

"Fraser Center Hotel / Cinema / Mixed Use Project"

Exercise #1 (20%)

**Section 1 - Issued: Wed 12 Jan 2011
Due: Mon 31 Jan 2011**

**Section 2 - Issued: Thurs 13 Jan 2011
Due: Tue 1 February 2011**

Preface

In 2007 the Borough of State College granted certain tax and zoning incentives to a developer to design and build the Fraser Center, a mixed used condominium, retail, office and cinema project. These incentives are an outgrowth of the Borough's Downtown Vision and Strategic Plan. The goals of this plan are to encourage certain types of development downtown that the Borough planners deem important to economic development. Specifically this Plan's directive is to stimulate non-student focused projects, improve the tax base, encourage sustainable design and promote projects which provide opportunities for entertainment (non-bar), retail / commercial / restaurant establishments as well as owner occupied residences (condominiums).

Unfortunately due to the on-going recession, the sale of the condominiums for the proposed Fraser Center project has been very slow. The proposed site has been cleared and both the Borough and the Developer are anxious to see financial returns for this project. The developer commissioned a market study and determined there is a strong potential market for a higher end (4-5 star) boutique hotel in State College and has proposed to the Borough that a hotel be substituted for the condominium units. While these hotel units will not be owner occupied as the condominium units would be, the Borough has agreed to apply all of the same zoning incentives as part of the Commercial Incentive District special zoning regulation.

^{want to be "green"}
Given today's real estate market the developer anticipates owning this project for a fairly lengthy period. Therefore the design must consider the life-cycle of the project (maintenance, energy costs, etc.). The functional and programmatic requirements for the project outlined on the attached program must be met at a minimum. Emphasis should also be placed on sustainable design and providing for maximum use of daylighting and natural ventilation.

Refer to the International Building Code (IBC) and the local zoning ordinance (Borough of State College) for information on parking, height restrictions, set backs, easements, flood, egress and fire protection. The Fraser Centre Tax Incentive District Project Plan is also on the 'Y' Drive for reference.

Submission requirements and specific course grading criteria will be included with each exercise brief.

For Exercise #1 you are to research and analyze:

- Proposed site and environmental and urban considerations,
- IBC and local code and zoning requirements,
- The Fraser Centre Tax Incentive District Project Plan,
- Trends in mixed-use, cinema and hotel project design (specifically higher-end boutique hotels).
- Sustainable design and LEED as applicable to mixed-use projects.

Attached is a sketch of the project site and the project program. Pertinent electronic files will be in your Y drive under ARCH 442 Course Folder. Do not add, modify or remove files from this course folder. Please create your own Y Drive folder for your team's work.

★ Assignment

For this first exercise, you are to:

1. Conduct thorough research on:

- 1.1 IBC and local code and zoning guidelines and restrictions
- 1.2 The Fraser Centre Tax Incentive District Project Plan
- 1.3 Environmental and urban considerations for the site (solar, ground plane, wind, surrounding structures, pedestrian / vehicular traffic, etc.).

- ✓ 2. Make a site reconnaissance and a full description of the site and its adjacent areas in photographs, sketches and text; include existing and projected vehicular and pedestrian circulation, landscaping, parking, etc. Make note of important views into and from site. Note uses of adjacent facilities and structures.
- ✓ 3. Familiarize yourselves with trends in mixed-use, cinema and hotel project design. Show how these trends or certain features may be applicable to your project.
- ✓ 5. Research sustainable design and LEED as applicable to mixed-use projects.
- ✓ 6. Summarize your key design considerations for the mixed-use project.

Although documentation of your research is required, more importantly you must also show thoughtful analysis of how the site and environmental conditions, regulatory requirements, sustainable design, trends in hotel, mixed-use and steel design / construction will impact your approach to the project.

Product

The product of this exercise will be a summary of all your findings (1-6 above) using photographs, sketches, diagrams and limited text with emphasis on how this research will impact your approach to design. This information is to be well organized and professionally documented on 11" x 17" loose sheets, suitable for future binding along the 11" side in booklet form ('landscape' orientation). Be sure to include all pertinent documentation that you collected with references.

Additionally your group will be required to make a verbal Power Point summary presentation of your findings and analysis. This professional quality presentation shall be no longer than fifteen minutes in length. Presentations that run longer than fifteen minutes will be stopped which will negatively impact the grading.

