Attachment 06: Owner Program Requirements

-Predesign

-Predesign Supplement

Bates Technical College

Fire Services Training Center

Project # 2023-166

State Project No. 2020-213
OFM NO. 40000130

Predesign

Fire Service Training Center

Bates Technical College

Tacoma, Washington
July 27, 2020

Bates TECHNICAL COLLEGE

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Predesign
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1.0 EXECUTIVE SUMMARY

1.1 PROBLEM STATEMENT

Bates Technical College's (BTC) Fire Service Training Center (FSTC) has a robust program, training professional firefighters for jobs in the Pacific Northwest with a current enrollment capacity of 225 students per year.

The FSTC occupies 14,500 sf of Building D in BTC's South Campus, and uses a modular building for additional program space. A single, portable fire training tower and supplemental connex boxes limit on-site training and require the college to spend $60,000-$75,000 annually on off-site space to meet training requirements for certifications. The building's capacity is too small and outdated for current enrollment and does not allow program growth.

The program is growing: In the past 5 years the fire training and EMT programs FTE count has grown by 91%.

As of the writing of this document, Fall 2020 registration already has a wait list of 77prospective students for the fire training program and 21 for EMT classes.

The current fire training facilities do not comply with WA State WAC 296-305 *Safety Standards for Firefighters* nor NFPA 1402 *Standard on Facilities for Fire Training and Associated Props*.

The proposed project would bring the FSTC up to WAC and NFPA safety standards, meet the needs of the program and future growth projections, and expand opportunities for training partnerships with regional fire districts.

1.2 ANALYSIS OF ALTERNATES

Two Alternates were evaluated for the FSTC program within the existing BTC South Campus site, along with the consequence of doing nothing.

Both Alternates are in alignment with the Campus' Master Plan and offer different pros and cons.

Alternate A – Preferred Alternate

- A modification to the original PRR concept while maintaining its favorable aspects. No other programs are affected in this Alternate.
- Renovate 14,500 sf of Building D for fire training support
- New 2,000 sf addition to Building D for fire training support
- New 18,900 sf 5-story live fire training tower
- New 19,100 sf 2-story academic building
- Outdoor training spaces and expanded drill ground

Alternate B

- Site of the current CDL driver training program.
- New 34,600 sf combined academic building/fire training support
- New 18,900 sf 5-story live fire training tower
- Construction of 5-story training tower
- Outdoor training spaces and expanded drill ground

Alternate A was selected as the Preferred Alternate because it meets all program requirements, is the most cost effective, and does not impact any other BTC programs.

Alternate B offers greater future expansion opportunities but depends on the CDL driver training program vacating its current space on the South Campus. The CDL program is likely to be relocated off-site due to upcoming L&I safety requirements. However, there is no timeline or budget established for the relocation.

1.3 PROJECT COST, DELIVERY METHOD, AND SCHEDULE

The MACC for Preferred Alternate A - Preferred Alternate is $22.8 million, with a total project cost of $32.8 million.

The total project budget for matches the 2019-2021 Capital Request of $32,802,000. In 2019-2021, $ 2,802,000 was funded with the remaining $30,000,000 requested for 2021-2023.

Design/Build (D/B) is the preferred delivery method, providing greater efficiencies in design coordination, construction phasing, integral value engineering and constructability reviews, and reduced cost.

D/B scoping documents, D/B RFQ, D/B RFP, and D/B Selection is scheduled for September 2020 – June 2021. The D/B phase is scheduled starting July 2021 with construction complete February 2024.

1.4 PROJECT HISTORY AND DATA

The PRR for this project was prepared in 2017 and initial funding was granted in the 2019-2021 biennium. Funds for construction are requested for the 2021-2023 biennium.

Agency Name: Bates Technical College
Agency Code: 699
Project Number: 2020-213/OFM Project 40000130
Project Title: Fire Service Training Center
Agency Contact: Chuck Davis

Problem Statement 02

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2.0 PROBLEM STATEMENT

2.1 BATES TECHNICAL COLLEGE (BTC) FIRE SERVICE TRAINING

BTC's South Tacoma Campus offers two Applied Science degree programs, four Certificate programs, and meets 11 National Fire Protection Association (NFPA) training certifications.

2.2 PROBLEM DESCRIPTION

2.2.1 Existing Conditions

The current BTS Fire Service Training Center (FSTC) occupies 14,500 sf of space at the south end of Building D, now 33 years old, and consists of a small administrative office area, generic classroom space, and 4,500 sf of apparatus bays for training fire engines. The spaces do not support the necessary FTE load, much less the projected needs.

A modular structure in a parking area on the east side of the FSTC houses training equipment, small training equipment repair, space for mandatory firefighter fitness equipment, and a student break area. This mix of uses is obviously incompatible and combines spaces with fuel, solvents, and noisy machinery with required student health and wellness activities.

The drill yard, or training ground, has one mobile burn tower and related site props jammed together, mostly repurposed connex boxes not designed for fire training. The single live fire prop does not allow for more than one training scenario, limiting live fire experience. The College currently spends $60,000 to $75,000 per year, plus student and instructor travel time, on rented, off-site fire training facilities to provide the required scenarios for certification.

2.2.2 Critical Functional and Safety Needs Are Not Met

The current fire training facilities do not comply with WA State WAC 296-305 *Safety Standards for Firefighters* nor NFPA 1402 *Standard on Facilities for Fire Training and Associated Props.* WAC 296-305 requires live fire training for firefighters every three years.

Firefighter training requires three different spaces: 1) a traditional Classroom and Administrative space, with some unique provisions for EMT mannequin storage and physical props, 2) Live Fire Training

Support spaces, and 3) a Live Fire Training Facility with a training tower and drill ground.

Classroom and Administrative Space

1. BTS has one academic classroom for a growing program that regularly enrolls over 60 students each quarter and has a current maximum enrollment of 252 students per year.

2. The administrative area has no space for expansion and no co-working space for visiting and temporary instructors.

Live Fire Training Support Space

1. BTS has no Decontamination (Decon) Room or space for clean bunker gear storage. Firefighters need space to clean themselves, their PPE, and their bunker gear from contaminates after training. Once cleaned, bunker gear should be stored in a clean area, ready for the next use, not on the wall of an apparatus bay that is subject to diesel fumes. Currently, there is no Decon Room or clean storage space for bunker gear. These facilities are required by WAC 296-305-06505.

2. The program has no hose dryer or space for one. BTS's current facility has the original hose tower, but fire departments have not built hose towers for years, relying instead on hose dryers because they are safer, have no overhead or hoisting hazards, and maintain costly fire hoses more quickly.

3. The current apparatus bays are too small to house all training fire engines, leaving valuable vehicles subject to weather deterioration and vandalism. Fire engines cannot be stored outside during freezing temperatures because it is impossible to drain all water out of pumping and valve systems, subjecting them to costly repairs when water freezes and expands. Vehicle exhaust systems are filtration type and not in compliance with WAC 296-305-06511 for ventilation.

4. There is a lack of healthy, adequate fitness space. Fitness training is a mandatory requirement of Firefighter I and Firefighter II NFPA certifications, each composed of five course requirements.

5. BTS has no functional, secure training equipment storage, or repair space with proper ventilation. WAC 296-305-06511 outlines

proper ventilation for internal combustion engine repair areas in fire stations.

6. The program has no "dirty classroom" space. In addition to traditional academic classrooms, fire training best practice should include "dirty classroom" space directly off the drill ground. This allows trainees to be in bunker gear and boots while receiving safety briefings prior to a drill, and receive instructor downloads immediately between and after drills. For health reasons, this space typically incudes a hydration station.

7. The FSTC has no gender-neutral toilets or shower facilities.

Live Fire Training Facilities

1. Live fire training and physical skills are required by degree programs, International Fire Service Accreditation Council (IFSAC) Testing, and the WAC 296-305.

2. As noted in the previous section, the FSTC drill yard has no permanent live fire training tower. Modern fire training facilities have structures with the following:

    - Multiple building faces to simulate an office building, hotel, apartment over retail, and various apartment/residential situations, with realistic site obstacles such as carports and simulated, overhead power lines

    - Multiple permanent live fire props such as kitchen fire, bed fire, sofa fire, hallway flashover, storage rack fire, and desk/office fire.

    - Rooms, stairways, and hallways to allow multiple training scenarios and fire attack methods.

    - Balconies and outside stairs to simulate motels, garden apartments, and mid and high-rise apartments.

    - The entire facility is used for training with the exception of live fire prop control rooms. Stairways with standpipes are used during training scenarios. All spaces used for search and rescue training are separate from or in conjunction with live fire training. Hose management techniques are practiced throughout. Limited area sprinkler systems are provided for

training. Ladder techniques are practiced at multiple window, balcony, and roof levels.

3. The current drill ground is a re-used asphalt parking lot, not configured for realistic training needs like maneuvering fire apparatus and providing exterior site props such as roof ventilation, dumpster fires, propane tank fire, and forced entry.

2.3 NEED FOR FIREFIGHTERS

Firefighters are full-time professionals and are expected to have skill in rescue techniques and responses such as search and rescue, technical (steep slopes), swift and cold water rescue, acts of terrorism, hazardous material releases, and natural disasters. Ever-evolving construction techniques using synthetic and composite materials challenge everything from how to enter a building to proper fire response.

EV car batteries, photovoltaic systems, and indoor growing facilities all present new challenges to firefighter safety, and education is the key.

The 2017 BTS Project Request Report (PRR) noted that continued training program demands are due to firefighter retirement statistics and included a statement from the Washington State Firefighters Joint Apprenticeship and Training Committee explaining that the Washington State Retirement System LEOFF Plan 2 reported 2,200 firefighters eligible for retirement in 2016, with a projected increase of 5% a year to an additional 1,108 by 2021.

2.4 NEED FOR FIREFIGHTER HIGHER EDUCATION

According to "The Relevance of Higher Education in U.S. Fire Department Officer Promotion", a study that obtained survey results from 59 fire chiefs nationwide, showed that 47% of officers held bachelor's or master's degrees, while another 38% were enrolled in a college degree or certification program. 83% of fire chiefs responded that education requirements are essential or important for firefighters and 78% responded that higher education is important for successful career advancement (Firehouse Magazine, November 2014).

City managers also recognize the need for higher education in the firefighting profession. According to City/County Managers Association:

"T*here is perhaps nothing more critical to the future of the emergency services than embracing the value of higher education for developing*

the next generation of service professionals, both career and volunteer. One way of distinguishing education from training is that education teaches students not just what to learn but also how to learn."
(Firehouse Magazine, February 2017).

The 2017 PRR quotes similar articles from 2011, emphasizing the need for advanced education from Inside Higher Ed.

2.5 CURRENT FIRE SERVICE TRAINING PROGRAMS

Two Associate Degrees

- Fire Service Degree (AAS)
- Fire Service Supervision Degree (AAS)

Four Certification Programs

- Fire Fighter Certificate
- Fire Recruit Academy Certificate
- Fire Service Supervision Certificate
- Wildland Firefighter Certificate

Eleven courses to meet International Fire Service Accreditation Council (IFSAC) Testing requirements in compliance with NFPA Standards.

- Firefighter I
- Firefighter II
- Fire Apparatus Driver/Operator
- Fire Instructor I
- Fire Instructor II
- Fire Officer I
- Fire Officer II
- Fire Safety Officer
- Fire and Life Safety Education I
- Hazardous Materials Awareness
- Hazardous Materials Operations

2.6 FUTURE PROGRAM DEVELOPMENT

BTC is planning the addition of two Bachelor of Science degrees in Fire Command and Fire Supervision.

Future NFPA certifications under consideration are Fire Officer III and Public Information Officer.

New and expanded facilities will allow BTC to offer the following specialized training/certifications:

- HAZMAT Technical Training
- Tower Safety Sprinklers
- Self-Contained Cistern
- Electrical and Diesel Pump Test for Fire Rigs, which could be offered in conjunction with BTC's existing diesel mechanics program

Other anticipated areas of growth with expanded training facilities:

- Afternoon high school fire program with 15 students per quarter for three quarters per year.
- Contract Training for fire districts and industries serving 20-50 persons per week, evenings, or weekends.
- Fire Training Conferences for up to 150 people.

2.7 RELATION TO AGENCIES MISSION AND GOALS

2.7.1 Campus Master Plan

Location Consistent with BTC Master Plan

The two alternates utilize three of the eight locations slated for development in the BTC Facilities Master Plan and avoid existing utility easements.

Goals and Objectives

As stated in the PRR, the project is consistent with the Master Plan Goals and Objectives in all aspects. Further development in this Predesign of Alternates A and B remain true to the Goals and Objectives while providing viable solutions at two separate locations on campus.

The alternates meet two of the four Key Objectives in *Establish a Clear Front Door* and *Improve Signage and Wayfinding* in different ways; however, all Key Objectives are met.

2.7.2 Consistency with the BTC 2019-2021 Strategic Plan

The Strategic Plan, found in the Appendix, focuses on meeting the Mission of BTC in four areas:

1. Community Relationships: The FSTC regularly partners with neighboring fire districts for training opportunities and provides professionally trained graduates who serve the community.
2. Student Centered: Fire service training engages students in ways few other programs can by mental and physical education,

promoting leadership, and building team comradery through safety.

3. Workforce Education: The FSTC provides direct workforce training with certifications and degree programs.
4. General Education: While the FSTC is intensely focused on fire service instruction, its degree programs support that general and related education are essential to success and ensuring well-rounded learners.

2.7.3 SBCTC System the Year Goals

The FSTC is consistent and supports the three goals of the SBCTC:

1. Economic Demand: The program continually assesses necessary skills for firefighters and their national training certifications. The program provides trained professionals to a growing population, and public safety needs in a field with high retirement statistics.
2. Student Success: By offering shorter certificate programs and an evening firefighter recruit academy, the program is accessible and affordable. Bachelor's degrees present career advancement opportunities in the field.
3. Innovation: The FSTC partners with neighboring fire districts for joint training. An expanded facility will provide opportunities for larger partnerships. Technologies, materials, and training methods, such as the Scott 5500 psi Self-Contained Breathing Apparatus (SCBA), continue to evolve. BTC's purchase of these smaller, lighter, apparatus will give firefighters 25% more air time, while using simulators and multiple screens for command training will provide realistic scenarios for candidates.

2.8 WHAT IS NEEDED TO SOLVE THE PROBLEM

A successful solution must address the three necessary firefighter training areas: Classroom and Administrative space, a Live Fire Training Facility, and Training Support spaces.

The studied Alternates provide new classroom and administrative space, a new live fire training facility, and either new or renovated/new fire training support space, depending on the Alternate.

The preferred Alternate proposes:

19,100 gsf new Classroom/Administrative space
18,900 gsf new live fire training tower

16,500 gsf renovation/addition for Fire Training Support
54,500 gsf, the same as listed in the 2017 PRR.

2.9 PROGRAM GROWTH AND STUDENT WAITING LISTS

BTC fire training and EMT programs are growing fast, from 148 FET's in 2014 to 282 FTE's in 2019, a significant 91% growth in 5 years. The EMT program alone, while currently a modest program with 17 FTE's grew 20% in the last 5 years.

The programs clearly need more capacity: For the Fall 2020 term, registration is already full as of July, with 77 prospective students on a wait list for fire training and 21 on the wait list for the EMT program.

2.10 PAST STEPS

A Project Request Report was prepared in 2017, and funding allocated for predesign and design phases in the 2019-2021 biennium with an anticipated request for construction funding in the 2021-2023 biennium.

Analysis of Alternates 03

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3.0 ANALYSIS OF ALTERNATES

3.1 PROCESS

3.1.1 Stakeholder Support

Stakeholders from across Bates Technical College (BTC) who contributed to this study:

- Tiffany Williams, South Campus Dean
- Chuck Davis, Executive Director, Facilities & Operations
- William L. Pessemier, Project Manager, Fire Service Training Center
- Todd Wernet, former Director, Fire Services
- Brian Wiwel, Instructor, Fire Service Training
- Mark Snyder, Instructor, Fire Service Training
- Darrell Taylor, Instructor, Fire Service Training
- Bill Dicken, Fire Service Recruit Academy Chief

3.1.2 First Steps and Site Selections for Alternates

The 2017 PRR proposed expanding fire service training on the existing BTC South Tacoma campus. Capital funding was provided by the State to BTC for the predesign and design phases in the 2019-2021 biennium.

During the fall of 2019 and into the spring of 2020, four informal meetings were held with BTC and RFM to discuss Alternate sites. In the time since the PRR and the start of predesign, BTC continued to explore off-campus options with larger footprints that would allow greater future expansion than on-campus solutions and attract partnerships with other fire districts or Joint Base Louis McChord (JBLM), if there was sufficient area to construct shared training facilities over time.

Sites in south King County, City of Tacoma, and JBLM were investigated by BTC, followed by discussions with RFM and two discussions with the SBCTC.

All off-campus options were eventually discarded due to lack of availability, size, or time necessary for environmental assessments and enacting agreements that aligned with BTC training needs and the State of Washington project funding timelines.

By mid-March 2020, it was determined and agreed that the predesign site alternates on the BTC South Tacoma Campus would proceed.

3.1.2 Determination of Alternates

An initial review of the PRR site concept revealed that the available area on the west side of campus, while viable for the academic portion of the fire service program, was too narrow for live fire training. It needed training support space and did not allow sufficient fire engine maneuvering clearances around a live fire training structure.

Two alternates were developed for the predesign:

- Alternate A: South Campus
    - A modification to the original PRR concept while maintaining its favorable aspects. No other programs are affected in this Alternate.
- Alternate B: North Campus
    - Site of the current CDL driver training program.

Alternate C: The Consequences of Doing Nothing is also addressed in this section.

3.1.3 Predesign Process

Beginning in late March 2020, RFM conducted bi-weekly Predesign Meetings with BTC stakeholders, for a total of six meetings. Notes from those meetings, including all presentation materials, are included in the Appendix for record.

Topics included:

- Review of College and Fire Service Training curriculum, current Certification and Degree programs, goals, enrollment, and future program needs.
- Verification and update of the 2 ½-year-old PRR Space Program, testing it against fire training objectives for Certifications and Degree programs.
- Development of site alternates, site training features, and site infrastructure requirements.
- Development of individual room data sheets.
- Building Block Diagrams.

- Potential impacts of the alternates on existing BTC academic programs.

As part of the Predesign process, the City of Tacoma Planning and Development Services was contacted, and a pre-application meeting held. The City provided written comments which are included in the Appendix. City requirements such as approach to stormwater and required right-of-way/road frontage improvements were identified and costs are included in this Predesign budget.

These documents became the basis of the descriptions and Alternate analysis, outline specifications, construction cost estimates, project budgets, and LCCM as documented in this Predesign.

3.2 ANALYSIS OF ALTERNATES

Both Alternates fit within the campus' Master Plan and offer different pros and cons. Alternate B is dependent upon the CDL driver training program to vacate its current location

Upcoming L&I safety training regulations indicate that the CDL program will have to be relocated independent of the Fire Service Training project, likely off-campus, however the timeframe, location, and funding for relocation is not in place at this time. For this and other reasons discussed below, Alternate A: South Campus is the Preferred Alternate.

Should the CDL driver training program be independently relocated, and if the schedule and project budget are not impacted, the College should consider Alternate B during the design phase due to the advantages discussed below.

3.2.1 Alternate A: South Campus – Preferred Alternate

Alternate A is a modification to the original PRR site concept. A new academic building will remain on the west side of campus, portions of the existing fire service training space in Building D will be renovated and include a modest addition, while a new live fire training tower with outdoor training spaces on an expanded drill ground will be built in the current location. To mitigate the loss of existing west parking due the new academic building, an existing gravel area to the northwest will be developed into a paved parking lot.

This preferred Alternate maintains the north area of the campus for the CDL driver training program and has no impact on any programs.

Pros:

1. Meets All Program Needs: This preferred Alternate allows BTC to meet current and future demands. Additionally, it combines similar programs such as instruction with administration in the academic building, and fire training support near the fire training tower and drill ground. Renovating existing areas has the potential to refresh and update program space without impacting other campus operations.
2. Proximity to Existing Academic Space: The proposed western location reduces travel time to existing buildings and allows programmatic proximity to other classrooms.
3. Not Impacts to Existing Operations: The location of these new buildings will not disrupt operations on campus during construction, other than the fire service program itself.
4. Enhances Campus Entry and Visibility: Site improvements on the south and west end of campus will improve the landscape and circulation. The training tower's visibility from 78th Street and I-5 will create a bold new identity for the fire service training program and BTC as a whole.
5. No Impact to Other Programs: This preferred Alternate ensures the north area of the campus will remain usable for the CDL driver training program, with no impact to any other programs.

Cons:

1. Academic Building Location: The new academic building is located on the west side of campus and cannot act as the front door outlined by the Master Plan. The focal point of the training tower at the south campus entry mitigates this issue.
2. Program Separation: The division of programs between two different buildings will mean students and staff will have to walk back and forth.
3. Apparatus Bays: The existing apparatus bays are smaller than current standards, maintaining a workable, but less than ideal situation for the storage of fire training vehicles. New apparatus bays will mitigate these issues, allowing newer, larger vehicles.

4. Temporary Training Facilities: A portion of current live fire training takes place off-site at rented or leased grounds due to limited facilities on Campus; 100% of the live fire training will need to be off-site during construction.
5. Phasing: To accommodate as much of the fire training program on the south campus as possible, the academic building will be built and occupied first. The renovation of Building D and the new fire training tower will follow. This results in a longer construction period.

3.2.2 Alternate B: North Campus

This Alternate is a new, combined academic and training support building, and new live training tower with outdoor training spaces. To provide additional student parking, an existing NW gravel area will be developed into a paved parking lot.

Pros:

1. Meets All Program Needs: The building combines the academic, administrative, and fire training support facilities into one all-new building next to the new fire training tower. The "dirty classrooms" and apparatus bays are located on the first floor while the administration and classrooms are located on the second floor. This separates major programmatic functions but maintains necessary proximity.

2. Enhances Campus Entry and Visibility: The site is located at the entrance to north campus and would provide a front door while showcasing the fire training program.

3. Larger Drill Ground: The north site has more physical space for future expansion of exterior training props, and room for multiple partnership training opportunities.

4. Site Circulation: This Alternate would help connect the established pedestrian axis and further clarify circulation.

5. Constructability: The entire project can be built concurrently, with no phasing required.

Cons:

1. Program Impacts: This Alternate depends upon the existing CDL driver training program vacating the area.
2. Vacates Space with No Replacement Program: Approximately 14,400 sf of space in Building D will be vacated. While this spare capacity may be useful in the future, neither the original PRR or this Predesign identify a specific use for the space.

3.2.3 Alternate C: The Consequences of Doing Nothing

Pros:

1. Minimal Capital Costs: The existing fire training program located in 14,500 sf of Building D on the south end of campus with an adjoining drill ground would remain essential as is. There is a nearby mobile training tower with a portable and several containers that store equipment or are used for training. Minor changes or upgrades to the space and training props will extend short-term use.

Cons:

1. Does not meet Program Needs: Critical functions and safety needs, including a lack of administration, instruction, and fire training space, are not met. The program does not meet current FTE needs, safety standards for fire training, or provide proper storage space.

    - The current fire training facilities do not comply with NFPA 1402 *Standard on Facilities for Fire Training and Associated Props* nor the WA State WAC 296-305 *Safety Standards for Firefighters*.

    - The current configuration of Building D's south end does not support the FTE of student enrollment or program expansion. The lack of resources and available space prohibit the program's growth.

    - The lack of adequate facilities makes it difficult or impossible to comply with current program or safety standards. Modular buildings and connex boxes not designed for fire training are used as fire props and for storing training equipment. Continued use of non-heated storage space causes damage to equipment that requires heated storage. Additionally, the current facility

has no space or equipment for hose drying, clean bunker gear storage, or gear decontamination.

- Lack of adequate training facilities requires the College to spend between $60,000 to $75,000 per year renting off-site facilities, plus student and instructor travel costs. These costs will grow annually and continue indefinitely until a new live fire training structure is built on the South Campus.

3.3 Cost of Alternates

Detailed costing information of Alternates A and B is in Section 5 Project Budget Analysis.

Summary Cost Table

	MACC	Total Project
Alternate A - Preferred Alternate	$22,782,833	$32,802,000
Alternate B	$24,619,220	$35,098,000

Alternate A is less costly, primarily due to:

- 14,500 sf is renovated space and has no new foundations, exterior skin, and utilities are in place inside the building.
- Less outdoor training paved area than Alternate B.

3.4 Life Cycle Cost Model (LCCM)

A LCCM using WA State OFM LCCM tool was prepared comparing three scenarios:

- Alternate A as traditional Owner D/B
- Alternate B as traditional Owner D/B
- Alternate B design as developer constructed and leased.

Alternate A – Preferred Alternate is the least cost, with the lease option of Alternate B as the highest cost.

The LCCM pages are included in the Appendix.

3.5 Project Schedule Summaries

Alternate A – Preferred Alternate

A detailed schedule for Alternate A is included in Section 4

- August 2020: Predesign Complete
- February 2022: Start Construction
- February 2024: Occupancy

Alternate B

- August 2020: Predesign Complete
- February 2022: Start Construction
- July 2023: Occupancy

Alternate C: The Consequences of Doing Nothing

No specific schedule is identified for this Alternate. Ongoing maintenance and training prop replacements will continue intermittently as space and funding allows, but none of the identified fundamental deficiencies will be mitigated.

Detailed Analysis of 04 Preferred Alternate

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4.0 DETAILED ANALYSIS OF PREFERRED ALTERNATE

4.1 OVERVIEW, GOALS, FEATURES

4.1.1 Project Proposal

The Preferred Alternate consists of:

- New two-story 19,100 sf academic building on the west side of campus for classroom and fire service training administration.
- Renovating 14,500 sf of the existing one-story fire service training space in Building D plus a 2,000 sf apparatus bay addition for fire training support.
- New five-story 18,000 sf live fire training tower with outdoor training spaces and expanded drill ground.
- New surface parking lot at the location of an existing NW gravel area.

The proposed site complies with the College's Master Plan and offers additional advantages in pedestrian circulation and overall campus wayfinding and identity.

4.1.2 Project Goals

Preparing students for careers as firefighters, or in closely related professions, is the overarching goal of this project and BTC Fire Service Training Program. In pursuit of this goal, the following objectives will be met:

1. Firefighter Training in Real-world Settings: Facilities will provide hands-on training replicating a wide variety of building types and occupancies, including commercial, residential, high-rise, suburban, and multi-family. Facilities would incorporate live-fire training, search and rescue, laddering, and fire ground operations.

2. State-of-the-Art Instruction: Facilities will inspire student learning through interactive educational spaces, active learning labs, and traditional classrooms.

3. Degrees and Certifications: Associate Degrees, Certifications, and future Bachelor's Degrees in fire service training will be provided.

4. Testing: Students will be eligible for International Fire Service Accreditation Council (IFSAC) testing, meeting NFPA Standards.

5. Job Qualifications: Students are able to gain the skills and experience necessary for employment as an entry-level firefighter.

6. Safety: Facilities will provide challenging yet safe and controlled environments for students to gain confidence and skills in firefighting fundamentals meeting NFPA 1402-2019 *Standard on Facilities for Fire Training and Associated Props*.

4.1.3 Program Features

The proposed Fire Service Training Center (FSTC) buildings will bring Bates Technical College's fire training program up to contemporary standards for safety, instruction, and quality of space. Administration, instruction, fire training and support are central features of the proposed FSTC buildings and will create cohesive facilities and programs for student safety and success.

Academic Building

Placing the proposed academic building to the west is consistent with the original PRR, brings it closer to other classroom buildings, and will improve pedestrian circulation between existing programs and campus public spaces.

A unique feature of this building is the Focus Learning Lab. This lab will be a flexible learning space that can be used for instruction, independent student learning and collaboration.

The new academic building will offer a variety of flexible, informal, and contemporary learning environments. In tandem with modern technology, the new building will foster student success, create connections, and possibly provide alternative revenue. For example, a large, flexible classroom could be rented to outside groups.

Building D: Fire Training Support

The current configuration lacks Decon space, gender-neutral showers and restrooms, hose dryer and storage, a "dirty classroom", small equipment repair, and adequate heated storage. The proposed renovation of Building D will incorporate these missing spaces and create more area for fitness and showers to meet FTE needs and future enrollment.

Renovating the existing space in Building D and consolidating external storage containers will clean up the campus and open additional parking for training facilities.

Fire Training Tower

The proposed fire training tower, located near Building D, would allow direct proximity to similar programs and immediate access from the fire training structure to decontamination, showers, hose storage, fitness, gear storage, and the apparatus bay. These buildings' proximity enhances the dedicated fire training zone on campus.

A permanent fire training structure will provide dedicated space for a variety of training scenarios that meet current safety standards. A main feature of this new building will be a mock two-story house connected by a bridge to a mock five-story commercial tower. The array of different space configurations provides flexibility to run a multiple of training scenarios.

4.1.4 Master Plan Goals and Objectives

The planning of the overall building development supports the 2014 Facilities Master Plan Update Key Goals and Objectives:

Respect its Stature: By enhancing facility quality and creating flexible, state-of-the-art learning facilities, the proposed FSTC will bolster the college's status as a premier technical college and learning environment.

Ensure Stewardship: The proposed FSTC exemplifies stewardship by re-making outdated Building D and providing a right-sized building for current needs while anticipating the future.

Maximize Flexibility: The FSTC demonstrates flexibility in exterior space and vehicle clearance as well as instructional flexibility for interior space planning.

Enhance the Campus: The new FSTC project will eliminate modulars and connexes near Building D, clarify pedestrian circulation, and enhance the west end of campus. The training tower will be a landmark to the south campus entry and I-5.

Provide Accessibility: FTSC will exemplify universal design and ensure circulation to and from the building by clearly delineating between pedestrian and vehicle traffic.

Promote Safety: Safety is a cornerstone of Bates Technical College and the Fire Training Service Program. This project will comply with and elevate the training program to current safety standards.

Respect the Environment: The FSTC will comply with and attempt to exceed LEED Silver requirements. Reuse of an existing structure (Building D) is a substantial step towards environmental responsibility and preservation of embodied energy. Combined with contemporary strategies for enhancing energy efficiency, harvesting daylight, this project can elevate the quality of space while reducing its carbon footprint.

Encourage Efficiency: The planning and siting of buildings for the FSTC program will exhibit a model of efficiency through carefully planned spaces.

Value the Community: The FSTC will help clarify the west end of campus, buffering and appropriately relating to BTC's residential neighbors to the south.

4.2 SPACE PROGRAM

4.2.1 Program Development

The space program was developed and confirmed through a series of interactive workshops with the BTC Building Committee and DES representatives. From those workshops, Room Data Sheets were produced to fully document program needs as seen by the building committee and are provided in Section 6 for reference.

4.2.2 Space Program

The new Fire Service Training buildings focus on five categories of space types:

The detailed Space Program is provided at the end of this Section.

Administration (A-Series):

Administration encompasses reception, office administration, conference, instructor changing rooms/showers, and part-time instruction workstations.

General Instruction (B-Series):

General Instruction includes large and standard classrooms, computer lab and testing stations, student study and break-out space as well as a resource library that houses fire training artifacts used for classroom instruction.

Student Support (B-Series):

Student Support contains lockers, flexible learning labs, and a kitchenette for students who need to remain on campus for extended periods of time.

Live Fire Training Support (C Series):

Fire Training Support encompasses spaces that assist with the Fire Training Tower and drill yard. These include areas for decontamination, fire training engine storage, hose dryer, bunker gear storage, secure equipment storage, self-contained breathing apparatus (SCBA) compressor, fill stations and bottle storage.

Fire Training Structure:

This program encompasses the fire training tower where instructors run live fire drills and rescue scenarios.

4.2.3 Occupancy

- Academic Building:
  - Administrative Space: 14 staff
  - Classroom Space: 178 students + Focus Learning Lab
- Training Support
  - 44 students
- Fire Training Structure:

- Live Fire Training Classes of 24 students each, up to three concurrent classes depending upon the training scenario.

4.2.4 Building Layout

Building Block Diagrams, site plans, and concept renderings to illustrate the proposed building form and materiality are in Section 6.

The proposed building layouts is split into three buildings:

1. Academic building
2. Building D
3. Fire Training Structure

Academic Building

The academic building seeks to offer an array of flexible and informal learning spaces, giving staff and students a variety of ways to learn, connect and study. The block diagrams are the result of several workshops with the College where priorities were identified and feedback was given and incorporated. Design concept highlights are:

- Wide corridors with flexible furniture in pocket break-out spaces
- Areas of refuge like quiet study spaces, and public collaboration areas like the Focus Learning Lab, allow students to choose how and where they want to learn
- Clear delineation and private access to staff areas
- Take advantage of views on campus and activity areas
- Flexible classroom arrangements with operable dividing walls
- Technology solutions for distance learning

Level 1

Wide corridors offer flexibility for pocket breakout spaces, lockers, and technology charging stations. The large classroom is near the entrance to allow for rental opportunities while securing the rest of the building. EMT storage and a classroom are placed on the south side of the building and provide exterior access to bring in props or access a training ambulance..

Level 2

The second floor houses the administration wing, the remaining classrooms, and the Focused Learning Lab.

Building D: Fire Training Support

The building will be reconfigured and refreshed to meet the fire training support requirements. The new layout adds several key spaces, including a "dirty classroom", hose drying and storage, decontamination, bunker gear storage, tool maintenance shop, heated storage, and additional apparatus bay.

The "dirty classroom" is a space designed for classes to plan or debrief in full gear on their way to or from fire training. In this room, additional equipment from outside, or training props can be brought in as teaching devices. The other spaces are laid out to provide quick access for instructors and students to the apparatus bays and the training yard/training tower.

Training Tower

The training tower provides for both live fire training and non-fire training drills required for certifications and testing including search and rescue, laddering, and fire ground operations.

4.2.5 Space Needs Assessment

Academic and Administrative space needs have been programmed using the 2017 OFM State Facility Workplace Strategies and Space Use Guidelines for Offices, Workstation, Conference, Focus areas, and Training spaces.

Live fire training support and live fire training spaces are unique spaces not recognized in typical planning and space use standards. Accordingly, these spaces have programmed using fire training best practices including NFPA 1402-2019 *Standard on Facilities for Fire Training and Associated Props*, fire training equipment space needs, and requirements to meet training objectives.

4.3 SITE ANALYSIS

4.3.1 Location

The location of the proposed academic building, the renovation of Building D, and the fire training structure are in accordance with the 2014 Campus Master Plan for future development.

The location of the new academic building is proposed to the west of Building C. This location is consistent with the 2017 PRR. The location

will help define the west edge of campus and create a buffer between campus activity and residential housing farther west.

The live fire training drill yard and new fire training tower is located on the southeast corner of campus where the existing drill yard is located, south of Building D. This keeps the active training area farthest from the residential neighborhood. This corner of campus is across from commercial/light industrial and I-5 and will provide identity to the college at its south entrance.

4.3.2 Site Plan and Building Footprint

Site plans and building block diagrams are in Section 6 and show the building footprint, adjacent buildings, and site features. Conceptual civil utility and landscape plans are included.

4.3.3 Stormwater Requirements

The existing sites are all impervious surfaces. The addition of a building and associated paved walkways will not significantly change the percentage of impervious surface. Planned landscape areas surrounding the building will in fact reduce the percentage of impervious surface and improve the performance of associated stormwater infrastructure. The civil plan included in this Section illustrates proposed stormwater infrastructure.

The project will be considered a redevelopment project per the City of Tacoma Stormwater Manual and require water quality improvements that are included in the budget.

4.3.4 Ownership of the Site/Land Acquisition

The South Campus is owned by the State and occupied by BTC South Campus. No land acquisition is needed for this project.

4.3.5 Easements and Setbacks

Existing utility easements are known and documented in the Appendix. Zoning setbacks are known. All easement and setback requirements will be met.

4.3.6 Neighborhood

The entire South Campus is in an R2 Single Family Dwelling District with residential neighbors to the west, commercial/light industrial to the north and south, and I-5 to the east. The College is currently operating under a 1985 Conditional Use Permit (CUP), revised in 2005. This project will require a major Modification to the existing CUPs.

With the prior CUP applications, the residential neighborhood associations' concerns were for the College to maintain existing trees along the west side of campus as a buffer, and to mitigate traffic concerns at the campus' north entrance with a right-in/right-out only entry.

This proposed project does not impact any known neighborhood concerns and respects the west side of campus with a traditional classroom building and buffers to the residential—see proposed landscape plan in Section 6. The more active, live fire training area remains at the southeast corner, as far as possible from the residential area and neighboring interstate.

4.3.7 Potential Issues During Construction

There are no anticipated impacts to other programs or neighbors during construction, other than typical construction noise.

4.3.8 Utility Extensions and Relocations

The site is well served with existing municipal water and sewer utilities. The minimal utility work is noted in the Civil Outline specification in Section 5 and Site Plan in Section 6.

At the City of Tacoma pre-application meeting, the City's utility representative indicated there is adequate water flow and pressure for fire training. In fact, this location is well positioned in the water distribution system for significant water availability. See the Civil Outline specification for details.

4.3.9 Potential Environmental Impacts

Existing trees on the west border of campus will be maintained in accordance with the existing CUP, and the green buffer enhanced.

There is no known site contamination that requires mitigation. The site is not identified on the City of Tacoma Comprehensive Plan Environmental Hazards Map as having any Environmental Hazards.

The site is not adjacent to any wetlands or shorelines.

It is anticipated that a State Environmental Policy Act (SEPA) checklist will be required for this project, resulting in a Determination of Non-Significance (DNS).

4.3.10 Parking and Access

Parking and Access: Replacement parking is proposed to mitigate the parking removed for the new Academic Building.

Campus Access: Campus entrances will require new, compliant, accessible driveway aprons and curb ramps. Curb ramps are to be replaced at four intersections, and the 74th Street sidewalk widened per the City of Tacoma pre-application report included in the Appendix. ROW improvements are further described in the Civil Outline specification in Section 5 and included in the cost estimate.

4.3.11 Impacts on Surrounding Development and Phasing

There are sufficient construction lay-down areas withing the designated construction zones.

The Preferred Alternate will require Phased Construction. To accommodate as much of the fire training program on the South Campus as possible, the academic building will be built and occupied first, and the renovation of Building D and the new fire training tower will follow. This results in a longer construction period than Alternate B.

4.3.12 Consistency with Other Laws and Regulations

High Performance Public Buildings (Ch 39,35D RCW)

The new project will meet or exceed the requirements of LEED Silver certification, as required by RCW 39.35D.030.

Greenhouse Gas Emissions Reduction Policy (RCW 70.235.070)

The College's Sustainability Plan, with its strategy for reducing greenhouse gas emissions, is included in the Appendix.

By incorporating such design features as sun shading devices, low-e high performance glazing, maximizing daylighting, LED lighting, using highly efficient HVAC equipment, and exceeding Washington Energy Code insulation requirements, the Fire Service Training project will contribute significantly to the State greenhouse gas reduction program.

Archeological or Cultural Resources

Construction at the LRC site is unlikely to disturb or destroy any significant archeological or cultural resources, based on preliminary site review and construction of the new WSU building.

Reference the attached letter from the Washington State Historic Preservation Officer, located in the Appendix. An EZ-1 form will be required before construction can begin.

Americans with Disabilities Act (Executive Order 96-04)

The Fire Service Training building(s) will be designed to comply with all requirements of the Americans with Disabilities Act of 1990 and ICC A117.1, as adopted by the Washington State Building Code.

Compliance with State Planning (Ch 36.70A RCW as required by RCW 43.88.0301)

The Fire Services Training project is in alignment with the College's Master Plan and Strategic Plan.

The South Campus is listed as a Major Institutional Campus in the City of Tacoma Comprehensive Plan and supports Pierce County's plans for expanding educational opportunities and economic development.

Information required by RCW 43.88.0301(1)

The Fire Service Training Program site is located within the Urban Growth Boundary. Since the project is intended to significantly improve Bates Technical College's ability to deliver educational programs to its service area, the project will contribute to the economic development of City of Tacoma and Pierce County.

Other Codes and Regulations

The Fire Service Training project will comply with all applicable City and State codes and regulations.

The fire training facilities will comply with NFPA 1402-2019 *Standard on Facilities for Fire Training and Associated Props* and WA State WAC 296-305 *Safety Standards for Firefighters*.

4.3.13 Problems that Require Further Study

As identified in the City of Tacoma pre-application report and meeting, a Traffic Impact Analysis (TIA) and parking study will be required for the CUP land use permit. These costs have been included in the project budget. No significant impacts are anticipated.

4.3.14 Significant or Distinguishable Components or Equipment

The Class B gas-fire live fire training props and thermal linings are specialized equipment systems, governed under NFPA standards for operation and safety. There are a limited number of suppliers, each with proprietary systems and different features/costs.

It is recommended that an RFQ/RFP, independent from the construction contract, is issued for these specialty items. A budget for this equipment is included in the Project Budget.

4.3.15 IT Requirements that Affect Building Plans

The new Fire Training Service Buildings seek to incorporate distance learning technology into classrooms.

4.3.16 Planned Building Commissioning

Independent building commissioning will be an integral part of the design and construction of this project, in conjunction with LEED and with WSEC.

4.3.17 Future Phases or Impacts

Construction of the live fire training tower will include utilities and infrastructure to support additional future Class B live fire props. These can be acquired as funds permit to enhance future training opportunities.

There are no anticipated impacts in the future, to or from other programs, due to this project.

4.3.18 Project Delivery Method

The College, in conjunction with DES, has selected Design/Build as the preferred project delivery method for greater efficiencies in design and

construction phasing coordination, integral value engineering and constructability reviews, and reduced cost.

Use: Fire training facilities and live fire structures are a highly specialized use in accordance with RCW 39.10.300.

Requirements: The project will comply with project management and contracting requirements of RCW 39.10.320.

Process: The project will comply with contact procurement and award requirements of RCW 39.10.330.

4.3.19 Project Management

The project will require the services of a DES E&AS Project manager to oversee the project and contracts. The College's Director of Facilities and Operations, in conjunction with the Dean of South Campus, will facilitate decision making by the College's selected Building Committee and provide project status reports to OFM and the College Administration.

Consultant services will require selection of a design team with civil, landscape, architectural, structural, mechanical, and electrical design and engineering services.

A structural consultant who specializes in live fire training towers must provide engineering and design details in order for this tower to withstand the hourly variable heat loads of up to 500 degrees, followed by cold water blasts to doors, window shutters, and the structure during evolutions of live fire training multiple times per day.

Other necessary consultants include survey, geotechnical, and traffic engineering for TIA and parking analysis.

4.3.20 Schedule and Construction Phasing

Construction is to be phased to in order for the program to remain operational on the South Campus to the greatest extent.

The academic building will be constructed first, with no impact to existing programs, allowing the fire training program to vacate its space in Building D when completed.

Phase two is the selective renovation of Building D, addition to Building D, and construction of the new training tower.

During Phase Two all fire training academic programs will continue on the South Campus and non-live-fire training will occur south of the new academic building, with all live-fire training performed off-campus with established fire training partners.

Milestone Schedule

- July 2019 -August 2020: Predesign
- September 2020 – June 2020: D/B Scoping Documents, D/B RFP, D/B RFP, and D/B selection
- July 2021: Construction Funding anticipated
- July 2021: Execute D/B Contract
- July 2021 – January 2022: D/B Design documentation through permitting, with integrated Value Engineering and Constructability by D/B Team
- February 2022 – April 2022: D/B Design Documentation 100%.
- May 2022 – April 2023: Construction of Academic Building
- May 2023: Commissioning and move-in Academic Building
- June 2023 – February 2024: Selective Renovation and Addition of Building D and Construction of Training Tower
- March 2024: Commissioning and move-in Building D
- March – April 2024: Installation and commissioning of live fire training props as specialized equipment
- March 2024 – May 2024: Construction Contract Closeout
  May 2024: Occupancy of Building D and Fire Training Tower

Factors that Could Impact Schedule

Land Use: As noted, a CUP is required for this project. Given the nature of the comments received during the prior CUP process, it is not anticipated that this process will impact schedule.

Bates TECHNICAL COLLEGE

2020-213 Fire Service Training Center Predesign

Classroom and Administration Building - New Construction

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Room/Space	(ASF)	Qty	Total ASF	Alterenate B North	Prefered Alternate A South	Students Occupants Each	Students Occupants	Lab Workstations	Notes
A Series - Administration									
Copy/Print Center	150	1	150	154	153		0		
Storage	120	1	120	60	60		0		Office Supplies
Conference Room for (12)	360	1	360	360	379		0		
Faculty Offices	120	6	720	725	725	1	6		(3) Fire Service + (1) academy + (1) EMT + (1) for BAS Program
Part-Time Faculty workstations	64	4	256	278	277	1	4		Open office area for Fire Academy & EMT
Dean's Office	150	1	150	174	173	1	1		Office suite? - One + (2) guests
Faculty & Staff Restroom & Shower (6) lockers, WC +U, shower	240	1	240	245	268		0		
Administration	200	1	200	200	192	2	2		(2) workstations.
Reception & Waiting	150	1	150	198	217	1	1		Reception counter & waiting area
Staff Break Room	250	1	250	245	255		0		
subtotals			***2,596***	***2,639***	***2,699***		***14***		
B Series - General Instruction									
Standard Classroom	1,200	3	3,600	3,597	3,571	30	90		30 students per classroom; table & chair seating (multiple furnishing layouts); technology rich
Large Classroom	2,000	1	2,000	1,996	2,150	50	50		50 - 60 students per classroom/lab; table & chair seating (multiple furnishing layouts); technology rich; can serve as campus EOC
EMT Equipment storage	250	1	250	300	300				Storage of clean NFPA certified gear. Must be directly adjacent to a classroom
Break-out Space	150	2	300	300	300	0	0		Collaborative learning; small group instruction
Computer lab.	1,200	1	1,200	1,200	1,277	30	30		30 student computer stations Possible future Dispatch Training + observation vestibule
Resource Library	400	1	400	398	400	8	8		
subtotals			***7,750***	***7,791***	***7,998***		***178***		
Student Support									
Focus Learning Lab	1,400	1	1,400	1,453	1,370	N/A	N/A		Non-concurrent with classrooms/training for Rehab after training. Replaces PRR program spaces of Dining and Day Room
Kitchenette	200	1	200	200	200	N/A	N/A		Replaces PRR program space of Beanery
Student Lockers	10	102	1,020	1,020	1,020	N/A	N/A		For issued PPE and personal secure storage during training: 2x2 locker + door swing/standing space in front
subtotals			***2,620***	***2,673***	***2,590***		***0***		
Total ASF			***12,966***	***13,103***	***13,287***	***0***	***192***	***0***	***Total Students/Occupants***
Total Un-Assignable			*6,982*	*5,197*	*5,813*				Structure, Circulation, Mech/Elec/Data/Janitor
Total GSF			*19,948*	*18,300*	*19,100*				
Net ASF/Gross SF			***65.0%*** Target	*72%* Actual	*70%* Actual				

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2020-213 Fire Service Training Center Predesign

Live Fire Training Support - Selective Renovation and Addition to Building D - Alternate 1

Live Fire Training Support - New Construction Alternate 2

Room/Space	(ASF)	Qty	Total ASF	Alterenate B North	Prefered Alternate A South	Students Occupants Each	Students Occupants	Lab Workstations	Notes
C Series - Apparatus & Apparatus Support Liver Fire Training									
Apparatus Bay: (4) double deep for 5 Engines + 2 aid cars	6,400	1	6,400	6,400	6,270				(3) Bays existing (1) Bay new addition. Used for indoor training during inclement weather
Hose Tower	0	0	0	0	0			0	Requirement deleted - Hose Dryer provided
Hose Dryer & Storage (separate) outside access	450	1	450	450	533			0	
Decontamination	450	1	450	445	450			5	Washer & dryers, cleaning stations. (5) students per station
Bunker Gear Storage check storage size 64 students + 20 instructor, to accommodate overnight drying	960	1	960	974	1,000			0	Capacity for 100 gear lockers
Secure Equipment storage	800	1	800	810	972			0	High-value training equipment
Equipment Maintenance Shop	450	1	450	424	450			5	Small took maintenance and repair. (5) Students at a time at a bench; flam storage cabinet
SCBA compressor and Air Storage	300	1	300	300	300				
			-				0		
			-				0		
			-				0		
subtotals			***9,810***	***9,803***	***9,975***		**0**	**10**	
D Series - Student Support Live Fire Training									
Fitness Room for 20-40 RFM check size based on occ load	1,500	1	1,500	1,484	1,500	20	20		For Fire Training only - required to meet fitness certification requirements
Women's Student Shower Room 2-3	300	1	300	295	331				Refurbish existing footprint
Men's Student Shower Room 4-6	400	1	400	497	610				Refurbish existing footprint
Single Occupant Shower & Toilet Room	85	1	85	85	85				
Dirty classroom with future conversion to Command Training Center	1200	1	1,200	1,200	1196	24	24	-	pre-evolution brief, safety brief, post-evolution de-brief. Hose-down space
Storage	150	1	150	150	112				
subtotals			***3,635***	***3,711***	***3,834***		***44***	**0**	
							Total Workstations		
Total ASF Net			***13,445***	***13,514***	***13,809***	***0***	***44***	***10***	
Total Un-Assignable			*7,240*	*2,786*	*2,691*				Structure, Circulation, Mech/Elec/Data/Janitor
Total GSF			*20,685*	*16,300*	*16,500*				
Net ASF/Gross SF			*65.0%* Target	*83%* Actual	*84%* Actual				

2020-213 Fire Service Training Center Predesign

Live Fire Training Structure - New Construction

Room/Space	(ASF)	Qty	Total ASF	Alterenate A & B Identical	Students Occupants Each	Students Occupants	Lab Workstations	Notes
Live-Fire Training								
Commerical/Residential Live Fire Traiing structure: 2 story/4-1/2 story, Class B gas-fired live fire props	18,070	1	18,000	18,070			0	(4) hydrants and FDC, ground & arial ladder work. Live fire, serach rescue, hose evolutions for Firefighter I and Firefighter II Certifications
subtotals			***18,000***	***18,070***			***0***	***Total Students/Occupants***
Total ASF			*18,000*	*18,070*	N/A	N/A	N/A	Student count is non-concurrent with classrooms
Total Un-Assignable			*947*	*830*				Control Rooms/Electrical Rooms
Total GSF			*18,947*	*18,900*				
Net ASF/Gross SF			***95%*** Target	***96%*** Actual				

Project Budget 05 Analysis

Predesign
State Project No. 2020-213
July 27, 2020

Bates TECHNICAL COLLEGE

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5.0 PROJECT BUDGET ANALYSIS

Major Assumptions

- The estimate is based upon State funding for construction in the 2021-2023 Biennium budget, with a portion re-appropriated to the 2023-2025 biennium.

- Alternate A – Preferred Alternate is phased construction. The new classroom/administration building will be constructed and completed first, then the fire training portion of Building D can be vacated, then Building D is renovated, Building D addition constructed, and the new fire training tower built.

- Alternate A – Preferred Alternate budget includes soft cost dollars for increased off-site live fire training during construction of the new fire training tower. A portion of live fire training currently takes place off site due to limited facilities on Campus; this will increase to 100% off site live fire training during construction.

Summary Cost Table

	MACC	Total Project
Alternate A - Preferred Alternate	$22,782,833	$32,802,000
Alternate B	$24,619,220	$35,098,000

The total project budget for Alternate A – Preferred Alternate matches the 2019-2021 Capital Request of $32,802,000. In 2019-2021, $2,802,000 was funded with the remaining $30,000,000 requested for 2021-2023.

Proposed Funding

The College is requesting a Capital Project allocation from the State for the Construction Phase in the 2021-2023 Biennium.

Facility Operations and Maintenance Requirements

The estimated annual cost to operate the additional fire training area of 40,000 GSF is projected at $306,400 per year, based on an SBCTC-projected average operating cost of $7.66/gsf of building

area for the 2021-2023 Biennium. This includes custodial staff, custodial supplies, maintenance, and utility costs.

Furniture, Fixtures, and Equipment (FF&E)

FF&E requirements are documented in Section 6 Room Data Sheets are included in the project budget. This includes typical classroom and administrative furniture and specialized fire training equipment such as SCBA air compressor/dryer/air bottle fill stations, live fire Class B gas props, thermal linings, bunker gear extractors, and SCBA/Equipment washer.

Supporting Documents

Outline Specifications in Uniformat for Alternate A - Preferred Alternate

- 5.1.0 Outline Specifications Introduction
- 5.1.1 Classroom/Administration Building
- 5.1.2 Building D Selective Renovation and Addition
- 5.1.3 Fire Service Training Structure
- 5.1.4 Sitework and Infrastructure
- 5.1.5 General Requirements

Alternate A – Preferred Alternate

- 5.2.1 C-100
- 5.2.2 Construction Cost Estimate
- 5.2.3 Civil Construction Cost Detail
- 5.2.4 Landscape Construction Cost Detail
- 5.2.5 Mechanical Construction Cost Detail
- 5.2.6 Electrical Construction Cost Detail

Alternate B

- 5.3.1 C-100
- 5.3.2 Construction Cost Estimate
- 5.3.3 Civil Construction Cost Detail
- 5.3.4 Landscape Construction Cost Detail
- 5.3.5 Mechanical Construction Cost Detail
- 5.2.6 Electrical Construction Cost Detail

These outline specifications cover the range of products and scope to be included in the project. The goals are to:

- Indicate the areas of work for this project;
- Broadly indicate the work within each section; and
- Indicate minimum acceptable requirements and describe the general type, nature, and quality of materials and systems.

These outline specifications do not attempt to address product approval, submittal requirements, or installation.

The following outline specifications are provided in CSI Uniformat to coordinate with the cost estimate format. Uniformat classifies information into nine categories:

A. Substructure
B. Shell
C. Interiors
D. Services
E. Equipment and Furnishings
F. Special Construction and Demolition
G. Building Sitework
Z. General

This chapter is composed of five Sections:

- New Classroom/Administrative Building
- Selected Renovation of Existing Building D with new training apparatus bay addition for Training Support
- New Fire Training Structure
- Sitework and Site Infrastructure
- General Requirements

5.1.1 OUTLINE SPECIFICATIONS – NEW CLASSROOM/ADMINISTRATION

A10 FOUNDATIONS

Foundation Systems: reinforced concrete stem walls on spread footings based on minimum 3,000 psf allowable bearing, and subject to seismic requirements (category D, E, or F).

- Typical interior column spread footing: 5'x5'x24" with (6) #6 bottom each way.
- Typical shear wall / braced frame footing: 3'-0" wide footing with transverse and longitudinal reinforcing top and bottom at 12" oc.

A29 SUBSTRUCTURE

SLAB ON GRADE: Typical 4-inch concrete slab reinforced with #3 rebar @ 12 inches each direction at slabs exposed to view over compacted subgrade or engineered fill with 6" free draining gravel, capillary break and 10 mil vapor barrier. Recess slab as required per drawings.

FOUNDATION WALLS: Typical 8" thick reinforced concrete at below-grade walls. Provide bituminous damp proofing with protection board and 4-inch minimum gravel backfill at unexposed wall surface.

FOUNDATION DRAINAGE: Perimeter footing drain of 4" perforated PVC with geotextile fabric and gravel backfill to drain.

B10 SUPERSTRUCTURE

LOADS:

Elevated Concrete Floor Live Loads: (psf)	
Office	50 + 20 partitions
Classrooms	40
Assembly (moveable seats)	100
Hallways/Stairwells	100 (Corridors above 1st floor: 80)

Dead Loads: Building self-weight, including structural frame, exterior envelope system, roof, interior partitions.

Risk Category: Category III per Table 1.5-1 ASCE 7-10: "buildings that represent a substantial hazard to human life in the event of failure."

Ground Snow Load	25 psf minimum per Tacoma Municipal Code Design Criteria.
Roof Snow Load	Per ASCE 7-10
Lateral Loads	Seismic: Risk Category III, Design Category D, E, & F.
Wind	Basic Wind Speed = 115 mph, Exposure B, I = 1.0.

FIRST FLOOR FRAMING:

Lateral Bracing: Reinforced concrete shear walls at stair and elevator core, 12 to 16 inches thick with 300 # / cu ft. reinforcing.

Braced Frames: Approximately 30 feet long at six locations:

- (2) on each long side of building exterior wall and (1) on each short side of building exterior wall.
- Braced Frames with W10x68 columns, w21x62 beam and buckling-restrained braces (BRB).

Columns:

- Typical interior steel column: W10x49
- Braced Frame Column: W10 x 68.

SECOND/THIRD FLOOR FRAMING:

Typical framing bays: 20' x 30'

- Composite Steel W16x40 (16) cambered beams spanning 30 feet, spaced 10 feet O.C. to support decking.
- Composite Steel girder W18x60 (16) spanning 20 feet.
- Steel Framing: W21x62 drag struts in line with braced frames.

Floor slabs: 3-1/2" concrete fill on 2" 18 gauge composite metal deck (5-1/2" total thickness), with maximum floor live load 100 psf in public areas.

ROOF CONSTRUCTION:

Framing bays similar to 2nd floor:

- 3" 18 gauge metal decking.
- Steel W14x48 beams spanning 20 feet, spaced 7'-6" O.C. to support decking.
- Steel W14x74 girder spanning 30 feet.
- Steel Framing: W21x62 drag struts in line with braced frames.

Rooftop Units: Roof Mounted ERVs and VRF Condensing Units supported with W8 beams at all four edges for gravity support and for anchorage.

B20 EXTERIOR WALLS

6" metal studs with 1/2" exterior grade fiberglass matt gypsum sheathing, weather resistant barrier (WRB), continuous rigid insulation, pre-finished rain-screen metal panels, 3-5/8" brick veneer masonry, and aluminum-framed entrances.

Assume 35% brick, 35% metal panel, 30% storefront/windows.

B30 ROOFING

Three-ply modified SBS with mineral-faced cap sheet roofing on rigid insulation on continuous air barrier.

C10 INTERIOR CONSTRUCTION

Partitions – Classrooms/Administration: Metal stud framing with sound batt insulation and 5/8" type 'X' gypsum board both sides.

Wall Finishes:

- Gypsum board painted.
- FRP wall protection.
- Ceramic tile base in public areas.
- Rubber base general.

Ceilings:

- Suspended gypsum board.
- Suspended ACT 2x6 and 2x2.
- Wood grille ceilings in selected area: entry lobby; limited feature areas.

Floors:

- Light ground face concrete for entry, hallways.
- Sheet flooring with welded seams student study areas, break areas.
- Walk-off carpet entry vestibule.
- Carpet tile classrooms and administration.
- Porcelain floor tile in restrooms/showers.
- Porcelain wall tile and accent tile in restrooms/showers.

Doors:

- Solid core wood doors with wood veneer finish.

Fittings:

- Visual display boards all classrooms: Whiteboards.
- Phenolic solid core toilet partitions.
- Corner Guards: Stainless steel all outside corners of hallways.
- Signage for all rooms, raised letters and braille. Offices with insert for instructor name; classrooms with letter size insert pocket.
- Lockers: Plastic laminate uniform lockers in offices.
- Toilet Accessories: Stainless steel.
- Fire extinguishers and cabinets, recessed.

C20 STAIRS

Prefabricated Metal Stairs: Shall be designed per AISC and IBC requirements. Stringers and landings shall be designed for minimum 100 psf live load. Galvanized steel channel stringers with galvanized steel concrete-filled pan treads. Steel pan treads with concrete fill.

D10 CONVEYING SYSTEMS

Passenger Elevators (1) :
ThyssenKrupp 2,000 lb., Hydraulic Elevator

D20 PLUMBING

D2010 Plumbing Fixtures

Water Closets: Wall mount, vitreous china, open front seats, water saving dual-flush (1.6/1.1 gpf) manual flush valves. ADA compliance where required.
Urinals: Wall mount, vitreous china, 0.125 gallon manual flush valves.
Lavatories: wall-hung, vitreous china, sensor type tempered faucets with mixing valve. ADA compliant.

Breakroom sink: 18 gauge stainless steel, double bowl, single lever swing spout manual faucet, hose spray, garbage disposal and insta-hot spout.
Classroom sink: 18 gauge stainless steel, single bowl, gooseneck faucet.
Shower: Single piece fiberglass stalls with single lever pressure balancing valve and adjustable water saving 2.0 gpm spray head. ADA compliance with grab bars, fold down seat and hand wand where required.
Service Sink: 24" x 24" molded stone floor mount with wall mount mixing faucet, pail hook, edge guards, backsplash and hose.
Water Coolers: Electric, ADA double fountain hi-lo units with bottle filler.

D2020 Domestic Water Distribution

A new cold-water service shall be utilized, with a new water header assembly to include backflow preventor and PRV if required.
Domestic water piping will be Type L copper with preformed fiberglass insulation.
Water heaters will be high-efficiency, gas-fired, condensing heaters with integral tanks.
Domestic hot water recirculation will be utilized.

D2030 Sanitary Waste

Waste piping will be no-hub cast iron with solid core PVC below grade waste piping and all vent piping.

D2040 Rainwater Drainage

Internal rain leaders will be cast iron with elastomeric insulation.

D30 HVAC SYSTEMS

D3010 Energy Supply

Natural Gas Piping shall be schedule 40 steel pipe.

D3020 Heat Generation

General: VRFZ (variable refrigerant flow zoning) multi-zone heat pump system with individual fan coils for each zone connected to central exterior air-cooled condensing units with refrigerant pipe via refrigerant controller/manifolds and built-in electronic digital controls. Simultaneous heating and cooling system with heat recovery. R-410A refrigerant system.

DOAS/ERV: Decoupled Dedicated Outside Air (DOAS) unit to supply outside air directly to all occupied areas of the building and recover heat from exhaust air through an Energy Recovery Ventilator (ERV). Unit consists of outside air intake, MERV 13 high efficiency filters, supply fan, exhaust fan and enthalpy heat exchanger. Minimum 60% recovery efficiency. Variable frequency drives (VFD) for both supply and exhaust fans provide variable airflow for classroom demand control ventilation.

C406/LEED Option: Minimum 80% recovery efficiency.

Fan Coils: Horizontal ducted units consisting of filter box, refrigerant coil and fan with ceiling diffusers. Ductless wall, ceiling or floor units consisting of filters, refrigerant coil and fan.

Exhaust: Provided by ERV from Restrooms, Breakroom, and common spaces. Continuous operation in conjunction with outside air supply for ventilation.

D3040 HVAC Distribution

Galvanized sheet metal ductwork of SMACNA 2" pressure class construction. Spiral seam round duct construction.
Insulated flexible duct final connections to diffusers.
Induction diffusers with pressure independence volume dampers.
CO2 Sensors and outside air volume control dampers in each Classroom for Demand Control Ventilation.
Brazed or pressed ACR copper refrigerant piping.

D3060 HVAC Instrumentation and Controls

VRFZ zone sensor controls with LCD display and space temperature adjustment.

VRFZ central controller with touch screen interface for system operation and remote web interface.

VRFZ BACnet interface to DDC control system with connection to main campus network.

DOAS/ERV BACnet interface to DDC control system.

D3070 Testing, Adjusting, and Balancing

DOAS outside air and exhaust air volumes shall be balanced.
Fan coil air volumes shall be balanced.
Domestic hot water re-circulation water flows shall be balanced.
Building systems shall be commissioned.

D40 FIRE PROTECTION SYSTEMS

D4010 Sprinklers

The building will be fully sprinklered for NFPA 13 Ordinary Hazard, and Light Hazard Occupancies
Stainless steel flexible head drops will be utilized.
The sprinkler piping will be a mixture of Schedule 40 steel and Schedule 10 steel with grooved couplings.
Areas subject to freezing, such as exterior overhangs and unheated areas, will be served by a dry pipe sprinkler system with galvanized piping or dry heads.

The double check-valve assembly will be located in the ground-level mechanical room with the other fire riser components.
Floor control devices shall be utilized per floor of the building.

D50 ELECTRICAL

Electrical General Conditions

The electrical contractor shall conform to the General Conditions, Supplementary Conditions, and related work in other Divisions for all work in Division 26.
The work shall comply with the latest edition of the applicable Standards and Codes of the following: ASTM, NBFU, NEC, WAC, NESC, NEMA, NFPA, U.L., IPCEA, CBM, ETL, Washington State Energy Code.

Electrical System Protective Device and Arc Flash Hazard Coordination Study

The Contractor shall have a computer-generated short circuit study, a protective device coordination study and an arc flash hazard study prepared for the electrical distribution equipment to be installed under this project to assure proper equipment and personnel protection.
The protective device coordination study shall present an organized time-current analysis of each protective device in series from the -individual device back to the utility source. The study shall reflect the operation of each device during normal and abnormal current conditions.
The arc flash hazard study shall provide arc flash ratings, the proper personal protective equipment when working around exposed and energized conductors and the warning labels that identify the following:

- Flash Hazard Boundary
- Cal/cm2 Flash Hazard at 1 foot – 6 Inches.
- Voltage of shock hazard when cover is removed.
- Glove Class
- Limited Approach (Fixed Circuit)
- Restricted Approach

D5010 Electrical Service and Distribution

Switchboards

Shall be freestanding, steel with steel angle or channel framework of adequate strength and rigidity necessary to resist all conditions of use to which it may be subjected and to support all equipment, devices and appurtenances contained therein. Front plates shall be installed in sections so that all parts of the board are front accessible without disturbing other parts. A removable lifting angle shall be provided at the top and bottom of each shipping section(s).
Overall height of switchboards shall not exceed 90 inches (not including base channels).
Length and depth shall not exceed dimensions as scaled or noted in contract documents.
Shall be full-fault current rated, series rating of devices is not allowed.
Switches and fuses or breakers as shown.
Space for future switches or breakers as shown including complete bussing and required hardware for mounting devices. Space for metering and instrumentation components, and current limiters (when required).
Miscellaneous appurtenances as required for a complete installation. Cleats for securing all conductors.

Panelboards

Panelboards shall be rated at voltage and current for intended use. Panels shall be 3-phase, 4-wire unless noted otherwise.
Circuit breakers shall be rated for 10,000 AIC minimum. Breakers shall be bolt on type.
Cabinets shall be flush or surface as indicated. Where flush mounted, provide (2) ¾" conduits to accessible ceiling space.
Cabinets shall be door-in-door, lockable, with identical keying.

Dry Type Transformers

Ventilated, dry-type with copper windings.
Neutral bus sized for 200% secondary full load current.
Operate 2 db below NEMA standard sound levels
Impedance between 3% and 5%.
220-degree insulation for KVA ratings or 15 and higher.

Grounding and Bonding

A grounding system shall be provided for neutral ground and equipment ground as required by code.
Metal internal piping shall be grounded.

Transient Voltage Surge Suppression (TVSS) / Surge Protective Device (SPD)

TVSS devices shall be tested per ANSI C62.41-41-1991 and C62.45 standards.
Suppressors shall have a warranty of 10 years.
Suppressors shall provide suppression elements between each phase conductor and neutral and between neutral and ground.
Suppressors shall have a single impulse current rating of 50,000 amperes per phase.
Suppressors shall be installed on a main distribution boards and all branch panels serving computer equipment.

D5020 Lighting and Branch Wiring

Wires and Cables

All wiring shall be copper THW or THHN.
Conductors shall be tested with a "Megger" type tester. Feeders shall be checked to ensure phase rotations for motors and equipment.

Outlets and Pull Boxes

Outlet and pull boxes shall be pressed steel, zinc coated, 4" size minimum.
Surface metal raceway boxes shall be of same manufacturer of raceway.
Exterior outlet and junction boxes shall be cast iron or corrosion resistant alloy compatible with raceway.
Exterior boxes below grade shall be constructed of pre-cast concrete with size as required by application.
All work in this section shall be coordinated with other trades to prevent conflicts.
Device mounting heights shall be as follows: Switches – 4 feet; Receptacles – 18 inches; Other devices as noted on plans or in other sections of the specifications.

Raceway

All raceways shall be GRS or EMT unless noted otherwise.
Surface raceways shall be routed in Wiremold 700 series.
Flexible conduits are permitted in 6-foot lengths to motors and lay-in light fixtures.
PVC conduit may be used for underground raceways.
Liquid tight Flexible Metal conduit for wet/weatherproof flexible connections.

Metal Clad Cabling

MC Cable is permitted to be used for 20amp lighting and power circuits where routing is above grade, concealed and the installation meets the requirements of NEC 330.
MC Cable shall NOT be used for homerun circuits from the fixture, receptacle, or equipment to the panelboard. Hard conduit must be used from the panelboard to the nearest accessible ceiling space to the panelboard.
MC Cable shall not be used for HVAC equipment.
Metal clad cable assemblies shall consist of 2, 3 or 4 current carrying conductors and an equipment ground conductor.
Conductors: Solid Copper conductor, No. 12 AWG minimum or No. 10 AWG maximum.
Insulation: Conductor insulation shall be rated 600-volt, Type THHN, 90°C dry.

Floor Outlet Devices – Flush

Floor outlet devices shall be fully recessed, with steel trim plate.
The boxes shall be Wiremold RFB4 or equal.
Box assemblies shall contain devices as shown on Contract Documents.

Network Digital Lighting Control System

Provide a WattStopper Digital Lighting Management System (DLM) or equal, complete with all necessary enclosures, wiring, and system components to ensure a complete and properly functioning system.
Digital Room Controllers: Self-configuring, digitally addressable one, two or three relay plenum-rated controllers for on/off control. Selected models include 0-10 volt or line voltage forward phase control dimming outputs and integral current monitoring capabilities.
Digital Plug Load Controllers: Self-configuring, digitally addressable, single relay, plenum-rated application-specific controllers. Selected models include integral current monitoring capabilities.
Digital Occupancy Sensors: Self-configuring, digitally addressable, calibrated occupancy sensors with LCD display and two-way active infrared (IR) communications.
Digital Switches: Self-configuring, digitally addressable pushbutton on/off, dimming, and scene switches with two-way active infrared (IR) communications.
Digital Daylighting Sensors: Single-zone closed loop, multi-zone open loop and single-zone dual-loop daylighting sensors with two-way active infrared (IR) communications for daylight harvesting using switching, bi-level, tri-level or dimming control.
Programming and Configuration Software: Optional PC-native application capable of accessing DLM control parameters within a room, for the local network, via a USB adapter, or globally, for many segment networks simultaneously, via BACnet/IP communication.

Switches and Receptacles

Switches shall be specification grade, quiet type, white color with stainless steel plates.
Standard receptacles shall be NEMA 5-20R configuration, white color with stainless steel plates. GFI type per code.
Switched receptacles shall be NEMA 5-20R, green in color, with stainless steel plates.

Motor Controllers

Magnetic motor starters shall be full voltage non-reversing with overloads. Will be equipped with "On", "Off," and "Hands-Off-Auto" switch.
Combination motor starter/disconnects shall be equipped with fused switches.
Manual starters shall be toggle switch type.

Fuses

Circuits 0 to 600 amperes shall be protected by dual element fuses.
Circuits 601 to 6000 amperes shall be protected by low-peak time-delay fuses.
Fuses shall be Bussman or Shawmut.
Contractor shall provide a spare fuse cabinet at Main Switchboard.

Disconnect Switches

Switches shall be heavy-duty type, with quick-break and shall be horsepower rated.
Enclosure shall have interlocking cover to prevent opening door when switch is closed.
Exterior enclosures shall have a raintight rating.

Centralized Emergency Lighting Inverter

Systems shall operate in accordance with requirements as specified herein to support any combination of fluorescent ballast fixtures, incandescent lamps, electronic and high-power factor fluorescent ballasts, LED fixtures or other approved loads up to the rating of the system. "Normally on" and "Normally off" AC output bus shall be 100% rated and limited only by the system maximum KW output rating.
Battery Time Reserve Capacity: Battery shall be capable of producing emergency power for (90) minutes at full rated Watts.

Lighting

LED fixtures shall have a lumen maintenance life expectancy (L70) of > 50,000 hours, a CRI of > 82, and a CCT of 3500K. Each solid-state fixture model shall be tested in accordance with IES LM-79.
Interior Fixtures: Steel or aluminum with 300°F, baked enamel finish, brushed aluminum with baked acrylic clear lacquer finish, or stainless steel with a brushed finish, manufacturer's standard color unless specified otherwise.
Lobbies and other interior public areas: Provide a combination of decorative pendant and wall sconce fixtures in concurrence with architectural theme of the building.
Exterior Fixtures: Corrosion resisting metal, a (non-ferrous, stainless steel or special finish) and in all cases suitable for outdoor service without tarnishing or other damage due to exposure; manufacturer's standard colors unless specified otherwise; cadmium plate all metal parts concealed by canopies, including screws, plates and brackets. All exposed fasteners shall be tamperproof.
Recessed Type: Recessed fixtures shall be IC rated for direct contact with insulation.

D5030 Communications and Security

Low Voltage Systems General Requirements

The electrical contractor shall conform to all related work in Division 27 and Division 28.
Data Sheet submittals, Shop Drawing submittals, and Operation & Maintenance manuals shall be submitted in accordance of specification 270000, per the College's IT standards.
All equipment and devices shall bear the UL label.
Provide a laminated graphic map in each MDF and IDF
One 3/0 insulated copper grounding conductor shall be installed from the building ground system to the MDF and from the MDF to each IDF location. The grounding plate for each location shall be installed at the systems plywood backboard.

Pathways for Communications Systems

Raceways for system devices shall be a minimum of 1" conduit to accessible ceiling space.
Provide seismic bracing of all racks, cable tray and cable supports.
Provide fabric mesh or non-metallic inner duct as required and shown on the plans.
Provide inflation bags to seal all conduits in handholes or manholes.
Provide wire basket type cable tray for cable support.
Provide conduit seals for all building penetrations and Fire Stop Penetrations for all fire rated building assemblies.

Data and Voice Infrastructure

The data system shall be provided with a lifetime application warranty.
All data wiring shall be category 6 cable, 6A for wireless access points.
Fiber optic cable shall be 12-strand single multimode between MDF and each IDF.
Rack mount UPS's will be provided per School District standards
All data product shall be tested in accordance to EIA/TIA standards.
Cover-plates for outlets shall be stainless steel.
Data cables and jacks shall be labeled per College's IT standards.
Wireless access point (WAP) design shall maintain the College's IT Standard.

All Data/Voice Racks shall maintain the College's IT Standard.
All active components shall be provided by the College.

Classroom AV Systems

The Classroom AV system shall provide voice amplification for the teacher as well as incorporate signals from Computer and HDMI sources.
The amplifier shall be capable of powering a minimum of 4 ceiling speakers.
The microphone for the teacher shall be pendant style and transmit wirelessly over infrared.
All AV system input jacks shall have custom faceplates and be made of brushed aluminum.
Provide connections and inputs per College standards.
The Classroom AV system shall provide a 3.5mm audio output for use with ADA required assisted listening devices

Access Control System & Emergency Lockdown System

The Access Control System will maintain the College standards.
Proximity Card Readers shall be located at primary entrances and at locations as directed by the Owner. When a valid card is presented to the reader, the door shall unlock.
Proximity Card Readers shall allow the use of existing Proximity Cards that are currently in use throughout the Campus.
The Emergency Lockdown System shall be an integral portion of the Access Control System.
When the Emergency Lock Down button is pressed each of the perimeter doors shall lock.

Intrusion Alarm System

The intrusion alarm system will maintain the Campus standards and be coordinated during design.
Intrusion alarm system shall consist of magnetic door position switches on all perimeter doors, motion detectors in the hallways, and motion detectors in the exterior classrooms and administration areas where the perimeter of the building may be vulnerable by the general public.
LCD Keypad(s) shall monitor all entry points (door position switches) of the building and motion sensors. These locations shall display the device information and status of the system.

Closed Circuit Television System (CCTV)

The CCTV System shall be considered a passive monitoring system, which will not require full-time dedicated staff to view the cameras on a continuous basis. The CCTV System is designed to operate as an "After the Fact" CCTV viewing system. All video shall be recorded with the intent to review "events" after the event has occurred and been reported.
Each camera location shall be a fixed position camera.
All cameras shall be high resolution, IP Mega-Pixel color cameras.
Exterior cameras shall be a minimum 5.0 Mega-Pixel color camera.
Interior cameras shall be a minimum 3.0 Mega-Pixel color camera.
Each camera shall have a variable-focus lens, which can be manually adjusted by the Installing Vendor at the time of installation to capture the intended field-of-view.
For exterior applications, the cameras shall be installed in the appropriate environmental enclosure. The cameras shall be located on light poles and/or the building.

Camera coverage shall include the following areas; the Main Entrance and general coverage of the Exterior Building.
For interior applications, the cameras shall be installed in the recessed or surface mount dome housings. The cameras shall be located in ceilings or mounted on walls.
Camera coverage shall include the following areas; the greeting counter at the main Receptionists Desk, Hallways, and the general area outside of the Restrooms.
In the administration area, a video monitor shall display live images of key areas of interest to the staff.
All CCTV Racks shall be the College's IT Standard.
The recording of all cameras shall be performed off-site by the district owned Video Server(s) (VS's).

