square footage within space
- Orchestra pit

INITIAL CUT LINE

PROPOSED CUT LINE



EXISTING AUDITORIUM
1962 Architectural Plan

EXISTING BUILDING

CUT LINE - REHEARSAL SPACE

The initial cut line accommodated the proposed theatre and back of house facilities, which included the cross-over area for performers. After several client meetings and understanding the needs of the space, it was determined that a rehearsal area and storage room would be required.

This added program is satisfied by a change to the existing cut line, moving it south to include the existing music and instrumental room. This ensures adequate square footage for programmed space and storage can be accommodated. The existing instrumental and music room to the south of the stage has the required square footage and location within the building for a proposed rehearsal space. In addition, the space offers an almost 1:1 scaled size of the stage which makes it an attractive space for productions.

The rehearsal space can be used for many different purposes including: large cast productions, dance recitals, workshops, in-house company rehearsals, or extra storage for touring productions. This added program is highly valuable to local companies and propvides a unique space unlike any other within the city.

AUDITORIUM

The existing auditorium within Barrie Central Collegiate has a capacity of over nine hundred seats. This high occupancy results in circulation aisles and row aisles being very narrow, making it difficult to navigate and inaccessible to some audience members. In addition, in order to accommodate this large number of seating there is a low floor rake, resulting in poor sight lines to the stage, especially toward the rear of the auditorium.

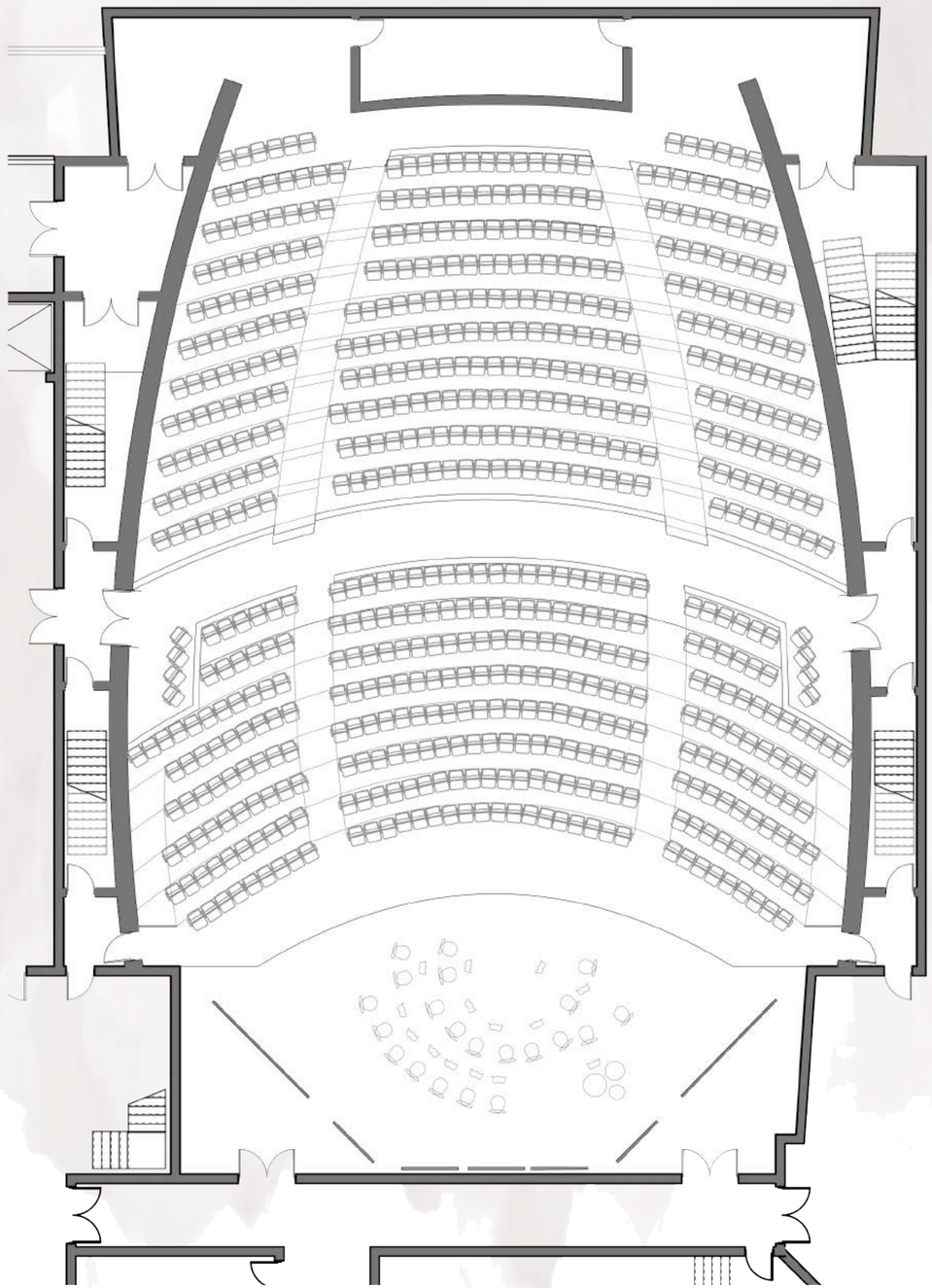
The large capacity of seating, a lack of sound and light locks and any acoustic treatments results in poor acoustics and sound quality within the auditorium. Without adequate sound and light locks and acoustical treatments, sounds from the street and lobby bleed into the auditorium. This has a major impact on the quality of the space.

OPTIONS ANALYSIS

02

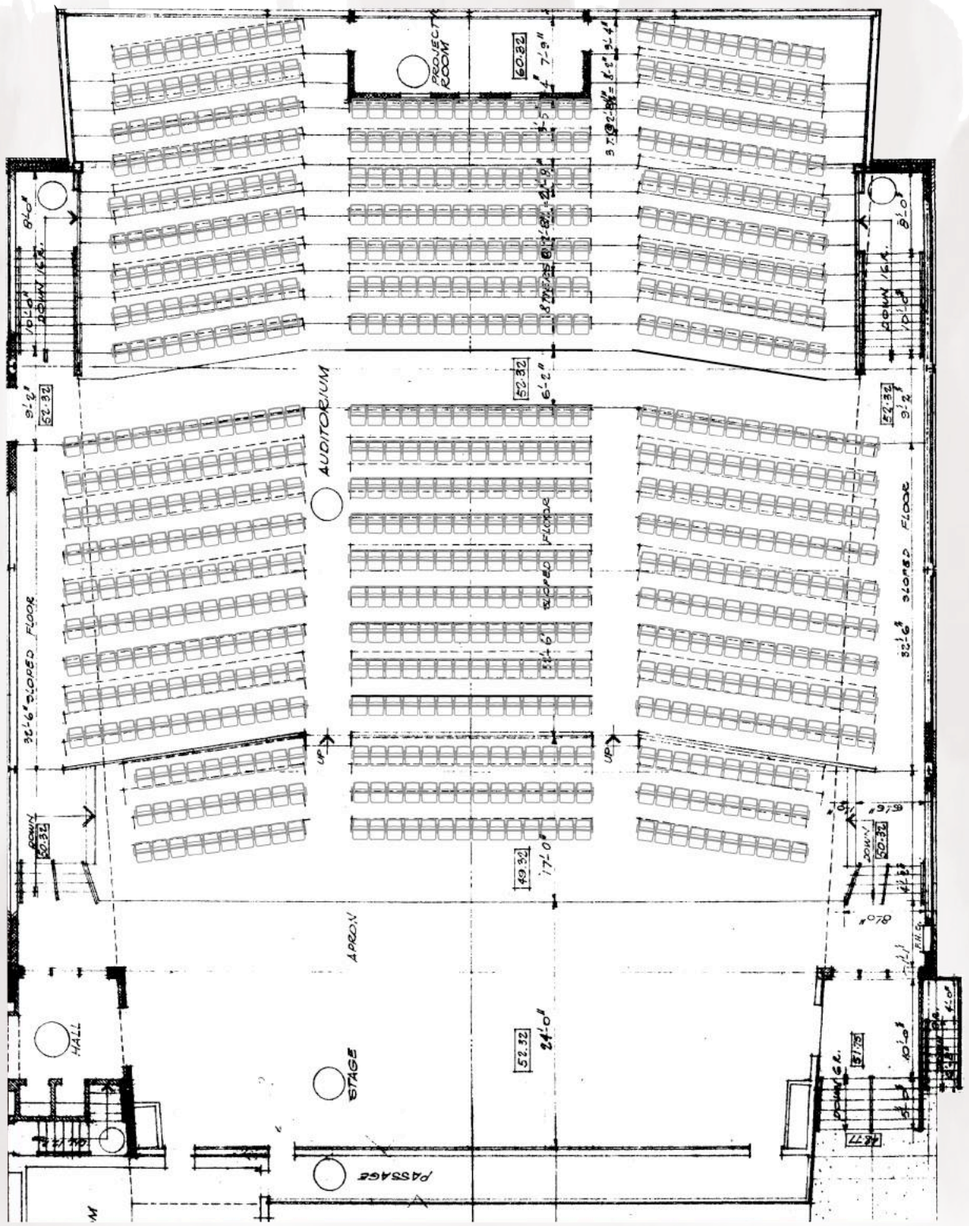
OPTION A - BEST PRACTICE

- 650-seat performing arts theatre
- All technical, sound, rigging + capacity requirements will be met
- Increased acoustics due to added sound + light locks
- Greater accessibility to circulation + row aisles
- Upper + lower bowl can be configured for various capacities
- Reconfigurable stage and orchestra pit
- Added proscenium
- Increased rigging capabilities
- Improved lighting, sound + technical capabilities
- Provisions for future fly gallery
- Increased storage capacity
- Greater interest from theatre and performance productions
- Increased attendance and guest satisfaction
- One-of-a-kind performing arts space



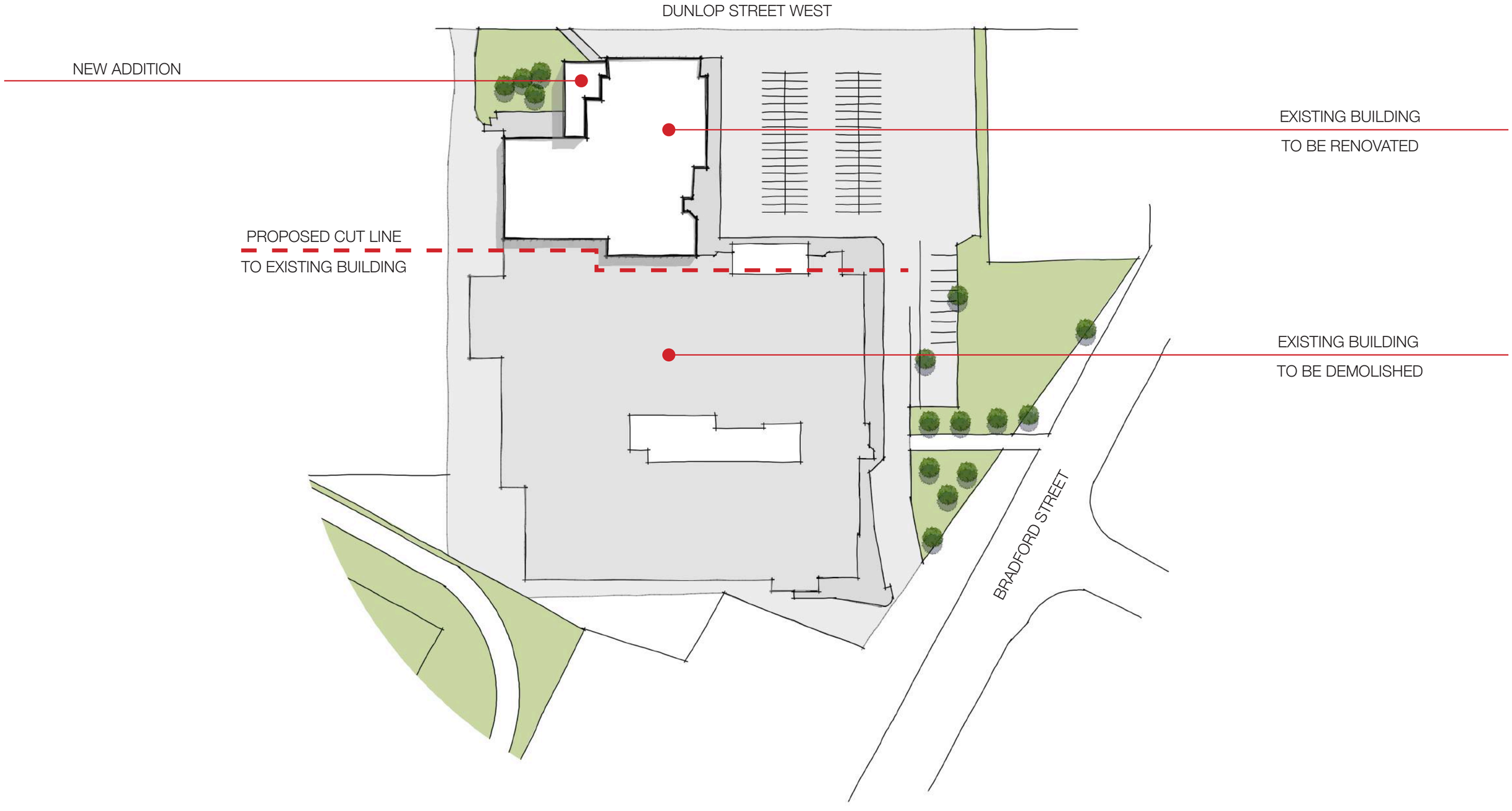
OPTION B

- 750-seat auditorium
- Renovation to update only the interior of auditorium
- No added technical, sound + rigging capabilities
- No added acoustics or sound + light locks
- No improvement to stage design or reconfiguration
- No change to rigging capabilities
- No provision for future fly gallery
- No added storage capacity
- Cannot accommodate large productions or groups
- Low guest satisfaction



SCHEMATIC DESIGN

03


DUNLOP STREET WEST
NEW ADDITION
EXISTING BUILDING
TO BE RENOVATED
PROPOSED CUT LINE
TO EXISTING BUILDING
EXISTING BUILDING
TO BE DEMOLISHED
BRADFORD STREET

BUILDING + SITE CONDITIONS

SITE

- Located at 125 Dunlop Street West the building is located at the centre of the city with close proximity to the waterfront
- Its location acts as a gateway to the city's west end
- Frontage on both Dunlop Street West and Bradford Street, with Simcoe Street ending at the site
- The city owns Red Storey Field to the south-west of the site
- A parking lot is located to the east of the main entrance
- The property was purchased by HIP Developments for a mixed-use development

BUILDING

- Founded in 1843, it is the oldest school in the County of Simcoe
- The facility contains an existing auditorium space with a strong presence onto Dunlop Street West
- The proposed development includes a severance of the building to keep the existing auditorium space for redevelopment by the city

DESIGN INTENT

The design was approached with the concept of reimagining and redefining the existing W.A. Fisher Auditorium to create an engaging, interactive and inspirational space.