Team desk crits will be held twice a week to review progress and respond to questions. These crits may include hard copy or electronic files. Consistent progress is expected from crit to crit. Interim assignments and due dates may be established. Team members must review and coordinate their work prior to the crit. Effective teamwork is required for success in this studio.

Submission of the unbound 11" x 17" work product and a CD copy of your Power Point presentation are required at the beginning of class on the due date, regardless of your actual presentation date / time. CD's of the Power Point Presentation will be returned at time of presentation. The 11" x 17" work product will be returned after grading.

Suggested References for Arch 442:

I. SALA ARCHITECTURE LIBRARY

(REFERENCE SECTION)

★ Site & Building Standards:

De Chiara, Joseph & Koppelman, Lee E., *Site Planning Standards*, McGraw-Hill, Inc.

De Chiara, Joseph & Crosbie, Michael J., eds. *Time-Saver Standards for Building Types*, 2001.

Ramsey/Sleeper, *Architectural Graphic Standards, 10th ed.*, John Ray Hoke, Jr., ed.-in-chief, NY: John Wiley & Sons, 2000.

(RESERVE SECTION)

Sustainability Strategies:

Sun, Wind and Light: Architectural Design Strategies, NA2542.3.B76 2001

Parking Structures:

Parking: A Handbook of Environmental Design, McCluskey TL175.M38 1987Q

Hotel Design:

21st Century Hotels, Vickers NA7800.V53 2005 Q

Hip Hotels: City, Ypma NA7800.Y66 1999

New Hotels, Bahamon NA7800.N48 2003 Q

Interiors: 2nd Book of Hotels NA7800.E53 Q

(photos dated, but plans, flow charts, etc. at back of book are good)

Hotel Design, Riewoldt NA7800.R53 1998 Q

Hotel Design, Bronto NA7800.B75 2007 Q

Principles of Hotel Design, Architectural Journal NA7800.P7 Q

(dated but planning information at back of book may be helpful)

Hotel Design, Planning and Development, Roles NA7800.R87 2001

Restaurant, Bar Design:

Restaurant, Bars and Cafés, Bronto NA7855.B76 2007 Q

Restaurant Design, Radice NA7856.R48 Q

Mixed Use Design:

The Jerde Partnership International, NA737.J468A4 1998 Q

II. INTERNET WEBSITES:

<https://www.acsa-arch.org/competitions/0708aisc.aspx>

<http://www.aisc.org>

<http://www.crcog.net> - Centre Region Council of Governments

<http://www.statecollege.com>

<http://www.downtownstatecollege.com>

III. 'Y' DRIVE REFERENCE MATERIAL

Fraser Centre Tax Increment District Project Plan

Project Site Plans

Project Program and Exercise Brief

Arch 442 Course Grading

Grading will be based on **creativity, completeness and clarity of solutions** as demonstrated during **desk crits and presentations; personal initiative;** studio **attendance** and class **participation**.

Although cooperative and effective team work is essential to success in this course, each individual's performance and contribution will be evaluated during each crit. All students are expected to actively participate in the studio and during presentations as well and contribute to the team's effort.

PSU definitions will be applied in grading as per current Undergraduate Degree Programs Bulletin:

A = excellent; B = good; C = satisfactory; D = poor; F = failure

See course syllabus for specifics on Arch 442 course grading.

Project Description

The project for this semester is to design a mixed-use project in downtown State College. The State College Downtown Vision and Strategic Plan identifies the need for establishing a unique "arts" identity for the Downtown while strengthening its role as the Centre Region's center for business services, specialty retail and entertainment.

The project is to be located on the 100 block of South Frazer Street, between Beaver Avenue and Calder Way. The site was cleared several years ago to make way for this project.