Elevator Landing Two-Way Communication System

The Base Station is to be located at a central control point on the first floor or as determined by local Authority having Jurisdiction. Call Boxes are to be located on all floors above and below the first floor, ideally next to a stairwell emergency exit or elevator landing on each floor.
The Base Station must be capable of handling a minimum of 5 Call Boxes. Visual indicators on the Base Station allow rescue personnel to know which Call Box needs assistance. The Base Station must allow rescue personnel to speak to all Call Boxes or individual Call Boxes.
The emergency communication hardware shall comply with the Americans with Disabilities Act (ADA). Call Boxes shall have the ability to be programmed with up to 5 emergency phone numbers. Upon activation of the emergency push button, a call will be automatically placed to the Base Station. If no one answers at the Base Station, the Call Box must dial a secondary location outside the building to activate two-way off-site person to person voice communications.

Fire Alarm / Emergency Communication Systems

The Fire Alarm System shall be a new complete, fully operational, intelligent (analog) and addressable (digital), low voltage 24 Volts D.C. microprocessor-based Fire Alarm / Emergency Communication System that will transmit a signal to the monitoring entity.
All circuits shall be "Class A B".
All Signaling Line Circuits (SLC), Initiation Circuits, and Notification Circuits, shall be provided with 25% spare capacity.
The Fire Alarm / Emergency Communication System shall consist of the Fire Alarm / Emergency Communication System Control Panel, Remote Annunciators, Remote Paging Units, Power Supplies, Graphic Maps, AES Transmitter, Initiation
The Fire Alarm / Emergency Communication System shall be provided with back-up batteries to power the entire Fire Alarm / Emergency Communication System for a minimum of 24 hours of standby operation immediately followed by 15 minutes of alarm operation.
Further coordination with the local Authority having Jurisdiction to determine requirements for integration of the new building fire alarm system with the existing Simplex campus Fire Alarm System.

E10 EQUIPMENT

Projection screens in each classroom, motor operated, recessed ceiling mounted.
Residential appliances in kitchen/break room: Microwaves, refrigerator.
Fixed Plastic laminate casework with solid surfacing countertops.
Manual roller shades for all exterior windows. Dual shades with filter fabric and blackout fabric all classrooms.

5.1.2 OUTLINE SPECIFICATIONS – BUILDING D SELECTIVE RENOVATION AND ADDITION

A10 FOUNDATIONS

Foundation Systems - Addition: Reinforced concrete stem walls on spread footings based on minimum 3,000 psf allowable bearing, and subject to seismic requirements (category D, E, or F).

- Typical column spread footing: 5'x5'x24" with (6) #6 bottom each way.

A29 SUBSTRUCTURE

SLAB ON GRADE:

Existing slab to remain except at areas of selective demolition for new plumbing or electrical fixtures. Infill typical reinforced 6-inch concrete slab over compacted subgrade or engineered fill with 6" free draining gravel, capillary break and 10 mil vapor barrier with dowels to existing slab.

Apparatus Bay Addition: New 8-inch reinforced slab-on-grade with thickened edges.

FOUNDATION DRAINAGE:

Perimeter footing drain of 4" perforated PVC with geotextile fabric and gravel backfill to drain.

B10 SUPERSTRUCTURE LOADS:

Apparatus Bay	100
Dead Loads:	Building self-weight, including structural frame, exterior envelope system, roof, interior partitions.
Risk Category	Existing Building: Category III per Table 1.5-1 ASCE 7-10: "buildings that represent a substantial hazard to human life in the event of failure." Addition: Category II per Table 1.5-1 ASCE 7-10: "All buildings and other structures except those in Risk Category I, III, and IV."

Ground Snow Load	25 psf minimum per Tacoma Municipal Code Design Criteria.
Roof Snow Load	Per ASCE 7-10
Lateral Loads	Seismic: Risk Category II, Design Category D, E, & F.
Wind	Basic Wind Speed = 110 mph, Exposure B, I = 1.0.

ADDITIONAL

Lateral System:

Seismic joint between the addition and existing the Apparatus Room exterior wall. Upgrades of the existing gravity and lateral system along the exterior Apparatus Room exterior wall not required.

Braced Frames: Approximately 24 feet long to match existing column spacing:

- (2) on each long side of building exterior wall
- W10x68 columns, W21x62 beam and buckling-restrained braces (BRB).

Moment Frames: Approximately 25 feet long to span the width of the addition:

- (1) on each short side of building exterior wall and (1) interior at the middle of the building length.
- W16x57 columns and W21x31 beams.

Columns

(5) steel columns along the two longitudinal sides of the building to match the existing building column spacing.

ROOF CONSTRUCTION:

Typical framing bays: 24' x 25'

- 1-1/8" plywood sheathing spanning 32 inches.
- 24" RED-M beams spanning 24 feet, spaced 32 inches O.C. to support decking.
- Steel Framing: W21 steel beams spanning between columns in both the longitudinal and transverse directions (24 foot spacing).

B20 EXTERIOR WALLS

Addition: Metal studs with 1/2" exterior grade fiberglass matt gypsum sheathing, weather resistant barrier (WRB), continuous rigid insulation, pre-finished rain-screen metal panels.

Existing: Existing nonstructural wall will be altered to provide openings between the existing Apparatus Room and the addition. The existing steel frame lateral system inset from the exterior wall will not be altered.

B30 ROOFING

Addition: Three-ply modified SBS with mineral-faced cap sheet roofing on rigid insulation on continuous air barrier.

C10 INTERIOR CONSTRUCTION

Partitions – Fire Service Training Areas: 8" CMU.

Wall Finishes:

- Rubber base general.
- Fire Service Training Areas: Epoxy paint CMU.

Ceilings:

- No ceilings (exposed) in support spaces and Fire Service Training Areas.

Floors:

- Sealed or Ground Concrete

Doors:

- Solid core wood doors with wood veneer finish.
- Apparatus Bay Addition: Motorized sectional doors, 14' x 14 feet.

Fittings:

- Visual display boards all classrooms: Whiteboards.
- Phenolic solid core toilet partitions in renovated restroom/shower rooms.
- Corner Guards: Stainless steel all outside corners of hallways.

- Signage for all rooms, raised letters and braille. Offices with insert for instructor name; classrooms with letter size insert pocket.
- Toilet Accessories: Stainless steel.
- Fire extinguishers and cabinets, recessed.
- Gear Grid steel frame bunker gear racks.

D20 PLUMBING

D2010 Plumbing Fixtures

Reuse existing restroom and shower fixtures.

Water Closets: Wall mount, vitreous china, open front seats, water saving dual-flush (1.6/1.1 gpf) manual flush valves. ADA compliance where required.
Kitchen Sink: 18 gauge stainless steel, double bowl, single lever swing spout manual faucet, hose spray, garbage disposal and insta-hot spout.
Service Sink: 24" x 24" molded stone floor mount with wall mount mixing faucet, pail hook, edge guards, backsplash, and hose.
Water Coolers: Electric, ADA double fountain hi-lo units with bottle filler.
Trench Drains: Located in the apparatus bays centered on each drive aisle. Drains will run through an oil/water separator before discharging to the sanitary sewer.
Decon Sink: Heavy duty, stainless steel scullery type with drain boards and back-splash, single bowl unit with blade handle faucet, swing spout, rotary drain valve and commercial style hand spray.
Decon Wash Area: Industrial hot and cold hose bibb with rubber hose and hand spray.
Gear Extractor: Hot & cold water supply with RPBA protection and trench drain indirect waste.
Emergency Eye Wash: Wall/floor mounted eye/face wash with stainless steel bowl, face spray rings and dust cover. CSA certified to meet ANSI Z358.1. Fixture provided with tempered water from application specific mixing valve.

D2020 Domestic Water Distribution

Reuse existing cold water service.
Domestic water piping will be Type L copper with preformed fiberglass insulation.
Water heaters will be high-efficiency, gas-fired, condensing heaters with integral tanks.
Domestic hot water recirculation will be utilized.

D2030 Sanitary Waste

Waste piping will be no-hub cast iron with solid core PVC below grade waste piping and all vent piping.

D2040 Rainwater Drainage

Internal rain leaders will be cast iron with elastomeric insulation.

D30 HVAC SYSTEMS

D3010 Energy Supply

Natural Gas Piping shall be schedule 40 steel pipe.

D3020 Heat Generation

Existing central air hander will remain, as it serves the entire building. Portions of the distribution system will be removed and replaced with new systems per the program.

Existing apparatus bay air handler will be removed in its entirety to accommodate the building addition.

General: VRFZ (variable refrigerant flow zoning) multi-zone heat pump system with individual fan coils for each zone connected to central exterior air-cooled condensing units with refrigerant pipe via refrigerant controller/manifolds and built-in electronic digital controls. Simultaneous heating and cooling system with heat recovery. R-410A refrigerant system.

DOAS/ERV: Decoupled Dedicated Outside Air (DOAS) unit to supply outside air directly to all occupied areas of the building and recover heat from exhaust air through an Energy Recovery Ventilator (ERV). Unit consists of outside air intake, MERV 13 high efficiency filters, supply fan, exhaust fan and enthalpy heat exchanger. Minimum 60% recovery efficiency.

C406/LEED Option: Minimum 80% recovery efficiency.

Fan Coils:

Horizontal ducted units consisting of filter box, refrigerant coil, and fan with ceiling diffusers.

Ductless wall, ceiling or floor units consisting of filters, refrigerant coil, and fan.

Exhaust: Provided by DOAS/ERV from Restrooms, Kitchen, Fitness, Bunker Gear Storage, Decon, Shop and common spaces. Continuous operation in conjunction with outside air supply for ventilation. Separate DOAS/ERV will serve occupied (clean area) and utility (dirty area) spaces.

Apparatus Bay:

Heating only: Minimum space temperature of 55 F. Natural gas fired IR tube heaters suspended from structure.

Ventilation: General exhaust at 1.5 CFM/ft^2 controlled manually with a wall timer or automatically activated with CO/NO2 sensors. Alarm bell warning for high CO/NO2 levels. Wall louvers with motorized dampers for intake when exhaust fan is operating.

Vehicle Exhaust: Exhaust capture system on rails with nozzle attached to the apparatus.

Decon:

Heating only: Electric IR heaters.

Ventilation: General exhaust at 15 ACH via DOAS/ERV.

Bunker Gear Storage:

Heating only: Electric radiant heaters.

Ventilation: General exhaust at 6 ACH via DOAS/ERV.

D3040 HVAC Distribution

Galvanized sheet metal ductwork of SMACNA 2" pressure class construction. Spiral seam round duct construction.
Insulated flexible duct final connections to diffusers.
Induction diffusers with pressure independence volume dampers.
Brazed or pressed ACR copper refrigerant piping.

D3060 HVAC Instrumentation and Controls

VRFZ zone sensor controls with LCD display and space temperature adjustment.

VRFZ central controller with touch screen interface for system operation and remote web interface.

VRFZ BACnet interface to DDC control system with connection to main campus network.

DOAS/ERV BACnet interface to DDC control system.

D3070 Testing, Adjusting, and Balancing

DOAS outside air and exhaust air volumes shall be balanced.
Fan coil air volumes shall be balanced.
Domestic hot water re-circulation water flows shall be balanced.
Building systems shall be commissioned.

D40 FIRE PROTECTION SYSTEMS

D4010 Sprinklers

The building will be fully sprinklered for NFPA 13 Ordinary Hazard Group II, Ordinary Hazard Group I, and Light Hazard Occupancies by exenting existing system.
Stainless steel flexible head drops will be utilized.
The sprinkler piping will be a mixture of Schedule 40 steel and Schedule 10 steel with grooved couplings.
Areas subject to freezing, such as exterior overhangs and unheated areas, will be served by a dry pipe sprinkler system with galvanized piping or dry heads.

D50 ELECTRICAL

Electrical General Conditions

The electrical contractor shall conform to the General Conditions, Supplementary Conditions, and related work in other Divisions for all work in Division 26.

The work shall comply with the latest edition of the applicable Standards and Codes of the following: ASTM, NBFU, NEC, WAC, NESC, NEMA, NFPA, U.L., IPCEA, CBM, ETL, Washington State Energy Code.

D5010 Electrical Service and Distribution

Panelboards

Panelboards shall be rated at voltage and current for intended use. Panels shall be 3-phase, 4-wire unless noted otherwise.
Circuit breakers shall be rated for 10,000 AIC minimum. Breakers shall be bolt on type.
Cabinets shall be flush or surface as indicated. Where flush mounted, provide (2) ¾" conduits to accessible ceiling space.
Cabinets shall be door-in-door, lockable, with identical keying.

Dry Type Transformers

Ventilated, dry-type with copper windings.
Neutral bus sized for 200% secondary full load current.
Operate 2 db below NEMA standard sound levels
Impedance between 3% and 5%.
220-degree insulation for KVA ratings or 15 and higher.

Grounding and Bonding

A grounding system shall be provided for neutral ground and equipment ground as required by code.
Metal internal piping shall be grounded.

Transient Voltage Surge Suppression (TVSS) / Surge Protective Device (SPD)

TVSS devices shall be tested per ANSI C62.41-41-1991 and C62.45 standards.
Suppressors shall have a warranty of 10 years.
Suppressors shall provide suppression elements between each phase conductor and neutral and between neutral and ground.
Suppressors shall have a single impulse current rating of 50,000 amperes per phase.
Suppressors shall be installed on a main distribution boards and all branch panels serving computer equipment.

D5020 Lighting and Branch Wiring

Wires and Cables

All wiring shall be copper THW or THHN.
Conductors shall be tested with a "Megger" type tester. Feeders shall be checked to ensure phase rotations for motors and equipment.

Outlets and Pull Boxes

Outlet and pull boxes shall be pressed steel, zinc coated, 4" size minimum.
Surface metal raceway boxes shall be of same manufacturer of raceway.

Exterior outlet and junction boxes shall be cast iron or corrosion resistant alloy compatible with raceway.
Exterior boxes below grade shall be constructed of pre-cast concrete with size as required by application.
All work in this section shall be coordinated with other trades to prevent conflicts.
Device mounting heights shall be as follows: Switches – 4 feet; Receptacles – 18 inches; Other devices as noted on plans or in other sections of the specifications.

Raceway

All raceways shall be GRS or EMT unless noted otherwise.
Surface raceways shall be routed in Wiremold 700 series.
Flexible conduits are permitted in 6-foot lengths to motors and lay-in light fixtures.
PVC conduit may be used for underground raceways.
Liquid tight Flexible Metal conduit for wet/weatherproof flexible connections.

Metal Clad Cabling

MC Cable is permitted to be used for 20amp lighting and power circuits where routing is above grade, concealed and the installation meets the requirements of NEC 330.
MC Cable shall NOT be used for homerun circuits from the fixture, receptacle, or equipment to the panelboard. Hard conduit must be used from the panelboard to the nearest accessible ceiling space to the panelboard.
MC Cable shall not be used for HVAC equipment.
Metal clad cable assemblies shall consist of 2, 3 or 4 current carrying conductors and an equipment ground conductor.
Conductors: Solid Copper conductor, No. 12 AWG minimum or No. 10 AWG maximum.
Insulation: Conductor insulation shall be rated 600-volt, Type THHN, 90°C dry.

Floor Outlet Devices – Flush

Floor outlet devices shall be fully recessed, with steel trim plate.
The boxes shall be Wiremold RFB4 or equal.
Box assemblies shall contain devices as shown on Contract Documents.

Network Digital Lighting Control System

Provide a WattStopper Digital Lighting Management System (DLM) or equal, complete with all necessary enclosures, wiring, and system components to ensure a complete and properly functioning system.
Digital Room Controllers: Self-configuring, digitally addressable one, two or three relay plenum-rated controllers for on/off control. Selected models include 0-10 volt or line voltage forward phase control dimming outputs and integral current monitoring capabilities.
Digital Plug Load Controllers: Self-configuring, digitally addressable, single relay, plenum-rated application-specific controllers. Selected models include integral current monitoring capabilities.
Digital Occupancy Sensors: Self-configuring, digitally addressable, calibrated occupancy sensors with LCD display and two-way active infrared (IR) communications.

Digital Switches: Self-configuring, digitally addressable pushbutton on/off, dimming, and scene switches with two-way active infrared (IR) communications.
Digital Daylighting Sensors: Single-zone closed loop, multi-zone open loop and single-zone dual-loop daylighting sensors with two-way active infrared (IR) communications for daylight harvesting using switching, bi-level, tri-level or dimming control.
Programming and Configuration Software: Optional PC-native application capable of accessing DLM control parameters within a room, for the local network, via a USB adapter, or globally, for many segment networks simultaneously, via BACnet/IP communication.

Switches and Receptacles
Switches shall be specification grade, quiet type, white color with stainless steel plates.
Standard receptacles shall be NEMA 5-20R configuration, white color with stainless steel plates. GFI type per code.
Switched receptacles shall be NEMA 5-20R, green in color, with stainless steel plates.

Motor Controllers
Magnetic motor starters shall be full voltage non-reversing with overloads. Will be equipped with "On", "Off," and "Hands-Off-Auto" switch.
Combination motor starter/disconnects shall be equipped with fused switches.
Manual starters shall be toggle switch type.

Fuses
Circuits 0 to 600 amperes shall be protected by dual element fuses.
Circuits 601 to 6000 amperes shall be protected by low-peak time-delay fuses.
Fuses shall be Bussman or Shawmut.
Contractor shall provide a spare fuse cabinet at Main Switchboard.

Disconnect Switches
Switches shall be heavy-duty type, with quick-break and shall be horsepower rated.
Enclosure shall have interlocking cover to prevent opening door when switch is closed.
Exterior enclosures shall have a raintight rating.

Centralized Emergency Lighting Inverter
Systems shall operate in accordance with requirements as specified herein to support any combination of fluorescent ballast fixtures, incandescent lamps, electronic and high-power factor fluorescent ballasts, LED fixtures or other approved loads up to the rating of the system. "Normally on" and "Normally off" AC output bus shall be 100% rated and limited only by the system maximum KW output rating.
Battery Time Reserve Capacity: Battery shall be capable of producing emergency power for (90) minutes at full rated Watts.

Lighting

LED fixtures shall have a lumen maintenance life expectancy (L70) of > 50,000 hours, a CRI of > 82, and a CCT of 3500K. Each solid-state fixture model shall be tested in accordance with IES LM-79.
Interior Fixtures: Steel or aluminum with 300°F, baked enamel finish, brushed aluminum with baked acrylic clear lacquer finish, or stainless steel with a brushed finish, manufacturer's standard color unless specified otherwise.
Exterior Fixtures: Corrosion resisting metal, a (non-ferrous, stainless steel or special finish) and in all cases suitable for outdoor service without tarnishing or other damage due to exposure; manufacturer's standard colors unless specified otherwise; cadmium plate all metal parts concealed by canopies, including screws, plates and brackets. All exposed fasteners shall be tamperproof.
Recessed Type: Recessed fixtures shall be IC rated for direct contact with insulation.

D5030 – Communications and Security

Low Voltage Systems General Requirements

The electrical contractor shall conform to all related work in Division 27 and Division 28.
Data Sheet submittals, Shop Drawing submittals, and Operation & Maintenance manuals shall be submitted in accordance of specification 270000, per the College's IT standards.
All equipment and devices shall bear the UL label.
Provide a laminated graphic map in each MDF and IDF
One 3/0 insulated copper grounding conductor shall be installed from the building ground system to the MDF and from the MDF to each IDF location. The grounding plate for each location shall be installed at the systems plywood backboard.

Pathways for Communications Systems

Raceways for system devices shall be a minimum of 1" conduit to accessible ceiling space.
Provide seismic bracing of all racks, cable tray and cable supports.
Provide fabric mesh or non-metallic inner duct as required and shown on the plans.
Provide inflation bags to seal all conduits in handholes or manholes.
Provide wire basket type cable tray for cable support.
Provide conduit seals for all building penetrations and Fire Stop Penetrations for all fire rated building assemblies.

Data and Voice Infrastructure

The data system shall be provided with a lifetime application warranty.
All data wiring shall be category 6 cable, 6A for wireless access points.
Fiber optic cable shall be 12-strand single multimode between MDF and each IDF.
Rack mount UPS's will be provided per School District standards
All data product shall be tested in accordance to EIA/TIA standards.
Cover-plates for outlets shall be stainless steel.
Data cables and jacks shall be labeled per College's IT standards.
Wireless access point (WAP) design shall maintain the College's IT Standard.
All Data/Voice Racks shall maintain the College's IT Standard.

All active components shall be provided by the College.

Access Control System & Emergency Lockdown System

The Access Control System will maintain the College standards.
Proximity Card Readers shall be located at primary entrances and at locations as directed by the Owner. When a valid card is presented to the reader, the door shall unlock.
Proximity Card Readers shall allow the use of existing Proximity Cards that are currently in use throughout the Campus.
The Emergency Lockdown System shall be an integral portion of the Access Control System. When the Emergency Lock Down button is pressed each of the perimeter doors shall lock.

Intrusion Alarm System

The intrusion alarm system will maintain the Campus standards and be coordinated during design.
Intrusion alarm system shall consist of magnetic door position switches on all perimeter doors, motion detectors in the hallways, and motion detectors in the exterior classrooms and administration areas where the perimeter of the building may be vulnerable by the general public.
LCD Keypad(s) shall monitor all entry points (door position switches) of the building and motion sensors. These locations shall display the device information and status of the system.

Closed Circuit Television System (CCTV)

The CCTV System shall be considered a passive monitoring system, which will not require full-time dedicated staff to view the cameras on a continuous basis. The CCTV System is designed to operate as an "After the Fact" CCTV viewing system. All video shall be recorded with the intent to review "events" after the event has occurred and been reported.
Each camera location shall be a fixed position camera.
All cameras shall be high resolution, IP Mega-Pixel color cameras.
Exterior cameras shall be a minimum 5.0 Mega-Pixel color camera.
Interior cameras shall be a minimum 3.0 Mega-Pixel color camera.
Each camera shall have a variable-focus lens, which can be manually adjusted by the Installing Vendor at the time of installation to capture the intended field-of-view.
For exterior applications, the cameras shall be installed in the appropriate environmental enclosure. The cameras shall be located on light poles and/or the building.
Camera coverage shall include the following areas; the Main Entrance and general coverage of the Exterior Building.
For interior applications, the cameras shall be installed in the recessed or surface mount dome housings. The cameras shall be located in ceilings or mounted on walls.
Camera coverage shall include the following areas; the greeting counter at the main Receptionists Desk, Hallways, and the general area outside of the Restrooms.
In the administration area, a video monitor shall display live images of key areas of interest to the staff.
All CCTV Racks shall be the College's IT Standard.
The recording of all cameras shall be performed off-site by the district owned Video Server(s) (VS's).

Fire Alarm / Emergency Communication Systems

The Fire Alarm system for the renovation/addition will utilize and extended from existing Building D Simplex Fire Alarm Control System.
Further coordination and assessment with the college will be required to determine capacity and compliance of the existing building Fire Alarm system.

E10 EQUIPMENT

Flat screens in Dirty Classroom.
Fixed Plastic laminate casework with solid surfacing countertops.
Manual roller shades for all exterior windows. Dual shades with filter fabric and blackout fabric all classrooms.
Decon Room: Bunker gear Extractor and Dryer

F10 SPECIAL CONSTRUCTION AND DEMOLITION

Selective demolition of interior non-loadbearing partitions and finishes in renovated area of Building D.
Selective demolition and replacement of concrete slab-on-grade for new plumbing and electrical fixtures.

5.1.3 OUTLINE SPECIFICATIONS – NEW FIRE TRAINING STRUCTURE

A10 FOUNDATIONS

Foundation Systems: reinforced concrete stem walls on spread footings based on minimum 3,000 psf allowable bearing, and subject to seismic requirements (category D, E, or F).

- Typical interior column spread footing: 8'x8'x26" with (11) #6 bottom each way.

A20 SUBSTRUCTURE

SLAB ON GRADE

Typical 6-inch concrete slab reinforced with #4 rebar @ 12 inches each direction at slabs exposed to view over compacted subgrade or engineered fill with 6" free draining gravel, capillary break and 10 mil vapor barrier. Recess slab as required per drawings.

FOUNDATION WALLS:

Typical 8" thick reinforced concrete at below-grade walls. Provide bituminous damp proofing with protection board and 4-inch minimum gravel backfill at unexposed wall surface.

FOUNDATION DRAINAGE:

Perimeter footing drain of 4" perforated PVC with geotextile fabric and gravel backfill to drain.

B10 SUPERSTRUCTURE LOADS

Live Loads: (psf)	
All Floors and Roofs	50 + Water Accumulation per NFPA 1402
Hallways/Stairwells	100
Dead Loads:	Building self-weight, including structural walls, liner systems, fixed equipment, exterior wall system, roof, interior partitions.
Risk Category:	Category II per Table 1.5-1 ASCE 7-10: "All buildings and other structures except those in Risk Category I, III, and IV."
Ground Snow Load:	25 psf minimum per Tacoma Municipal Code Design Criteria.
Roof Snow Load:	25 psf minimum per Tacoma Municipal Code Design Criteria.
Lateral Loads:	Seismic: Risk Category II, Design Category D, E, & F.

Wind:	Basic Wind Speed = 110 mph, Exposure B, I = 1.0.
Exposure:	Design burn room components and components exposed to heat or flame for exposure to high temperatures, high volumes of water, thermal shock, steam, expansion, and contraction.

FIRST FLOOR FRAMING

Lateral Walls: Reinforced concrete shear walls, 8 inches thick with 300 # / cu ft. reinforcing. 20 linear feet of wall spaced every 45 feet minimum in each primary building direction.

Columns and Beams:

- Typical reinforced exterior concrete column: 18-inch square
- Typical reinforced interior concrete column: 24-inch square
- Typical concrete beams: 24-inch x 32-inch (include slab depth).

Wall Infill: Reinforced Masonry Units: ASTM C-90. Nominal 8" medium weight concrete units. Provide units with integral color at exposed exterior locations; standard gray color at all other locations. Provide gap at top of wall with galvanized angle support.

ELEVATED FLOOR FRAMING

Similar to first floor:

- Reinforced concrete shear walls, 8 inches thick
- Concrete beams spanning between concrete columns and concrete shear walls.
- Reinforced Masonry Units wall infill

Floor slabs: 10-inch minimum thickness concrete slab reinforced with #6 rebar @ 12 inches each direction top and bottom. Slope as required for drainage.

Bridge: 8-inch concrete slab reinforced with #5 rebar @ 12 inches each direction top and bottom with concrete beams spanning between the townhouse duplex and suburban retail mall strip buildings.

ROOF CONSTRUCTION

Similar to floors:

- 10-inch minimum thickness concrete slab reinforced with #6 rebar @ 12 inches each direction top and bottom.

- Concrete beams spanning between concrete columns and concrete shear walls.

B20 EXTERIOR WALL

Lateral Walls: Reinforced concrete shear walls, 8 inches thick with 300 # / cu ft. reinforcing. 20 linear feet of wall spaced every 45 feet minimum in each primary building direction.

Wall Infill: Reinforced Masonry Units: ASTM C-90. Nominal 8" medium weight concrete units. Provide units with integral color at exposed exterior locations; standard gray color at all other locations. Provide gap at top of wall with galvanized angle support.

Metal Doors and Window Shutters: Custom steel fabrication 3/8" Galvanized Steel plate with steel angle stiffeners. Provide stainless steel hinges and latch.

B30 ROOFING

Provide waterproofing sealer with non-slip finish over concrete roof slabs.

C10 INTERIOR CONSTRUCTION

Load Bearing Elements: Protect all load-bearing structural elements that will be exposed to temperatures exceeding 350 degrees F with a thermal lining system.

Partitions: Reinforced Masonry Units: ASTM C-90. Nominal 8" medium weight concrete units. Standard gray color. Provide gap at top of wall with galvanized angle support.

Metal Doors and Window Shutters:
Custom steel fabrication 3/8" Galvanized Steel plate with steel angle stiffeners. Provide stainless steel hinges and latch.

Guardrails and Handrails:
Galvanized steel built up railings with vertical balustrades.

Continuous galvanized steel handrails both sides of all stairs, with extension top and bottom.

Floor Finishes: Exposed Concrete: Exposed slab with clear liquid hardener / sealer.

C20 STAIRS

Prefabricated Metal Stairs: Shall be designed per AISC & IBC requirements. Stringers, and landings shall be designed for a minimum of 100 psf Live Load. Individual treads shall be designed for 300 # concentrated load. Galvanized steel stringers with galvanized steel grate treads, landings, handrails and guard railings. Galvanized steel pan treads with concrete fill.

Concrete Stairs: Cast in place concrete with cast galvanized steel nosing.

D10 CONVEYING SYSTEMS

None.

D20 PLUMBING

Coordination of LPG tank(s) site location, size, and clearance.
Underground LPG piping from tank to structures with secondary regulator.
LPG piping to Class B props: Schedule 40 steel, welded.
Air compressor and air dryer
Compressed air piping to Class B props: Schedule 40 steel, welded.

D30 HVAC

Exhaust fans for Class B props
Ventilation louvers for Class B props
Fog system with fog generators and distribution fan.
Stainless-steel fog distribution ductwork/pipes with outlet caps.

D40 FIRE PROTECTION

Training Standpipe Systems: Provide dry standpipe system in all stairways with 2-1/2" hose valve at each floor level. Connection at grade level to FDC and to fire service water supply with valves to operate off either water source.

Provide training sprinkler system in select areas fed from dry standpipe system with open heads and shut-off valve.

D50 ELECTRICAL

Electrical General Conditions

The electrical contractor shall conform to the General Conditions, Supplementary Conditions, and related work in other Divisions for all work in Division 26.

The work shall comply with the latest edition of the applicable Standards and Codes of the following: ASTM, NBFU, NEC, WAC, NESC, NEMA, NFPA, U.L., IPCEA, CBM, ETL, Washington State Energy Code.

Panelboards

Panelboards shall be rated at voltage and current for intended use. Panels shall be 3-phase, 4-wire unless noted otherwise.
Circuit breakers shall be rated for 10,000 AIC minimum. Breakers shall be bolt on type.
Cabinets shall be flush or surface as indicated. Where flush mounted, provide (2) ¾" conduits to accessible ceiling space.
Cabinets shall be NEMA 4X rated.

Wires and Cables

All wiring shall be copper THW or THHN.
Conductors shall be tested with a "Megger" type tester. Feeders shall be checked to ensure phase rotations for motors and equipment.
All wiring shall be continuous run between junction boxes and control panels without splices.

Outlets and Pull Boxes

Outlet and pull boxes shall be all wet rated including all fittings.
Exterior outlet and junction boxes shall be cast iron or corrosion resistant alloy compatible with raceway.
Exterior boxes below grade shall be constructed of pre-cast concrete with size as required by application.
All work in this section shall be coordinated with other trades to prevent conflicts.
High and Low Voltage pull boxes shall be a minimum of NEMA type 12 inside equipment rooms and NEMA type 4 outside of equipment rooms.

Raceway

All raceways shall be GRS or EMT unless noted otherwise.
Liquid tight Flexible Metal conduit for wet/weatherproof flexible connections.
All conduit shall be installed in concrete slabs, walls, or CMU walls concealed to the greatest extent possible. Surface mounted conduit is permissible inside Control Rooms and Electrical Rooms only.
Conduit inside burn room areas shall be rigid with water tight fittings.
Conduit outside of burn room areas shall be EMT or Rigid with water tight fittings.
All conduit shall utilize the side and bottom knockouts for all junction boxes, panelboards and equipment connections.
Conduits to be provided in the building construction contract for control and power wiring provided by the Class B Burn Prop vendor such as Fireblast Global. Conduits to be provided from Control Rooms to all burn props both base bid and future per Burn Prop vendor installation drawings.

Lighting

LED fixtures shall have a lumen maintenance life expectancy (L70) of > 50,000 hours, a CRI of > 82, and a CCT of 3500K. Each solid-state fixture model shall be tested in accordance with IES LM-79.

Wet Location Fixtures: Corrosion resisting metal, a (non-ferrous, stainless steel or special finish) and in all cases suitable for outdoor service without tarnishing or other damage due to exposure; manufacturer's standard colors unless specified otherwise; cadmium plate all metal parts concealed by canopies, including screws, plates and brackets. All exposed fasteners shall be tamperproof.

Low Voltage Systems General Requirements

Data connection to first floor equipment room for connection to Class B Gas Fired Live Fire Training Prop system for off-site reporting.

E10 EQUIPMENT

Class B Gas Fired Live Fire Training Props: Included in Equipment Budget.

F10 SPECIAL FUNCTION CONSTRUCTION

Thermal lining system on walls, ceilings, and floors of spaces with Class B Gas Fired Live Fire Training Props and that will be exposed to temperatures exceeding 350 degrees F: Included in Equipment Budget with gas props.

All components in burn rooms and components in areas outside burn rooms that are exposed to flame impingement, fire extension, and heat from training fires shall be designed for exposure to high temperatures, high volumes of water, thermal shock, steam, expansion and contraction." (NFPA 1402)

5.1.4 OUTLINE SPECIFICATIONS – SITEWORK AND SITE INFRASTRUCTURE

GO5 PERMITTING

The site is zoned R2 Single Family Dwelling District and the school is there via a Conditional Use Permit (CUP) from 1985 (File 127.239) and revised in 2005. This proposal will require a major Modification to the existing CUPs per TMC 13.05.130 Modification/revision to permits. Major modifications to Conditional Use Permits shall be processed as a Process I permit, consistent with the regulations found in Section 13.05.070.D. This has a slightly shorter public notice period, but the noticing radius is 1000 feet. The application requirements and process are the same as if for a new CUP. The building and site development permits also exceed the SEPA thresholds for review so SEPA will be required with the CUP.

Site related permits includes:

- Land Use Permits
    - Conditional Use Permit
    - SEPA
- Traffic Impact Analysis
- Site Development Permits
    - Site Development
    - Work Order for frontage improvements
- Connection to City Systems
    - Surface water Connection Permit
    - Wastewater Connection Permit
    - Water Connection Permit

G10 SITE PREPARATION

The site of the Fire Training Center is currently a parking lot with education buildings on the north and west side; Tacoma Mall Boulevard borders the site to the east and South 78th Street borders the site to the south. Site preparation will consist of removal of two parking lot luminaires, partial demolition of parking lot pavement, and clearing of existing grass/gravel at the southeast corner. The existing pavement will be retained to the maximum amount feasible. The proposed building addition may require below-grade utility relocation such as sewer, water, and storm drainage around the new building footprint.

There is also a gravel lot at the northwest corner of the site that will need to be scraped for proposed asphalt parking lot. It is anticipated that existing below-grade utilities are not present in this area.

G1030 SITE EARTHWORK

The project site is relatively flat. Site earthwork will include levelling a building pad for the proposed buildings and cut and fill required for site improvements including parking lots and pedestrian pavements. Site soils are expected to be moisture sensitive so imported structural fill will likely be required under building foundations and site structures. Site grading will be designed to direct surface water away from the building. Parking and walkways will be graded

to accommodate accessible routes between the new building and the west campus. No large retaining walls or steep slopes are anticipated.

G20 SITE IMPROVEMENTS

Site improvements will include pavement revisions to accommodate the proposed buildings along with a new parking lot and pedestrian pathways. Fire access is already provided on campus and site improvements are only anticipated around the proposed buildings.

G2020 Parking Lots

The proposed buildings will displace existing parking stalls; a separate study is being performed to determine where to relocate the displaced parking stalls. However, there is an existing gravel parking lot at the northwest corner that will be scraped and a new parking lot will be constructed in this location. Approximately 48 stalls will be installed at this location. Configuration of accessible parking spaces will need to be determined. ADA stalls will be located to minimize travel distances to buildings and gathering points. Configuration of parking lots will comply with City of Tacoma design standards and the Americans with Disabilities Act (ADA). Parking lots and drive aisles will be paved with asphalt concrete pavement. Concrete pavement or unit pavers may be used for areas that double as pedestrian areas and maintenance roads or fire lanes.

G2030 Pedestrian Paving

Concrete pedestrian paving is likely on the eastern side of the Classroom/Admin building. Accessible routes between buildings, parking, and other parts of campus will meet the requirements of the ADA. Pedestrian areas that double as fire department access lanes will be designed to support fire truck outrigger loading. On-site pedestrian walkways must connect to South 78th Street at both entrances.

G2060 Site Development

Fences and Gates: The north gate shall be reconfigured to be located completely on private property and to swing inward onto private property rather than into the right-of-way as is currently the case.

Frontage Improvements: Widened sidewalk on South 74th Street is required. The width between the back of curb and the streetlights to accommodate bicycle and pedestrian travel will be required to be maximized. South 74th Street is a designated bike lane corridor in the Transportation Master Plan. A widened sidewalk is to be constructed in lieu of the major re-channelization that would be required to add bike lanes to this stretch. The existing 5-foot sidewalk also does not meet minimum required width for an arterial as designated in the Right-of-Way Design Manual. Any broken, damaged, or hazardous curb and gutter abutting the site along South 74th Street, Tacoma Mall Boulevard and along South 78th Street shall be removed and replaced to current standards. Any damaged and/or defective sidewalk abutting the site along South 74th Street, Tacoma Mall Boulevard and South 78th Street shall be removed and replaced to the approval of the City Engineer. New sidewalk shall meet Public Right-of-Way Accessibility Guidelines and requirements set forth by the Americans with

Disabilities Act. Replace all driveway entrances with standard accessible entrances. The entrance at the intersection of South 78th Street and South Trafton Street must also include curb ramps on both the east and west side of the intersection. Remove and replace driveways to current standards meeting ADA compliance at:

- South 74th Street
- South 78th Street and South Trafton Street
- South 78th Street

Remove and replace curb ramps at the intersection of South 74th Street and Tacoma Mall BLVD to current standards

Existing gas site props shall be relocated. Wood roof vent props to be constructed by Bates Technical College wood and metal shop training programs over time.

G2080 Landscaping

Irrigation

Furnish all labor and materials to install the sprinkler irrigation system complete as shown on the plans and herein specified. The work includes furnishing and installing all meters, pipe, fittings, valves, sprinkler and shrubbery heads, backflow preventor and other appurtenances shown on the drawings, and performing of all labor for connections to existing water sources or other pressure lines installed by others as indicated on the drawings and specifications. Contractor shall supply and install all equipment shown on the plans and indicated in the specifications to achieve proper operation of the said equipment. All equipment installations shall be in conformity with all applicable codes and ordinances, these specifications, and the manufacturers recommendations whether indicated on the drawings or not.

Soil Preparation

All planting areas shall be prepared so that they remain weed and debris free until the time of final acceptance. The planting areas shall include all planting beds and those areas shown on the plans or directed by the Landscape Architect/Owner.

Preparation of all planting areas shall include the following: Kill and remove existing weeds and vegetation except as directed by Landscape Architect or indicated otherwise on plans. Remove all debris, including asphalt, stumps, rocks, and clods from all planting surfaces. Scarify and cultivate existing compacted subgrades in proposed landscape beds prior to any grading operations.

Supply specified topsoil and soil amendment to depths indicated on plans, in specifications, and in details. All landscape areas shall receive topsoil, whether indicated on the plans or not, so that finish grades after soil preparation and bed mulch application shall conform to final grading requirements listed in the following paragraphs.

Planting areas shall be prepared with soil amendments per 1,000 square feet: 24 c.y. Topsoil Mix (8" average depth),15 lbs. commercial fertilizer, 15 lbs. iron sulfate, 10 lbs. triple superphosphate (0-45-0), 100 lbs. agricultural gypsum.

Soil amendments shall consist of the following per 1,000 square feet - 9 c.y. specified Topsoil Mix (3" average depth), 100 lbs. dolomite lime, 100 lbs. agricultural gypsum, 15 lbs. commercial fertilizer.

Mulching: Re-cultivate compacted soil, rake smooth and distribute bed mulch to a 1½"-2" depth on the surface of all ground cover and shrub areas.

Finish Grade shall be 1-1/2" below adjoining paved surfaces in planting areas. In Lawn, areas finish grade shall be ½" below all adjoining paved surfaces.

Turf and Grasses

Sod, if used, shall be field grown one calendar year or longer, have a well-developed root structure, and be free of all weeds, disease, and insect damage.

Before cutting, the sod shall be green, in an active and vigorous state of growth, and mowed to a height not exceeding one inch.

The sod shall be cut with a minimum of one inch of soil adhering. Provide sod composed of 60% Perennial Turf Type Rye Grass, 20% Hard Fescue, and 20% Bluegrass. Sod shall be equal to that as grown by Country Green Turf Farms, 7725- B Yelm Highway S.E., Olympia, Washington 98513, (360) 456-1006.

Plants

All plant material furnished shall meet the grades established by the American Standard Nursery Stock (ANSI Z60.1). Each shall conform to the size and acceptable conditions as listed on the plans and shall be free of all foreign plant material. An exception to this standard shall concern tree caliper measurements. All tree calipers shall be sized at 'ANSI' (American National Standards Institute) height, which shall be considered to be 6" above the top of the root-ball.

All plant material shall consist of live woody or herbaceous materials that are vigorous, well-formed, with a well-developed fibrous root system. The material shall be free from dead branches, lichens, and from damage caused by an excess of heat or moisture, insects, disease, mechanical, or other causes detrimental to good plant development.

Deciduous trees shall have solitary leaders and shall have only lateral branches thinned by pruning. All conifer trees shall have only one leader (growing apex) and one terminal bud. Trees having a damaged or missing leader, multiple leaders, or Y-crotches shall be rejected.

Root-balls of the evergreen plants shall be solidly held together by the fibrous root system of the plant in its natural position and shall be composed only of the earth in which the plant has been growing.

Container grown plants must be plants transplanted into a container and grown in that container sufficiently long for new fibrous roots to have developed so that the root mass will retain its shape and hold together when removed from the container.

Plant Maintenance

Pre-maintenance as herein specified shall immediately follow completion of each planting operation and shall continue through the General Inspection and until acceptance of the planting project.

Ground cover plants shall be kept in a healthy, vigorous growing condition by watering, replanting, weeding, and cultivation of the entire area of the bed.

Trees and shrubs shall be watered, weeded, cultivated, and replaced immediately if not in a healthy growing condition.

Smooth grade all earth surfaces removing weeds, debris, and breaking clods and leave in an acceptable condition.

It is the Contractor's responsibility to protect new plant and lawn areas from damage during the installation and maintenance periods. This shall include damage caused by theft, vandalism, or adverse weather conditions.

Maintenance, as required under paragraph PRE-MAINTENANCE above, shall extend for 60 consecutive calendar days following general inspection and acceptance of contract work. Additional maintenance activities for these 60 days shall include:

- Protect all areas against damage, including erosion and trespass, and provide all necessary safeguards. Maintain and keep in good repair all temporary barriers erected to prevent trespass.
- Keep all walks and paved areas clean. Keep site free from debris resulting from landscape work and maintenance.
- Repair all damaged planted areas and replace plants immediately upon discovery of damage or loss. Straighten and tighten tree stakes and guys as needed.
- Check all barriers and temporary fencing daily during the workweek and repair or replace them immediately as needed.
- Maintain adequate moisture in the soil to ensure vigorous growth. This includes non-irrigated areas.
- Keep contract areas free from weeds by cultivating, hoeing, or hand pulling. Use of chemical week killers will not relieve the Contractor of the responsibility for keeping areas free from weeds over 1 inch in height at all times.
- Water, fertilize, and mow lawn areas following normal nursery practice. Water lawn three times daily for ten (10) days. Following the 10 days, watering shall be done following the Owner's watering schedule. Lawn shall be fertilized with an accepted organic fertilizer every 30 days. Lawn shall be kept at a height of between two (2) and three (3) inches at all times. Catch and remove all lawn cuttings after each mowing.

Planting Accessories

Stakes and guys shall be installed as shown on Plans.

Root Barrier Panel EP-2450 by NDS, or approved equal, shall be installed at the edge of any paving within 6 ft. of the tree trunk.

G30 SITE CIVIL UTILITIES

G3010 Water Distribution

Water for domestic and fire protection is provided by the City of Tacoma municipal water system. There is an existing 8-inch and 12-inch water main that runs north/south through the project site and has adequate pressure and flow for the proposed project. Fire protection sprinkler service, new fire hydrants, and domestic water service for the new buildings will be connected to the existing water main. Fire hydrants will be added to provide required coverage for any of the new buildings.

The southern area has access to an 8" water main. Tacoma Water shows a calculated pressure at this location of 78psi. The northern area has access and services off a 12" water main. Mapping indicates there are (2) 2" domestic services and 8" fire service feeding building D. Tacoma Water shows a calculated pressure at this site of 81psi.

The Uniform Plumbing Code requires that a pressure-reducing valve (PRV) be installed on the customer's property side service line if pressure exceeds 80 PSI.

G3020 Sanitary Sewer

Sanitary sewer is provided to the project site by the City of Tacoma municipal sewer system. Sanitary sewer service is provided by an existing sewer main that runs through the middle of the site, with multiple laterals serving the various buildings throughout campus. Any existing laterals that will be used for the proposed buildings will need to be televised, inspected and pressure tested per the City standards. All unused sanitary sewer laterals will be required to be removed up to the main.

Based on the Use Type proposed for this project, discharge to the sanitary sewer that is not domestic waste may occur. If so, additional approval from Source Control shall be required. Projects with such discharges shall submit all requested information which may include frequency, flow rates, pH, and MSDS sheets or other information about the waste flow. Dumpsters that will be used for wet or moist trash and all garbage compactors shall be located on a stand-alone pad that drains to the sanitary sewer system. Cardboard compactors are not required to drain to the sanitary sewer.

G3030 Stormwater Management

Stormwater management for the site will be designed according to the most recent City of Tacoma Stormwater Manual. The proposed project is located within the Flett Creek Watershed. The project site has more than 35% existing impervious coverage and therefore is

considered a redevelopment project. The existing on-site facilities will need to be inspected to verify functionality and to identify any possible necessary maintenance.

The City of Tacoma is an NPDES Phase 1 permit holder. Their permit prohibits foam products from discharging to the storm water system other than on an emergency basis. As no foam products are intended to be used in training, pre-treatment facilities are not required.

A Construction Stormwater Pollution Prevention Plan (SWPPP) will be required. This project appears to trigger Minimum Requirements #1-10 which would require on-site stormwater to be managed in accordance with Onsite Management BMPs List #2 or demonstrate compliance with the LID Performance Standard to achieve MR#5 compliance. Design of onsite stormwater systems may require a soil analysis prepared by a qualified soil professional. Minimum Requirement #6 will likely need to be evaluated for this project. On-site and off-site pollution generating hard surface (PGHS) areas shall be all be added together to determine the project PGHS total. If any thresholds of Minimum Requirement #6 are met, the project shall construct enhanced water quality treatment facilities. Separate water quality facilities shall be provided for on-site and off-site PGHS. This project may be eligible to participate in the Flett Creek Payment In-Lieu of Construction Program. The Program allows applicants to pay a one-time systems development charge instead of constructing required stormwater flow control facilities on their project site to fulfill Minimum Requirement #7. Any private storm drainage system will require a covenant and easement agreement for maintenance and access.

G3060 Fuel Distribution

Refer to Mechanical Narrative

G4010 ELECTRICAL DISTRIBUTION

The existing underground campus primary will be extended from the existing Building A transformer to feed the new oil filled pad mounted transformer. A new primary junction vault will be installed adjacent to the Building A transformer to extend the existing campus primary feeder.

Provide underground conduit infrastructure to support all Fireblast Global Line Voltage and Low Voltage equipment and controls wiring.

G4020 Site Lighting

The site lighting for the new parking lot addition will utilize LED fixtures on approximately 30’ steel poles. The new classroom building and building D addition perimeter lighting will be a combination of wall and ceiling or soffit mounted LED fixtures. Site lighting levels will be designed to 1.0 foot-candles minimum for parking areas and 2.0 foot-candles for the Fire Training area.

Additional 12’ pedestrian light pole fixtures will be provided to connect the new building walkway to the existing campus.

G4030 Site Communications and Security

The telecom fiber optic and copper underground infrastructure will be extended from the existing Admin Building A.

The new building Fire Alarm system will be connected to the existing campus Simplex system. Provide new underground conduit and cabling to the existing Building A.

5.1.5 OUTLINE SPECIFICATIONS – GENERAL REQUIREMENTS

Z10 GENERAL REQUIREMENTS

General: Procurement and Contracting to be per State of Washington Department of Enterprise Services Requirements for a Design-Build contract. Following an RFQ process, an RFP will be issued to a select group of Design/Build firms

Contract type: Design/Build.

Project shall be bid, contracted, and administered using standard State of Washington Department of Enterprise Services contract and procedures.

Prevailing wages: King County prevailing wage rates shall be required for all portions of work performed.

Temporary Facilities: Contractor shall provide a temporary on-site office as well as temporary fencing and barriers as needed to protect the project and public.

Temporary Utilities: Existing utilities may be utilized by the contractor at owner expense. Contractor shall take measures to conserve utilities.

Phasing: Construction is anticipated to be completed in two phases with Phase 1 the Academic Building to be complete and occupied before starting Phase 2, the renovation/addition of Building D and the fire training tower.

Construction Duration: 21 months for Phase 1 and Phase 2.

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated July 2019

Agency	Bates Technical College	
Project Name	Fire Training Center Alternate A - Preferred Alternate	
OFM Project Number		

Contact Information		
Name		
Phone Number		
Email		

Statistics			
Gross Square Feet	54,500	MACC per Square Foot	$387
Usable Square Feet	45,166	Escalated MACC per Square Foot	$418
Space Efficiency	82.9%	A/E Fee Class	B
Construction Type	College classroom facilit	A/E Fee Percentage	7.14%
Remodel	No	Projected Life of Asset (Years)	
Additional Project Details			
Alternative Public Works Project	Yes	Art Requirement Applies	Yes
Inflation Rate	3.18%	Higher Ed Institution	Yes
Sales Tax Rate %	10.20%	Location Used for Tax Rate	Tacoma
Contingency Rate	5%		
Base Month	July-20		
Project Administered By	DES		

Schedule			
Predesign Start	July-19	Predesign End	August-20
Design Start	September-20	Design End	January-22
Construction Start	February-22	Construction End	February-24
Construction Duration	24 Months		

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Project Cost Estimate

Total Project	**$30,424,367**	Total Project Escalated	**$32,802,016**
		Rounded Escalated Total	**$32,802,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated July 2019

Agency	Bates Technical College
Project Name	Fire Training Center Alternate A - Preferred Alternate
OFM Project Number	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$214,303		
A/E Basic Design Services	$0		
Extra Services	$602,500		
Other Services	$0		
Design Services Contingency	$40,840		
Consultant Services Subtotal	**$857,643**	**Consultant Services Subtotal Escalated**	**$878,194**

Construction			
GC/CM Risk Contingency	$929,742		
GC/CM or D/B Costs	$2,023,536		
Construction Contingencies	$1,054,959	Construction Contingencies Escalated	$1,143,998
Maximum Allowable Construction Cost (MACC)	$21,099,171	Maximum Allowable Construction Cost (MACC) Escalated	$22,782,833
Sales Tax	$2,560,956	Sales Tax Escalated	$2,767,196
Construction Subtotal	**$25,862,863**	**Construction Subtotal Escalated**	**$27,938,678**

Equipment			
Equipment	$2,486,340		
Sales Tax	$253,607		
Non-Taxable Items	$0		
Equipment Subtotal	**$2,739,947**	**Equipment Subtotal Escalated**	**$2,971,200**

Artwork			
Artwork Subtotal	**$113,914**	**Artwork Subtotal Escalated**	**$113,914**

Agency Project Administration			
Agency Project Administration Subtotal	$0		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$200,000**	**Project Administation Subtotal Escalated**	**$216,880**

Other Costs			
Other Costs Subtotal	**$650,000**	**Other Costs Subtotal Escalated**	**$683,150**

Project Cost Estimate

Total Project	**$30,424,367**	Total Project Escalated	**$32,802,016**
		Rounded Escalated Total	**$32,802,000**

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study	$214,303			
Other				
Insert Row Here				
Sub TOTAL	**$214,303**	**1.0053**	**$215,439**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$1,091,445			69% of A/E Basic Services
A/E Basic Design Services carried on construction tab	-$1,091,445			
Insert Row Here				
Sub TOTAL	**$0**	**1.0265**	**$0**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$0			
Geotechnical Investigation	$60,000			
Commissioning	$75,000			
Site Survey	$35,000			
Testing	$95,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)	$30,000			
Landscape Consultant				
Honorarium	$225,000			
Advertising	$2,500			
Traffic analysis	$20,000			
SEPA/Land Use	$30,000			
Hazmat Testing	$10,000			
Parking Analysis	$10,000			
Elevator Consultant	$10,000			
Insert Row Here				
Sub TOTAL	**$602,500**	**1.0265**	**$618,467**	Escalated to Mid-Design

4) Other Services				
Bid/Construction/Closeout	$490,360			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Bid/Construction/Closeout carried on Construction Tab	-$490,360			
Insert Row Here				
Sub TOTAL	**$0**	**1.0844**	**$0**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$40,840			
Insert Row Here				
Sub TOTAL	**$40,840**	**1.0844**	**$44,288**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$857,643**		**$878,194**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$608,638			
G20 - Site Improvements	$1,331,499			
G30 - Site Mechanical Utilities	$524,918			
G40 - Site Electrical Utilities	$292,388			
G60 - Other Site Construction				
Other				
OTHER				
Insert Row Here				
Sub TOTAL	**$2,757,441**	**1.0510**	**$2,898,071**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention	$0			
Civil Consultant	$100,000			
Landscape Design	$50,000			
Insert Row Here				
Sub TOTAL	**$150,000**	**1.0510**	**$157,650**	
3) Facility Construction				
A10 - Foundations	$674,497			
A20 - Basement Construction	$0			
B10 - Superstructure	$2,833,829			
B20 - Exterior Closure	$2,356,135			
B30 - Roofing	$850,610			
C10 - Interior Construction	$1,743,129			
C20 - Stairs	$484,495			
C30 - Interior Finishes	$849,965			
D10 - Conveying	$109,250			
D20 - Plumbing Systems	$707,250			
D30 - HVAC Systems	$1,707,750			
D40 - Fire Protection Systems	$546,250			
D50 - Electrical Systems	$2,086,675			
F10 - Special Construction				
F20 - Selective Demolition	$102,925			
General Conditions				
General Conditions/Reimbursables	$784,639			
Phasing Premium	$75,000			
Envelope Consultant	$40,000			
Interior Design	$50,000			
Acoustic Design	$40,000			
Security Consultant	$30,000			
Audio Visual Consultant	$50,000			
Cost and Scheduling				Part of D/B service
Value Engineering Participation				Part of D/B service
Environmental Graphics/Signage	$40,000			
Lighting Consultant	$35,000			

Materials/Equip/Lab Consultant	$35,000			
Door Hardware Consultant	$12,000			
LEED Services	$40,000			
Bonds & Insurance of Construction Only- 2.5%	$464,871			
A/E Basic Design Services	$958,565			
Bid/Construction Closeout	$408,895			
Fire Tower Specialist	$75,000			
Insert Row Here				
Sub TOTAL	**$18,191,730**	**1.0844**	**$19,727,112**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$21,099,171**		**$22,782,833**	

5) GCCM Risk Contingency				
GCCM Risk Contingency	$929,742			
Other				
Insert Row Here				
Sub TOTAL	**$929,742**	**1.0844**	**$1,008,213**	
6) GCCM or Design Build Costs				
GCCM Fee	$743,794			
Bid General Conditions	$929,742			
GCCM Preconstruction Services	$350,000			
Other				
Insert Row Here				
Sub TOTAL	**$2,023,536**	**1.0844**	**$2,194,323**	
7) Construction Contingency				
Allowance for Change Orders	$1,054,959			
Other				
Insert Row Here				
Sub TOTAL	**$1,054,959**	**1.0844**	**$1,143,998**	
8) Non-Taxable Items				
Other	-$2,548,500			Design Build Efficiencies
Insert Row Here				
Sub TOTAL	**-$2,548,500**	**1.0844**	**-$2,763,594**	
Sales Tax				
Sub TOTAL	**$2,560,956**		**$2,767,196**	
CONSTRUCTION CONTRACTS TOTAL	**$25,119,863**		**$27,132,969**	

Green cells must be filled in by user

Cost Estimate Details

Equipment				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment	$1,188,340			
E20 - Furnishings	$534,000			
F10 - Special Construction				
IT Equpment/Computers/Printers	$534,000			
Private Offices	$55,000			
Conference /Meeting Rooms	$75,000			Tables and charis $/seat
Lounge and Gathering Spaces Allownace	$100,000			
Insert Row Here				
Sub TOTAL	**$2,486,340**	**1.0844**	**$2,696,188**	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0844**	**$0**	
Sales Tax				
Sub TOTAL	**$253,607**		**$275,012**	
EQUIPMENT TOTAL	**$2,739,947**		**$2,971,200**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of Escalated MACC for new construction
Higher Ed Artwork	$113,914				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$113,914**		**NA**	**$113,914**	

Green cells must be filled in by user

Cost Estimate Details

Project Management				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$742,980			
Additional Services				
Other				
BTC - Project Manager	$200,000			
Insert Row Here				
PROJECT MANAGEMENT TOTAL	**$942,980**	**1.0844**	**$1,022,568**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Other					
Relocating/Moving Costs	$150,000				
Permit and Plan Review Fees	$500,000				
Insert Row Here					
OTHER COSTS TOTAL	**$650,000**		**1.0510**	**$683,150**	

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C-100(2019)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
E-10 Equipment - Fire Training Equipment: (4) Class B (Gas) Live Fire Training Props and thermal linings for (4) live fire rooms;
(2) Extractors; (1) 6,000 psi SCBA Compressor, air dryer, and (2) 4-drawer bottle fill stations; (1) SCBA/Equipment Washer.
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

RLB Robinson

BTC FIRE TRAINING CENTER ALTERNATE A SOUTH SITE
PRE-DESIGN ESTIMATE SUMMARY
June 23, 2020

	Areas				$/area
NEW BUILDING	34,600	sf	$	13,281,349	
FIRE TRAINING BURN BLDG	18,900	SF	$	4,528,853	
General Conditions-Reimbursables	1	ls	$	784,638	
Total Direct Costs			**$**	**18,594,840**	537.42
Indirect Costs					
D/B Risk Contingency	5.00%		$	929,742	
Subtotal			**$**	**929,742**	
D/B Fee (MACC)	4.00%		$	743,794	
D/B Pre-Construction Services			$	350,000	
Specified General Conditions			$	929,742	
Subtotal			**$**	**2,023,536**	
Change Order Contingency	5.00%		$	929,742	
Total Guaranteed Maximum Price			**$**	**22,477,860**	649.65

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERED - SOUTH SITE

CLASSROOM/BURN BLDG COMBINED

Rates Current At June 2020

Description		Total Cost
A10	Foundations	$674,498
B10	Superstructure	$2,833,829
B20	Exterior Enclosure	$2,356,135
B30	Roofing	$850,610
C10	Interior Construction	$1,743,128
C20	Stairs	$484,495
C30	Interior Finishes	$849,966
D10	Conveying	$109,250
D20	Plumbing	$707,250
D30	HVAC	$1,707,750
D40	Fire Protection	$546,250
D50	Electrical	$2,086,674
F20	Selective Building Demolition	$102,925
G10	Site Preparations	$608,638
G20	Site Improvements	$1,331,498
G30	Site Civil/Mechanical Utilities	$524,918
G40	Site Electrical Utilities	$292,388
Z10	General Conditions	$784,638
	ESTIMATED TOTAL COST	$18,594,840

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED -SOUTH SITE

CLASSROOM BLDG'S

Gross floor area- S: 35,600 SF
Rates Current At June 2020

Description		Cost/SF	Total Cost
A10	Foundations	$11.95	$425,281
B10	Superstructure	$25.64	$912,640
B20	Exterior Enclosure	$46.45	$1,653,631
B30	Roofing	$21.67	$771,617
C10	Interior Construction	$36.61	$1,303,471
C20	Stairs	$2.49	$88,550
C30	Interior Finishes	$21.13	$752,158
D10	Conveying	$3.07	$109,250
D20	Plumbing	$16.96	$603,750
D30	HVAC	$43.29	$1,541,000
D40	Fire Protection	$13.41	$477,250
D50	Electrical	$50.07	$1,782,384
F20	Selective Building Demolition	$2.89	$102,925
G10	Site Preparations	$17.10	$608,638
G20	Site Improvements	$37.40	$1,331,498
G30	Site Civil/Mechanical Utilities	$14.74	$524,918
G40	Site Electrical Utilities	$8.21	$292,388
Z10	General Conditions	$22.04	$784,638
	ESTIMATED TOTAL COST	$395.11	$14,065,987

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BTC FIRE TRAINING SOUTH DETAIL

Gross floor area- S: 35,600 SF
Rates Current At June 2020

Description		Unit	Qty	Rate	Total Cost
A10	**Foundations**				
1	Standard foundation excavation/backfill	SF	11,500	3.45	39,675
2	Concrete foundation	SF	11,500	17.25	198,375
3	Perimeter footing drains	LF	672	25.30	17,002
11	Add for grade/prep subgrade	SF	11,500	0.98	11,241
12	Slab on grade-6" w/rebar/capillary break/vb	SF	9,500	12.08	114,713
14	App bay slab on grade-8" w/rebar/capillary break/vb	SF	2,000	13.80	27,600
19	Patch slab @ for plumbing rework-allow	SF	14,500	1.15	16,675
	Foundations			***$11.95/SF***	***$425,281***
B10	**Superstructure**				
20	Composite floor structure complete	SF	9,600	55.20	529,920
25	Roof structure @ new bldg	SF	9,600	32.20	309,120
26	Roof structure @ app bay- w/connection to exst'g	SF	2,000	36.80	73,600
	Superstructure			***$25.64/SF***	***$912,640***
B20	**Exterior Enclosure**				
31	Metal siding system @ Bldg D addition	SF	3,420	46.00	157,320
34	Add for detail framing/headers	SF	4,125	10.35	42,694
35	Add for ledger steel/reinforcing	SF	4,421	4.60	20,337
36	Brick Veneer-w/sealer @ student bldg	SF	4,421	43.70	193,198
37	Exterior flashing/caulking/trim-gross envelope	SF	22,223	4.03	89,448
38	Exterior framed wall system @ student bldg	SF	12,629	29.90	377,607
39	Metal siding system @ student bldg	SF	4,421	46.00	203,366
40	Ext framed wall @ bldg D addition	SF	3,420	29.90	102,258
47	Misc clean/seal/repair exst'g walls	SF	6,174	4.60	28,400
51	Exterior glazing	SF	3,789	89.70	339,873
52	Allow for sunshades/fetaures @ openings	LS	1	40,250.00	40,250
57	Misc hdwre/ADA/security	LS	1	11,500.00	11,500
58	App bay OH doors	EA	2	14,375.00	28,750
59	Exterior doors-allow	EA	6	3,105.00	18,630
	Exterior Enclosure			***$46.45/SF***	***$1,653,631***
B30	**Roofing**				
65	Membrane roofing system	SF	26,100	22.43	585,293
66	Misc flashing/sealants/drainage	SF	26,100	2.88	75,038
67	Misc roof accessories/ladders/hatches	LS	1	17,250.00	17,250
68	Roof expansion/seismic joint	LF	78	155.26	12,110
69	Sheet metal coping	LF	906	46.00	41,676

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BTC FIRE TRAINING SOUTH DETAIL

Gross floor area- S: 35,600 SF
Rates Current At June 2020

	Description	Unit	Qty	Rate	Total Cost
74	allow for roofing repairs	LS	1	40,250.00	40,250
	Roofing			***$21.67/SF***	***$771,617***
C10	**Interior Construction**				
80	Interior partitions- classrooms/admin	SF	16,954	16.73	283,683
81	Rated elevator shaft walls	SF	1,020	23.35	23,812
82	Misc- added gwb/caulking/backing	SF	20,964	0.57	12,054
83	Rated separation wall @ app bay	SF	3,870	23.34	90,345
84	Interior partitions- app bay	SF	11,832	16.73	197,979
90	Int. vestibule/storefront glazing	SF	140	86.25	12,075
91	App bay OH door	EA	1	14,375.00	14,375
97	New interior doors/frames/hdwre	EA	51	2,415.00	123,165
98	Interior vestibule storefront door pairs/hdwre	Pair	1	9,775.00	9,775
99	misc hdwre/ADA/ratings	LS	1	17,250.00	17,250
100	Interior relites- allowance	SF	500	86.25	43,125
103	Misc specialties	SF	35,600	4.03	143,290
135	Projection screens-operable	EA	9	1,725.00	15,525
136	Residential appliances-allow	LS	1	11,500.00	11,500
137	Bunker room storage-allow	EA	80	632.50	50,600
138	Window coverings	SF	4,289	13.80	59,188
139	Display cabinets-allow	LS	1	11,500.00	11,500
140	Misc. casework/finish carpentry allowance	SF	35,600	5.18	184,230
	Interior Construction			***$36.61/SF***	***$1,303,471***
C20	**Stairs**				
106	New stairs/railings	EA	2	40,250.00	80,500
107	Ships ladder to roof hatch	EA	1	8,050.00	8,050
	Stairs			***$2.49/SF***	***$88,550***
C30	**Interior Finishes**				
109	Wall finishes allowance @ new work	SF	21,100	10.35	218,385
110	Interior patching/painting at existing	SF	14,500	9.20	133,400
112	Floor Finishes allowance	SF	21,100	9.20	194,120
114	Ceiling finishes allowance	SF	21,100	9.78	206,253
	Interior Finishes			***$21.13/SF***	***$752,158***
D10	**Conveying**				
116	2 stop hydraulic elevator	LS	1	109,250.00	109,250
	Conveying			***$3.07/SF***	***$109,250***

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BTC FIRE TRAINING SOUTH DETAIL

Gross floor area- S: 35,600 SF
Rates Current At June 2020

	Description	Unit	Qty	Rate	Total Cost
D20	**Plumbing**				
117	Plumbing @ Bldg D Reno-per Sider/Byer	LS	1	207,000.00	207,000
120	Plumbing @ New Bldg-per Sider/Byer	LS	1	396,750.00	396,750
	Plumbing			***$16.96/SF***	***$603,750***
D30	**HVAC**				
121	HVAC @ Bldg D Reno-per Sider/Byer	SF	1	563,500.00	563,500
124	HVAC @ New Bldg-per Sider/Byer	LS	1	977,500.00	977,500
	HVAC			***$43.29/SF***	***$1,541,000***
D40	**Fire Protection**				
125	Fire suppression @ Bldg D Reno-per Sider/Byer	LS	1	345,000.00	345,000
128	Fire suppression @ New Bldg-per Sider/Byer	LS	1	132,250.00	132,250
	Fire Protection			***$13.41/SF***	***$477,250***
D50	**Electrical**				
130	Electrical @ South Campus-Bldg D- per BCE	LS	1	801,981.00	801,981
133	Electrical @ South Campus-New Bldg- per BCE	LS	1	980,403.00	980,403
	Electrical			***$50.07/SF***	***$1,782,384***
F20	**Selective Building Demolition**				
145	Demo opening between exst;g app bay/new	LS	1	2,875.00	2,875
146	Selective interior demo-partitions/doors/furnishings/fixtures	SF	14,500	6.90	100,050
	Selective Building Demolition			***$2.89/SF***	***$102,925***
G10	**Site Preparations**				
147	Site mob/prep/demo- per SCJ	LS	1	325,738.00	325,738
148	Temporay erosion control/maintenance	LS	1	40,250.00	40,250
151	Earthwork/Grading- per SCJ	LS	1	242,650.00	242,650
	Site Preparations			***$17.10/SF***	***$608,638***
G20	**Site Improvements**				
153	Asphalt & surfacing- per SCJ	LS	1	122,561.00	122,561
155	Off-site improvements- per SCJ	LS	1	175,375.00	175,375
156	On-site improvements- per SCJ	LS	1	827,137.00	827,137
159	Chain link fencing-allow	LF	850	69.00	58,650
160	Vehicle gates	EA	2	5,175.00	10,350
162	Landscaping/Irrigation- per SCJ	LS	1	137,425.00	137,425
	Site Improvements			***$37.40/SF***	***$1,331,498***

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BTC FIRE TRAINING SOUTH DETAIL

Gross floor area- S: 35,600 SF
Rates Current At June 2020

	Description	Unit	Qty	Rate	Total Cost
G30	**Site Civil/Mechanical Utilities**				
165	Water system rework/connection- per SCJ	LS	1	163,703.00	163,703
166	Sanitary sewer rework/connection- per SCJ	LS	1	44,390.00	44,390
168	Storm drainage/collection- per SCJ	LS	1	197,225.00	197,225
170	Site fire training prop infrastructure allowance	LS	1	115,000.00	115,000
173	Gas/Power lines-per SCJ	LS	1	4,600.00	4,600
	Site Civil/Mechanical Utilities			***$14.74/SF***	***$524,918***
G40	**Site Electrical Utilities**				
174	Site electrical-per BCE	LS	1	292,388.00	292,388
	Site Electrical Utilities			***$8.21/SF***	***$292,388***
Z10	**General Conditions**				
337	General Conditions	LS	1	784,638.00	784,638
	General Conditions			***$22.04/SF***	***$784,638***
	ESTIMATED NET COST			***$395.11/SF***	***$14,065,987***

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BTC FIRE TRAINING BURN BUILDING SUMMARY

Gross Floor Area towers: 18,900 SF
Rates Current At June 2020

Description		Cost/SF	Total Cost
A10	Foundations	$13.19	$249,217
B10	Superstructure	$101.65	$1,921,189
B20	Exterior Enclosure	$37.17	$702,504
B30	Roofing	$4.18	$78,993
C10	Interior Construction	$23.26	$439,657
C20	Stairs	$20.95	$395,945
C30	Interior Finishes	$5.18	$97,808
D20	Plumbing	$5.48	$103,500
D30	HVAC	$8.82	$166,750
D40	Fire Protection	$3.65	$69,000
D50	Electrical	$16.10	$304,290
	ESTIMATED TOTAL COST	$239.62	$4,528,853

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BURN BUILDING DETAIL

Gross Floor Area towers: 18,900 SF
Rates Current At June 2020

Description		Unit	Qty	Rate	Total Cost
A10	**Foundations**				
A1010	**Standard Foundations**				
4	Standard foundation excavation/backfill	SF	4,200	5.75	24,150
5	Concrete foundation	SF	4,200	17.25	72,450
6	Perimeter footing drains	LF	380	25.30	9,614
7	Add for Mat slabs @ stair towers	SF	1,812	46.00	83,352
	Standard Foundations			***$10.03/SF***	***$189,566***
A1030	**Slab on Grade**				
15	Add for grade/prep subgrade	SF	4,200	0.98	4,106
16	Slab on grade-6" w/rebar/capillary break/vb	SF	4,200	13.23	55,545
	Slab on Grade			***$3.16/SF***	***$59,651***
	Foundations			***$13.19/SF***	***$249,217***
B10	**Superstructure**				
B1010	**Floor Construction**				
21	CIP floor structure complete-includes balconies/slopes	SF	18,900	41.40	782,459
22	CIP 8' reinforced walls @ stair towers	SF	10,224	55.20	564,365
23	CIP 8' reinforced shearwalls	SF	5,600	55.20	309,120
	Floor Construction			***$87.62/SF***	***$1,655,944***
B1020	**Roof Construction**				
27	CIP roof structure complete	SF	5,018	41.40	207,745
28	Freestanding carport	SF	600	57.50	34,500
29	Freestanding roof canopy	SF	400	57.50	23,000
	Roof Construction			***$14.03/SF***	***$265,245***
	Superstructure			***$101.65/SF***	***$1,921,189***
B20	**Exterior Enclosure**				
B2010	**Exterior Walls**				
41	8" CMU- mix of splitface & groundface	SF	11,305	36.80	416,024
42	Add for ledger steel/reinforcing	SF	11,860	4.60	54,556
43	Louvers-allow	EA	6	1,035.00	6,210
44	Finish/seal conc/CMU walls	SF	27,129	2.88	77,996
	Exterior Walls			***$29.35/SF***	***$554,786***
B2020	**Exterior Windows**				
53	Ext steelplate window/shutters-w SS hdwre/thrubolts	EA	37	2,415.00	89,355

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BURN BUILDING DETAIL

Gross Floor Area towers: 18,900 SF
Rates Current At June 2020

Description		Unit	Qty	Rate	Total Cost
54	Ext steelplate storefront panels	LS	1	4,600.00	4,600
	Exterior Windows			***$4.97/SF***	***$93,955***
B2030	**Exterior Doors**				
60	Ext steelplate doors/plate frame-w SS hdwre/thrubolts	EA	17	3,162.53	53,763
	Exterior Doors			***$2.84/SF***	***$53,763***
	Exterior Enclosure			***$37.17/SF***	***$702,504***
B30	**Roofing**				
B3010	**Roof Coverings**				
70	Roof Ladders	EA	2	4,600.00	9,200
71	non slip conc sealer @ roof deck	SF	5,018	3.45	17,312
72	Misc roof accessories/drainage/openings	SF	5,018	2.30	11,541
73	Drains/scuppers/downspouts-roof/floor decks	LS	1	40,940.00	40,940
	Roof Coverings			***$4.18/SF***	***$78,993***
	Roofing			***$4.18/SF***	***$78,993***
C10	**Interior Construction**				
C1010	**Partitions**				
85	CMU partitions	SF	8,320	32.20	267,904
	Partitions			***$14.17/SF***	***$267,904***
C1020	**Interior Doors**				
96	Int steelplate doors/plate frame-w SS hdwre/thrubolts	EA	44	3,162.50	139,150
	Interior Doors			***$7.36/SF***	***$139,150***
C1030	**Specialties**				
102	Misc specialities/tie offs/anchors	SF	18,900	1.73	32,603
	Specialties			***$1.73/SF***	***$32,603***
	Interior Construction			***$23.26/SF***	***$439,657***
C20	**Stairs**				
C2010	**Stair Construction**				
104	Ext railings-galvanized pipe	SF	420	189.75	79,695
105	Galvanized steel stairs/conc filled-rails included	Flight	10	31,625.00	316,250
	Stair Construction			***$20.95/SF***	***$395,945***
	Stairs			***$20.95/SF***	***$395,945***

BTC FIRE TRAINING CENTER

ALTERNATE A - PREFERRED - SOUTH SITE

BURN BUILDING DETAIL

Gross Floor Area towers: 18,900 SF
Rates Current At June 2020

Description	Unit	Qty	Rate	Total Cost
C30 Interior Finishes				
C3040 Interior Coatings and Special Finishes				
115 Fiinish/seal concrete/CMU walls/decks-int	SF	18,900	5.18	97,808
Interior Coatings and Special Finishes			***$5.18/SF***	***$97,808***
Interior Finishes			***$5.18/SF***	***$97,808***
D20 Plumbing				
D2010 Plumbing Fixtures				
118 Plumbing -per Sider/Byer	LS	1	103,500.00	103,500
Plumbing Fixtures			***$5.48/SF***	***$103,500***
Plumbing			***$5.48/SF***	***$103,500***
D30 HVAC				
D3020 Heat Generating Systems				
122 HVAC -per Sider/Byer	LS	1	166,750.00	166,750
Heat Generating Systems			***$8.82/SF***	***$166,750***
HVAC			***$8.82/SF***	***$166,750***
D40 Fire Protection				
D4040 Sprinklers				
126 Fire suppression -per Sider/Byer	LS	1	69,000.00	69,000
Sprinklers			***$3.65/SF***	***$69,000***
Fire Protection			***$3.65/SF***	***$69,000***
D50 Electrical				
D5010 Electrical Service & Distribution				
131 Electrical @ South training tower- per BCE	LS	1	304,290.00	304,290
Electrical Service & Distribution			***$16.10/SF***	***$304,290***
Electrical			***$16.10/SF***	***$304,290***
ESTIMATED NET COST			***$239.62/SF***	***$4,528,853***

SCJ ALLIANCE
CONSULTING SERVICES

BATES TECHNICAL COLLEGE FIRE SERVICE TRAINING CENTER
CIVIL PRE-DESIGN COST ESTIMATE

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QTY.	SUBTOTAL
	PREPARATION/EROSION CONTROL/DEMO				
1	MOBILIZATION	L.S.	$170,000	1	$170,000
2	CLEARING AND GRUBBING	L.S.	$10,000	1	$10,000
3	EROSION CONTROL	L.S.	$25,000	1	$25,000
4	SAWCUT	L.F.	$5	1,500	$7,500
5	REMOVE EXISTING POWER POLE/LIGHT	EA	$500	5	$2,500
6	REMOVE EXISTING STORM STRUCTURE	EA	$150	5	$750
7	REMOVE EXISTING BUILDING/FOUNDATION	L.S.	$15,000	1	$15,000
8	ASPHALT REMOVAL	S.Y.	$15	3,500	$52,500
					$283,250
	GRADING				
9	SITE EARTHWORK CUT (Haul off-site)	C.Y.	$45	3,000	$135,000
10	SITE EARTHWORK FILL (Imported Fill)	C.Y.	$35	2,000	$70,000
11	EARTHWORK CUT (Stockpile On-Site)	C.Y.	$12	500	$6,000
					$211,000
	ASPHALT AND SURFACING				
12	HMA CL. 1/2" PG-64-22	TON	$120	700	$84,000
13	CRUSHED SURFACING BASE COURSE	TON	$35	645	$22,575
					$106,575
	OFF-SITE IMPROVEMENTS				
14	CONCRETE SIDEWALK	S.Y.	$55	700	$38,500
15	DRIVEWAY ENTRANCE	EACH	$25,000	3	$75,000
16	CURB RAMP	EACH	$6,500	6	$39,000
					$152,500
	ON-SITE IMPROVEMENTS				
17	CONCRETE SIDEWALK	S.Y.	$55	50	$2,750
18	CONCRETE PAVING W/ REINFORCING	S.Y.	$110	5,300	$583,000
19	PAVEMENT MARKINGS	L.S.	$8,000	1	$8,000
20	PERMANENT SIGNING	L.S.	$5,500	1	$5,500
21	DRAFTING PIT	L.S.	$45,000	1	$45,000
22	ILLUMINATION SYSTEM	L.S.	$75,000	1	$75,000
					$719,250
	STORM DRAINAGE				
23	BELOW-GRADE INFILTRATION GALLERIES	EACH	$25,000	2	$50,000
24	WATER QUALITY IMPROVEMENTS	EACH	$20,000	3	$60,000
25	STORMWATER PRE-TREATMENT	EACH	$10,000	1	$10,000
26	12-INCH STORM DRAIN	L.F.	$50	250	$12,500
27	6-INCH ROOF DRAIN	L.F.	$20	450	$9,000
28	TYPE 1 CATCH BASIN	EACH	$2,500	10	$25,000
29	CONNECT TO EXISTING STORM SYSTEM	EACH	$2,500	2	$5,000
					$171,500
	WATER & SANITARY SEWER				
30	CONNECT TO EXISTING WATER SYSTEM	EACH	$3,500	6	$21,000
31	8-INCH CL 52 D.I. WATER MAIN	L.F.	$75	700	$52,500
32	6" WATER LINE	L.F.	$60	60	$3,600
33	4' FIRE SERVICE LINE	L.F.	$50	75	$3,750
34	3" WATER LINE	L.F.	$40	75	$3,000
35	3" WATER METER & SERVICE COMPLETE	L.S.	$7,500	2	$15,000
36	3" REDUCE PRESSURE BACKFLOW ASSEMBLY	EACH	$6,500	2	$13,000
37	FIRE DEPARTMENT CONNECTION	EACH	$2,500	2	$5,000
38	POST INDICATOR VALVE	EACH	$2,500	2	$5,000
39	FIRE HYDRANT ASSEMBLY	EACH	$4,500	4	$18,000
40	TEES AND APPURTENANCES	L.S.	$2,500	1	$2,500
41	CONNECT TO EXISTING SEWER SYSTEM	EACH	$3,500	1	$3,500
42	8-INCH SANITARY SEWER MAIN	L.F.	$65	200	$13,000
43	SANITARY SEWER MANHOLE	EA	$3,500	4	$14,000
44	6-INCH SANITARY SIDE SEWER	L.F.	$55	100	$5,500
45	CLEANOUT	EACH	$650	4	$2,600
46	GAS LINE	L.F.	$20	100	$2,000
47	POWER LINE	L.F.	$20	100	$2,000
					$184,950
	SUBTOTAL				**$1,829,025**
	CONSTRUCTION CONTINGENCY 15%				**$274,354**
	TOTAL ESTIMATED PROBABLE CONSTRUCTION COST				**$2,103,379**

(CONSTRUCTION MANAGEMENT AND ADMINISTRATION NOT INCLUDED IN COST ESTIMATE)

SCJ ALLIANCE
CONSULTING SERVICES
8730 TALLON LANE NE, SUITE 200, LACEY, WASHINGTON 98516
P: 360-352-1465 F: 360-352-1509
SCJALLIANCE.COM

Alternate A - Preferred Alternate

South Site Fire Services (West)

Landscape Site	**SQ. FT.**	**QTY.**		**TOTAL**	**DESCRIPTION**
Bed prep/Fine grade	4200	1	LS	$7,500	All Landscape Areas
Amended Topsoil - 8" all planting areas	4200	104	CY	$6,000	
Bed mulch	4200	52	CY	$2,500	3" depth
Site Amentities		1	LS	$5,000	benches, bike racks, flag poles
Irrigation	4200	1	LS	$9,000	All Lawn & planting areas
South Site fire services subtotal				***$30,000***	

South Site Fire Services Plantings	**QTY.**		**TOTAL**	**DESCRIPTION**
Deciduous Tree	7	EA	$3,500	2" CAL., 14-16` HT., B&B
Evergreen Tree	12	EA	$3,500	B&B/ Cont. min. 6' ht.
Evergreen/ deciduous shrub	164	EA	$7,000	5 GAL. CONT. @ 4` O.C.
Groundcover	400	EA	$4,000	1 GAL. CONT. @ 24" O.C.
South Site planting subtotal			***$18,000***	
South Site Landscape total			***$48,000***	
Contingency			*$2,000*	
South Site Fire Services Landscape Total			**$50,000**	*(sales tax not included)*

South Site Admin/ Classroom Option (East)

S Admin Classroom (East) Landscape Site	**SQ. FT.**	**QTY.**		**TOTAL**	**DESCRIPTION**
Bed prep/Fine grade	1600	1	LS	$7,500	All Landscape Areas
Amended Topsoil - 8" all planting areas	1600	40	CY	$2,000	
Bed mulch	1600	20	CY	$2,500	3" depth
Site Amentities		1	LS	$5,000	benches, bike racks, flag poles
Irrigation	1600	1	LS	$4,500	All Lawn & planting areas
S Admin Classroom (East) Site subtotal				***$21,500***	

S Admin Classroom (East) Site Plantings	**QTY.**		**TOTAL**	**DESCRIPTION**
Deciduous Tree	7	EA	$3,500	2" CAL., 14-16` HT., B&B
Evergreen Tree	12	EA	$3,500	B&B/ Cont. min. 6' ht.
Evergreen/ deciduous shrub	164	EA	$7,000	5 GAL. CONT. @ 4` O.C.
Groundcover	500	EA	$5,000	1 GAL. CONT. @ 24" O.C.
S Admin Classroom (East) Site planting subtotal			***$19,000***	
S Admin Classroom (East) Site Landscape total			***$40,500***	
Contingency			*$2,000*	
S Admin Classroom (East) Site Landscape Total			**$42,500**	*(sales tax not included)*

192 Nickerson, Suite 300
Seattle, WA 98109
206 285-2966
www.siderbyers.com

MEMO FOR RECORD

To: RFM Architects **Page:** 1 of 2

Attention: Ron Easterday **Date:** 06/22/2020

Project: BTC FTA **S+BA No.:** 20020

Subject: Cost Budget

Alternate A South Site (Preferred)

Building D Remodel and Addition:

Fire Protection: $300,000
- New Fire Riser: $15,000
- Sprinkler Coverage (Full Building D): $285,000

Plumbing: $180,000
- Fixtures: $55,000
- Piping: $70,000
- Equipment: $40,000
- Accessories: $15,000

HVAC: $490,000
- Equipment: $285,000
- Piping\Ductwork: $90,000
- Accessories: $50,000
- Controls: $35,000
- Testing: $30,000

Excludes: Commissioning

New Classroom Building

Fire Protection: $115,000
- New Fire Riser: $15,000
- Sprinkler Coverage: $100,000

Plumbing: $345,000
- Fixtures: $130,000
- Piping: $150,000
- Equipment: $40,000
- Accessories: $25,000

HVAC: $850,000
- Equipment: $590,000
- Piping\Ductwork: $165,000
- Controls: $50,000
- Testing: $45,000

Excludes: Commissioning

Training Tower

Fire Protection: $60,000
- Training Standpipes: $35,000
- Training Sprinklers: $25,000

Plumbing: $90,000
- LPG Piping: $60,000
- Compressed Air System: $30,000

HVAC: $145,000
- Prop Ventilation: $60,000
- Fog System: $85,000

Excludes: LPG tank, fire props

By: James Whigham, PE

BCE Engineers, Inc.
6021 12th St E, Ste 200
Fife, WA 98424
253.922.0446

Project Number: 220-076
Project Name: BTC - Fire Training Center Pre-Design
Project Status: PRE-DESIGN COST ESTIMATE
Date: 6/8/2020
Prepared by: H. Santos

Item No.	Item Description	Units	Quantity	Labor & Material Price/Unit	Labor & Material Total			Total Item Cost
	SUMMARY OF PREFERRED ALTERNATIVE A: SOUTH CAMPUS							
	ADMIN/CLASSROOM BUILDING - NEW CONSTRUCTION	LS	1	$852,525.00	$852,525.00			$852,525.00
	BUILDING D FIRE TRAINING SUPPORT - RENOVATION/ADDITION	LS	1	$697,375.00	$697,375.00			$697,375.00
	TRAINING TOWER - NEW CONSTRUCTION	LS	1	$264,600.00	$264,600.00			$264,600.00
	ELECTRICAL SITE WORK	LS	1	$254,250.00	$254,250.00			$254,250.00
					Total Sheet Cost			$2,068,750.00

Notes:

Based on current day construction costs. Excludes G.C. OH&P, Bonds, and WSST.