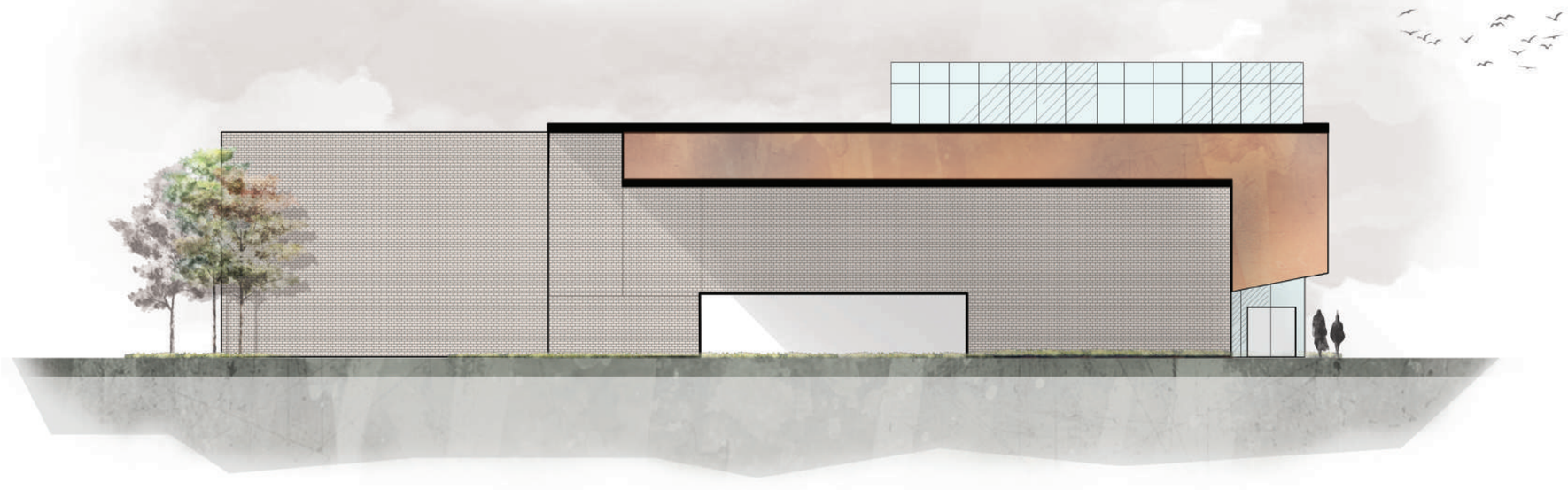
Spaces were developed with the specific intent to engage guests and invite them into the building, whether to attend a performance or other event within the city. The lobby areas invite visitors to enter the space and explore the rest of the building, discovering the modern changes and upgrades that have taken place. The modern gestures embrace the moments within the existing building, respecting its place in the City of Barrie's long history. This balance between the old and new is evident through out the building and was a design intent carried throughout the reimagination of the spaces.

The transluscent facade of the addition acts as a beacon, an inviting light to bring the public into the space and explore the city's performing arts scene. It becomes a focal point of the new entertainment district, encouraging a relationship between the streetscape and the buildings interior design features. The communication stair appears to extend itself into the street, a metaphorical gesture of connecting the performing arts with the rest of the city. The act of going to the theatre will be at the forefront as the audience moves between the theatre and lobby spaces within the transluscent box, circulating the communication stair as they ascend or descend to the streetscape.

As a showcase of modernity that respects its history, this reimagined space will attract curiosity, convey excitment and promote the city's exceptional performing arts scene.

NORTH ELEVATION

WEST ELEVATION

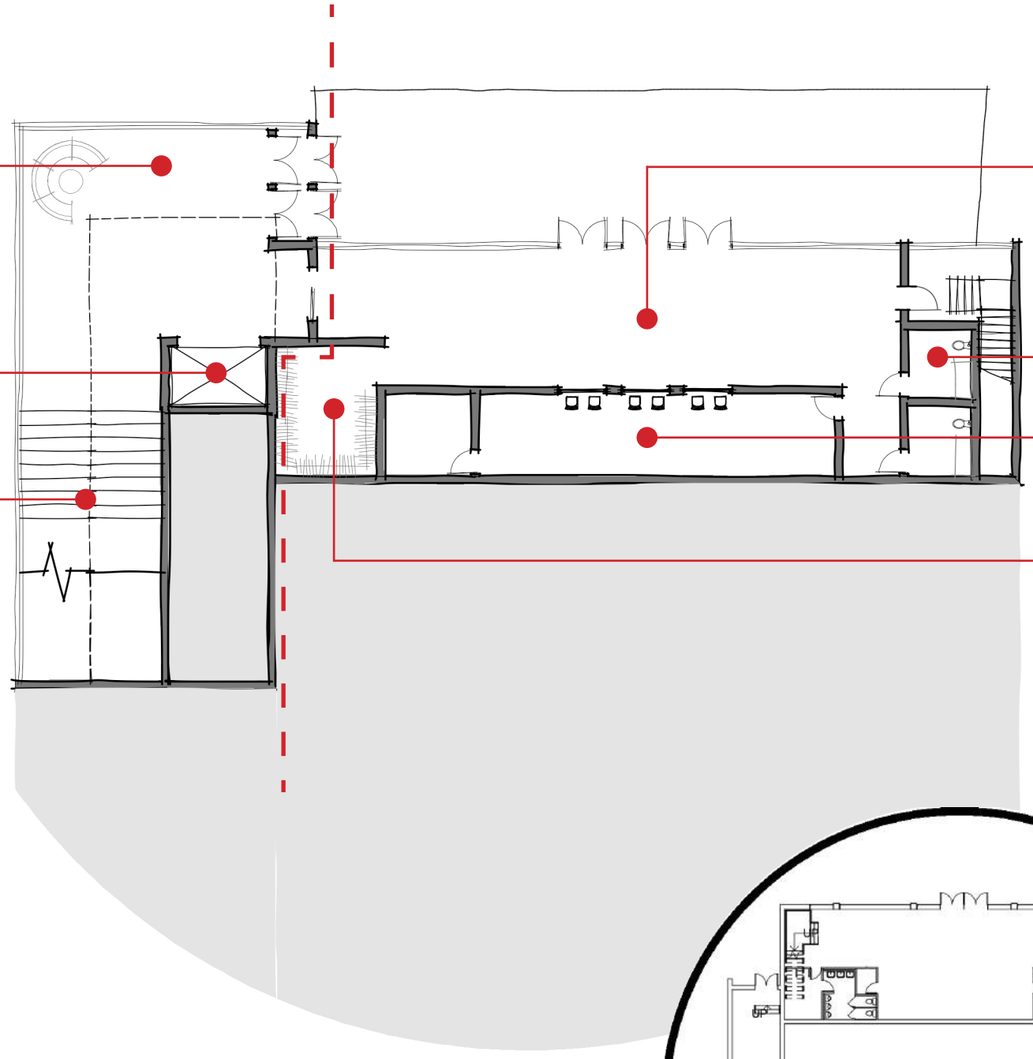


EAST ELEVATION

ATRIUM
- Able to access all levels with elevator
- Separate entrance + exit doors
- Communication stair
- Can be secured from lower lobby

ELEVATOR
- Provides accessibility to all levels
- Able to accommodate set materials + props
- Multi-directional doors for accessibility

COMMUNICATION STAIR
- Access to upper lobby + lounge
- Balcony overhang above



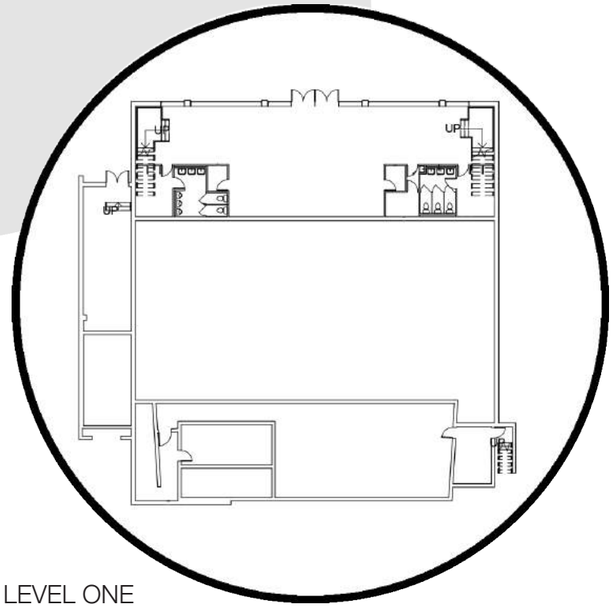
LOWER LOBBY
- Increased circulation to rest of building
- Can be secured from the atrium
- Accessible

UNIVERSAL WASHROOMS
- Increased accessibility for guests and visitors

BOX OFFICE
- Increased square footage
- Increased number of ticket counters
- Secured storage

COAT ROOM
- Increased square footage
- Secure
- Accessible

PROPOSED LEVEL ONE



EXISTING LEVEL ONE

LEVEL ONE - CONCEPTUAL DESIGN

The conceptual design for level one includes a reimagined lower lobby and a newly constructed addition which houses the atrium and communication stair. This redesigned level provides access to the lounge and separates the front-of-house operations from the rest of the building, giving added security and versatility for the back-of-house operations.

EXISTING LAYOUT

The existing ground floor houses many functions including: programming for front-of-house, administration and the mechanical and electrical rooms. All of these programs are constrained, with limited circulation and accessibility, and require a more efficient layout and use of space.

The front-of-house spaces are considerably undersized in order to accommodate the large, underused vestibule. This vestibule and main floor lobby are small and cannot accommodate all audience members at one time. Given the size of the auditorium and type of events using the space, many of the audience members will likely arrive in large groups and create awkward circulation issues in the lobby space. In the main lobby, the ceiling height is very low and uninviting as you enter the building. The box office / reception desk located off of the main lobby space is small and cannot accommodate ticket sales for a large performance. In addition, the main lobby cannot be secluded from the rest of the building during non-performance hours, posing potential security risks.

In terms of accessibility, the existing ground level does not provide accessible circulation to the auditorium or cafeteria. There are stairs to the auditorium located at the east and west of the lobby space, but no elevator. Without an elevator or universal washrooms located on this floor, it prevents many guests from accessing the other spaces. This is a major design issue within the existing layout and must be addressed.

LOBBY CAPACITY

The lobby has an area of 1,460 square feet including the two unviersal washrooms on the ground level. In accordance with the Ontario Building Code, this allows for a capacity of 100 persons based on the current configuration and number of washrooms on the ground level.

REDESIGNED + REIMAGINED

The proposed ground floor offers a complete redesign of the existing layout. The front-of-house, back-of-house and theatre space have all been reconfigured to better respond to the needs of small or large performance groups and productions. The proposed layout assumes an inviting, modern glass addition to the west face of the building. This addition provides valuable square footage and circulation to the existing facility.

The front-of-house features an accessible, glass entrance vestibule and larger box office to accommodate increased ticket sales. This space can be secured from the rest of the building during non-performance hours to ensure security is upheld and can be used my other event types wanting to rent the space. The main lobby has been redesigned to provide adequate space to comfortably support a full audience and allow them to easily circulate to the other levels within the building. Level one is interconnected with the floors above by way of a large communication stair within the addition, giving a feeling of grandeur to the new theatre space. The added accessibility standards include an elevator, giving guests access all levels of the building, and the addition of two unviersal washrooms.

The entire level one lobby space can be closed off from the rest of the theatre, allowing for the space to be cleaned and closed before the end of a performance. The addition provides a second set of enrtrance and exit doors, allowing guests to access the second level and lounge when the lower lobby is closed. This ensures the front of house and administration spaces can be secured when non-performance events are taking place.