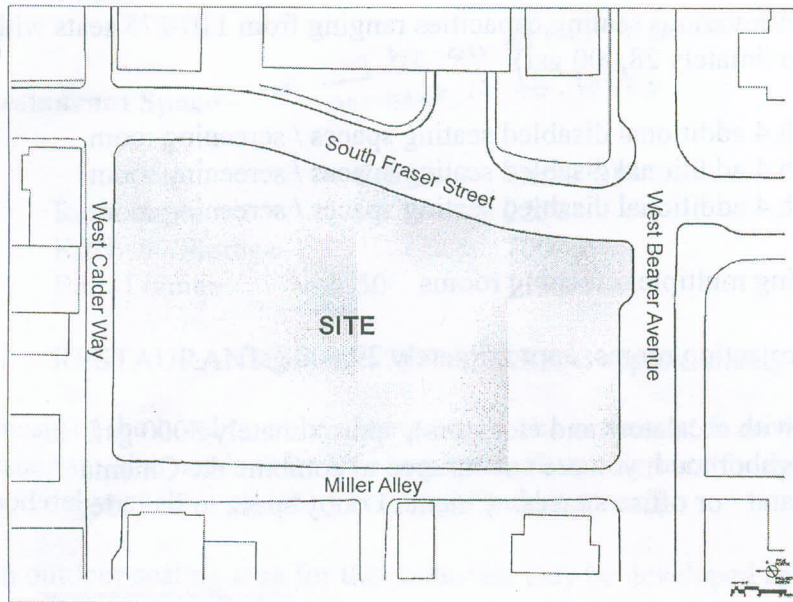
The project program is to include a six screen cinema-complex, a 75-95 key 4-5 star boutique hotel, parking, retail shops and a restaurant. The main focus of the project is to diversify and reinforce the small scale retail character of downtown State College and to ensure the project's economic vitality.

The proposed design should complement the neighboring properties and foster interaction between people and help to animate the urban environment by creating a lively street presence encouraging public interaction with the project's public facilities. In return for allowing hotel units to qualify for Commercial Incentive District Zoning Incentives (in lieu of owner occupied condominiums) the developer has agreed to include an exterior public space such as a landscaped plaza with seating and other amenities. Nighttime security including lighting and visibility of all Fraser Center spaces needs to be considered. Interior public spaces may be closed at night as required for security.

Beaver / Fraser Realignment

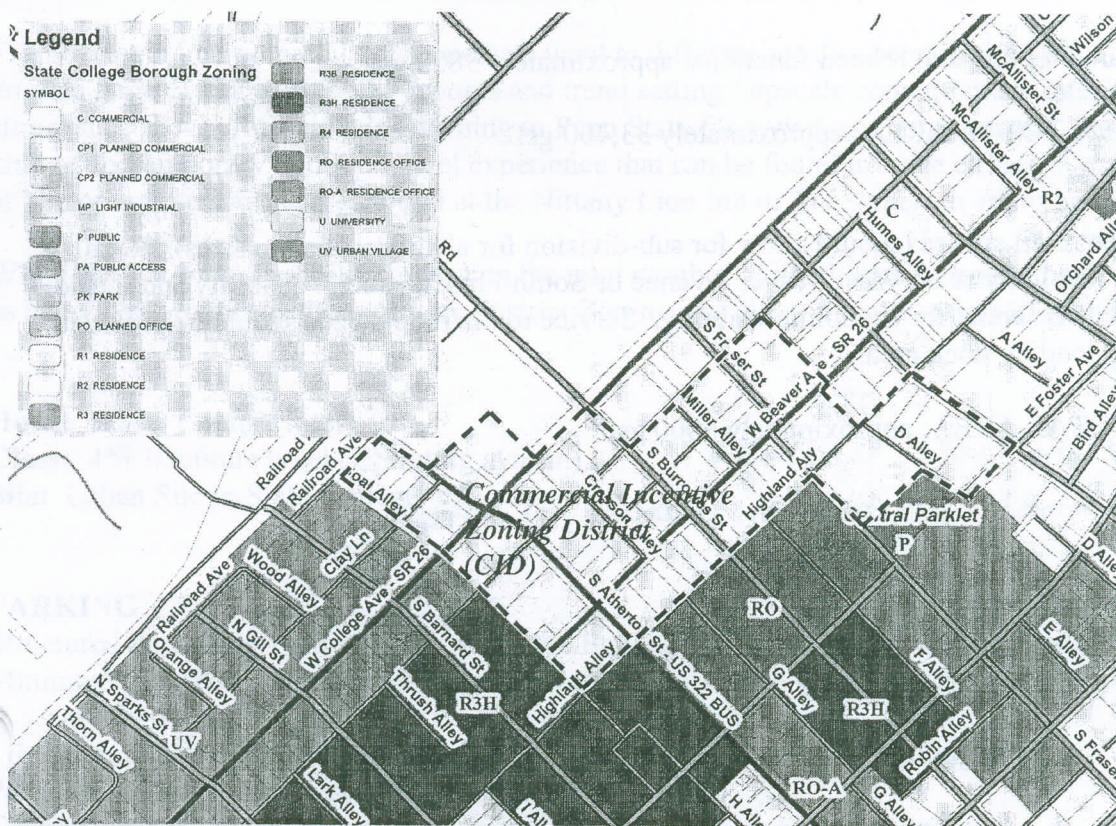
The Borough has proposed a realignment and reconstruction of Fraser Street between Beaver and College Avenues to provide for more efficient traffic flow. See site diagram below.