BCE Engineers, Inc.
6021 12th St E, Ste 200
Fife, WA 98424
253.922.0446

Project Number: 220-076
Project Name: BTC - Fire Training Center Pre-Design
Project Status: PRE-DESIGN COST ESTIMATE
Date: 6/8/2020
Prepared by: H. Santos

Item No.	Item Description	Units	Quantity	Labor & Material Price/Unit	Labor & Material Total			Total Item Cost
	ADMIN/CLASSROOM BUILDING - NEW CONSTRUCTION	SF	19100					
1	Mobilization, Submittals, Closeout	SF	19100	$0.50	$9,550.00			$9,550.00
2	Conduit, Wiring & Feeders (with MC Cable)	SF	19100	$13.00	$248,300.00			$248,300.00
3	Devices & Gear	SF	19100	$5.50	$105,050.00			$105,050.00
4	Interior Lighting Fixtures	SF	19100	$7.50	$143,250.00			$143,250.00
5	Lighting Controls	SF	19100	$2.00	$38,200.00			$38,200.00
6	Fire Alarm	SF	19100	$4.00	$76,400.00			$76,400.00
7	Intrusion Alarm	SF	19100	$1.00	$19,100.00			$19,100.00
8	Telecom Infrstructure	SF	19100	$3.50	$66,850.00			$66,850.00
9	DAS System Conduit Rough-ins	LS	19100	$0.75	$14,325.00			$14,325.00
10	Classroom AV System	EA	6	$9,500.00	$57,000.00			$57,000.00
11	Interior CCTV Cameras	EA	6	$3,000.00	$18,000.00			$18,000.00
12	Exterior CCTV Cameras	EA	4	$3,500.00	$14,000.00			$14,000.00
13	Door Card Access System	EA	5	$4,500.00	$22,500.00			$22,500.00
14	Emergency Lighting Inverter	LS	1	$20,000.00	$20,000.00			$20,000.00

Total Sheet Cost $852,525.00

Notes:

1) Includes Mobilzation, Submittals, O&M's, and Project Closeout.

Alternate A - Preferred Alternate

BCE Engineers, Inc.
6021 12th St E, Ste 200
Fife, WA 98424
253.922.0446

Project Number: 220-076
Project Name: BTC - Fire Training Center Pre-Design
Project Status: PRE-DESIGN COST ESTIMATE
Date: 6/8/2020
Prepared by: H. Santos

Item No.	Item Description	Units	Quantity	Labor & Material Price/Unit	Labor & Material Total			Total Item Cost
	BUILDING D FIRE TRAINING SUPPORT - RENOVATION/ADDITION	SF	16500					
1	Mobilization, Submittals, Closeout	SF	16,500	$0.50	$8,250.00			$8,250.00
2	Demolition	SF	14,500	$1.25	$18,125.00			$18,125.00
3	Conduit, Wiring & Feeders (with MC Cable)	SF	16500	$13.50	$222,750.00			$222,750.00
4	Devices & Gear	SF	16500	$5.50	$90,750.00			$90,750.00
5	Interior Lighting Fixtures	SF	16500	$7.50	$123,750.00			$123,750.00
6	Lighting Controls	SF	16500	$2.00	$33,000.00			$33,000.00
7	Fire Alarm	SF	16500	$4.00	$66,000.00			$66,000.00
8	Intrusion Alarm	SF	16500	$1.00	$16,500.00			$16,500.00
9	Telecom Infrstructure	SF	16500	$3.50	$57,750.00			$57,750.00
10	Classroom AV System	EA	1	$9,500.00	$9,500.00			$9,500.00
11	Interior CCTV Cameras	EA	4	$3,000.00	$12,000.00			$12,000.00
12	Exterior CCTV Cameras	EA	3	$3,500.00	$10,500.00			$10,500.00
13	Door Card Access System	EA	3	$4,500.00	$13,500.00			$13,500.00
14	Emergency Lighting Inverter	LS	1	$15,000.00	$15,000.00			$15,000.00

Total Sheet Cost $697,375.00

Notes:

1) Includes Mobilzation, Submittals, O&M's, and Project Closeout.

Same Scope for Alternate A and Alternate B

BCE Engineers, Inc.
6021 12th St E, Ste 200
Fife, WA 98424
253.922.0446

Project Number: 220-076
Project Name: BTC - Fire Training Center Pre-Design
Project Status: PRE-DESIGN COST ESTIMATE

Date: 6/8/2020
Prepared by: H. Santos

Item No.	Item Description	Units	Quantity	Labor & Material Price/Unit	Labor & Material Total			Total Item Cost
	TRAINING TOWER - NEW CONSTRUCTION	SF	18900					
1	Mobilization, Submittals, Closeout	SF	18900	$0.25	$4,725.00			$4,725.00
2	Conduit, Wiring & Feeders (with MC Cable)	SF	18900	$9.00	$170,100.00			$170,100.00
3	Devices & Gear	SF	18900	$2.00	$37,800.00			$37,800.00
4	Interior Lighting Fixtures	SF	18900	$2.50	$47,250.00			$47,250.00
5	Lighting Controls	SF	18900	$0.25	$4,725.00			$4,725.00
6								
7								
8								
9								
10								
11								
12								
13								
14								

Total Sheet Cost $264,600.00

Notes:

1) Includes Mobilzation, Submittals, O&M's, and Project Closeout.

Alternate A - Preferred Alternate

BCE Engineers, Inc.
6021 12th St E, Ste 200
Fife, WA 98424
253.922.0446

Project Number:	220-076	Date:	6/8/2020
Project Name:	BTC - Fire Training Center Pre-Design	Prepared by:	
Project Status:	PRE-DESIGN COST ESTIMATE		H. Santos

Item No.	Item Description	Units	Quantity	Labor & Material Price/Unit	Labor & Material Total			Total Item Cost
	Electrical Site Work							
1	New Admin/Classroom Building - Site Telecom/Security Underground Infrastructure to existing building A	LF	650	$35.00	$22,750.00			$22,750.00
2	New Admin/Classroom Building - Site Fire Alarm Underground Infrastructure to existing building A	LS	1	$10,000.00	$10,000.00			$10,000.00
3	New Admin/Classroom Building Site - Underground Primary Power to existing building A pad mounted transformer.	LF	500	$65.00	$32,500.00			$32,500.00
4	New Admin/Classroom Building Site - Telecom Vault	LS	1	$10,000.00	$10,000.00			$10,000.00
5	New Admin/Classroom Building Site - Primary Vault	LS	1	$10,000.00	$10,000.00			$10,000.00
6	New Admin/Classroom Building Site - New building service pad mounted transformer	LS	1	$45,000.00	$45,000.00			$45,000.00
7	Training Tower - Underground Infrastructur	LS	1	$10,500.00	$10,500.00			$10,500.00
8	New Parking Lot Pole Lighting	EA	2	$6,500.00	$13,000.00			$13,000.00
9	Training Tower - Site Pole Lighting	EA	9	$6,500.00	$58,500.00			$58,500.00
10	New Admin/Classroom Building Pedestrian Site Lighitng	EA	6	$7,000.00	$42,000.00			$42,000.00
11								
12								
13								
14								

Total Sheet Cost $254,250.00

Notes:

1) Includes Mobilzation, Submittals, O&M's, and Project Closeout.

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated July 2019

Agency	Bates Technical College
Project Name	Fire Training Center Alt B
OFM Project Number	

Contact Information	
Name	
Phone Number	
Email	

Statistics			
Gross Square Feet	53,500	MACC per Square Foot	$430
Usable Square Feet	44,687	Escalated MACC per Square Foot	$460
Space Efficiency	83.5%	A/E Fee Class	B
Construction Type	College classroom facilit	A/E Fee Percentage	7.04%
Remodel	No	Projected Life of Asset (Years)	
Additional Project Details			
Alternative Public Works Project	Yes	Art Requirement Applies	Yes
Inflation Rate	3.18%	Higher Ed Institution	Yes
Sales Tax Rate %	10.20%	Location Used for Tax Rate	Tacoma
Contingency Rate	5%		
Base Month	July-20		
Project Administered By	DES		

Schedule			
Predesign Start	July-19	Predesign End	August-20
Design Start	September-20	Design End	January-22
Construction Start	February-22	Construction End	July-23
Construction Duration	17 Months		

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Project Cost Estimate

Total Project	**$32,812,455**	Total Project Escalated	**$35,097,931**
		Rounded Escalated Total	**$35,098,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated July 2019

Agency	Bates Technical College
Project Name	Fire Training Center Alt B
OFM Project Number	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$214,303		
A/E Basic Design Services	$0		
Extra Services	$602,500		
Other Services	$0		
Design Services Contingency	$40,840		
Consultant Services Subtotal	**$857,643**	**Consultant Services Subtotal Escalated**	**$877,789**

Construction			
GC/CM Risk Contingency	$1,149,449		
GC/CM or D/B Costs	$2,187,001		
Construction Contingencies	$1,149,449	Construction Contingencies Escalated	$1,235,084
Maximum Allowable Construction Cost (MACC)	$22,988,990	Maximum Allowable Construction Cost (MACC) Escalated	$24,619,220
Sales Tax	$2,802,439	Sales Tax Escalated	$3,002,811
Construction Subtotal	**$28,274,829**	**Construction Subtotal Escalated**	**$30,290,445**

Equipment			
Equipment	$2,456,340		
Sales Tax	$250,547		
Non-Taxable Items	$0		
Equipment Subtotal	**$2,706,887**	**Equipment Subtotal Escalated**	**$2,908,551**

Artwork			
Artwork Subtotal	**$123,096**	**Artwork Subtotal Escalated**	**$123,096**

Agency Project Administration			
Agency Project Administration Subtotal	$0		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$200,000**	**Project Administation Subtotal Escalated**	**$214,900**

Other Costs			
Other Costs Subtotal	**$650,000**	**Other Costs Subtotal Escalated**	**$683,150**

Project Cost Estimate

Total Project	**$32,812,455**	Total Project Escalated	**$35,097,931**
		Rounded Escalated Total	**$35,098,000**

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study	$214,303			
Other				
Insert Row Here				
Sub TOTAL	**$214,303**	**1.0053**	**$215,439**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$1,172,549			69% of A/E Basic Services
A/E Basic Design Services carried on construction tab	-$1,172,549			
Insert Row Here				
Sub TOTAL	**$0**	**1.0265**	**$0**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$0			
Geotechnical Investigation	$60,000			
Commissioning	$75,000			
Site Survey	$35,000			
Testing	$95,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)	$30,000			
Landscape Consultant				
Honorarium	$225,000			
Advertising	$2,500			
Traffic analysis	$20,000			
SEPA/Land Use	$30,000			
Hazmat Testing	$10,000			
Parking Analysis	$10,000			
Elevator Consultant	$10,000			
Insert Row Here				
Sub TOTAL	**$602,500**	**1.0265**	**$618,467**	Escalated to Mid-Design

4) Other Services				
Bid/Construction/Closeout	$526,797			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Bid/Construction/Closeout carried on Construction Tab	-$526,797			
Insert Row Here				
Sub TOTAL	**$0**	**1.0745**	**$0**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$40,840			
Other				
Insert Row Here				
Sub TOTAL	**$40,840**	**1.0745**	**$43,883**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$857,643**		**$877,789**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$961,055			
G20 - Site Improvements	$1,634,437			
G30 - Site Mechanical Utilities	$466,641			
G40 - Site Electrical Utilities	$296,412			
G60 - Other Site Construction				
Other				
OTHER				
Insert Row Here				
Sub TOTAL	**$3,358,545**	**1.0510**	**$3,529,831**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention	$0			
Civil Consultant	$100,000			
Landscape Design	$50,000			
Sub TOTAL	**$150,000**	**1.0510**	**$157,650**	
3) Facility Construction				
A10 - Foundations	$943,399			
A20 - Basement Construction	$0			
B10 - Superstructure	$3,412,647			
B20 - Exterior Closure	$2,539,452			
B30 - Roofing	$732,708			
C10 - Interior Construction	$1,621,790			
C20 - Stairs	$484,495			
C30 - Interior Finishes	$1,112,453			
D10 - Conveying	$109,250			
D20 - Plumbing Systems	$899,300			
D30 - HVAC Systems	$2,156,251			
D40 - Fire Protection Systems	$267,950			
D50 - Electrical Systems	$1,988,236			
F10 - Special Construction	$0			
F20 - Selective Demolition	$0			
General Conditions				
General Conditions/Reimbursables	$784,639			
Envelope Consultant	$40,000			
Interior Design	$50,000			
Acoustic Design	$40,000			
Security Consultant	$30,000			
Audio Visual Consultant	$50,000			
Cost and Scheduling				Part of D/B serives
Value Engineering Participation				Part of D/B serives
Environmental Graphics/Signage	$40,000			
Lighting Consultant	$35,000			
Materials/Equip/Lab Consultant	$35,000			
Door Hardware Consultant	$12,000			

LEED Services	$40,000			
Bonds & Insurance of Construction Only- 2.5%	$510,278			
A/E Basic Design Services	$1,030,862			
Bid/Construction Closeout	$439,735			
Fire Tower Specialist	$75,000			
Insert Row Here				
Sub TOTAL	**$19,480,445**	**1.0745**	**$20,931,739**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$22,988,990**		**$24,619,220**	

5) GCCM Risk Contingency				
GCCM Risk Contingency	$1,149,449			
Other				
Insert Row Here				
Sub TOTAL	**$1,149,449**	**1.0745**	**$1,235,084**	
6) GCCM or Design Build Costs				
GCCM Fee	$816,445			
Bid General Conditions	$1,020,556			
GCCM Preconstruction Services	$350,000			
Other				
Insert Row Here				
Sub TOTAL	**$2,187,001**	**1.0745**	**$2,349,933**	
7) Construction Contingency				
Allowance for Change Orders	$1,149,449			
Other				
Insert Row Here				
Sub TOTAL	**$1,149,449**	**1.0745**	**$1,235,084**	
8) Non-Taxable Items				
Other	-$2,781,668			Design Build Effeciencies
Insert Row Here				
Sub TOTAL	**-$2,781,668**	**1.0745**	**-$2,988,903**	
Sales Tax				
Sub TOTAL	**$2,802,439**		**$3,002,811**	
CONSTRUCTION CONTRACTS TOTAL	**$27,495,661**		**$29,453,229**	

Green cells must be filled in by user

Cost Estimate Details

Equipment				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment	$1,188,340			
E20 - Furnishings	$519,000			
F10 - Special Construction				
IT Equpment/Computers/Printers	$519,000			
Private Offices	$55,000			
				Tables and chairs, $/seat
Conference /Meeting Rooms	$75,000			Tables and charis $/seat
Lounge and Gathering Spaces Allownace	$100,000			
Insert Row Here				
Sub TOTAL	**$2,456,340**	**1.0745**	**$2,639,338**	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0745**	**$0**	
Sales Tax				
Sub TOTAL	**$250,547**		**$269,213**	
EQUIPMENT TOTAL	**$2,706,887**		**$2,908,551**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of Escalated MACC for new construction
Higher Ed Artwork	$123,096				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$123,096**		**NA**	**$123,096**	

Green cells must be filled in by user

Cost Estimate Details

Project Management				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$779,641			
Additional Services				
Other				
BTC - Project Manager	$200,000			
Insert Row Here				
PROJECT MANAGEMENT TOTAL	**$979,641**	**1.0745**	**$1,052,625**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Other					
Relocating/Moving Costs	$150,000				
Permit and Plan Review Fees	$500,000				
Insert Row Here					
OTHER COSTS TOTAL	**$650,000**		**1.0510**	**$683,150**	

Green cells must be filled in by user

C-100(2019)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
E-10 Equipment - Fire Training Equipment: (4) Class B (Gas) Live Fire Training Props and thermal linings for (4) live fire rooms;
(2) Extractors; (1) 6,000 psi SCBA Compressor, air dryer, and (2) 4-drawer bottle fill stations; (1) SCBA/Equipment Washer.
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

RLB Robinson

BTC FIRE TRAINING CENTER ALTERNATE B NORTH SITE
PRE-DESIGN ESTIMATE SUMMARY
June 23, 2020

	Areas				$/area
NEW BUILDING	34,600	sf	$	15,097,623	
FIRE TRAINING BURN BLDG	18,900	SF	$	4,528,853	
General Conditions-Reimbursables	1	ls	$	784,638	
Total Direct Costs			**$**	**20,411,114**	589.92
Indirect Costs					
D/B Risk Contingency	5.00%		$	1,020,556	
Subtotal			**$**	**1,020,556**	
D/B Fee (MACC)	4.00%		$	816,445	
D/B Pre-Construction Services			$	350,000	
Specified General Conditions			$	1,020,556	
Subtotal			**$**	**2,187,000**	
Change Order Contingency	5.00%		$	1,020,556	
Total Guaranteed Maximum Price			**$**	**24,639,226**	712.12

BTC FIRE TRAINING CENTER

ALTERNATE B - NORTH SITE

NORTH CLASSROOM/BURN BLDG COMBINED

Rates Current At June 2020

Description		Total Cost
A10	Foundations	$943,399
B10	Superstructure	$3,412,647
B20	Exterior Enclosure	$2,539,452
B30	Roofing	$732,708
C10	Interior Construction	$1,621,790
C20	Stairs	$484,495
C30	Interior Finishes	$1,112,453
D10	Conveying	$109,250
D20	Plumbing	$899,300
D30	HVAC	$2,156,251
D40	Fire Protection	$267,950
D50	Electrical	$1,988,236
G10	Site Preparations	$961,055
G20	Site Improvements	$1,634,437
G30	Site Civil/Mechanical Utilities	$466,641
G40	Site Electrical Utilities	$296,412
Z10	General Conditions	$784,639
	ESTIMATED TOTAL COST	$20,411,115

BTC FIRE TRAINING CENTER

ALTERNATE B NORTH SITE

CLASSROOM BLDG'S

Gross Floor Area-N: 34,600 SF
Rates Current At June 2020

Description		Cost/SF	Total Cost
A10	Foundations	$20.06	$694,182
B10	Superstructure	$43.11	$1,491,458
B20	Exterior Enclosure	$53.09	$1,836,948
B30	Roofing	$18.89	$653,715
C10	Interior Construction	$34.17	$1,182,133
C20	Stairs	$2.56	$88,550
C30	Interior Finishes	$29.32	$1,014,645
D10	Conveying	$3.16	$109,250
D20	Plumbing	$23.00	$795,800
D30	HVAC	$57.50	$1,989,501
D40	Fire Protection	$5.75	$198,950
D50	Electrical	$48.67	$1,683,946
G10	Site Preparations	$27.78	$961,055
G20	Site Improvements	$47.24	$1,634,437
G30	Site Civil/Mechanical Utilities	$13.49	$466,641
G40	Site Electrical Utilities	$8.57	$296,412
Z10	General Conditions	$22.68	$784,639
	ESTIMATED TOTAL COST	$459.02	$15,882,262

BTC FIRE TRAINING CENTER

ALTERNATE B - NORTH SITE

BTC NORTH SITE DETAIL

Gross Floor Area-N: 34,600 SF
Rates Current At June 2020

	Description	Unit	Qty	Rate	Total Cost
A10	**Foundations**				
9	Concrete foundation	SF	20,700	17.25	357,075
10	Perimeter footing drains	LF	686	25.30	17,356
13	App bay slab on grade-8" w/rebar/capillary break/vb	SF	6,400	13.80	88,320
17	Slab on grade-4" w/rebar/capillary break/vb	SF	14,300	9.77	139,782
18	Add for grade/prep subgrade	SF	20,700	0.98	20,234
346	Standard foundation excavation/backfill	SF	20,700	3.45	71,415
	Foundations			***$20.06/SF***	***$694,182***
B10	**Superstructure**				
24	Composite floor structure complete	SF	13,900	55.20	767,280
30	Roof structure-including covered work area	SF	22,490	32.20	724,178
	Superstructure			***$43.11/SF***	***$1,491,458***
B20	**Exterior Enclosure**				
32	Add for detail framing/headers	SF	5,511	10.35	57,039
33	Add for ledger steel/reinforcing	SF	6,430	4.60	29,578
45	Exterior flashing/caulking/trim-gross envelope	SF	18,370	4.02	73,939
46	Exterior framed wall system	SF	12,859	29.90	384,484
48	Metal siding system	SF	6,430	46.00	295,780
49	Brick Veneer-w/sealer	SF	6,430	43.70	280,991
50	Allow for subshades/fetaures @ openings	LS	1	57,500.00	57,500
55	Exterior glazing	SF	5,511	89.70	494,337
56	Exterior doors-allow	EA	10	3,105.00	31,050
61	Misc hdwre/ADA/security	LS	1	17,250.00	17,250
62	App bay OH doors	EA	8	14,375.00	115,000
	Exterior Enclosure			***$53.09/SF***	***$1,836,948***
B30	**Roofing**				
63	Fall protection system	SF	22,490	0.86	19,398
75	Membrane roofing system	SF	22,490	22.42	504,338
76	Roof expansion/seismic joint	LF	80	155.25	12,420
77	Misc roof accessories/ladders/hatches	LS	1	17,250.00	17,250
78	Sheet metal coping	LF	775	46.00	35,650
79	Misc flashing/sealants/drainage	SF	22,490	2.88	64,659
	Roofing			***$18.89/SF***	***$653,715***
C10	**Interior Construction**				
86	Interior partitions- classrooms/admin	SF	24,612	16.73	411,821

BTC FIRE TRAINING CENTER

ALTERNATE B - NORTH SITE

BTC NORTH SITE DETAIL

Gross Floor Area-N: 34,600 SF
Rates Current At June 2020

	Description		Unit	Qty	Rate	Total Cost
87	Rated shaft/separation walls		SF	2,825	23.35	65,950
88	Int. vestibule/storefront glazing		SF	170	86.25	14,662
89	Misc- added gwb/caulking/backing		SF	27,437	0.58	15,777
92	New interior doors/frames/hdwre		EA	43	2,415.00	103,845
93	Interior vestibule storefront door pairs/hdwre		Pair	1	9,775.00	9,775
94	misc hdwre/ADA/ratings		LS	1	17,250.00	17,250
95	Interior relites- allowance		SF	500	86.25	43,125
101	RR/Toilet accessories		LS	1	20,930.00	20,930
103	Misc specialties		SF	34,600	4.03	139,265
134	Residential appliances-allow		LS	1	11,500.00	11,500
135	Projection screens-operable		EA	9	1,725.00	15,525
141	Window coverings		SF	5,185	13.80	71,553
142	Misc. casework/finish carpentry allowance		SF	34,600	5.18	179,055
143	Display cabinets-allow		LS	1	11,500.00	11,500
144	Bunker room storage-allow		EA	80	632.50	50,600
		Interior Construction			***$34.17/SF***	***$1,182,133***
C20	**Stairs**					
106	New stairs/railings		EA	2	40,250.00	80,500
107	Ships ladder to roof hatch		EA	1	8,050.00	8,050
		Stairs			***$2.56/SF***	***$88,550***
C30	**Interior Finishes**					
108	Wall finishes allowance @ new work		SF	34,600	10.35	358,110
111	Floor Finishes allowance		SF	34,600	9.20	318,320
113	Ceiling finishes allowance		SF	34,600	9.78	338,215
		Interior Finishes			***$29.32/SF***	***$1,014,645***
D10	**Conveying**					
116	2 stop hydraulic elevator		LS	1	109,250.00	109,250
		Conveying			***$3.16/SF***	***$109,250***
D20	**Plumbing**					
119	Plumbing-per Sider/Byer		SF	34,600	23.00	795,800
		Plumbing			***$23.00/SF***	***$795,800***
D30	**HVAC**					
123	HVAC @ addition-per Sider/Byer		SF	34,600	57.50	1,989,501
		HVAC			***$57.50/SF***	***$1,989,501***

BTC FIRE TRAINING CENTER

ALTERNATE B - NORTH SITE

BTC NORTH SITE DETAIL

Gross Floor Area-N: 34,600 SF
Rates Current At June 2020

	Description	Unit	Qty	Rate	Total Cost
D40	**Fire Protection**				
127	Fire suppression-per Sider/Byer	SF	34,600	5.75	198,950
	Fire Protection			***$5.75/SF***	***$198,950***
D50	**Electrical**				
129	Electrical @ North training tower- per BCE	LS		228,200.00	
132	Electrical @ North Campus- per BCE	LS	1	1,683,946.00	1,683,946
	Electrical			***$48.67/SF***	***$1,683,946***
G10	**Site Preparations**				
149	Site mob/prep/demo- per SCJ	LS	1	343,505.00	343,505
150	Temporay erosion control/maintenance	LS	1	40,250.00	40,250
152	Earthwork/Grading- per SCJ	LS	2	288,650.00	577,300
	Site Preparations			***$27.78/SF***	***$961,055***
G20	**Site Improvements**				
154	Asphalt & surfacing- per SCJ	LS	1	131,675.00	131,675
157	Off-site improvements- per SCJ	LS	1	175,375.00	175,375
158	On-site improvements- per SCJ	LS	1	1,162,362.00	1,162,362
161	Chain link fencing-allow	LF	850	69.00	58,650
163	Landscaping/Irrigation- per SCJ	LS	1	106,375.00	106,375
	Site Improvements			***$47.24/SF***	***$1,634,437***
G30	**Site Civil/Mechanical Utilities**				
164	Water system rework/connection- per SCJ	LS	1	182,189.00	182,189
167	Sanitary sewer rework/connection- per SCJ	LS	1	10,177.00	10,177
169	Storm drainage/collection- per SCJ	LS	1	154,675.00	154,675
171	Site fire training prop infrastructure allowance	LS	1	115,000.00	115,000
172	Gas/Power lines-per SCJ	LS	1	4,600.00	4,600
	Site Civil/Mechanical Utilities			***$13.49/SF***	***$466,641***
G40	**Site Electrical Utilities**				
175	Site electrical-per BCE	LS	1	296,412.00	296,412
	Site Electrical Utilities			***$8.57/SF***	***$296,412***
Z10	**General Conditions**				
336	General Conditions	LS	1	784,639.00	784,639
	General Conditions			***$22.68/SF***	***$784,639***
	ESTIMATED NET COST			***$459.02/SF***	***$15,882,262***

BTC FIRE TRAINING CENTER

ALTERNATE B - NORTH SITE

BTC FIRE TRAINING BURN BLDG SUMMARY

Gross Floor Area towers: 18,900 SF
Rates Current At June 2020

Description		Cost/SF	Total Cost
A10	Foundations	$13.19	$249,217
B10	Superstructure	$101.65	$1,921,189
B20	Exterior Enclosure	$37.17	$702,504
B30	Roofing	$4.18	$78,993
C10	Interior Construction	$23.26	$439,657
C20	Stairs	$20.95	$395,945
C30	Interior Finishes	$5.18	$97,808
D20	Plumbing	$5.48	$103,500
D30	HVAC	$8.82	$166,750
D40	Fire Protection	$3.65	$69,000
D50	Electrical	$16.10	$304,290
	ESTIMATED TOTAL COST	$239.62	$4,528,853

BTC FIRE TRAINING CENTER

ALTERNATE B - NORTH SITE

BURN BLDG DETAIL

Gross Floor Area towers: 18,900 SF
Rates Current At June 2020

Description		Unit	Qty	Rate	Total Cost
A10	**Foundations**				
4	Standard foundation excavation/backfill	SF	4,200	5.75	24,150
5	Concrete foundation	SF	4,200	17.25	72,450
6	Perimeter footing drains	LF	380	25.30	9,614
7	Add for Mat slabs @ stair towers	SF	1,812	46.00	83,352
15	Add for grade/prep subgrade	SF	4,200	0.98	4,106
16	Slab on grade-6" w/rebar/capillary break/vb	SF	4,200	13.23	55,545
	Foundations			***$13.19/SF***	***$249,217***
B10	**Superstructure**				
21	CIP floor structure complete-includes balconies/slopes	SF	18,900	41.40	782,459
22	CIP 8' reinforced walls @ stair towers	SF	10,224	55.20	564,365
23	CIP 8' reinforced shearwalls	SF	5,600	55.20	309,120
27	CIP roof structure complete	SF	5,018	41.40	207,745
28	Freestanding carport	SF	600	57.50	34,500
29	Freestanding roof canopy	SF	400	57.50	23,000
	Superstructure			***$101.65/SF***	***$1,921,189***
B20	**Exterior Enclosure**				
41	8" CMU- mix of splitface & groundface	SF	11,305	36.80	416,024
42	Add for ledger steel/reinforcing	SF	11,860	4.60	54,556
43	Louvers-allow	EA	6	1,035.00	6,210
44	Finish/seal conc/CMU walls	SF	27,129	2.88	77,996
53	Ext steelplate window/shutters-w SS hdwre/thrubolts	EA	37	2,415.00	89,355
54	Ext steelplate storefront panels	LS	1	4,600.00	4,600
60	Ext steelplate doors/plate frame-w SS hdwre/thrubolts	EA	17	3,162.53	53,763
	Exterior Enclosure			***$37.17/SF***	***$702,504***
B30	**Roofing**				
70	Roof Ladders	EA	2	4,600.00	9,200
71	non slip conc sealer @ roof deck	SF	5,018	3.45	17,312
72	Misc roof accessories/drainage/openings	SF	5,018	2.30	11,541
73	Drains/scuppers/downspouts-roof/floor decks	LS	1	40,940.00	40,940
	Roofing			***$4.18/SF***	***$78,993***
C10	**Interior Construction**				
85	CMU partitions	SF	8,320	32.20	267,904
96	Int steelplate doors/plate frame-w SS hdwre/thrubolts	EA	44	3,162.50	139,150

BTC FIRE TRAINING CENTER

ALT #2 NORTH SITE

BURN BLDG DETAIL

Gross Floor Area towers: 18,900 SF
Rates Current At June 2020

	Description		Unit	Qty	Rate	Total Cost
102	Misc specialities/tie offs/anchors		SF	18,900	1.73	32,603
		Interior Construction			***$23.26/SF***	***$439,657***
C20	**Stairs**					
104	Ext railings-galvanized pipe		SF	420	189.75	79,695
105	Galvanized steel stairs/conc filled-rails included		Flight	10	31,625.00	316,250
		Stairs			***$20.95/SF***	***$395,945***
C30	**Interior Finishes**					
115	Fiinish/seal concrete/CMU walls/decks-int		SF	18,900	5.18	97,808
		Interior Finishes			***$5.18/SF***	***$97,808***
D20	**Plumbing**					
118	Plumbing -per Sider/Byer		LS	1	103,500.00	103,500
		Plumbing			***$5.48/SF***	***$103,500***
D30	**HVAC**					
122	HVAC -per Sider/Byer		LS	1	166,750.00	166,750
		HVAC			***$8.82/SF***	***$166,750***
D40	**Fire Protection**					
126	Fire suppression -per Sider/Byer		LS	1	69,000.00	69,000
		Fire Protection			***$3.65/SF***	***$69,000***
D50	**Electrical**					
129	Electrical @ North training tower- per BCE		LS		228,200.00	
131	Electrical @ South training tower- per BCE		LS	1	304,290.00	304,290
		Electrical			***$16.10/SF***	***$304,290***
		ESTIMATED NET COST			***$239.62/SF***	***$4,528,853***

SCJ ALLIANCE
CONSULTING SERVICES

BATES TECHNICAL COLLEGE FIRE SERVICE TRAINING CENTER
CIVIL PRE-DESIGN COST ESTIMATE

ITEM #	DESCRIPTION	UNIT	UNIT PRICE	QTY.	SUBTOTAL
	PREPARATION/EROSION CONTROL/DEMO				
1	MOBILIZATION	L.S.	$200,000	1	$200,000
2	CLEARING AND GRUBBING	L.S.	$10,000	1	$10,000
3	EROSION CONTROL	L.S.	$20,000	1	$20,000
4	SAWCUT	L.F.	$5	1,250	$6,250
5	REMOVE EXISTING POWER POLE/LIGHT	EA	$500	4	$2,000
6	REMOVE EXISTING STORM STRUCTURE	EA	$150	3	$450
7	ASPHALT REMOVAL	S.Y.	$15	4,000	$60,000
					$298,700
	GRADING				
8	SITE EARTHWORK CUT (Haul off-site)	C.Y.	$45	3,500	$157,500
9	SITE EARTHWORK FILL (Imported Fill)	C.Y.	$35	2,500	$87,500
10	EARTHWORK CUT (Stockpile On-Site)	C.Y.	$12	500	$6,000
					$251,000
	ASPHALT AND SURFACING				
11	HMA CL. 1/2" PG-64-22	TON	$120	750	$90,000
12	CRUSHED SURFACING BASE COURSE	TON	$35	700	$24,500
					$114,500
	OFF-SITE IMPROVEMENTS				
13	CONCRETE SIDEWALK	S.Y.	$55	700	$38,500
14	DRIVEWAY ENTRANCE	EACH	$25,000	3	$75,000
15	CURB RAMP	EACH	$6,500	6	$39,000
					$152,500
	ON-SITE IMPROVEMENTS				
16	CONCRETE SIDEWALK	S.Y.	$55	50	$2,750
17	CONCRETE PAVING W/ REINFORCING	S.Y.	$110	7,950	$874,500
18	PAVEMENT MARKINGS	L.S.	$8,000	1	$8,000
19	PERMANENT SIGNING	L.S.	$5,500	1	$5,500
20	DRAFTING PIT	L.S.	$45,000	1	$45,000
21	ILLUMINATION SYSTEM	L.S.	$75,000	1	$75,000
					$1,010,750
	STORM DRAINAGE				
22	BELOW-GRADE INFILTRATION GALLERIES	EACH	$25,000	2	$50,000
23	WATER QUALITY IMPROVEMENTS	EACH	$20,000	2	$40,000
24	STORMWATER PRE-TREATMENT	EACH	$10,000	1	$10,000
23	12-INCH STORM DRAIN	L.F.	$50	50	$2,500
24	6-INCH ROOF DRAIN	L.F.	$20	725	$14,500
25	TYPE 1 CATCH BASIN	EACH	$2,500	5	$12,500
26	CONNECT TO EXISTING STORM SYSTEM	EACH	$2,500	2	$5,000
					$134,500
	WATER & SANITARY SEWER				
27	CONNECT TO EXISTING WATER SYSTEM	EACH	$3,500	6	$21,000
28	8-INCH CL 52 D.I. WATER MAIN	L.F.	$75	1,175	$88,125
28	6" WATER LINE	L.F.	$60	140	$8,400
29	3" WATER LINE	L.F.	$40	35	$1,400
30	3" WATER METER & SERVICE COMPLETE	L.S.	$7,500	1	$7,500
31	3" REDUCE PRESSURE BACKFLOW ASSEMBLY	EACH	$6,500	1	$6,500
32	FIRE DEPARTMENT CONNECTION	EACH	$2,500	1	$2,500
33	POST INDICATOR VALVE	EACH	$2,500	1	$2,500
34	FIRE HYDRANT ASSEMBLY	EACH	$4,500	4	$18,000
35	TEES AND APPURTENANCES	L.S.	$2,500	1	$2,500
36	CONNECT TO EXISTING SEWER SYSTEM	EACH	$3,500	1	$3,500
37	6-INCH SANITARY SEWER MAIN	L.F.	$55	50	$2,750
38	CLEANOUT	EACH	$650	4	$2,600
39	GAS LINE	L.F.	$20	100	$2,000
40	POWER LINE	L.F.	$20	100	$2,000
					$171,275
	SUBTOTAL				**$2,133,225**
	CONSTRUCTION CONTINGENCY 15%				**$319,984**
	TOTAL ESTIMATED PROBABLE CONSTRUCTION COST				**$2,453,209**

(CONSTRUCTION MANAGEMENT AND ADMINISTRATION NOT INCLUDED IN COST ESTIMATE)

SCJ ALLIANCE
CONSULTING SERVICES
8730 TALLON LANE NE, SUITE 200, LACEY, WASHINGTON 98516
P: 360-352-1465 F: 360-352-1509
SCJALLIANCE.COM

LANDSCAPE COST ESTIMATE

Project: BTC FIRE SERVICE CENTER — Project No.: 1821.09
Schematic Construction Costs — 12-Jun-20

NORTH SITE OPTION

Landscape Site	**SQ. FT.**	**QTY.**		**TOTAL**	**DESCRIPTION**
Bed prep/Fine grade	6000	1	LS	$7,500	All Landscape Areas
Amended Topsoil - 8" all planting areas	3573	89	CY	$4,000	
Amended Topsoil - 2" all lawn areas	2400	1	LS	$2,000	Including repair of storm install
Hydroseed	6630	1	LS	$7,000	
Bed mulch	3573	44	CY	$2,500	3" depth
Site Amentities		1	LS	$5,000	benches, garbage, bollards
Irrigation	6000	1	LS	$12,000	All Lawn & planting areas
North Site Landscape subtotal				***$40,000***	

North Site plantings				
	QTY.		**TOTAL**	**DESCRIPTION**
Deciduous Tree	6	EA	$3,000	2" CAL., 14-16` HT., B&B
EVERGREEN TREE	7	EA	$2,000	B&B/ Cont. min. 6' ht.
Evergreen/ deciduous shrub	119	EA	$5,000	5 GAL. CONT. @ 4` O.C.
GROUNDCOVER MASS	150	EA	$1,500	1 GAL. CONT. @ 24" O.C.
North Site Plantings subtotal			***$11,500***	

Contingency	*$14,000*	
Phase 0 South Parking Total	**$65,500**	*(sales tax not included)*

NORTHWEST PARKING AREA Same Scope for Alternate A and Alternate B

Landscape Site	**SQ. FT.**	**QTY.**		**TOTAL**	**DESCRIPTION**
Bed prep/Fine grade	3900	1	LS	$2,000	All Landscape Areas
Amended Topsoil - 8" all planting areas	3900	100	CY	$5,000	
Planter Island Backfill	1271	10	CY	$500	for berming
Bed mulch	3900	40	CY	$2,000	3" depth
Site Amentities		1	LS	$1,000	benches, bike racks, flag poles
Irrigation	3900	1	LS	$6,000	All Lawn & planting areas
NW Parking Site Subtotal				***$16,500***	

NWParking Plantings	**SQ. FT.**	**QTY.**		**TOTAL**	**DESCRIPTION**
Evergreen Tree		6	EA	$2,500	B&B/ Cont. min. 6' ht.
Evergreen/ deciduous shrub		48	EA	$1,500	5 GAL. CONT. @ 4` O.C.
Groundcover		200	EA	$2,000	1 GAL. CONT. @ 24" O.C.
NW Parking Plant subtotal				***$6,000***	
NW Parking Landscape Total				***$22,500***	

Contingency	*$4,500*	
NW Parking Total	**$27,000**	*(sales tax not included)*

192 Nickerson, Suite 300
Seattle, WA 98109
206 285-2966
www.siderbyers.com

MEMO FOR RECORD

To: RFM Architects

Page: 1 of 1

Attention: Ron Easterday

Date: 06/22/2020

Project: BTC FTA

S+BA No.: 20020

Subject: Cost Budget

Alternate B North Site

Fire Protection: $5/SF
Plumbing: $20/SF
HVAC: $50/SF
Excludes: Commissioning

By: James Whigham, PE

BCE Engineers, Inc.
6021 12th St E, Ste 200
Fife, WA 98424
253.922.0446

Project Number:	220-076	Date:	6/16/2020
Project Name:	BTC - Fire Training Center Pre-Design	Prepared by:	
Project Status:	PRE-DESIGN COST ESTIMATE		H. Santos

Item No.	Item Description	Units	Quantity	Labor & Material Price/Unit	Labor & Material Total			Total Item Cost
	SUMMARY OF ALTERNATIVE B: NORTH CAMPUS							
	NEW FIRE TRAINING BUILDING - NEW CONSTRUCTION	LS	1	$1,464,300.00	$1,464,300.00			$1,464,300.00
	TRAINING TOWER - NEW CONSTRUCTION	LS	1	$264,600.00	$264,600.00			$264,600.00
	ELECTRICAL SITE WORK	LS	1	$257,750.00	$257,750.00			$257,750.00
						Total Sheet Cost		$1,986,650.00

Notes:

Based on current day construction costs. Excludes G.C. OH&P, Bonds, and WSST.

Diagrams, Drawings & Room Data Sheets 06

Predesign
State Project No. 2020-213
July 27, 2020

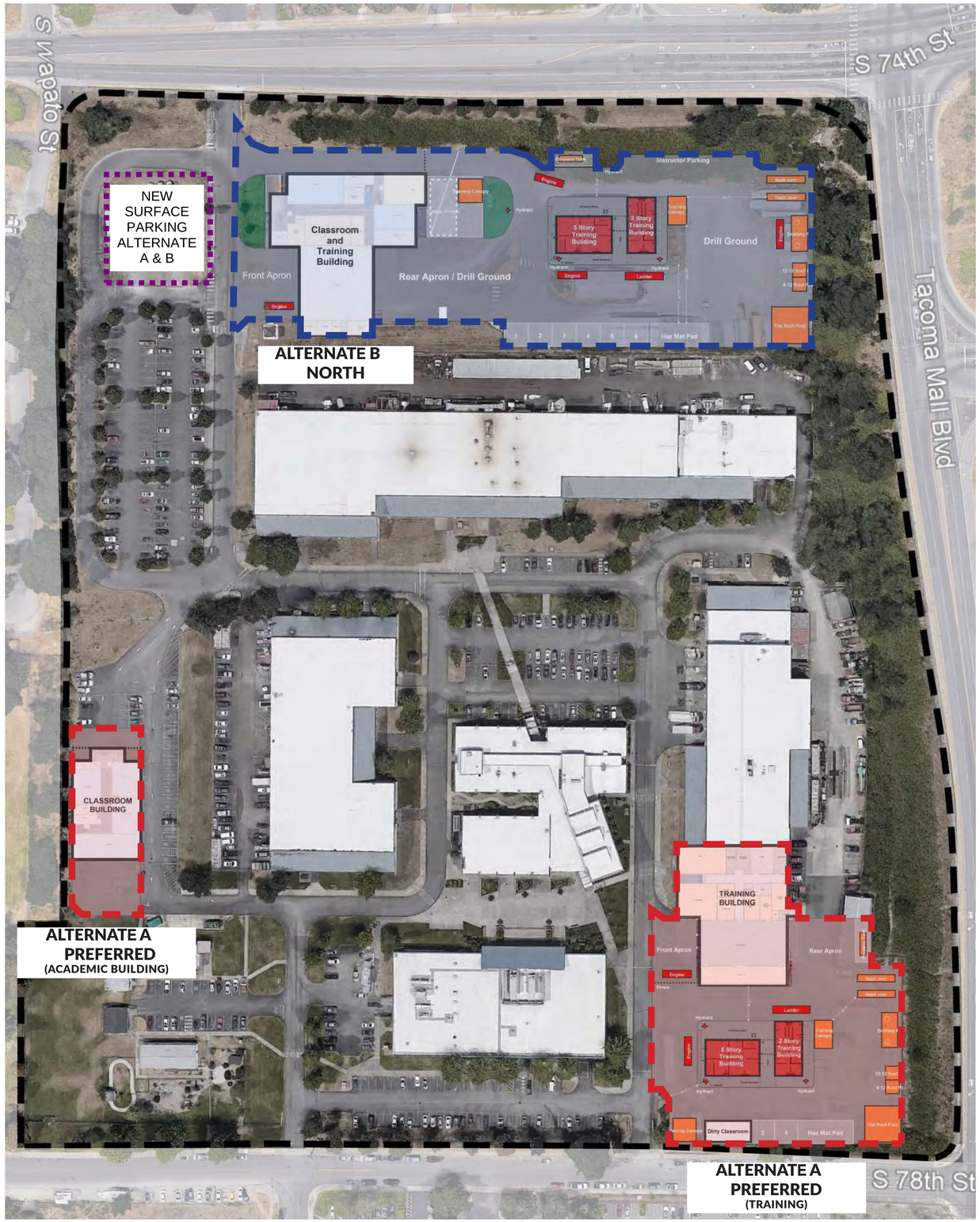
Bates TECHNICAL COLLEGE

RICEfergusMILLER

6.0 DIAGRAMS, DRAWINGS AND ROOM DATA SHEETS

1. South Campus Key Plan Alternates A & B
2. Site Plan – Preferred Alternate A
3. Block Diagrams Academic Building – Preferred Alternate A
4. Block Diagram Training Support – Preferred Alternate A
5. Exterior Renderings Academic Building – Preferred Alternate A
6. Site Plan – Alternate B
7. Block Diagrams Academic/Training Support Building – Alternate B
8. Block Diagrams Fire Training – Alternates A & B
9. Exterior Renderings Fire Training – Alternates A & B
10. Civil Site Plan – Preferred Alternate A
11. Landscape Site Plan – Preferred Alternate A
12. Civil Site Plan – Alternate B
13. Civil Site Plan – Alternate B
14. Room Data Sheets – Alternates A & B

SOUTH CAMPUS KEY PLAN



Parking Loss
Approx. 68

CLASSROOM BUILDING

New Parking Area
Approx. 48

ADDITIONAL PARKING AT NORTH ENTRY

TRAINING BUILDING

Front Apron

Rear Apron

Propane Tank

Engine

Fence

flash over

flash over

Ladder

Hydrant

Engine

5 Story Training Building

2 Story Training Building

Training Canopy

Drafting Pit

12:12 Roof Prop

6:12 Roof Prop

Hydrant

Hydrant

Training Canopy

Dirty Classroom

3

4

Haz Mat Pad

Flat Roof Prop

Fence

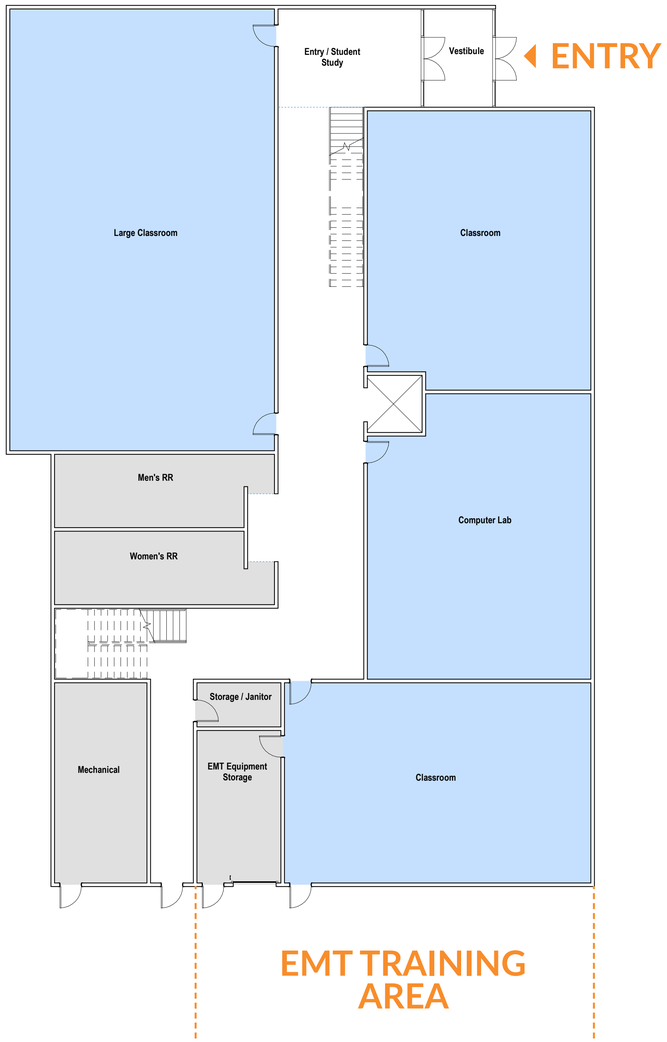
N

ogle Earth

SOUTH SITE
ALTERNATE A - PREFERRED ALTERNATE

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

LEVEL 1
ACADEMIC BUILDING



LEGEND

- ADMINISTRATION
- GENERAL INSTRUCTION
- SUPPORT

SOUTH SITE

ALTERNATE A - PREFERRED ALTERNATE

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

1" = 10' - 0"
0 5 10 20

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LEVEL 2
ACADEMIC BUILDING

LEGEND

- ADMINISTRATION
- GENERAL INSTRUCTION
- SUPPORT

SOUTH SITE
ALTERNATE A - PREFERRED ALTERNATE

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

1" = 10' - 0"
0 5 10 20

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BUILDING D - LEVEL 1

TRAINING BUILDING

LEGEND

- SUPPORT
- APPARATUS & APPARATUS SUPPORT LIVE FIRE TRAINING
- EXISTING SPACE

TO DRILL YARD / TOWER

SOUTH SITE

ALTERNATE A - PREFERRED ALTERNATE

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE

RICE fergus MILLER

EXTERIOR RENDERING
ACADEMIC BUILDING

SOUTH SITE
ALTERNATE A - PREFERRED ALTERNATE

EXTERIOR RENDERING
ACADEMIC BUILDING

SOUTH SITE
ALTERNATE A - PREFERRED ALTERNATE

EXTERIOR RENDERING
ACADEMIC BUILDING

SOUTH SITE
ALTERNATE A - PREFERRED ALTERNATE

NORTH SITE
ALTERNATE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

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Bates TECHNICAL COLLEGE

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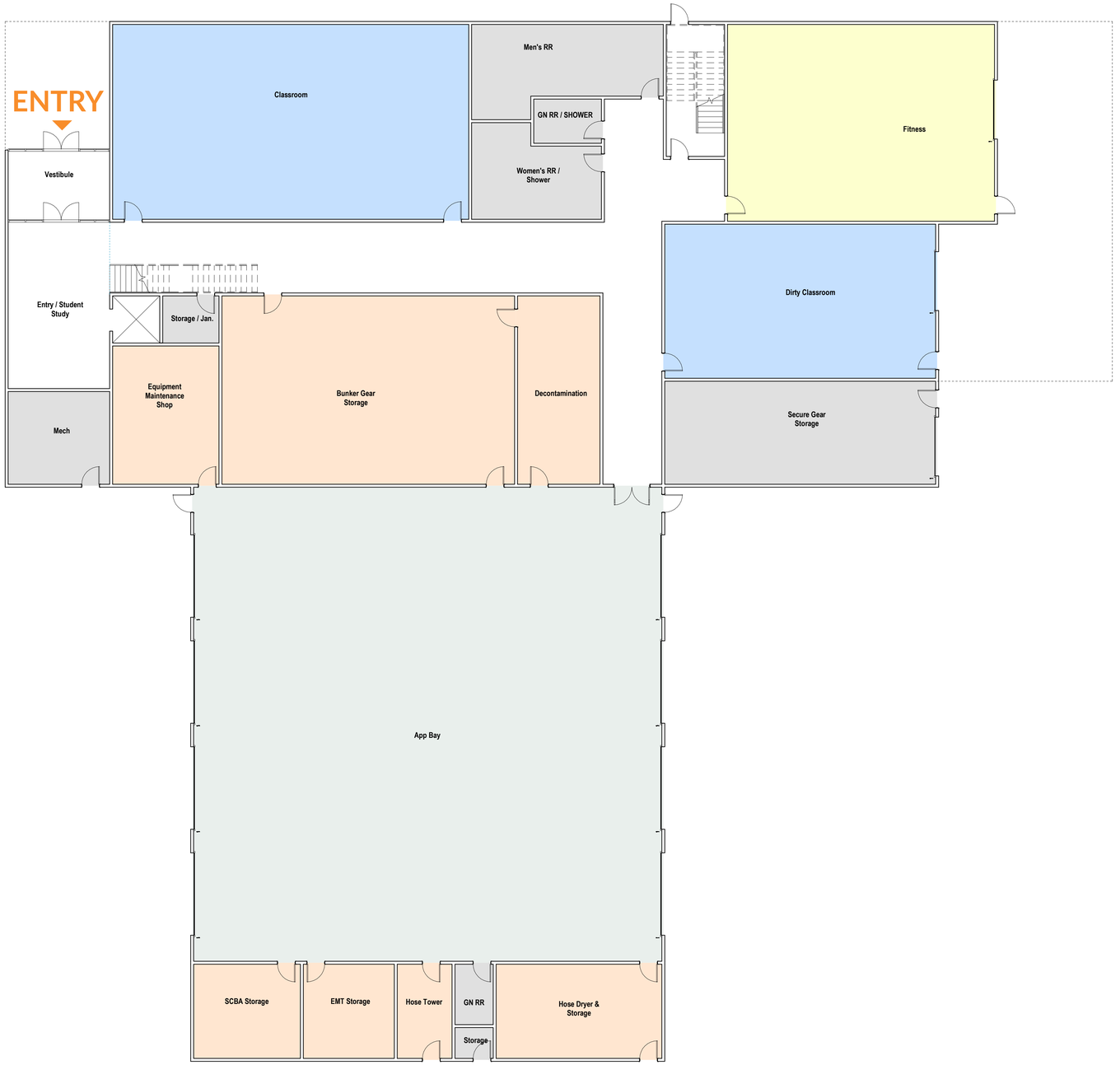
LEVEL 1
ACADEMIC + TRAINING BUILDING



TO DRILL YARD / TOWER

LEGEND

- GENERAL INSTRUCTION
- SUPPORT
- APPARATUS & APPARATUS SUPPORT LIVE FIRE TRAINING

NORTH SITE
ALTERNATE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICEfergusMILLER

LEVEL 2
ACADEMIC + TRAINING BUILDING

TO DRILL YARD / TOWER

LEGEND

- ADMINISTRATION
- GENERAL INSTRUCTION
- SUPPORT
- APPARATUS & APPARATUS SUPPORT LIVE FIRE TRAINING

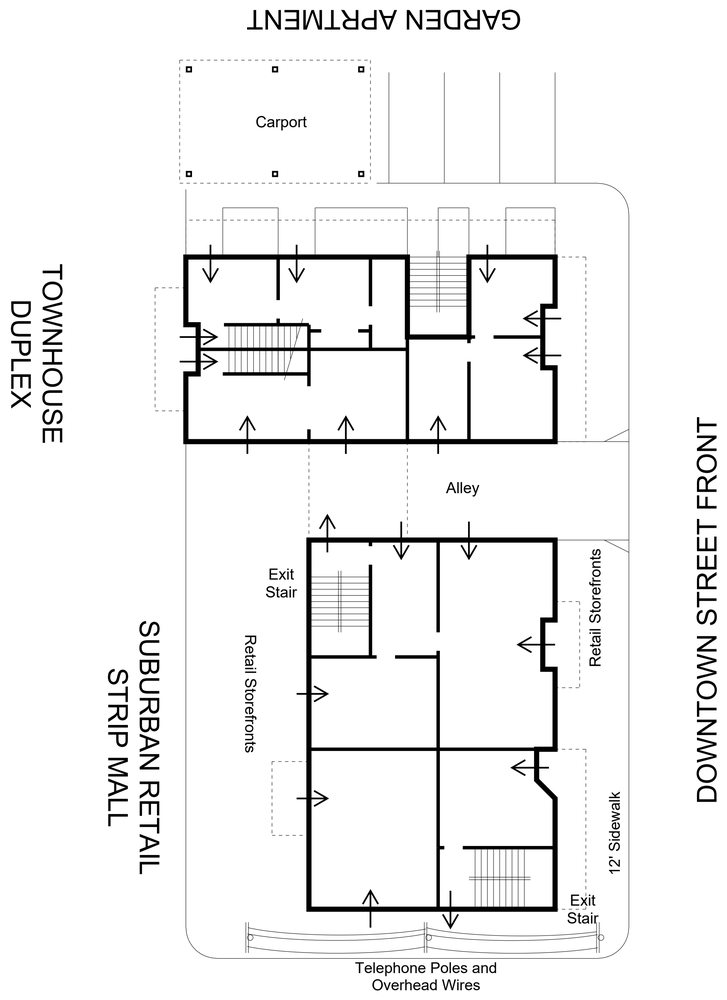
NORTH SITE
ALTERNATE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

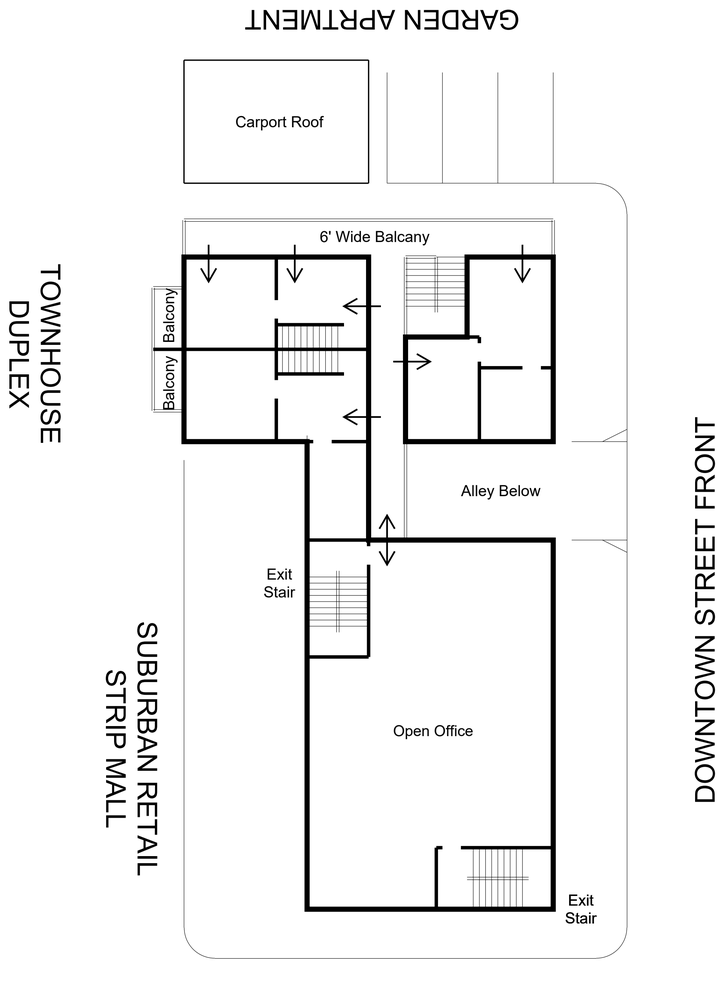
1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICE fergus MILLER

LEVEL 1 & 2
TRAINING TOWER



TRAINING TOWER - 1st Floor



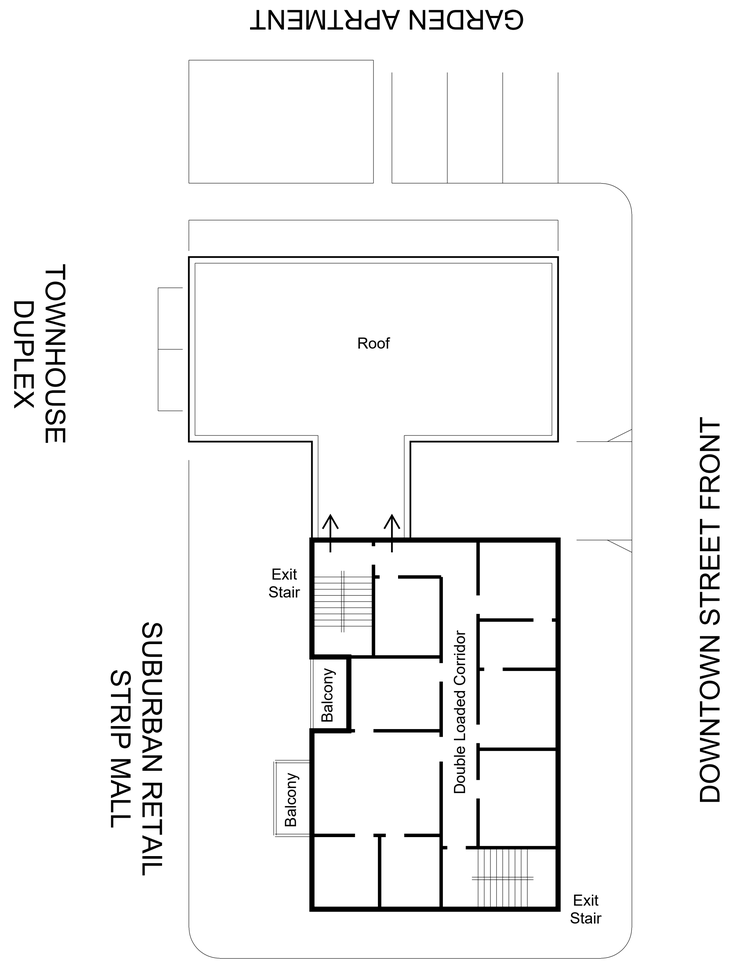
TRAINING TOWER - 2nd Floor

ALTERNATE A
&
ALTERNATE B

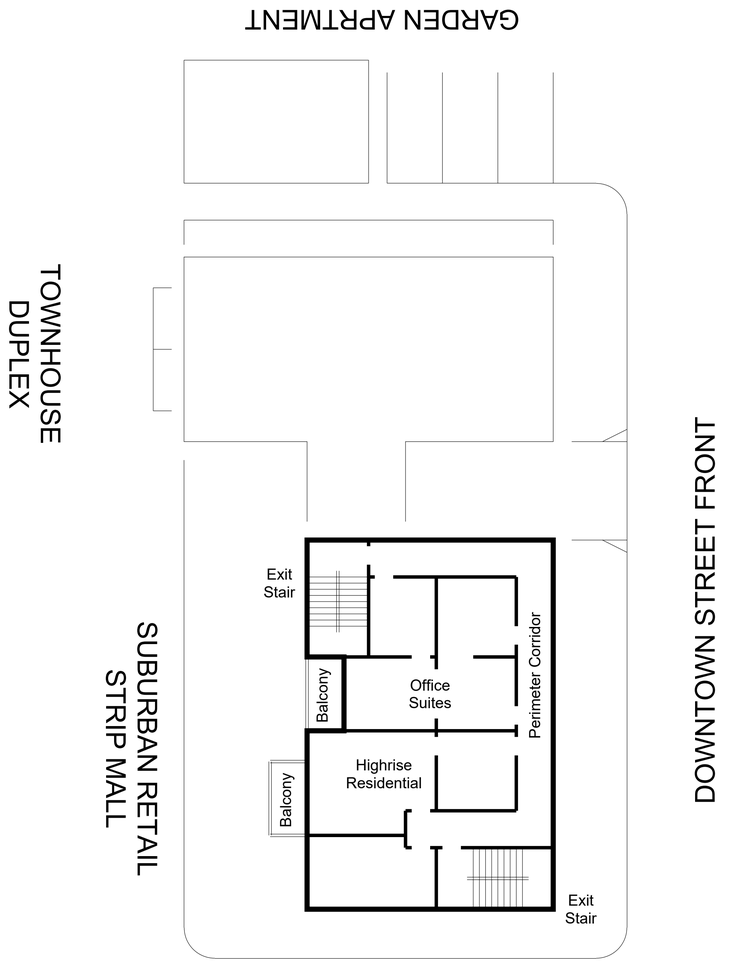
1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICEfergusMILLER

LEVEL 3 & 4
TRAINING TOWER



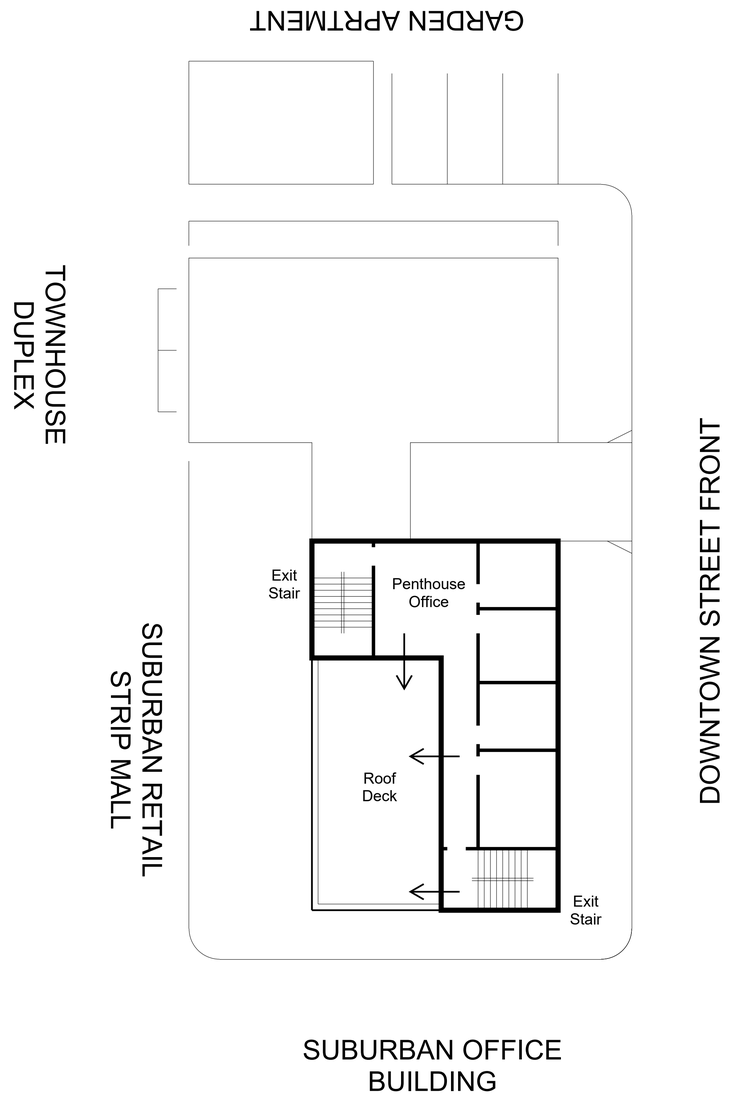
TRAINING TOWER - 3rd Floor



TRAINING TOWER - 4th Floor

ALTERNATE A
&
ALTERNATE B

LEVEL 5
TRAINING TOWER



TRAINING TOWER - 5th Floor

ALTERNATE A
&
ALTERNATE B

TRAINING TOWER
EXTERIOR RENDERING

ALTERNATE A
&
ALTERNATE B

TRAINING TOWER

ALTERNATE A
&
ALTERNATE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

Bates TECHNICAL COLLEGE

RICE fergus MILLER

TRAINING TOWER

ALTERNATE A
&
ALTERNATE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE, 2020

Bates TECHNICAL COLLEGE

RICEfergusMILLER

SEC. __, T__N., R_W., W.M.

N

0 40 80

SCALE IN FEET

include paving north gravel area for student parking same as Alternate B

Parking Lot

Approx. 6

1,750 S.F. x 3' DEEP INFILTRATION SYSTEM PROVIDING FLOW CONTROL FOR 0.43 ACRES OF IMPERVIOUS SURFACE. (ASSUMED INFILTRATION RATE OF 0.5"/HR)

PROPOSED 8" WATER MAIN

ENHANCED TREATMENT SYSTEM (E MODULAR WETLAND SYSTEM OR EQUIVALENT)

PROPOSED FIRE HYDRANT (TYP.)

DOMESTIC AND FIRE SERVICE CONNECTIONS

SEWER LATERAL CONNECTION

RE-ROUTE STORM AND SEWER LINE AROUND PROPOSED BUILDING FOOTPRINT

New Building
Classroom / Admin
Level 1

New Building
Classroom / Admin
Level 2

Computer Lab

SS

SD

W

1000ft

SC Library (at Bates Technical College)

DOMESTIC AND FIRE SERVICE CONNECTIONS

Existing Building D
Apparatus Bays / Support / Fitness and Lockers

SEWER LATERAL CONNECTION

Instructor Parking

Drive Through Apparatus Bays

Front Apron

Rear Apron

Engine

New B... D
Apparatus B...

ENHANCED TREATMENT SYSTEM (E MODULAR WETLAND SYSTEM OR EQUIVALENT)

5,500 S.F. x 1' DEEP INFILTRATION SYSTEM PROVIDING FLOW CONTROL FOR 1.26 ACRES OF IMPERVIOUS SURFACE. (ASSUMED INFILTRATION RATE OF 0.5"/HR)

TYPE 1 CATCH BASIN (TYP.)

PRETREATMENT SETTLING SYSTEM

PROPOSED 8" WATER MAIN

Ladder

flash over

PROPOSED FIRE HYDRANT (TYP.)