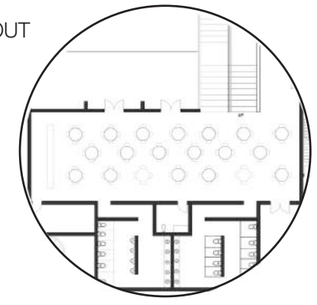
SOUND + LIGHT LOCKS
- Increased acoustics + sound quality
- No light pollution
- No disruption to performance

UPPER BALCONY
- Entrance + exit from upper bowl
- Accessible to elevator and upper lobby
- Overhang within the atrium

OUTDOOR BALCONY
- Accessible from the upper lounge
- View overlooking Dunlop Street West

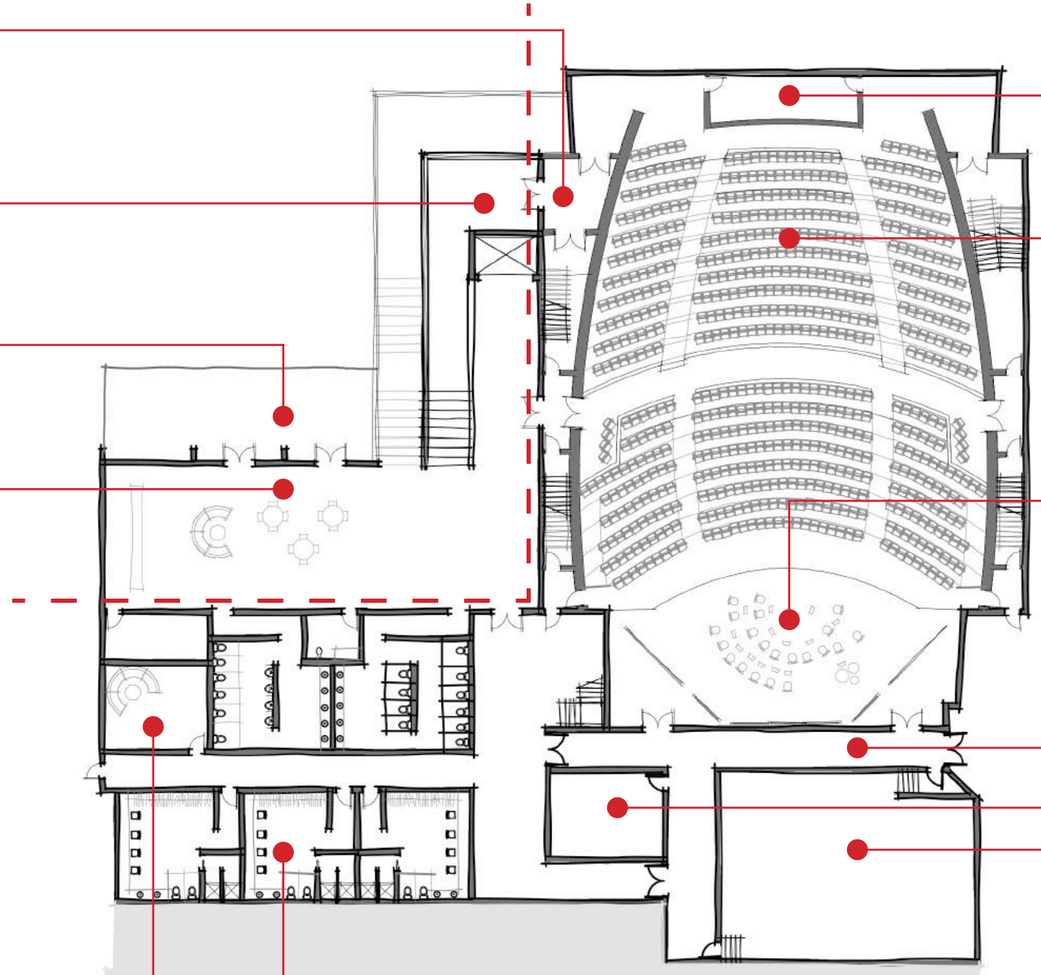
LOUNGE
- Lounge-type seating
- Bar service
- Catering preparation space
- Secured space for events
- Rentable area to generate revenue
- +650 persons capacity for standing room only
- 430 persons capacity for seating and table only

ALTERNATIVE LAYOUT



GREEN ROOM
- Secure from front-of-house

DRESSING ROOMS
- Private washrooms + showers
- Wardrobe + storage
- Custom millwork



TECHNICAL + SOUND ROOM

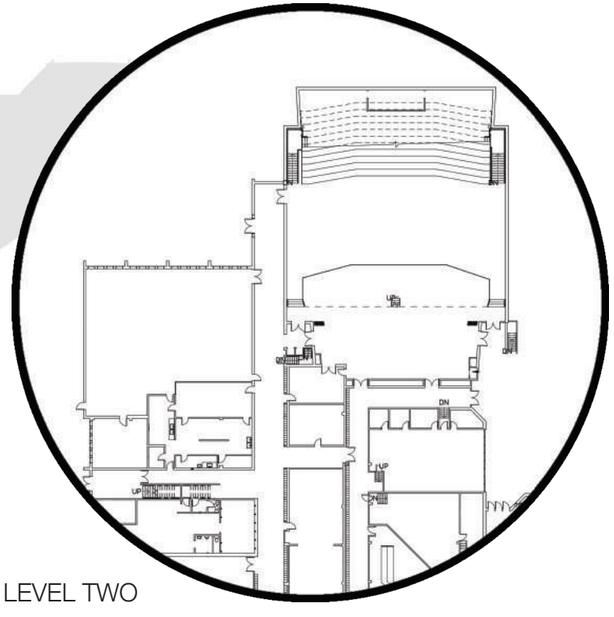
THEATRE
- 650-seat theatre
- Increased aisle width
- Accessible balcony seating available
- Upper and lower bowl for versatility
- Greater acoustics + lighting capabilities
- Increased rake for better sightlines

STAGE
- Adjustable stage configuration
- Opportunity for orchestra pit
- Proscenium
- Access to backstage via crossover space
- Direct access to back-of-house

STAGE CROSSOVER + LOADING AREA

STORAGE SPACE

REHEARSAL + STAGING AREA
- Versatile space for all performance types
- Easy access to the stage + crossover area



EXISTING LEVEL TWO

PROPOSED LEVEL TWO

LEVEL TWO - CONCEPTUAL DESIGN

The conceptual design for level two includes a reimagined upper lobby and lounge. A balcony has been added within the new addition to accommodate circulation to the upper bowl of the theatre. This redesigned level provides greater accessibility and versatility for guests, providing an elegant space during performances or for other venues renting the space. The theatre has been redesigned and enhanced to create a space where guests want to stay and performers want to perform.

EXISTING LAYOUT

The auditorium constitutes a majority of the available space on the existing second level. The auditorium seating has narrow aisles and narrow circulation corridors, not designed for a performing arts theatre. The seating is uncomfortable and does not meet current OBC requirements for aisle width. The existing rake of the theatre is undesirable as it does not provide adequate sightlines to the main stage. The existing auditorium contains a small orchestra pit on grade, not appropriate for a performing arts space or large orchestra show as sightlines from the front row would be impeded by the orchestra.

The original back-of-house spaces were designed as a music and instrumental room located to the south of the main stage. Their location next makes them an attractive space to locate the rehearsal room. The existing storage is being utilized in the redesign to ensure adequate space is provided for theatre materials, table, chairs, and road cases.

LOUNGE CAPACITY

The lounge and atrium have a combined area of 4,115 square feet, including the washrooms on the second level. In accordance with the Ontario Building Code, this allows for a standing capacity of over 650 persons and a non-fixed seating and table capacity of 430 persons.

REDESIGNED + REIMAGINED

The redesigned theatre provides six hundred and fifty seats designed specifically for a performing arts theatre. Beyond the theatre, the remaining space is primarily dedicated to an upper lobby, lounge, public washrooms, and back-of-house facilities. The added elevators give barrier free access to all levels within the theatre and lounge.

Access to the theatre is gained through sound and light locks leading to the upper and lower bowls of the theatre. All efforts have been made to ensure greater acoustics, lighting and accessibility within the theatre. All aisles and circulation paths have increased width for added comfort and circulation. In addition, the upper and lower bowl can be divided to accommodate different performance types and sizes.

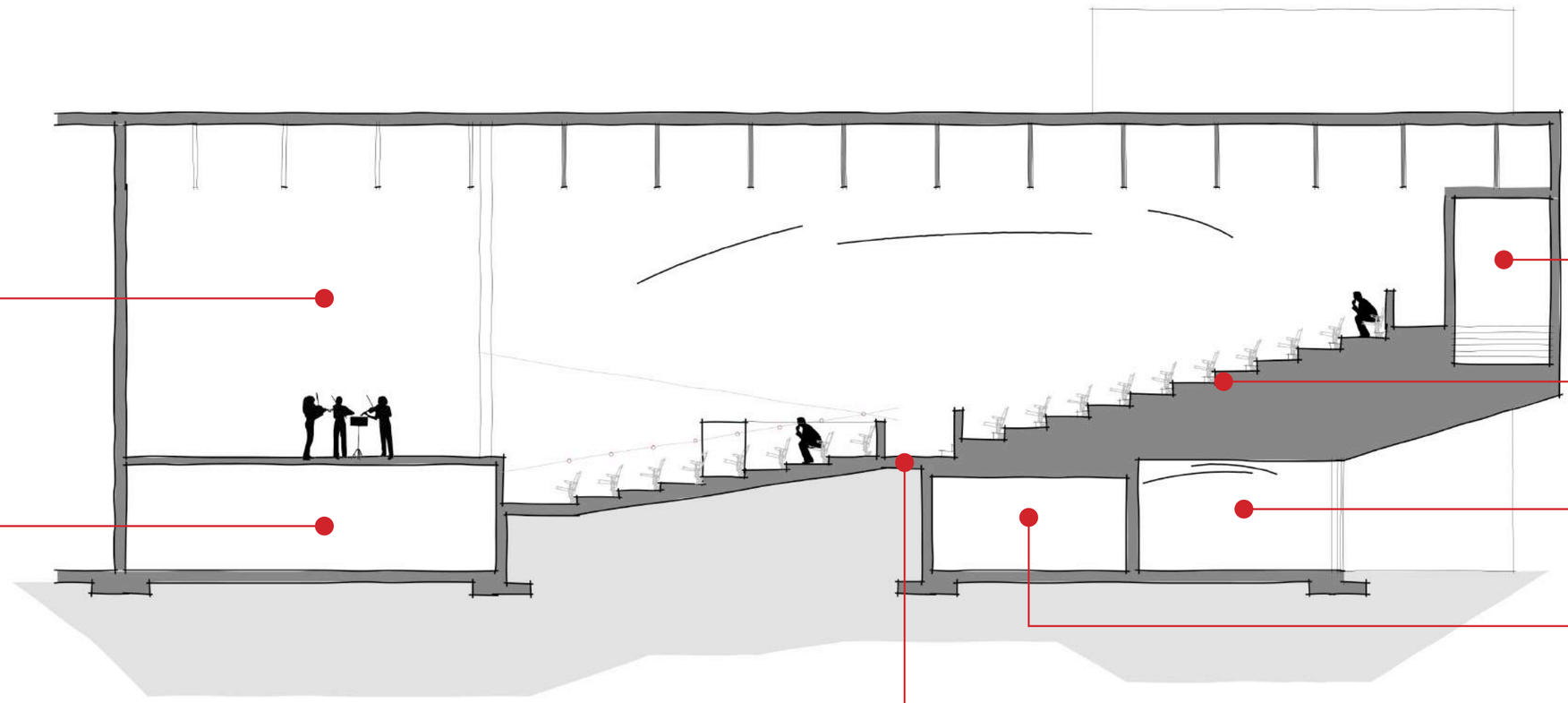
The second level houses a lounge with bar and food service capabilities for catering specific events. With an exterior balcony overlooking Dunlop Street West, this space really extends itself into the landscape. In addition, the lounge can be secured separately from the theatre and back-of-house facilities when being used for non-theatre events, like meetings or conferences. Giving this space greater accessibility, all public washrooms are located off the lounge including a universal washroom.

The back-of-house spaces include: large dressing rooms with space for storage, wardrobe racks, and private washroom and shower facilities. The private green room and rehearsal space allow for large performances to gather and practice, which is a highly valuable asset unavailable at other performing arts centres in the city. In addition, crossover circulation is provided to stage left and right with access to storage and loading facilities.

STAGE
- Adjustable stage configuration
- Opportunity for orchestra pit
- Proscenium
- Rigging enhancements
- Provisions for future fly gallery

MECHANICAL ROOM
- Existing facilities
- Limits stage size

MAIN THEATRE ENTRANCE
- Accessible from upper lounge
- Sound + light lock



TECHNICAL + SOUND ROOM

INCREASED RAKE
- Greater visibility and sight lines
- More comfortable seating
- Increased aisle width

LOWER LOBBY

BOX OFFICE

PROPOSED THEATRE SECTION

THEATRE SECTION - CONCEPTUAL DESIGN

In section, the theatre is more responsive to the guest experience and ensuring all guests can access the space. With greater versaility due to an increased rake in the upper bowl, the space can be adapted to accommodate any performance type.

EXISTING LAYOUT

The existing auditorium has many limitations sectionally because of a shallow rake and inaccessible upper seating level. The height variation between the stage and seating causes many limitations and conflicts within the space.

The existing aisle width is 800mm between seat back to seat front, resulting in uncomfortable spacing for guests. The existing seats are wood backed making them uncomfortable for long performances. The shallow rake of the upper bowl makes sightlines very difficult, especially for young audiences at the rear of the theatre. The shallow rake also consumes square footage from the ground whereby a steeper rake would allow for increased seating in the lower bowl while still providing an accessible entrance to the theatre.

The existing auditorium does contain a catwalk or provisions for a future fly gallery. This could allow for greater versaility and technical possibilities on the stage, allowing a greater variety of performers to use the venue. There are no sound and light locks at the entrance and exit to the theatre, resulting in reduced acoustics and light pollution from guests entering and exiting the theatre during a performance. In addition, the existing walls within the theatre do not provide acoustic treatments or electrical fit up for performance lighting.

The stage does not provide a proscenium or opportunity for reconfiguration and consumes a lot of square footage within the auditorium. There is a small orchestra pit in front of the stage on grade with the first row of seats and interupts views for those seated in the front rows.

REDESIGNED + REIMAGINED

The reimagined theatre section provides a complete revision of the upper bowl seating and the theatres floor to ceiling height. This resulted in a more functional, intimate, and aesthetically pleasing space for guests.

The steeper rake in the upper bowl has been increased dramatically to ensure adequate sightlines from all areas of the theatre, even from the rear of the theatre. The ceiling height of the existing space allowed the upper bowl rake to be increased without changing ceiling heights. Great care has been taken to ensure all seats offer the same view and unimpeded sightlines during any performance type.

The new stage has been reduced in size to accommodate greater aisle widths in the lower bowl seating. The stage can be reconfigured to allow for an orchestra pit if the performance requires. In addition, space has been allocated for a future fly gallery, greatly increasing the capabilities of the theatre and type of productions able to utilize the space. The existing rigging has been improvied to provide more versatility for performers, with a proscenium being added to further enhance the stage.

The existing entrance to the theatre has remained to reuse the existing grade and floor levels. Sound and light locks were added for greater acoustics and to reduce any light pollution during performances. In addition, acoustical treatments have been added resulting in a higher quality space.