Site Diagram



Zoning Regulations Applicable to the Site

The Fraser Centre site is located within the Commercial Incentive zoning District (CID). The CID permits a wide range of residential and commercial uses and includes a system of zoning incentives that provide density bonuses if the project includes certain uses and design features. Embedded within the CID zoning district is the Signature Development Project conditional use. The purpose of this conditional use is to encourage the development of projects that include a specified mix of uses and design features.



Complete Zoning Map can be obtained at <http://www.statecollegepa.us/DocumentView.asp?DID=265>

PROJECT PROGRAM

Cinema Complex - total of 6 screening rooms with various seating capacities ranging from 110-275 seats with stadium seating format (total of 1074 seats, approximately 28,000 gsf)

Two screening rooms each seating 275 with 4 additional disabled seating spaces / screening room

Two screening rooms each seating 140 with 4 additional disabled seating spaces / screening room

Two screening rooms each seating 110 with 4 additional disabled seating spaces / screening room

Two projection rooms at 800 gsf each serving multiple screening rooms

Total area for screening rooms including projection rooms: approximately 29,600 gsf

Entrance Lobby (recommended two story lobby with escalators and elevators), approximately 3000 gsf. In order to create a lively space and animate the neighborhood, you are encouraged to combine the Cinema Complex Lobby space with the restaurant, retail and / or office spaces. Cinema Lobby space to include:

General circulation

Box Office

Concessions

Coming Attractions Kiosk / Movie Time Clock

ATM machine

Video game area

Toilets (as required by building code)

Storage

- ✓ A Manager's Office (300 gsf) and a Conference / Event Room (500 gsf) shall be located adjacent to the lobby space.

Total area for Entrance Lobby and related functions: approximately 3800 gsf

CINEMA COMPLEX TOTAL AREA: approximately 33,400 gsf

X **Retail Space** - Two - three retail spaces (should allow for sub-division for a variety of shop sizes). Retail spaces must have a street level access on West Beaver Avenue or South Fraser Street. Visibility and traffic flow past the retail spaces is essential for economic viability. Service to the retail space should be provided primarily from the central loading dock area.

RETAIL SPACE TOTAL AREA: approximately 6000 gsf

Put where highly visible on beaver or fraser

PROJECT PROGRAM

(continued)

Restaurant Space -

← can be on other roads other than beaver/fraser
connect it to lobby

| | Seats | Gross SF |
|-------------------|-------|----------|
| Restaurant | 90 | 2250 |
| Kitchen / Storage | | 700 |
| Bar / Lounge | 50 | 1150 |

RESTAURANT SPACE TOTAL AREA: approximately 4100 gsf

Guests of the hotel must be able to access the restaurant from the hotel lobby without going outside. The restaurant also needs to be able to provide Room Service for the Hotel Guest Rooms and Meeting Space (avoid food delivery through lobby and major public spaces).

An outdoor seating area for the restaurant may be developed as part of the exterior public amenity area.

Service for the restaurant (supplies in / garbage out) must be separated from public areas. Restaurant supplies / garbage should enter / exit through the central Fraser Center loading dock..

Routing of kitchen equipment exhaust should be considered in locating the kitchen (long horizontal exhaust runs and migration of kitchen exhaust smell to hotel rooms and other areas should be avoided).

Boutique Hotel - 73-95 guest room keys, lobby, small gift shop, limited conference / meeting space, lobby and back of the house hotel support. ← contemp theme, resemble NY hotel: hip yet prof

flexible

suite is double room

The developer and potential hotel operator want to differentiate this hotel in the State College market by provide large (average 400 NSF) rooms and trend setting / upscale contemporary interiors. The desire is to attract successful professionals returning to Penn State for a visit or a conference. This hotel is to provide the kind of contemporary boutique hotel experience that can be found in large cities. In particular, pseudo colonial or Victorian interiors such as found at the Nittany Lion Inn or The Atherton are to be avoided.