Engine

5 Story Training Building

2 Story Training Building

Training Canopy

Drafting Pit

PROPOSED 12" STORM DRAIN LINE

12:12 Roof Prop

6:12 Roof Prop

Hydrant

Hydrant

QS

Training Canopy

1 2 3 4 Haz Mat Pad

Flat Roof Prop

Fence

Jun 12, 2020 - 2:41:05pm - User: mollery.dobbs
N:\PROJECTS\1821 RICE FERGUS MILLER\1821.09 BATES TECHNICAL COLLEGE - FIRE SERVICE TRAINING CENTER PRE DESIGN\CADD\1821.09 SOUTH SITE SKETCH.DWG

	BY	DATE	REVISIONS
1			

SCJ ALLIANCE
CONSULTING SERVICES
8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516
P: 360.352.1465 F: 360.352.1509
SCJALLIANCE.COM

SHEET TITLE: SOUTH SITE SKETCH
Alternate A - Preferred Alternate

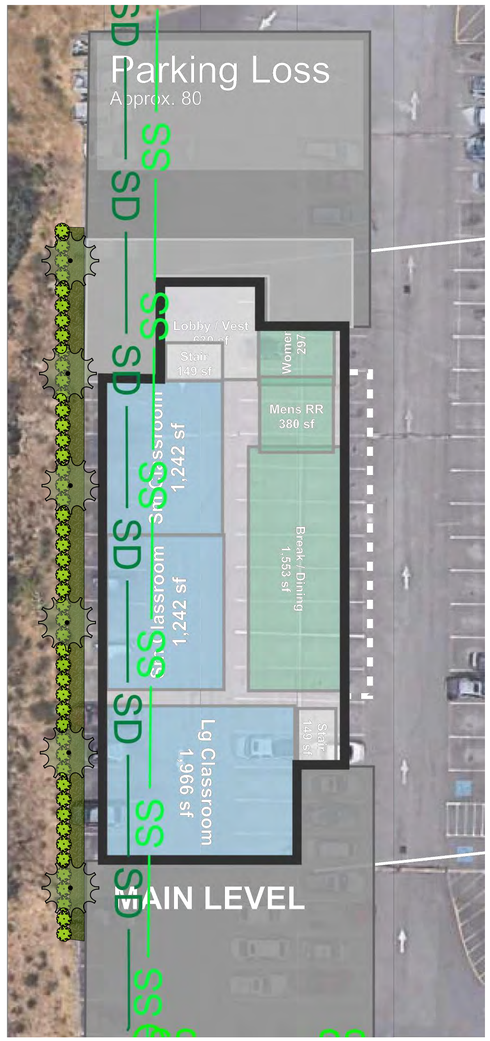
PROJECT NAME: BTC FIRE SERVICES BLDG
LAKEWOOD, WA

SEAL:

-/-/----

DESIGNER:	M. DOBBS
DRAWN BY:	South Site Sketch
APPROVED BY:	R. JARVIS
DATE:	JUNE, 2020
JOB NO:	1821.09
DRAWING FILE NO:	1821.09 SOUTH SITE SKETCH
DRAWING NO:	1821.09
SHEET NO:	1 OF XX

SEC. __, T__N., R_W., W.M.



ADMIN. & CLASSROOM BLDG.
(SOUTH SITE)

B

NORTH

0 20 40 60 feet

SCALE: 1" = 20'

SOUTH SITE FIRE SERVICES

C

NORTH

0 20 40 60 feet

SCALE: 1" = 20'

REVISIONS	DATE	BY

SCJ ALLIANCE
CONSULTING SERVICES
8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516
P: 360.352.1465 F: 360.352.1509
SCJALLIANCE.COM

SHEET TITLE: SOUTH SITE LANDSCAPE OPTION
Alternate A - Preferred Alternate

PROJECT NAME: BTC FIRE SERVICES BLDG
LAKEWOOD, WA

SEAL:

DESIGNER:	TG
DRAWN BY:	TG
APPROVED BY:	JG
DATE:	JUNE, 2020
JOB NO:	1821.09
DRAWING FILE NO:	_1821.09 X-LS
DRAWING NO:	LS-02
SHEET NO:	2 OF XX

Jun 12, 2020 4:08:16pm — User: trent.grantham
N:\PROJECTS\1821 RICE FERGUS MILLER\1821.09 BATES TECHNICAL COLLEGE -FIRE SERVICE TRAINING CENTER PRE DESIGN\CAD_1821.09 X-LS.DWG

SEC. __, T__N., R_W., W.M.

N

0 30 60

SCALE IN FEET

	BY	DATE	REVISIONS
△			

SCJ ALLIANCE
CONSULTING SERVICES
8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516
P: 360.352.1465 F: 360.352.1509
SCJALLIANCE.COM

SHEET TITLE: NORTH SITE SKETCH Alternate B

PROJECT NAME: BTC FIRE SERVICES BLDG LAKEWOOD, WA

SEAL:

DESIGNER:	M. DOBBS
DRAWN BY:	M. DOBBS
APPROVED BY:	R. JARVIS
DATE:	JUNE, 2020
JOB NO:	1821.09
DRAWING FILE NO:	1821.09 NORTH SITE SKETCH
DRAWING NO:	1821.09 North Site Sketch
SHEET NO:	1 OF XX

Jun 12, 2020 - 1:14:33pm - User: mallory.dobbs
N:\PROJECTS\1821 RICE FERGUS MILLER\1821.09 BATES TECHNICAL COLLEGE - FIRE SERVICE TRAINING CENTER PRE DESIGN\CAD\1821.09 NORTH SITE SKETCH.DWG

SEC. __, T__ N., R_ W., W.M.

A **NORTHWEST PARKING AND NORTH SITE BUILDING OPTION**

NORTH

0 20 40 60 feet

SCALE: 1" = 20'

BY	DATE	REVISIONS
		△

SCJ ALLIANCE
CONSULTING SERVICES
8730 TALLON LANE NE, SUITE 200, LACEY, WA 98516
P: 360.352.1465 F: 360.352.1509
SCJALLIANCE.COM

SHEET TITLE: NORTH SITE OPTION LANDSCAPE
Alternate B

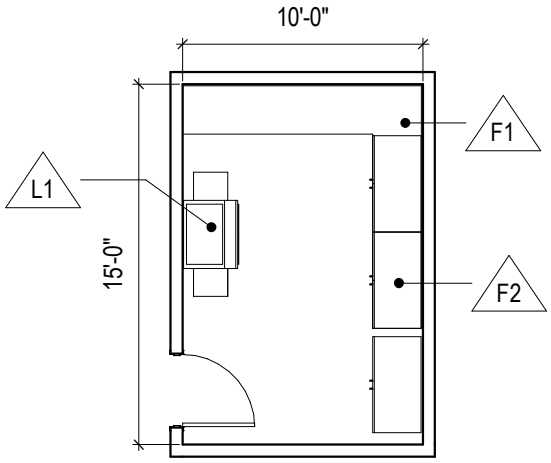
PROJECT NAME: BTC FIRE SERVICES BLDG
LAKEWOOD, WA

SEAL:

DESIGNER:	TG
DRAWN BY:	TG
APPROVED BY:	JG
DATE:	JUNE, 2020
JOB NO:	1821.09
DRAWING FILE NO:	1821.09 X-LS
DRAWING NO:	LS-01
SHEET NO:	1 OF XX

Jun 12, 2020 4:08:05pm – User: tnet.grosthom
N:\PROJECTS\1821 RICE FERGUS MILLER\1821.09 BATES TECHNICAL COLLEGE – FIRE SERVICE TRAINING CENTER PRE DESIGN\CADD_1821.09 X-LS.DWG

A.1
Copy / Print Center



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F2	BASE CABINET

LOOSE REQUIREMENTS

L1	COPY MACHINE

Space Name: Copy/Print Center

Space Number: A.1

Space Classification: Administration

Unit Quantity: 1

Area Requirements: 150 sf

Function: Utility room for administration to print, copy or prepare print materials

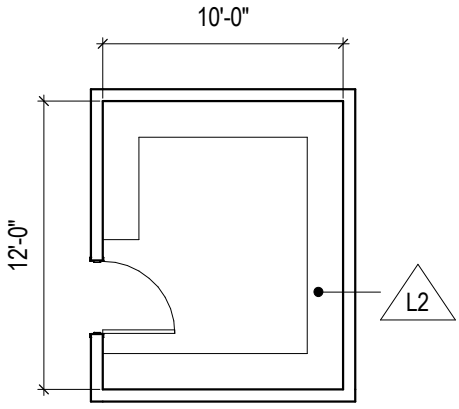
Occupants: n/a

Adjacencies:
Direct: Administration offices
Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☐	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☐
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.2
Storage



FIXED REQUIREMENTS	LOOSE REQUIREMENTS	
	L2	SHELVING

Space Name: Storage

Space Number: A.2

Space Classification: Administration

Unit Quantity: 1

Area Requirements: 150 sf

Function: Storage room to serve administration offices

Occupants: n/a

Adjacencies:

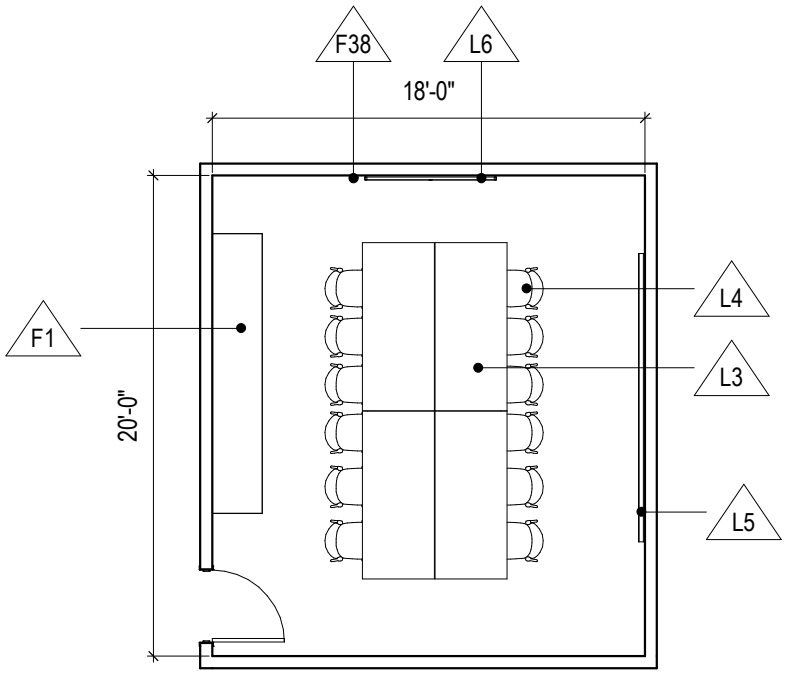
Direct: Administration offices

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.3
Conference Room



FIXED REQUIREMENTS

F1	24" COUNTERTOP

LOOSE REQUIREMENTS

F38	CAMERA/SPEAKER/MIC/DISPLAY FOR DISTANCE CONFERENCING
L3	CONFERENCE TABLES
L4	CHAIR W/ CASTERS
L5	WHITEBOARD
L6	WALL-MOUNTED TV

Space Name: Conference Room

Space Number: A.3

Space Classification: Administration

Unit Quantity: 12

Area Requirements: 360 sf

Function: Conference room to hold 12 occupants

Occupants: 12

Adjacencies: **Direct:** Administration offices

Proximate: n/a

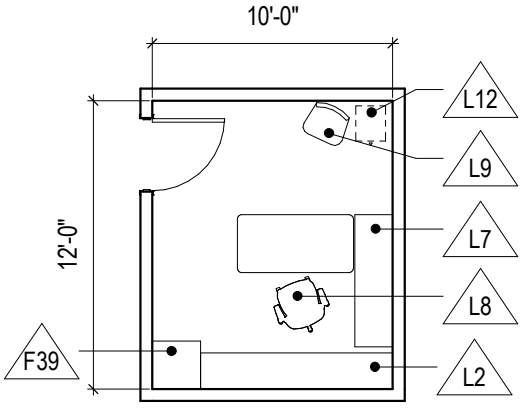
Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

A.4
Faculty Office



FIXED REQUIREMENTS

F39	UNIFORM LOCKERS

LOOSE REQUIREMENTS

L2	SHELVING
L7	DESK
L8	OFFICE CHAIR
L9	SITTING CHAIR
L12	PEDESTAL FLOOR LOCKER

Space Name: Faculty Office

Space Number: A.4

Space Classification: Administration

Unit Quantity: 6

Area Requirements: 120 sf

Function: Standard faculty office

Occupants: 1

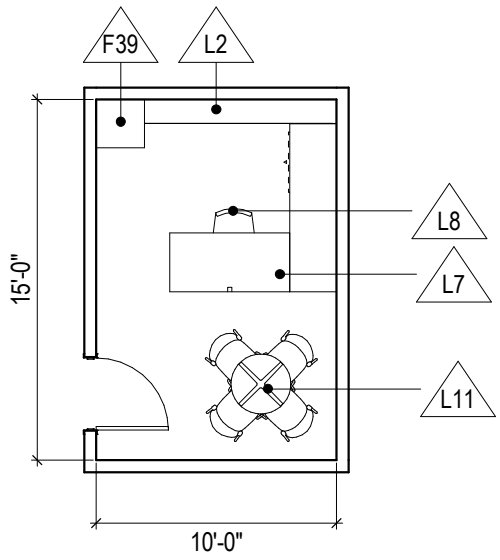
Adjacencies: **Direct:** Administration offices

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☑		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.5
Director's Office



FIXED REQUIREMENTS

F39	UNIFORM LOCKERS

LOOSE REQUIREMENTS

L2	SHELVING
L7	DESK
L8	OFFICE CHAIR
L11	SMALL MEETING TABLE

Space Name: Director's Office

Space Number: A.5

Space Classification: Administration

Unit Quantity: 1

Area Requirements: 150 sf

Function: Larger office for program director

Occupants: 1

Adjacencies:

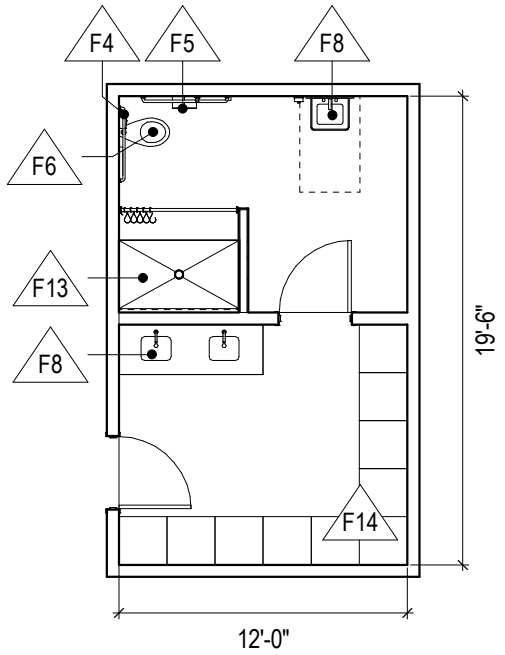
Direct: Administration offices

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☑		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.6
Faculty & Staff Locker / Restroom



FIXED REQUIREMENTS

F4	GRAB BARS
F5	TOILET PAPER HOLDER
F6	TOILET
F8	SINK
F8	SINK
F13	ADA SHOWER
F14	LOCKERS

LOOSE REQUIREMENTS

Space Name: Faculty Staff Restroom & Shower

Space Number: A.6

Space Classification: Administration

Unit Quantity: 1

Area Requirements: 240

Function: Lockers for faculty street clothes; shower for post fire training cleanup

Occupants: n/a

Adjacencies:
Direct: Administration offices
Proximate: n/a

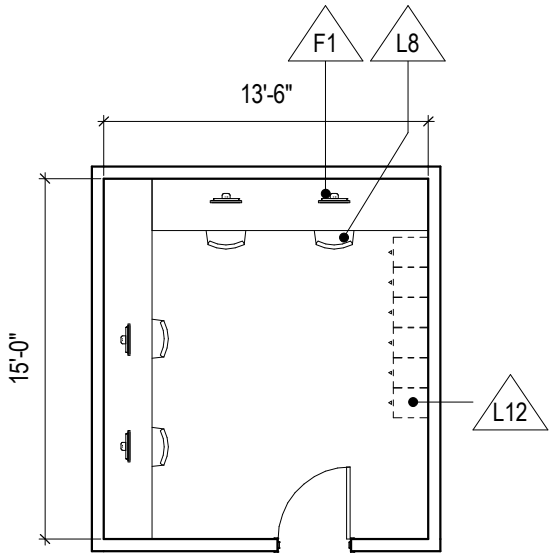
Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

A.7
Administration Support



FIXED REQUIREMENTS		LOOSE REQUIREMENTS	
F1	24" COUNTERTOP	L8	OFFICE CHAIR
		L12	PEDESTAL FLOOR LOCKER

Space Name: Administration Support

Space Number: A.7

Space Classification: Administration

Unit Quantity: 1

Area Requirements: 200

Function: Administration support with one dedicated staff with 3 part-time work stations

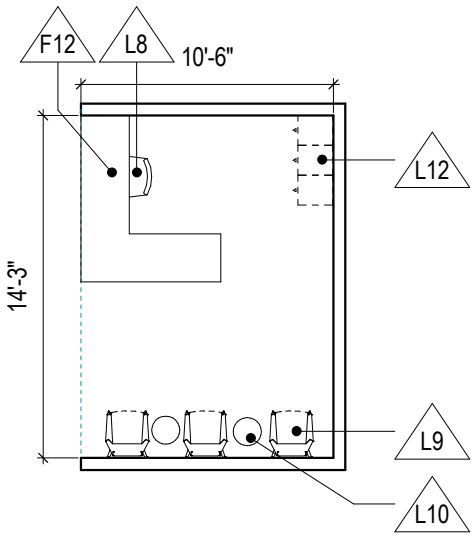
Occupants: 1.5

Adjacencies:
Direct: Director's office
Proximate: Administration offices

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☐		Relites	☐
Electric Garage Doors	☐	Walls	☐		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☑		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.8
Reception & Waiting



FIXED REQUIREMENTS

F12	RECEPTION DESK

LOOSE REQUIREMENTS

L8	OFFICE CHAIR
L9	SITTING CHAIR
L10	SIDE-TABLE
L12	PEDESTAL FLOOR LOCKER

Space Name: Reception / Waiting

Space Number: A.8

Space Classification: Administration

Unit Quantity: 1

Area Requirements: 150 SF

Function: Reception and waiting area

Occupants: 1

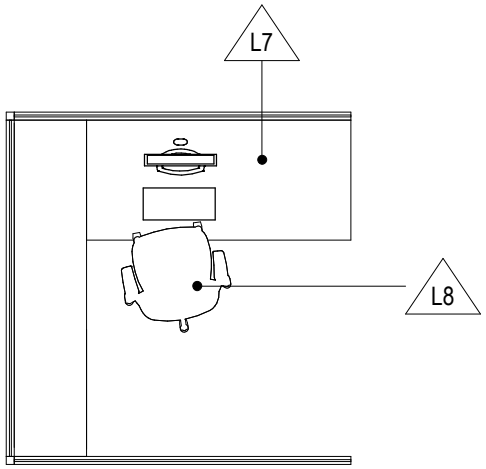
Adjacencies: **Direct:** Administration

Proximate:

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☐	Floor	☐		Relites	☐
Electric Garage Doors	☐	Walls	☐		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☑		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.9
Part-time Work Station



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L7	DESK
L8	OFFICE CHAIR

Space Name: Part-time Work Station

Space Number: A.9

Space Classification: Administration

Unit Quantity: 4

Area Requirements: 64

Function: Work station for part-time workers and visiting training instructors

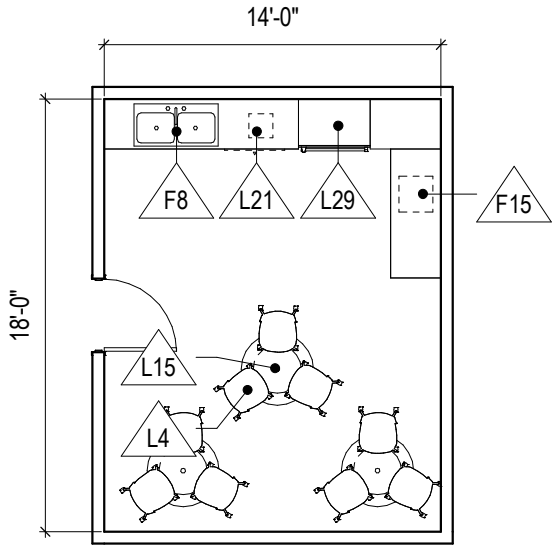
Occupants: 4 part-time workers

Adjacencies:
Direct: Administration offices
Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☐	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.10
Staff Break Room



FIXED REQUIREMENTS

F8	SINK
F15	MICROWAVE

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L15	TABLE ON CASTERS
L21	COFFEE MACHINE
L29	REFRIGERATOR

Space Name: Reception / Waiting

Space Number: A.10

Space Classification: Administration

Unit Quantity: 1

Area Requirements: 250 SF

Function: Small kitchenette with refrigerators and flexible seating for staff

Occupants: 12

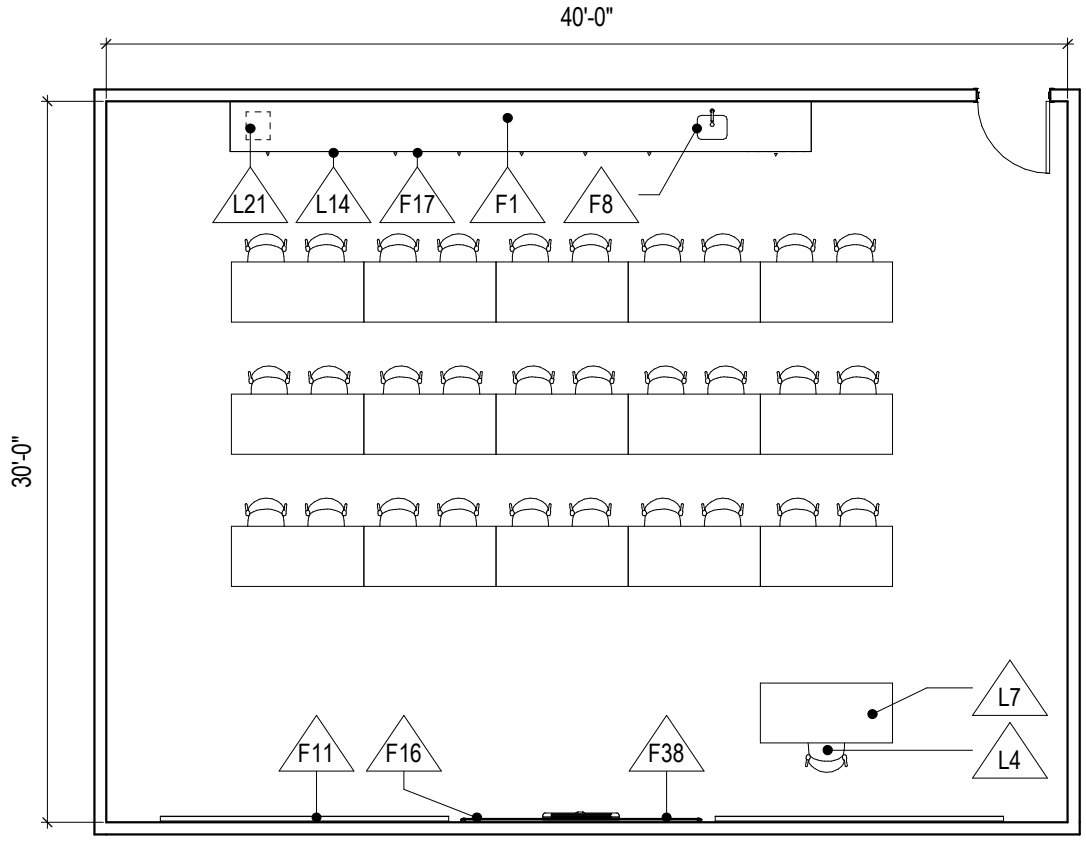
Adjacencies: **Direct:** Administration

Proximate:

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

B.1
Classroom



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F8	SINK
F11	WHITEBOARD
F16	SMARTBOARD
F17	LOCKABLE CABINET
F38	CAMERA/SPEAKER/MIC/DISPLAY FOR DISTANCE CONFERENCING

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L7	DESK
L14	UNDERCOUNTER REFRIGERATOR
L21	COFFEE MACHINE

Space Name: Classroom

Space Number: B.1

Space Classification: Instruction

Unit Quantity: 3

Area Requirements: 1,200 SF

Function: Instructional space

Occupants: 30

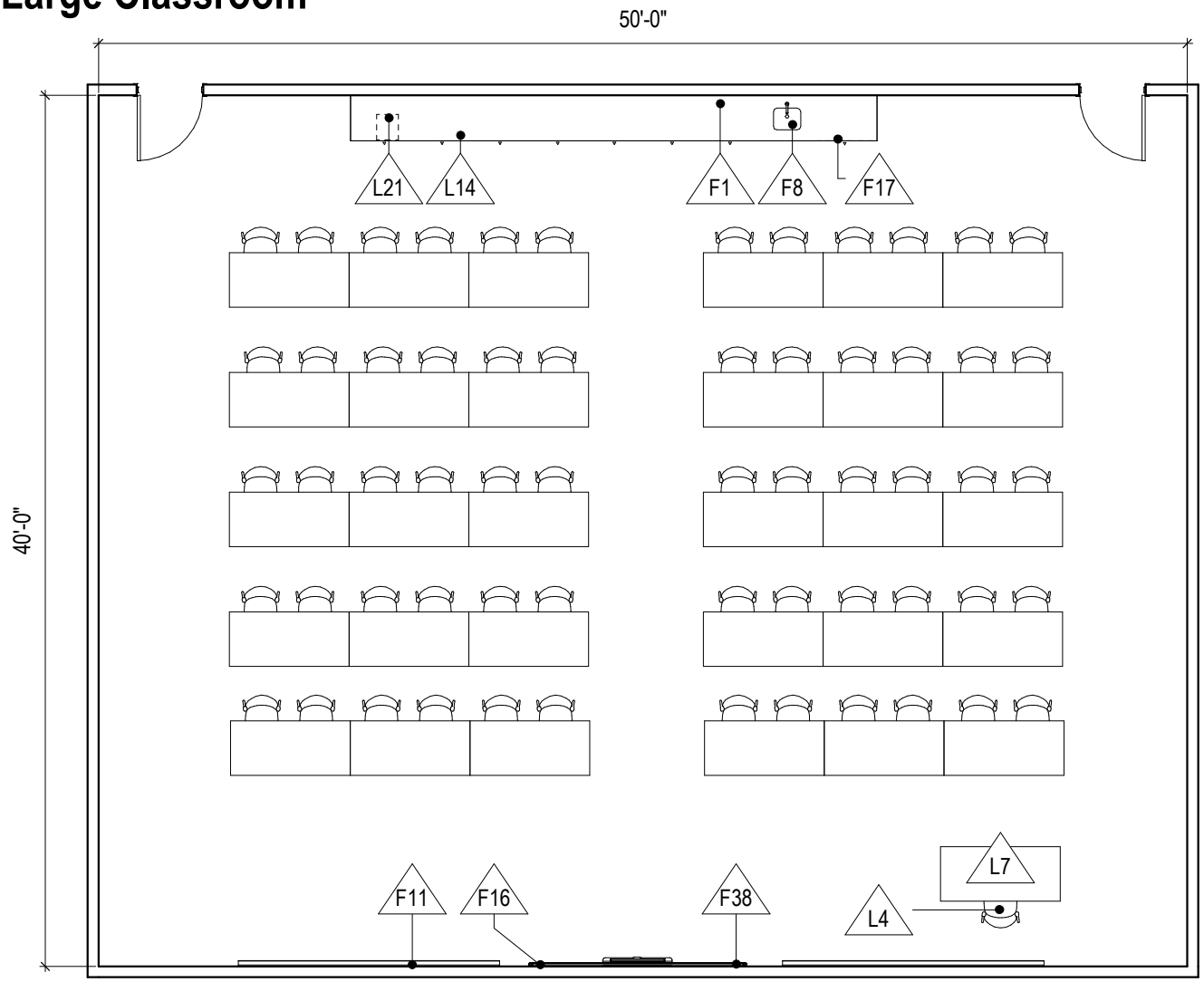
Adjacencies: **Direct:** n/a

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

B.2
Large Classroom



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F8	SINK
F11	WHITEBOARD
F16	SMARTBOARD
F17	LOCKABLE CABINET
F38	CAMERA/SPEAKER/MIC/DISPLAY FOR DISTANCE CONFERENCING

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L7	DESK
L14	UNDERCOUNTER REFRIGERATOR
L21	COFFEE MACHINE

Space Name: Large Classroom

Space Number: B.2

Space Classification: Instruction

Unit Quantity: 1

Area Requirements: 2,000 SF

Function: Large Classroom

Occupants: 60

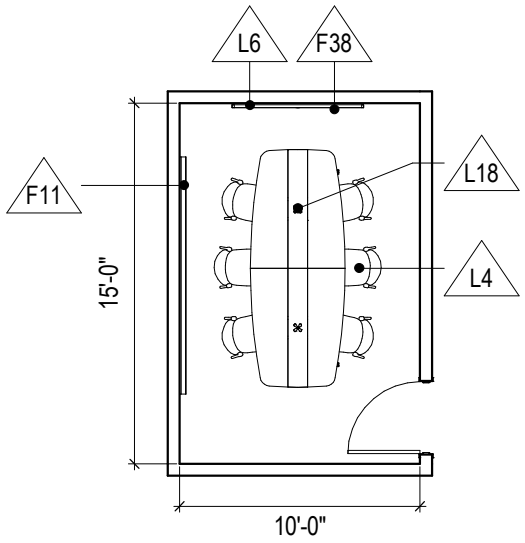
Adjacencies: **Direct:** n/a

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

B.3
Break-out Room



FIXED REQUIREMENTS

F11	WHITEBOARD

LOOSE REQUIREMENTS

F38	CAMERA/SPEAKER/MIC/DISPLAY FOR DISTANCE CONFERENCING
L4	CHAIR W/ CASTERS
L6	WALL-MOUNTED TV
L18	CONFERENCE TABLE

Space Name: Break-out Space

Space Number: B.3

Space Classification: Instruction

Unit Quantity: 1

Area Requirements: 300 SF

Function: Student collaboration area

Occupants: 6-8

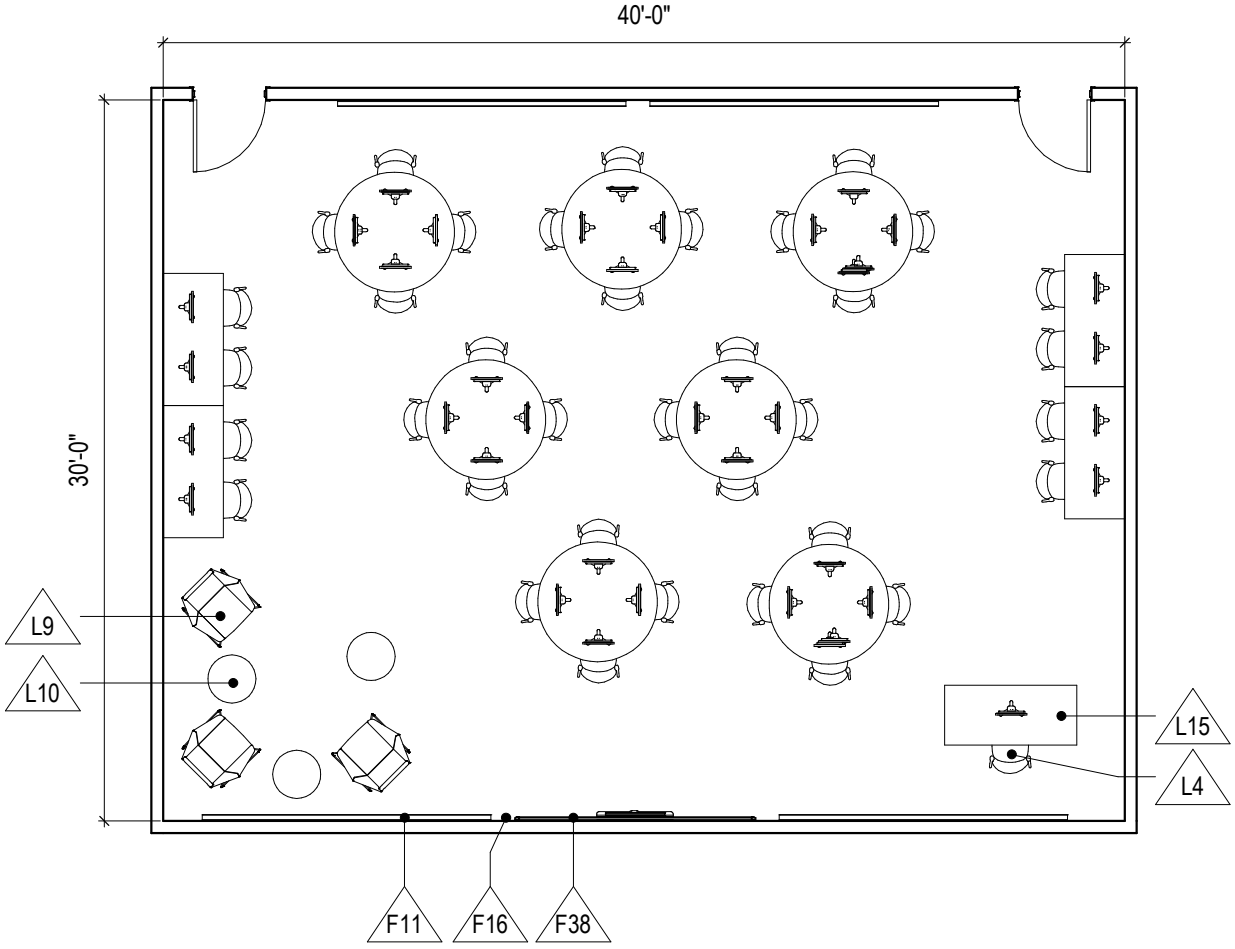
Adjacencies: **Direct:**

Proximate: Classroom

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☑		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

B.4
Computer Lab



FIXED REQUIREMENTS

F11	WHITEBOARD
F16	SMARTBOARD
F38	CAMERA/SPEAKER/MIC/DISPLAY FOR DISTANCE CONFERENCING

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L9	SITTING CHAIR
L10	SIDE-TABLE
L15	TABLE ON CASTERS

Space Name: Computer Lab

Space Number: B.3

Space Classification: Instruction

Unit Quantity: 1

Area Requirements: 1,200 SF

Function: Digital working space with some dedicated computer stations for testing.

Occupants: 30

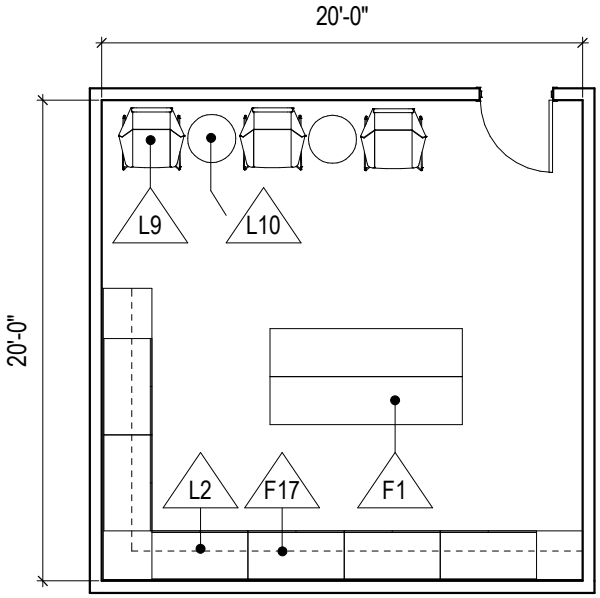
Adjacencies: **Direct:**

Proximate: Classroom

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

B.5
Resource Library



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F17	LOCKABLE CABINET

LOOSE REQUIREMENTS

L2	SHELVING
L9	SITTING CHAIR
L10	SIDE-TABLE

Space Name: Resource Library

Space Number: B.3

Space Classification: Instruction

Unit Quantity: 1

Area Requirements: 400 SF

Function: Student resources with cabinets and shelves for equipment & prop storage

Occupants: **15**

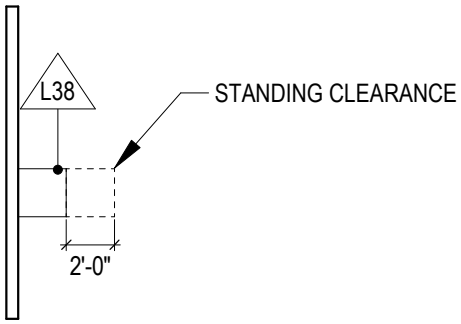
Adjacencies: **Direct:**

Proximate: Classroom

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☑		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

B.6
Student Lockers



FIXED REQUIREMENTS	LOOSE REQUIREMENTS	
	L38	STUDENT LOCKER

Space Name: Student Lockers

Space Number: B.6

Space Classification: Instruction

Unit Quantity: 100

Area Requirements: 8 SF

Function: For issued PPE and personal secure storage during training

Occupants: n/a

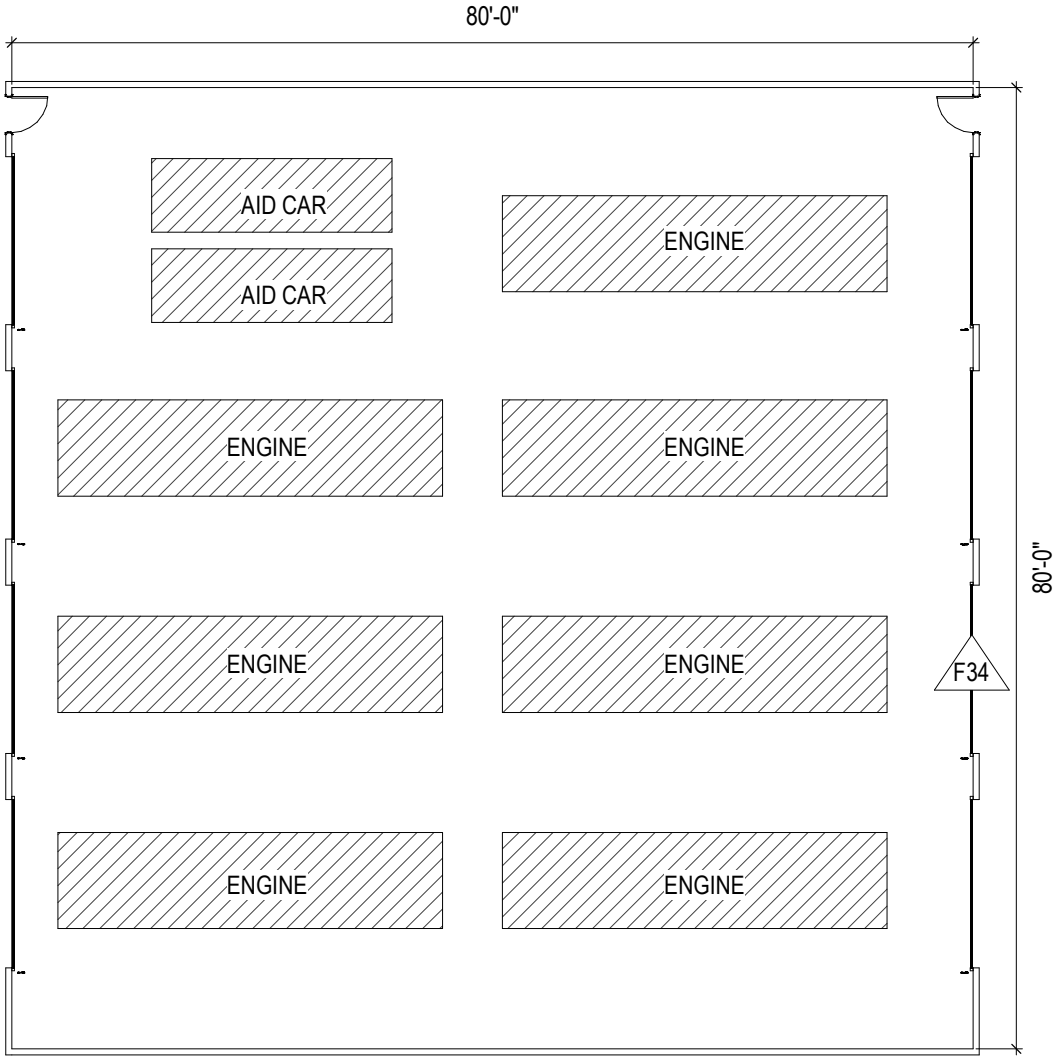
Adjacencies: **Direct:**

Proximate: Classroom

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☐	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☐
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

C.1
Drive-Through Appratus Bays



FIXED REQUIREMENTS

F34	14'x12' GARAGE DOOR

LOOSE REQUIREMENTS

Space Name: Apparatus Bays

Space Number: C.1

Space Classification: Apparatus & Apparatus Support Live Fire Training

Unit Quantity: 1

Area Requirements: 6,400 SF

Function: Vehicle storage for fire training

Occupants: n/a

Adjacencies: **Direct:**

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☑	Walls	☑		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑ *1	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other	☑ *2			
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
Overhead Drops	☐	Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☑ *3

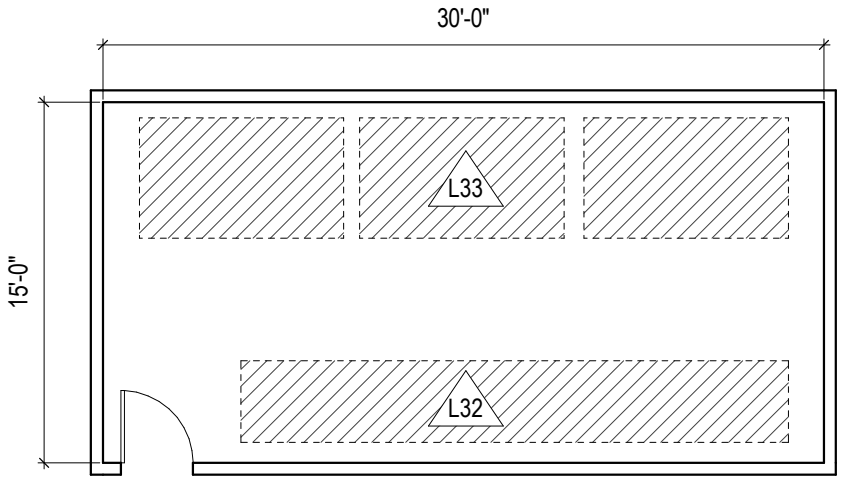
Notes

*1 Heat and vent only with rail mounted vehicle exaust

*2 Interior hose bib w/vehicle wash station

*3 CO/NO2 Sensors w/ alarm

C.2
Hose Dryer and Storage



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L32	COILED HEATER
L33	COILED RACK STORAGE

Space Name: Hose Dryer and Storage

Space Number: C.2

Space Classification: Apparatus & Apparatus Support Live Fire Training

Unit Quantity: 1

Area Requirements: 450 SF

Function: Firehose drying area and storage

Occupants: n/a

Adjacencies:
Direct: Apparatus Bay
Proximate: n/a

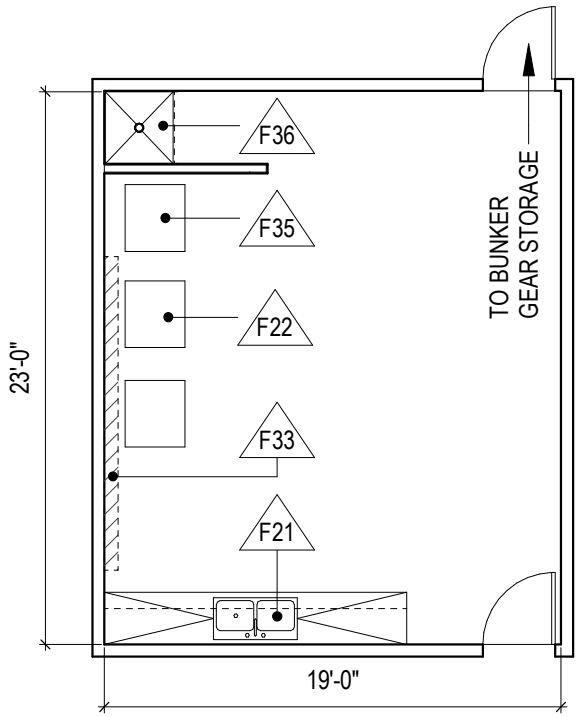
Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☐
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

C.3
Decontamination



FIXED REQUIREMENTS

F21	STAINLESS STEEL SINK AND DRAINBOARDS
F22	GEAR EXTRACTOR
F33	SUMP DRAIN
F35	SCBA MASK DISHWASHER
F36	EMERGENCY SHOWER / EYEWASH STATION

LOOSE REQUIREMENTS

Space Name: Decontamination

Space Number: C.3

Space Classification: Apparatus & Apparatus Support Live Fire Training

Unit Quantity: 1

Area Requirements: 450 SF

Function: Post drill equipment decontamination

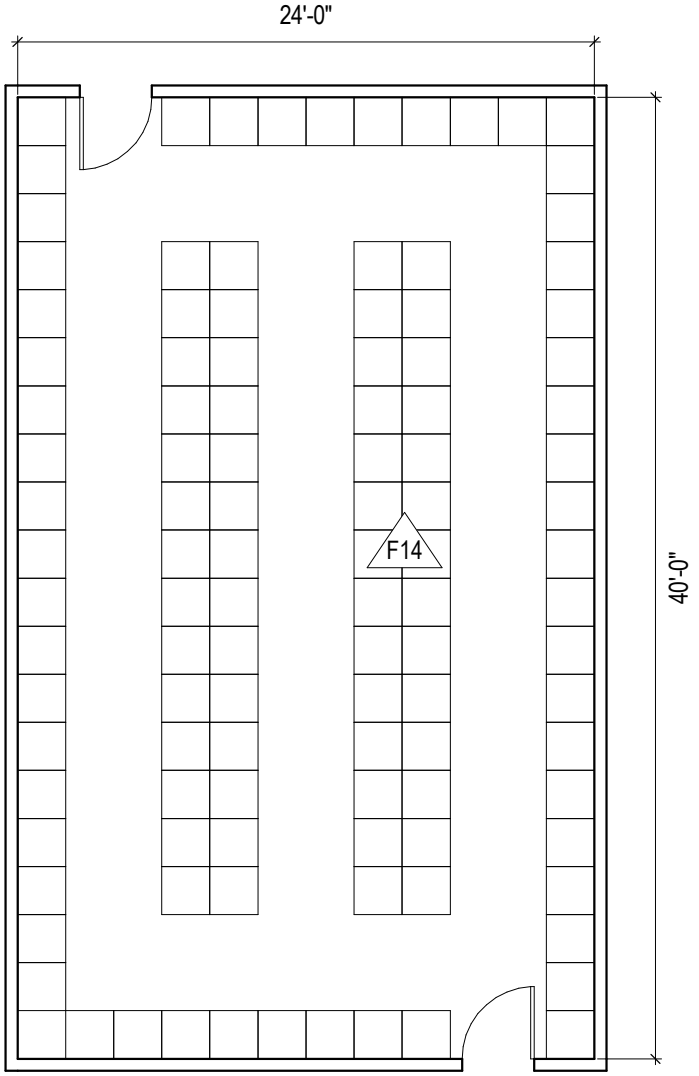
Occupants: n/a

Adjacencies:
Direct: Bunker Gear Storage
Proximate: Apparatus Bay

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑ *1	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes
*1 Heat and vent only

C.4
Bunker Gear Storage



FIXED REQUIREMENTS		LOOSE REQUIREMENTS
F14	BUNKER GEAR LOCKERS	

Space Name: Bunker Gear Storage

Space Number: C.4

Space Classification: Apparatus & Apparatus Support Live Fire Training

Unit Quantity: 1

Area Requirements: 960 SF

Function: Clean bunker gear drying and storage

Occupants: n/a

Adjacencies:
Direct: Decontamination
Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

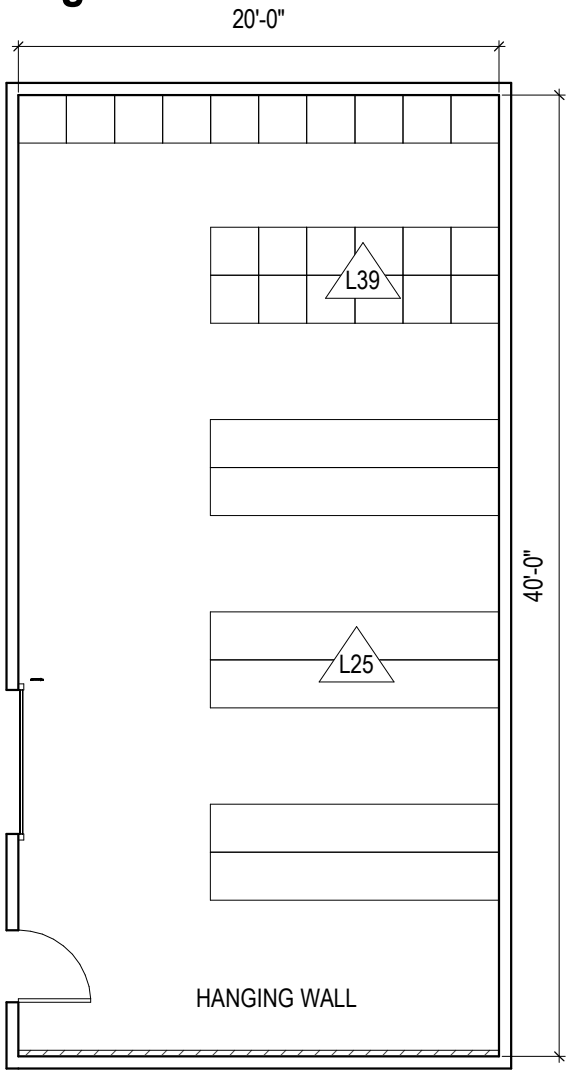
Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☑ *1	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☐
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

*1 Heat and exhaust only

C.5
Secure Equipment Storage



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L25	METAL SHELVING
L39	METAL LOCKABLE CABINETS

Space Name: Secure Equipment Storage

Space Number: C.5

Space Classification: Apparatus & Apparatus Support Live Fire Training

Unit Quantity: 1

Area Requirements: 800 SF

Function: Storage for training equipment

Occupants: n/a

Adjacencies: **Direct:**

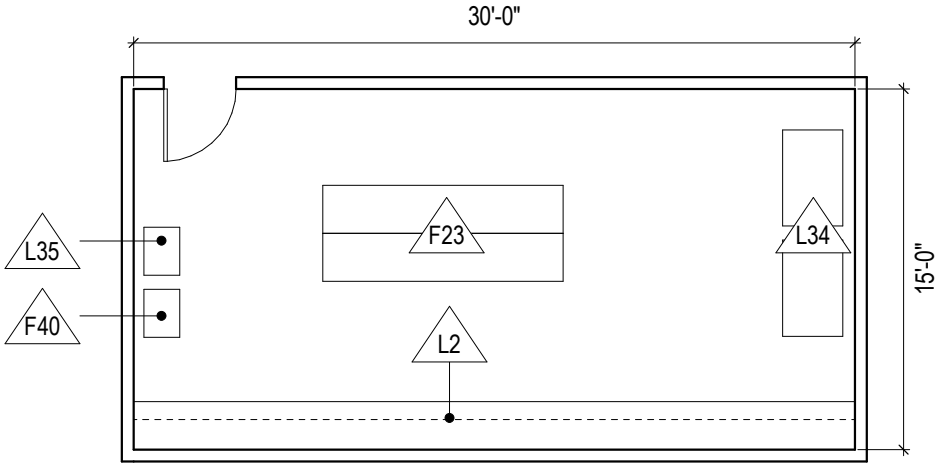
Proximate: Apparatus Bay

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑ *1	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

Heat and exhaust only

C.6
Equipment Maintenance Shop



FIXED REQUIREMENTS

F23	WORK BENCH
F40	EMERGENCY EYEWASH STATION

LOOSE REQUIREMENTS

L2	SHELVING
L34	ROLLING TOOL CHEST
L35	FLAMABLE WASTE STORAGE

Space Name: Equipment Maintenance Shop

Space Number: C.6

Space Classification: Apparatus & Apparatus Support Live Fire Training

Unit Quantity: 1

Area Requirements: 450 SF

Function: Small equipment maintenance shop

Occupants: 2-5

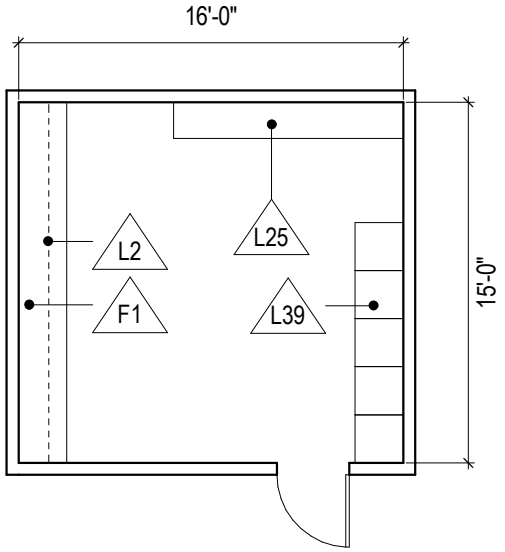
Adjacencies: **Direct:**

Proximate: Apparatus Bay

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

C.7
EMT Equipment Storage



FIXED REQUIREMENTS

F1	24" COUNTERTOP

LOOSE REQUIREMENTS

L2	SHELVING
L25	METAL SHELVING
L39	METAL LOCKABLE CABINETS

Space Name: EMT Equipment Storage

Space Number: C.7

Space Classification: Apparatus & Apparatus Support Live Fire Training

Unit Quantity: 1

Area Requirements: 250 SF

Function: Storage of EMT equipment for training

Occupants: n/a

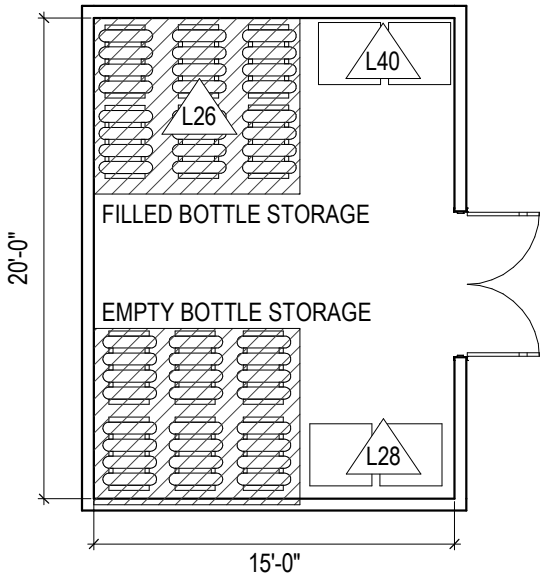
Adjacencies: **Direct:**

Proximate: Classroom

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

C.8
SCBA Air Storage



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L26	SCBA BOTTLE ROLLING CART
L28	CASCADE SYSTEM
L40	COMPRESSOR

Space Name: SCBA Compressor and Air Storage

Space Number: C.8

Space Classification: Storage / Workshop

Unit Quantity: 1

Area Requirements: 300 SF

Function: SCBA tank fill and storage for up to 150 bottles

Occupants: n/a

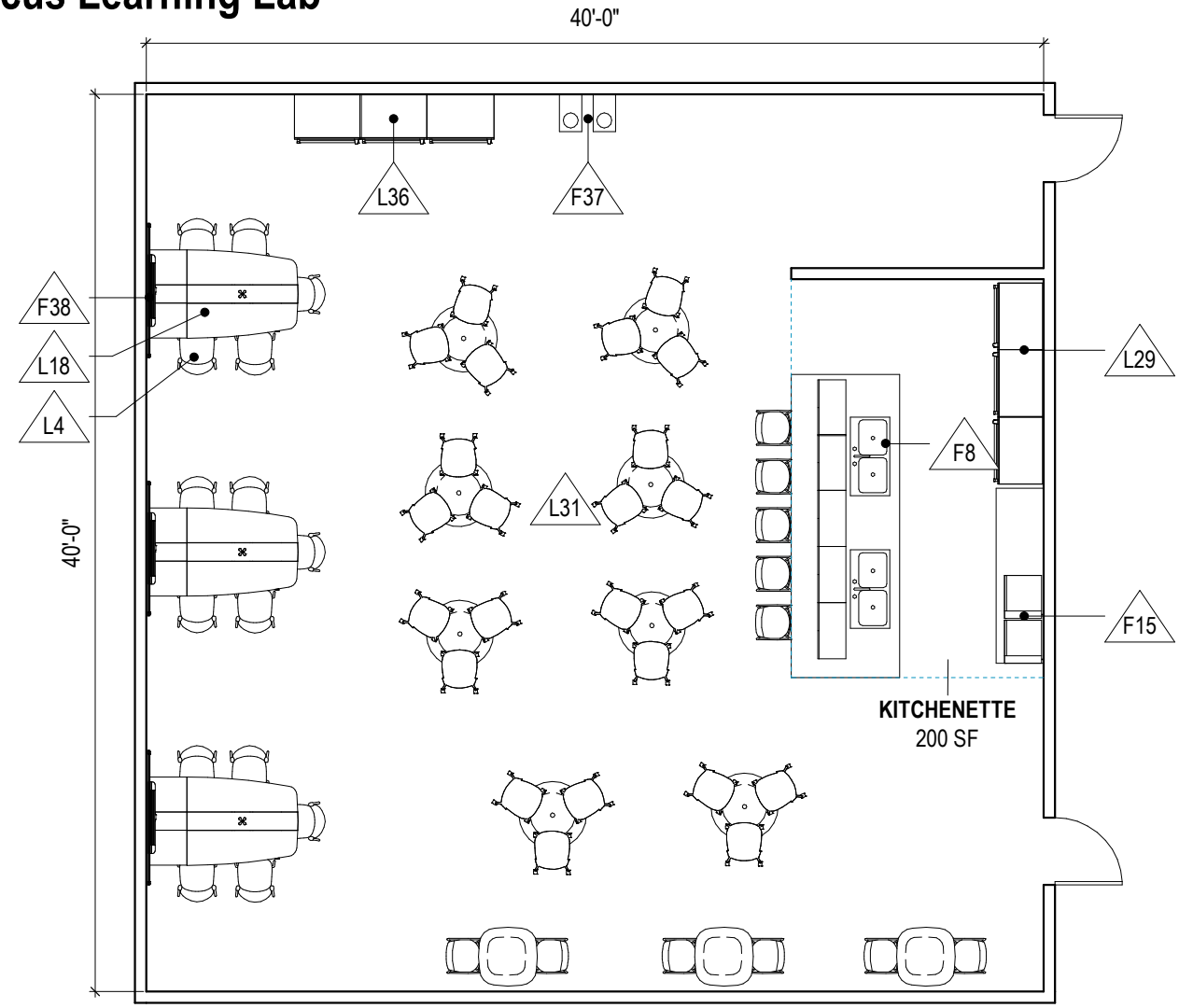
Adjacencies: **Direct:**

Proximate: Apparatus Bay

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

D.1
Focus Learning Lab



FIXED REQUIREMENTS

F8	SINK
F15	MICROWAVE
F37	BOTTLE FILL STATION / DRINKING FOUNTAIN
F38	CAMERA/SPEAKER/MIC/DISPLAY FOR DISTANCE CONFERENCING

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L18	CONFERENCE TABLE
L29	REFRIGERATOR
L31	TABLE AND CHAIRS
L36	VENDING MACHINE

Space Name: Student Support Live Fire Training

Space Number: D.1

Space Classification: Student Support Live Fire Training

Unit Quantity: 1

Area Requirements: 1,400 SF (Kitchenette = 200)

Function: Flexible active learning and collaboration with kitchenette

Occupants: 30

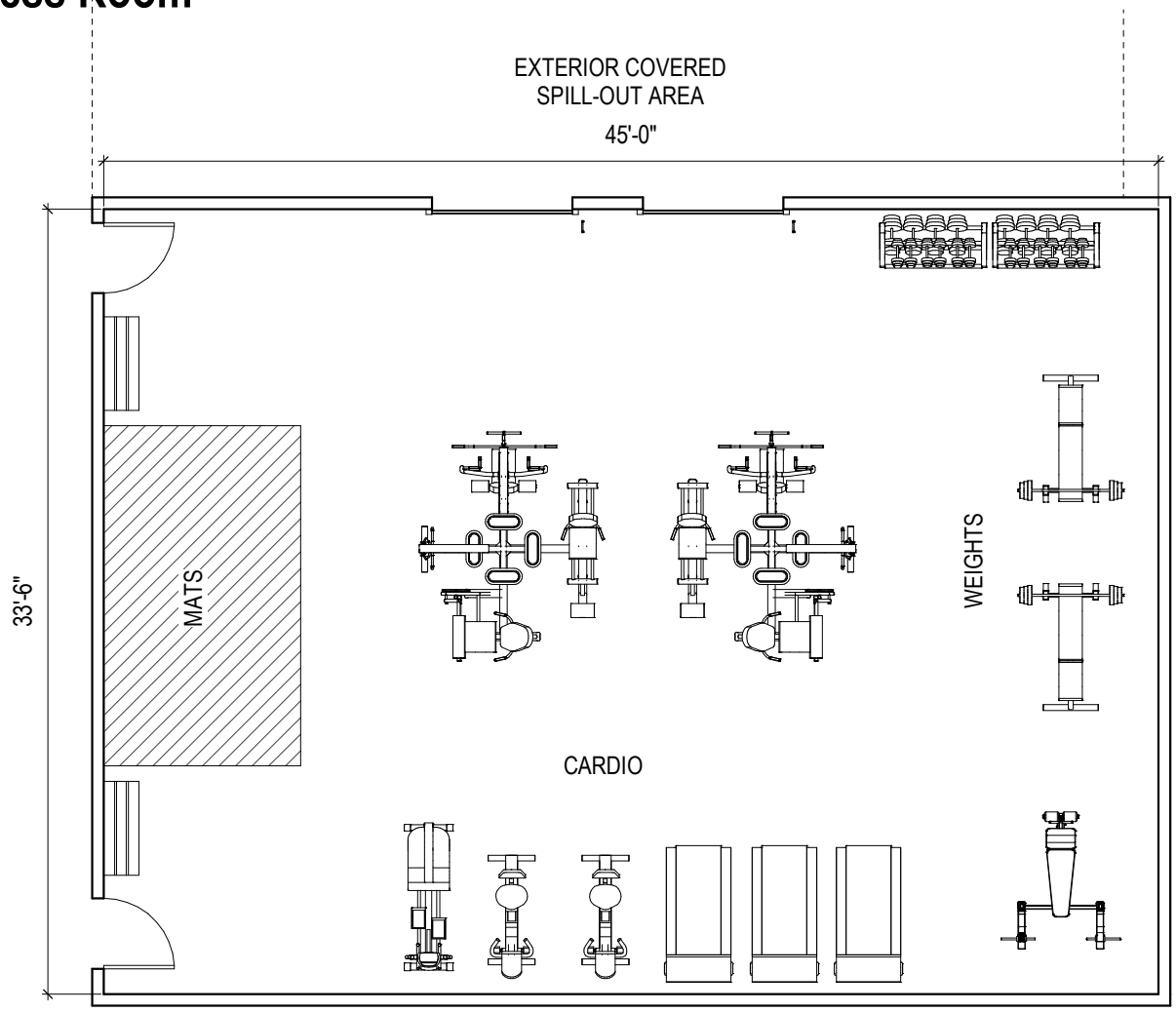
Adjacencies: **Direct:**

Proximate: Classrooms

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☑		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☑		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☑		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

D.2
Fitness Room



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

Space Name: FItness Room

Space Number: D.2

Space Classification: Student Support Live Fire Training

Unit Quantity: 1

Area Requirements: 1,500 SF

Function: Required fitness program for Firefighter I and Firefighter II Certificates

Occupants: 25

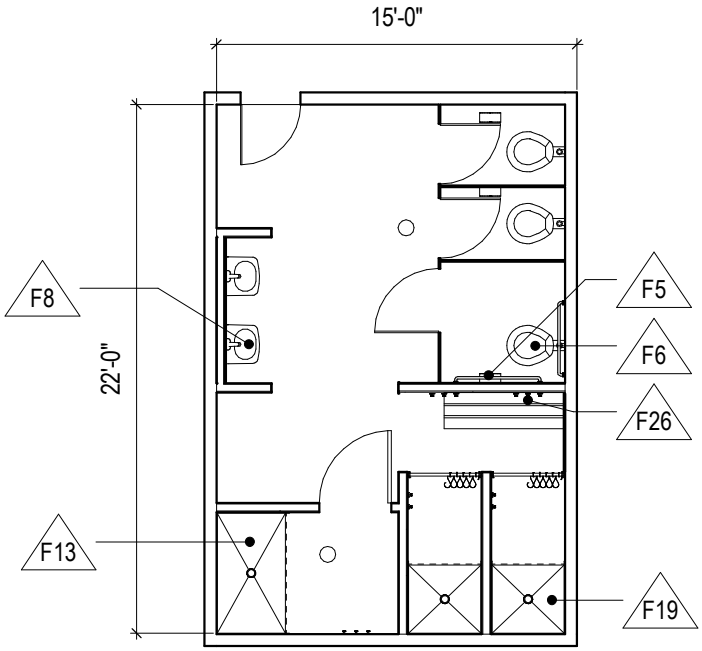
Adjacencies: **Direct:**

Proximate: Fire Training

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

D.3
Women's Student Shower



FIXED REQUIREMENTS

F5	TOILET PAPER HOLDER
F6	TOILET
F8	SINK
F13	ADA SHOWER
F19	SHOWER
F26	SHOWER HOOKS

LOOSE REQUIREMENTS

Space Name: Women's Student Shower

Space Number: D.3

Space Classification: Student Support Live Fire Training

Unit Quantity: 1

Area Requirements: 300 SF

Function: Student shower and restroom

Occupants: n/a

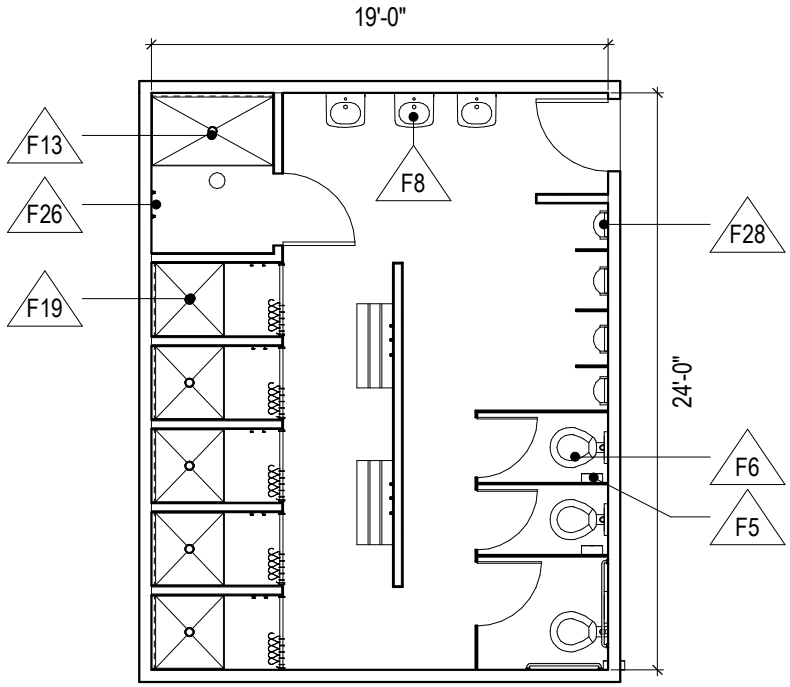
Adjacencies: **Direct:**

Proximate: Fitness room and live training

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

D.4
Men's Student Shower



FIXED REQUIREMENTS

F5	TOILET PAPER HOLDER
F6	TOILET
F8	SINK
F13	ADA SHOWER
F19	SHOWER
F26	SHOWER HOOKS
F28	URINAL

LOOSE REQUIREMENTS

Space Name: Men's Student Shower

Space Number: D.4

Space Classification: Student Support Live Fire Training

Unit Quantity: 1

Area Requirements: 400 SF

Function: Student shower and restroom

Occupants: n/a

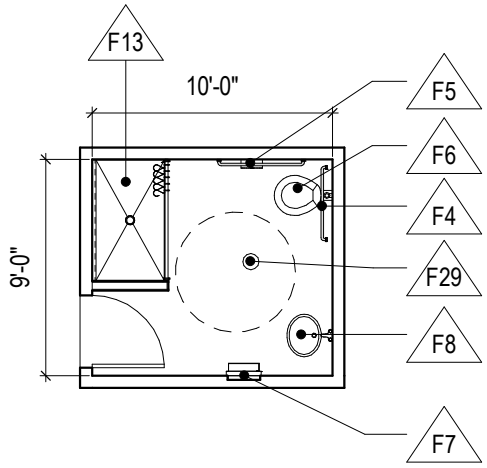
Adjacencies: **Direct:**

Proximate: Fitness room and live training

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

D.5
Single Occupant Shower / RR



FIXED REQUIREMENTS

F4	GRAB BARS
F5	TOILET PAPER HOLDER
F6	TOILET
F7	PAPER TOWEL DISPENSER
F8	SINK
F13	ADA SHOWER
F29	FLOOR DRAIN

LOOSE REQUIREMENTS

Space Name: Single Occupant Shower / Restroom

Space Number: D.5

Space Classification: Student Support Live Fire Training

Unit Quantity: 1

Area Requirements: 85 SF

Function: Shower and RR

Occupants: n/a

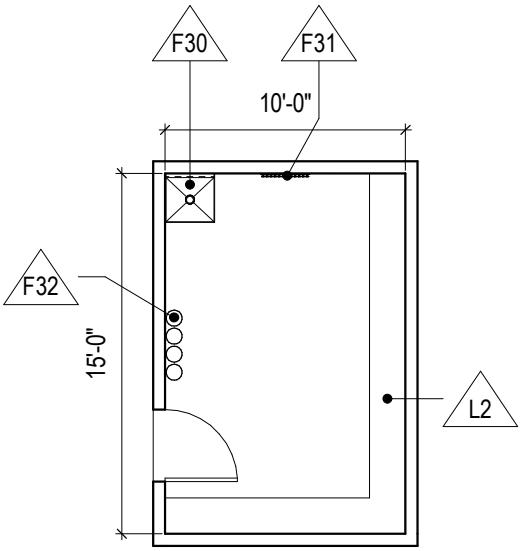
Adjacencies: **Direct:**

Proximate: Fitness room

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☐	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

D.6
Storage / Janitor



FIXED REQUIREMENTS

F30	MOPSINK
F31	MOP RACK
F32	SOAP DISPENSER

LOOSE REQUIREMENTS

L2	SHELVING

Space Name: Storage & Janitor

Space Number: D.6

Space Classification: Student Support Live Fire Training

Unit Quantity: 1

Area Requirements: 150 SF

Function: Storage and janitor

Occupants: n/a

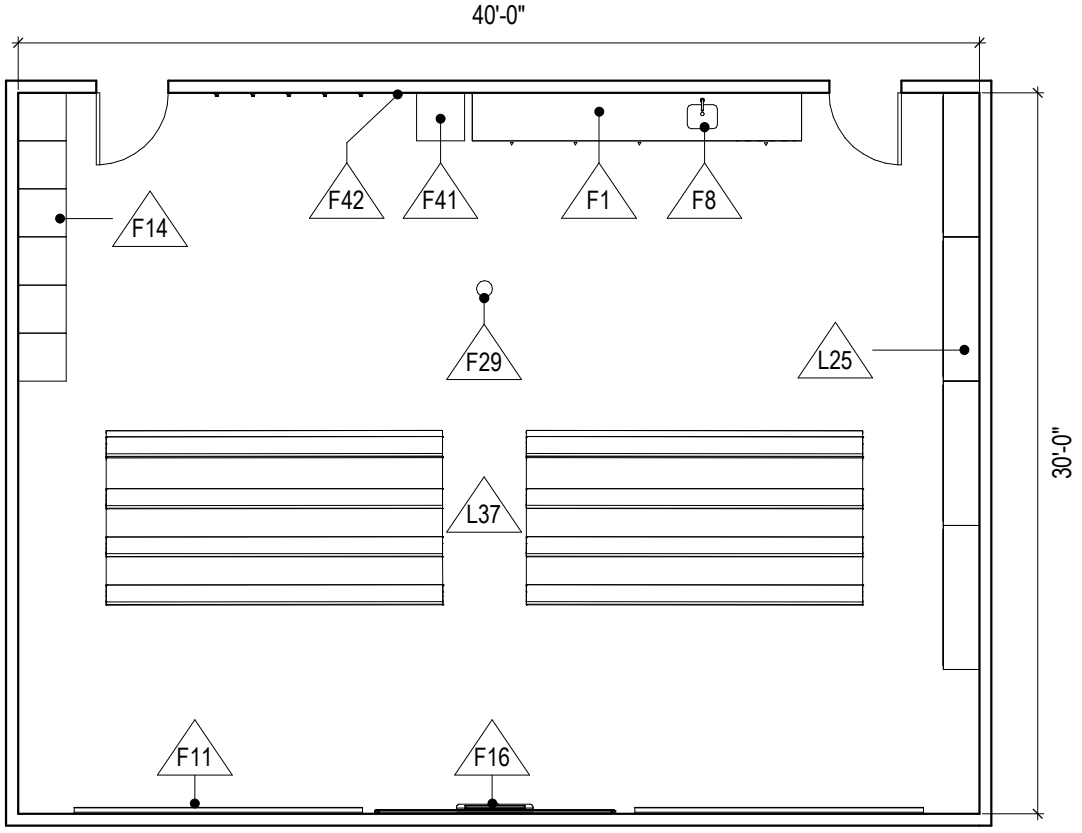
Adjacencies: **Direct:**

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

D.7
Dirty Classroom



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F8	SINK
F11	WHITEBOARD
F14	BUNKER GEAR LOCKERS
F16	SMARTBOARD
F29	FLOOR DRAIN
F41	HYDRATION STATION
F42	HOSE BIB

LOOSE REQUIREMENTS

L25	METAL SHELVING
L37	TIERD BLEACHER SEATING

Space Name:	Dirty Classroom
Space Number:	D.7
Space Classification:	Student Support Live Fire Training
Unit Quantity:	1
Area Requirements:	1,200 SF

Function:	Classroom area for instruction before and after live fire training while in gear
Occupants:	n/a
Adjacencies:	**Direct:**
	Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☐	Floor Drains	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☑
				Other	☐

Notes

Appendix 07

Predesign
State Project No. 2020-213
July 27, 2020

Bates TECHNICAL COLLEGE

RICEfergusMILLER

7.0 APPENDIX

1. Predesign Checklist
2. LCCM
3. DAHP
4. LEED and Sustainability
5. BTC 2019-2020 Strategic Plan
6. BTC Meeting Notes
7. City of Tacoma Pre-Application comments
8. Existing Utility Easements
9. 2019 SBCTC FCS BTS Building D

SECTION C

APPENDICES

Appendix 1: Predesign checklist and outline

A predesign should include the content detailed here. OFM will approve limited scope predesigns on a case-by-case basis.

- **Executive summary**
- **Problem statement, opportunity or program requirement**
  - Identify the problem, opportunity or program requirement that the project addresses and how it will be accomplished.
  - Identify and explain the statutory or other requirements that drive the project's operational programs and how these affect the need for space, location or physical accommodations. Include anticipated caseload projections (growth or decline) and assumptions, if applicable.
  - Explain the connection between the agency's mission, goals and objectives; statutory requirements; and the problem, opportunity or program requirements.
  - Describe in general terms what is needed to solve the problem.
  - Include any relevant history of the project, including previous predesigns or budget funding requests that did not go forward to design or construction.
- **Analysis of alternatives (including the preferred alternative)**
  - Describe all alternatives that were considered, including the preferred alternative. Include:
    - A no action alternative.
    - Advantages and disadvantages of each alternative. Please include a high-level summary table with your analysis that compares the alternatives, including the anticipated cost for each alternative.
    - Cost estimates for each alternative:
      - Provide enough information so decision makers have a general understanding of the costs.
      - Complete OFM's Life Cycle Cost Model (RCW 39.35B.050).
    - Schedule estimates for each alternative. Estimate the start, midpoint and completion dates.
- **Detailed analysis of preferred alternative**
  - Nature of space – how much of the proposed space will be used for what purpose (i.e., office, lab, conference, classroom, etc.)
  - Occupancy numbers.
  - Basic configuration of the building, including square footage and the number of floors.
  - Space needs assessment. Identify the guidelines used.
  - Site analysis:
    - Identify site studies that are completed or under way.
    - Location.

- Building footprint and its relationship to adjacent facilities and site features. Provide aerial view, sketches of the building site and basic floorplans.
- Stormwater requirements.
- Ownership of the site and any acquisition issues.
- Easements and setback requirements.
- Potential issues with the surrounding neighborhood, during construction and ongoing.
- Utility extension or relocation issues.
- Potential environmental impacts.
- Parking and access issues, including improvements required by local ordinances, local road impacts and parking demand.
- Impact on surroundings and existing development with construction lay-down areas and construction phasing.