PROJECT COSTS

04

CONSTRUCTION COST		$ per sq. ft.	Area (GSF)	
NEW BUILD				
	Addition	$488	3,218	$1,570,939
RENOVATION				
	Renovations	$335	22,863	$7,649,433
OTHER ASSOCIATED COSTS				
	Site Development			$500,000
	Demolition of Existing BCC			By Others
	Abnormal Soil Conditions			Excl.
	Hazardous Material Abatement	$10	22,863	$228,627
	Premium Time/After-Hours Work			Excl.
	Construction Phasing			N/A
	LEED Premium			N/A
	Signage + Wayfinding		Allowance	$50,000
	Project Scope Contingency		10%	$949,900
ESCALATION				
	Escalation to Time of Tender	1 Year	3%	$328,467
INCLUDED FEES				
	General Requirements		7%	
	GC Fee		3%	
	Design Contingency		10%	
Sub-Total				$11,277,366
Post Contract Contingecy			5%	$563,868
TOTAL CONSTRUCTION				$11,841,234

SOFT COSTS			
THEATRICAL			
	Rigging	Allowance	$1,000,000
	Lighting	Allowance	$1,000,000
	Audio / Video	Allowance	$500,000
FURNITURE & EQUIPEMENT			
	Loose Furniture	Allowance	$250,000
	Appliances (bar)	Allowance	$200,000
	Signage	Allowance	$50,000
	Security and IT	Allowance	$200,000
PERMITS AND FEES			
	Development Charges		N/A
	Building Permit		N/A
PROFESSIONAL FEES			
	Design Fees (13%)		$1,539,360
	City Project Management	Allowance	$150,000
	Specialty Consultants	Allowance	$25,000
OTHER			
	Inspection and Testing	Allowance	$40,000
TOTAL SOFT COSTS			$4,954,360

TOTAL PROJECT COSTS	$16,795,595
	PLUS HST

CONSTRUCTION + SOFT COSTS

The price is reflected in August 2017 dollars for the Province of Ontario. All costs associated with reconfiguration of the site and demolition of the existing building are assumed to be completed by the developer and are not included in this estimate.

As a comparison, this cost is in line with the average costs of similar projects in the Province of Ontario. Recent theatre projects in Midland Kingston, Richmond Hill, Burlington and Peterborough are within this range of cost.

ANTICIPATED CONSTRUCTION COST

Total Construction Cost is estimated at $11,841,234.

This amount excludes Separate and Alternate prices and has been based on a CCDC 2 - Stipulated Sum Contract. The construction cost includes: all labour, materials, plants, sub-contractors' overheads and profit, and the general contractors' overheads and proft. Escalation during construction has been included in the estimate at 3% per annum.

This cost estimate represents a cost per square foot of approximately $488 for the new build and a cost per square foot of approximately $335 for the renovations. This includes an added cost of $500,000 for site development as per the clients request.

ANTICIPATED SOFT COST

Total Soft Cost is estimated at $4,954,360.

This cost estimate includes a design fee of 13% and all allowances for rigging, lighting, and equipment needed to fit up the space.

ANTICIPATED PROJECT COST: $16,795,595

APPENDICES

05

ARCHITECTURAL OUTLINE SPECIFICATION

The Architectural Outline Specifications, is a document created to outline the anticipated components of the building to allow the Construction Cost Consultant to better apply costs to all construction elements of the project.

The brief describes the building structure, the envelope, finishes and anticipated key elements, such as millwork and specialty features.

Fisher Auditorium
Concept Design Brief
August 16, 2017

Lett Architects Inc.

1. PROJECT INFORMATION

Scope of Project	This project sees the demolition of approximately 2/3 of the existing Barrie Central School. This demolition work will be completed by the developer of the site. The exposed condition along the south portion of the building remaining will need to be reconstructed under this project. The reconfiguration of the site is not to be included in the cost estimate. The remaining structure will then be renovated to create a new performing arts centre for the City of Barrie.
Location	125 Dunlop Street West, Barrie, Ontario
Gross Building Areas	
Level 1:	372 sq.m. (4,005 sq.ft.)
Level 2	2,100 sq.m. (22,600 sq.ft.)
Total Building Area:	2,472 sq.m. (26,605 sq.ft.)
Building Height	14.9 m. (49 ft.) at highest point (see elevations)
Parking	N/A (being reviewed as a larger project by City)

2. CONSTRUCTION

Type

New Addition:
- Cast in place concrete foundation walls on spread footings
- Slab-on-grade
- Exposed Steel Columns at perimeter
- Underpinning as required
- High-performance curtainwall on spider standoffs
- OWSJ or Steel Truss and deck
- Roof construction shall consist of a Tremco inverted roof system (TRA). Insulation alone shall provide minimum R value of 50
- Stairs constructed of cast-in-place concrete
- Elevator walls constructed of cast-in-place concrete
- Elevator with two stops by Delta Elevator
- Balcony constructed with steel columns and OWSJ and deck with 50mm concrete topping

New South Building Envelope:
- CMU backup
- Air/vapour barrier

- 125mm Semi-rigid insulation
- fiberglass Z-gerts
- 25mm airspace
- Vertical 18 gauge corten steel siding

Lower Level Lobby Facade:
- Replace existing window system with new high performance curtainwall

Remaining Envelope:
- Existing building envelope to be clad in vertical 18 gauge corten steel siding.
- Existing roof to be replaced with a Tremco inverted roof system (TRA). Insulation alone shall provide minimum R value of 50

3. FINISHES

3.1 Level 1

Ceilings	- Wood feature ceiling in Lower Lobby - GWB ceilings in washrooms and Box Office - Storage is exposed
Walls	- Primed and painted GWB laminated to existing in Lower Lobby and Public areas - New walls to be 3 5/8" stud with GWB finish
Floors	- All flooring on Level 1 to be porcelain tile except for storage area which is to be existing and box office to be carpet
Doors	- Solid core wood doors in HM frames
Extra	- Barrier free operator in one Barrier Free Washroom - Provide allowance for modification of east stair - Assume premium finishes for public washrooms

3.2 Level 2

Ceilings	- New addition to have feature wood ceiling - Lounge to have GWB ceiling - Existing plaster ceiling in auditorium to be removed and existing joists and deck to be painted and left exposed. New cloud acoustic ceilings to be constructed (assume 30% of auditorium) - GWB ceilings in washrooms - T-bar ceilings in dressing rooms and green room - Exposed ceiling to be painted in rehearsal hall and service rooms
Walls	- Primed and painted GWB wall finish on all walls unless otherwise noted - New walls in auditorium to be structural steel stud with three layers of GWB on auditorium side - Porcelain tile on public washroom walls

Floors	- Porcelain tile on stairs - Carpet in Lounge and Lobby space - Porcelain tile in washrooms - Carpet in sound and light lock - Linoleum in Auditorium - Sprung wood floor with paint finish on stage - Linoleum on sprung wood floor in Rehearsal Hall - VCT in all back-of-house corridors and dressing rooms - Carpet in green room
Doors	- Solid core wood door with wood veneer finish, custom wood frames in public areas. Sound seals in all doors to Auditorium - HM doors and frames in back-of house areas - New insulated HM doors for loading
Extra	- Allow $500 per theatre seat - Stairs in sound and light lock are steel with a mid-level technical mezzanine flanking the Auditorium - Provide allowance for millwork. Note that there will be a bar in the Lounge area - Provide allowance to create a new proscenium ($100K) - Toilet partitions would be hung - New catwalks to be constructed in roof joist spaces - Provide allowance for feature walls in Lounge and Auditorium

MECHANICAL + ELECTRICAL DESIGN BRIEF

Using the concept design drawings created for the study, HHAngus prepared a Mechanical and Electrical Design Brief, which describes the mechanical and electrical elements of the building for both the renovation and new addition.

HHAngus

Lett Architects Inc.

138 Simcoe Street
Peterborough, ON, K9H 2H5

REPORT ON

City of Barrie – Proposed Community Theatre

Design Brief

8/21/2017

File # 2171241

TABLE OF CONTENTS

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1. Introduction

1.01.1 This design brief is being written for Lett Architects on behalf of the City of Barrie. This brief will cover the Mechanical and Electrical approaches and requirements for the creation of a new Performing Arts Centre from the now closed Barrie Central Collegiate school.

Our general understanding is that the theatre portion of the school will be isolated from the rest of the building with the intention that the remainder of the school building (or portion thereof) will sold off for future developments.

The theatre portion of the school will become a new separate theatre building. Therefore, as requested, the assumption will be that all Mechanical and Electrical services for the new theatre building will be new, and that services in the building that feed the remainder of the school will be cut, capped, and not left active for the for the school.

The design brief below is based on the schematic layout and section drawings provided by Lett Architects on August 14, 2017.

2. Mechanical Design

2.01 Fire Protection

2.01.1 The need for sprinklers in the building will be determined during the design phase and will be determined by the Ontario Building Code (OBC) Part 3.

If a sprinkler system is required, the fire protection backflow preventer and sprinkler header will be located in the mechanical space under the stage where the new water service enters the building. A water flow test performed in accordance with NFPA 291 will need to be performed to confirm the water main capacity. Pipe sizing and fire pump (if needed) will be sized to suit.

Types of sprinklers will be selected to suit the space and also coordinated with the architect as the design progresses to address aesthetic concerns. For the proposed glass box enclosing the atrium, sprinkler piping will run along the mullions to avoid covering up the glass.

2.01.2 Based on the layout and section drawings provided, the proposed theatre building appears to be two storeys in height, not more than 14m from the grade and ceiling of the top storey, and an approximately 2105m2 in building area. Based on OBC 3.2.9.1, a standpipe system is not required for the new theatre building if it is sprinklered.

2.01.3 Fire extinguishers will be placed throughout the building in accordance with NFPA 10.

2.02 Plumbing

2.02.1 All existing domestic water and drainage will be removed from the new theatre building and services coming from the remainder of the school building will be capped.

2.02.2 The incoming water service should be located in the mechanical space under the stage. A backflow preventer and meter assembly will be provided there in accordance with the local authority requirements. From the meter assembly, domestic cold water can be distributed to the plumbing fixtures in the various washrooms and dressing rooms.

2.02.3 A gas-fired domestic hot water heater will be installed near the men and women's washrooms with gas piping coming down from the roof and flue venting going up through the roof. Domestic hot water distribution piping

will feed the lavatories and showers. A domestic hot water recirculation system consisting of a small pump and distribution piping will also be required as the universal washrooms in the lower lobby is located relatively far away from the other washrooms.

2.02.4 The sanitary discharge from the plumbing fixtures will drain by gravity to the street at the location indicated by the civil engineer. This piping will be buried below the floor in most areas. Sanitary vents will be added as required and terminate through the roof where appropriate. Drain and venting will be sized in accordance with OBC Part 7.

2.02.5 The layout of the roof drains most likely will be similar to the existing, but the storm drain piping will be rerouted so that rainwater can drain by gravity to the location indicated by the civil engineer. Roof drains will be flow control or full flow type depending on the storm water management approach and will be in accordance to OBC Part 7.

2.02.6 An elevator sump and associated pump will be added for the new elevator leading from the atrium to the upper lobby.

2.03 Natural Gas

2.03.1 An appropriate location for a new gas service will need to be coordinated with the architect and the local gas utility during the design phase. An ideal location will be an inconspicuous corner where the piping can run up the roof along the outside the building. Natural gas distribution piping can run above the roof and branch out to the various gas-fired equipment.

2.04 Heating Ventilation and Air Condition (HVAC)

2.04.1 The existing heating water and chilled water lines will be cut back to where it enters the new theatre building and capped.

2.04.2 The existing air handling unit located in the mechanical space can be removed or abandoned, and all existing ductwork is to be removed.

2.04.3 Ventilation, cooling, and heating will be via new packaged rooftop units (RTU) using DX cooling and gas fired heating. Each unit will also be equipped with enthalpy economizers to allow air-side free cooling, equipped with powered exhaust to maintain neutral building pressure, and CO2 sensors to allow for demand controlled ventilation. Unless otherwise stated below, each RTU will be located above the space they serve with ductwork and diffusers to distribute the supply air. Return air will be via a ceiling plenum.

Preliminary heating and cooling load estimates were completed. The proposed HVAC systems is described below.

Auditorium: The auditorium will be split into two zones, with each zone fed by its own RTU. Each RTU will have 15 ton (nominal) cooling capacity, and 4 stage gas heating with 360 MBH input capacity. These units will also be equipped with hot gas reheat system for dehumidification as the large number of people in this space will generate a significant latent load. Silencers will also be added in order to keep the noise level within the Noise Criteria (NC) levels agreed upon by the client and the design team.

Lower Lobby: Based on the layout, the lower lobby appears to be somewhat isolated from the remaining rooms and as such will be provided with its own RTU. This RTU will have 6 ton (nominal) cooling capacity and 2 stage gas heating with 108 MBH input capacity. The unit will be located on the roof above the auditorium with vertical supply and return ductwork running down to the lobby and through the auditorium at appropriate locations. The exact location will be coordinated as the design progresses.

Atrium and Lounge: The atrium and lounge area will be fed by a RTU with 17.5 ton (nominal) cooling capacity and four stage gas heating with 480 MBH input capacity. For the atrium, high induction diffusers will be used to help keep condensation off of the proposed glass walls.

The remaining areas will be served by a RTU with 12 ton (nominal) cooling capacity and two stage gas heating with 180 MBH input capacity. This unit will be located above the rehearsal space with ductwork extending to the other areas. A VAV terminal box will be provided for the Green Room to allow for local zone control.

Outside air required by ASHRAE 62.1 ventilation code will be provided by the RTU's. For areas requiring general exhaust, a roof top exhaust fan will be provided.

The three dressing rooms will be provided with a rooftop exhaust fan for sanitary exhaust. The Men's, Women, and Universal Washroom on level 2 will be equipped with a separate rooftop sanitary exhaust fan. The two universal washroom on level 1 will have an inline fan that exhaust out of a wall. The exact location of the exhaust air louver (with sufficient distance from air intakes, doors, and windows) will be coordinated as the design progresses.

2.04.4 Electric unit heaters will be provided in non-occupied places such as vestibules, stairwells, storage rooms, and mechanical rooms.

2.05 Controls

2.05.1 The building mechanical systems will be operated through a local Building Automation System (BAS). The system will incorporate direct digital control of the RTU's and exhaust fans. The BAS will be designed as a web based system for remote access and expansion.

The BAS will have the ability to optimize system setpoints for improved operational efficiency.

The BAS will be utilized for monitoring and trending of building historic data and troubleshooting.

2.06 Operating and Energy Consumption

2.06.1 All the RTU's will be high efficiency units that complies with ASHRAE 90.1. The RTU fans will be equipped with VFD's for staged air volume operation or variable air volume operation depending on the application. Airside economizers will allow for free cooling whenever the air outside is sufficiently cold.