While there is some flexibility regarding the total number of hotel keys (rooms), the developer desires to build as many hotel rooms as the Incentive District Zoning and other mixed use project requirements will allow.

Hotel: Fraser Center Hotel

Class: 4*+ boutique hotel (US rating system)

Site: Urban Site in State College, PA

*No PTEC

*Consider stacking bathrooms

PARKING

Structured Parking as per requirements of the Borough of State College Zoning Code
Minimum of three (3) temporary parking spaces in immediate vicinity of Hotel entrance

-avoid blocking traffic lanes on Beaver or Fraser Streets

Minimum of two (2) service parking spaces in immediate vicinity of loading dock

Parking for Disabled as per Code and ADA

Tour bus waiting area (for one bus) - avoid blocking Beaver or Fraser Streets

HOTEL AREA PROGRAM

GUEST ROOM AREAS

| Guest Room Types | Net SF/Key | Bays / Key | Keys |
|-----------------------|------------|------------|-------|
| Double Queen Room | 400 | 1 | 35-45 |
| King Room | 400 | 1 | 35-45 |
| Suite | 800 | 2 | 5 |
| Total Guest Room Keys | | | 75-95 |

Double Queen / King Rooms: Rooms should be designed with the urban professional traveler in mind. Flexible furniture to accommodate work areas, lounging and in-room dining is important. In addition to the bed(s), two night stands, built-in closet with doors, dresser, flat screen TV, desk / dining table(s), desk chair, comfortable lounge chair(s) and good lighting for reading shall be provided in each room. Bath rooms shall have a toilet, combination tub/shower or large shower, and large vanity area with two sinks. A full length mirror should be provided in the bath or guest room.

Suites: Sleeping and living areas are to be provided (two separate connecting spaces). Living area to include small dining table with four chairs, one sofa and minimum two lounge chairs, side and cocktail tables as appropriate, entertainment center, wet bar, small desk with chair, coat closet and half bath (toilet and lavatory). The bed room area shall have a king bed, two night stands, flat screen TV, lounge chair(s) and built-in closet or armoire. Additional furniture / amenities may be added to the living and bedroom areas as appropriate. The bath is to include a large vanity with double sink, shelf, large soaking or whirlpool tub, shower, and toilet.

Attention to detail and contemporary trends are important for the design of the bath room areas for all room types. Portions of the bath in the King rooms and Suites may be within the bedroom area or separated only by glass partitions (appropriate privacy requirements should be considered).

HVAC system for guest rooms should be selected. Through wall or PTAC systems should be avoided for guest comfort and air quality. Show location of HVAC system for each guest room. All guest room toilets and HVAC systems should be "stacked" to the greatest extent possible.

Guest room balconies are not required for typical guest rooms. Suites may be designed with a private outdoor terrace or balcony.

GUEST ROOM SUPPORT

Interior Corridors (minimum 5'-6" wide) – set back guestroom doors from corridor 18"-24" if possible

Vending / Ice Machine Room (1 per guest room floor) – 35 NSF each

Service Elevator (1) with stop at each guest floor

Linen Rooms – 150 NSF each (1 per guest room floor) – service elevator should be in Linen Room area (should not open to guest corridor)

Trash Chutes – to be located in Linen Room area and descend directly to main trash room

Guest Elevators (2) – check code for required elevator lobby separation from corridors

Emergency Exit Stairs (as required by design and code) – "dead ends" may not exceed code limit

HOTEL AREA PROGRAM (continued)

PUBLIC AREAS

Food and Beverage

See Fraser Center Restaurant Program - Indoor hotel guest access from the hotel lobby must be provided. Back of house meeting room and guest room hotel room service must be provided (avoid carrying food through lobby and major public areas)

Meeting Rooms

| | Divisions | Gross SF |
|---------------------|-----------|----------------------------------|
| Meeting Room(s) | 2 | 600 (2 sections of 300 gsf each) |
| Board Room | 1 | <u>350</u> |
| Total Meeting Rooms | | 950 |

Meeting Room Support

| | Gross SF |
|---------|----------|
| Storage | 300 |

Retail / Commercial / Food and Beverage

| | Gross Square Feet |
|-------------------------------|-------------------|
| Lobby News / Convenience Shop | 250 |