- Consistency with applicable long-term plans (such as the Thurston County and Capitol campus master plans and agency or area master plans) as required by RCW 43.88.110.
- Consistency with other laws and regulations:
  - High-performance public buildings (Chapter 39.35D RCW).
  - State efficiency and environmental performance, if applicable (Executive Order 18-01).
  - Greenhouse gas emissions reduction policy (RCW 70.235.070).
  - Archeological and cultural resources (Executive Order 05-05 and Section 106 of the National Historic Preservation Act of 1966).
  - Americans with Disabilities Act (ADA) implementation (Executive Order 96-04).
  - Compliance with planning under Chapter 36.70A RCW, as required by RCW 43.88.0301.
  - Information required by RCW 43.88.0301(1).
  - Other codes or regulations.
- Identify problems that require further study. Evaluate identified problems to establish probable costs and risk.
- Identify significant or distinguishable components, including major equipment and ADA requirements in excess of existing code.
- Identify planned technology infrastructure and other related IT investments that affect the building plans.
- Describe planned commissioning to ensure systems function as designed.
- Describe any future phases or other facilities that will affect this project.
- Identify and justify the proposed project delivery method. For GC/CM, link to the requirements in RCW 39.10.340.
- Describe how the project will be managed within the agency.
- Schedule.
  - Provide a high-level milestone schedule for the project, including key dates for budget approval, design, bid, acquisition, construction, equipment installation, testing, occupancy and full operation.
  - Incorporate value-engineering analysis and constructability review into the project schedule, as required by RCW 43.88.110(5)(c).

- ■ Describe factors that may delay the project schedule.
- ■ Describe the permitting or local government ordinances or neighborhood issues (such as location or parking compatibility) that could affect the schedule.
- ■ Identify when the local jurisdiction will be contacted and whether community stakeholder meetings are a part of the process.

❖ **Project budget analysis for the preferred alternative**

- ■ Cost estimate.
  - ■ Major assumptions used in preparing the cost estimate.
  - ■ Summary table of Uniformat Level II cost estimates.
  - ■ The C-100.
- ■ Proposed funding.
  - ■ Identify the fund sources and expected receipt of the funds.
  - ☐ If alternatively financed, such as through a COP, provide the projected debt service and fund source. Include the assumptions used for calculating finance terms and interest rates.
- ■ Facility operations and maintenance requirements.
  - ■ Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumptions (including FTEs).
  - ☐ Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repair, replacement and maintenance.
- ■ Clarify whether furniture, fixtures and equipment are included in the project budget. If not included, explain why.

❖ **Predesign appendices**

- ■ Completed Life Cycle Cost Model.
- ■ A letter from DAHP.

Life Cycle Cost Analysis - Project Summary

Agency	Bates Technical College
Project Title	Fire Service Training Center

Existing Description	

Lease Option 1 Description	New Building Leased in Pierce County @ Market Rate

Lease Option 2 Description	

Ownership Option 1 Description	Bates Technical College-Fire Training Center Alternative A - Preferred

Ownership Option 2 Description	Bates Technical College--Fire Training Center Alternate B

Ownership Option 3 Description	

Lease Options Information	**Existing Lease**	**Lease Option 1**	**Lease Option 2**
Total Rentable Square Feet	-	54,500	-
Annual Lease Cost (Initial Term of Lease)	$ -	$ 2,530,722	$ -
Full Service Cost/SF (Initial Term of Lease)	$ -	$ 46.44	$ -
Occupancy Date	n/a	8/15/2023	
Project Initial Costs	n/a	$ 2,498,000	$ -
Persons Relocating	-	-	-
RSF/Person Calculated			

Ownership Information	**Ownership 1**	**Ownership 2**	**Ownership 3**
Total Gross Square Feet	54,500	53,500	-
Total Rentable Square Feet	45,166	44,687	-
Occupancy Date	3/15/2024	8/15/2023	
Initial Project Costs	$ -	$ -	$ -
Est Construction TPC ($/GSF)	$ 631	$ 673	$ -
RSF/Person Calculated	-	-	-

Financial Analysis of Options

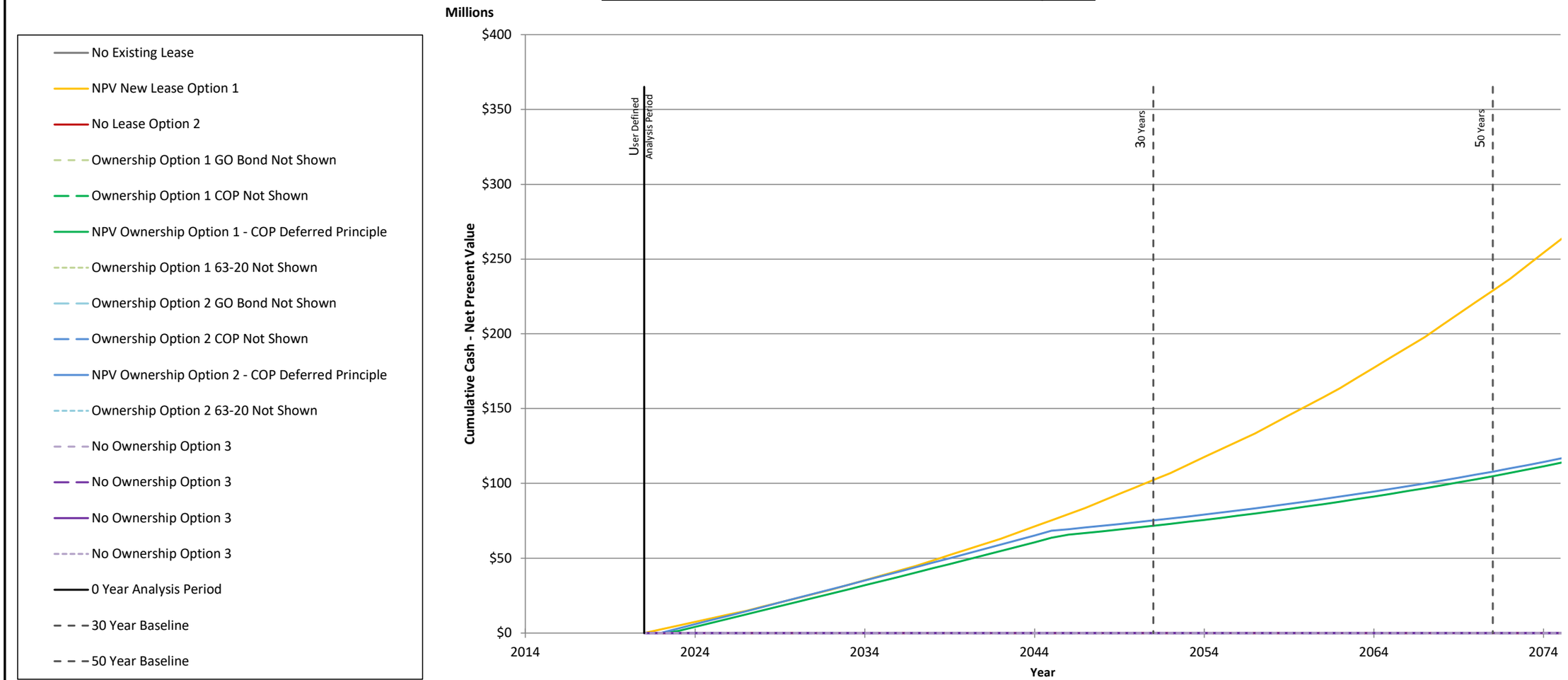
	Display Option?	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	No	No	Yes	No
	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
0	0 Year Cumulative Cash	$ -	$ -	$ -			$ -				$ -				$ -	
	0 Year Net Present Value	$ -	$ -	$ -			$ -				$ -				$ -	
	Lowest Cost Option (Analysis Period)															

	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
30	30 Year Cumulative Cash	$ -	$ 106,643,463	$ -			$ 76,267,689				$ 80,021,081				$ -	
	30 Year Net Present Value	$ -	$ 97,205,983	$ -			$ 70,280,763				$ 73,927,267				$ -	
	Lowest Cost Option (30 Years)		**3**				**1**				**2**					

	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
50	50 Year Cumulative Cash	$ -	$ 259,945,442	$ -			$ 116,390,086				$ 119,444,377				$ -	
	50 Year Net Present Value	$ -	$ 220,523,517	$ -			$ 102,559,978				$ 105,644,042				$ -	
	Lowest Cost Option (50 Years)		**3**				**1**				**2**					

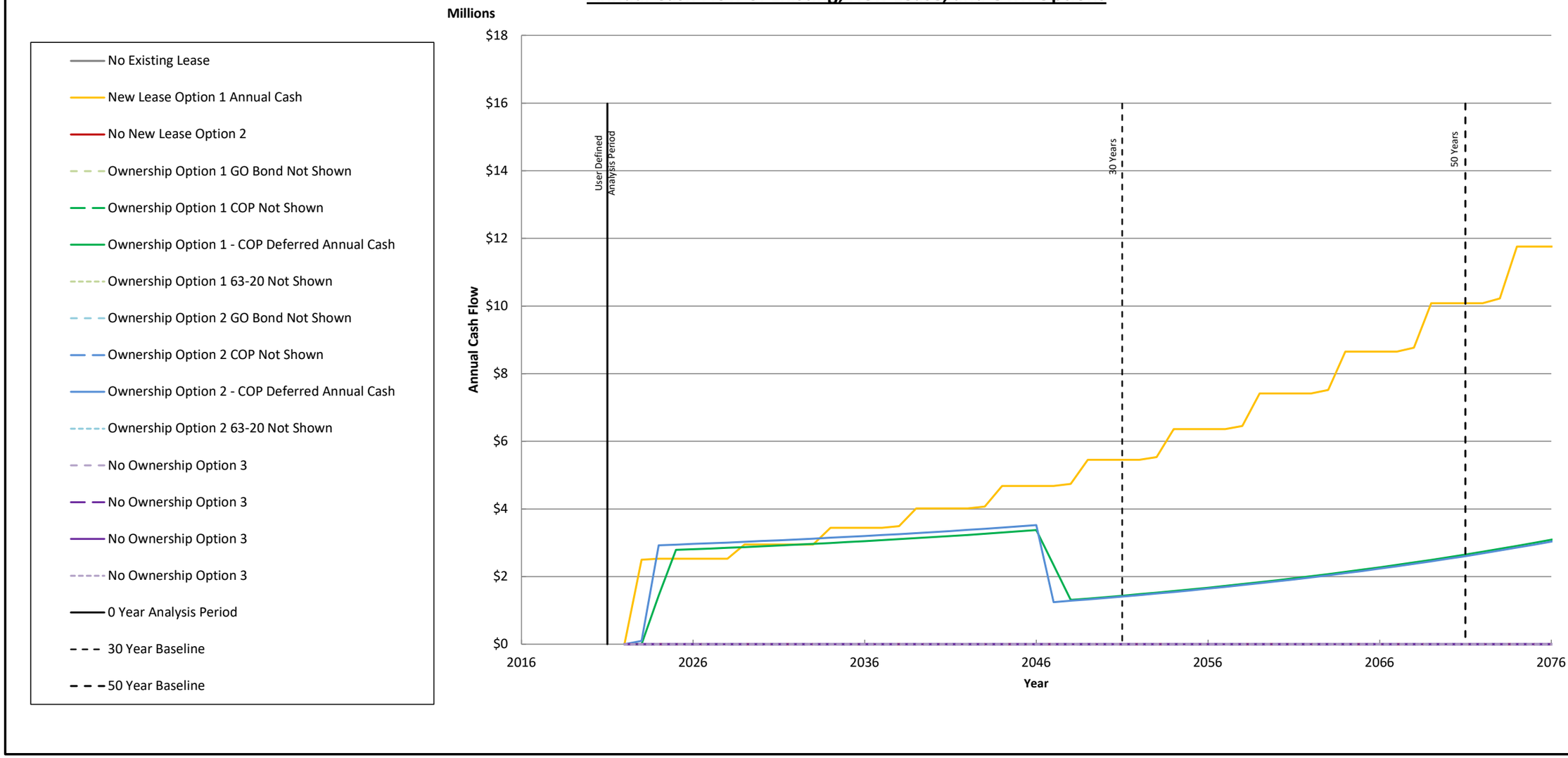
** - Defers payment on principle for 2 years while the building is being constructed. See instructions on Capitalized Interest.*

Cumulative Cash - NPV of Exist, Lease, and Own Options



Bates Technical College Fire Services Training Center
July 27, 2020 Washington State Project 2020-213

Annual Cash Flow of Existing, New Lease, and Own Options



Bates Technical College Fire Services Training Center
July 27, 2020 Washington State Project 2020-213

Financial Assumptions

Date of Life Cycle Cost Analysis:	7/24/2020
Analysis Period Start Date	8/15/2021
User Input Years of Analysis	0

All assumptions subject to change to reflect updated costs and conditions.

	Lease Options			Ownership Option 1			Ownership Option 2			Ownership Option 3		
	Existing Lease	**Lease Option 1**	**Lease Option 2**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**
Inflation / Interest Rate	3.120%	3.120%	3.120%	3.540%	3.670%	3.670%	3.540%	3.670%	3.670%	3.540%	3.720%	3.720%
Discount Rate	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%
Length of Financing	N/A	N/A	N/A	25	25	25	25	25	25	25	25	25

See Financial Assumptions tab for more detailed information

COP Deferred and 63-20 Financing defer the payment on principle until construction completion.

New Lease Assumptions

Real Estate Transaction fees are 2.5% of the lease for the first 5 years and 1.25% for each year thereafter in the initial term of the lease.

Tenant Improvements are estimated at $20 per rentable square foot.

IT infrastructure is typically estimated at $350 per person.

Furniture costs are typically estimated at $500 per person and do not include new workstations.

Moving Vendor and Supplies are typically estimated at $205 per person.

Default Ownership Options Assumptions

Assumes a 2 month lease to move-in overlap period for outfitting building and relocation.

Assumes surface parking.

The floor plate of the construction option office building is 15,000 gross square feet.

The estimated total project cost for construction is $567.00 per square foot.

See the Capital Construction Defaults tab for more construction assumptions.

Lease Option 1 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

*	**New Lease Option 1 Description**	New Building Leased in Pierce County @ Market Rate

	New Lease Information		
*	Lease Location	Tacoma	Market Area: Pierce County
*	Lease Square Feet Type	Rentable	
*	New Facility Square Feet	54,500	
*	New Lease Start Date	8/15/2023	
	SF per Person Calculated		

	New Lease Costs	**Years of Term**	**Rate / SF / Year**	**Rate / Month**	**Adjusted to FS Rate**	**Total FS Rate / Month**	**Estimated FSG Market Rate**	**Estimated FSG Rate / Month**	**Real Estate Transaction Fees for Term**
*	Years 1 - 5	5				$ 210,894	$ 46.44	$ 210,894	$ 294,751
	Years 6 - 10	5				$ 245,911	$ 54.15	$ 245,911	$ 173,639
	Years								
	Years								
	Years								
	Total Length of Lease	10							$ 468,390
	Transaction Fee for first 5 Years	2.50%	*of total rent for first 5 years of term*						
	Transaction Fee for Additional Years	1.25%	*of total rent for term beyond 5 years*						

Note: Real estate transaction fees calculated on base lease - not full service rate including added services and utilities.

Added Services	New Lease Operating Costs (Starting in current year)	Known Cost / SF / Year	Estimated Cost / SF / Year in 2023 - Rentable	Total Cost / Year	Cost / Month
☑	Energy (Electricity, Natural Gas)	$ -	$ 1.24	$ 67,498	$ 5,625
☑	Janitorial Services	$ -	$ 1.56	$ 85,192	$ 7,099
☑	Utilities (Water, Sewer, & Garbage)	$ -	$ 0.67	$ 36,698	$ 3,058
☐	Grounds	$ -	$0.00	$ -	$ -
☐	Pest Control	$ -	$0.00	$ -	$ -
☐	Security	$ -	$0.00	$ -	$ -
☐	Maintenance and Repair	$ -	$0.00	$ -	$ -
☐	Management	$ -	$0.00	$ -	$ -
☐	Road Clearance	$ -	$0.00	$ -	$ -
☐	Telecom	$ -	$0.00	$ -	$ -
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ -**	**$ 3.48**	**$ 189,388**	**$ 15,782**

Escalated to lease start date

	New Lease One Time Costs	Current Estimate	Calculated (for reference)	
*	Real Estate Transaction Fees		$ 468,390	*Per Std %*
*	Tenant Improvements	$ 1,090,000	$ 817,500	*$20 per SF*
*	IT Infrastructure	$ 519,000	$ -	
*	Furniture Costs	$ 749,000	$ -	
*	Building Security and Access Systems	$ 75,000		
*	Moving Vendor and Supplies	$ 60,000	$ -	
	Other / Incentive	$ 5,000		
	Total	$ 2,498,000	$ 1,285,890	

Biennium Budget Impacts for New Lease	Biennium Time Period Start	Finish	Existing Lease Option	New Lease Option 1	Biennium Impact:
21-23 Biennium Lease Expenditure	7/1/2021	6/30/2023	$ -	$ -	$ -
23-25 Biennium Lease Expenditure	7/1/2023	6/30/2025	$ -	$ 7,137,658	$ 7,137,658
25-27 Biennium Lease Expenditure	7/1/2025	6/30/2027	$ -	$ 5,061,445	$ 5,061,445
27-29 Biennium Lease Expenditure	7/1/2027	6/30/2029	$ -	$ 5,411,619	$ 5,411,619
29-31 Biennium Lease Expenditure	7/1/2029	6/30/2031	$ -	$ 5,901,862	$ 5,901,862

Ownership Option 1 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

*	**Project Description**	Bates Technical College-Fire Training Center Alternative A - Preferred
*	**Construction or Purchase/Remodel**	Construction
*	**Project Location**	Tacoma — Market Area = Pierce County

	Statistics	
*	Gross Sq Ft	54,500
*	Usable Sq Ft	45,166
	Space Efficiency	83%
	Estimated Acres Needed	3.00
	MACC Cost per Sq Ft	$377.51
	Estimated Total Project Costs per Sq Ft	$558.24
	Escalated MACC Cost per Sq Ft	$426.87
	Escalated Total Project Costs per Sq Ft	$631.24

*	**Move In Date**	3/15/2024

Interim Lease Information	**Start Date**
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced ($/SF/Year)	
One Time Costs (if double move)	

	Construction Cost Estimates (See Capital Budget System For Detail)			
		Known Costs	Estimated Costs	Cost to Use
	Acquisition Costs Total		$ -	$ -
A & E	**Consultant Services**			
	A & E Fee Percentage (if services not specified)	7.14%	7.02% Std	7.14%
	Pre-Schematic Design services	$ 214,303		
	Construction Documents			
	Extra Services	$ 602,500		
	Other Services			
	Design Services Contingency	$ 40,840		
	Consultant Services Total	$ 857,643	$ 1,423,378	$ 857,643
MACC	**Construction Contracts**			
	Site Work	$ 2,453,526		
	Related Project Costs	$ 1,933,977		
	Facility Construction	$ 16,186,704		
	MACC SubTotal	$ 20,574,207	$ 22,072,500	$ 20,574,207
	Construction Contingency (5% default)	$ 1,984,701	$ 1,028,710	$ 1,984,701
	Non Taxable Items			$ -
	Sales Tax	$ 2,560,956	$ 1,975,124	$ 2,560,956
	Construction Additional Items Total	$ 4,545,657	$ 3,003,834	$ 4,545,657
	Equipment			
	Equipment	$ 2,486,340		
	Non Taxable Items			
	Sales Tax	$ 253,607		
	Equipment Total	$ 2,739,947		$ 2,739,947
	Art Work Total	$ 113,914	$ 102,871	$ 113,914
	Other Costs			
		$ 650,000		
	Other Costs Total	$ 650,000		$ 650,000
	Project Management Total	$ 942,980		$ 942,980
	Grand Total Project Cost	**$ 30,424,348**	**$ 26,602,584**	**$ 30,424,348**

Construction One Time Project Costs			
One Time Costs	Estimate	Calculated	
Moving Vendor and Supplies		$ -	*$205 / Person in FY09*
Other (not covered in construction)			
Total	$ -	$ -	

	Ongoing Building Costs				
Added Services	New Building Operating Costs	Known Cost /GSF/ 2024	Estimated Cost /GSF/ 2024	Total Cost / Year	Cost / Month
☑	Energy (Electricity. Natural Gas)	$ -	$ 1.28	$ 69,604	$ 5,800
☑	Janitorial Services	$ -	$ 1.61	$ 87,850	$ 7,321
☑	Utilities (Water, Sewer, & Garbage)	$ -	$ 0.69	$ 37,843	$ 3,154
☑	Grounds	$ -	$ 0.07	$ 4,055	$ 338
☑	Pest Control	$ -	$ 0.14	$ 7,433	$ 619
☑	Security	$ -	$ 0.10	$ 5,406	$ 451
☑	Maintenance and Repair	$ -	$ 6.68	$ 364,238	$ 30,353
☑	Management	$ -	$ 0.58	$ 31,761	$ 2,647
☑	Road Clearance	$ -	$ 0.09	$ 4,730	$ 394
☑	Telecom	$ 0.35	$ -	$ 19,075	$ 1,590
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ 0.35**	**$ 11.25**	**$ 631,995**	**$ 52,666**

Ownership Option 2 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

*	**Project Description**	Bates Technical College--Fire Training Center Alternate B
*	**Construction or Purchase/Remodel**	Construction
*	**Project Location**	Tacoma — Market Area = Pierce County

	Statistics	
*	Gross Sq Ft	53,500
*	Usable Sq Ft	44,687
	Space Efficiency	84%
	Estimated Acres Needed	2.00
	MACC Cost per Sq Ft	$418.59
	Estimated Total Project Costs per Sq Ft	$613.33
	Escalated MACC Cost per Sq Ft	$459.00
	Escalated Total Project Costs per Sq Ft	$672.54

*	**Move In Date**	8/15/2023

Interim Lease Information	**Start Date**
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced ($/SF/Year)	
One Time Costs (if double move)	

	Construction Cost Estimates (See Capital Budget System For Detail)			
		Known Costs	Estimated Costs	Cost to Use
	Acquisition Costs Total		$ -	$ -
A & E	**Consultant Services**			
	A & E Fee Percentage (if services not specified)	7.04%	6.92% Std	7.04%
	Pre-Schematic Design services	$ 214,303		
	Construction Documents			
	Extra Services	$ 602,500		
	Other Services			
	Design Services Contingency	$ 40,840		
	Consultant Services Total	$ 857,643	$ 1,549,299	$ 857,643
MACC	**Construction Contracts**			
	Site Work	$ 2,987,463		
	Related Project Costs	$ 2,078,788		
	Facility Construction	$ 17,328,072		
	MACC SubTotal	$ 22,394,323	$ 21,667,500	$ 22,394,323
	Construction Contingency (5% default)	$ 2,298,898	$ 2,298,898	$ 2,298,898
	Non Taxable Items			$ -
	Sales Tax	$ 2,802,439	$ 2,149,855	$ 2,802,439
	Construction Additional Items Total	$ 5,101,337	$ 5,101,337	$ 5,101,337
	Equipment			
	Equipment	$ 2,456,340		
	Non Taxable Items			
	Sales Tax	$ 250,547		
	Equipment Total	$ 2,706,887		$ 2,706,887
	Art Work Total	$ 123,096	$ 111,972	$ 123,096
	Other Costs			
		$ 650,000		
	Other Costs Total	$ 650,000		$ 650,000
	Project Management Total	$ 979,641		$ 979,641
	Grand Total Project Cost		**$ 28,430,107**	**$ 32,812,927**

Construction One Time Project Costs			
One Time Costs	**Estimate**	**Calculated**	
Moving Vendor and Supplies		$ -	*$205 / Person in FY09*
Other (not covered in construction)			
Total	$ -	$ -	

	Ongoing Building Costs				
Added Services	New Building Operating Costs	Known Cost /GSF/ 2023	Estimated Cost /GSF/ 2023	Total Cost / Year	Cost / Month
☑	**Energy (Electricity. Natural Gas)**	$ -	$ 1.24	$ 66,260	$ 5,522
☑	**Janitorial Services**	$ -	$ 1.56	$ 83,629	$ 6,969
☑	**Utilities (Water, Sewer, & Garbage)**	$ -	$ 0.67	$ 36,025	$ 3,002
☑	**Grounds**	$ -	$ 0.07	$ 3,860	$ 322
☑	**Pest Control**	$ -	$ 0.13	$ 7,076	$ 590
☑	**Security**	$ -	$ 0.10	$ 5,146	$ 429
☑	**Maintenance and Repair**	$ -	$ 6.48	$ 346,737	$ 28,895
☑	**Management**	$ -	$ 0.57	$ 30,235	$ 2,520
☑	**Road Clearance**	$ -	$ 0.08	$ 4,503	$ 375
☑	**Telecom**	$ 0.35	$ -	$ 18,725	$ 1,560
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ 0.35**	**$ 10.91**	**$ 602,195**	**$ 50,183**

RICEfergusMILLER
ARCHITECTURE INTERIORS PLANNING VIZLAB
275 Fifth Street, Suite 100 Bremerton, WA 98337
(360) 377-8773 rfmarch.com

April 6, 2020

Washington State Department of Archeology and Historic Preservation
P.O. Box 48343
Olympia, WA 98504-8343

RE: Bates Technical College Fire Training Facility Predesign - APE

State Project: 2020-213
RFM Project: 2019091.00

Rice Fergus Miller is engaged to prepare a WA State Predesign Study for Bates Technical College Training Facility on its south campus in Tacoma, located at 2201 S 78th St, Tacoma, WA 98409.

The Pierce County parcels are 0320304091 and 0320304093.

The project will include new traditional classroom/administrative space and facilities to support its long standing fire training programs.

Attached are the two Site Alternatives we are considering for the project, Number 1at the north side of campus and Number 3 on the south and south-west portions of campus. The project envisions approximately 15,000 SF of new academic space and 32,000 SF fire training and fire training support space. A former Alternate 2 has been discarded.

All of the proposed areas have been previously developed with buildings or pavement.

The fire training spaces will consist of non-live-fire training such as search/rescue and ladder drills, and live fire training with propane fired gas props. No Class A (wood) fire training is proposed, nor any training with foam or other chemical fire suppression agents.

Please review the attached materials and provide a letter indicating your opinion of the impact of this project on the cultural resources of the site, city, region, and state. This letter will be included in our final Predesign Report. Let us know if you need any additional information or have any questions.

Thank you.

Ron Easterday

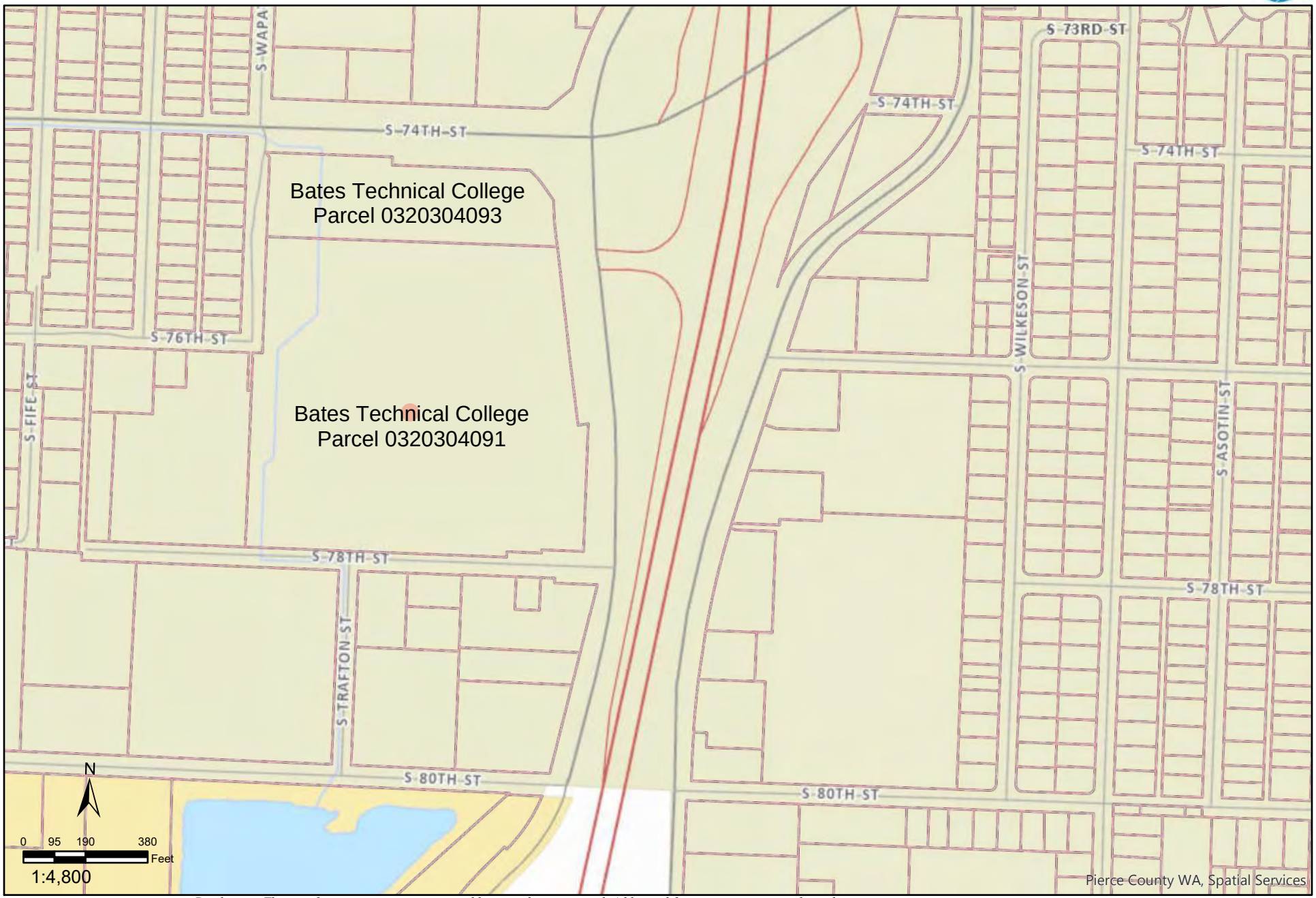
Ron Easterday, Principal
Rice Fergus Miller, Inc.

reasterday@rfmarch.com
360-516-8973

Attachments: Pierce County Parcel Map, (1) Page
Concept Site Alternatives 1 and 3, (2) Pages

PublicGIS

DAHP
Bates Technical College Fire Services Training Center
Station of Washington Project 2020-213



Disclaimer: The map features are approximate and have not been surveyed. Additional features not yet mapped may be present. Pierce County assumes no liability for variations ascertained by formal survey.

Date: 4/6/2020 09:41 AM

0 80 160 320

DAHP
Bates Technical College Fire Services Training Center
Station of Washington Project 2020-213

FIRE SERVICE TRAINING CENTER - ALTERNATE 1

RICEfergusMILLER

0 80 160 320

DAHP
Bates Technical College Fire Services Training Center
Station of Washington Project 2020-213

FIRE SERVICE TRAINING CENTER - ALTERNATE 3

RICE fergus MILLER

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

April 9, 2020

Mr. Steve Lewandowski
WA State Board for Community and Technical Colleges

In future correspondence please refer to:
Project Tracking Code: 2020-04-02727
Re: Bates Technical College Fire Training Facility

Dear Mr. Lewandowski:

The Washington State Department of Archaeology and Historic Preservation (DAHP) is in receipt of correspondence regarding the above referenced project. The above referenced project has been reviewed on behalf of the State Historic Preservation Officer (SHPO) under provisions of Governor's Executive Order 05-05 (GEO 05-05). Our review is based upon documentation contained in your communication.

Pre-design and design phases of proposed projects are exempt from GEO 05-05 review. Should the construction phase of the above referenced project become obligated with Washington State Capital funding, we look forward consultation under provisions of GEO 05-05. This will include the following:

- Any ground disturbing activities will require an EZ-1 form;
- Alterations or demolition of built environment resources that are 50 years of age or older will require EZ-2 forms.

We encourage your agency to consider cultural resources throughout all phases of the project planning.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer (SHPO) in conformance with GEO 05-05. Also, we appreciate receiving copies of any correspondence or comments from concerned tribes and other parties that you receive as you consult. Should additional information become available, our assessment may be revised.

Finally, please note that in order to streamline our responses, DAHP requires that Resource documentation (HPI, Archaeology sites, TCP) and reports be submitted electronically. Correspondence must be emailed in PDF format to the appropriate compliance email address. For more information about how to submit documents to DAHP please visit: https://dahp.wa.gov/project-review. To assist you in conducting a cultural resource survey and inventory effort, DAHP has developed Guidelines for Cultural Resources Reporting. You can view or download a copy from our website.

Thank you for the opportunity to review and comment. Please ensure that the DAHP Project Number (a.k.a. Project Tracking Code) is shared with any hired cultural resource consultants and is attached to any communications or submitted reports. If you have any questions, please feel free to contact me.

Sincerely,

Holly Borth
Project Compliance Reviewer
(360) 586-3533
holly.borth@dahp.wa.gov

November 28, 2017

Muckleshoot Indian Tribe
Attn: Virginia Cross, Chairwoman
39015 172nd Avenue SE
Auburn, WA 98092

Subject: **Fire Training Center – An Instruction Building**
Bates Technical College

Dear Chairwoman Cross,

Pursuant to Governor's Executive Order 05-05, and out of respect to our local tribal communities, I am writing to inform you of Bates Technical College's intent to construct a new instructional building located on our South Campus at 2201 S. 78th in Tacoma, Washington. The College is seeking capital funding to begin building design of the building in July of 2019, with the hope of beginning construction as early as the summer of 2021.

We have contacted the Washington State Department of Archaeology and Historic Preservation (DAHP) and have submitted all relevant forms for consideration. We will provide any and all information to DAHP should a further review be required.

In addition, Bates Technical College is committed to the immediate stoppage of work if any archaeological resources are discovered during construction.

If you have any comments or concerns regarding this matter, please direct them to me by phone at (253) 680-7156 or by e-mail at mmattes@bates.ctc.edu by December 12, 2017.

Respectfully,

Marty Mattes
Executive Director of Facilities and Operations

November 28, 2017

Nisqually Indian Tribe
Attn: Farron McCloud, Chairman
4820 She-Nah-Num Drive SE
Olympia, WA 98513

Subject: **Fire Training Center – An Instruction Building**
Bates Technical College

Dear Chairman McCloud,

Pursuant to Governor's Executive Order 05-05, and out of respect to our local tribal communities, I am writing to inform you of Bates Technical College's intent to construct a new instructional building located on our South Campus at 2201 S. 78th in Tacoma, Washington. The College is seeking capital funding to begin building design of the building in July of 2019, with the hope of beginning construction as early as the summer of 2021.

We have contacted the Washington State Department of Archaeology and Historic Preservation (DAHP) and have submitted all relevant forms for consideration. We will provide any and all information to DAHP should a further review be required.

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If you have any comments or concerns regarding this matter, please direct them to me by phone at (253) 680-7156 or by e-mail at mmattes@bates.ctc.edu by December 12, 2017.

Respectfully,

Marty Mattes
Executive Director of Facilities and Operations

November 28, 2017

Puyallup Tribe
Attn: Bill Sterud, Chairman
3009 East Portland Avenue
Tacoma, WA 98404

Subject: **Fire Training Center – An Instruction Building**
Bates Technical College

Dear Chairman Sterud,

Pursuant to Governor's Executive Order 05-05, and out of respect to our local tribal communities, I am writing to inform you of Bates Technical College's intent to construct a new instructional building located on our South Campus at 2201 S. 78th in Tacoma, Washington. The College is seeking capital funding to begin building design of the building in July of 2019, with the hope of beginning construction as early as the summer of 2021.

We have contacted the Washington State Department of Archaeology and Historic Preservation (DAHP) and have submitted all relevant forms for consideration. We will provide any and all information to DAHP should a further review be required.

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If you have any comments or concerns regarding this matter, please direct them to me by phone at (253) 680-7156 or by e-mail at mmattes@bates.ctc.edu by December 12, 2017.

Respectfully,

Marty Mattes
Executive Director of Facilities and Operations

LEED Scorecard
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

Project **FSTC - Bates Technical College**

Date **30-Jun**

DESIGN / CONSTRUCTION

LEEDv4 - NEW CONSTRUCTION

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

Yes	Maybe	No	
53	**43**	**16**	**Total Project Score**

Yes	Maybe	No				
1	**0**	**1**	**Integrative Process**		Possible Points	**1**
1			d	Credit 1	Integrative Process	1

Yes	Maybe	No				
7	**5**	**4**	**Location and Transportation**		Possible Points	**32**
		16	d	Credit 1	LEED ND Location	16
	1		d	Credit 2	Sensitive Land Protection	1
		2	d	Credit 3	High Priority Site	2
3	2		d	Credit 4	Surrounding Density and Diverse Uses Access to Quality Transit	5
3	2		d	Credit 5	Bicycle Facilities	5
1			d	Credit 6	Reduced Parking	1
		1	d	Credit 7	Footprint Green Vehicles	1
		1	d	Credit 8	Green Vehicles	1

Yes	Maybe	No				
2	**5**	**3**	**Sustainable Sites**		Possible Points	**10**
Yes			c	Preq 1	Construction Activity Pollution Prevention	required
	1		d	Credit 1	Site Assessment	1
		2	c	Credit 2	Site Development: Protect or Restore Habitat	2
		1	d	Credit 3	Open Space	1
	3		d	Credit 4	Rainwater Management	3
1	1		c	Credit 5	Heat Island Reduction	2
1			d	Credit 6	Light Pollution Reduction	1

Yes	Maybe	No				
3	**3**	**3**	**Water Efficency**		Possible Points	**11**
Yes			c	Preq 1	Outdoor Water Use Reduction	required
Yes			d	Preq 2	Indoor Water Use Reduction	required
Yes			c	Preq 3	Building-Level Water Metering	required
	1		d	Credit 3	Outdoor Water Use Reduction	2
2	2	2	d	Credit 4	Indoor Water Use Reduction	6
		1	c	Credit 5	Cooling Tower Water Use	2
1			d	Credit 6	Water Metering	1

Yes	Maybe	No				
18	**10**	**5**	**Energy and Atmosphere**		Possible Points	**33**
Yes			c	Preq 1	Fundamental Building Commissioning and Verification	required
Yes			d	Preq 2	Minimum Energy Performance	required
Yes			d	Preq 3	Building-Level Energy Metering	required
Yes			d	Preq 4	Fundamental Refrigerant Management	required
4	2		c	Credit 1	Enhanced Commissioning	6
12	6		d	Credit 2	Optimize Energy Performance	18
		1	d	Credit 3	Advanced Energy Metering	1
	1	1	d	Credit 4	Demand Response	2
		3	d	Credit 5	Renewable Energy Production	3
	1		d	Credit 6	Enhanced Refrigeration Management	1
2			c	Credit 7	Green Power and Carbon Offsets	2

Yes	Maybe	No				
4	**9**	**0**	**Materials & Resources**		Possible Points	**13**
Yes			d	Preq 1	Storage & Collection of Recyclables	required
Yes			c	Preq 2	Construction and Demolition Waste Management Planning	required
2	3		c	Credit 1	Building Life-Cycle Impact Reduction	5
	2		c	Credit 2	Environmental Product Declarations	2
1	1		c	Credit 3	Sourcing of Raw Materials	2
	2		c	Credit 4	Material Ingredients	2
1	1		c	Credit 5	Construction Waste Management: Divert 50% (75%)	2

Yes	Maybe	No				
10	**7**	**0**	**Indoor Enviornmental Quality**		Possible Points	**16**
Yes			d	Preq 1	Minimum IAQ Performance	required
Yes			d	Preq 2	Environmental Tobacco Smoke (ETS) Control	required
2			d	Credit 1	Enhanced Indoor Air Quality Strategies	2
	2		c	Credit 2	Low-Emitting Materials	3
	3		c	Credit 3	Construction IAQ Management Plan	1
2			c	Credit 4	Indoor Air Quality Assessment	2
1			d	Credit 5	Thermal Comfort	1
1	1		d	Credit 6	Interior Lighting	2
3			d	Credit 7	Daylight	3
1			d	Credit 8	Quality Views	1
	1		d	Credit 10	Acoustic Performance	1

Yes	Maybe	No				
6	**0**	**0**	**Innovation in Design**		Possible Points	**6**
1			d	Credit 1	Innovation in Design: Green Building Education	1
1			d	Credit 2	Innovation in Design: Green Housekeeping	1
1			d	Credit 3	Innovation in Design: [Specific Title]	1
1			d	Credit 4	Innovation in Design: [Specific Title]	1
1			d	Credit 5	Innovation in Design: [Specific Title]	1
1			c	Credit 6	LEED™ Accredited Professional	1

Yes	Maybe	No				
2	**4**	**0**	**Regional Priority Credits**		Possible Points	**6**
	1		d	Credit 1	RPC 1 - Demand Response	1
	1		d	Credit 2	RPC 2 - Renewable Energy Production	1
	1		d	Credit 3	RPC 3 - Environmental Product Declarations	1
	1		d	Credit 4	RPC 4 - Sourcing of Raw Materials	1
1			d	Credit 5	RPC 5 - Rainwater Management	1
1			d	Credit 6	RPC 6 - Indoor Water Use Reduction	1

Bates Technical College

SUSTAINABILITY PLAN

August 14, 2013

Strategy for Reducing Greenhouse Gas Emissions

August 14, 2013

1. Background

In 2009, the Legislature and Governor adopted the State Agency Climate Leadership Act (Engrossed Second Substitute Senate Bill 5560 – Chapter 519, Laws of 2009). The Act committed state agencies to lead by example in reducing their greenhouse gas (GHG) emissions to:

- 15 percent below 2005 levels by 2020.
- 36 percent below 2005 by 2035.
- 57.5 percent below 2005 levels (or 70 percent below the expected state government emissions that year, whichever amount is greater.)

The Act, codified in RCW 70.235.050-070 directed agencies to annually measure their greenhouse gas emissions, estimate future emissions, track actions taken to reduce emissions, and develop a strategy to meet the reduction targets. The strategy is required by law in RCW 70.235.050 section (3):

> *By June 30, 2011, each state agency shall submit to the department a strategy to meet the requirements in subsection (1) of this section* [greenhouse gas reduction targets]. *The strategy must address employee travel activities, teleconferencing alternatives, and include existing and proposed actions, a timeline for reductions, and recommendations for budgetary and other incentives to reduce emissions, especially from employee business travel.*

Starting in 2012 and every two years after each state agency is required to report to Ecology the actions taken to meet the emission reduction targets under the strategy for the preceding biennium.

Sustainability Policy Statement:

- **Bates Technical College applies sound environmental stewardship and sustainable principles in the development and management of College facilities to deliver resource efficiency, operational fiscal benefit and healthy, engaging and effective learning environments.**

2. Greenhouse Gas Emissions from Agency Operations

A. Direct sources of GHG emissions from building and fleet energy use

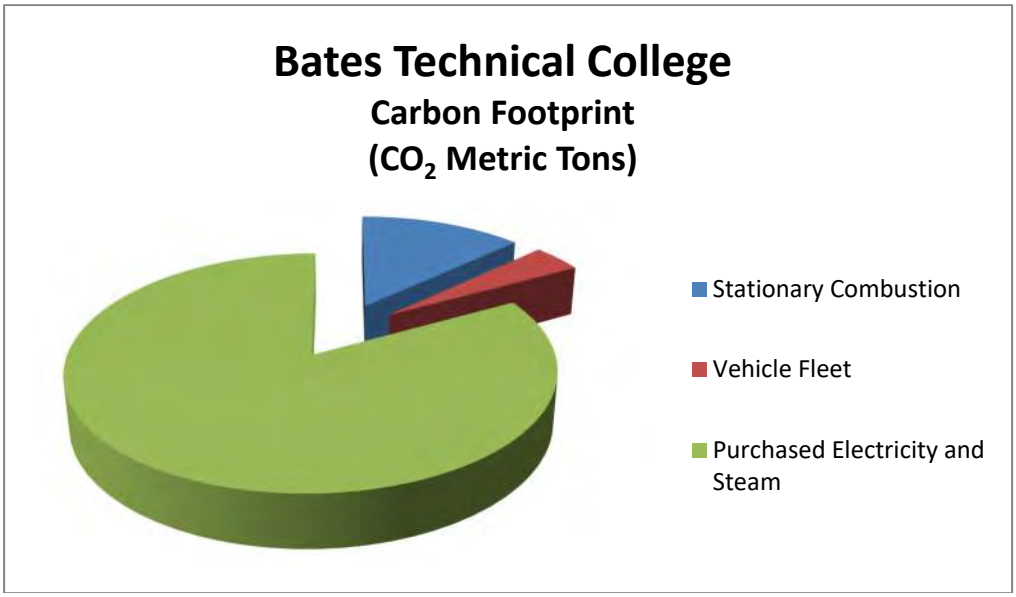
Year	Greenhouse Gas Emissions (metric tons carbon dioxide equivalent, $MTCO_2e$)
2005	6,161.0
2009 (or most recent year)	5,667.0
2020 (projected)	7,431.1
2035 (projected)	8,621.4

(Note: Figures do not include GHG emissions from buildings owned by General Administration. However, they do include GHG emissions from use of the GA Motor Pool.)

B. Main sources of direct GHG emissions

Historical Emissions

	2009
Stationary Combustion	**769.7**
Vehicle Fleet	**235.8**
Purchased Electricity and Steam	**4,897.3**
Total Emissions (MT CO_2e)	**5,902.8**



C. Greenhouse Gas Reduction Targets

Year	GHG Reduction Target ($MTCO_2e$)
2020 (15% below 2005)	**5,236.9**
2035 (36% below 2005)	**3,943.0**
2050 (57.5% below 2005)	**2,618.4**

D. Level of GHG Reduction Needed to Meet Targets

Year	Amount of GHG Reduction Needed to meet Targets ($MTCO_2e$)
2020	**2,463.4**
2035	**4,990.8**

3. Overarching Strategies

Bates has identified several climate action plan strategies to help in reducing GHG emissions:

- Decrease energy consumption
- Design, construct and remodel to minimize carbon footprint impacts
- Reduce toxicity of trash, hazardous waste and dangerous waste streams
- Reuse containers and products
- Recycle - purchase recycled content products and disposal through recycling facilities
- Use sustainable practices in daily operations
- Education/Outreach

4. Greenhouse Gas Reduction Strategies for Direct Emission Sources (Building and Fleet Energy Use)

A. Strategies and Actions with Low to No Cost

Where possible, include estimates of GHG reduction, cost, payback using emission reduction tool. Add the reduction and cost estimates and insert totals.

Strategies and Actions	GHG Reduction Estimate Annual ($MTCO_2e$)	Upfront Cost Estimate ($)	Payback Period Estimate (Years)	Date to Imple-ment Estimate
Building Energy Use				
Reduce energy consumption through replacement acquisition				

• Energy efficient replacement of computers and power management	108.5			
• Energy efficient replacement of monitors and power management	40			
• Energy efficient replacement of printers and copiers	62.5			
Fleet Energy Use				
TOTALS:	211		N/A	N/A

B. Strategies and Actions with Payback up-to Twelve Years (or other time period determined by your agency)

Strategies and Actions	GHG Reduction Estimate ($MTCO_2e$)	Upfront Cost Estimate ($)	Payback Period Estimate (Years)	Date to Imple-ment Estimate
Building Energy Use				
Reduce energy consumption through capital, commerce grant and utility company incentive improvements.				
• Reduce GHG emissions through lighting and plumbing improvements (Phase I)	**688.44**	$1,864,337	10	2011
• Reduce GHG emissions through HVAC Controls & Equipment improvements (Phase II)	**528.68**	$3,133,596	10	2011
• Reduce GHG emissions through additional energy improvement projects (Phase III)	134.86	$112,807	9	2013
Fleet Energy Use				
TOTALS:	**1,351.98**		10 avg.	N/A

C. Strategies and Actions with High Cost and Long Payback (more than 12 years or other time period determined by your agency)

Strategies and Actions	GHG Reduction Estimate ($MTCO_2e$)	Upfront Cost Estimate ($)	Payback Period Estimate (Years)	Date to Imple-ment Estimate
Building Energy Use				
Fleet Energy Use				
TOTALS:			N/A	N/A

5. Greenhouse Gas Reduction Strategies for Other Emission Sources (Employee Business Travel and Commuting)

The agency also quantified greenhouse gas emissions from employee commuting and business travel. GHG emissions from these sources were not included in the 2005 baseline because of insufficient data, so therefore are not included in the reduction targets. Also, the agency has less operational control over these sources. The agency evaluated these sources separately in this strategy and identified reduction strategies for these sources.

Source of GHG Emissions	GHG Emissions, 2009 (or most recent year) ($MTCO_2e$)
Business Travel	76.2
Employee Commuting	515

Strategies and Actions	GHG Reduction Estimate ($MTCO_2e$)	Upfront Cost Estimate ($)	Payback Period Estimate (Years)	Date to Imple-ment Estimate
Employee Business Travel				

Employee Commuting				
TOTALS:			N/A	N/A

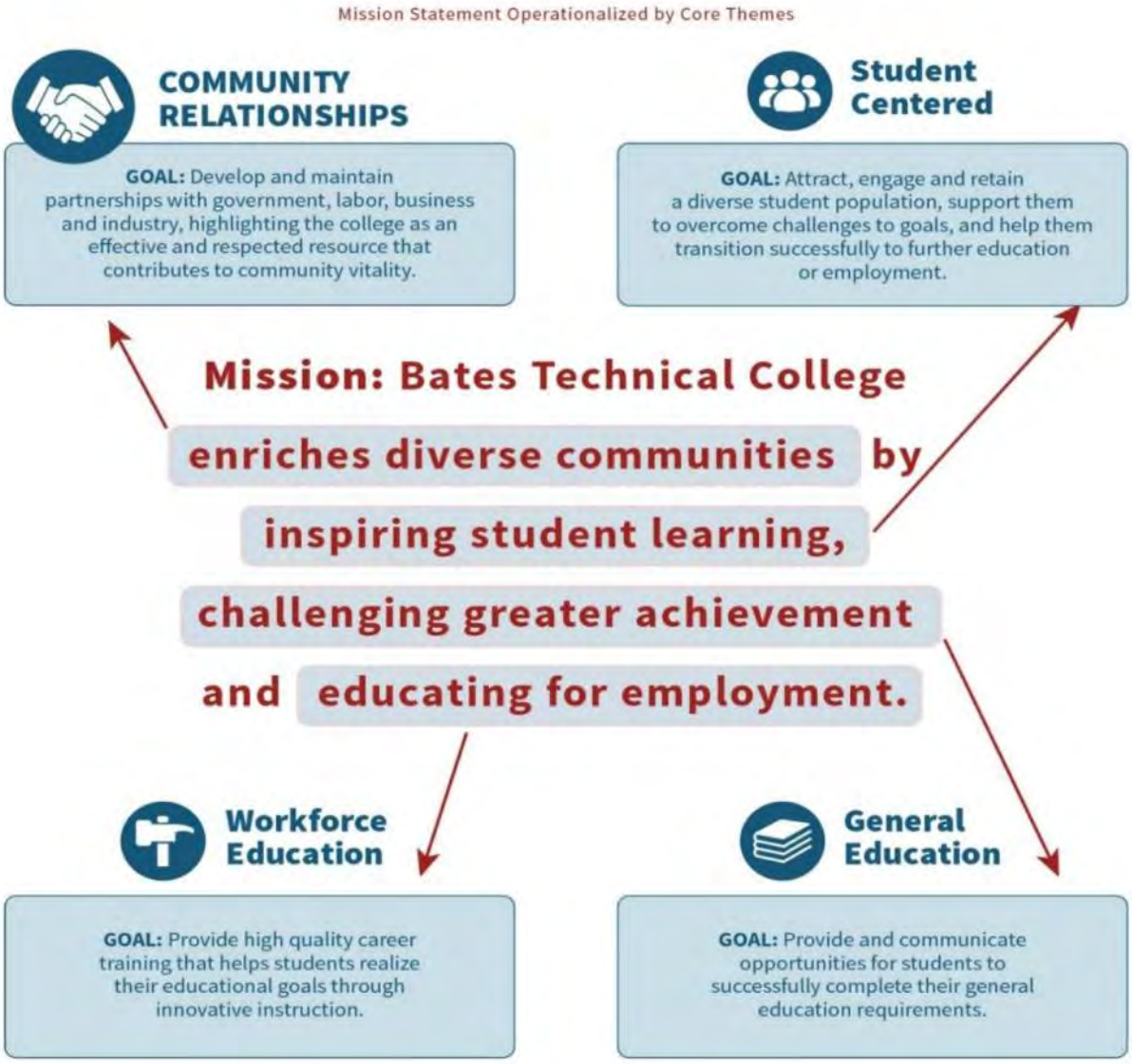
6. Additional Sustainability Strategies and Actions (if applicable)

Strategies and Actions	Co-benefits for GHG Reduction	Implementation Date Estimate
Switching from paper dispensers to Dyson air dryers.	$20,000 annual cost savings, 3.34 years ROI and a carbon footprint reduction of 5,748.92 kg/CO2e annually.	October 2011
Expand recycling program from business and instructional spaces into classrooms.	Reduce waste stream and increase recycling stream	September 2011

7. Next Steps and Recommendations

- **Complete phase I and II of ESCO projects by January 2012**
- **Initiate phase III of ESCO projects**
- **Establish a working committee or taskforce to coordinate sustainable action plans consistent with mission of the college**
- **Commute Trip Reduction strategies and incentives should be looked into to see if there are opportunities for reductions in commuting**
- **New budget considerations will need to be looked at and established to match costs for achievement of GHG reduction requirements**
- **Marty Mattes**
  Director of Facilities and Operations
  1101 South Yakima Ave.
  Tacoma, WA 98405

BATES TECHNICAL COLLEGE
DRAFT STRATEGIC PLAN 2019 – 2022



CORE THEME: Community Relationships

Goal: Develop and maintain partnerships with government, labor, business and industry, highlighting the college as an effective and respected resource that contributes to community vitality.

Objectives	Measures	Baseline Data & Target Goal	Measurement Tool	Due Date
Partnerships enhance instructional programs.	Effectiveness of the program advisory committees via survey.	2018-2019	Survey developed	Annually
Partnerships have a direct, positive and visible impact to our college and local community.	Apprenticeship Annualized FTE	2017-18: 788.9 Goal:	Data Warehouse	Annually

CORE THEME: Student Centered

Goal: Attract, engage and retain a diverse student population, support them to overcome challenges to goals and help them transition successfully to further education or employment.

Objectives	Measures	Baseline Data & Target Goal	Measurement Tool	Due Date
Identify and implement new or enhanced strategies to retain a diverse student population.	One year completed or retained rate for all students.	Fall 2016 Cohort: 56% Goal:	Data warehouse	Annually
Decrease the equity gaps between students based on specific, identified groups.	Achievement gaps for students of color compared to white students: 3-year graduation rate	Fall 2014 Cohort: 10% gap Goal:	Data warehouse	Annually
Enhance the processes that increase enrollment	Conversion rate: Inquiry to registered	Fall 2018 Cohort: 8% Goal:	CRM	Annually

of prospective students.				
Faculty and staff are knowledgeable of the support services that facilitate retention and persistence.	Assess faculty and staff awareness of available support services twice a year.	2018-2019	Survey developed.	Annually
Identify and intervene with students who are not making satisfactory progress towards their educational goals.	Proportion of students of Satisfactory Academic Progress (SAP) warning	Fall 2018: 5.9% Goal:	Student Management System.	Annually

CORE THEME: General Education

Goal: Provide and communicate opportunities for students to successfully complete their general education requirements.

Objectives	Measures	Baseline Data & Target Goal	Measurement Tool	Due Date
Increase access to general education classes.	Proportion of general education courses in multiple modes of delivery	2018-19: 38% Goal: Increase by 5% per year.	SMS	Annually
Students complete College level Math for their program in Year 1.	Increase number of students who complete college level Math in 1st year	2017-18: 16.8% Goal: Increase by 3% per year.	Data warehouse	Annually
Students complete College level English in their program in Year 1.	Increase number of students who complete college level English in 1st year	2017-18: 13.6% Goal: Increase by 3% per year.	Data warehouse	Annually

CORE THEME: Workforce Education

Goal: Provide high quality career training that helps students realize their educational goals through innovative instruction.

Objectives	Measures	Baseline Data & Target Goal	Measurement Tool	Due Date
Curriculum is current and in compliance with state and industry requirements.	Increase proportion of students hired in the area of their degree or certificate.	2016-17 Graduates: 40% Goal: Increase by 1% per year with goal to reach 90% of students.	SBCTC DLOA file	Annually
Students are provided with appropriate resources and guidance in choosing a career in accordance with their aptitudes and interests.	Fall to Winter retention rates.	Fall 2017 Cohort: 72% Goal: Increase by 2% per year.	Data warehouse	Annually
Students are provided with opportunities to develop cultural and workplace behaviors for professional success	Increase proportion of students taking Work-based Learning courses.	2017-18: 10.8% Goal: Increase by 1% per year.	Data warehouse	Annually

02/26/19

MEETING AGENDA

Project: Bates Technical College Fire Service Training Predesign
2020-213
RFM Project: 2019091.01

MEETING TOPIC: Space Programming for Predesign

MEETING TIME AND LOCATION: March 26, 2020, 1-3 pm, web-based

ATTENDEES:

BTC: Bill Pessemier, Todd Wernet, Brian Wiwel, William Dicken, Mark Synder
RFM: Dave Fergus, Gunnar Gladics, Ron Easterday

AGENDA ITEMS:

1. Introductions

2. Opening Remarks

3. Purpose of Today

   - Training Objectives: In order to the understand the sizes and features of the needed spaces, we start with reaching a common understanding of BTC training objectives to meet current and anticipated curriculum.
   - Develop/Confirm space program needs and features for:
     - Training tower and outdoor training
     - Training support spaces
     - Indoor classroom/admin space.

4. What is a State of Washington Predesign and its purpose?

   - Document to the State the project is needed viable, has a realistic budget and schedule; demonstrate the project is set up to be successful. Document its worth to secure construction funding.
     - Document the need, building upon the Project Request Report documented needs.
     - Confirm the program – physical size and features.
     - Compare three Alternatives, with deeper analysis of the Preferred Alternative.
     - Develop conceptual block diagrams of the spaces and features with narratives describing materials, structural, mechanical, and electrical systems.
     - Confirm likely construction cost and overall project budget, with appropriate contingencies.
     - Document likely maintenance and operating costs to BTC for this project.
     - Establish project schedule and construction project delivery method.
     - Identify any red flags that would impact budget or schedule.
     - Document approach to other state capital project requirements (LEED, DAHP, others).

- Core Training Objectives for Firefighter I (Black); Firefighter II (Red) PPE
  - Donning and Doffing PPE
  - Don and Doff SCBA
- Communications
  - Receive telephone call
  - Transmit on a radio
  - Transmit and receive emergency radio messages
  - Determine need for command
  - Communicate need for assistance
  - Complete a basic incident report
  - Protect evidence of fire cause and origin
  - Perform a fire safety survey in an occupied structure
  - Fire Safety presentation
  - Prepare a pre-incident survey

13-15 days off site currently
8 training apparatus space for 6 bays
could be in app bay or outside
fit testing in classroom
24 recruit academy
40 college course day/20 evening
bunker gear storage for 64? Instructor: 20

Classroom & drill ground

covered areas next to training w/bleachers
or dirty classroom for donning gear

dirty classroom possible set up for future inclusion of command training

- Fire Scene
  - Respond on apparatus
  - Water supply (Hydrant)
  - Water supply (static source)
  - Extend replace hose line
  - Replace burst hose section
  - Scene safety (high flow traffic)
  - Scene safety (Electrical wires)
  - Illuminate an emergency scene
  - Turn off building utilities

driving course currently too small
hydrants 4 corners min.
multiple standpipe options loop system
FDC

protected and unprotected parkwells
site lighting to simulate parking lot + cleanup lighting with full off capability. Perimeter.
mock overhead power lines next to bldg

Props for utility shutoff

- Fire Attack – Building
  - Grade level interior fire attack
  - Above grade interior fire attack
  - Below grade interior fire attack
  - Deploy and operate a hose line
  - Advance uncharged hose line (stairway)
  - Advance uncharged hose line (ladder)
  - Operate charged hose line (ladder)
  - Coordinate an interior attack line for a structure fire ground level or above ground level
  - Coordinate an interior attack line for a structure fire below grade or basement or attic fire
  - Assemble a foam fire stream

up outside stair and down. below grade/walk out basement
idea but unlikely grade will facilitate

No foam on site

- Fire Attack – Exterior
  - Vehicle fire attack
  - Class A Fire – Stacked or piled, trash container
  - Deploy and operate a master stream

have vehicle prop,propane tank prop, dumpster prop, propane vendor service

wood flat roof 40x40
gable pitched roof prop
could be separate budget

12:12 and 6:12 14x14

3x3 pit for flam liquids/FE training - containment?
FE courses for other classes

  - Combat a ground cover fire off site
  - Extinguish an ignitable liquid fire using a foam stream simulate
  - Control a flammable gas cylinder fire see prior page
- Search and Rescue + Emergency Ops
  - Search and rescue tower confined space - no dedicated space
  - Rescue a victim from ladder tower
  - SCBA Controlled Breathing & Emergency procedures
  - SCBA Emergency Operations – Exit from IDLH Environment
  - Exit restricted passages
  - Exit hazardous environments
  - Extricate victim entrapped in a motor vehicle off site
  - Set up and operate hydraulic rescue spreader ram, or combination tool
  - Set up and operate a pneumatic chisel/hammer
  - Set up and operate a hydraulic jack or airbag
  - Assist rescue operations teams
- Ground Ladders
  - Set up ground ladder tower/site, plenty of mock windows
  - Carry tools up and down ladder ideally indoor app bay space with mezzanine for indoor ladder training
- Roof Ops
  - Vertical ventilation (pitched roof)
  - Vertical ventilation (flat roof) see prior page
  - Deploy roof ladder (pitched roof)
- Knots and Hoisting
  - Knots, Bends, and Hitches
  - Tie a knot for hoisting a tool
- Forceable Entry
  - Forcible entry (door) one enforcer door on tower + prop for 8
  - Forcible entry (window) re-bar and window prop
  - Forcible entry (wall)
- Ventilation
  - Horizontal ventilation (positive pressure)
  - Negative Pressure Forced Ventilation
  - Hydraulic Ventilation
- Fire Extinguishment
  - Extinguish incipient class A fire with extinguisher
  - Extinguish incipient class B fire with extinguisher
  - Extinguish incipient class C fire with extinguisher
- Overhaul

- Conserve property FF1 40
- Conserve property FF1 41
- Overhaul a fire scene

- Maintenance
  - Clean and check ladders FF 51
  - Clean and check Ropes FF 52
  - Clean and check SCBA FF 53
  - Inspect SCBA FF 54
  - Clean and check salvage equip
  - Clean and check forcible entry and vent equip
  - Clean and inspect hose
  - Return fire hose to service
  - Maintain power plants, power tools, and lighting equipment
  - Perform an annual service test on fire hose

decon room for multiple stations
Extractor typ for 2
Homework: station 8 253-591-5708 capacity
Dexter laundry 90 lb capacity: 9 at a time?

pump testing on site
current off site $6K per test

concurrent use:
limited, will schedule to keep BTC classes. multiple drills with 64 + training officers
multiple covered areas desired
accommodate multiple groups

haz mat awareness + drill ground.

- Review and update PRR Space Program base on meeting Training Objectives for curriculum.
  Training tower and outdoor training
- Training support spaces
- Indoor classroom/admin space.

See Program Spreadsheet updated 3/26/20

5. Cross check space needs and features against current course offerings - Spreadsheet of Course Descriptions. Homework - RFM to issue around

6. Cross check space needs and features against potential future course offerings.
   - Baccalaureate Degree program
   - HazMat Training
   - Incident Command Training/Blue Card
   - Wildland Fire Training/Red card
   - From 2014 Master Plan and 2017 PRR: Fire Command and Fire Supervision
   - From 2017 PRR Future Needs:
     - Tower Elcon Safety Sprinkler
     - Self-Contained Cistern
     - Electrical and Diesel Pump Test for Fire Rigs

Not reviewed - for future review to cross-check

7. Process for Next Meetings
   - Establish regular day of week and time, block out every other week through June.
8. Closing remarks – all around.

Thurs 1 pm RFM to send invite

MEETING NOTES

Project: Bates Technical College Fire Service Training Predesign
2020-213
RFM Project: 2019091.01

MEETING TOPIC: Space Programming and Site Test to Fits

MEETING TIME AND LOCATION: April 9, 2020, 10:30 am, web-based
Revised April 13, 2020

ATTENDEES:

BTC: Bill Pessemier, Todd Wernet, Brian Wiwel, William Dicken, Mark Synder
RFM: Dave Fergus, Gunnar Gladics, Ron Easterday, Tony Ifie

AGENDA ITEMS:

1. Opening Remarks – Future web-based meetings will incorporate a password to sign in for security.

2. Review Space Program updates from last meeting.
   - Storage needs confirmed by BTC last week and incorporated.
   - Added SCBA and air storage space. SCBA compressor to be replaced.
   - Net/Gross ASF applied to individual program elements as appropriate, i.e. 65% for classroom space and 90% for fire training structures.

3. Cross check space needs and features against current course offerings and potential future course offerings – Todd confirmed program is appropriate for the South Campus site.

4. South Site – Alternative 3
   - Classrooms/Admin Building to west: Test to fit as a two story structure - fits on site. Net loss about 60 parking stalls.
   - (E) Mobile structure east of building D can be demolished, it is in poor condition and the space is accommodated in the new program.
   - Need dirty classroom on training side – programmed at 1,200 sf but could be reduced in this Alternate if needed to fit in the existing available building D space.
   - Additional app bay preferred as an addition vs. a separate structure. Increase in app bay space programmed to accommodate all training apparatus, aid cars and command vehicle inside for weather and security
   - East of (E) Bldg D remains available for instructor parking.
   - Space for site flashover props (2) 8x40 need space.
   - Can south setback be reduced – negotiation with city planning?
   - Training tower footprint allows for double loaded corridor – minimal open drill ground space.

- Could SE camps entry be closed ? Need to check fire access to other buildings and possible dead end situations. Gated and fire access only?
- This option needs phasing and off site training allowances in the budget. Building E has some clean classrooms that might be available for short term classroom use but all fire training would have to be phased with construction or conducted off-site.
- See attached site plan for additional notes.

5. North Site - Alternative 1
   - Apparatus bays are drive-thru.
   - Classroom/Admin block diagram/test to fit similar as Alternate 3.
   - Paving gravel lot to west provides space for *40+/- stalls*. Would accommodate student and instructor parking.
   - *The former drill ground south of building D, if converted to parking, would accommodate approximately 120 stalls.*
   - Space for open drill ground area, outdoor fitness, streetscape around training towers.
   - Room for instructor parking on north side of drill area.
   - Site props - some could be over gravel.
   - Todd will review with Tiffney - this option allows childcare to move to vacated space in Building D and former drill ground *for outside play* and vacate childcare portables for new parking.
   - Contingent in CDL driver training moving off campus.
   - Allows current program to continue at south end during new construction.
   - Separate dirty classroom not required in this option due to other available program elements.
   - No phasing or off-site allowances for fire training during construction.
   - See attached site plan for additional notes.

6. Closing remarks – all around.
   - Currently pre-design is considered non-essential so site visits are not allowed. Fire training is essential and is ongoing. Tony will check if the project can be considered essential.
   - Ron to add Tiffney to next meeting invite.

Attachments: Space Program
Alternate 1 site test-to-fit diagrams
Alternate 3 site test-to-fit diagrams

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Fire Service Training Center
Washington State Project # 2020-213
Programming

Yellow: To Be Confirmed

Space Name and 3/26/20 notes Updated 4/9/20	2017 PRR Space Program (ASF)	Qty	Total ASF	Classroom Workstations	Lab Workstations	April 9, 2020 Update for Predesign (ASF)	Qty	Total ASF	Students. Occupants Each	Classroom Workstations/Occupants	Lab Workstations	Comments From 2017 PRR
eral Instruction												
Classroom w/coffee and UC refer	1,200	3	3,600	90		1,200	3	3,600	30	90		30 students per classroom; table & chair seating (multiple furnishing layouts); technology rich
Large Classroom w/coffee and UC refer	1,600	3	4,800	168		2,000	1	2,000	50	50		50 - 60 students per classroom/lab; table & chair seating (multiple furnishing layouts); technology rich; can serve as campus EOC
Break-out Space	150	2	300	8		150	2	300	4	8		Collaborative learning; small group instruction
Computer lab.	1,200	1	1,200	30		1,200	1	1,200	30	30		30 student computer stations
Resource Library	400	1	400	8		400	1	400	8	8		
Lounge							-	-		0		Included on floor plan at 200sf; not included in Program Space Allocation
								-		0		
								-		0		
								-		0		
subtotals			***10,300***	***304***				***7,500***		***186***		
inistration												
Copy/Print Center	150	1	150			1	150	150		0		
Storage	120	1	120			1	120	120		0		
Conference Room for (12)	300	1	300			1	360	360		0		
Faculty Offices	120	6	720			120	6	720	1	6		(3) Fire Service + (1) academy + (1) EMT + (1) for BAS Program
Part-Time Faculty workstations	64	16	1,024			64	1	64	1	1		Open office area for Fire Academy & EMT
Dean's Office	150	1	150			150	1	150	1	1		Office suite? - One + (2) guests
Faculty & Staff Restroom & Shower (6) lockers, WC +U, shower	85	1	85			150	1	150		0		
Administration incudes hotel work station	200	1	200			200	1	200	2	2		(2) workstations.
Reception & Waiting	150	1	150			150	1	150		0		Reception counter & waiting area
Specialized Programs (e.g., Fire Training Academy, EMT)	?		?					-		0		Programs accomodated in offices and work stations noted above?
First added a staff lunch room then deleted it, but must assume need a coffe/break area for a few things and support conference roof of (12)?						150	1	150		0		
								-				
								-				
subtotals			***2,899***					***2,214***		***10***		
itorium												
Auditorium	4,500	1	4,500	30			-	-			0	Multi-purpose; flat floor; large events; indoor physical training; seating for up to 350 with stage; physical education lab.
Auditorium Support	600	1	600				-	-			0	Storage & AV Equipment
								-			0	
								-			0	
								-			0	
subtotals			***5,100***	***30***				***-***			***0***	
aratus & Apparatus Support - Live Training												
Apparatus Bay min 6 bays 8 engines + 2 aid cars	6,200	1	6,200	37		6,200	1	6,200			37	Vehicle bay; drive-through for (7) engines + (1) EMT vehicles
Hose Tower	150	1	150			150	1	150			0	
Hose Dryer & Storage (separate) outside access	450	1	450			450	1	450			0	
Decontamination - check extractor capacity	450	1	450	5		450	1	450			5	Washer & dryers, cleaning stations. (5) students per station
Bunker Gear Storage check storage size 64 students + 20 instructor, to accommodate overnight drying	1,600	1	1,600			720	1	720			0	Gear storage racks for up to 120 students, extractor, ventilation
Secure gear Storage BTC to check size based on existing after purge, power equipment, FE's... BTC 1,050 total with EMT storage	800	1	800			800	1	800			0	Storage of clean NFPA certified gear.
Equipment Maintenance Shop	450	1	450	5		450	1	450			5	Cleanup / re-pack area; (5) Students at a time at a bench; tank storage; SCBA maintenance & storage
EMT Equipment storage BTC 1,050 total with Secure Storage	250	1	250			250	1	250			0	Manikin maintenance & storage
Grounds Storage	?		?				-	-			0	Included on floor plan; not included in Program Space Allocation
Flam liquids locker							1	-			0	
SCBA and Air Storage need 6,000 psi compressor						300	1	300			0	
								-			0	
subtotals			***10,350***	***47***				***9,770***			***47***	
lent Support - Live Training												*Simulated Fire Station*
Break room: (3) refer, mult MW's, sink, accomdate 40 - with academic building is fire training is split from academic in Option 3 Rename to Training Rehab?	200	1	200	2		200	1	200				
Dining combined wth kitchen	700	1	700	15		1,400	1	1,400	35		35	Student break room
Day Room	700	1	700	20			-	-	200		0	Group study / conference room
Fitness Room for 20-40 RFM check size based on occ load	1,500	1	1,500	20		1,500	1	1,500	20		20	Fixed equipment; adjacent to Auditorium
Women's Student Shower Room 2-3	300	1	300			325	1	325			0	
Men's Student Shower Room 4-6	400	1	400			600	1	600			0	
Single Occupant Shower & Toilet Room	85	1	85			85	1	85			0	
Bunk Room	1,200	1	1,200	10			-	-			0	simulated bunk rooms for (2) engine companies
Storage/Jan	150	1	150			150	1	150			0	
Laundry / Utility	250	1	250	2			-	-			0	
								-			0	
								-			0	
								-			0	
subtotals			***5,485***	***69***				***4,260***			***55***	
-Fire Training												
Commercial Drill Tower one end 4 stories , one end 2 story: kitchen, bedroom, couch class B props combined tower? Four story.	2,400	1	2,400	5		4,000	1	4,000	8		8	4 1/2 story, (4) hydrants and FDC, self-contained cistern, ground & arial ladder work.

Subtotals per Building/Stucture with Indivdual Grossing Factors

9,714	*ASF Classroom and Admin*
5,231	*Not Assignable*
14,945	**Gross SF Classroom and Admin**
65%	Net Gross Factor
65%	Check

14,030	*ASF Live Fire Apparatus and Student Support*
7,555	*Not Assignable*
21,585	**Gross SF Live Fire Apparatus and Student Support**
65%	Net Gross Factor
65%	Check

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Fire Service Training Center
Washington State Project # 2020-213
Programming

Yellow: To Be Confirmed

	2017 PRR Space Program				April 9, 2020 Update for Predesign						
Residential Drill Tower - separate structure in streetscape setting or combined with tower	1,500	1	1,500	5	2,000	1	2,000	8		8	2-story with pitched roof
Burn Rooms in tower	300	1	300	5	-	1	-			5	NFPA compliant. Clean burning
Dirty classroom with future conversion to Command Training Center	600	1	600	4	1,200	1	1,200	8		8	Dispatch and command vehicle training
Training Area Toilet Room	66	1	66				-			0	
Covered Training Area see notes on agenda, multiple smaller with toilets?	1,500	1	1,500	20	1,000	2	2,000	15		30	Training props & equipment. Fitness training
Outdoor live-fire training yard	0		0				-			0	
Prop/equipment storage	0		0				-			0	
							-			0	
							-			0	
							-			0	
subtotals			***6,366***	***39***			***9,200***			***59***	

4,000 Commerical Tower
444 Not Assignable
***4,444* Gross SF Commerical Tower**
90% Net Gross Factor
90% Check

2,000 Residential
222 Not Assignable
***2,222* Gross SF Residential**
90% Net Gross Factor
90% Check

1,200 Dirty Classroom
133 Not Assignable
***1,333* Gross SF**
90% Net Gross Factor
90% Check

2,000 Covered Training Areas
222 Not Assignable
***2,222* Gross SF Covered Training Areas**
90% Net Gross Factor
90% Check

		Total Workstations			*Total Workstations*	
Total Assignable Square Feet (ASF)	***40,500***	***304***	***185***	***32,944***	***196***	***161***
Circulation, Walls/Struct., MEP, Restrooms, Janitor, IT	***14,000***			***14,119***		
Total Gross Square Footage (GSF)	***54,500***			***47,063***		
Actual ASF/GSF	***74%***			*70%*		
Typical Educational Facility	*65%*			*65%*		
Target Efficiency for Predesign				***70%***		

32,944 ASF Check

45,418 Total GSF All Buildings with Individual Grossing Factors

2017 PRR Space Program	April 9, 2020 Update for Predesign

itled Map

a description for your map.