The BAS will allow for set back of the RTU's and turning off of the exhaust fans based on time-of-day schedules to reduce energy waste while the building is unoccupied.

In the auditorium, CO2 sensors will allow for demand controlled ventilation in order to minimize the outside air brought into the building while still maintaining a healthy environment for the people inside.

2.06.2 The domestic hot water heaters for this facility will also be high efficiency type, capable of achieving over ninety percent (90%) efficiency and be ENERGY STAR® Qualified.

Low flow plumbing fixtures will be selected to minimize domestic water consumption.

Electrical Design

2.07 Electrical Site Transformer

2.07.1 The existing site transformer is sitting approximately 90ft away from the exterior entrance to the main electrical service room. The pad mounted transformer is inside an enclosed fence and the primary cables to the

transformer are from overhead. The secondary cables are underground, in an assumed concrete duct bank. There is an existing manhole between the transformer and electrical service room.

If the proposed separation and renovation is moved forward, it might be an opportunity to re-do the transformer area. The first item would be to bring the primary cables underground. This will make for a much more appealing street view of the area. It would also likely remove the necessity for the chain link fence that is around the transformer, once again improving the street view. Both items would have to be confirmed with the local utility company.

Since the site transformer is approximately 90ft away from the electrical service room, it may not be located on land that would remain with the theatre. And therefore may have to be moved closer to the theatre building. If that is the case, an entirely new pad mounted transformer with new primary and secondary cables/duct banks would be required. The size of the transformer could also be reduced, as the existing unit is size for the entire property. The new unit would only be required for the theatre building/parking and not the entire site. By doing this the transformer would run more efficiently and if there was ever an issue with it, it is more likely the utility company would have a replacement unit available for a smaller unit than a larger unit. Again all of this would have to be confirmed with the local utility company.

2.08 Electrical Main Electrical Distribution Equipment

2.08.1 Once the main secondary cables from the transformer come into the building, they enter the main switchboard (1600A, 600V, 3PH, 3Wire), which is manufacturer by Federal Pioneer (FP). Federal Pioneer equipment is no longer manufactured and parts can be difficult to come by. This is evident by looking at the 600V distribution portion of the switchboard. One of the switches was replaced (or added) with a circuit breaker. A fuse and switch section was probably not available, therefore a circuit breaker was used. The other end of the switchboard is a 600V-120/208V transformer and distribution section. With the age and current supply of spare parts, it would suggested that the entire incoming switchboard and distribution sections be placed. This will ensure the equipment will be reliable and in good working order for the life of the new theatre building.

The existing switchboard is rated for 1600A at 600V, it is very likely the new switchboard and distribution sections would be smaller. Based on initial estimates the electrical service size would be in the area of 200-300A at 600V.

2.09 Electrical Distribution Equipment

2.09.1 The existing branch circuit panels are of the same vintage as the main switchboard. They are also manufactured by FP. The branch circuit labelling is questionable. It is recommended that all new branch circuit panels and wiring be installed. Again this will ensure the equipment will be reliable and in good working order for the life of the building. The remaining portion of the theatre will all be going through a major renovation, so this is the ideal time for this equipment to be replaced.

2.10 Fire Alarm

2.10.1 There is strong indication that the main fire alarm panel is in the high school portion that would be separated from the theatre building. And again the remaining theatre portion of the school will be going through a major renovation, which is a logical time to install a brand new fire alarm system. This includes the main panel, in the electrical room and remote annunciator panel in the front entrance of the new theatre building. This will also ensure the system will be able to accept the fire alarm strobe units required along with the proper recall functionality required for the new elevator. There is a strong chance that the existing fire alarm system is too old for this new required functionality. By installing a brand new fire alarm system, we ensure a strong life safety system for the theatre going forward.

It should also be noted that the existing device placement, specifically, the manual pull stations do not meet the code requirements for AODO. Another reason why a new system should be installed.

2.11 Lighting

2.11.1 The current lighting of the space is a combination of long fluorescent tubes and downlights. This is a good opportunity to install energy efficient LED fixtures with local lighting controls, for example occupancy sensors. This would being the space up-to-date with current energy standards, along with reducing maintenance and operating costs.

2.12 Electrical Egress and Exit Lighting

2.12.1 The current site has the old standard red ‘EXIT’ egress signs. With the renovations proposed for the theatre portion, this would be a good opportunity to upgrade all exit/egress signs to the new green pictogram egress signs (Green Running Man egress signs). All the new signs would be LED and have an AC/DC power input.

The exit lighting is accomplished via battery units and remote battery heads. This is an acceptable strategy to accommodate exit lighting when a standby generator unit is not a part of the electrical distribution. As with most of the other electrical devices. The battery units and heads would be replaced with new. All heads would be LED. With the egress signs having a DC input, they can be connected to the battery units and remain operational, in the event, the building loses utility power.

2.13 Standby Generator

2.13.1 At this time, there is no plan to add a standby generator unit to the site. However, if the owner would like to add one, the new electrical distribution could be designed to accommodate the unit. Without knowing the condition of the roof, the likely location of a unit would be on the ground in a self-contained enclosure. At this size, both a diesel and natural gas unit would be an option.

2.14 Electrical Grounding

2.14.1 In the main electrical service room, there is no indication of a grounding bar around the electrical room. It is assumed that the grounding is all taken back to a water pipe. This is an okay method, but the preferred method is to have a copper bus bar that goes around the entire room with several ground rods driven into the ground in the corners of the room. A well installed grounding system is the backbone to an electrical system, as it helps to dissipate shorts and other unwanted electrical faults. This helps protect electrical equipment such as the electrical distribution along with sensitive Audio and Visual equipment and lighting controls. It is recommended that a new and proper grounding system be installed in the main electrical room and out to the necessary equipment throughout the building.

Report prepared by:
Justin Patel, P.Eng
Tim Zhu, P.Eng, WELL AP

CLASS D COST ESTIMATE

Using the concept design drawings created for the study, Marshall & Murray Inc. cost consultants prepared a full Class ‘D’ construction cost estimate. The following pages represent the detailed estimate prepared to establish anticipated construction cost.

MARSHALL & MURRAY INCORPORATED

THE CITY OF BARRIE
FISHER AUDITORIUM
Barrie, Ontario

"DRAFT" CLASS "D" ESTIMATE

prepared for:

LETT ARCHITECTS INC
138 Simcoe Street
Peterborough, Ontario
K9H 2H5

prepared by:

MARSHALL & MURRAY INCORPORATED
625 Wellington Street
London, Ontario
N6A 3R8

August 31, 2017
L1996/4/ClassD/8/Estimate.xls

Quantity Surveyors and Development Consultants
625 Wellington Street, London, Ontario N6A 3R8 Tel: (519) 433-3908 Fax: (519) 433-9453
Suite 414, 120 Carlton Street, Toronto, Ontario M5A 4K2 Tel: (416) 928-1993 Fax: (416) 928-0895
1379 Bank Street, Suite 301, Ottawa, Ontario K1H 8N3 Tel: (613) 230-3115 Fax: (613) 230-4091
E-mail: main@marshallmurray.com Website: www.marshallmurray.com

August 31, 2017

LETT ARCHITECTS INC
138 Simcoe Street
Peterborough, Ontario
K9H 2H5

Attention: Mr. Michael Stock

Re: THE CITY OF BARRIE - FISHER AUDITORIUM - Barrie, Ontario

Dear Michael,

Please find enclosed a copy of our "Draft" Class "D" Estimate for the above noted project for your review and comment.

If you have any questions or require further information, please do not hesitate to contact our office.

Yours truly,

MARSHALL & MURRAY INC.

Bob Picken, PQS, GSC
Senior Cost Consultant

Quantity Surveyors and Development Consultants
625 Wellington Street, London, Ontario N6A 3R8 Tel: (519) 433-3908 Fax: (519) 433-9453
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1379 Bank Street, Suite 301, Ottawa, Ontario K1H 8N3 Tel: (613) 230-3115 Fax: (613) 230-4091
E-mail: main@marshallmurray.com Website: www.marshallmurray.com

"DRAFT" CLASS "D" ESTIMATE

Table of Contents

a) EXECUTIVE SUMMARY

This report prepared by Marshall & Murray Inc. is classified as a "Draft" Class "D" Estimate.

Marshall & Murray Inc. were retained to provide a realistic **Total Projected Construction Cost** budget for the redevelopment at The City Of Barrie.

The project is located in Barrie, Ontario.

The proposed redevelopment would consist of an addition and renovations to accommodate the Fisher Auditorium. All costs associated with the reconfiguration of the site and demolition of the existing Barrie Central School will be by the Developer and therefore have not been included in this report.

The proposed redevelopment is being designed by Lett Architects Inc.

The estimate presented here is based on the drawings received from the design team, meetings, and oral information.

The **Total Projected Construction Cost** is estimated at: **$11,300,484**

The above amount excludes Separate and Alternate prices. A detailed breakdown of the amount can be found in the following Section 1b).

This estimate is priced in August 2017 dollars. Escalation during construction has been included in the estimate. Projected escalation to time of tender is identified separately if requested.

This estimate has been priced, based on a standard CCDC 2 – Stipulated Sum Contract.

The construction cost includes all labour, materials, plant, sub-contractors' overheads and profit, and the general contractor's overheads and profit.

Please review the exclusions as noted in Section 1 k) Exclusions to Construction Cost.

If you have any questions or require further information, please do not hesitate to contact our office.

Bob Picken, PQS, GSC
Email: bpicken@marshallmurray.com
Ph: 519-433-3908
Fax: 519-433-9453

b) TOTAL PROJECT SUMMARY

	DESCRIPTION	"DRAFT" CLASS "D" ESTIMATE GSF	GFA	COST/SF	AMOUNT
A.	**FISHER AUDITORIUM**				
1.0	NEW BUILD		3,218	*488.11*	1,570,939
	ADDITION	3,218		488	1,570,939
2.0	RENOVATION		22,863	*334.58*	7,649,433
	RENOVATIONS	22,863		335	7,649,433
3.0	OTHER ASSOCIATED COSTS				1,228,527
	SITE DEVELOPMENT / LANDSCAPING				BY OTHERS
	DEMOLITION OF EXISTING BARRIE CENTRAL SCHOOL				BY OTHERS
	ABNORMAL SOIL CONDITIONS / CONTAMINATED SOIL				EXCL.
	HAZARDOUS MATERIAL ABATEMENT	22,863		10	228,627
	PREMIUM TIME / AFTER-HOURS WORK				EXCL.
	CONSTRUCTION PHASING				N/A
	LEED PREMIUM				N/A
	SIGNAGE & WAYFINDING			ALLOW	50,000
	PROJECT SCOPE CONTINGENCY			10.0%	949,900
4.0	ESCALATION				313,467
	ESCALATION TO TIME OF TENDER (ALLOW 3.0% P.A.)		*1 YEAR*	3.0%	313,467
TOTAL	**FISHER AUDITORIUM**		**26,081**	*412.65*	**$10,762,366**
	SUB-TOTAL CONSTRUCTION COST				10,762,366
	- NET H.S.T. ON CONSTRUCTION				EXCLUDED
	TOTAL CONSTRUCTION COST				**10,762,366**
	ANCILLARY COSTS				EXCLUDED
	FF&E - NEW EQUIPMENT ALLOWANCE (INCL. I.T. / I.S.)				EXCLUDED
	POST CONTRACT CONTINGENCY (CHANGE ORDERS)			5.0%	538,118
	TOTAL PROJECT COST				***11,300,484***

c) METHOD OF MEASUREMENT

This estimate has been prepared by measurement of quantities from the drawings received from the design team, Lett Architects Inc.

Unit costs, allowances, and contingencies were applied to these quantities to reflect market conditions and provide a realistic budget based on comparable projects with similar size and scope of works.

Mechanical & Electrical information was provided by **HH Angus.**

d) GROSS FLOOR AREA

Addition	299	M2	3,218	SF
Renovations	2,124	M2	22,863	SF
Total	**2,423**	**M2**	**26,081**	**SF**

e) PRICING

This estimate is priced in August 2017 dollars expecting 3-6 qualified competitive General Contractors and Sub-Contractors. Bids will vary due to fluctuating market conditions, proprietary product vendors, lack or surplus bidders and bidder's perception of risk.

f) TAXES

The Harmonized Sales Tax (H.S.T.) is excluded.

g) MECHANICAL AND ELECTRICAL COSTS

Mechanical and Electrical Costs included in this estimate were based on information provided by the Consultants.

h) SITE SERVICES

No site services are included or anticipated for this project.

i) CONTINGENCY

At this stage of the project, a 10.0% design contingency has been allowed. This is to cover unknown details in design and construction, layout variations and material selections but excludes any scope increases.

j) GENERAL REQUIREMENTS AND FEES

General Requirements - General Contractors Overhead is taken at:	7.0%
Fee - General Contractors Profit is taken at:	3.0%

k) EXCLUSIONS TO CONSTRUCTION COST

- Phasing
- Soft Costs
- Professional and Design Fees
- Furniture and Loose Equipment
- Development Charges and Levies
- Financing Costs
- Relocation Costs
- Abnormal Soil Conditions
- Contaminated Soil
- Project Management
- Harmonized Sales Tax (H.S.T.)
- Inspection and Testing
- Window Drapes/Curtains, and Art Work
- Premium Labour
- LEED Costs
- Winter Heat to Shell Construction

l) STATEMENT OF PROBABLE COSTS

This estimate represents a professional opinion of the probable costs for this project. Marshall & Murray Incorporated cannot guarantee that the actual project cost will not vary from this opinion.

m) ONGOING COST CONTROL

The project is still within the early stages of design and thus the full scope and design specifications have not been clearly determined. The estimate makes assumptions for all elements not clearly defined on the drawings. These assumptions are listed within the detailed estimate.

To alleviate a portion of the risk, a design and pricing contingency allowance has been included to accommodate for future design tweaks. However if there is a significant amount of design changes as the project progresses, they could result in an increase in cost that cannot be covered by the design and pricing contingency allowance. At this stage we consider the risk high, and would request that the design team review and provide comment with regards to the design detail included within the estimate.

We recommend that the estimate contained herein be reviewed thoroughly by the project team. Any comments or suggestions should be forwarded as soon as possible. We also recommend that further estimates be prepared once a firm design has been established.

n) DOCUMENTS LIST

The following list of drawings was received from Lett Architects Inc.
The noted drawings were used to complete Marshall and Murray's "Draft" Class "D" Estimate.