Hotel Recreation

| | Gross Square Feet |
|------------------------|-----------------------|
| Exercise Room | 600 |
| Indoor Pool (optional) | as required by design |

HOTEL AREA PROGRAM (continued)

MEP / Systems

Elevator Machine Room(s) – as required for elevator design / layout
Electrical / Telephone / Computer Rooms – as required by layout / systems
Mechanical Room(s) – as required by layout / systems
Fire Control Center (direct access for Fire Dept) 100 NSF

Guest room bath facilities should be vertically stacked

Addition MEP support space will be provided as part of the Fraser Center project

Employee Entrance

Must be separate from guest and other Fraser Center public areas
Provide space for time clock and Hotel Security Office (150 NSF)

Employee Support – near employee entrance, away from public areas

Locker Area (M/F) 350 NSF
Toilets (M/F) 200 NSF
Break Area 200 NSF

FRASER CENTER SUPPORT PROGRAM

Certain spaces / systems will be provided in the building to serve all tenants

Fraser Center Service / Loading Dock

One common service area / loading dock for hotel and other Fraser Center requirements (retail, restaurant, cinema)

Provide space for:

(2) panel size trucks at raised loading dock
(2) large dumpsters (provide maneuvering space for garbage trucks)
Trash Room (serviced by hotel guest floor trash chute) 200 NSF
Refrigerated Garbage Room 100 NSF
Recycle area 200 NSF
Can Wash 150 NSF

Note: Trucks using loading dock should be clear of alley and avoid entrances on Fraser Street or Beaver Ave.

Central MEP Services

4000 GSF of mechanical / electrical space shall be provided to support the tenants of the Fraser Center. Approximately half of the required MEP equipment space should be provided at the ground or below grade level with the remainder provided on the top floor or roof of the building. Vertical chases for running utilities should be indicated.

Parking - on-site enclosed structured parking shall be provided for the entire Fraser Center Project. Number of spaces as per code with 8-10 additional disabled parking spaces. Parking will be pay parking with controlled entry and exit payment booth(s).

DEFINITIONS:

Net Square Feet (NSF): Clear functional space required free of walls, columns, shafts, etc. generally measured from inside face of wall to inside face of wall.

Gross Square Feet (GSF): Total area generally measured outside of wall to outside of wall or mid-point of wall to mid-point of wall for adjacent spaces.

Branda Holcomb
- 484-274-3314

- Green Roof
- Clear stories (windows)
- Low Flow / Dual flush toilets and waterless urinals
- Placement of windows and overhangs to shade in summer and allow sunshine in the winter
- High efficient windows and insulation
- Geothermal
- Water collection
- Solar panels
- Wind turbines
- Use of renewable materials (bamboo, recycled metal/stone, drift wood) for shading
- Use of off-site construction (Modules)
- Efficient mechanical systems (Variable air volume)
- Tromb walls
- High efficient light fixtures and auto dimming (along with desk lamps)

To consider:

- Connecting street 1 or 2 way

- State College Borough Zoning
→ Commercial Incentive District

HOTEL AREA PROGRAM (continued)

Public Space / Circulation

Gross Square

| | |
|-----------------------|--|
| Hotel Lobby | 500-800+ (provide appropriate seating) |
| Registration Desk | 3 stations |
| Concierge / Bell Desk | 1 station |

Guest Room Passenger Elevator (2) – others as required by design – provide sight-line security from front desk
Parking Garage Elevator (1) – this elevator should not travel to guest room floors for security reasons – transfer at lobby or public area of Fraser Center

Service Elevator (1) – accessible from BOH and Fraser Center loading dock
(convenient access from luggage storage and for room service)

Provide public circulation space as required by design. All vertical and horizontal egress to be as per code.

Miscellaneous Public

Restrooms

For Lobby – 360 NSF (M/F)

BACK OF THE HOUSE

Net Square Feet

Administration

Front Office / Communications / Hotel Operations
Hotel General Manager Office Suite

400 (located behind or adjacent to front desk)
300 (accessible from public corridor)

Luggage Storage

200
(easy access to lobby and hotel entrance)

Guest Room Support

Clean Linen / Housekeeping Storage
Soiled Linen Room

200 (near loading dock and service elevator)
200 (near loading dock and service elevator)

General Hotel Storage

200 (near loading dock)

Engineering Offices

300

Engineering Shop

300

Engineering Storage

300