Legend

- 1000ft
- SC Library (at Bates Technical College)

Parking Loss
Approx. 80

MAIN LEVEL

UPPER LEVEL

instructor parking

This will go away with fitness inside

Add small dirty classroom

Engine

Ladder

Training Canopy

Drafting Pit

12:12 Roof Prop

6:12 Roof Prop

Flat Roof Prop

Haz Mat Pad

66'-0"

39'-8"

gle Earth

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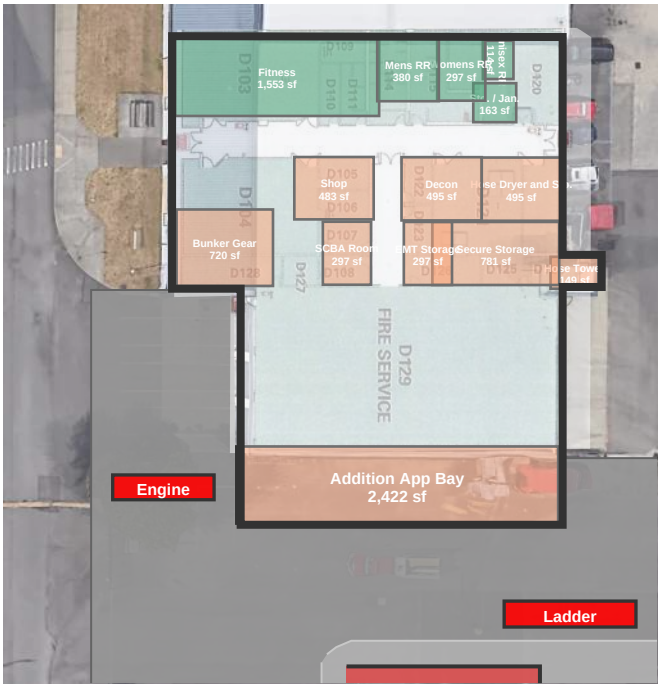
SOUTH SITE OPTION



Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

SOUTH SITE OPTION

Scale - 1" = 60'

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New Parking Area
Approx. 48

Sm Classroom 1,242.05 sf
Sm Classroom 1,242.05 sf
Lg Classroom 1,906.46 sf
Computer Lab 1,242.03 sf
Sm Classroom 1,242.05 sf
Mens RR 379.52 sf
Womens RR 296.66 sf
Breakout Space 163.44 sf
Resource Lib 408.78 sf
Break / Dining 1,553.46 sf
Open to below 630.28 sf
Mens RR 379.53 sf
Womens RR 296.64 sf
Sto. / Janit 163.42 sf
Fitness 1,553.46 sf
Lobby / Vest 630.27 sf
WT Storage 296.64 sf
Shop 483.08 sf
Decon 485.42 sf
Hose Dryer and Strg 485.42 sf

Outdoor Fitness
Training Canopy
Propane Tank
Engine
flash over
flash over
Training Canopy
Engine
Drafting Pit
Front Apron
App Bays 6,491.13 sf
Rear Apron / Drill Ground
4 Story Tower
2-3 Story Tower
Drill Ground
Engine
Ladder
12:12 Roof Prop
6:12 Roof Prop
Bunker Gear 719.95 sf
Secure Storage 780.84 sf
SCBA 796.45 sf
Dirty class lg 1,171.22 sf
1
2
3
4
5
6
Haz Mat Pad
Flat Roof Prop

EXISTING HYDRANT LOCATION

MAY NOT NEED IN NORTH LAYOUT

GRAVEL UNDER ROOF PROPS?

Old Drill Ground
Convert to Parking
Approx. 120-140

NORTH SITE OPTION

Scale - 1" = 60'

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

NORTH SITE OPTION

Scale - 1" = 60'

AGENDA

Project: Bates Technical College Fire Service Training Predesign
2020-213
RFM Project: 2019091.01

MEETING TOPIC: Site Development and Fire Training Structures

MEETING TIME AND LOCATION: April 23, 2020, 1:00 pm, web-based

ATTENDEES:

BTC: Bill Pessemier, Todd Wernet, Brian Wiwel, William Dicken, Mark Synder, Tiffany Williams,
DES E&AS: Denis Flynn
RFM: Dave Fergus, Gunnar Gladics, Ron Easterday

AGENDA ITEMS:

1. Opening Remarks

2. Review Site Options and Development: Alternate 1 North & 3 South

3. Option 3 South:

   - Assumed south line moved to align with parking setback to west.
   - Included dirty classroom within the renovated Building D area.
   - Showed site props and tentative hydrant layout.
   - New academic building Displaces approximately 40 parking stalls.
   - Dennis will reach out to McGranahan to see if a parking study was done for the most recent building, Building E.

4. Option 1 North:

   - Showed site props and tentative hydrant layout.
   - Drill ground to south can become parking.

5. Fire Training Structure Development – Block Diagrams

   - Walk through floors and elevations – training opportunities.
   - Each side reflects a different building type and character for mixed training opportunities.
   - Standpipe in stairwells.
   - Sprinkler system prop in selected areas. Provide various types of training heads.
   - Partial fifth floor very attractive for high rise training.
   - Future technical rescue opportunities a plus.
   - Concrete/Concrete block structures.
   - Vent props at grade preferred. Problematic to haul consumable materials to roof mounted props.
   - Consider exterior fire escape – problematic to maintain and inspect.

   - Class B Props – Types: Storage Rack, Bedroom, Kitchen, Hall Flashover, Couch, other?

- Fireblast controls up to four props from one control room.
- Kitchen prop top priority.
- Bedroom, Couch/Living room, hallway flashover.
- High-pile storage prop - lessor priority.
- Provision for future props.
- Split props between two story and five story.
- Consider 6 props if budget allows – options in Predesign.
- Boise Training quoted in 2016 was in the range of $550K for 4 props and $150K each for additional; budget for 6 props escalated would be in the range of $1 million.

6. Status of CDL options: Need documentation of a new home for CDL program in order for the North option to be designated as the Preferred Alternate in the predesign. Ron and Bill to check in with Wayne; Tiffany to begin discussion. Timeline is a factor.

7. Closing Remarks: Denis Flynn will be taking over as PM for Tony Ifie.

Attachments: North Site Plan, (1) page
South Site Plan, (1) page
Training Tower concept plans and views, (12) pages

itled Map

a description for your map.

Legend

1000ft

SC Library (at Bates Technical College)

Parking Loss
Approx. 80

New Building
Classroom / Admin
Level 1

New Building
Classroom / Admin
Level 2

Existing Building D
Apparatus Bays /
Support / Fitness and Lockers

Instructor Parking

Drive Through
Apparatus Bays

Front Apron

Rear Apron

Propane Tank

New Building D
Apparatus Bay Addtion

Engine

Fence

flash over

flash over

Ladder

Hydrant

Engine

5 Story
Training
Building

2 Story
Training
Building

Training
Canopy

Drafting Pit

12:12 Roof Prop

6:12 Roof Prop

Hydrant

Hydrant

Training Canopy

1

2

3

4

Haz Mat Pad

Flat Roof Prop

Fence

SOUTH SITE ALTERNATIVE 3

Scale - 1" = 60'
04/23/20

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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NORTH SITE ALTERNATIVE 1

Scale - 1" = 60'
04/23/20

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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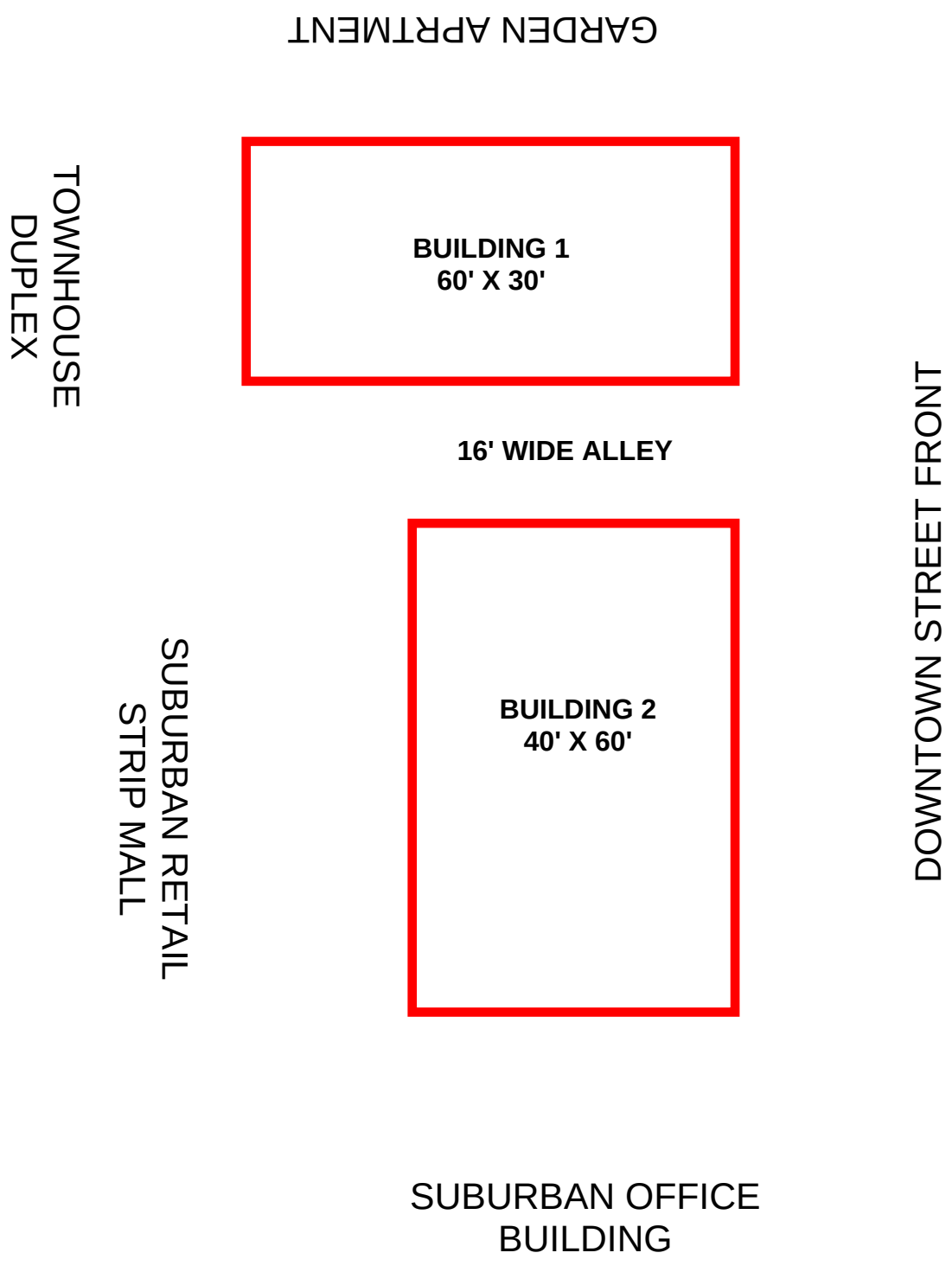

TRAINING TOWER CONCEPT

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
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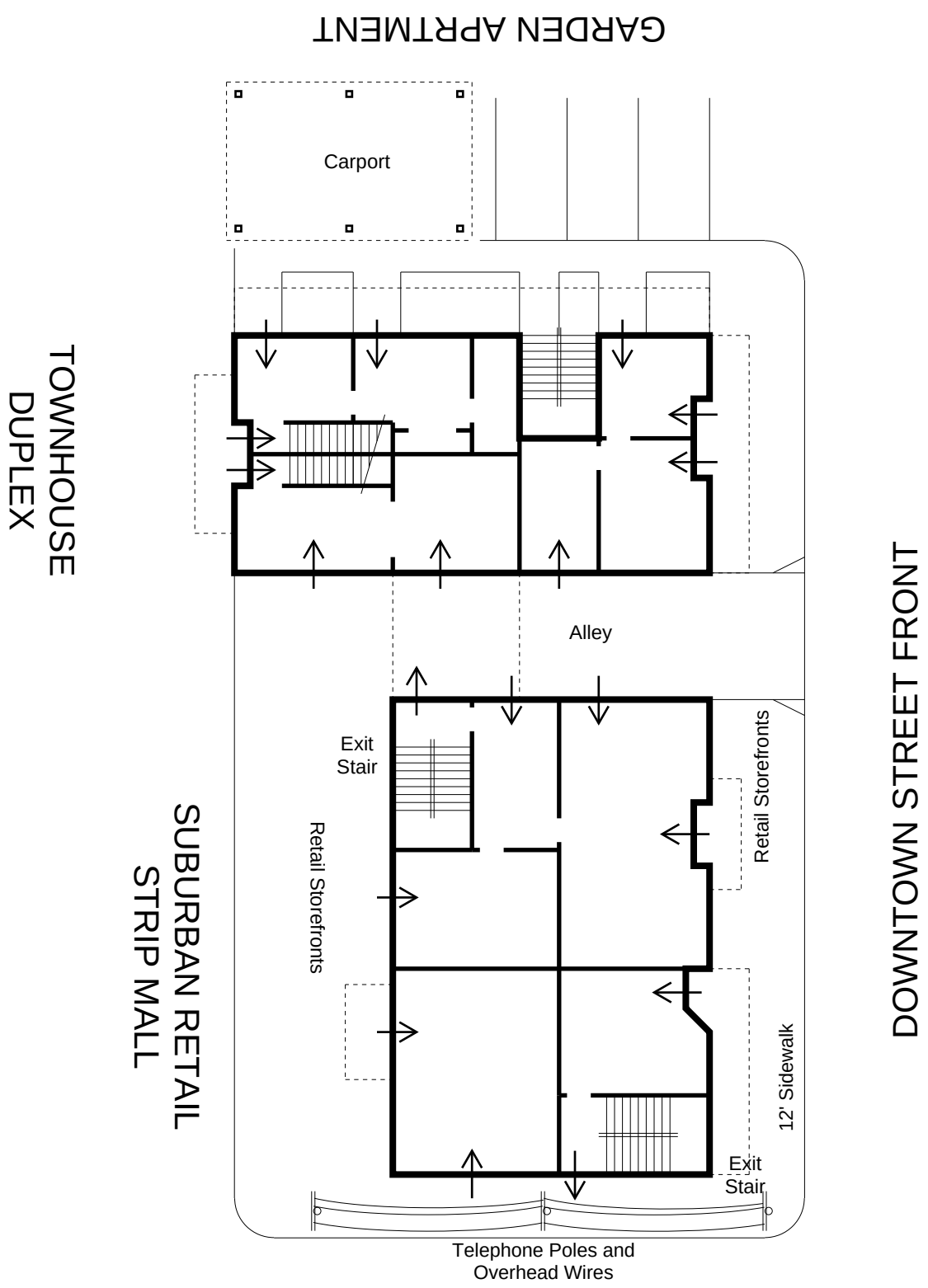

TRAINING TOWER - 1st Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
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Meeting Notes
Bates Technical College Fire Services Training Center
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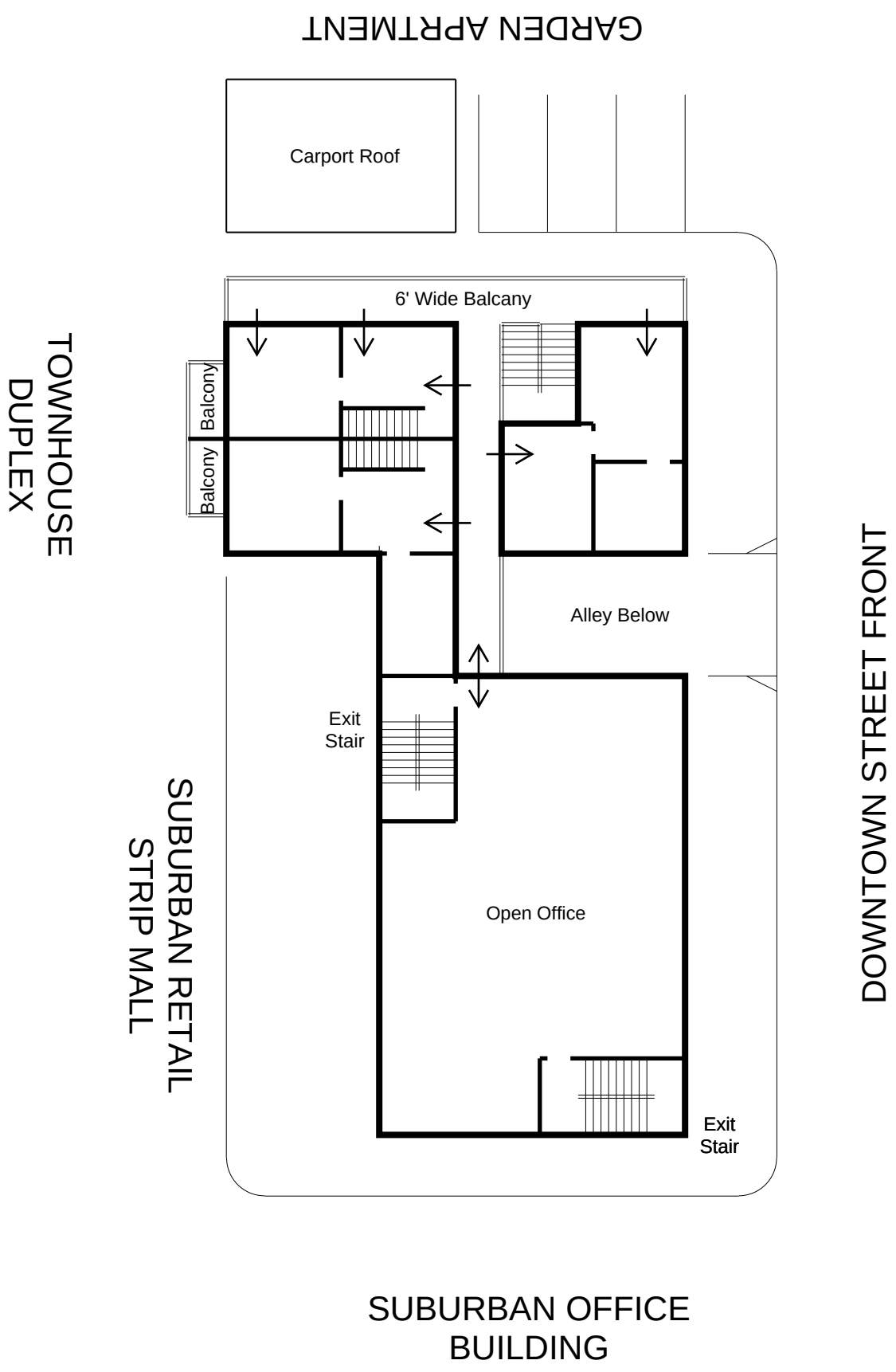

TRAINING TOWER - 2nd Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
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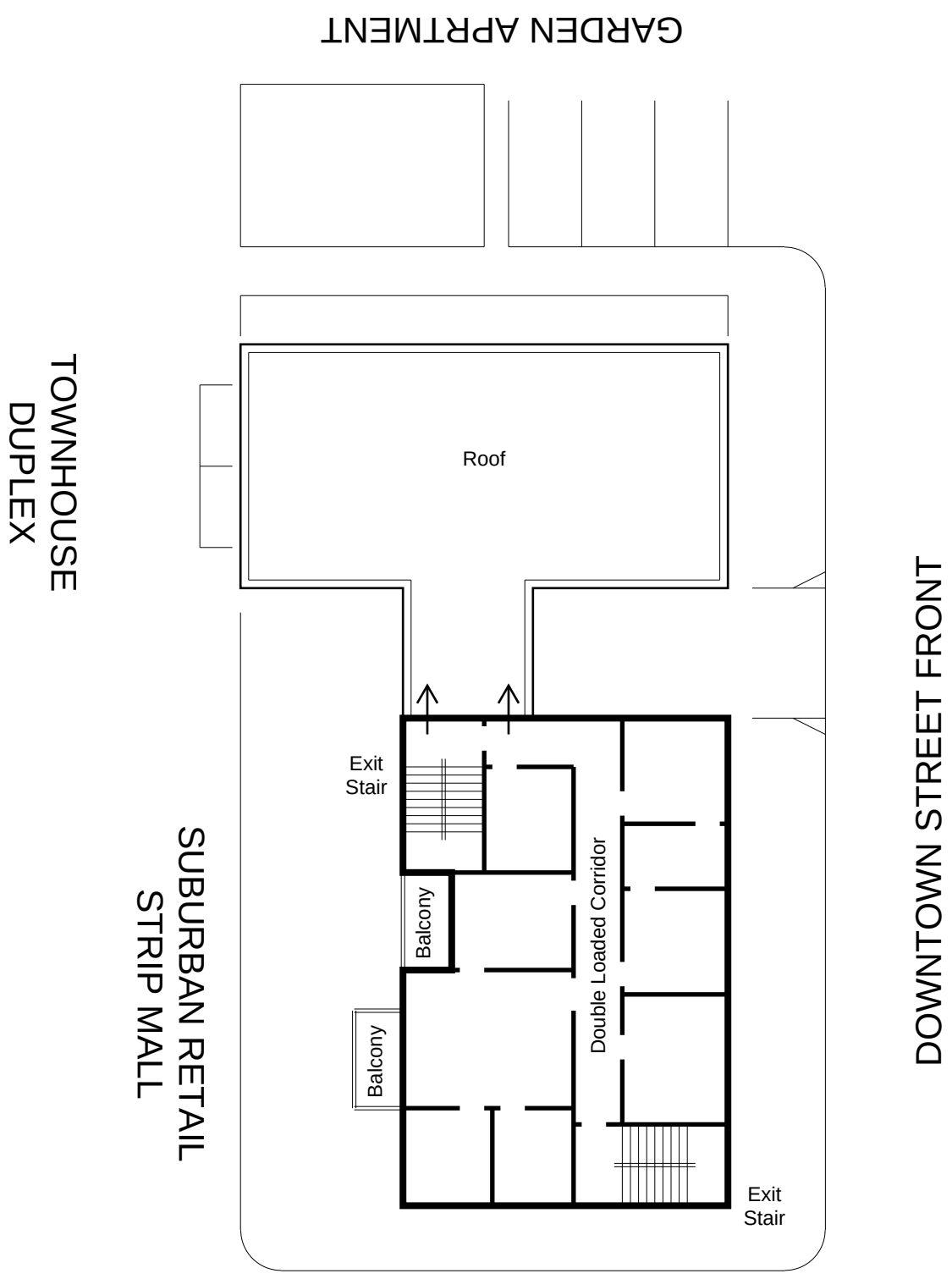

TRAINING TOWER - 3rd Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
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Meeting Notes
Bates Technical College Fire Services Training Center
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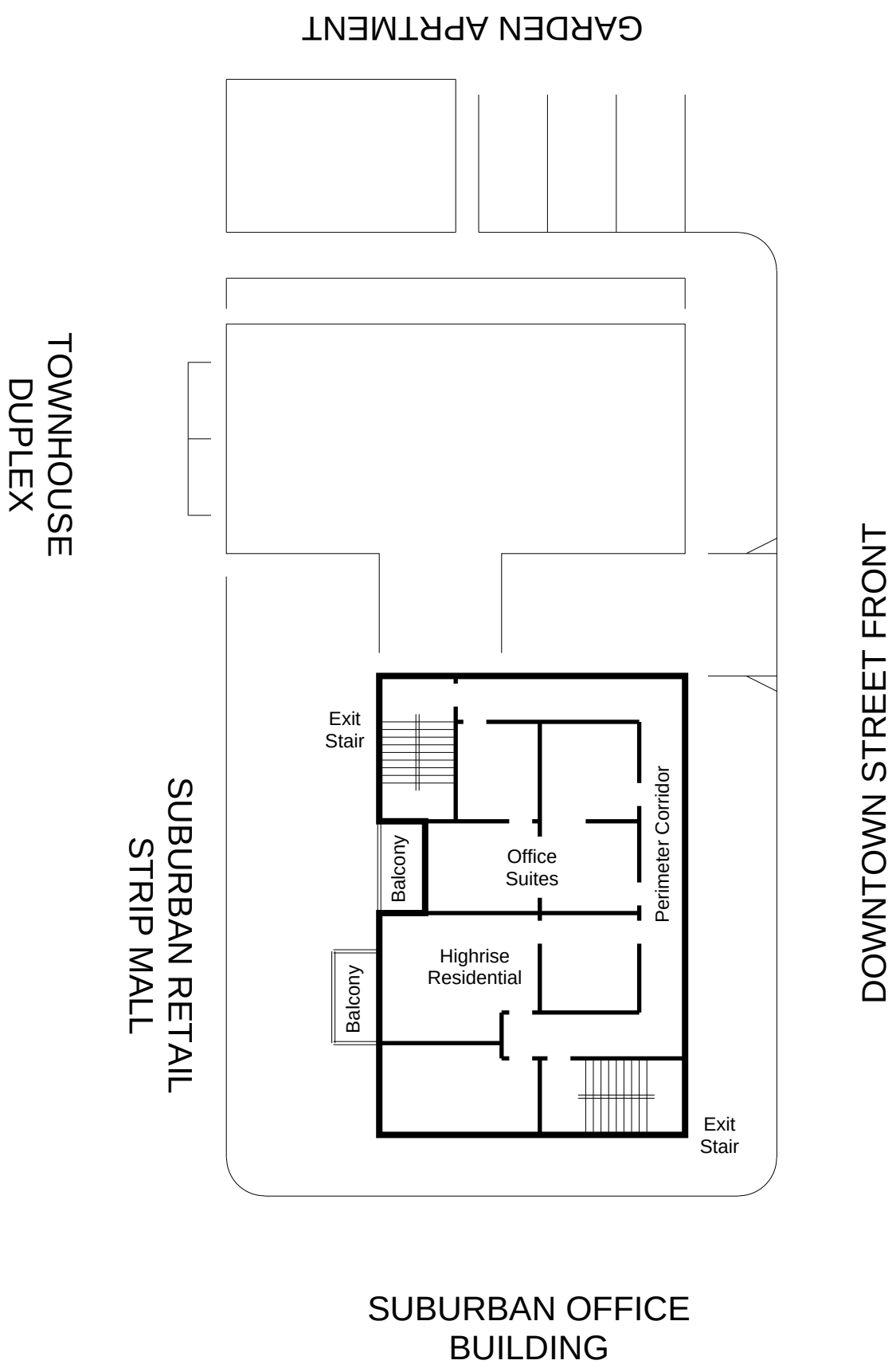

TRAINING TOWER - 4th Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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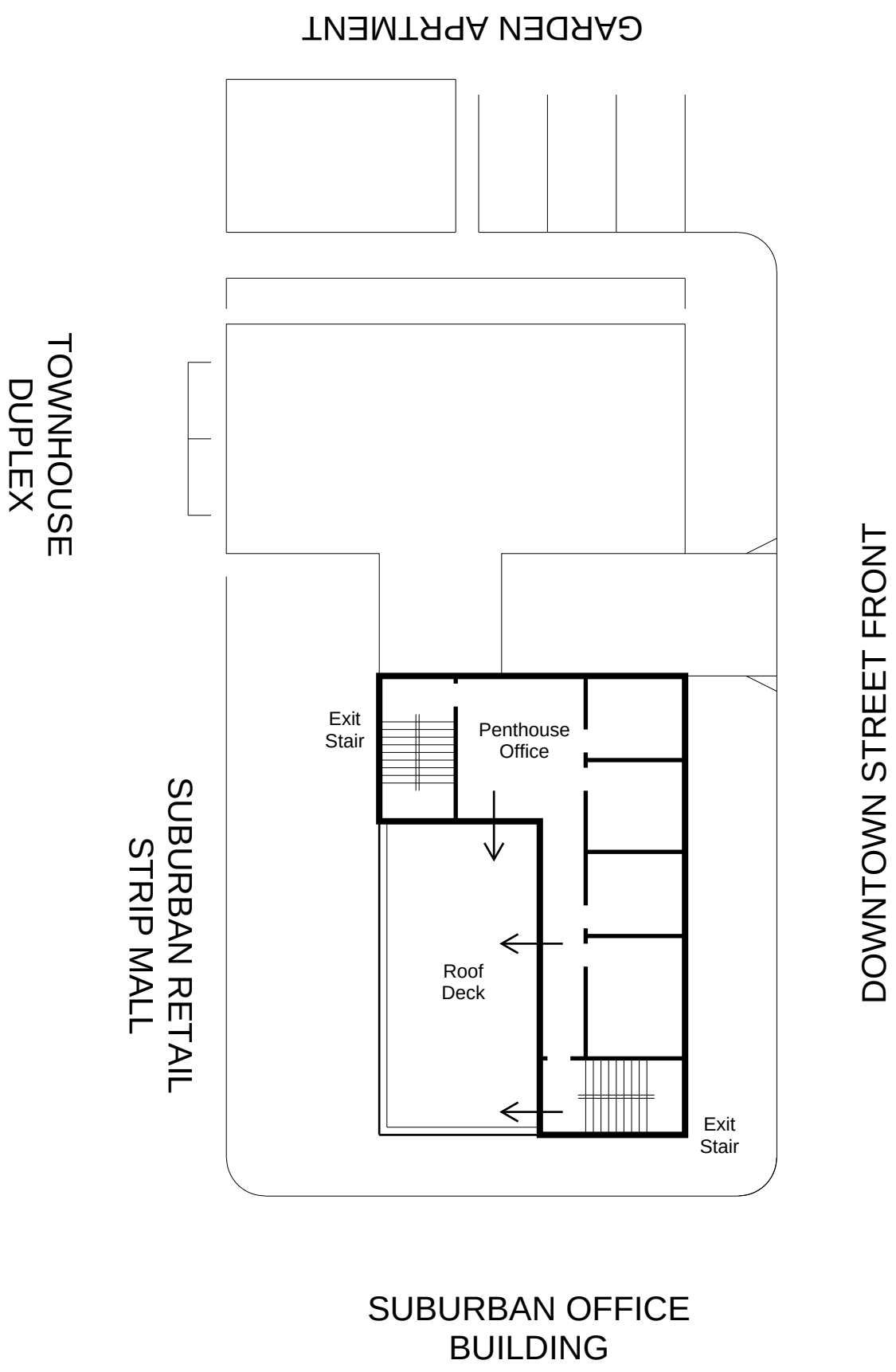

TRAINING TOWER - 5th Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
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TRAINING TOWER - Concept Sketch 1

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
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Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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TRAINING TOWER - Concept Sketch 2

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
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Meeting Notes
Bates Technical College Fire Services Training Center
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TRAINING TOWER - Concept Sketch 3

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
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Meeting Notes
Bates Technical College Fire Services Training Center
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TRAINING TOWER - Concept Sketch 4

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
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Meeting Notes
Bates Technical College Fire Services Training Center
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TRAINING TOWER - Concept Sketch 5

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
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Meeting Notes
Bates Technical College Fire Services Training Center
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TRAINING TOWER - Concept Sketch 6

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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Meeting Notes

Project: Bates Technical College Fire Service Training Predesign
2020-213
RFM Project: 2019091.01

MEETING TOPIC: Classroom Building and Fire Training Structures

MEETING TIME AND LOCATION: May 7, 1:00 pm, web-based

ATTENDEES:

BTC: Bill Pessemier, Brian Wiwel, Tiffany Williams, Chuck Davis
DES E&AS: Denis Flynn
RFM: Dave Fergus, Gunnar Gladics, Ron Easterday, Travis Hauan

AGENDA ITEMS:

1. Opening Remarks

2. Site access for consultant visits: DES has notice form and notice to BTC.

3. Classroom Building Development – Classrooms and Administrative

   - Admin: Heavy duty carpet preferred for floor surface.
   - Part-time Workstations: PRR had (16), reduced to (1), add a few for future program expansion/partnerships – four total.
   - Faculty: Need bookshelf, files, locker for uniform locker & high-value equipment.
   - Classrooms: (2) Flat screen monitors with smartboard in center on teaching wall. Flexible arrangements. Hard surface floor. Cameras, wireless mic for distance learning. Interconnect multiple classrooms and off site.
   - Computer Lab: For fire service mainly weekly testing. Locking cabinetry. Dedicated computer for testing. Flexible for traditional computer lab use. Proctor room with visual of computer lab, vestibule or waiting space. Could be future training simulation lab such as 911 or joint public safety operational practices.
   - Tiffany will provide info on green-screen instructor lab prep space, recommend add a couple.
   - Resource Library: Open space for small props and workstations for electronic resources. Cut away hydrant, cut away pump, building construction props, other.
   - Hallways with bench seating and charging stations.
   - Space to support outside eventss catering and/or culinary arts support space.
   - Could need additional admin support - total of 2 admin support + reception.

4. Fire Training Buildings – Class B prop potential locations and control rooms – space allocated.

   - From last time:

     - Fireblast controls up to four props from one control room.
     - Kitchen prop top priority.
     - Bedroom, Couch/Living room, hallway flashover.
     - High-pile storage prop - lessor priority.

  - Provision for future props.
  - Split props between two story and five story.
  - Consider 6 props if budget allows – options in Predesign.
  - Boise Training quoted in 2016 was in the range of $550K for 4 props and $150K each for additional; budget for 6 props escalated would be in the range of $1 million.

- Residential: Likely could delete one of the 2nd floor control rooms.
- Sleeves for future gas props.
- Site visits will be very helpful at the start of the design phase to see facilities in use and compare features.
- Standpipes in stairwells, fire sprinkler for training in selected areas.
- The more opportunities for future props the better

5. Water Usage – Master Stream Training: Two master steams at a time, 2,000 gpm for pump training. 30- minutes duration, 1 hour per day.

6. Preferred Option

   - Approach for Preferred Option – CDL move off site due to regulatory requirements. Documentation to be confirmed.

Attachments

Draft Room Data Sheets for Classroom/Admin Areas
Training Tower block diagrams with gas prop and control room concepts.

A	ADMINISTRATION	ASF	QTY	TOTAL ASF	COMMENTS
A.1	Copy/Print Center	150	1	150	
A.2	Storage	120	1	120	
A.3	Conference Room for (12)	360	1	360	
A.4	Faculty Offices	120	6	720	
A.5	Part-Time Faculty workstations	64	1	64	
A.6	Dean's Office	150	1	150	
A.7	Faculty & Staff Restroom	85	1	85	Inc: Shower (6) lockers, WC+U
A.8	Administration Support	200	1	200	"Hotel work station"
A.9	Reception & Waiting	150	1	150	
A.10	Specialized Programs (e.g., Fire Training Academy, EMT)	-	-	-	??
A.11	Staff Break Room	150	1	150	

Subtotal Net Area		
Efficiency (Circ.) Factor	10%	
TOTAL ADMINISTRATION GSF		

B	GENERAL INSTRUCTION	ASF	QTY	TOTAL ASF	COMMENTS
B.1	Classroom	1,200	3	3,600	Inc: coffee and UC refer
B.2	Large Classroom	2,000	1	2,000	Inc: coffee and UC refer
B.3	Break-out Space	150	2	300	
B.4	Computer lab.	1,200	1	1,200	
B.5	Resource Library	400	1	400	
B.6	Lounge				

Subtotal Net Area		
Efficiency (Circ.) Factor	10%	
TOTAL GENERAL INSTRUCTION GSF		

C	AUDITORIUM	QTY	ENCLOSED / HEATED AREA	QTY	CANOPY COVERED AREA
C.1	Auditorium	1			16,460
C.2	Light Fleet Parking	1			7,200

Subtotal Net Area				23,660
Efficiency (Circ.) Factor			10%	2,366
TOTAL PARKING GSF				**26,026**

D	APPARATUS TRAINING & APPARATUS SUPPORT - LIVE TRAINING	QTY	ENCLOSED / HEATED AREA	QTY	CANOPY COVERED AREA
D.1	Vehicle Decontamination & Wash		400	1	2,700
D.2	Fuel Station			1	2,400

Subtotal Net Area		400		5,100
Efficiency (Circ.) Factor	10%	40	10%	510
TOTAL FUEL & WASH GSF		**440**		**5,610**

D	STUDENT SUPPORT - LIVE TRAINING	QTY	ENCLOSED / HEATED AREA	QTY	CANOPY COVERED AREA
D.1	Vehicle Decontamination & Wash		400	1	2,700
D.2	Fuel Station			1	2,400

Subtotal Net Area		400		5,100
Efficiency (Circ.) Factor	10%	40	10%	510
TOTAL FUEL & WASH GSF		**440**		**5,610**

Meeting Notes
Bates Technical College Fire Services Training Center
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A	ADMINISTRATION	ASF	QTY	TOTAL ASF	COMMENTS
C.1	Auditorium	4,500	1	4,500	
C.2	Auditorium Storage	600	1	600	

Subtotal Net Area		
Efficiency (Circ.) Factor	10%	
TOTAL AUDITORIUM GSF		

B	APPARATUS & APPARATUS SUPPORT - LIVE TRAINING	ASF	QTY	TOTAL ASF	COMMENTS
D.1	Apparatus Bay	6,200	1	6,200	min 6 bays 8 engines + 2 aid cars
D.2	Hose Tower	150	1	150	
D.3	Hose Dryer & Storage	450	1	450	(separate) outside access
D.4	Decontamination	450	1	450	check extractor capacity
D.5	Bunker Gear Storage	720	1	720	check storage size 64 students + 20 instructor, to accommodate overnight drying
D.6	Secure gear Storage	800	1	800	BTC to check size based on existing after purge, power equipment, FE's... BTC 1,050 total with EMT storage
D.7	Equipment Maintenance Shop	450	1	450	
D.8	EMT Equipment storage	250	1	250	BTC 1,050 total with Secure Storage
D.9	Grounds Storage	-	1	-	Is this secured outdoor storage?
D.10	Flam liquids locker	-	1	-	
D.11	SCBA and Air Storage	300	1	300	need 6,000 psi compressor"

Subtotal Net Area		
Efficiency (Circ.) Factor	10%	
TOTAL APPRATUS & APPRATUS SUPPORT GSF		

E	STUDENT SUPPORT - LIVE TRAINING	ASF	QTY	TOTAL ASF	COMMENTS
E.1	Break room	200	1	200	
E.2	Dining combined wth kitchen	1,400	1	1,400	
E.3	Day Room		-	-	200SF / SS
E.4	Fitness Room	1,500	1	1,500	
E.5	Women's Student Shower	325	1	325	
E.6	Men's Student Shower Room	600	1	600	
E.7	Single Occupant Shower & Toilet Room	85	1	85	
E.8	Bunk Room	1,200	1	1,200	
E.9	Storage/Jan	150	1	150	
E.10	Laundry / Utility	200	1	200	

Subtotal Net Area		
Efficiency (Circ.) Factor	10%	
TOTAL STUDENT SUPPORT GSF		

	ENCLOSED / HEATED AREA		CANOPY COVERED AREA
TOTAL GSF	-		-

Meeting Notes
Bates Technical College Fire Services Training Center
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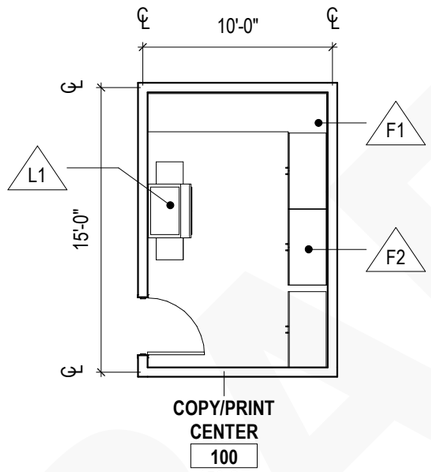
A.1
COPY/PRINT CENTER



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F2	BASE CABINET

LOOSE REQUIREMENTS

L1	COPY MACHINE

Space Name: Copy/Print Center
Space Number: A.1
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 150 sf

Function: Utility room for administration to print, copy or prepare print materials
Occupants: n/a
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☐	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

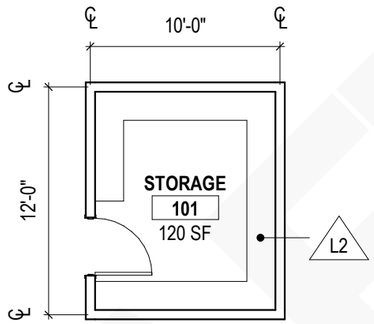
Environmental / HVAC		Plumbing		Life Safety	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☐
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☐	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

A.2
STORAGE



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L2	SHELVING

Space Name: Storage
Space Number: A.2
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 120 sf

Function: Storage room to serve adminsitration offices
Occupants: n/a
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

Meeting Notes
Bates Technical College Fire Services Training Center
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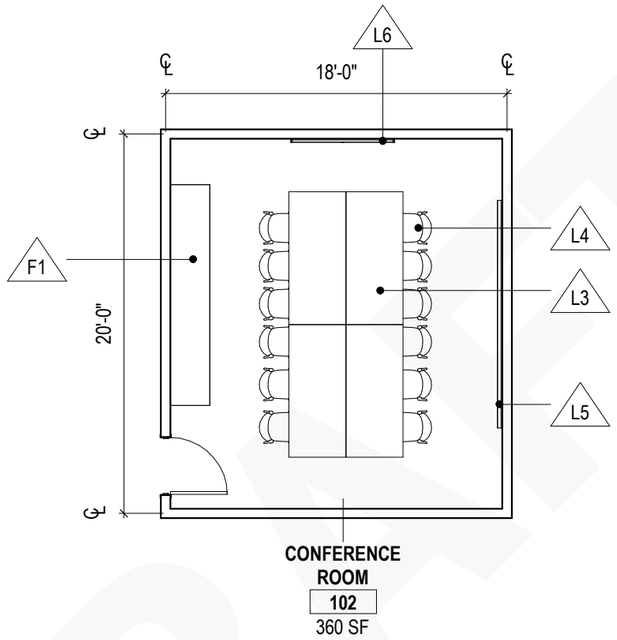
A.3
CONFERENCE ROOM



FIXED REQUIREMENTS

F1	24" COUNTERTOP

LOOSE REQUIREMENTS

L3	CONFERENCE TABLES
L4	CHAIR W/ CASTERS
L5	WHITEBOARD
L6	WALL-MOUNTED TV

Space Name: Conference Room
Space Number: A.3
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 360 sf

Function: Mid-sized conference room to hold 12 occupants
Occupants: n/a
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope

Man Doors	☑
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes

		Type
Floor	☑	CARPET 1
Walls	☑	
Ceiling	☑	
Other	☐	

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☑
Other	

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☑
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

Meeting Notes
Bates Technical College Fire Services Training Center
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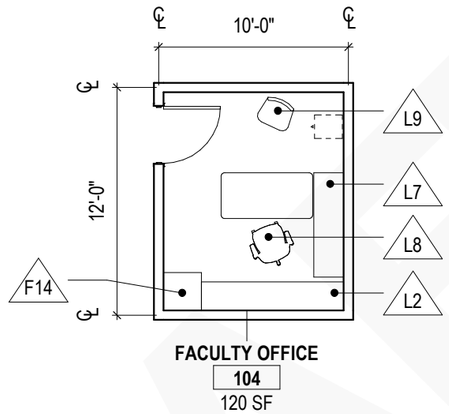
A.4
FACULTY OFFICE



FIXED REQUIREMENTS

F14	LOCKERS

LOOSE REQUIREMENTS

L2	SHELVING
L7	DESK
L8	OFFICE CHAIR
L9	SITTING CHAIR

Space Name: Faculty Office
Space Number: A.4
Space Classification: Administration
Unit Quantity: 6
Area Requirements: 120 sf

Function: Typical faculty office
Occupants: 1
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☐	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

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Meeting Notes
Bates Technical College Fire Services Training Center
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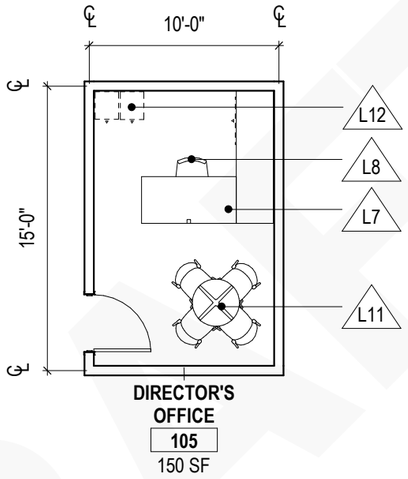
A.5
DEAN'S OFFICE



Space Name: Director's Office
Space Number: A.5
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 150 sf

Function: Larger office for program director
Occupants: 1
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L7	DESK
L8	OFFICE CHAIR
L11	SMALL MEETING TABLE
L12	PEDESTAL FLOOR LOCKER

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☑		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

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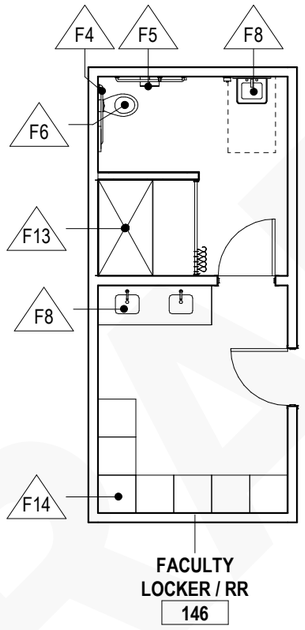
A.6
FACULTY STAFF RR & SHOWER



FIXED REQUIREMENTS

F4	GRAB BARS
F5	TOILET PAPER HOLDER
F6	TOILET
F8	SINK
F8	SINK
F13	ADA SHOWER
F14	LOCKERS

LOOSE REQUIREMENTS

Space Name: Faculty Staff RR & Shower
Space Number: A.6
Space Classification: Administration
Unit Quantity: 1
Area Requirements:

Function: Director's office
Occupants: n/a
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

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Meeting Notes
Bates Technical College Fire Services Training Center
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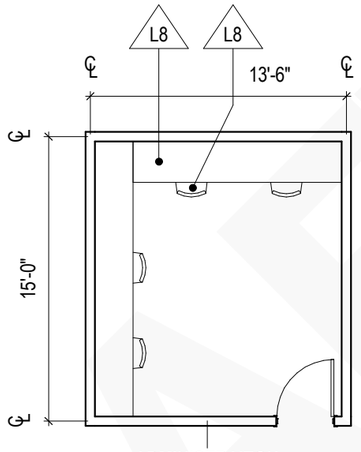
A.7
ADMINISTRATION SUPPORT



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L8	OFFICE CHAIR
L8	OFFICE CHAIR

Space Name: Administration Support
Space Number: A.7
Space Classification: Administration
Unit Quantity: 1
Area Requirements:

Function: Administration support with one dedicated staff with 3 part-time work stations
Occupants: 1
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☐	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☐		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

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Meeting Notes
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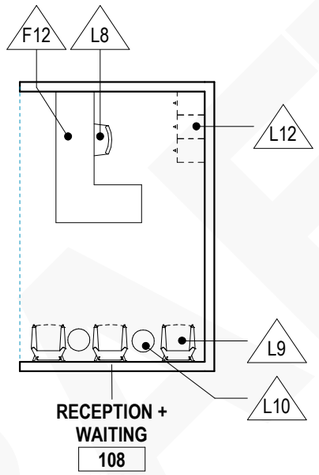
A.8
RECEPTION / WAITING



FIXED REQUIREMENTS

F12	RECEPTION DESK

LOOSE REQUIREMENTS

L8	OFFICE CHAIR
L9	SITTING CHAIR
L10	SIDE-TABLE
L12	PEDESTAL FLOOR LOCKER

Space Name: Receptioin / Waiting
Space Number: A.8
Space Classification: Administration
Unit Quantity: 1
Area Requirements:

Function: Reception and Waiting
Occupants: n/a
Adjacencies:
Direct:
Proximate: Entrance / vestibule

Exterior Envelope

Man Doors	☐
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Interior Finishes

	Type
Floor	☐ CARPET 1
Walls	☐
Ceiling	☐
Other	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Lighting

LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☑
Other	☐

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

Meeting Notes
Bates Technical College Fire Services Training Center
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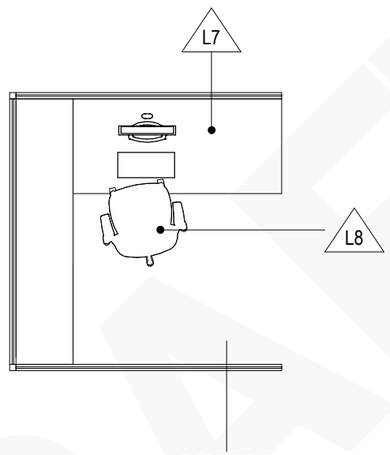
A.10
PART-TIME WORK STATION



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L7	DESK
L8	OFFICE CHAIR

Space Name: Part-time work Station
Space Number: A.10
Space Classification: Administration
Unit Quantity: 4
Area Requirements:

Function: Part-time Work Station
Occupants: 4 part-time workers
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope

Man Doors	☐
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes — **Type**

Floor	☑
Walls	☑
Ceiling	☑
Other	☐

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☐
Other	

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☐
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

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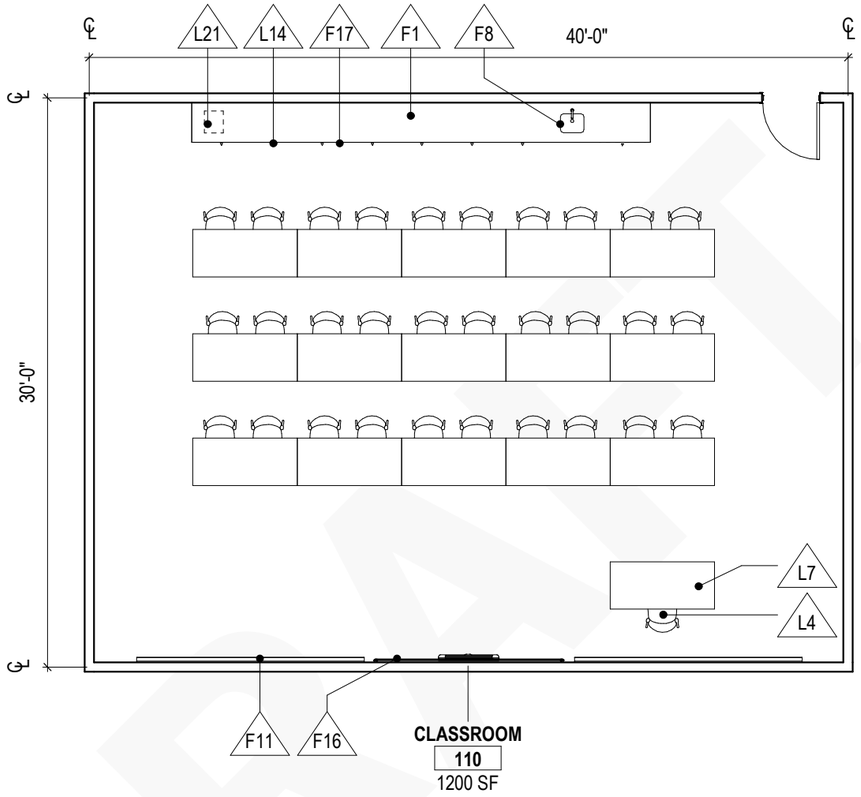
B.1
CLASSROOM



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F8	SINK
F11	WHITEBOARD
F16	SMARTBOARD
F17	LOCKABLE CABINET

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L7	DESK
L14	UNDERCOUNTER REFRIGERATOR
L21	COFFEE MACHINE

Space Name: Classroom
Space Number: B.1
Space Classification: Classroom
Unit Quantity: 3
Area Requirements:

Function: Instructional space
Occupants: 30
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CONC. 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☐	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

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Meeting Notes
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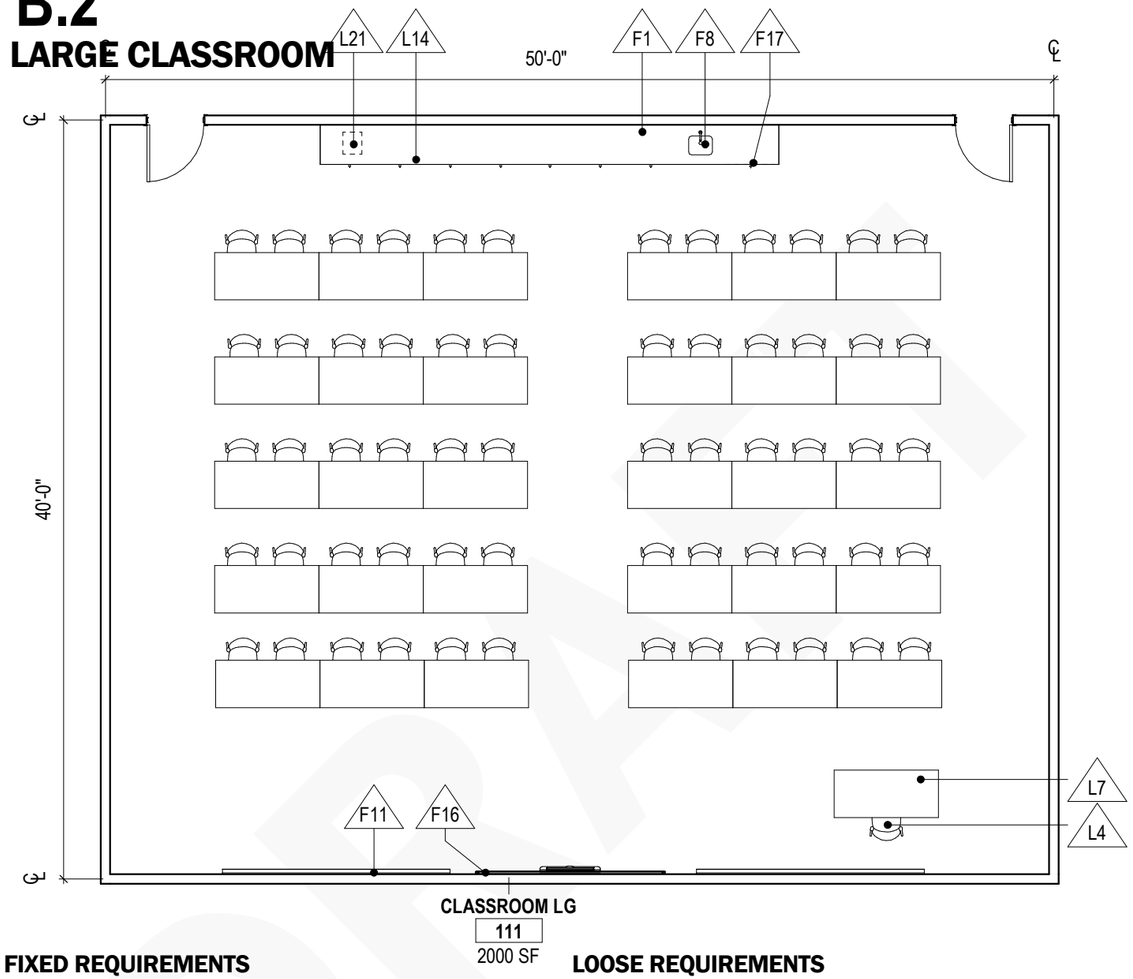
B.2
LARGE CLASSROOM



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F8	SINK
F11	WHITEBOARD
F16	SMARTBOARD
F17	LOCKABLE CABINET

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L7	DESK
L14	UNDERCOUNTER REFRIGERATOR
L21	COFFEE MACHINE

Space Name: Large Classroom
Space Number: B.2
Space Classification: Classroom
Unit Quantity: 1
Area Requirements:

Function: Large Classroom
Occupants: 60
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CONC. 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☑
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

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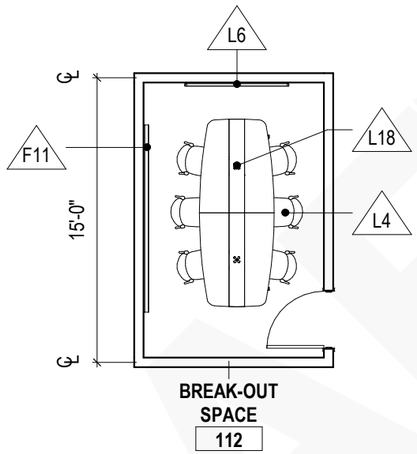
B.3
BREAK-OUT SPACE



FIXED REQUIREMENTS

F11	WHITEBOARD

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L6	WALL-MOUNTED TV
L18	CONFERENCE TABLE

Space Name: Break-out Space
Space Number: B.3
Space Classification: Classroom
Unit Quantity: 1
Area Requirements:

Function: Student collaboration
Occupants: 6-8
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

Meeting Notes
Bates Technical College Fire Services Training Center
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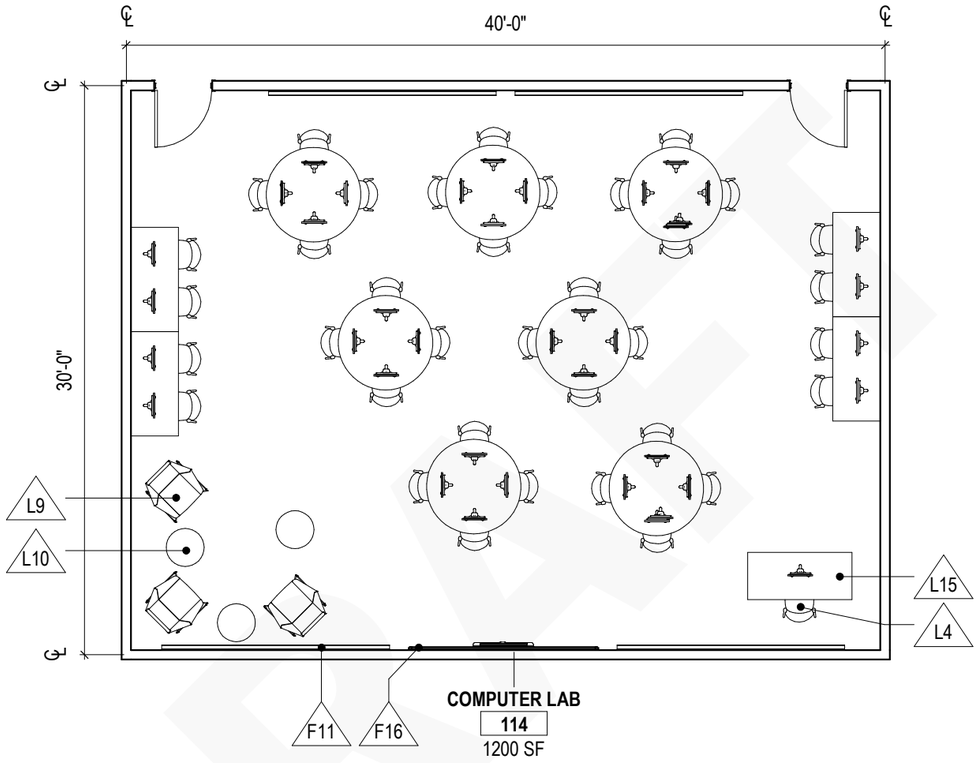
B.4
COMPUTER LAB



Space Name: Computer Lab
Space Number: B.3
Space Classification: Classroom
Unit Quantity: 1
Area Requirements:

Function: Instruction
Occupants: 30
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☐	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

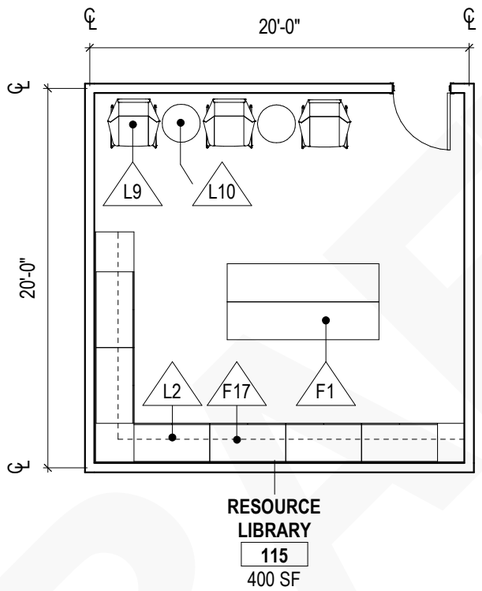
FIXED REQUIREMENTS

F11	WHITEBOARD
F16	SMARTBOARD

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L9	SITTING CHAIR
L10	SIDE-TABLE
L15	TABLE ON CASTERS

B.5
RESOURCE LIBRARY



Space Name: Resource Library
Space Number: B.3
Space Classification: Classroom
Unit Quantity: 1
Area Requirements:

Function: Student resources with cabinets and shelves for equipment prop storage; ample counter top space for prop examination
Occupants: 15
Adjacencies:
Direct: Administration offices

FIXED REQUIREMENTS

F1	24" COUNTERTOP
F17	LOCKABLE CABINET

LOOSE REQUIREMENTS

L2	SHELVING
L9	SITTING CHAIR
L10	SIDE-TABLE

Exterior Envelope

Man Doors	☑
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes

		Type
Floor	☑	CONC. 1
Walls	☑	
Ceiling	☑	
Other	☐	

Interior Construction

Relites	☐
Casework	☑
Shelving Standards	☑
Marker Boards	☐
Other	

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☑
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☑
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☐
Internet (hardwired)	☐
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

TRAINING TOWER - 1st Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
May 4, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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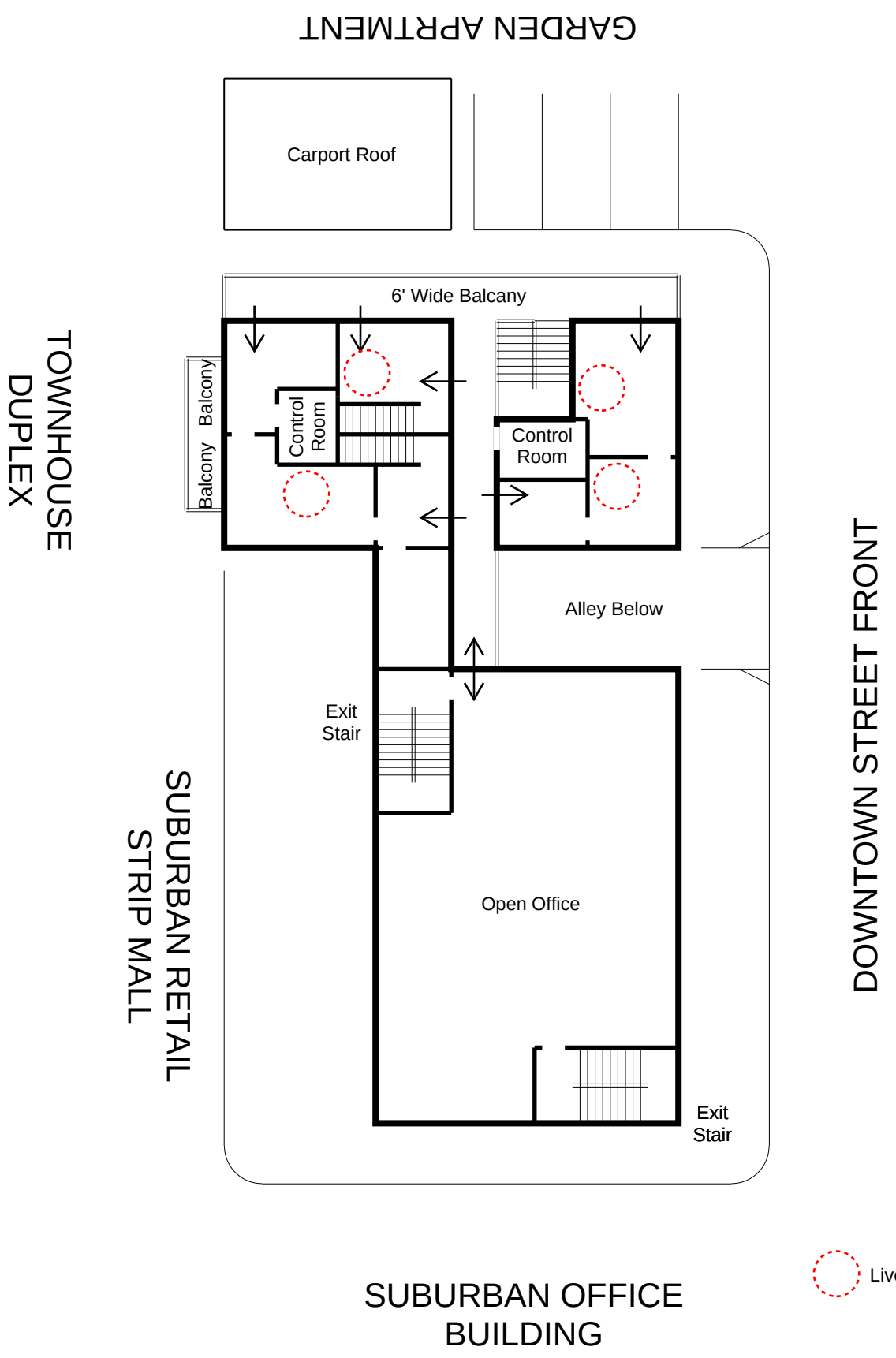

TRAINING TOWER - 2nd Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
May 4, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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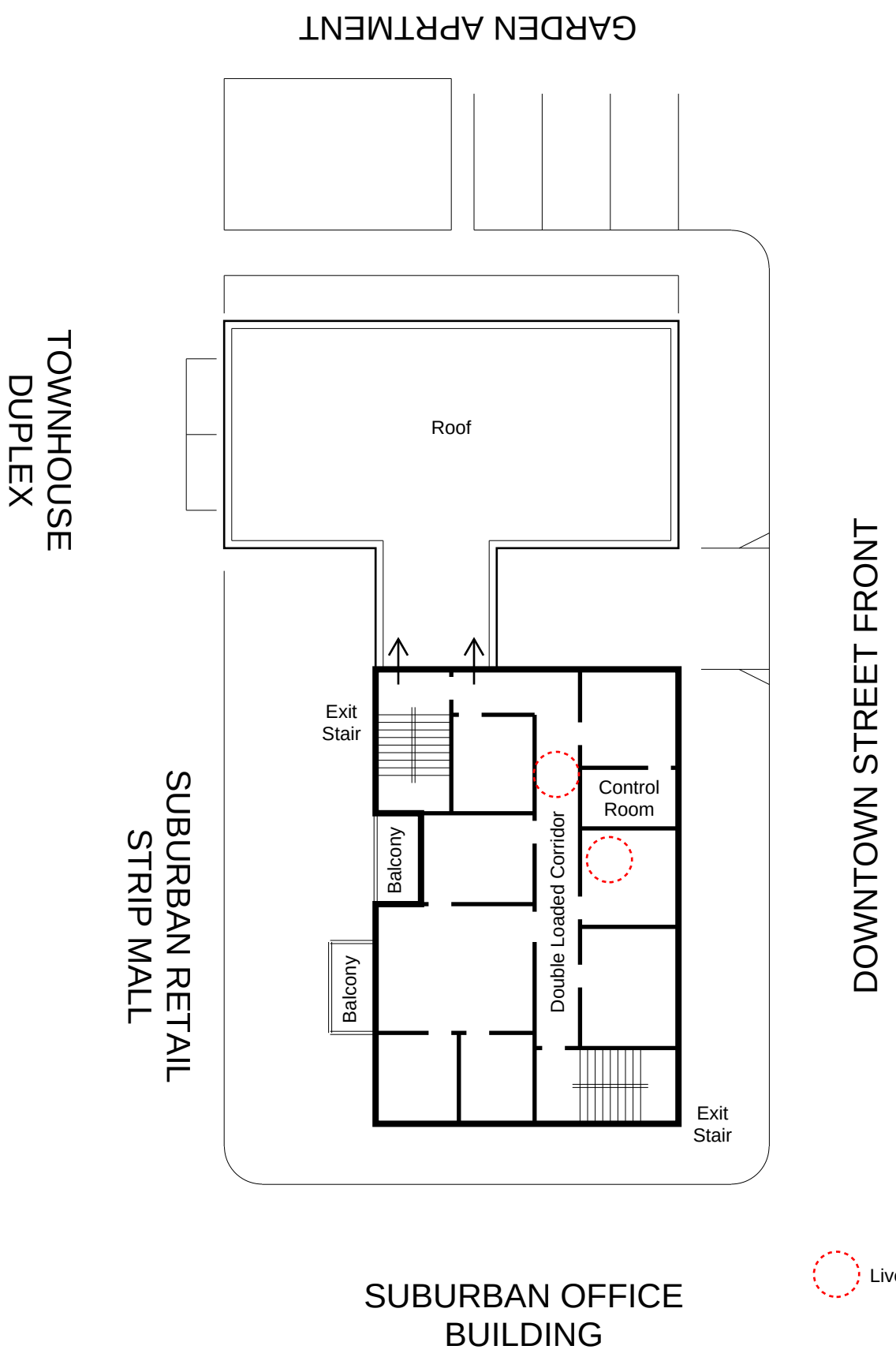

TRAINING TOWER - 3rd Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
May 4, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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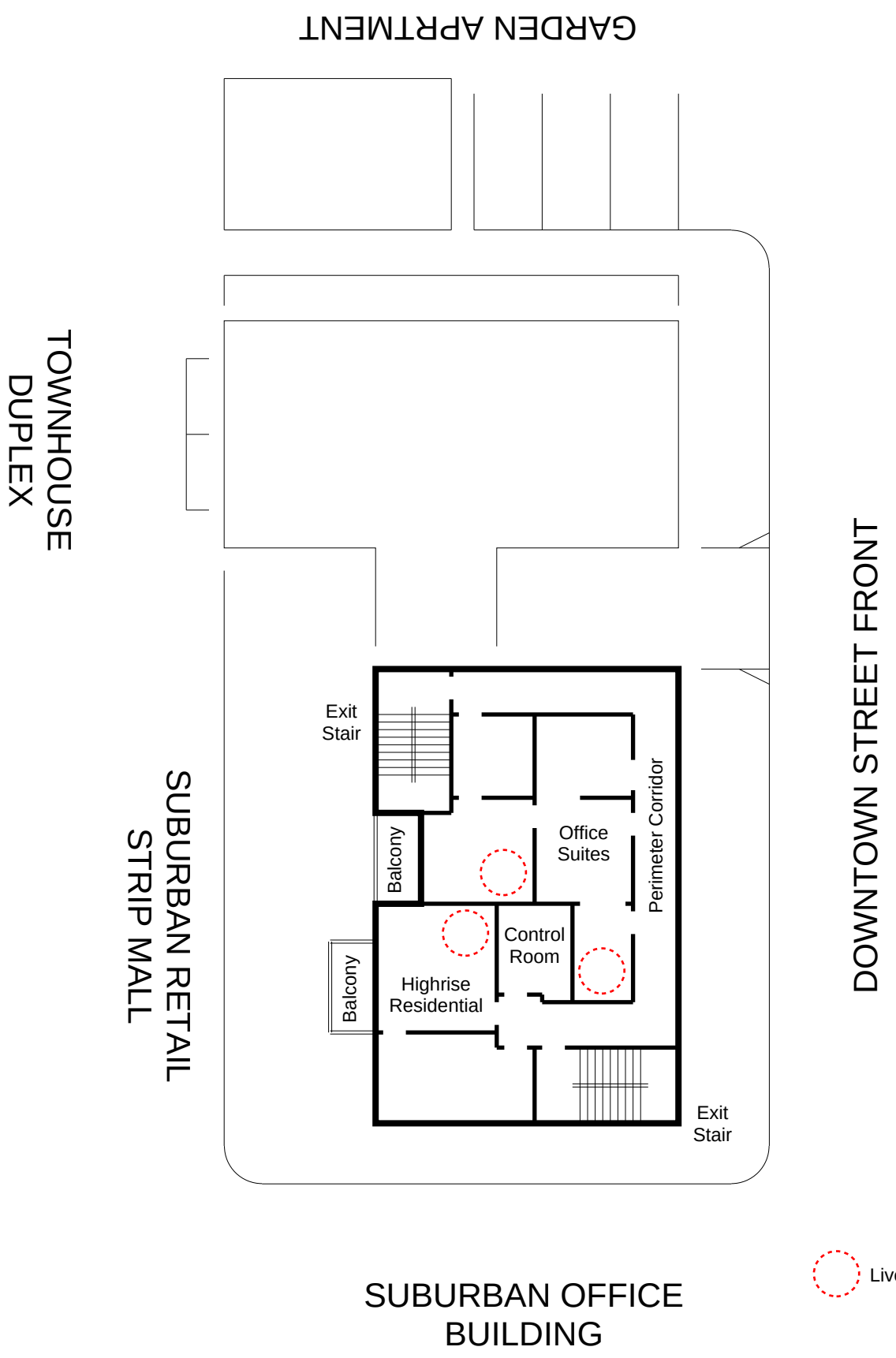
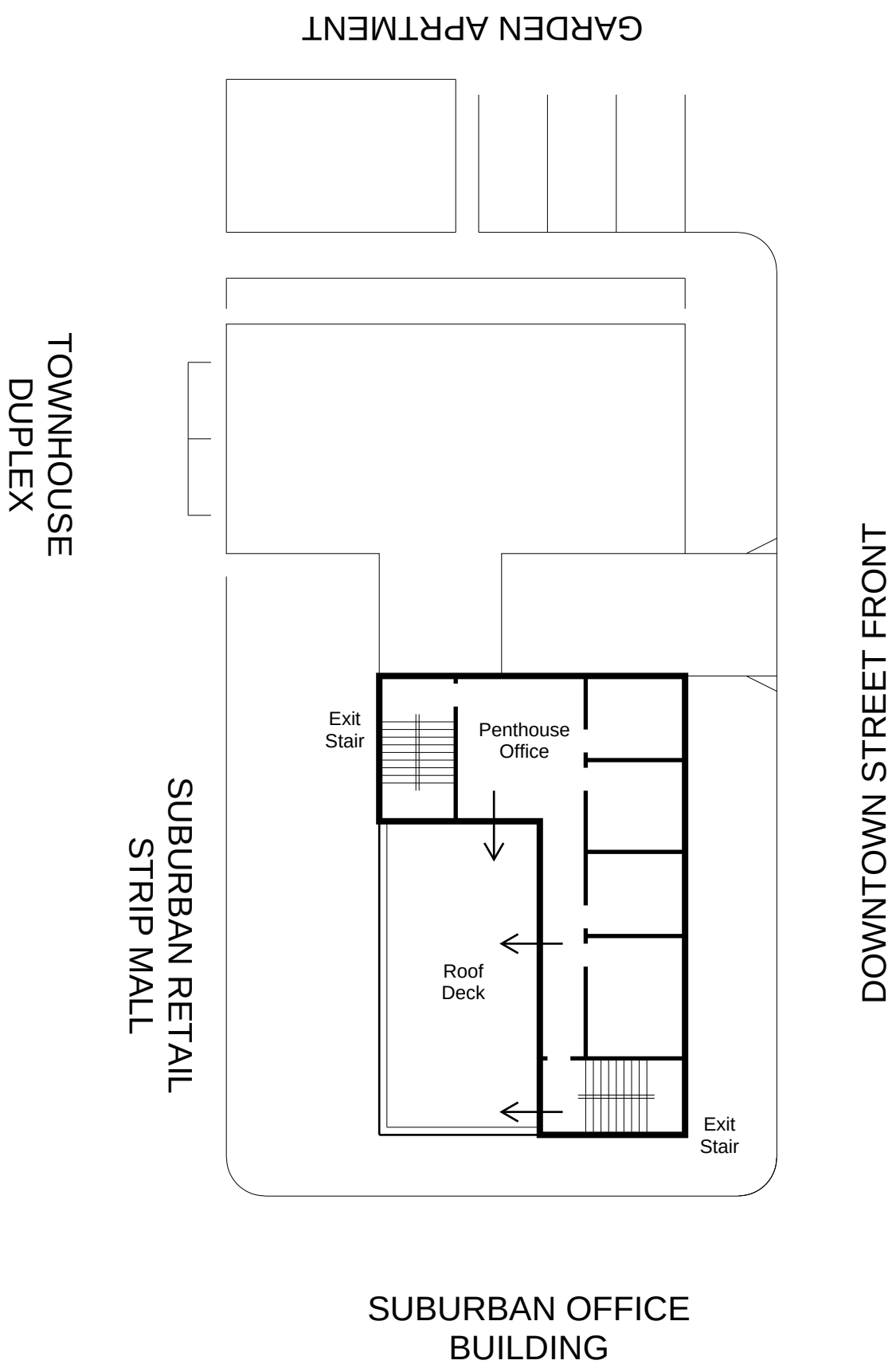


TRAINING TOWER - 4th Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
May 4, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

RICE fergus MILLER



TRAINING TOWER - 5th Floor

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
May 4, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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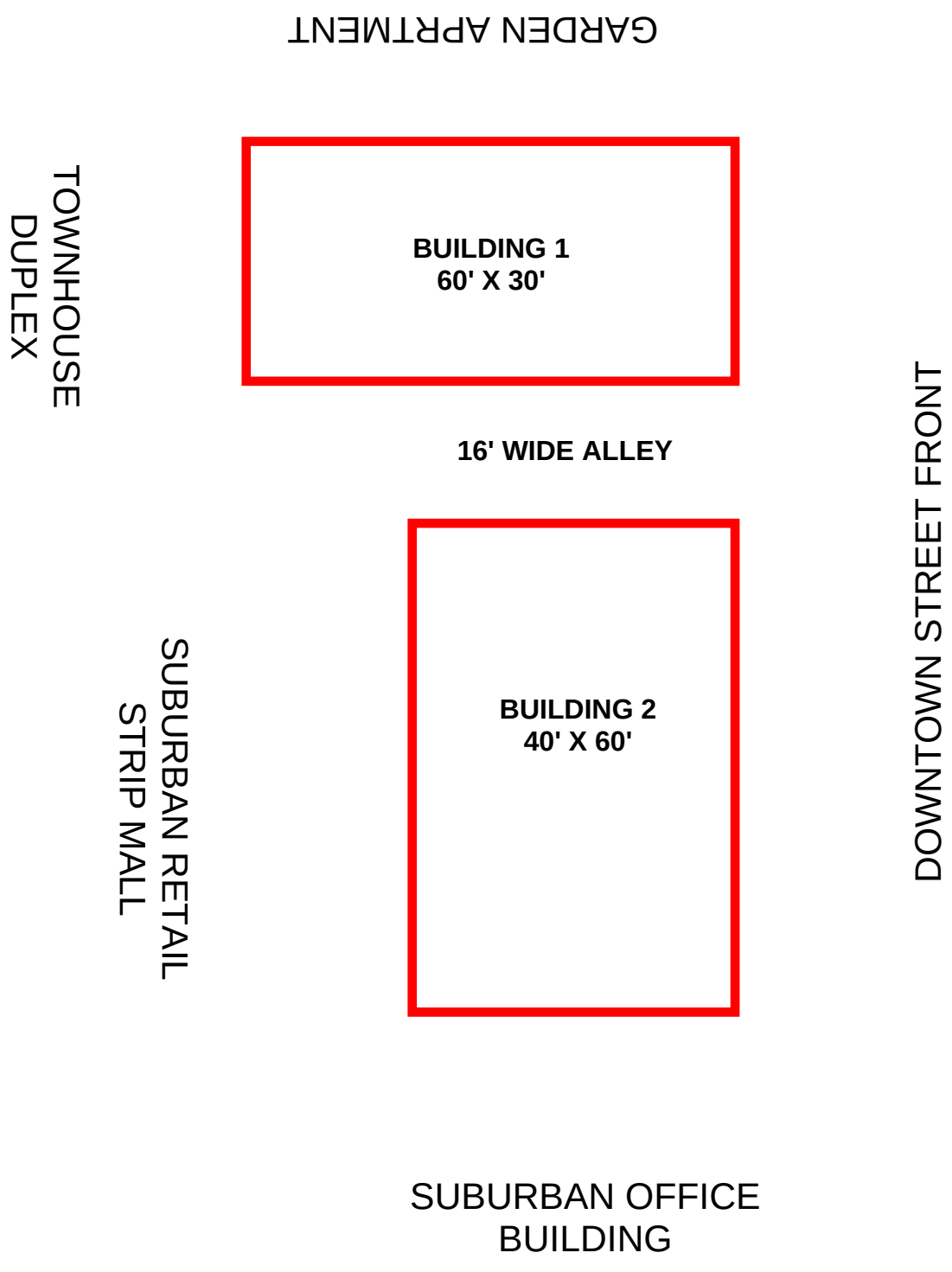

TRAINING TOWER CONCEPT

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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TRAINING TOWER - Concept Sketch 1

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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TRAINING TOWER - Concept Sketch 2

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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TRAINING TOWER - Concept Sketch 3

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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TRAINING TOWER - Concept Sketch 4

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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TRAINING TOWER - Concept Sketch 5

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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TRAINING TOWER - Concept Sketch 6

BATES TECHNICAL COLLEGE
FIRE SERVICE TRAINING CENTER PREDESIGN
Washington State Project #2020-213
April 23, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

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MEETING NOTES

Project: Bates Technical College Fire Service Training Predesign
2020-213
RFM Project: 2019091.01

MEETING TOPIC: Fire Training Room Data Sheets and Block Diagrams

MEETING TIME AND LOCATION: May 21 1:00 pm, web-based

ATTENDEES:

BTC: Bill Pessemier, Brian Wiwel, Tiffany Williams
DES E&AS: Denis Flynn
RFM: Gunnar Gladics, Ron Easterday, Travis Hauan

AGENDA ITEMS:

1. Fire Training Spaces: Review Room Data Sheets.

   - Apparatus Bay: Engines 30 foot, Confirm number of apparatus. BP will check with Pat Piper. Consider future ladder truck. Currently two aid vehicles. & engines, 6 use and one in reserve.
   - Hose Tower: Maintain existing for south options or convert to storage but not needed for all new north options.
   - Decom: Three 30# Extractors shown rather than one large.
   - Bunker Gear Storage: BTC to check quantity of students and instructor needs.
   - Secure Gear Storage: Secure for SCBA, saws, bunker gear, power tools, thermal cameras, haz mat training suits, wildland training.
   - EMT Storage keep separate: Cleaner area than Gear Storage. Manikins, EMT equip storage, medical training supplies, oxygen storage, backboards.
   - Equipment Maintenance: Chainsaw and cut-off saw light maintenance and maintenance training. Center workbench. Oil rag storage and eyewash.
   - SCBA: 2-3 persons. Students to have individual masks for health concern. Store in bunker gear rack. Current procedure is wash by hand then spray disinfectant. Provide space for gear decon equipment. Storage for 120 bottles.
   - Kitchen/Break: Consider name, multiple sinks, larger refrigerator options, no range.
   - Fitness: Tie need to academic requirements for fitness tests, not a student amenity.
   - Admin Break: Needs to accommodate 6.