	Printed / Revision Date	Date Received
Architectural		
Concept Design Brief	August 16, 2017	August 16, 2017
Concept Design - site plan	August 16, 2017	August 16, 2017
Concept Design - floor plans	August 16, 2017	August 16, 2017
Concept Design - theatre section	August 16, 2017	August 16, 2017
Concept Design - Elevations	August 16, 2017	August 16, 2017
Structural		
N/A		
Landscape / Site Work		
N/A		
Mechanical		
Design Brief	August 21, 2017	August 23, 2017
Electrical		
N/A		

ELEMENTAL COST SUMMARY
ADDITION

GFA : 299 m²

ELEMENT/Sub Element	Ratio to GFA	Elemental Cost Quantity	Unit Rate	Elemental Amount Sub-total	Total	Rate/m² Sub-Total	Total	%
A SHELL					**$823,942**		**$2,755.66**	**52.45%**
A1 SUBSTRUCTURE					$124,000		$414.72	7.89%
A11 Foundations	0.59	175 m²	708.57	$124,000		$414.72		
A112 Special Foundations	0.00	0 m³	0.00	nil		$0.00		
A12 Basement Excavation	0.00	0 m³	0.00	nil		$0.00		
A2 STRUCTURE					$189,862		$634.99	12.09%
A21 Lowest Floor Construction	0.59	175 m²	60.71	$10,625		$35.54		
A22 Upper Floor Construction	0.41	124 m²	575.23	$71,329		$238.56		
A222 Stair Construction	0.01	2 flts	18,000.00	$27,000		$90.30		
A23 Roof Construction	0.59	175 m²	462.33	$80,909		$270.60		
A3 EXTERIOR ENCLOSURE					$510,080		$1,705.95	32.47%
A31 Walls Below Grade	0.00	0 m²	0.00	nil		$0.00		
A32 Walls Above Grade	0.00	0 m²	0.00	nil		$0.00		
A33 Windows & Entrances	1.61	480 m²	992.08	$476,200		$1,592.64		
A34 Roof Covering	0.59	175 m²	193.60	$33,880		$113.31		
A35 Projections	0.00	0 m²	0.00	nil		$0.00		
B INTERIORS					**$289,750**		**$969.06**	**18.44%**
B1 PARTITIONS & DOORS					$80,387		$268.85	5.12%
B11 Partitions	1.28	383 m²	150.88	$57,787		$193.27		
B12 Doors	0.02	6 #	3,766.67	$22,600		$75.59		
B2 FINISHES					$105,863		$354.06	6.74%
B21 Floor Finishes	0.97	289 m²	116.30	$33,612		$112.41		
B22 Ceiling Finishes	0.97	290 m²	225.14	$65,290		$218.36		
B23 Wall Finishes	3.09	923 m²	7.54	$6,961		$23.28		
B3 FITTINGS & EQUIPMENT					$103,500		$346.15	6.59%
B31 Fittings & Fixtures	1.00	299 m²	11.71	$3,500		$11.71		
B32 Equipment	0.00	0 m²	0.00	nil		$0.00		
B33 Conveying Systems	0.01	2 stp	50,000.00	$100,000		$334.45		
C SERVICES					**$184,605**		**$617.41**	**11.75%**
C1 MECHANICAL					$110,630		$370.00	7.04%
C11 Plumbing & Drainage	0.00	0 m²	0.00	nil		$0.00		
C12 Fire Protection	1.00	299 m²	30.00	$8,970		$30.00		
C13 HVAC	1.00	299 m²	300.00	$89,700		$300.00		
C14 Controls	1.00	299 m²	40.00	$11,960		$40.00		
C2 ELECTRICAL					$73,975		$247.41	4.71%
C21 Service & Distribution	1.00	299 m²	25.00	$7,475		$25.00		
C22 Lighting, Devices & Heating	1.00	299 m²	100.00	$29,900		$100.00		
C23 Systems & Ancillaries	1.00	299 m²	122.41	$36,600		$122.41		
NET BUILDING COST - EXCLUDING SITE & ANCILLARY WORK				**$1,298,297**	**$1,298,297**		**$4,342.13**	**82.64%**
D SITE & ANCILLARY WORK					**$0**		**$0.00**	**0.00%**
D1 SITE WORK					$0		$0.00	0.00%
D11 Site Development	0.00	0 m²	0.00	separate		$0.00		
D12 Mechanical Site Services	0.00	0 m²	0.00	separate		$0.00		
D13 Electrical Site Services	0.00	0 m²	0.00	separate		$0.00		
D2 ANCILLARY WORK					$0		$0.00	0.00%
D21 Demolition	0.00	0 m²	0.00	nil		$0.00		
D22 Alterations	0.00	0 m²	0.00	nil		$0.00		
D23 Cash Allowances	0.00	0 m²	0.00	nil		$0.00		
NET BUILDING COST - EXCLUDING GENERAL REQUIREMENTS				**$1,298,297**	**$1,298,297**		**$4,342.13**	**82.64%**
Z GENERAL REQUIREMENTS					**$129,830**		**$434.21**	**8.26%**
Z1 GENERAL REQUIREMENTS & FEE					$129,830		$434.21	8.26%
Z11 General Requirements (%)	7.0%			$90,881		$303.95		
Z12 Fee (%)	3.0%			$38,949		$130.26		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$1,428,127**	**$1,428,127**		**$4,776.34**	**90.91%**
Z2 ALLOWANCES					$142,813		$477.63	9.09%
Z21 Design & Pricing (%)	10.0%			$142,813		$477.63		
Z22 Escalation Allowance (%)	0.0%			$0		$0.00		
Z23 Construction Allowance (%)	0.0%			$0		$0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING TAXES				**$1,570,939**	**$1,570,939**		**$5,253.98**	**100.00%**
HARMONIZED SALES TAX					$0			
Harmonized Sales Tax	0.0%			$0		$0.00		
TOTAL CONSTRUCTION ESTIMATE					**$1,570,939**		**$5,253.98**	

Area (sf)	3,218
/sf	$488.11

ADDITION

FILE: L1996/4/ClassD/8/Estimate.xls

Description		Qty	Unit	Rate	Amount
A1 SUBSTRUCTURE					
A11 Foundations					
1.0	Earthwork	175	m²	40.00	7,000
2.0	Foundations	175	m²	190.00	33,250
3.0	Underpinning	175	m	450.00	78,750
4.0	Inserts, steps, tie-ins, etc.		allow		5,000
Total A11 Foundations		**175**	**m²**		**124,000**
A112 Special Foundations					nil
A12 Basement Excavation					nil
A2 STRUCTURE					
A21 Lowest Floor Construction					
1.0	Slab-on-grade	175	m²	55.00	9,625
2.0	Inserts, slab thickening, equipment bases, misc. reinforcing		allow		1,000
Total A21 Lowest Floor Construction		**175**	**m²**		**10,625**
A22 Upper Floor Construction					
1.0	Suspended floor				
	- metal deck	124	m²	40.00	4,960
	- structural steel	6,054	kgs	4.00	24,216
	- concrete	9	m³	200.00	1,800
	- screed, cure and finish	124	m²	5.00	620
2.0	Concrete shear walls				
	- concrete	32	m³	200.00	6,400
	- formwork	210	m²	108.00	22,680
	- reinforcing	2,261	kgs	2.50	5,653
3.0	Inserts, curbs, equip. bases, misc. reinforcing, tie-in to existing		allow		5,000
Total A22 Upper Floor Construction		**124**	**m²**		**71,329**

ADDITION

FILE: L1996/4/ClassD/8/Estimate.xls

Description		Qty	Unit	Rate	Amount
A2 STRUCTURE					
A222	**Stair Construction**				
1.0	Stairs	1	flts		20,000
2.0	Half height stairs	1	flts		5,000
3.0	Miscellaneous supports, railings, finishes, etc.		allow		2,000
Total A222 Stair Construction		**1.5**	**flts**		**27,000**
A23 Roof Construction					
1.0	Roof structure				
	- metal deck	175	m²	40.00	7,000
	- structural steel	8,544	kgs	4.00	34,176
2.0	Concrete shear walls				
	- concrete	32	m³	200.00	6,400
	- formwork	210	m²	108.00	22,680
	- reinforcing	2,261	kgs	2.50	5,653
3.0	Inserts, curbs, misc. reinforcing, tie-in to existing		allow		5,000
Total A23 Roof Construction		**175**	**m²**		**80,909**
A3 EXTERIOR ENCLOSURE					
A31 Walls Below Grade					nil
A32 Walls Above Grade					nil
A33 Windows & Entrances					
1.0	Curtain wall	480	m²	915.00	439,200
2.0	Fully glazed entrance doors	4	lvs	3,000.00	12,000
3.0	Supports, caulking, flashing, etc.		allow		25,000
Total A33 Windows & Entrances		**480**	**m²**		**476,200**

Description	Qty	Unit	Rate	Amount
A3 EXTERIOR ENCLOSURE				
A34 Roof Covering				
1.0 Tremco inverted roof	175	m²	172.00	30,100
2.0 Parapet cap and flashing	32	m	40.00	1,280
3.0 Flashing, pavers, anchors, tie-in to existing		allow		2,500
Total A34 Roof Covering	**175**	**m²**		**33,880**
A35 Projections				nil
B1 PARTITIONS & DOORS				
B11 Partitions				
1.0 Standard partitions				
- 16mm gypsum board				
- 92mm metal studs				
- sound batt insulation				
- 16mm gypsum board	203	m²	109.00	22,127
2.0 Furring				
- 92mm metal studs				
- 16mm gypsum board	180	m²	61.00	10,980
3.0 Glazed railing	24	m	820.00	19,680
4.0 Lintels, supports, caulking, firestopping		allow		5,000
Total B11 Partitions	**383**	**m²**		**57,787**
B12 Doors				
1.0 Fully glazed entrance doors	4	lvs	3,000.00	12,000
2.0 Solid core wood doors set within a hollow metal frame	2	lvs	650.00	1,300
3.0 Extra / over for:				
- finish hardware	2	#	1,200.00	2,400
- fire rating	2	#	200.00	400
- barrier free operators	2	#	2,500.00	5,000
4.0 Supports, misc. finish hardware		allow		1,500
Total B12 Doors	**6**	**#**		**22,600**

THE CITY OF BARRIE
FISHER AUDITORIUM
Barrie, Ontario

August 31, 2017
"DRAFT" CLASS "D" ESTIMATE

ADDITION

FILE: L1996/4/ClassD/8/Estimate.xls

Description	Qty	Unit	Rate	Amount
B2 FINISHES				
B21 Floor Finishes				
1.0 Carpet flooring	62	m²	48.00	2,976
2.0 Porcelain tile	227	m²	96.00	21,792
3.0 Base				
- rubber base	58	m	8.00	464
- porcelain tile	147	m	40.00	5,880
4.0 Special finishes, patterns, etc.		allow		2,500
Total B21 Floor Finishes	**289**	**m²**		**33,612**
B22 Ceiling Finishes				
1.0 Wood ceiling	224	m²	250.00	56,000
2.0 Gypsum board ceiling	66	m²	65.00	4,290
3.0 Bulkheads		allow		2,500
4.0 Special finishes, patterns, etc.		allow		2,500
Total B22 Ceiling Finishes	**290**	**m²**		**65,290**
B23 Wall Finishes				
1.0 Paint	923	m²	7.00	6,461
2.0 Special finishes, patterns, etc.		allow		500
Total B23 Wall Finishes	**923**	**m²**		**6,961**

ADDITION

FILE: L1996/4/ClassD/8/Estimate.xls

Description		Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT					
B31 Fittings & Fixtures					
1.0	Level 1				
1.1	Vestibule - recessed aluminum grille		allow		2,500
1.2	Atrium				nil
2.0	Level 2				
2.1	Balcony lobby				nil
2.2	Upper Lobby				nil
3.0	Miscellaneous metals, blocking, supports, etc.		allow		1,000
4.0	Signage and wayfinding				see summary
5.0	Window coverings / blinds				by owner
Total B31 Fittings & Fixtures		**299**	**m²**		**3,500**
B32 Equipment					nil
B33 Conveying Systems					
1.0	Elevator (2 stop)	1	#	100,000.00	100,000
Total B33 Conveying Systems		**2**	**stp**		**100,000**

ADDITION

FILE: L1996/4/ClassD/8/Estimate.xls

Description		Qty	Unit	Rate	Amount
C1 MECHANICAL					
C11 Plumbing & Drainage					
1.0	Plumbing to area				nil
Total C11 Plumbing & Drainage					**nil**
C12 Fire Protection					
1.0	Fire protection to area	299	m2	30.00	8,970
Total C12 Fire Protection		**299**	**m²**		**8,970**
C13 HVAC					
1.0	HVAC to area	299	m2	300.00	89,700
Total C13 HVAC		**299**	**m²**		**89,700**
C14 Controls					
1.0	Controls to area	299	m2	40.00	11,960
Total C14 Controls		**299**	**m²**		**11,960**

THE CITY OF BARRIE
FISHER AUDITORIUM
Barrie, Ontario

August 31, 2017
"DRAFT" CLASS "D" ESTIMATE

ADDITION

FILE: L1996/4/ClassD/8/Estimate.xls

Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C21 Service & Distribution				
1.0 Distribution to area	299	m2	25.00	7,475
Total C21 Service & Distribution	**299**	**m²**		**7,475**
C22 Lighting, Devices & Heating				
1.0 Lighting and switching to area	299	m2	80.00	23,920
2.0 Devices / receptacles to area	299	m2	20.00	5,980
Total C22 Lighting, Devices & Heating	**299**	**m²**		**29,900**
C23 Systems & Ancillaries				
1.0 System to area	299	m2	100.00	29,900
2.0 Job startup and close out				6,700
Total C23 Systems & Ancillaries	**299**	**m²**		**36,600**
D1 SITE WORK				separate
D2 ANCILLARY WORK				
D21 Demolition				nil
D22 Alterations				nil
D23 Cash Allowances				nil