2. Classroom/Admin Spaces:
   - Need student locker space: Existing 102 lockers. Boots, issued gear. Combination lock with common key override.

3. Block Diagram Development:

   - North Options: Two presented, see attached. RFM recommends the second option that has major training support direct off drill ground and has direct adjacency of the student break room and large classroom for larger outside events.
   - Pairs of classrooms to have operable walls for flexibility.

- South Option: Remodel area has some spare capacity, consider moving computer lab/future 911 training from classroom/admin building to remodel area.

4. Preferred Alternative: Direction given May 5 email the south option is to be used for the Preferred Alternative in the Predesign Submittal.
   - Meeting to be scheduled with the President to review progress, especially with the South option for concurrence.
   - Parking Study: With the south alternative being selected, DES proceeding with retaining KPFF for a parking study.
   - BTC to provide class caps for given range 7am-3 pm, 544 enrollment plus instructors + staff. Range of 600 total, not counting auditorium or events.

5. City of Tacoma Pre-Submittal: Submitted to City and acknowledged; comment memo and review meeting will be scheduled by the City after their Internal Review Panel meeting this week.

Attachments: Room data sheets and block diagrams, annotated with meeting notes.

NORTH SITE


NORTH
BUILDING
New Parking Area
Drill Yard
A = 23,558.81 sf
W = 133'-9 1/2"
H = 176'-1"
4 Story Tower
2,111.97 sf
2-3 Story Tower
1,153.79 sf
Drill Yard
A = 23,558.72 sf
W = 133'-9 1/2"
H = 176'-1"
1" = 60'

TO DRILL YARD / TOWER

ALL STUDENTS HAVE LOCKERS: 102+ THROUGHOUT THE BUILDING IN THE HALLWAY SEEMS TO WORK WELL

USE: STREET CLOTHES, BOOKS, BOOTS, ISSUED EQUIPMENT

ROOMS BY DEPARTMENT

- Admin
- App Bay
- App Support
- Entry
- Fitness
- Instruction
- Support

TO DRILL YARD / TOWER

ROOMS BY DEPARTMENT
- Admin
- Dining
- Instruction
- Support

NORTH OPTION LEVEL 2

NORTH OPTION - A - LEVEL 2

TO DRILL YARD / TOWER

ROOMS BY DEPARTMENT

- Admin
- App Bay
- App Support
- Entry
- Instruction
- Support

NORTH OPTION - B - LEVEL 1

BATES TECHNICAL COLLEGE | BTC | MAY, 2020

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TO DRILL YARD / TOWER

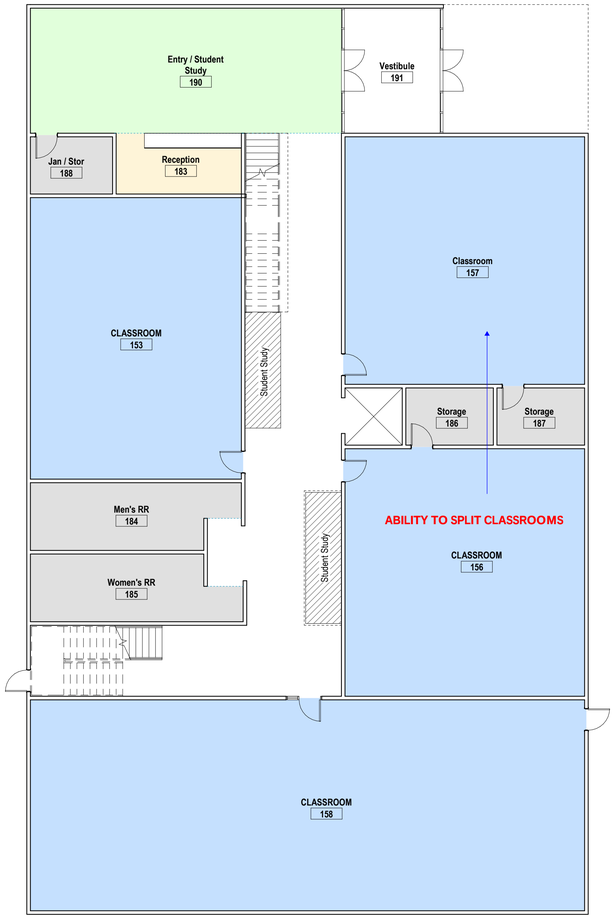
ROOMS BY DEPARTMENT

- Admin
- Dining
- Instruction
- Support

NORTH OPTION - B - LEVEL 2

SOUTH SITE


CLASSROOM BLDG
BUILDING D
FITNESS CENTER AND STUDENT LOUNGE
51'-9"
56'-11"
20'-0"
62'-7"
4 Story Tower 2,112 sf
2-3 Story Tower 1,154 sf
72'-8"
Drill Area 16,495 sf
1" = 60'
N



ALL STUDENTS HAVE LOCKERS: 102+ THROUGHOUT THE BUILDING IN THE HALLWAY SEEMS TO WORK WELL

USE: STREET CLOTHES, BOOKS, BOOTS, ISSUED EQUIPMENT

ROOMS BY DEPARTMENT

- Admin
- Entry
- Instruction
- Support

SOUTH OPTION - B - LEVEL 1 (CLASSROOM)

BATES TECHNICAL COLLEGE | BTC | MAY, 2020

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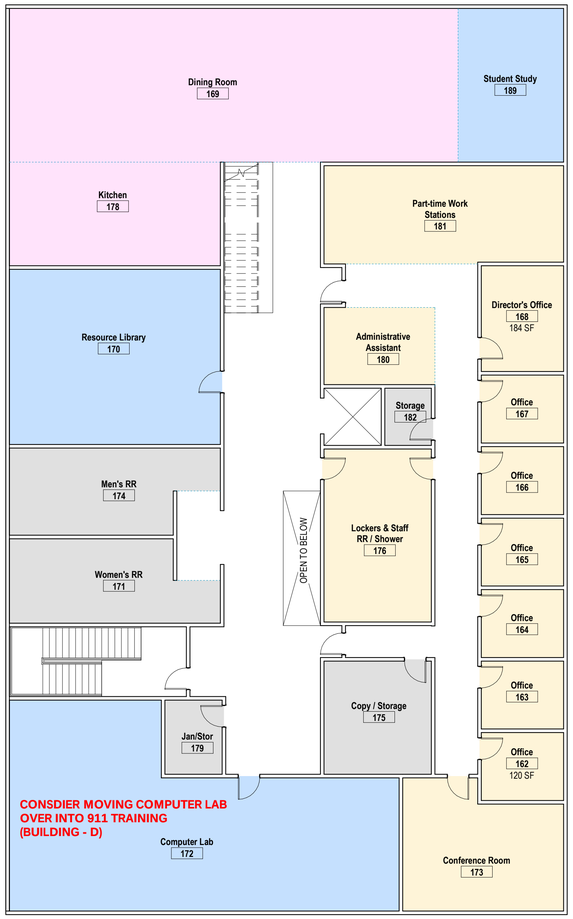
BEAUTIFUL PARKING LOTS

PRIVATE RESIDENCES



ROOMS BY DEPARTMENT
- Admin
- Dining
- Instruction
- Support

PORABLES!!

SOUTH OPTION - B - LEVEL 2 (CLASSROOM)

SOUTH OPTION - B - LEVEL 2 (BLDG D)

A	ADMINISTRATION	ASF	QTY	TOTAL ASF	COMMENTS
A.1	Copy/Print Center	150	1	150	
A.2	Storage	120	1	120	
A.3	Conference Room for (12)	360	1	360	
A.4	Faculty Offices	120	6	720	
A.5	Part-Time Faculty workstations	64	1	64	
A.6	Dean's Office	150	1	150	
A.7	Faculty & Staff Restroom	85	1	85	Inc: Shower (6) lockers, WC+U
A.8	Administration Support	200	1	200	"Hotel work station"
A.9	Reception & Waiting	150	1	150	
A.10	Staff Break Room	150	1	150	

Subtotal Net Area		2,149
Efficiency (Circ.) Factor	10%	240.9
TOTAL ADMINISTRATION GSF		**2,363.9**

B	GENERAL INSTRUCTION	ASF	QTY	TOTAL ASF	COMMENTS
B.1	Classroom	1,200	3	3,600	Inc: coffee and UC refer
B.2	Large Classroom	2,000	1	2,000	Inc: coffee and UC refer
B.3	Break-out Space	150	2	300	
B.4	Computer lab.	1,200	1	1,200	
B.5	Resource Library	400	1	400	
B.6	Lounge				

Subtotal Net Area		7500
Efficiency (Circ.) Factor	10%	750
TOTAL GENERAL INSTRUCTION GSF		**8,250**

B	APPARATUS & APPARATUS SUPPORT - LIVE TRAINING	ASF	QTY	TOTAL ASF	COMMENTS
C.1	Apparatus Bay	6,200	1	6,200	min 6 bays 8 engines + 2 aid cars
C.2	Hose Tower	150	1	150	
C.3	Hose Dryer & Storage	450	1	450	(separate) outside access
C.4	Decontamination	450	1	450	check extractor capacity
C.5	Bunker Gear Storage	720	1	720	check storage size 64 students + 20 instructor, to accommodate overnight drying
C.6	Secure gear Storage	800	1	800	BTC to check size based on existing after purge, power equipment, FE's... BTC 1,050 total with EMT storage
C.7	Equipment Maintenance Shop	450	1	450	
C.8	EMT Equipment storage	250	1	250	BTC 1,050 total with Secure Storage
C.9	SCBA and Air Storage	300	1	300	need 6,000 psi compressor"

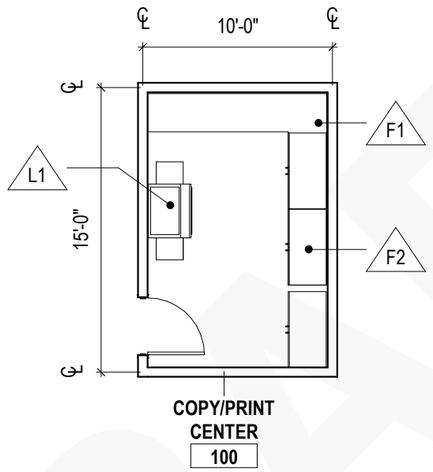
Subtotal Net Area		9,770
Efficiency (Circ.) Factor	10%	977
TOTAL APPRATUS & APPRATUS SUPPORT GSF		**10,747**

E	STUDENT SUPPORT - LIVE TRAINING	ASF	QTY	TOTAL ASF	COMMENTS
D.1	Break room	200	1	200	
D.2	Dining combined wth kitchen	1,400	1	1,400	
D.3	Fitness Room	1,500	1	1,500	
D.4	Women's Student Shower	325	1	325	
D.5	Men's Student Shower Room	600	1	600	
D.6	Single Occupant Shower & Toilet Room	85	1	85	
D.7	Bunk Room	1,200	1	1,200	
D.8	Storage/Jan	150	1	150	

Subtotal Net Area		5,460
Efficiency (Circ.) Factor	10%	546
TOTAL STUDENT SUPPORT GSF		**6,006**

	ENCLOSED / HEATED AREA	
TOTAL GSF	-	

A.1
COPY/PRINT CENTER



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F2	BASE CABINET

LOOSE REQUIREMENTS

L1	COPY MACHINE

Space Name: Copy/Print Center
Space Number: A.1
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 150 sf

Function: Utility room for administration to print, copy or prepare print materials
Occupants: n/a
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☐	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

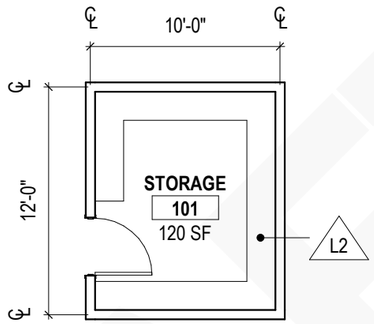
Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☐
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

CARPET 1: Heavy duty carpet

A.2
STORAGE



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L2	SHELVING

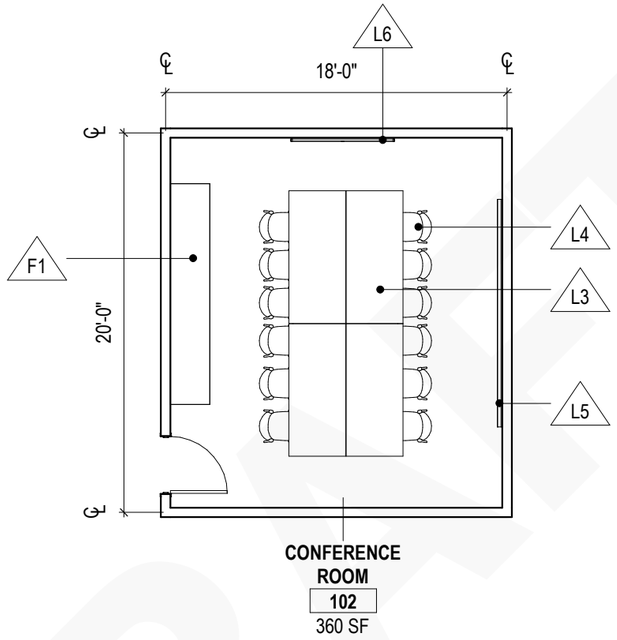
Space Name: Storage
Space Number: A.2
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 120 sf

Function: Storage room to serve adminsitration offices
Occupants: n/a
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.3
CONFERENCE ROOM



FIXED REQUIREMENTS

F1	24" COUNTERTOP

LOOSE REQUIREMENTS

L3	CONFERENCE TABLES
L4	CHAIR W/ CASTERS
L5	WHITEBOARD
L6	WALL-MOUNTED TV

Space Name: Conference Room
Space Number: A.3
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 360 sf

Function: Mid-sized conference room to hold 12 occupants
Occupants: n/a
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

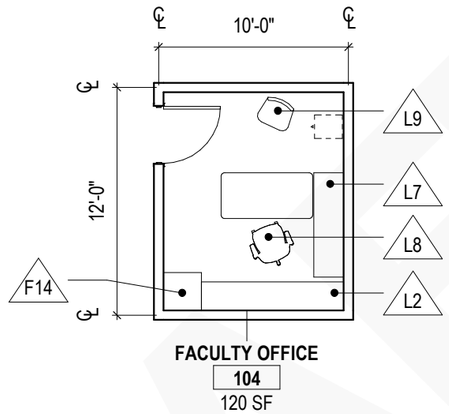
Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

A.4
FACULTY OFFICE



FIXED REQUIREMENTS

F14	LOCKERS

LOOSE REQUIREMENTS

L2	SHELVING
L7	DESK
L8	OFFICE CHAIR
L9	SITTING CHAIR

Space Name: Faculty Office
Space Number: A.4
Space Classification: Administration
Unit Quantity: 6
Area Requirements: 120 sf

Function: Typical faculty office
Occupants: 1
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

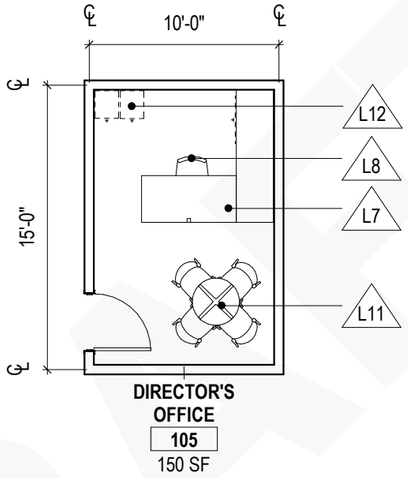
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☐	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

A.5
DEAN'S OFFICE



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L7	DESK
L8	OFFICE CHAIR
L11	SMALL MEETING TABLE
L12	PEDESTAL FLOOR LOCKER

Space Name: Director's Office
Space Number: A.5
Space Classification: Administration
Unit Quantity: 1
Area Requirements: 150 sf

Function: Larger office for program director
Occupants: 1
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

Exterior Envelope

Man Doors	☑
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes

		Type
Floor	☑	CARPET 1
Walls	☑	
Ceiling	☑	
Other	☐	

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☐
Other	

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

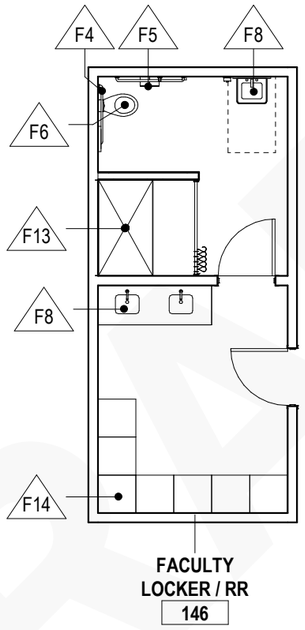
LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☑
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

A.6
FACULTY STAFF RR & SHOWER



FIXED REQUIREMENTS

F4	GRAB BARS
F5	TOILET PAPER HOLDER
F6	TOILET
F8	SINK
F8	SINK
F13	ADA SHOWER
F14	LOCKERS

LOOSE REQUIREMENTS

Space Name: Faculty Staff RR & Shower

Space Number: A.6

Space Classification: Administration

Unit Quantity: 1

Area Requirements:

Function: Director's office

Occupants: n/a

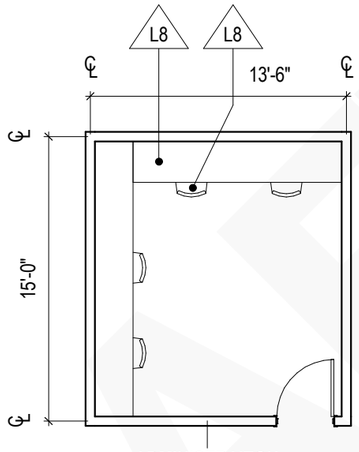
Adjacencies: **Direct:** Adminsitration offices

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☑
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

A.7
ADMINISTRATION SUPPORT



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L8	OFFICE CHAIR
L8	OFFICE CHAIR

Space Name: Administration Support

Space Number: A.7

Space Classification: Administration

Unit Quantity: 1

Area Requirements:

Function: Administration support with one dedicated staff with 3 part-time work stations

Occupants: 1

Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☐	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☐		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

A.8
RECEPTION / WAITING

Space Name: Receptioin / Waiting

Space Number: A.8

Space Classification: Administration

Unit Quantity: 1

Area Requirements:

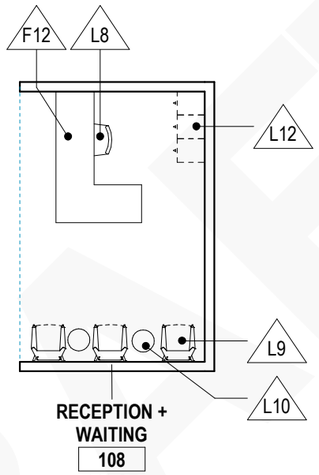
Function: Reception and Waiting

Occupants: n/a

Adjacencies:

Direct:

Proximate: Entrance / vestibule



Exterior Envelope

Man Doors	☐
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes

		Type
Floor	☐	CARPET 1
Walls	☐	
Ceiling	☐	
Other	☐	

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☐
Other	

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☑
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

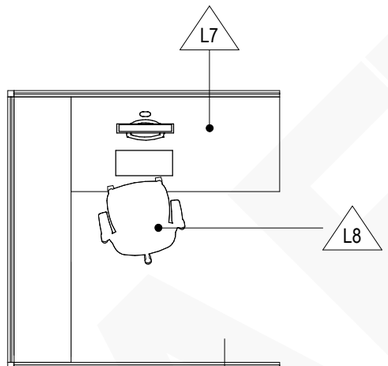
FIXED REQUIREMENTS

F12	RECEPTION DESK

LOOSE REQUIREMENTS

L8	OFFICE CHAIR
L9	SITTING CHAIR
L10	SIDE-TABLE
L12	PEDESTAL FLOOR LOCKER

A.10
PART-TIME WORK STATION



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L7	DESK
L8	OFFICE CHAIR

Space Name: Part-time work Station
Space Number: A.10
Space Classification: Administration
Unit Quantity: 4
Area Requirements:

Function: Part-time Work Station
Occupants: 4 part-time workers
Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

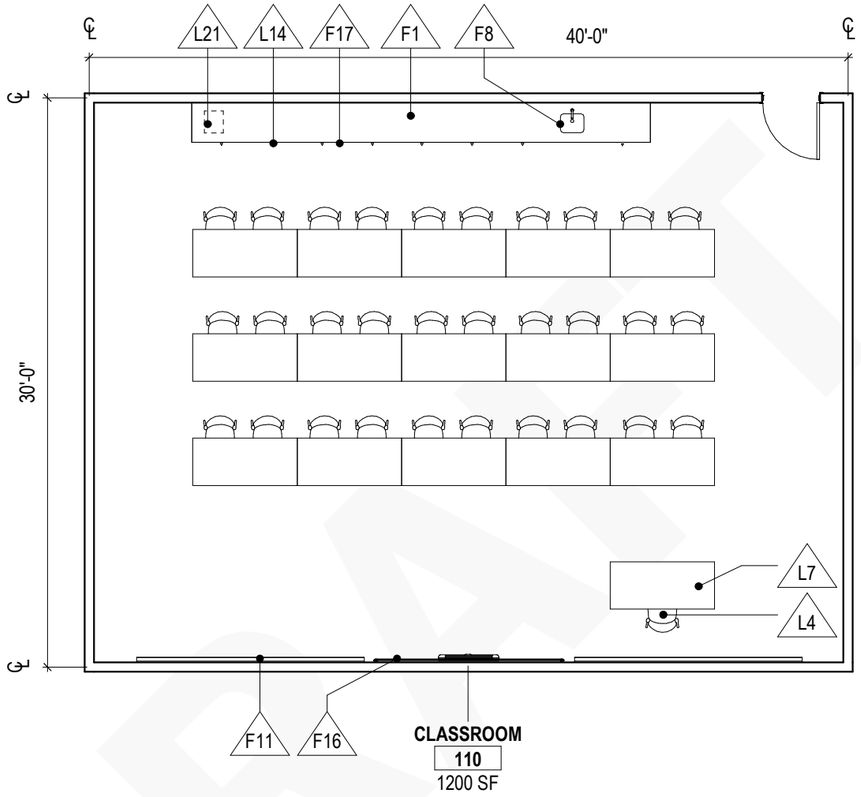
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☐	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

B.1
CLASSROOM



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F8	SINK
F11	WHITEBOARD
F16	SMARTBOARD
F17	LOCKABLE CABINET

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L7	DESK
L14	UNDERCOUNTER REFRIGERATOR
L21	COFFEE MACHINE

Space Name: Classroom

Space Number: B.1

Space Classification: Classroom

Unit Quantity: 3

Area Requirements:

Function: Instructional space

Occupants: 30

Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

Exterior Envelope

Man Doors	☑
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes

		Type
Floor	☑	CONC. 1
Walls	☑	
Ceiling	☑	
Other	☐	

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☐
Other	

Environmental / HVAC

Heating	☐
Cooling	☐
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

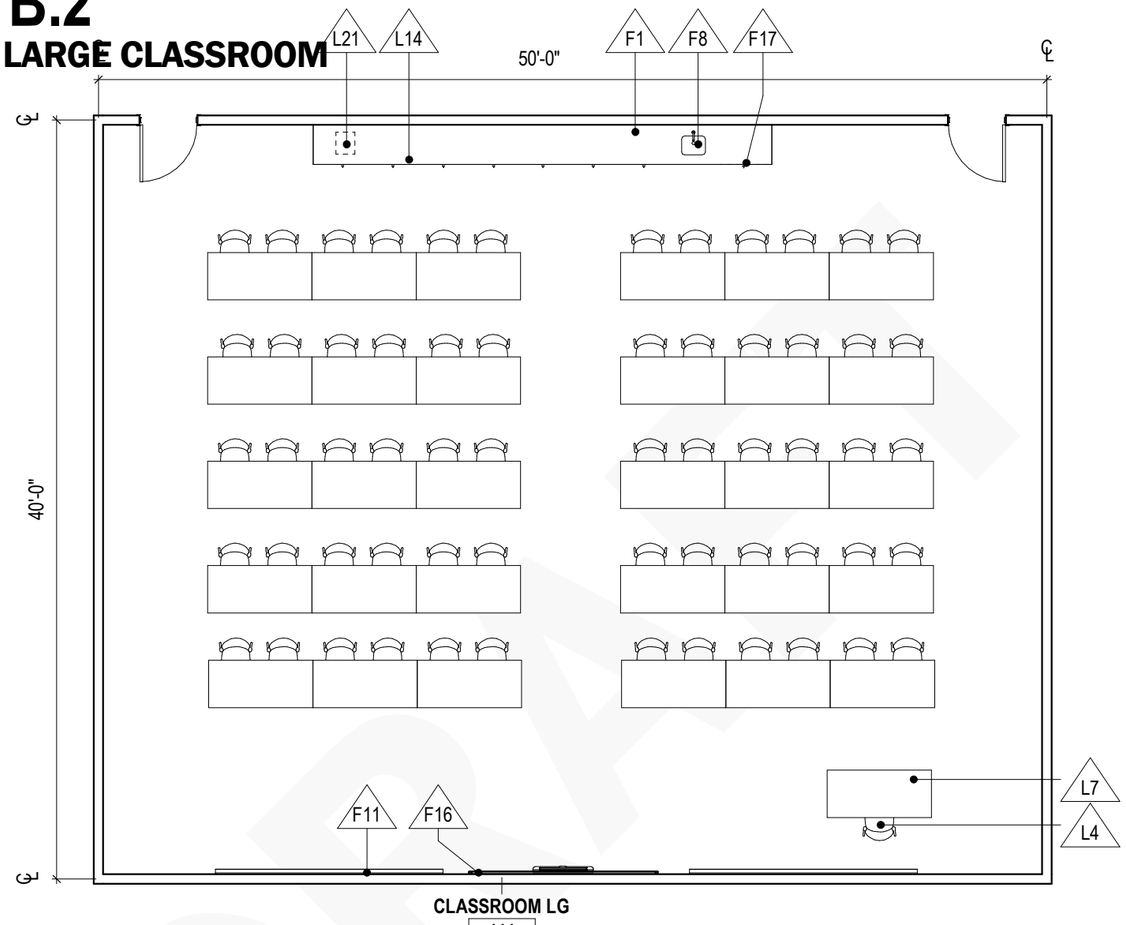
LED Overhead	☐
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☐
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

B.2
LARGE CLASSROOM



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F8	SINK
F11	WHITEBOARD
F16	SMARTBOARD
F17	LOCKABLE CABINET

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L7	DESK
L14	UNDERCOUNTER REFRIGERATOR
L21	COFFEE MACHINE

Space Name: Large Classroom

Space Number: B.2

Space Classification: Classroom

Unit Quantity: 1

Area Requirements:

Function: Large Classroom

Occupants: 60

Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

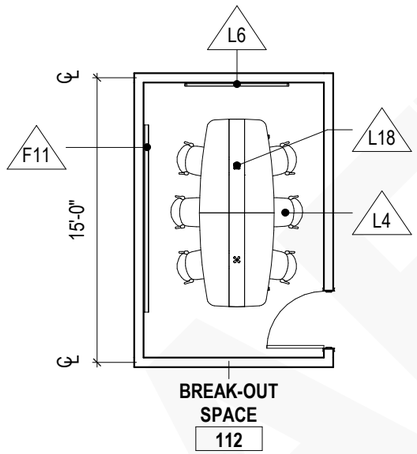
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CONC. 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☐	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

B.3
BREAK-OUT SPACE



FIXED REQUIREMENTS

F11	WHITEBOARD

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L6	WALL-MOUNTED TV
L18	CONFERENCE TABLE

Space Name: Break-out Space

Space Number: B.3

Space Classification: Classroom

Unit Quantity: 1

Area Requirements:

Function: Student collaboration

Occupants: 6-8

Adjacencies:
Direct: Adminsitration offices
Proximate: n/a

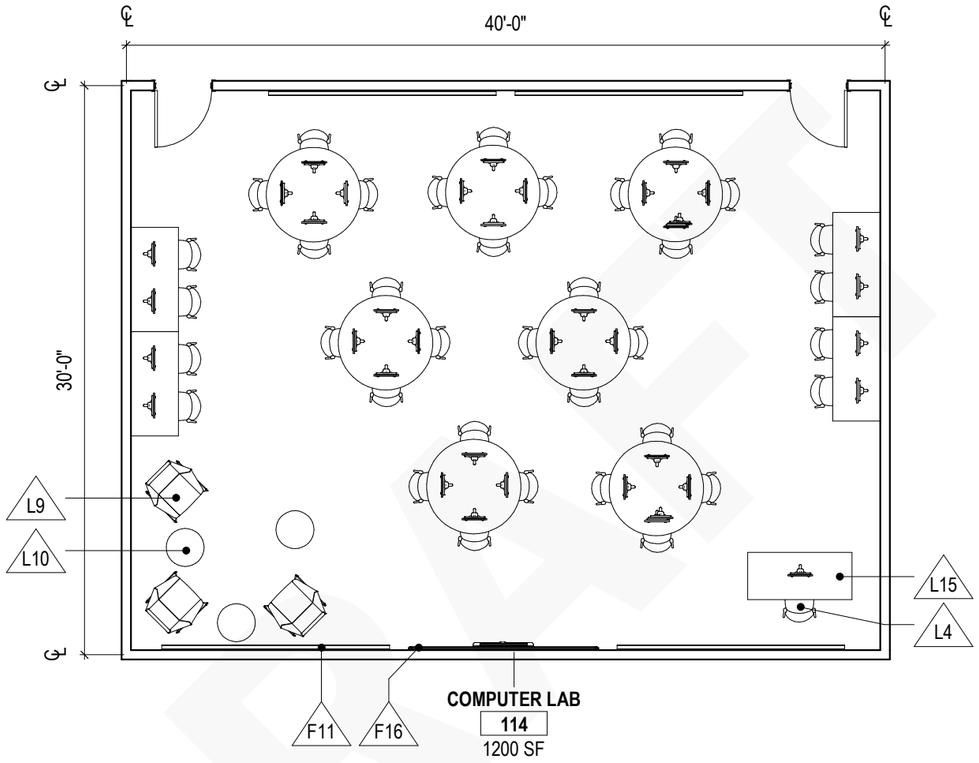
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑	CARPET 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☑
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

B.4
COMPUTER LAB



FIXED REQUIREMENTS

F11	WHITEBOARD
F16	SMARTBOARD

LOOSE REQUIREMENTS

L4	CHAIR W/ CASTERS
L9	SITTING CHAIR
L10	SIDE-TABLE
L15	TABLE ON CASTERS

Space Name: Computer Lab
Space Number: B.3
Space Classification: Classroom
Unit Quantity: 1
Area Requirements:

Function: Instruction
Occupants: 30
Adjacencies: **Direct:** Adminsitration offices
Proximate: n/a

Exterior Envelope

Man Doors	☑
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes

		Type
Floor	☑	CARPET 1
Walls	☑	
Ceiling	☑	
Other	☐	

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☐
Other	

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

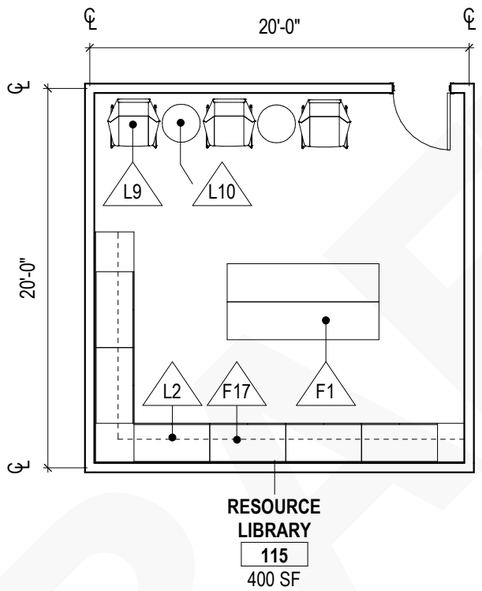
LED Overhead	☐
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☐
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

B.5
RESOURCE LIBRARY



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F17	LOCKABLE CABINET

LOOSE REQUIREMENTS

L2	SHELVING
L9	SITTING CHAIR
L10	SIDE-TABLE

Space Name: Resource Library

Space Number: B.3

Space Classification: Classroom

Unit Quantity: 1

Area Requirements:

Function: Student resources with cabinets and shelves for equipment prop storage; ample counter top space for prop examination

Occupants: 15

Adjacencies:

Direct: Administration offices

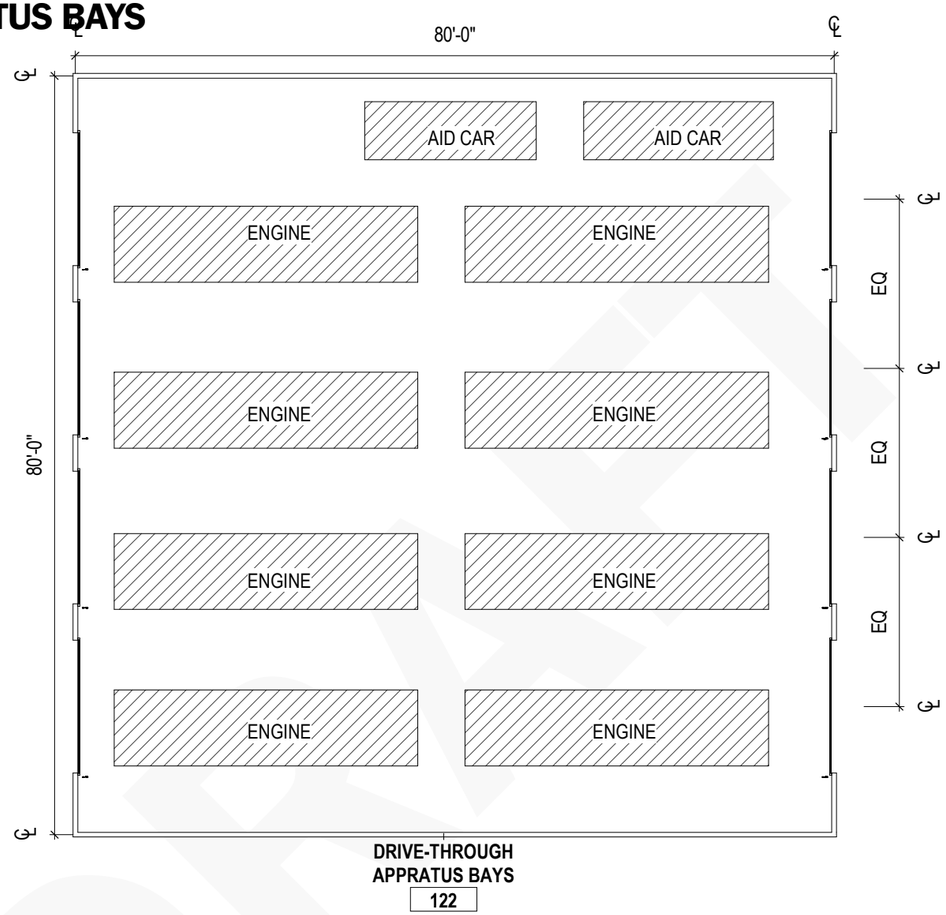
Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑	CONC. 1	Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☑
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☑	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

C.1
APPRATUS BAYS



Space Name: Appratus Bays
Space Number: C.1
Space Classification: Storage
Unit Quantity: 1
Area Requirements: 6,400 SF

Function: Vehicle storage
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

FIXED REQUIREMENTS

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☑	Walls	☑		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☑

LOOSE REQUIREMENTS

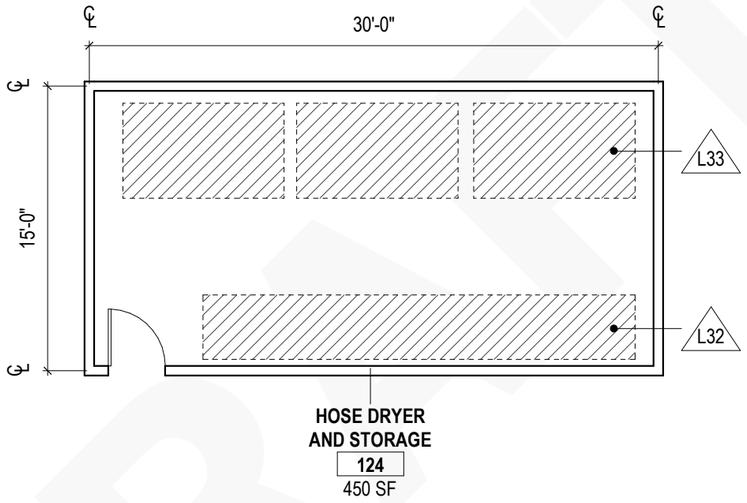
BTC TO CONFIRM 7 ENGINE QTY

- MOST ENGINES ARE LONG ENGINES THAT ARE DONATED OR ON COMMERCIAL CHASSIES

MORE OF A GARAGE THAN APPRATUS BAY - DIFFERENT REQ. FOR SPACE AROUND VEHICLES

Notes

C.2
HOSE DRYER AND STORAGE



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

Space Name: Hose Dryer & Storage

Space Number: C.2

Space Classification: Storage

Unit Quantity: 1

Area Requirements: 450 SF

Function: Firehose drying and equipment storage

Occupants: n/a

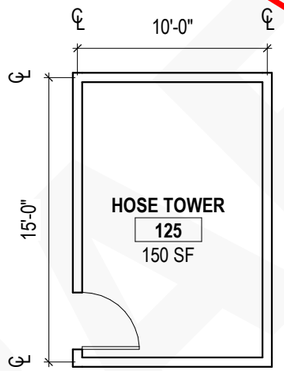
Adjacencies: **Direct:**

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

C.3
HOSE TOWER



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

REALOCATE SPACE

Space Name: Hose Tower
Space Number: C.3
Space Classification: Storage
Unit Quantity: 1
Area Requirements: 150 SF

Function: Firehose drying and storage
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

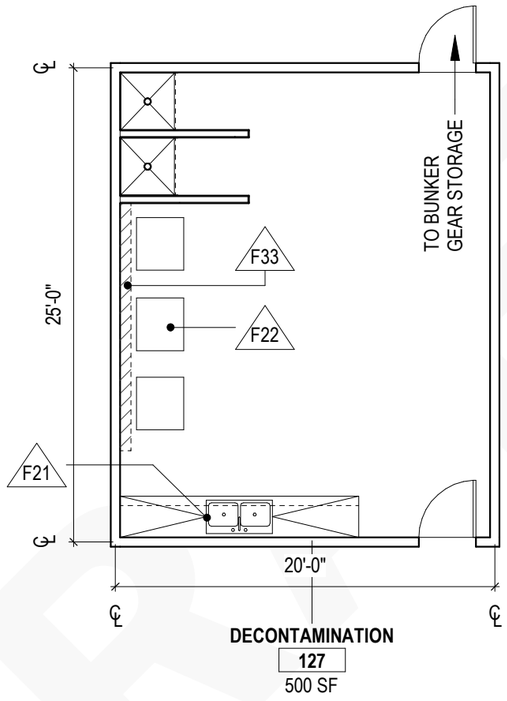
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☐	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☐
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

C.4
DECONTAMINATION



PROVIDE SPACE FOR
SCBA FACE-MASK
DISHWASHER

FIXED REQUIREMENTS

F21	STAINLESS STEEL SINK AND DRAINBOARDS
F22	EXTRACTOR
F33	SUMP DRAIN

LOOSE REQUIREMENTS

EXTRACTOR SIZE: PREF
TO HAVE MULTIPLE
WASHERS AS CONT.

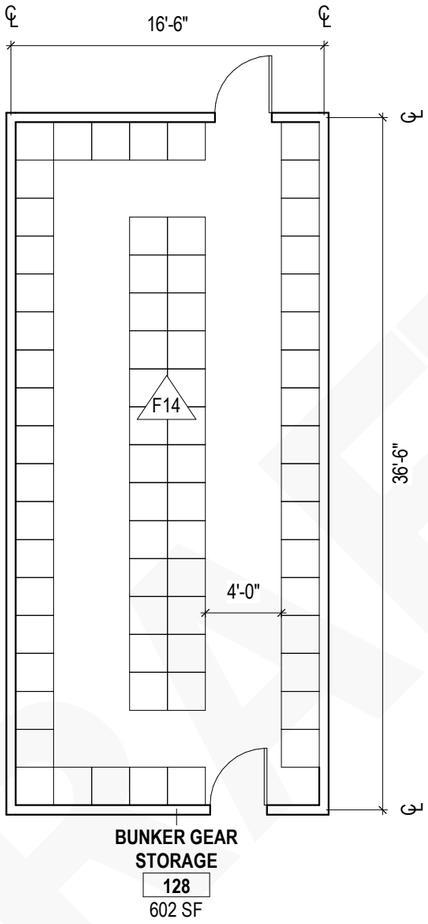
Space Name: Decontamination
Space Number: C.4
Space Classification: Equipment decontamination
Unit Quantity: 1
Area Requirements: 450 SF

Function: Post drill equipment decontamination
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

C.5
BUNKER GEAR STORAGE



Space Name: Bunker Gear Storage
Space Number: C.5
Space Classification: Storage
Unit Quantity: 1
Area Requirements: 750 SF

Function: Student and instructor gear storage
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

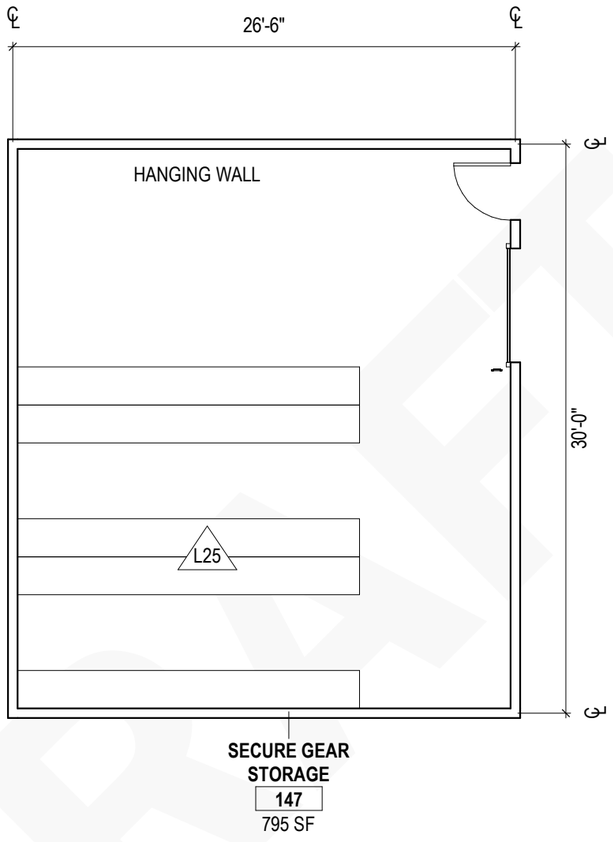
FIXED REQUIREMENTS

F14	LOCKERS

LOOSE REQUIREMENTS

84 RACKS
BTC TO CONFIRM NUMBERS

C.6
SECURE GEAR STORAGE



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L25	METAL SHELVING

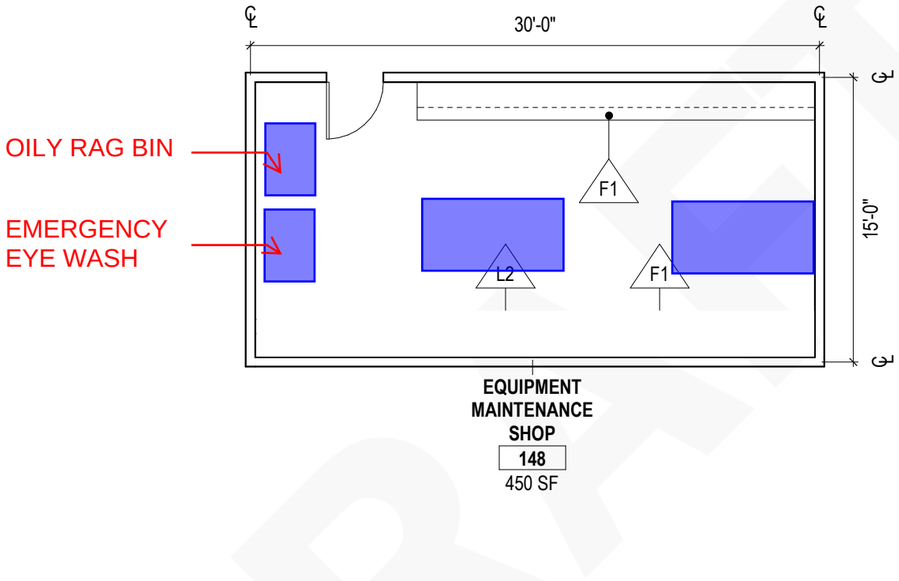
Space Name: Secure Gear Storage
Space Number: C.6
Space Classification: Storage
Unit Quantity: 1
Area Requirements: 800 SF

Function:
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☑	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

C.7
EQUIPMENT MAINTENANCE SHOP



FIXED REQUIREMENTS

F1	24" COUNTERTOP
F1	24" COUNTERTOP
L2	SHELVING

LOOSE REQUIREMENTS

EQUIPMENT NOT LEAVING THE ROOM MINOR REPAIR

WORKTABLE IN CENTER OF THE ROOM INSTEAD OF ALONG WALL?

Space Name: Equipment Maintainence SHop
Space Number: C.7
Space Classification: Storage / Workshop
Unit Quantity: 1
Area Requirements: 450 SF

Function: To fix and maintain equipment
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

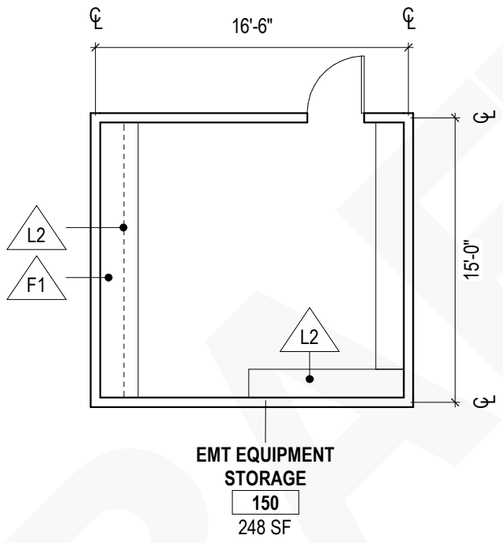
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☐
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

C.8
EMT EQUIPMENT STORAGE



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

LOTS OF OPEN SHELVING WITH BINS (DRESSINGS, BANDAGES ETC.)

RACK FOR O2 BOTTLES
BACKBOARDS
MANIQUINS
DEFIB. MACHINES
SPLINTS ETC.

Space Name: EMT Equipment Storage

Space Number: C.8

Space Classification: Storage / Workshop

Unit Quantity: 1

Area Requirements: 250 SF

Function: To store and repair training maniquins and other EMT related equipment

Occupants: n/a

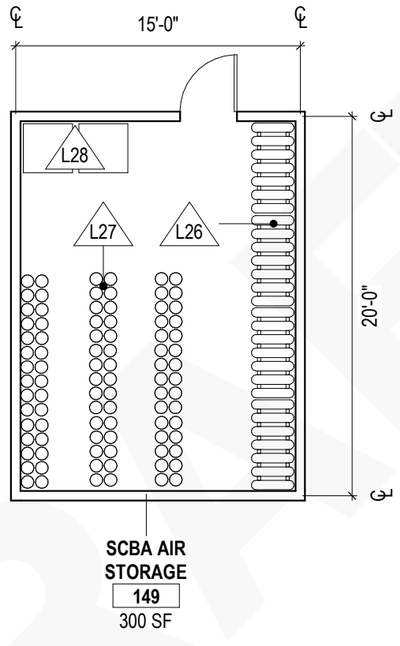
Adjacencies: **Direct:**

Proximate: n/a

Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☐	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☐		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☐
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☐	LED Overhead	☐		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

C.9
SCBA AIR STORAGE



FIXED REQUIREMENTS

LOOSE REQUIREMENTS

L26	SCBA BOTTLE STORAGE
L27	FILL BOTTLES
L28	CASCADE SYSTEM

RUNNING 60 BOTTLES / DAY? **100-130 BOTTLES**

2-3 SS FILLING BOTTLES

ALTERNATE WASHING TO FACE MASKS - DISH WASHER

Space Name: SCBA Air Storage

Space Number: C.9

Space Classification: Storage

Unit Quantity: 1

Area Requirements: 300 SF

Function: To store and fill SCBA tanks

Occupants: n/a

Adjacencies: **Direct:**

Proximate: n/a

Exterior Envelope
- Man Doors ☐
- Electric Garage Doors ☐
- Windows ☐
- Skylights / Clerestory ☐
- Other ☐

Interior Finishes **Type**
- Floor ☐
- Walls ☐
- Ceiling ☐
- Other ☐

Interior Construction
- Relites ☐
- Casework ☐
- Shelving Standards ☐
- Marker Boards ☐
- Other

Environmental / HVAC
- Heating ☐
- Cooling ☐
- Ventilation ☐
- Freeze Protection ☐
- Dedicated Exhaust ☐
- Ceiling Fans ☐

Plumbing
- Floor Drains w/O&WS ☐
- Freeze Protected Hose Bibs ☐
- Utility Sink ☐
- Drinking Fountain ☐
- Hot Water Tap ☐
- Bottle Filler ☐
- Compressed-Air Outlets ☐
- Other

Life Safety
- Sprinklers ☐
- Smoke + CO2 Detection ☐
- Emergency Eye Wash ☐
- Emergency Shower ☐
- Fire Extinguishers ☐
- Other ☐

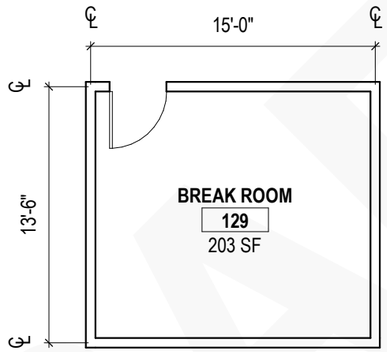
Electrical
- Power Outlets ☐
- Backup Generator ☐
- Power Cords ☐
- Air, Water, Power ☐

Lighting
- LED Overhead ☐
- Day-Lighting ☐
- Dimming Capacity ☐
- Scene Settings ☐
- Daylight Sensors ☐
- Motion Sensors ☐
- Task Lighting ☐
- Other ☐

Info Tech (Telecom, Security, AV)
- Phone ☐
- Internet (hardwired) ☐
- WIFI ☐
- Alarmed Security System ☐
- Security Cameras ☐
- Card Access System ☐
- Video Conferencing ☐
- Digital Display ☐
- Other ☐

Notes

D.1
BREAK ROOM



BREAK AREA IN A-SERIES

MICROWAVE
SINK
TABLE
FRIDGE

SEPARATION BETWEEN SS AND TEACHER IS IMPORTANT

FIXED REQUIREMENTS

LOOSE REQUIREMENTS

Space Name: Break Room
Space Number: D.1
Space Classification: Instruction
Unit Quantity: 1
Area Requirements: 200 SF

Function:
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

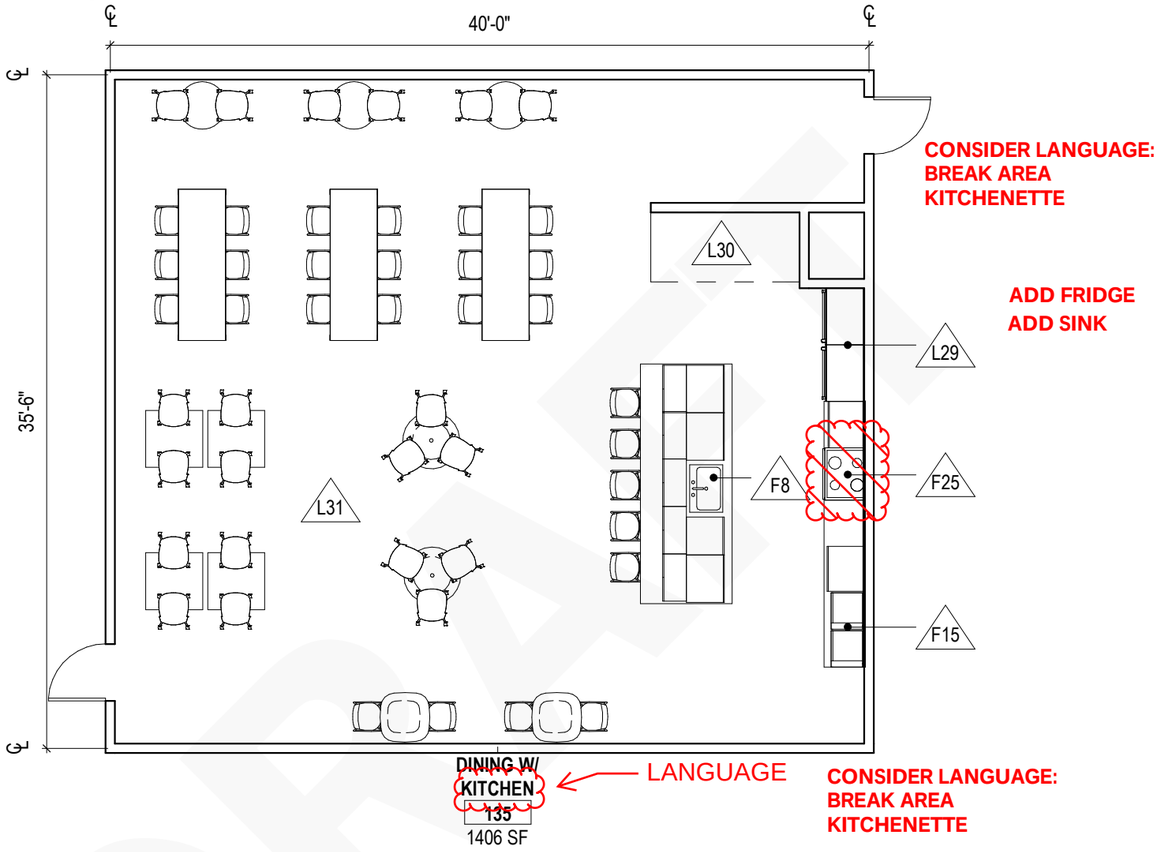
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☑
Windows	☐	Ceiling	☑		Shelving Standards	☑
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☑	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☑	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☑	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☑	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☑
Power Cords	☐	Dimming Capacity	☐	WIFI	☑
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

D.2
DINING W/ KITCHEN



Space Name: Dining w/ Kitchen
Space Number: D.2
Space Classification: Leasure
Unit Quantity: 1
Area Requirements: 1,400 SF

Function: Kitchen and dining room for students and staff
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

FIXED REQUIREMENTS

F8	SINK
F15	MICROWAVE
F25	OVEN
L29	REFRIGERATOR

LOOSE REQUIREMENTS

L30	TALL CABINETS
L31	TABLE AND CHAIRS
	VENDING MACHINE
	BOTTLE FILLING STATION

Exterior Envelope
- [x] Man Doors
- [ ] Electric Garage Doors
- [ ] Windows
- [ ] Skylights / Clerestory
- [ ] Other

Interior Finishes — **Type**
- [x] Floor
- [x] Walls
- [ ] Ceiling
- [ ] Other

Interior Construction
- [ ] Relites
- [ ] Casework
- [ ] Shelving Standards
- [ ] Marker Boards
- [ ] Other

Environmental / HVAC
- [ ] Heating
- [ ] Cooling
- [ ] Ventilation
- [ ] Freeze Protection
- [ ] Dedicated Exhaust
- [ ] Ceiling Fans

Plumbing
- [ ] Floor Drains w/O&WS
- [ ] Freeze Protected Hose Bibs
- [ ] Utility Sink
- [ ] Drinking Fountain
- [ ] Hot Water Tap
- [ ] Bottle Filler
- [ ] Compressed-Air Outlets
- [ ] Other

Life Safety
- [x] Sprinklers
- [ ] Smoke + CO2 Detection
- [ ] Emergency Eye Wash
- [ ] Emergency Shower
- [ ] Fire Extinguishers
- [ ] Other

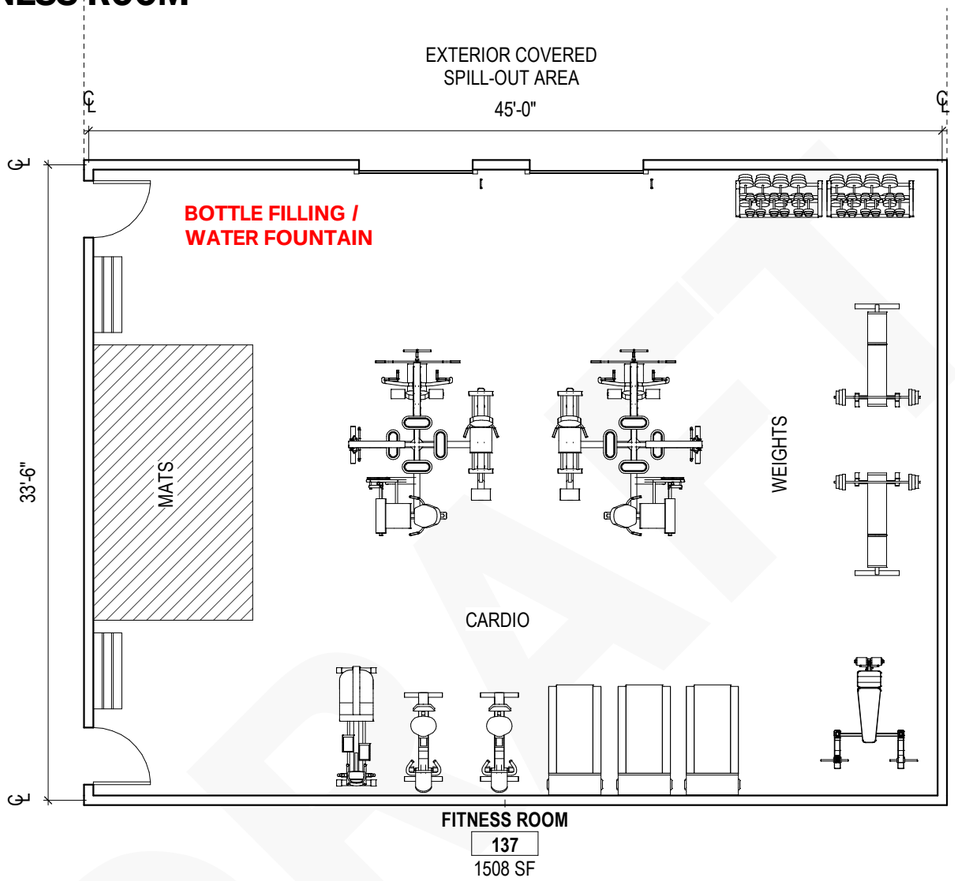
Electrical
- [x] Power Outlets
- [ ] Backup Generator
- [ ] Power Cords
- [ ] Air, Water, Power

Lighting
- [x] LED Overhead
- [ ] Day-Lighting
- [ ] Dimming Capacity
- [ ] Scene Settings
- [ ] Daylight Sensors
- [ ] Motion Sensors
- [ ] Task Lighting
- [ ] Other

Info Tech (Telecom, Security, AV)
- [ ] Phone
- [ ] Internet (hardwired)
- [x] WIFI
- [ ] Alarmed Security System
- [ ] Security Cameras
- [ ] Card Access System
- [ ] Video Conferencing
- [ ] Digital Display
- [ ] Other

Notes

D.3
FITNESS ROOM



Space Name: Fitness Room
Space Number: D.3
Space Classification: Exercise
Unit Quantity: 1
Area Requirements: 1,500 SF

Function: Fitness room for students and staff
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	
Environmental / HVAC		**Plumbing**			**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐		Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐		Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐		Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐		Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐		Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐		Other	☐
		Compressed-Air Outlets	☐			
		Other				
Electrical		**Lighting**			**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑		Phone	☐
Backup Generator	☐	Day-Lighting	☐		Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐		WIFI	☐
Air, Water, Power	☐	Scene Settings	☐		Alarmed Security System	☐
		Daylight Sensors	☐		Security Cameras	☐
		Motion Sensors	☐		Card Access System	☐
		Task Lighting	☐		Video Conferencing	☐
		Other	☐		Digital Display	☐
					Other	☐

Notes

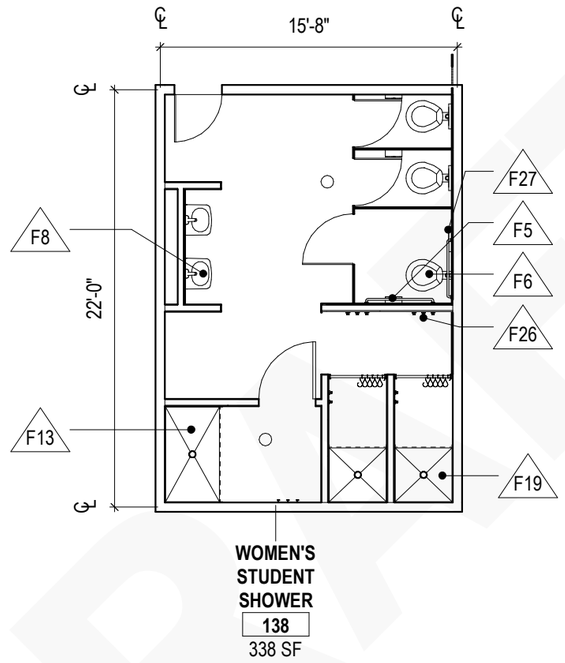
FIXED REQUIREMENTS

LOOSE REQUIREMENTS

CONSIDERED AS CLASSROOM, SS USE FIRST

ENSURE THIS IS DOCUMENTED IN THE PREDESIGN AS PT IS A REQUIREMENT FOR THE PROGRAM

D.4
WOMEN'S STUDENT SHOWER / RR



ADD BENCH (ADA)

ADD BENCH

FIXED REQUIREMENTS

F5	TOILET PAPER HOLDER
F6	TOILET
F8	SINK
F13	ADA SHOWER
F19	SHOWER
F26	SHOWER HOOKS
F27	SEAT COVER HOLDER

LOOSE REQUIREMENTS

Space Name: Women's Student Shower / RR

Space Number: D.4

Space Classification: Shower / RR

Unit Quantity: 1

Area Requirements: 350 SF

Function: Shower and RR

Occupants: n/a

Adjacencies: **Direct:**

Proximate: n/a

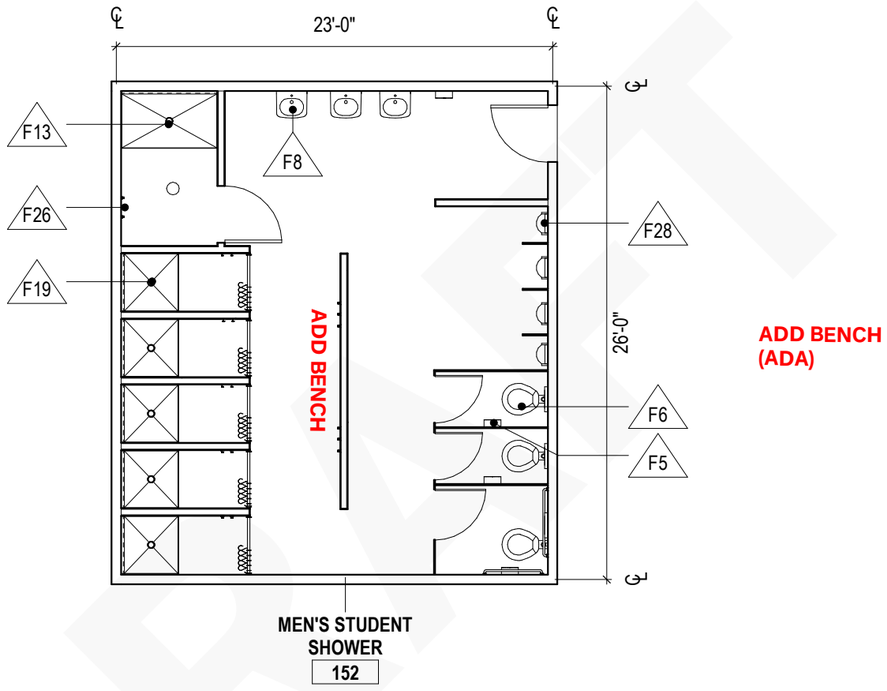
Exterior Envelope		Interior Finishes		Type	Interior Construction	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		Plumbing		Life Safety	
Heating	☑	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☑	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		Lighting		Info Tech (Telecom, Security, AV)	
Power Outlets	☐	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☐
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

D.5
MEN'S STUDENT SHOWER / RR



FIXED REQUIREMENTS

F5	TOILET PAPER HOLDER
F6	TOILET
F8	SINK
F13	ADA SHOWER
F19	SHOWER
F26	SHOWER HOOKS
F28	URINAL

LOOSE REQUIREMENTS

Space Name: Women's Student Shower / RR

Space Number: D.5

Space Classification: Shower / RR

Unit Quantity: 1

Area Requirements: 600 SF

Function: Shower and RR

Occupants: n/a

Adjacencies: **Direct:**

Proximate: n/a

Exterior Envelope

Man Doors	☐
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Environmental / HVAC

Heating	☑
Cooling	☑
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Electrical

Power Outlets	☐
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Interior Finishes — **Type**

Floor	☑
Walls	☑
Ceiling	☑
Other	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Lighting

LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☐
Other	☐

Interior Construction

Relites	☐
Casework	☐
Shelving Standards	☐
Marker Boards	☐
Other	

Life Safety

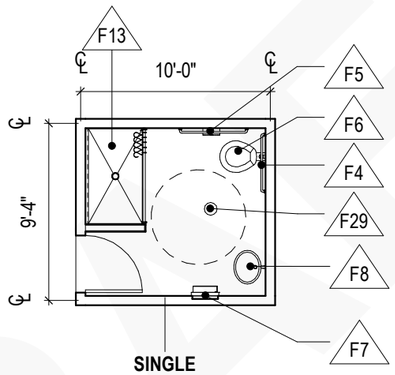
Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☐
Internet (hardwired)	☐
WIFI	☐
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☐
Other	☐

Notes

D.6
SINGLE OCCUPANT SHOWER / RR



FIXED REQUIREMENTS

F4	GRAB BARS
F5	TOILET PAPER HOLDER
F6	TOILET
F7	PAPER TOWEL DISPENSER
F8	SINK
F13	ADA SHOWER
F29	FLOOR DRAIN

LOOSE REQUIREMENTS

Space Name: Single Occupant Shower / RR
Space Number: D.5
Space Classification: Shower / RR
Unit Quantity: 1
Area Requirements: 90 SF

Function: Shower and RR
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

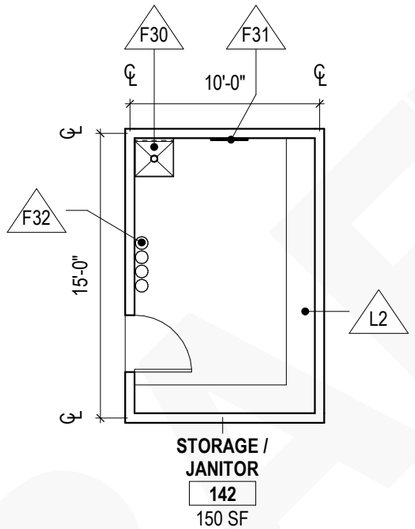
Exterior Envelope		**Interior Finishes**		**Type**	**Interior Construction**	
Man Doors	☑	Floor	☑		Relites	☐
Electric Garage Doors	☐	Walls	☑		Casework	☐
Windows	☐	Ceiling	☑		Shelving Standards	☐
Skylights / Clerestory	☐	Other	☐		Marker Boards	☐
Other	☐				Other	

Environmental / HVAC		**Plumbing**		**Life Safety**	
Heating	☐	Floor Drains w/O&WS	☐	Sprinklers	☑
Cooling	☐	Freeze Protected Hose Bibs	☐	Smoke + CO2 Detection	☐
Ventilation	☐	Utility Sink	☐	Emergency Eye Wash	☐
Freeze Protection	☐	Drinking Fountain	☐	Emergency Shower	☐
Dedicated Exhaust	☐	Hot Water Tap	☐	Fire Extinguishers	☐
Ceiling Fans	☐	Bottle Filler	☐	Other	☐
		Compressed-Air Outlets	☐		
		Other			

Electrical		**Lighting**		**Info Tech (Telecom, Security, AV)**	
Power Outlets	☑	LED Overhead	☑	Phone	☐
Backup Generator	☐	Day-Lighting	☐	Internet (hardwired)	☐
Power Cords	☐	Dimming Capacity	☐	WIFI	☐
Air, Water, Power	☐	Scene Settings	☐	Alarmed Security System	☐
		Daylight Sensors	☐	Security Cameras	☐
		Motion Sensors	☐	Card Access System	☐
		Task Lighting	☐	Video Conferencing	☐
		Other	☐	Digital Display	☐
				Other	☐

Notes

D.7
STORAGE / JANITOR



FIXED REQUIREMENTS

F30	MOPSINK
F31	MOP RACK
F32	SOAP DISPENSER

LOOSE REQUIREMENTS

L2	SHELVING

Space Name: Storage / Janitor
Space Number: D.7
Space Classification: Storage / Janitor
Unit Quantity: 1
Area Requirements: 150 SF

Function: To store equipment / janitor
Occupants: n/a
Adjacencies: **Direct:**
Proximate: n/a

Exterior Envelope

Man Doors	☑
Electric Garage Doors	☐
Windows	☐
Skylights / Clerestory	☐
Other	☐

Interior Finishes

	Type
Floor	☑
Walls	☑
Ceiling	☑
Other	☐

Interior Construction

Relites	☐
Casework	☑
Shelving Standards	☑
Marker Boards	☐
Other	

Environmental / HVAC

Heating	☐
Cooling	☐
Ventilation	☐
Freeze Protection	☐
Dedicated Exhaust	☐
Ceiling Fans	☐

Plumbing

Floor Drains w/O&WS	☐
Freeze Protected Hose Bibs	☐
Utility Sink	☐
Drinking Fountain	☐
Hot Water Tap	☐
Bottle Filler	☐
Compressed-Air Outlets	☐
Other	

Life Safety

Sprinklers	☑
Smoke + CO2 Detection	☐
Emergency Eye Wash	☐
Emergency Shower	☐
Fire Extinguishers	☐
Other	☐

Electrical

Power Outlets	☑
Backup Generator	☐
Power Cords	☐
Air, Water, Power	☐

Lighting

LED Overhead	☑
Day-Lighting	☐
Dimming Capacity	☐
Scene Settings	☐
Daylight Sensors	☐
Motion Sensors	☐
Task Lighting	☐
Other	☐

Info Tech (Telecom, Security, AV)

Phone	☑
Internet (hardwired)	☑
WIFI	☑
Alarmed Security System	☐
Security Cameras	☐
Card Access System	☐
Video Conferencing	☐
Digital Display	☑
Other	☐

Notes

RICE fergus MILLER ARCHITECTURE & PLANNING

Bates TECHNICAL COLLEGE

NOTES

Project: Bates Technical College Fire Service Training Predesign
2020-213
RFM Project: 2019091.01

MEETING TOPIC: Fire Training Room Data Sheets and Block Diagrams

MEETING TIME AND LOCATION: June 4**,** 1:00 pm, web-based

ATTENDEES:

BTC: Bill Pessemier, Brian Wiwel, Tiffany Williams
DES E&AS: Denis Flynn
RFM: Dave Fergus, Gunnar Gladics, Ron Easterday, Travis Hauan

AGENDA ITEMS:

1. Review of updates to site plans and block diagrams, attached.

    - South Alternate Dirty Classroom needs to be heated with seating, whiteboard, lighting. Needs to be incorporated into Building D. Size for class of 24 minimum.
    - Need ambulance parking, currently in app bay. Could move to classroom building if space needed in Training Support for dirty classroom. Reserve engine could also move but requires a heated bay.
    - Classroom/Admin: EMT Storage to move from Training Support to Classroom building.
    - Bill recommended inventory of storage needs to right size the storage space, perhaps could be reduced.
    - RFM to check size of Bunker Gear storage; appears oversized.
    - Bill noted if the training engines were more reliable, less reserve engines would be need and apparatus bays could be reduced. Brian noted some training scenarios utilize three engines at once.
    - New SCBA compressor to be part of equipment budget to service the new Scott 5500 psi SCBA. 7,000 psi, 25 cfm, separate room for compressor and fill stations, two separate fill stations (blast containment drawers) with four fill tubes each. This detail provided by BTC will be incorporated into Room Data Sheets.

2. Fire Training Renderings presented, attached.

3. Fire Training Water and Gas Use: RFM is preparing estimates of daily/annual training water and gas use, assuming propane props so space can be allocated for a tank(s).

    - Number of evolutions per day five to six day plus 2-3 evening.
    - Number of live fire training per month/quarter 10-12 days + 2 days of master stream training
    - Brian advised current water supply is good from existing hydrants.

Other required aspects of the Predesign

4. Project Delivery Method: Design-Bid-Build; Confirmed. Dennis discussed options of D-B, requires 6 month waiting period between pre-design and D/B for the same firm to compete, impacts on time and costs vary by deliver method, all have pros-cons of D-B-B, D-B, and CMGC contracting methods.