THE CITY OF BARRIE
FISHER AUDITORIUM
Barrie, Ontario

ELEMENTAL COST SUMMARY
RENOVATIONS

August 31, 2017
"DRAFT" CLASS "D" ESTIMATE

GFA : 2,124 m²

FILE: L1996/4/ClassD/8/Estimate.xls

ELEMENT/Sub Element	Ratio to GFA	Elemental Cost Quantity	Unit Rate	Elemental Amount Sub-total	Elemental Amount Total	Rate/m² Sub-Total	Rate/m² Total	%
A SHELL					**$1,653,144**		**$778.32**	**21.6%**
A1 SUBSTRUCTURE					$0		$0.00	0.0%
A11 Foundations	0.00	0 m2	0.00	nil		$0.00		
A112 Special Foundations	0.00	0 m2	0.00	nil		$0.00		
A12 Basement Excavation	0.00	0 m2	0.00	nil		$0.00		
A2 STRUCTURE					$440,000		$207.16	5.8%
A21 Lowest Floor Construction	0.00	0 m2	0.00	nil		$0.00		
A22 Upper Floor Construction	0.30	641 m2	624.02	$400,000		$188.32		
A222 Stair Construction	0.00	5 flts	8,000.00	$40,000		$18.83		
A23 Roof Construction	0.00	0 m2	0.00	nil		$0.00		
A3 EXTERIOR ENCLOSURE					$1,213,144		$571.16	15.9%
A31 Walls Below Grade	0.00	0 m2	0.00	nil		$0.00		
A32 Walls Above Grade	1.20	2,556 m2	279.88	$715,368		$336.80		
A33 Windows & Entrances	0.04	78 m2	1,273.97	$99,370		$46.78		
A34 Roof Covering	0.89	1,893 m2	194.91	$368,956		$173.71		
A35 Projections	0.07	150 m2	196.33	$29,450		$13.87		
B INTERIORS					**$1,606,603**		**$756.40**	**21.0%**
B1 PARTITIONS & DOORS					$505,230		$237.87	6.6%
B11 Partitions	1.30	2,760 m2	143.18	$395,180		$186.05		
B12 Doors	0.02	48 no.	2,292.71	$110,050		$51.81		
B2 FINISHES					$448,554		$211.18	5.9%
B21 Floor Finishes	0.99	2,097 m2	95.43	$200,121		$94.22		
B22 Ceiling Finishes	0.99	2,107 m2	77.88	$164,084		$77.25		
B23 Wall Finishes	2.46	5,220 m2	16.16	$84,349		$39.71		
B3 FITTINGS & EQUIPMENT					$652,819		$307.35	8.5%
B31 Fittings & Fixtures	1.00	2,124 m2	307.35	$652,819		$307.35		
B32 Equipment	0.00	0 m2	0.00	nil		$0.00		
B33 Conveying Systems	0.00	0 stp	0.00	nil		$0.00		
C SERVICES					**$2,577,707**		**$1,213.61**	**33.7%**
C1 MECHANICAL					$1,588,707		$747.98	20.8%
C11 Plumbing & Drainage	1.00	2,124 m2	272.46	$578,700		$272.46		
C12 Fire Protection	1.00	2,124 m2	105.23	$223,507		$105.23		
C13 HVAC	1.00	2,124 m2	306.73	$651,500		$306.73		
C14 Controls	1.00	2,124 m2	63.56	$135,000		$63.56		
C2 ELECTRICAL					$989,000		$465.63	12.9%
C21 Service & Distribution	1.00	2,124 m2	152.68	$324,300		$152.68		
C22 Lighting, Devices & Heating	1.00	2,124 m2	103.99	$220,882		$103.99		
C23 Systems & Ancillaries	1.00	2,124 m2	208.95	$443,818		$208.95		
NET BUILDING COST - EXCLUDING SITE & ANCILLARY				**$5,837,454**	**$5,837,454**		**$2,748.33**	**76.3%**
D SITE & ANCILLARY WORK					**$484,391**		**$228.06**	**6.3%**
D1 SITE WORK					$0		$0.00	0.0%
D11 Site Development	0.00	0 m2	0.00	nil		$0.00		
D12 Mechanical Site Services	0.00	0 m2	0.00	nil		$0.00		
D13 Electrical Site Services	0.00	0 m2	0.00	nil		$0.00		
D2 ANCILLARY WORK					$484,391		$228.06	6.3%
D21 Demolition	0.00	0 m2	0.00	nil		$0.00		
D22 Alterations	1.00	2,124 m2	180.98	$384,391		$180.98		
D23 Cash Allowances	1.00	2,124 m2	47.08	$100,000		$47.08		
NET BUILDING COST - EXCLUDING GENERAL REQUIREMENTS				**$6,321,845**	**$6,321,845**		**$2,976.39**	**82.6%**
Z GENERAL REQUIREMENTS					**$632,185**		**$297.64**	**8.3%**
Z1 GENERAL REQUIREMENTS & FEE					$632,185		$297.64	8.3%
Z11 General Requirements (%)	7.0%			$442,529		$208.35		
Z12 Fee (%)	3.0%			$189,655		$89.29		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$6,954,030**	**$6,954,030**		**$3,274.03**	**90.9%**
Z2 ALLOWANCES					$695,403		$327.40	9.1%
Z21 Design & Pricing (%)	10.0%			$695,403		$327.40		
Z22 Escalation Allowance (%)	0.0%			$0		$0.00		
Z23 Construction Allowance (%)	0.0%			$0		$0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING TAXES				**$7,649,433**	**$7,649,433**		**$3,601.43**	**100.0%**
HARMONIZED SALES TAX					$0			
Harmonized Sales Tax	0.0%			$0		$0.00		
TOTAL CONSTRUCTION ESTIMATE					**$7,649,433**		**$3,601.43**	
						Area (sf)	22,863	
						/sf	$334.58	

RENOVATIONS

FILE: L1996/4/ClassD/8/Estimate.xls

Description	Qty	Unit	Rate	Amount
A1 SUBSTRUCTURE				nil
A2 STRUCTURE				
A21 Lowest Floor Construction				nil
A22 Upper Floor Construction				
1.0 Build up for floor to appropriate rake		allow		200,000
2.0 Catwalks		allow		150,000
3.0 Inserts, curbs, equip. bases, misc. reinforcing, tie-in to existing, etc.		allow		50,000
Total A22 Upper Floor Construction	**641**	**m^2**		**400,000**
A222 Stair Construction				
1.0 Modifications to east stair		allow		5,000
2.0 Steel stairs	4	flts	7,500.00	30,000
3.0 Miscellaneous supports, railings, finishes, etc.		allow		5,000
Total A222 Stair Construction	**5**	**flts**		**40,000**
A23 Roof Construction				nil

RENOVATIONS

FILE: L1996/4/ClassD/8/Estimate.xls

Description	Qty	Unit	Rate	Amount
A3 EXTERIOR ENCLOSURE				
A31 Walls Below Grade				nil
A32 Walls Above Grade				
1.0 South wall comprised of - steel siding - 25mm air space - z- girts - 125mm semi-rigid insulation - air / vapour barrier - concrete masonry unit	636	m^2	388.00	246,768
2.0 Existing walls - steel siding - 25mm air space - z- girts - 125mm semi-rigid insulation - air / vapour barrier - existing wall	1,920	m^2	205.00	393,600
3.0 Lintels, caulking, flashing, tie-in to existing, etc.		allow		75,000
Total A32 Walls Above Grade	**2,556**	**m^2**		**715,368**
A33 Windows & Entrances				
1.0 Curtain wall	78	m^2	915.00	71,370
2.0 Fully glazed entrance doors	6	lvs	3,000.00	18,000
3.0 Supports, caulking, flashing, etc.		allow		10,000
Total A33 Windows & Entrances	**78**	**m^2**		**99,370**
A34 Roof Covering				
1.0 Tremco inverted roof	1,893	m^2	172.00	325,596
2.0 Parapet cap and flashing	209	m	40.00	8,360
3.0 Flashing, pavers, anchors, tie-in to existing, etc.		allow		35,000
Total A34 Roof Covering	**1,893**	**m^2**		**368,956**
A35 Projections				
1.0 Soffit	150	m^2	183.00	27,450
2.0 Flashing, caulking, tie-in to existing, etc.		allow		2,000
Total A35 Projections	**150**	**m^2**		**29,450**

Description		Qty	Unit	Rate	Amount
B1 PARTITIONS & DOORS					
B11 Partitions					
1.0	Standard partitions				
	- 16mm gypsum board				
	- 92mm metal studs				
	- sound batt insulation				
	- 16mm gypsum board	2,760	m²	109.00	300,840
	- extra / for 2 layers of gypsum board	435	m²	52.00	22,620
2.0	Glazed railing	55	m	820.00	45,100
3.0	Glazing	6	m²	270.00	1,620
4.0	Lintels, supports, caulking, firestopping, etc.		allow		25,000
Total B11 Partitions		**2,760**	**m²**		**395,180**
B12 Doors					
1.0	Hollow metal doors set within and hollow metal frame	19	lvs	550.00	10,450
2.0	Solid core wood doors set within a hollow metal frame	25	lvs	650.00	16,250
3.0	Sliding door	1	#	1,200.00	1,200
4.0	Shower doors	3	#	750.00	2,250
5.0	Extra / over for:				
	- finish hardware	48	#	1,200.00	57,600
	- fire rating	12	#	200.00	2,400
	- glazing	12	#	200.00	2,400
	- barrier free operators	3	#	2,500.00	7,500
6.0	Supports, miscellaneous finish hardware, etc.		allow		10,000
Total B12 Doors		**48**	**no.**		**110,050**

Description		Qty	Unit	Rate	Amount
B2 FINISHES					
B21 Floor Finishes					
1.0	Porcelain tile	384	m²	96.00	36,864
2.0	Carpet flooring	293	m²	48.00	14,064
3.0	Sprung wood floor with a paint finish	156	m²	172.00	26,832
4.0	Linoleum on sprung wood floor	152	m²	237.00	36,024
5.0	Vinyl composite tile	329	m²	27.00	8,883
6.0	Sealed concrete	159	m²	10.00	1,590
7.0	Linoleum	624	m²	65.00	40,560
8.0	Bases				
	- rubber base	753	m	8.00	6,024
	- porcelain tile	357	m	40.00	14,280
9.0	Special finishes, patterns, etc.		allow		15,000
Total B21 Floor Finishes		**2,097**	**m²**		**200,121**
B22 Ceiling Finishes					
1.0	Paint to exposed structure	1,319	m²	16.00	21,104
2.0	Wood ceiling	121	m²	250.00	30,250
3.0	Gypsum board ceiling	542	m²	65.00	35,230
4.0	Acoustic tile	125	m²	48.00	6,000
5.0	Cloud acoustic ceilings	206	m²	250.00	51,500
6.0	Bulkheads		allow		10,000
7.0	Special finishes, patterns, etc.		allow		10,000
Total B22 Ceiling Finishes		**2,107**	**m²**		**164,084**
B23 Wall Finishes					
1.0	Paint	4,739	m²	7.00	33,173
2.0	Porcelain tile	481	m²	96.00	46,176
3.0	Special finishes, patterns, etc.		allow		5,000
Total B23 Wall Finishes		**5,220**	**m²**		**84,349**

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures				
1.0 Level one				
1.1 Coat room				
- coat road and shelf	10.2	m	215.00	2,193
1.2 Storage		allow		1,000
1.3 Box office				
- lower work counter	6.5	m	250.00	1,625
1.4 Universal WR (2#)				
- grab bars	4	#	225.00	900
- toilet tissue dispenser	2	#	75.00	150
- sanitary napkin disposal	2	#	100.00	200
- coat hook	4	#	25.00	100
- soap dispenser	2	#	65.00	130
- paper towel dispenser	2	#	250.00	500
- waste receptacle	2	#	200.00	400
- mirror	2	#	200.00	400
- vanity	2.8	m	200.00	560
1.5 Lower lobby		allow		5,000
- recessed floor grille		allow		5,000
2.0 Level two				
2.1 Tech room		allow		1,000
2.2 Auditorium				
- theatre seat	650	#	500.00	325,000
- feature wall		allow		50,000
2.3 Stage				
- proscenium		allow		100,000
- curtains and track	175	m²	108.00	18,900
2.4 Storage		allow		2,000
2.5 Rehearsal		allow		2,000
2.6 Prep room		allow		1,000
2.7 Green room		allow		2,000

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures (Cont'd)				
2.8 Dressing room (3#)				
- coat road and shelf	14.4	m	215.00	3,096
- lower work counter	26.7	m	250.00	6,675
- mirror	32.0	m²	108.00	3,460
- toilet partition	6	#	500.00	3,000
- toilet tissue dispenser	6	#	75.00	450
- sanitary napkin disposal	6	#	100.00	600
- coat hook	24	#	25.00	600
- soap dispenser	6	#	65.00	390
- paper towel dispenser	3	#	250.00	750
- waste receptacle	3	#	200.00	600
- towel rack	6	#	50.00	300
2.9 Universal WR				
- grab bars	2	#	225.00	450
- toilet tissue dispenser	1	#	75.00	75
- sanitary napkin disposal	1	#	100.00	100
- coat hook	2	#	25.00	50
- soap dispenser	1	#	65.00	65
- paper towel dispenser	1	#	250.00	250
- waste receptacle	1	#	200.00	200
- mirror	1	#	200.00	200
- vanity	1.4	m	200.00	280
2.10 WR (2#)				
- grab bars	4	#	225.00	900
- toilet tissue dispenser	16	#	75.00	1,200
- sanitary napkin disposal	10	#	100.00	1,000
- coat hook	16	#	25.00	400
- soap dispenser	10	#	65.00	650
- paper towel dispenser	4	#	250.00	1,000
- waste receptacle	4	#	200.00	800
- mirror	10	#	200.00	2,000
- vanity	9.6	m	200.00	1,920
- handicap toilet partition	2	#	750.00	1,500
- toilet partition	14	#	500.00	7,000
- urinal screen	5	#	200.00	1,000

Description	Qty	Unit	Rate	Amount
B3 FITTINGS & EQUIPMENT				
B31 Fittings & Fixtures (Cont'd)				
2.11 Lounge				
- tv support bracket	2	#	500.00	1,000
- bar	5.8	m	1,000.00	5,800
- feature wall		allow		25,000
3.0 Miscellaneous metals, blocking, supports, etc.		allow		10,000
4.0 Signage and wayfinding				see summary
5.0 Various fittings, fixtures, millwork and specialty components not specifically detailed on the current drawings		allow		50,000
Total B31 Fittings & Fixtures	**2,124**	**m^2**		**652,819**
B32 Equipment				nil
B33 Conveying Systems				nil

Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C11 Plumbing & Drainage				
1.0 Plumbing to area				
2.0 - fixtures (electronic faucets, flush valves)	57	#	1,500.00	85,500
3.0 - backflow preventor and water meter connection	1	#		13,500
4.0 - hose bibbs, temperature mixing valves, non frost wall hydrants				6,400
5.0 - floor drains	10	#	250.00	2,500
6.0 - gas fired water heat c/w recirc pump and expansion tank	1	#	12,000.00	12,000
7.0 - domestic water and sanitary pipe distribution		allow		262,000
8.0 - elevator sump pit pumps	1	#		5,500
9.0 - new water service				by others
10.0 - new sanitary service				by others
11.0 - natural gas pipe distribution		allow		25,000
12.0 - storm pipe distribution c/w new roof drains		allow		39,600
13.0 - identification				6,500
14.0 - miscellaneous fitments				45,900
15.0 Mechanical demolition		allow		74,300
Total C11 Plumbing & Drainage	**2,124**	**m^2**		**578,700**
C12 Fire Protection				
1.0 Sprinklers to area	2,124	m2	24.25	51,507
2.0 Window sprinklers, allow	150	heads	800.00	120,000
3.0 Backflow preventor	1	#		10,000
4.0 Siamese connection	1	#	500.00	500
5.0 Fire pump				nil
6.0 Mains to area		allow		20,000
7.0 New water service to building				by others
8.0 Fire standpipe				nil
9.0 Fire extinguishers	6	#	200.00	1,200
10.0 Miscellaneous fitments				20,300
Total C12 Fire Protection	**2,124**	**m^2**		**223,507**

RENOVATIONS

FILE: L1996/4/ClassD/8/Estimate.xls

Description	Qty	Unit	Rate	Amount
C1 MECHANICAL				
C13 HVAC				
1.0 HVAC to area				
2.0 - rooftop air handling units (65.5 tons total for 5 units)		allow		111,350
3.0 - fans				10,000
4.0 - silencers				16,000
5.0 - ductwork c/w grilles and diffusers		allow		292,500
6.0 - insulation/liner				52,700
7.0 - vav boxes	10	#	500.00	5,000
8.0 - duct cleaning				7,000
9.0 - electric unit heaters	15	#	1,200.00	18,000
10.0 - liquid heat transfer				nil
11.0 - balancing/verification/commissioning				28,300
12.0 - identification				5,850
13.0 - cranage				25,000
14.0 - seismic restraint				20,600
15.0 - miscellaneous fitments				59,200
Total C13 HVAC	**2,124**	**m^2**		**651,500**
C14 Controls				
1.0 Controls to area				135,000
Total C14 Controls	**2,124**	**m^2**		**135,000**

RENOVATIONS

FILE: L1996/4/ClassD/8/Estimate.xls

Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C21 Service & Distribution				
1.0 Distribution to area				
2.0 - new electrical service (300a, 200 kw) c/w padmount transformer		allow		100,000
3.0 - new distribution c/w new switchboard		allow		95,000
4.0 - new circuiting panels	6	#	8,000.00	48,000
5.0 - mechanical wiring				26,300
6.0 - elevator wiring				10,000
7.0 - stage lighting wiring to equipment		allow		25,000
8.0 - miscellaneous distribution, coordination study, etc				20,000
9.0 - generator				nil
Total C21 Service & Distribution	**2,124**	**m^2**		**324,300**
C22 Lighting, Devices & Heating				
1.0 Lighting and switching to area				
2.0 - lighting - general LED	354	#	375.00	132,750
3.0 - exit lighting	22	#	450.00	9,900
4.0 - stage lighting				by others
5.0 - miscellaneous lighting				15,000
6.0 - lighting controls/switching to building		allow		25,000
7.0 - lighting controls to stage				by others
8.0 Devices/receptacles to area	2,124	m2	18.00	38,232
Total C22 Lighting, Devices & Heating	**2,124**	**m^2**		**220,882**

Description	Qty	Unit	Rate	Amount
C2 ELECTRICAL				
C23 Systems & Ancillaries				
1.0 System to area				
2.0 - fire alarm	2,124	m2	28.00	59,472
3.0 - voice/data conduit		allow		3,000
4.0 - voice/data cabling		allow		8,000
5.0 - empty conduit/cable tray		allow		20,000
6.0 - a/v system - conduit and power		allow		50,000
7.0 - a/v system - equipment				by owner
8.0 - theatre presentation system				by owner
9.0 - security system - power and conduit		allow		3,000
10.0 - security system		allow		15,000
11.0 - cctv system	10	#	4,500.00	45,000
12.0 - pa system				10,600
13.0 - clocks	10	#	125.00	1,250
14.0 - cable tv system	8	#	425.00	3,400
15.0 - lighting protection				nil
16.0 - secondary grounding				8,496
17.0 - inspection, testing				5,000
18.0 - seismic restraint				8,100
19.0 - miscellaneous fitments				81,700
20.0 Electrical demolition		allow		31,900
21.0 Job startup and close out				89,900
Total C23 Systems & Ancillaries	**2,124**	**m²**		**443,818**

Description	Qty	Unit	Rate	Amount
D1 SITE WORK				
D11 Site Development				nil
D12 Mechanical Site Services				nil
D13 Electrical Site Services				nil
D2 ANCILLARY WORK				
D21 Demolition				nil
D22 Alterations				
1.0 Removals				
- exterior cladding	1,920	m²	32.00	61,440
- framed partitions	2,760	m²	27.00	74,520
- floor finishes	2,097	m²	27.00	56,619
- ceiling finishes	2,107	m²	22.00	46,354
- doors and frames	48	#	50.00	2,400
- millwork		allow		2,500
- curtain wall	78	m²	54.00	4,212
- roofing	1,893	m²	32.00	60,576
- soffit	150	m²	32.00	4,800
- miscellaneous fittings and fixtures		allow		5,000
2.0 Grind and prep floor for new finish	2,097	m²	10.00	20,970
3.0 Cut & patch for mechanical & electrical		allow		10,000
4.0 Hazardous material abatement				see summary
5.0 Minor demolition, removals, etc.		allow		35,000
Total D22 Alterations	**2,124**	**m²**		**384,391**
D23 Cash Allowances				
1.0 Cash allowances to include, but not limited to, testing and inspection, modifications due to final equipment selection, and unforeseeable site conditions	1	sum	100,000.00	100,000
Total D23 Cash Allowances	**2,124**	**m²**		**100,000**

SOUND + LIGHT LOCKS

- Increased acoustics + sound quality
- No light pollution
- No disruption to performance

UPPER BALCONY

- Entrance + exit from upper bowl
- Accessible to elevator and upper lobby
- Overhang within the atrium

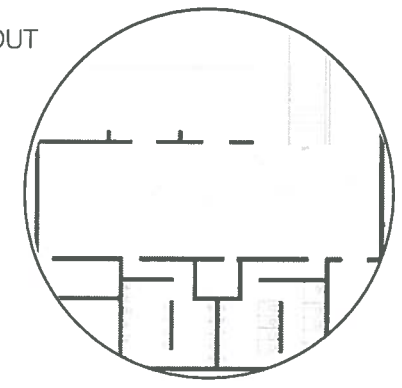
OUTDOOR BALCONY

- Accessible from the upper lounge
- View overlooking Dunlop Street West

LOUNGE

- Lounge-type seating
- Bar service
- Catering preparation space
- Secured space for events
- Rentable area to generate revenue
- +650 persons capacity for standing room only
- 430 persons capacity for seating and table only

ALTERNATIVE LAYOUT

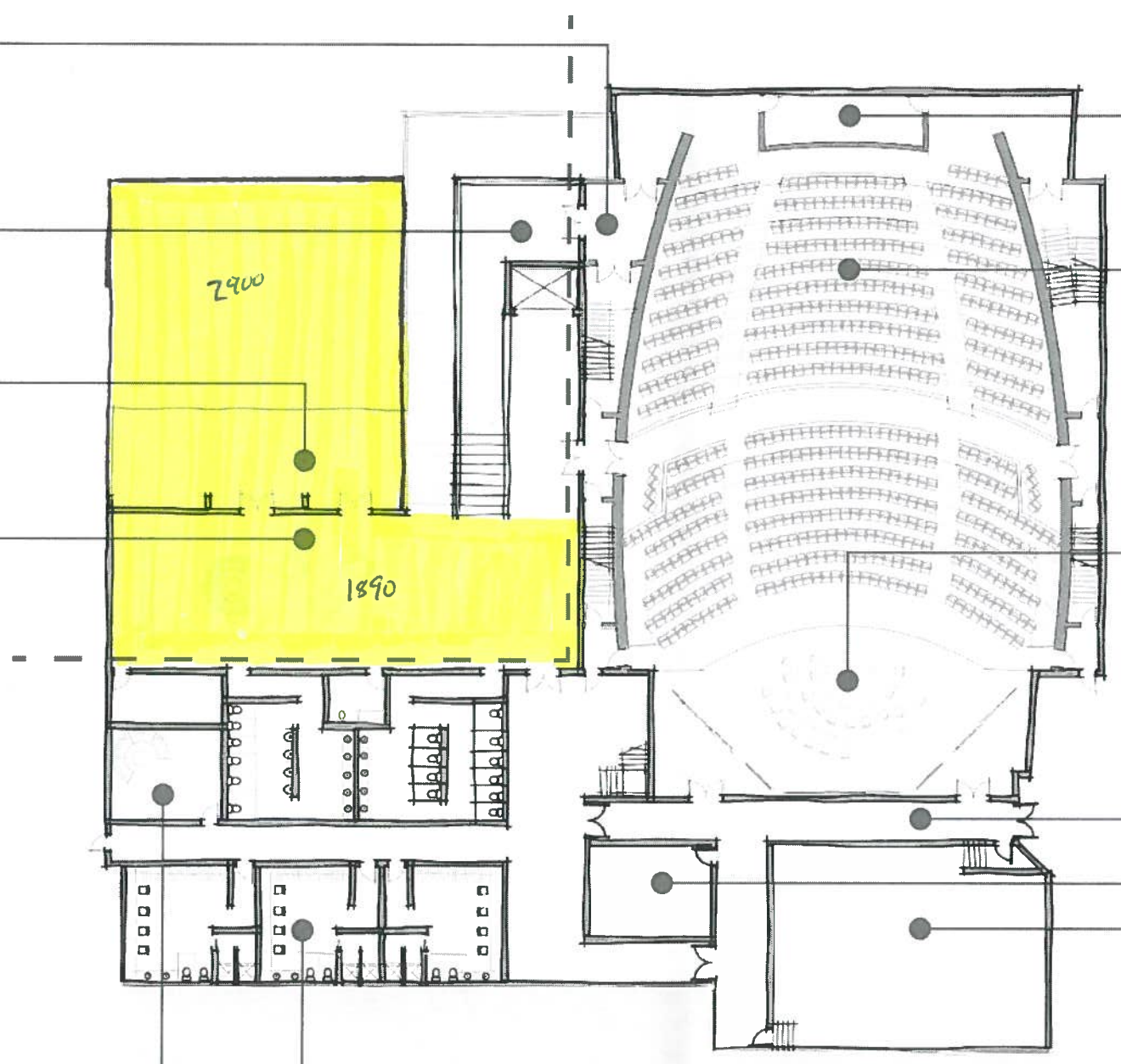


GREEN ROOM

- Secure from front-of-house

DRESSING ROOMS

- Private washrooms + showers
- Wardrobe + storage
- Custom millwork



TECHNICAL + SOUND ROOM

THEATRE

- 650-seat theatre
- Increased aisle width
- Accessible balcony seating available
- Upper and lower bowl for versatility
- Greater acoustics + lighting capabilities
- Increased rake for better sightlines

STAGE

- Adjustable stage configuration
- Opportunity for orchestra pit
- Proscenium
- Access to backstage via crossover space
- Direct access to back-of-house

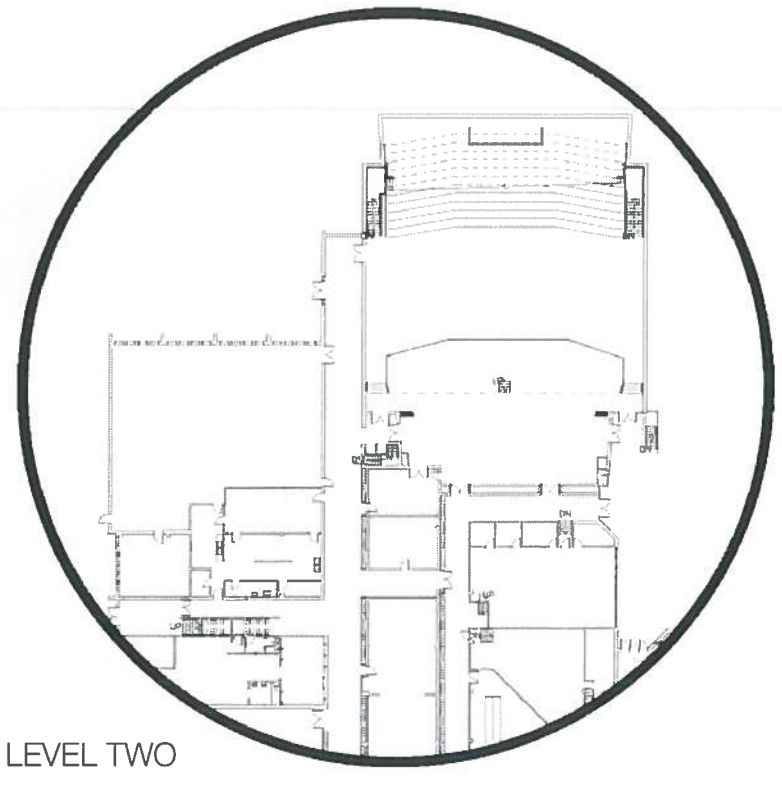
STAGE CROSSOVER + LOADING AREA

STORAGE SPACE

REHEARSAL + STAGING AREA

- Versatile space for all performance types
- Easy access to the stage + crossover area

PROPOSED LEVEL TWO



EXISTING LEVEL TWO