5. Construction Phasing of the Preferred Alternate: Phase project so the new classroom/admin building is completed before the renovation of Building D and the drill ground. That provides for the academic space that replaces building D classrooms and space south of the new building to be used for basic hose and ladder training; other parking lots could be scheduled for use. Offsite live fire training would need to be increased using one or more of nearby fire district training facilities while the new training tower is constructed.

6. Parking Study: Dennis has not heard from KPFF; has left messages. Ron to send Clint's phone number.

7. Operating and Maintenance Projections – Predesign Requirements

8. Chuck advised one maintenance staff and one custodial staff per 40,000 sf is typical.

   Facility operations and maintenance requirements
   i. Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumptions (including FTEs).
   ii. Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repairs, replacement and maintenance.

9. The Problem Statement: RFM will draft but would appreciate review by BTC regarding relation to the Master Plan and Strategic Plan.

10. FTE: The 2017 PRR include the following compelling statements listed below

    - Tiffany advised she reviewed this is staff earlier today. BTC seeing decline in training for volunteers but larger numbers of recruits due to full time firefighter retirements and need for new specialized training. Numbers are expected to follow predictions.

    "Fire Service enrollment has grown from 126.5 FTEs in 2012 to 166.2 in 2016 (a 31.38 percent increase in 4 years). While the capacity identified above, juxtaposed against current enrollment, suggests a more modest increase in FTEs attributable to this project, it is important to understand that much current training takes place off site for lack of essential capabilities that the Fire Service Training Center intends to correct. Of the above figures, approximately 80 percent constitute Type 1 FTEs (186). Using the ratio derived from Bates' CAM analysis, this equates to 215 Type 2 FTEs."

    "The Fire Service Training Center is essential to our rollout of our applied baccalaureate degree program. We anticipate quarterly enrollment for this program, which leads to a Bachelor of Art in Fire Command Administration, of 110 to 120 students."

    - Is an updated CAM analysis and enrollment report available – see following pages from PRR

    "Over the past year, Bates Technical College piloted a college credit-bearing curriculum for volunteer firefighters for the 17 fire districts in Thurston County, and followed up with a second cohort of 33 recruits, each earning 21 credits. Adhering to International Fire Service Accreditation Congress (IFSAC) standards

and the same curriculum we employ for our associate degree, these volunteers now have a pathway to a career. Following the first two graduating classes in Thurston County, Graham Fire announced its intention to use Bates as a training provider so that volunteers could receive training and college credits."

"In Fall 2017, Bates realized an additional 15.4 quarterly FTEs in enrollment for one training consortium alone."

"Our partnership with the Washington State Firefighter Joint Apprenticeship Training Committee currently produces 3 annual cohorts of paid firefighter apprentices each taking 29 credits, in addition to our 3 annual EMT cohorts and associate of applied science degree program. Expanding delivery to just the firefighter districts training volunteers along the I-5 corridor would reasonably produce 8 new training cohorts per year. Conservatively, our expanded operations would increase our FTEs by 107.8, making Fire Service/EMT the largest career training program at Bates Technical College."

11. Future Course Offerings - Tiffany confirmed following is correct.

The 2019-2020 Catalog lists:

- Fire Service Degree (AAS)
- Fire Service Supervision Degree (AAS)
- Fire Fighter Certificate
- Fire Recruit Academy Certificate
- Fire Service Supervision Certificate
- Wildland Firefighter Certificate

And NFPA

- Firefighter I
- Firefighter II
- Fire Apparatus Driver/Operator
- Fire Instructor I
- Fire Instructor II
- Fire Officer I
- Fire Officer II
- Fire Officer III – not currently offered; may be added in future
- Fire Safety Officer
- Fire and Life Safety Education I
- Hazardous Materials Awareness
- Hazardous Materials Operations
- Public Information Officer – not currently offered; may be added in future

From the 2017 PRR:

"The current Fire Service program offers two Associate in Applied Science degree programs, as well as a Certificate of Training in Fire Service Supervision. The leadership of many South Puget Sound fire districts includes Bates' graduates. This connection has been an important conduit for students to our program. Due to changing expectations for command-level firefighters, a baccalaureate degree is becoming an essential qualification for senior leadership. We are actively planning two Bachelor of Science degrees in:

- *Fire Command*

- *Fire Supervision*

We view these new offerings as essential to our future reputation in the firefighting community, but at present we lack some of the necessary facilities (e.g. a Command Training Center and Dispatch Training). The Fire Service Training Center as a modern higher education and training facility will support baccalaureate program development. In addition, with proper facilities, we will be able to offer several specialized training/certification opportunities:

- *HAZMAT Technical Training*
- *Tower Elcon Safety Sprinkler*
- *Self-Contained Cistern*
- *Electrical and Diesel Pump Test for Fire Rigs (this could be offered in conjunction with our diesel mechanics program)"*

12. Alternate 3 The Consequences of Doing Nothing:

    - Tiffany advised cut of off-site training is 60-75,000 per year.

13. Upcoming: City of Tacoma Pre-application review Tuesday 6/9/20 at 1 pm. Invites sent by Joe Graff with the City.

Attachments: Update site plans and block diagrams for north and south Alternates; renderings of fire training tower.

Parking Loss
Approx. 68

CLASSROOM BUILDING

New Parking Area
Approx. 48

ADDITIONAL PARKING AT NORTH ENTRY

TRAINING BUILDING

Front Apron

Rear Apron

Propane Tank

Engine

Fence

flash over

flash over

Ladder

Hydrant

Training Canopy

Drafting Pit

Engine

5 Story Training Building

2 Story Training Building

12:12 Roof Prop

6:12 Roof Prop

12' Sidewalk

Retail Storefronts

Hydrant

Hydrant

Training Canopy

Dirty Classroom

3

4

Haz Mat Pad

Flat Roof Prop

Fence

N

ogle Earth

SOUTH SITE
ALTERNATIVE A - PREFERRED ALTERNATIVE

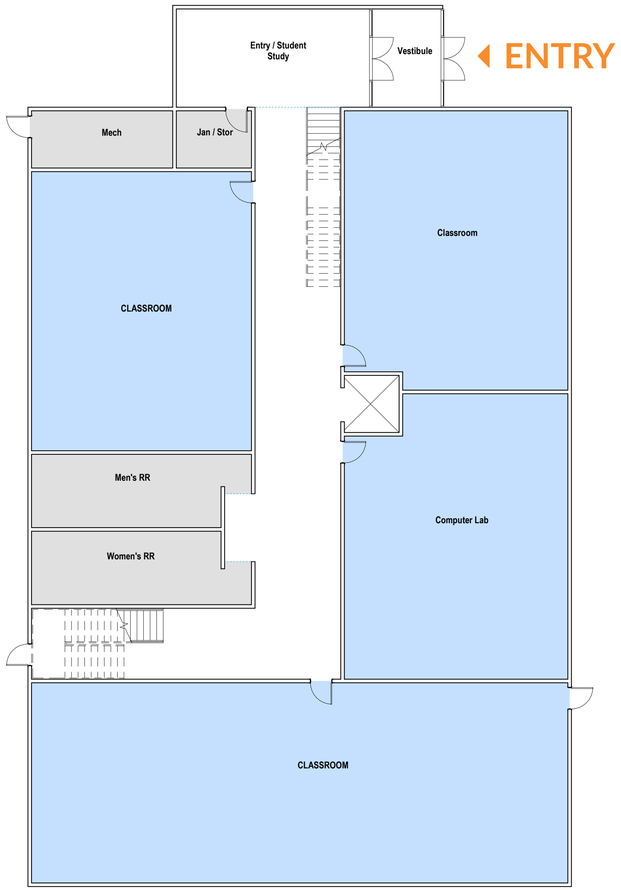
FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

Bates TECHNICAL COLLEGE

RICEfergusMILLER

LEVEL 1
ACADEMIC BUILDING



LEGEND

- ADMINISTRATION
- GENERAL INSTRUCTION
- SUPPORT

SOUTH SITE
ALTERNATIVE A - PREFERRED ALTERNATIVE

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICE fergus MILLER

LEVEL 2
ACADEMIC BUILDING

LEGEND

- ADMINISTRATION
- GENERAL INSTRUCTION
- SUPPORT

SOUTH SITE
ALTERNATIVE A - PREFERRED ALTERNATIVE

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICEfergusMILLER

BUILDING D - LEVEL 1
TRAINING BUILDING

LEGEND

- SUPPORT
- APPARATUS & APPARATUS SUPPORT LIVE FIRE TRAINING
- EXISTING SPACE

TO DRILL YARD / TOWER

SOUTH SITE

ALTERNATIVE A - PREFERRED ALTERNATIVE

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICE fergus MILLER

NORTH SITE

ALTERNATIVE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

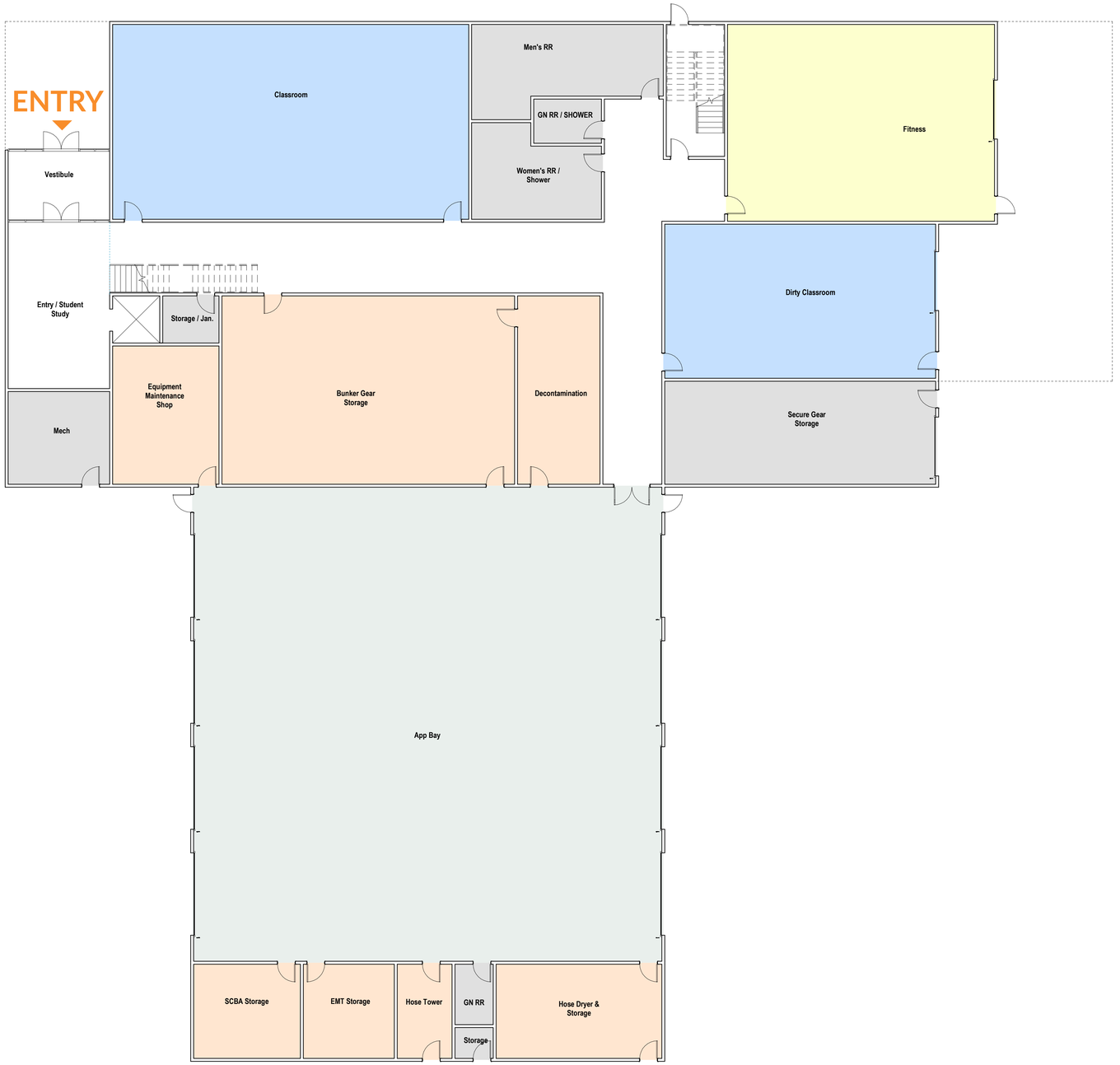
Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

1:60

Bates TECHNICAL COLLEGE

RICEfergusMILLER

LEVEL 1
ACADEMIC + TRAINING BUILDING



TO DRILL YARD / TOWER

LEGEND

- GENERAL INSTRUCTION
- SUPPORT
- APPARATUS & APPARATUS SUPPORT LIVE FIRE TRAINING

NORTH SITE
ALTERNATIVE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICEfergusMILLER

LEVEL 2
ACADEMIC + TRAINING BUILDING

TO DRILL YARD / TOWER

LEGEND

- ADMINISTRATION
- GENERAL INSTRUCTION
- SUPPORT
- APPARATUS & APPARATUS SUPPORT LIVE FIRE TRAINING

NORTH SITE
ALTERNATIVE B

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

1" = 10' - 0"
0 5 10 20

Bates TECHNICAL COLLEGE
RICE fergus MILLER

TRAINING TOWER

EXTERIOR RENDERING

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

TRAINING TOWER

EXTERIOR RENDERING

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

Bates TECHNICAL COLLEGE RICEfergusMILLER

TRAINING TOWER

EXTERIOR RENDERING

FIRE SERVICE TRAINING CENTER PREDESIGN | STATE PROJECT NUMBER 2020-213 | BATES TECHNICAL COLLEGE | JUNE 04, 2020

Meeting Notes
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

Bates TECHNICAL COLLEGE

RICEfergusMILLER

RICE fergus MILLER ARCHITECTURE & PLANNING

Bates TECHNICAL COLLEGE

NOTES

Project: Bates Technical College Fire Service Training Predesign
2020-213
RFM Project: 2019091.01

MEETING TOPIC: Fire Training Room Data Sheets and Block Diagrams

MEETING TIME AND LOCATION: June 18**,** 1:00 pm, web-based

ATTENDEES:

BTC: Bill Pessemier, Brian Wiwel, Tiffany Williams, Dee Nelons, Chuck Davis
DES E&AS: Denis Flynn
RFM: Dave Fergus, Gunnar Gladics, Ron Easterday, Travis Hauan

AGENDA ITEMS:

1. Opening Remarks: Predesign narrative writing in process by RFM.

2. On-site Fueling Station: Current fueling of the fire training vehicles is off-site at commercial fueling station. Driving off site is of concern due to student drivers and time lost; can be a liability to the College. With new facility, less off site driving to remote training facilities will reduce fuel consumption. Using a fueling truck service a possibility, but usage is not consistent. Dee Nelons checked with City and was advised there would be a number of concerns with an on-site fueling station from the City's perspective. At this point a fueling service seems a more viable option, possibly tagging on an existing state contract.

3. City Pre-application held 6/9/20 with RFM, civil engineer, Dennis and Bill. In general, no new surprises came out of the meeting. Off-site ROW improvements were reviewed. Dennis advised on other projects the City added off-site improvement requirements during the permitting phase above those brought up in the pre-application meeting, adding significant costs.

4. Project Delivery Method: BTC and SBCTC have held further discussion and traditional design build is currently preferred. It is anticipated once the predesign is submitted, there will be roughly 6 months to develop and document initial scope "bridging" documents, followed by a D/B procurement process.

5. Dorm Rooms: Tiffany advised she learned in the past BTC recruit academy had dorm rooms for condensed on-site training and she heard some potential training partners could see value if added to the new training facility. Pros and cons of operating on-site dorms was discussed.

   The PRR program did have a "simulated" bunk room in a mock fire station however this concept of a mock fire station was eliminated early in the predesign process in lieu of more live fire/drill tower space.

   It was noted sleeping rooms for students could be added during the design phase if desired, as long as the project stays within overall budget. Typical fire station design utilizes individual sleep rooms and individual unisex toilet/shower rooms for privacy and to accommodate any ratio of male/female firefighters.

6. Program FTE projections: Tiffany provided fire service enrollment at full capacity – attached.

7. Preliminary budget numbers and Area: Ron reported first draft of the construction estimate is meeting the established MACC; the C-100 project budget is now under development. Dennis advised he can assist with adjusting the C-100 for D/B project deliver method. Soft cost fees will need to be included for the scoping documents and D/B honorariums. Ron also reported that while the predesign program increased the training tower size and decreased the classroom building size, the total building area is very close to the original PRR total building area.

8. Process for reviews and submittal: Bill will verify with Wayne, but it is anticipated the 6/30 document will be reviewed concurrently by Wayne and BTC.

9. Storage: Existing storage Connex's will be eliminated in the new design; storage space needs to be replaced in the new facility, thus the size storage indicated in the program is as large as it is. BTC is currently working on eliminating un-needed stored items to reduce storage needs.

Current Fire Service Programs

AAS Degree Program

- Faculty: 3
- Students (max) per quarter: 20 per faculty member
- 4 quarters per year

Academies

- Faculty: Varies
- Students (max) per academy: 24
- 3 Academies per year

Online Courses

- 10 online courses available
- Course offerings per quarter vary on enrollment; up to 20-25 courses per quarter

EMT Programs

- Faculty: varies
- Students (max) per quarter: 20
- 4 quarters per year

Areas of Projected Growth

- Afternoon technical high school Fire program cohort
    - 15 students
    - 3 quarters per year
- On-Site training contracts
    - Depends on available space and industry demand
    - Evening or weekend delivery (could serve 20-50 person workshops each week)
- Regional Conferences
    - On-site conference and meetings for up to 150 persons
    - Offered multiple times per year

Submittal Information

Permit: PRE20-0104

Applied: 05/11/2020

Planning & Development Services
747 Market St.
Tacoma, WA 98402

ACCOUNTING

SAP Cost Object	PM Order

BUILDING DETAILS

Building Height	35 to 55
Change in Building Occupancy	No
Number of Floors	2 to 5
Number of Residential Units	0
Sprinklers	Partial Sprinklers
Total Floor Area (building)	50000
Total Floor Area (tenant space)	0
Type of Construction	Commercial
Type of Work	Addition/Remodel

LEVEL OF SERVICE

Initial Review Timeframe	

MEETING DETAILS

Meeting Attendees	Ross Jarvis, PE - Civil Engineer Ron Easterday - Architect

PARCEL AND ZONING INFORMATION

Accessibility Index	Very Low
Aquifer Recharge Area	1
BLDINSPAREA	Southwest
City Council District	5
Easements	E-2520,E-2360,E-1451,E-3427
Economy Index	Moderate
Education Index	Very Low
Land Use Designations	Multi-Family (Low Density),Major Institutional Campus
Liquefaction Susceptibility	very low
Livability Index	Low
Neighborhood Council District	SOUTH TACOMA
Overall Equity Index	Low
SITEINSPAREA	Southwest
Slopes - Steep and Stability	25% - 40%,> 40%
Wastewater Subbasin	C21
Wind Zone	1
Zoning District	R2-STGPD

PROJECT DETAILS

Current Use of Property	Bates technical college/education
Estimated Valuation	22000000
Project Questions or Concerns	N/A
Project Questions or Concerns - Staff	Obtain existing utility maps, stormwater requirements, permitting process, water and sanitary sewer requirements, will any frontage improvements be triggered? Potential Conditional Use Permit considerations, setbacks, building heights, other.
Scope of Work	Proposed fire service training center at Bates Technical College. Two site Alternates for fire training, fire training support, classrooms, and administration. One Alternate will be all new construction at the north side of campus and one a mix of new construction and partial renovation of Building D on the south and south-west areas of campus. Additionally, comprehensive site development including extension of underground utilities and infrastructure is planned as part of the project.
When do you plan to start construction?	06/01/2021
When do you plan to submit a permit application?	11/30/2020

SITE WORK

Amount of New Impervious Surface	10000
Amount of Replaced Impervious Surface	105000
Area to be Landscaped	200000
Restriping Parking Lot	NO
Total Cut and Fill	1000
Total Disturbed Area	115000
Total Existing Parking Stalls	440
Total Parking Stalls After Construction	480

Contacts:

Contact Type	Name	Email
Contact Person	Eva Ordonez	eva.ordonez@scjalliance.com

Planning and Development Services

Electronic Review Comment Memo
Commercial – New Construction

RE: Record Number PRE20-0104 – 1st Review (5/27/20)[1]
Bates Technical College Fire Service Training Center

SUMMARY OF REQUEST:

The applicant has requested feedback on a proposed fire service training center at Bates Technical College. Two site Alternates for fire training, fire training support, classrooms, and administration. One Alternate will be all new construction at the north side of campus and one a mix of new construction and partial renovation of Building D on the south and south-west areas of campus.

LOCATION:

2201 South 78th Street (Parcel Number 0320304091)
2302 South 74th Street (Parcel Number 0320304093)

DOCUMENTATION PROVIDED:

The applicant has provided a proposed conceptual site plans as well as a list of questions dated May 1, 2020. No details regarding proposed building/structural plans, landscaping, or stormwater maintenance have been provided at this time.

ANTICIPATED VALUATION[2]: $ 22,000,000

PERMITTING HISTORY[3]:

There is an approved Conditional Use Permit (127.239) for the site from 1985 and a revision in 2005 (CUP2003-00017), which includes original conditions of approval.

[1] Pre-development fees (for Option A and Option B reviews) can be credited toward up to 100 percent of the building plan review fee of a permit that is applied for within 1 year. **To ensure that the review fee is credited, please upload a copy of all applicable PRE Review Comment Memos as documents attached to formal Building Permit applications.**

[2] Anticipated valuation is based on fair market value. It includes the costs, materials, and labor involved in the project, but not the cost of equipment. Anticipated valuation can affect permit fees, requirements for off-site improvements, and the applicability of design and landscaping standards.

[3] This section does not include an exhaustive list of all previous permitting for the site, but includes significant permitting actions that are still applicable to the site and may have impacts on current and/or future permit applications.

ANTICIPATED TIMING:

The applicant has indicated that construction is planned to begin in June 2021.

QUESTIONS/CONCERNS IDENTIFIED BY APPLICANT:

Staff understands the applicant's specific questions/concerns to be as follows:

- Provide copies of utility maps.
  *See **Attached Files in PRE20-0104 record, Dart Map and PDR Response**.*
- Provide feedback regarding Conditional Use Permit requirements.
  *See **Allowed Use** Comment Section.*
- Provide feedback regarding offsite requirements.
  *See **Traffic Flow, Parking, Street Improvements** Comment Section.*
- Provide feedback regarding stormwater requirements.
  *See **Stormwater Management** Comment Section.*
- Provide feedback regarding water and sanitary sewer requirements.
  *See **Utilities** Comment Section.*
- Provide feedback regarding permitting process.
  *See **Applicable Permitting & Checklists** Comment Section.*

SUBJECT MATTER EXPERTS:

For general inquiries or questions about permitting or process, please contact a permit specialist at 253-591-5030 (option 3) or permitplandesk@cityoftacoma.org. You can also contact the assigned project coordinator directly with their information below. For questions regarding specific review comments or interpretation of code, please contact the appropriate review staff.

Project Coordinator:		
Joe Graff	jgraff@cityoftacoma.org	253-591-5622
Comm. & Economic Dev.:		
Pat Beard	pbeard@cityoftacoma.org	253-591-5039
Land Use Review:		
Shirley Schultz	shirley.schultz@cityoftacoma.org	253-591-5121
Traffic Review:		
Vicki Marsten	vmarsten@cityoftacoma.org	253-591-5556 (streetlights)
Dan Hansen	dhansen1@cityoftacoma.org	253-591-5529
Site Development Review:		
Larry Criswell	lcriswel@cityoftacoma.org	253-591-5787
Source Control		
Shawn Madison	smadison@cityoftacoma.org	253-502-2120
Solid Waste Review:		
Lyle Hauenstein	lhauenstein@cityoftacoma.org	253-594-7843
Power Review:		
Tony Daniels	tdaniels2@cityoftacoma.org	253-502-8076

Water Review:

Chris Hicks	chicks@cityoftacoma.org	253-396-3057

Fire Review:

Chris Seaman	cseaman@cityoftacoma.org	253-591-5503

Building Review:

Barrett Hayes	bhayes@cityoftacoma.org	253-591-5429

Real Property Review:

Ronda Cornforth	rcornfor@cityoftacoma.org	253-591-5052

NEXT STEPS:

A follow-up virtual meeting will occur as part of this request. Be sure to review all comments provided prior to moving forward with meeting scheduling. To move forward with scheduling, please email the Project Coordinator with the following information:

- List of topics/questions you would like to be included as part of a meeting agenda.[4]
- Total number of people anticipated to attend from your team, along with their areas of expertise[5]. Please include email addresses for all attendees, each will receive an invitation to the virtual meeting.
- Any information regarding general availability of your team that can help with scheduling[6]
- Refer to our Virtual Meetings Tip Sheet for information about how to access the meeting.

This memo, and the other attachments included in the record can also be made available to any interested parties involved in the various aspects of design for this project. If you would like to give additional contacts access to the record, they will need to create an account first. If there are any issues creating new accounts, those inquiries can either be directed to the Project Coordinator, or assistance is also provided as part of our Getting Started Guide. Once the account is created, email the Project Coordinator to request that the additional account(s) be linked to the record.

SCOPING COMMENTS:

These comments are provided as a guide to assist you in moving forward with the application process and may change based on modifications to the proposal, and/or additional information received regarding this proposal.

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[4] This list of identified topics/questions will help the Project Coordinator be able to determine which Subject Matter Experts (SMEs) will need to attend, and will provide the information necessary to create the meeting agenda, which will be provided to you prior to the meeting.

[5] This information helps to determine how large of a room is needed, and also helps the Project Coordinator be able to determine which Subject Matter Experts (SMEs) will need to attend.

[6] Typically, large meetings are scheduled on Tuesdays and/or Wednesdays at 10:30, but meeting times can vary widely based on the number of SMEs needed at a meeting and staff availability.

Allowed Use

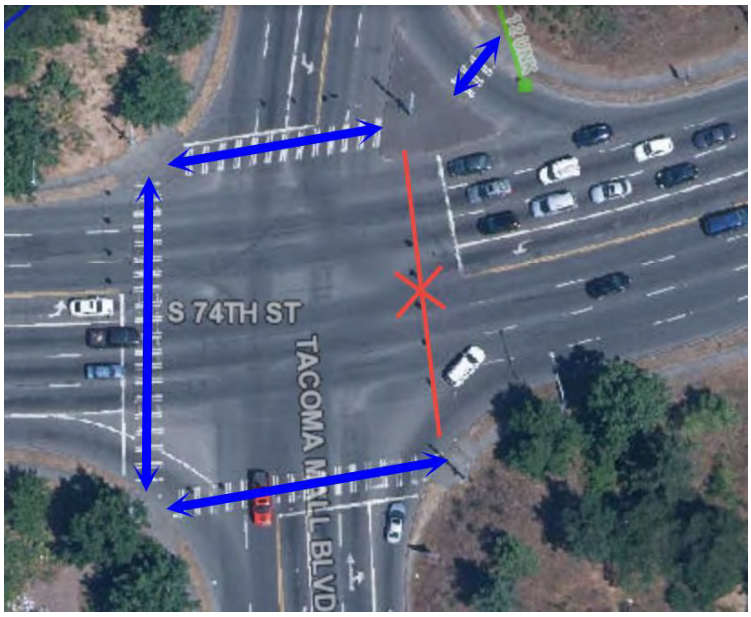
Comment	Regulatory Citation	Applicable Review Group(s)
The site is zoned R2 Single Family Dwelling District and the school is there via a Conditional Use Permit (CUP) from 1985 (File 127.239) and revised in 2005. This proposal will require a major modification to the existing CUPs per TMC 13.05.130 Modification/revision to permits. Major modifications to Conditional Use Permits shall be processed as a Process I permit, consistent with the regulations found in Section 13.05.070.D. This has a slightly shorter public notice period, but the noticing radius is 1000 feet. The application requirements and process are the same as if for a new CUP, and the basics are on this tip sheet: https://www.tacomapermits.org/tip-sheet-index/conditional-use-permits	TMC Title 13 13.05.070.D 13.05.130 13.06.020	Land Use
The building and site development permits also exceed the SEPA thresholds for review so SEPA will be required with the CUP. The basics for SEPA are here: https://www.tacomapermits.org/tip-sheet-index/sepa See comments from Public Works/Traffic for information on a traffic study to be submitted with SEPA.	TMC Title 13 13.12	Land Use
The fee for the CUP is approximately $6,600 and the fee for SEPA is approximately $1,100. They are processed concurrently prior to development permits, and the timeline is 90-120 days.	TMC Title 2 2.09.170	Land Use
Review TMC 13.05.010.A for specific requirements of the CUP. Additional height over the base height limit of 35 feet is allowed if it is addressed in the CUP. Setbacks are 20 feet from property lines. The criteria for the CUP narrative are in subsection 4. Subpart (d) is likely to be the most pertinent in reviewing the proposal and it acts like a preliminary site plan approval for the development permits. In responding to (d) you will need to show how impacts to surrounding properties are minimized with landscaping, traffic controls, etc.	TMC Title 13 13.05.010.A	Land Use
In site planning, review all of TMC13.06.090 for all standards and include that in the land use code analysis for the CUP. In particular, note the landscaping requirements, parking provision requirements, and pedestrian/bike support standards. The site is most likely nonconforming to at least one if not all of these standards, and may not become more nonconforming as a result of the proposal. In addition, all new development is required to meet code, so any new building will have to meet the internal connectivity and street connectivity requirements, any new parking area will need to meet landscaping, etc.	TMC Title 13 13.06.090	Land Use
Preparation for the CUP and SEPA will require a separate follow-up meeting with the Land Use Planner assigned for the project. It can be done under the same PRE number. The meeting will go over all the required submittals and naming conventions for the CUP and SEPA documents, as well as any process and timing	TMC Title 13 13.05.020.A	Land Use

questions. This meeting must occur before the CUP can be submitted and can be as late as a pre-submittal meeting. This way the application can be complete and reviewed, invoiced, and routed quickly once the land use permit is applied for.		

Traffic Flow, Parking, Street Improvements

Comment	Regulatory Citation	Applicable Review Group(s)
The north gate shall be reconfigured to be located completely on private property and to swing inward onto private property rather than into the right-of-way as is currently the case.	TMC Title 9 9.08	Traffic
Widened sidewalk is required on South 74th Street. Maximize the width between back of curb and streetlights to accommodate bicycle and pedestrian travel. South 74th Street is a designated bike lane corridor in the Transportation Master Plan. Widened sidewalk is to be constructed in lieu of the major rechannelization that would be required to add bike lanes to this stretch. The existing 5-foot sidewalk also does not meet minimum required width for an arterial as designated in the Right-of-Way Design Manual.	ROW Design Manual Chapter 4 Section 7.1.2	Traffic
The onsite pedestrian walkways must connect to South 78th Street at both entrances.	TMC Title 13 13.06.090.F.4	Traffic
Any broken, damaged, or hazardous curb and gutter abutting the site along South 74th Street, Tacoma Mall Boulevard and along South 78th Street shall be removed and replaced to current standards.	TMC Title 2 2.19	Site Development
Any damaged and/or defective sidewalk abutting the site along South 74th Street, Tacoma Mall Boulevard and South 78th Street shall be removed and replaced to the approval of the City Engineer. New sidewalk shall meet Public Right-of-Way Accessibility Guidelines and requirements set forth by the Americans with Disabilities Act.	TMC Title 2 2.19 ROW Design Manual Chapter 4 Section 1.2 & Section 7	Site Development
Replace all driveway entrances with standard accessible entrances. The entrance at the intersection of South 78th Street and South Trafton Street must also include curb ramps on both the east and west side of the intersection. Remove and replace driveways to current standards meeting ADA compliance at:	TMC Title 10 10.14 ROW Design Manual Chapter 4 Section 7.3	Traffic Site Development

1) South 74th Street  2) South 78th & South Trafton Street  3) South 78th Street  		
Remove and replace curb ramps at the intersection of South 74th Street and Tacoma Mall BLVD to current standards.	ROW Design Manual Chapter 4 Section 7.3	Traffic Site Development

Building Placement, Height, Design, Life Safety

Comment	Regulatory Citation	Applicable Review Group(s)
Apparatus access and hydrant proximity are acceptable.	2015 IFC	Fire
Future construction shall comply with the adopted Fire Code at the time of building permit submittal.	IFC	Fire
If fire sprinklering, contact the Tacoma Water Permit Counter at (253) 502-8247 for policies related to combination fire/domestic water service connections.	TMC Title 12	Water Fire
Future construction shall comply with the adopted Building Code at the time of building permit submittal.	TMC Title 2 IBC	Building

Stormwater Management[7]

Comment	Regulatory Citation	Applicable Review Group(s)
Based on the information provided, Minimum Requirements that may be applicable to this project include: MRs #1-10. This project appears to be a Redevelopment Project.	SWMM Volume 1, Chapter 3, Flowchart Figures: 1-5 through 1-9	Site Development
A Construction Stormwater Pollution Prevention Plan (SWPPP) is required.	SWMM Volume 2, Appendix B	Site Development

[7] Stormwater scoping review is limited to Volume 1 of the SWMM and the identification of applicable Minimum Requirements.

This project appears to trigger Minimum Requirements #1-10 which would require on-site stormwater to be managed in accordance with Onsite Management BMPs List #2 or demonstrate compliance with the LID Performance Standard to achieve MR#5 compliance. Design of onsite stormwater systems may require a soil analysis prepared by a qualified soils professional per the SWMM, Volume 3.	SWMM Volume 1 Sections 3.4.5; Volume 3	Site Development
Minimum Requirement #6 will likely need to be evaluated for this project. On-site and off-site pollution generating hard surface (PGHS) areas shall be all be added together to determine the project PGHS total. If any thresholds of Minimum Requirement #6 are met, the project shall construct enhanced water quality treatment facilities. Separate water quality facilities shall be provided for on-site and off-site PGHS.	SWMM Volume 1 Chapter 3, Sections 3.3 & 3.4.6	Site Development
If the project site meets the MR #6 (water quality treatment) threshold enhanced treatment per Volume 1, Section 2.5.11 of the SWMM shall be required.	SWMM Volume 1, Section 3.4.6	Site Development
Minimum Requirement #7 will likely need to be evaluated for this project. On-site and off-site improvements shall be considered to determine whether any thresholds of MR #7 are met. If so, flow control requirements vary by watershed and can be reviewed in Volume 1, Section 3.3.7 of the SWMM. This project is in the Flett watershed.	SWMM Volume 1 Chapter 3, Sections 3.3.7 & 3.4.7	Site Development
This project may be eligible to participate in the Flett Creek Payment In-Lieu of Construction Program. The Program allows applicants to pay a one-time systems development charge instead of constructing required stormwater flow control facilities on their project site to fulfill Minimum Requirement #7.	Payment-In-Lieu-of-Construction Program	Site Development
If the project site contributes drainage directly or indirectly to a wetland, Minimum Requirement #8 may apply.	SWMM Volume 1 Section 3.4.8	Site Development
Per SWMM Minimum Requirement #10, all projects shall include a qualitative offsite analysis as described in Volume 1 of the SWMM.	SWMM Volume 1 Section 3.4.10	Site Development
This project will add additional impervious area to an existing stormwater management facility. Prior to construction permit approval, an evaluation of the impacts of the proposed additional area to the existing system must be prepared and submitted for review. This evaluation shall be performed by a licensed civil engineer.	TMC Title 13 13.04 SWMM Volume 1 Section 3.4.10	Site Development
Provide documentation that the existing stormwater management facility has been adequately maintained.	SWMM Volume 1 Section 3.4	Site Development
This project is located within the South Tacoma Groundwater Protection District (STGPD). The City of Tacoma Environmental Services Department and Tacoma-Pierce County Health Department (TPCHD) developed a guidance document that provides the circumstances and requirements for approval of infiltration facilities for managing pollution-generating stormwater runoff in the STGPD. The policy is available at http://cms.cityoftacoma.org/enviro/SurfaceWater/signed%202017%20policy%20ESD17-1.pdf .	SWMM Volume 1 Section 3.4	Site Development

Additional information on the STGPD is located on the TPCHD website at https://www.tpchd.org/healthy-places/waste-management/business-pollutionprevention/south-tacoma-groundwater-protection-district		
Any private storm drainage system will require a Covenant and Easement Agreement for maintenance and access.	SWMM Volume 1 Section 3.4.9	Site Development

Utilities (Sanitary Sewer, Power, Water)

Comment	**Regulatory Citation**	**Applicable Review Group(s)**
Any utility construction, relocation, or adjustment costs shall be at the applicant's expense.	TMC Title 12	Site Development Water Power
The City of Tacoma is an NPDES Phase 1 permit holder. Our permit prohibits firefighting water and foam products from discharging to the storm water system other than on an emergency basis, so a training site would require pre-treatment prior to discharge. Based on the Use Type proposed for this project, discharge to the sanitary sewer that is not domestic waste may occur. If so, additional approval from Source Control shall be required. Projects with such discharges shall submit all requested information which may include: frequency, flow rates, pH, and MSDS sheets or other information about the waste flow.	TMC Title 12 12.08 Side Sewer & Sanitary Sewer Availability Manual, Chapter 5	Source Control Site Development
Each abandoned side sewer, or part thereof, that will not be reused in accordance with WAC 246-272 shall be plugged or capped at the public sanitary sewer main to eliminate the potential for infiltration of groundwater and dirt into the public sanitary sewer system via the abandoned side sewer. The side sewer shall be abandoned in the presence of the site inspector.	Side Sewer & Sanitary Sewer Availability Manual Section 3.2.M	Site Development
If an existing side sewer is to be re-used for the proposed new building, it shall be television inspected and pressure tested per City standards. If the side sewer is found through television inspection to have any illegal connections or cannot pass the pressure test, all illegal connections shall be disconnected and the side sewer shall be repaired, replaced, or rehabilitated and retested until the side sewer passes the pressure test to ensure it is watertight. Permits for this work shall be obtained.	Side Sewer & Sanitary Sewer Availability Manual Section 3.5	Site Development
Dumpsters that will be used for wet or moist trash and all garbage compactors shall be located on a stand-alone pad that drains to the sanitary sewer system. Cardboard compactors are not required to drain to the sanitary sewer.	SWMM Volume 4, Section 4.5	Site Development

Tacoma Power serves the campus on the South side of the parcel at pole# 11206. The service is Primary Metered and the electrical facilities on campus are owned and maintained by the school.	TMC Title 12.06A WAC, NEC, NESC	Power
The southern site has access to an 8" water main. Tacoma Water shows a calculated pressure at this location of 78psi. The northern site has access and services off of a 12" water main. Mapping indicates there are (2) 2" domestic services and 8" fire service feeding building D. Tacoma Water shows a calculated pressure at this site of 81psi. Tacoma Water Crews completes all work on Tacoma Water facilities. If existing water facilities need to be relocated or adjusted, they will be relocated by Tacoma Water at the developer's expense. Tacoma Water facilities must remain accessible at all times. Any damage to Tacoma Water facilities will be repaired by Tacoma Water crews at the expense of the developer.	TMC Title 12 12.10.045	Water
If new water services or modification of existing water services are required, they will be sized and installed by Tacoma Water after payment of the Service Construction Charge, and the Water Main Charge, and the System Development Charge. Call Tacoma Water at (253) 396-3057 for commercial sizing/pricing. If new fire commercial service is required, it will be sized by fire consultant and installed by Tacoma Water after payment of the Service Construction Charge. Contact Tacoma Water at (253) 396-3057 for an estimate.	TMC Title 12 12.10.250 12.10.310 12.10.315	Water
The Uniform Plumbing Code requires that a pressure-reducing valve (PRV) be installed on the customer's property side service line if pressure exceeds 80 PSI.	TMC Title 12 12.10.485	Water
Sanitary sewer mains and side sewers shall maintain a minimum horizontal separation of ten (10) feet from all water mains and water services. When extraordinary circumstances dictate the minimum horizontal separation is not achievable, the methods of protecting water facilities shall be in accordance with the most current State of Washington, Department of Ecology "Criteria For Sewage Works Design". Vertical separation of eighteen (18) inches from Tacoma Water facilities. For utilities other than sanitary sewer and large diameter water mains, the proposed facilities shall have a minimum horizontal	ROW Design Manual Chapter 11 Section 9	Water Site Development Power

separation of five (5) feet and vertical separation of twelve (12) inches from Tacoma Water facilities. For aerial utilities, Tacoma Water requires a minimum of 20 feet above our water facilities.		

APPLICABLE PERMITTING & CHECKLISTS:

This list of permits and associated checklists is provided as a comprehensive list of applicable permits and associated submittal requirements, based on staff's understanding of the project as currently defined. This list may change based on modifications to the proposal, and/or additional information received.

Land Use Permits – (LU)[8]

Conditional Use Permit (CUP) Checklist
SEPA Checklist

A Traffic Impact Assessment (TIA) will be required as part of SEPA/CUP update. Traffic Engineering recommends that the applicant submit the study prior to SEPA to ensure timely review and allow for revisions.

The TIA must include:

- Ingress/egress routes for vehicles and pedestrians/cyclists.
- Trip generation (total daily and peak hour trips) and trip assignment to specific streets
- Assessment of existing intersection control type and level of service at nearby intersections. Level of service must address existing level of service and future level of service projected with a six-year horizon.
    - Intersections to study include:
        - S 74th ST & Tacoma Mall Blvd
        - Tacoma Mall Blvd & Freeway on/off ramps
        - Tacoma Mall Blvd & S 78th St
        - S 78th St & S Trafton St
- Description of existing facilities and impacts/improvements to travel by pedestrians, bicyclists and transit users resulting from project and proposed facilities.
- Planned capital improvement projects in the area

[8] The site plan and building elevations submitted with the Land Use application can typically be less detailed and more conceptual than what will be required as part of the building permit submittal package. Plans must be sufficient to demonstrate the general scale and character of what is to be built. If the plans submitted as part of the land use permitting package do not provide enough detail to ensure general compliance with the land use code, and/or the plans are too vague to be able to sufficiently determine that the proposal will be in character with the neighborhood, revisions to the plans will be requested. Minor variations/adjustments to plans and elevations may be made between the approval of the Land Use permit and approval of associated building permits, however, a proposal that has been approved for land use permitting shall be developed substantially consistent with the plans attached to that permit.

Based on the findings of the study, additional mitigation of traffic impacts may be required. Potential mitigation may include:

- Installation of accessible pedestrian signal (APS) push buttons at S 74th St & Tacoma Mall Blvd.
- Traffic calming devices such as speed humps on local roads south of the site

Site Development Permits – (SDEV) (WO)[9]

Site Development and associated Document Checklist
Work Order and associated Document Checklist

Building Permits[10] – (BLD) (MECH) (PLMB) (DEF) (AMMR)

Building Permit – New Commercial BLDCN Checklist and Completeness Review Tip Sheet
Building Permit – Commercial Alteration BLDCA Checklist and Completeness Review Tip Sheet

CONNECTION TO CITY SYSTEMS

Surfacewater Connection Permit – STORM
Wastewater Connection Permit – SEWER[11]
Water Connection Permit – WATER[12]

PLANNING AND DEVELOPMENT SERVICES PERMIT FEES AND TIMELINE:

To obtain an estimation of permit fees associated with the permits listed above, the use of our Fee Estimator Tool is encouraged. Information regarding the time it may take for permit issuance is available on the Permit Timeline page.

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[9] Horizontal control requirements are required to be shown on the plans. City of Tacoma NAD83 91 (ie: mon. in case, surface brass, etc.) as published on govME. Reference to the City of Tacoma monument system (NAD 83 91). This includes, at a minimum, a tie between two known monuments with bearing and distance, and a description of the monuments with coordinates. All other improvements shall be tied to that known line and shown as part of the horizontal control.

[10] While it is not required to do so, we encourage submittal of the Mechanical, Plumbing, and Electrical (MEP) plans, and energy code forms, with submittal of the BLDCN package to allow for concurrent review. Once the BLDCN permit review is complete/approved, Mechanical and Plumbing are issued as separate permits with associated fees. Mechanical and Plumbing permits can either be issued with the BLDCN permit to the owner or general contractor or they can be issued separately to licensed subcontractors when it is time to begin that scope of work. For information on deferred submittal of MEP drawings and energy code forms, refer to the Deferred Submittal tip sheet.

[11] New sewer connection, including side sewer, grease interceptor, floor drains, toilets, sinks, dumpster pads, oil/water separators

[12] From the meter to the building for domestic water service

When calculating fees for the purpose of estimating permitting costs, be sure to combine costs of all associated permits listed within this document.

Be advised that there are additional permit/permit fees that are generally associated with issuance of a Commercial New and/or Alteration Building Permit, which include, but may not be limited to a Commercial Plumbing Permit, Mechanical Permit, and Commercial Fire Protection Permit(s).

As soon as you have submitted permits online, it is recommended that you email the permit application numbers associated with the project to your assigned Project Coordinator. Keeping your Project Coordinator in the loop in this way can ease the permit intake process. Project Coordinators can also help to facilitate discussion during the formal review process to ensure that requirements have maintained consistent, and will work with the reviewers and the applicant if there has been a change in the project scope or standards.

APPLICABLE TIPSHEETS & OTHER USEFUL INFORMATION:

The City of Tacoma has multiple tip sheets available to assist with navigating regulations and the permitting process. Applicable tip sheets can be searched by key title words within the Tip Sheet Index. The following list of tip sheet titles are likely to be applicable to your project as proposed.

- SEPA- State Environmental Policy Act
- Parking Standards and Variances
- Conditional Use Permits
- Construction and Demolition Waste
- Commercial Site Development
- Project Signage and Public Notice
- Work Order Permits
- ROW & Performance Bonds
- Deferred Submittals
- Tenant Improvements
- Street Trees
- Sign Permits
- Side Sewers 101
- Grease Interceptor Sizing and Installation Guidelines
- Off-Site Improvement Flow Chart based on TMC Table 2.19.1
- 2016 City of Tacoma Curb Ramp Matrix
- Electronic File Standards

OTHER AGENCY PERMITTING[13]

Tacoma Public Utilities (TPU) issues all electrical permits, power service connections, power infrastructure permits, permits to connect from the water main to the meter, permits for water service in right-of-way, and permits for new water/fire meters: www.mytpu.org.

REGULTORY REFERENCES:

Tacoma Municipal Code (TMC)[14]:
http://www.cityoftacoma.org/government/city_departments/CityAttorney/CityClerk/TMC
Right-of-Way Design Manual[15]:
http://cms.cityoftacoma.org/PublicWorks/StandardsCommittee/DesignManual_version_Jan2016_revised_Jan2018.pdf
Right-of-Way Restoration Policy[16]:
http://cms.cityoftacoma.org/PublicWorks/Right_of_way/Right%20of%20way%20Restoration_final.pdf
Stormwater Management Manual (SWMM)[17]:
http://cms.cityoftacoma.org/enviro/SurfaceWater/2016%20SWMM%20Manual/SWMM%20July%202016%20Masterbook.pdf
Sanitary Sewer Availability Manual[18]:
http://cms.cityoftacoma.org/enviro/wastewater/Final2016SideSewerManual.pdf
Urban Forest Manual (UFM)[19]:
http://cms.cityoftacoma.org/surfacewater/UrbanForestManual/UrbanForestManual_Volume3.pdf
International Fire Code (IFC)[20]: https://www.iccsafe.org/
International Building Code (IBC)[21]: https://www.iccsafe.org/
Washington Administrative Code (WAC): http://apps.leg.wa.gov/WAC/default.aspx
Revised Code of Washington (RCW): http://apps.leg.wa.gov/rcw/
National Electric Code (NEC): https://www.nfpa.org/nec
National Electric Safety Code (NESC): http://standards.ieee.org/about/nesc/
Resource Library: http://tacomapermits.org/pds-resource-library

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[13] The applicant is responsible for fully researching and understanding the requirements of other agencies, separate from the City of Tacoma. The State Office of Regulatory Innovation and Assistance has developed a permit handbook for further research. ORIA Handbook

[14] Most recent version of Title 13 adopted by Council as of the date of this memo – Revised 6/2018.

[15] The January 2016 City of Tacoma (City) Right-of-Way Design Manual (Design Manual) has been updated with a July 2016 Errata version, which is the most recent version of Code as of the date of this memo.

[16] Most recent version of the Right-of-Way Restoration Policy – August 2017.

[17] Most recent version of the City's Stormwater Management Manual – July 2016.

[18] Most recent version of the City's Side Sewer Availability Manual – January 2016.

[19] Document last updated on August 11, 2014.

[20] Most recent version of IFC adopted by the City as of the date of this memo – 2015.

[21] Most recent version of IBC adopted by the City as of the date of this memo – 2015.

Thank you again for contacting us for the pre-application review of your proposal within the City of Tacoma. The information contained in this letter is a general assessment of your proposal based on the information you provided and the Codes, standards, and policies currently in place. Please do not hesitate to contact the appropriate staff representative listed above directly if you have any questions.

Sincerely,

Joe Graff
Development Specialist | Application Services
Planning and Development Services Department | City of Tacoma
We work with the community to plan and permit a safe, sustainable, livable city.

Site Development Group
Pre-Application Scoping Notes

TO:	Joe Graff, Application Services
FROM:	Karina Stone, Site Development Group – Stormwater/Sanitary Larry Criswell, Site Development Group - Offsite
Permit Number:	PRE20-0104
Project Name:	Bates – Fire Service Training Center
Address:	2201 S. 78th Street
Project Description:	Proposed fire service training center at Bates Technical College. Two site Alternates for fire training, fire training support, classrooms, and administration. One Alternate will be all new construction at the north side of campus and one a mix of new construction and partial renovation of Building D on the south and south-west areas of campus. Additionally, comprehensive site development including extension of underground utilities and infrastructure is planned as part of the project.
Date:	May 21, 2020
Parcel Number:	0320304091

Stormwater Management

1. Stormwater scoping review is limited to Volume 1 of the SWMM and the identification of applicable Minimum Requirements.

2. A site development permit is required. This project must comply with the SWMM in effect at time of vesting.
   Regulatory Citation: TMC 2.19.030, TMC 12.08.007

3. Based on the information provided, Minimum Requirements that may be applicable to this project include: MRs #1-10. This project appears to be a Redevelopment Project.
   Regulatory Citation: SWMM Volume 1, Chapter 3, Flowchart Figures: 1-5 through 1-9

4. A Construction Stormwater Pollution Prevention Plan (SWPPP) is required
   Regulatory Citation: SWMM Volume 2, Appendix B

5. This project appears to trigger Minimum Requirements #1-10 which would require on-site stormwater to be managed in accordance with Onsite Management BMPs List #2 or demonstrate compliance with the LID Performance Standard to achieve MR#5 compliance. Design of onsite stormwater systems may require a soil analysis prepared by a qualified soils professional per the SWMM, Volume 3.
   Regulatory Citation: SWMM Volume 1 Sections 3.4.5; Volume 3

6. Minimum Requirement #6 will likely need to be evaluated for this project. On-site and off-site pollution generating hard surface (PGHS) areas shall be all be added together to determine the project PGHS total. If any thresholds of Minimum Requirement #6 are met, the project shall construct enhanced water quality treatment facilities. Separate water quality facilities shall be provided for on-site and off-site PGHS.

Regulatory Citation: SWMM Volume 1 Chapter 3, Sections 3.3 & 3.4.6

7. If the project site meets the MR #6 (water quality treatment) threshold enhanced treatment per Volume 1, Section 2.5.11 of the SWMM shall be required.
   Regulatory Citation: SWMM Volume 1, Section 3.4.6

8. Minimum Requirement #7 will likely need to be evaluated for this project. On-site and off-site improvements shall be considered to determine whether any thresholds of MR #7 are met. If so, flow control requirements vary by watershed and can be reviewed in Volume 1, Section 3.3.7 of the SWMM. This project is in the Flett watershed.
   Regulatory Citation: SWMM Volume 1 Chapter 3, Sections 3.3.7 & 3.4.7

9. This project may be eligible to participate in the Flett Creek Payment In-Lieu of Construction Program. The Program allows applicants to pay a one-time systems development charge instead of constructing required stormwater flow control facilities on their project site to fulfill Minimum Requirement #7.
   Regulatory Citation: Payment-In-Lieu-of-Construction Program

10. If the project site contributes drainage directly or indirectly to a wetland, Minimum Requirement #8 may apply.
    Regulatory Citation: SWMM Volume 1 Section 3.4.8

11. Per SWMM Minimum Requirement #10, all projects shall include a qualitative offsite analysis as described in Volume 1 of the SWMM.
    Regulatory Citation: SWMM Volume 1 Section 3.4.10

12. This project will add additional impervious area to an existing stormwater management facility. Prior to construction permit approval, an evaluation of the impacts of the proposed additional area to the existing system must be prepared and submitted for review. This evaluation shall be performed by a licensed civil engineer.
    Regulatory Citation: SWMM Volume 1 Section 3.4.10 & TMC 13.04

13. Provide documentation that the existing stormwater management facility has been adequately maintained.
    Regulatory Citation: SWMM Volume 1 Section 3.4

14. This project is located within the South Tacoma Groundwater Protection District (STGPD). The City of Tacoma Environmental Services Department and Tacoma-Pierce County Health Department (TPCHD) developed a guidance document that provides the circumstances and requirements for approval of infiltration facilities for managing pollution-generating stormwater runoff in the STGPD. The policy is available at http://cms.cityoftacoma.org/enviro/SurfaceWater/signed%202017%20policy%20ESD17-1.pdf. Additional information on the STGPD is located on the TPCHD website at https://www.tpchd.org/healthy-places/waste-management/business-pollution-prevention/south-tacoma-groundwater-protection-district
    Regulatory Citation: SWMM Volume 1 Section 3.4

15. Any private storm drainage system will require a Covenant and Easement Agreement for maintenance and access.
    Regulatory Citation: SWMM Volume 1 Section 3.4.9

Utilities (Sanitary Sewer, Power, Water)

16. Each abandoned side sewer, or part thereof, that will not be reused in accordance with WAC 246-272 shall be plugged or capped at the public sanitary sewer main to eliminate the potential for infiltration of groundwater and dirt into the public sanitary sewer system via the abandoned side sewer. The side sewer shall be abandoned in the presence of the site inspector.
    Regulatory Citation: Side Sewer & Sanitary Sewer Availability Manual, Sec 3.2.M

17. If an existing side sewer is to be re-used for the proposed new building, it shall be television inspected and pressure tested per City standards. If the side sewer is found through television inspection to have any illegal connections or cannot pass the pressure test, all illegal connections shall be disconnected and the side sewer shall be repaired, replaced, or rehabilitated and retested until the side sewer passes the pressure test to ensure it is watertight. Permits for this work shall be obtained.
    Regulatory Citation: Side Sewer & Sanitary Sewer Availability Manual, Sec 3.5

18. Based on the Use Type proposed for this project, a Pretreatment Device such as Oil Water Separator may be required.
    Regulatory Citation: Side Sewer & Sanitary Sewer Availability Manual, Chapter 5 & TMC 12.08

19. Dumpsters that will be used for wet or moist trash and all garbage compactors shall be located on a stand-alone pad that drains to the sanitary sewer system. Cardboard compactors are not required to drain to the sanitary sewer.
    Regulatory Citation: SWMM Volume 4, Section 4.5

20. Based on the Use Type proposed for this project, discharge to the sanitary sewer that is not domestic waste may occur. If so, additional approval from Source Control shall be required. Projects with such discharges shall submit all requested information which may include: frequency, flow rates, pH, and MSDS sheets or other information about the waste flow.
    Regulatory Citation: TMC 12.08

21. Based on preliminary review, a sanitary sewer assessment may be owed for all or part of this project. Please contact Lee Russell at (253) 591-5277 or LRussell@cityoftacoma.org for more information.
    Regulatory Citation: Side Sewer & Sanitary Sewer Availability Manual, Sec 1.2

Traffic Flow, Parking, Street Improvements

22. This project appears to be subject to off-site improvements which will be issued at time of building permit. The following are improvements likely to be required.
    Regulatory Citation: TMC 2.19

23. Any broken, damaged, or hazardous curb and gutter abutting the site along 74th ST, Tacoma Mall BLVD and along 78th ST shall be removed and replaced to current standards.

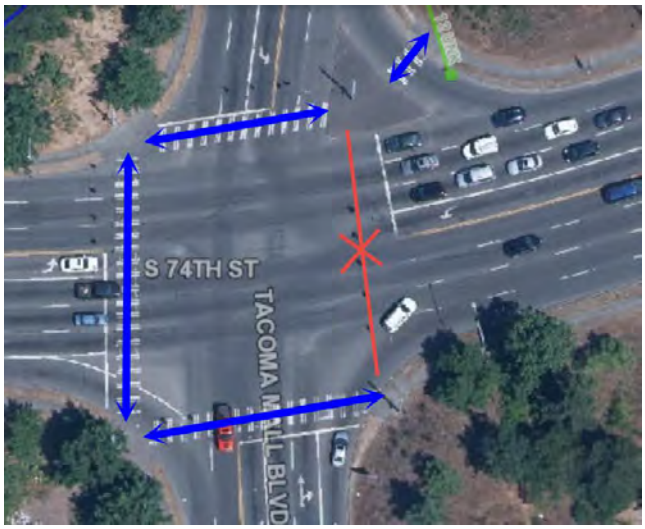
Regulatory Citation: TMC 2.19replaced to the approval of the City Engineer.

24. Any damaged and/or defective sidewalk abutting the site along 74th ST, Tacoma Mall BLVD and 78th ST shall be removed and replaced to the approval of the City Engineer. New sidewalk shall meet Public Right-of-Way Accessibility Guidelines and requirements set forth by the Americans with Disabilities Act.
    Regulatory Citation: TMC 2.19, ROW Design Manual Chapter 4 Section 1.2 & Section 7

25. Remove and replace driveways to current standards meeting ADA compliance at
    1) East 74th ST

    2) East 78th ST & Trafton and East 78th st

26. Remove and replace curb ramps at the intersection of 74th and Tacoma Mall BLVD to current standards.



City of Tacoma

Office of the Land Use Administrator
Report and Decision

CONDITIONAL USE PERMIT FOR: **FILE NO.: 40000016203 (CUP2003-00017)**

Marty Mattes
Bates Technical College
1101 South Yakima Avenue
Tacoma, WA 98405

SUMMARY OF REQUESTS:
A Conditional Use Permit to allow development of a 45,000 square foot educational building in the middle of campus, new parking along the west property line and a new truck driving training area along the north property line. The educational building is proposed primarily to accommodate existing student body and staff.

LOCATION:
On the west side of Tacoma Mall Boulevard, north of South 78th Street and south of South 74th Street. The site address is 2201 South 78th Street.

DECISION:
Approved, subject to usual and special conditions.

Note:
The appeal period on this decision closes April 12, 2005.

The effective date of approval for this request is April 13, 2005, provided no requests for reconsideration or appeals are timely filed as identified in APPEAL PROCEDURES of this report and decision

FOR ADDITIONAL INFORMATION CONCERNING THIS LAND USE PERMIT PLEASE CONTACT:

Jana Magoon (253) 594-7823
Building and Land Use Services Division,
Public Works Department
747 Market Street, Room 345, Tacoma, WA 98402
e-mail: jmagoon@cityoftacoma.org

APPLICABLE REGULATIONS

A. Applicable Environmental Regulations and Evaluation:

Pursuant to the State's SEPA Guidelines (WAC 197-11), the Bates Technical College has acted as lead agency with regard to SEPA. Bates Technical College issued a Determination of Environmental Nonsignificance on August 9, 2004. See Exhibit "A[1]" to this report and decision.

B. Applicable Sections of the *Tacoma Municipal Code* (hereinafter *TMC*):

***Tacoma Municipal Code* Section 13.06.510 Off Street Parking and Storage Areas:**

A. Purpose. To ensure the safe and adequate flow of traffic in public right-of-way, it is deemed in the interest of the public health, safety, and general welfare that off-street parking areas be required as a necessary part of the development and use of land, and to ensure that required parking areas are designed to perform in a safe and efficient manner.

Minimum parking requirements are particularly important in order to ensure resident, visitor, customer, and employee parking within reasonable distance to the uses served, reduce congestion on adjacent streets; and to minimize, to the extent possible, spillover parking into adjacent residential areas.

* * *

2. Off-site parking. Parking areas for all uses shall be located on the same parcel with such uses; however, it is recognized that more efficient use of land, business, or organization growth, safety, or similar considerations may make off-site parking desirable. Therefore, an exception is provided that off-street parking areas may be constructed on a parcel separate from the main building or buildings occupied by such uses, under the following circumstances:

a. Where allowed. The parking area shall be considered an extension of the use it serves. The parking area shall be permitted, prohibited, or subject to conditional use permit in the same manner as the associated land use.

***Tacoma Municipal Code* Section 13.06.640 Conditional Use Permit, Subsection A, Residential District Landscaping:**

A. Purpose. The purpose of this section is to allow certain specified uses, which are deemed necessary to the public convenience but are found to possess characteristics which make impractical such uses being identified exclusively with any particular zone classification as herein defined. The conditional use permit is a mechanism by which the City may require special conditions on development or on the use of land in order to insure that designated uses or activities are compatible with other uses in the same land use district and in the vicinity of the subject property.

* * *

C. Conditional uses. The Land Use Administrator may permit only the following uses in districts from which they are now prohibited by this chapter, or in certain districts as herein provided:

* * *

3. Educational institutions.

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[1] Exhibit "A" is contained in Public Works Department File No. CUP2003-00017.

* * *

D. Criteria. A conditional use permit shall be subject to the following criteria:

1. There shall be a demonstrated need for the use within the community at large which shall not be contrary to the public interest.

2. The use shall be consistent with the goals and policies of the comprehensive plan and applicable ordinances of the City of Tacoma.

3. The use shall be located, planned, and developed in such a manner that it is not inconsistent with the health, safety, convenience, or general welfare of persons residing or working in the community. The following shall be considered in making a decision on a conditional property use:

a. The generation of noise, noxious or offensive emissions, or other nuisances which may be injurious or to the detriment of a significant portion of the community.

b. Availability of public services which may be necessary or desirable for the support of the use. These may include, but shall not be limited to, availability of utilities, transportation systems (including vehicular, pedestrian, and public transportation systems), education, police and fire facilities, and social and health services.

c. The adequacy of landscaping, screening, yard setbacks, open spaces, or other development characteristics necessary to mitigate the impact of the use upon neighboring properties.

An application for a conditional use permit shall be processed in accordance with the provisions of Chapter 13.05.

* * *

C. Applicable Sections of the *Comprehensive Plan* and the *Community Facilities Plan,*:

Comprehensive Plan (2004)

Growth Strategy and Development Concept

Medium Intensity Concentration (page GD8)

Medium intensity areas include developments that attract people from several neighborhoods within the urban area and, in some cases, from areas outside the city. Commercial and industrial developments within these areas have a community-wide service level and are linked to both neighborhood and regional activity centers. Within medium intensity areas, office, light industrial and other medium intensity uses may be located adjacent to single-family residential uses so long as adverse impacts to residential uses are appropriately mitigated.

* * *

Generalized Land Use Element

Intent (page LU6)

* * *

New development should be compatible and "fit in" with the character and nature of existing development. Compatible developments would possess attributes similar and consistent with the main or essential characteristics exhibited by surrounding developments. These characteristics may include building shape and style, orientation and setbacks, architectural details, circulation patterns, location of parking, landscaping, open spaces and streetscape. This does not mean that dissimilar uses cannot be located in the same area, but rather these uses must be designed, scaled and situated in such a way that they are capable of existing in a harmonious manner. An appropriate

location for dissimilar uses would be on sites possessing characteristics such as a natural buffer, a location between different intensity levels of development, or a location on a higher volume arterial.

* * *

Neighborhood Element

South Tacoma Neighborhood

South Tacoma Neighborhood Subarea Descriptions (page Neigh37)

Arlington Neighborhood:
The Arlington neighborhood is located in the southeast part of South Tacoma. It is bounded by South 66th Street on the north, Interstate 5 on the east, South Tacoma Way on the west and the City limits on the south. The Tacoma Mall Boulevard area serves a number of multifamily apartment complexes and numerous industrial, commercial and retail uses. South Tacoma Way area offers various auto-oriented businesses in addition to retail-commercial uses. This area includes educational assets of Bates Technical College, Arlington Elementary, and Tacoma Baptist School. Recreational facilities in this area include the undeveloped Oak Tree Park Natural Area and the proposed Historic Water Ditch Trail, which links this area to South Park and the City of Lakewood.

South Tacoma Neighborhood Goals and Policies (pages Neigh41-Neigh47)

Policy ST-6.4
Encourage the use and planting of native plants and trees in the landscaping of public ROWs, particularly parking strips, and open space areas especially along visual arterial streets. Consider converting other unimproved ROWs to mini-parks or open space uses.

Community Facilities Policy Plan (1983)

Goals and Policies

Location and Design

Intent (pages 47-48)

Community facilities are necessary to meet the needs of the public. They vary widely in size, extent of influence, number of people served and character.

* * *

Larger community facilities such as high schools and some junior highs, nursing homes and hospitals can be considered medium intensity uses. These generate moderate levels of activity and traffic and serve several neighborhoods or the entire city. Generally, these uses are more appropriately located on the fringes of neighborhoods because of the larger scale buildings, larger number of people being served and generally higher activity level.

Because the category of community facilities encompasses such a variety of uses, it is difficult to establish general policies that will apply to the location and development of all facilities. The nature of the use, scale and size of facility, characteristics of the user populations, level of activity, traffic generation and hours of operation are among the factors which will influence the appropriate location.

Low and some medium intensity community facilities can be located within a neighborhood provided they are scaled, designed and situated to be compatible with the neighborhood. Generally, larger facilities are more appropriately located on the fringes of neighborhoods on arterial streets.

* * *

Compatibility with existing land uses is a primary concern when locating new community facilities. The character of the surrounding area needs to be maintained. Individually, low intensity community facilities may have little or no effect on a surrounding area; however, a concentration of such uses may significantly impact an area. It is intended that such uses by limited in kind, number and scale in single-family detached housing areas to minimize potential impacts. It is intended that all community facilities by sited, designed, scaled and located to be compatible with the existing character of the surrounding area. Such factors as height, bulk, noise level, landscaping, lighting, signing and traffic generation should be considered in determining compatibility.

Policies (Pages 49-51)

Aesthetics and Facilities: Encourage community facilities to be coordinated and integrated with surrounding land uses so as to aesthetically enhance the neighborhood in which they are located and to minimize any inherent nuisance, influence or disruption on adjacent properties.

Established Facilities: Permit expansion of established community facilities, where appropriate, to allow for their continued usefulness and to obtain adequate open space and off-street parking, provided the neighborhood and are not detrimentally affected.

Location and Design: Encourage community facilities to be located and designed to obtain maximum flexibility, utility and multiple use.

FINDINGS MADE BY ADMINISTRATOR

1. Project Description:

Bates Technical College (hereinafter Bates) proposes to construct a new 45,000 square foot educational building, truck driving training circuit and parking accommodations at the South Campus. The proposed expansion of the existing campus and campus facilities was identified in a recently completed 10 year Master Plan for the campus. The expansion hereunder consideration is in response to "existing need, enrollment increases and program changes" identified in the Master Plan. The project will be completed in two phases. Phase I of the project will develop the site north of campus for the truck driving training circuit. The west side of the existing campus property will be developed into parking and additional circuit for truck driving training. The proposed new parking will replace an existing parking area that will be removed to construct the Phase II educational building.

Phase II of the project is development at the center of the existing campus. There will be development of a courtyard between Building "A" and the new building, landscaping around the new building, and construction of a two story, 44,130 square foot educational building. The proposed new building will provide space for classrooms, offices, computer labs, a library, and other general space. Exterior materials will reflect the visual character of the existing campus. At this time, brick and glazing are the primary materials. The roof will be flat.

The proposal will also include the necessary clearing, grading, excavation, backfill, and work to extend and connect all necessary utilities to the new building. It is noted by the Administrator that the current proposal includes an access from the campus to South 74th Street.

The project is proposed to meet certain demands on the campus. Bates now requires students to enroll in degree programs to complete five credit hours each in Human Relations, Mathematics, and Communications. The new building will create dedicated space for this purpose. Bates' programs in Home and Family Life and Bio-Technology have demonstrated a need for additional program space. Bates must convert their television format to digital to maintain the ability to communicate with new

mandated technology. The new building will provide library space on the south campus.

South Campus circulation is hampered by an unresolved interface between truck traffic and pedestrian traffic. Relocating the truck driving circuit minimized pedestrian and vehicular conflict while creating optimal circulation.

During the preparation of the design for the proposed expansion, Bates has met with the South Tacoma Neighborhood Council to discuss the proposal. Specific areas of discussion include access, screening and parking lot lighting.

2. Location, Zoning and Comprehensive Plan Designations:

The site is located south of South 74th Street, north of South 78th Street and west of Tacoma Mall Boulevard. The site address is 2201 South 78th Street. The subject site is zoned "R-2" One-Family Dwelling District. This zoning designation was placed on the site in 1953. Additionally, the site is designated by the City's *Comprehensive Plan* as a medium intensity development area. The *Comprehensive Plan* also locates the site within a designated Tier I Primary Growth Area. Such areas are characterized by urban levels of development where all necessary services and infrastructure either exist or are scheduled for installation within a six-year period. The Administrator finds that Bates' proposal is generally consistent with the intensity and tier designations. The Administrator takes notice that a Site Approval to allow the existing Bates campus was approved on April 3, 1985 under File No. 127.239.

3. Site and Existing Conditions:

The existing campus, which is approximately 25.3 acres in size, is generally level. The applicant is in the process of purchasing approximately 5 additional acres, which is the area along South 74th Street and is proposed as a truck training area and the location of three modular buildings. This area is currently vacant. There is a curb cut providing access to this area from South 74th Street but a gate blocks complete access. This area is at a higher grade than the existing campus. The area of the parking is generally level except that it does have some small hills that appear to have been created through stockpiling of dirt. The campus is currently developed with buildings around the perimeter and a large parking area in the center.

4. Surrounding Area and Uses:

Surrounding uses include commercial and industrial uses to the south, residential and a church to the west, commercial to the north and Interstate 5 to the east.

5. Site Visit:

The Land Use Administrator viewed the site on March 27, 2005.

6. Notification:

Written notice of the application has been mailed to all owners of property within 400 feet of the site, the neighborhood council and qualified neighborhood groups, allowing for at least 30 days of comment period on August 13, 2004. A public information sign was posted on the property. One comment letter from the South Tacoma Neighborhood Council was received as a result of the public notice. The letter raised concerns relative to access to and from the site on South 74th Street, the revised parking lot location on the western portion of the site, parking lot lighting and preservation of mature oak trees on the property. In response, the representative of Bates indicated that the South

74th Street entrance would be a secondary access to the campus. The new parking lot along the westerly side of the campus would be buffered with existing trees and vegetation along the west side of the existing fence while the eastern side of the fence would be enhanced with shrubs and evergreen trees. Parking lot lights would be designed to shine down onto the parking lot and not onto the adjacent residential properties. Finally, it is indicated that the parking lots have been designed to preserve as many of the existing oak trees as possible. The City's traffic engineer has reviewed the request and is recommending that access to South 74th Street from the campus be limited to "right in/right out" access only.

7. Agency Comments:

Tacoma Power	No Objections
Tacoma Water	See Attachment "H"
Tacoma Pierce County Health Department	No Objections
Tacoma Fire Department	No Objections
Building and Land Use Services, Jim Shaw	No Objections
Environmental Services	See Attachment "J"
Solid Waste Utility	No Objections
Traffic	See Attachment "E"
Pierce Transit	No Objections
McChord Air Force Base	See Attachment "I"

8. Attachments:

A. Site Plan
B. Building Elevations - North, East & West
C. Building Elevations - South
D. Project Description dated July 9, 2003
E. E-mail from Traffic Engineering, dated March 18, 2004
F. Letter from Bates Technical College, dated October 25, 2004
G. Letter from South Tacoma Neighborhood Council, dated September 13, 2004
H. E-mail from Tacoma Water dated September 12, 2003
I. Memorandum from Department of the Air Force, dated August 26, 2003
J. Memorandum from Environmental Services, dated August 6, 2003
K. Letter from South Tacoma Neighborhood Council, dated September 11, 2003

Exhibit "A" Determination of Non-significance issued for the proposal.

Due to its size, the exhibit listed above is not attached to the report and decision but is contained in the Building and Land Use Services file for this project and is incorporated herein as though fully set forth.

9. Applicable Provisions of the *TMC*:

Institutional uses and their associated facilities are allowed in residential districts that don't otherwise permit them as a conditional use activity. See *TMC* 13.06.640.C.3. Conditional Use Permits are subject to consistency with certain codified criteria. See *TMC* 13.06.640.D.

10. Conclusions Adopted As Findings:

Any conclusion hereinafter stated which may be deemed a finding herein is hereby adopted as such.

CONCLUSIONS

1. Jurisdiction:

In accordance with *TMC* 13.05.030, the Land Use Administrator has jurisdiction in this matter.

2. Environmental Determination:

Bates Technical College as the Responsible Agency for this matter, has issued a Determination of Environmental Non-Significance (DNS) for the proposed action.

3. Burden of Proof:

The applicant bears the burden of proof to demonstrate the proposal is consistent with the provisions of the *TMC*, the applicable provisions and policies of the City's comprehensive land use plan, and other applicable ordinances of the City.

4. Consistency with Policies and Regulations:

Conditional Use Permit:

In order for the Land Use Administrator to authorize a Conditional Use Permit, the request must be found consistent with all criteria set forth in Section 13.06.640 of the *TMC*. The following is an analysis of the criteria:

a. *There shall be a demonstrated need for the use within the community at large which shall not be contrary to the public interest:*

Bates Technical College was granted a Site Approval to develop the existing college facilities on the site in 1985 under File No. 127.239. The applicants indicate that Bates Technical College recently has completed a 10 year Master plan for the campus that addresses existing needs at the campus. The proposed campus expansion and new building and parking construction were identified in the Master Plan. The Administrator concludes that the applicants have demonstrated the need for the proposal through the adoption of the Master Plan. The Administrator further concludes that the proposed expansion, if properly conditioned, will not be contrary to the public interest.

b. *The use shall be consistent with the goals and policies of the Comprehensive Plan and applicable ordinances of the City of Tacoma:*

As previously found, the proposal is generally consistent with the intensity and Tier designations of the *Comprehensive Plan.* The subject site is located within a "medium intensity" area as identified by the *Comprehensive Plan.* The *Comprehensive Plan* generally supports the development of community facilities, such as schools and colleges, in medium intensity areas that do not adversely impact adjacent neighborhoods. The *Community Facilities Plan* encourages the expansion of existing facilities as long as such expansion is not detrimental to the surrounding neighborhood. If properly conditioned, the Administrator concludes that the proposed expansion of Bates Technical College would be consistent with the provisions of the *City's Comprehensive Plan* and the *Community Facilities Plan.*

c. *The use shall be located, planned and developed in such a manner that the special use is not inconsistent with the health, safety, convenience, or general welfare of persons residing or working in the community. The following shall be considered in making a decision on a special property use:*

1. The generation of noise, noxious or offensive emissions, or other nuisances which may be injurious or to the detriment of a significant portion of the community.
2. Availability of public services which may be necessary or desirable for the support of the use. These may include, but shall not be limited to, availability of utilities, transportation systems (including vehicular, pedestrian, and public transportation systems), education, police and fire facilities, and social and health services.
3. The adequacy of landscaping, screening, yard setbacks, open spaces, or other development characteristics necessary to mitigate the impact of the use upon neighboring properties.

The South Tacoma Neighborhood Council has expressed concerns regarding the extent of access from the campus to South 74th Street, adequacy of the buffer between the new parking lot and the single family neighborhood to the west, potential glare from parking lot lighting and preservation of existing oak trees on the site. The Administrator shares these concerns. Turning to the first issue regarding access from the campus to South 74th Street, the City's traffic engineer has reviewed the proposal and has recommended that access to South 74th Street be limited to "right in/right out" only. As such, the Administrator will place such a condition on this Conditional Use Permit. In terms of the parking lot screening, parking lot lighting and preservation of oak trees, the Administrator notes that Bates has been working closely with the South Tacoma Neighborhood Council. The Administrator believes that approval of the requested Conditional Use Permit should be subject to a condition requiring the development of a landscaping plan that addresses parking lot screening, lighting and the preservation of the existing oak trees on the site.

The Administrator concludes that subject to the conditions of approval identified above, the use would be located, planned and developed in a manner that is consistent with the health, safety, convenience, and general welfare of persons residing or working in the community.

5. Special Conditions:

1. Access onto South 74th Street will be limited to "right in/right out" only. Specific plans for the South 74th Street driveway and necessary improvements or alterations to South 74th Street shall be approved by the City Engineer.

2. A landscaping plan in compliance with *TMC* 13.06.502 shall be submitted for review and approval by the Land Use Administrator prior to issuance of development permits. The plan shall provide for screening of the proposed improvements from the neighborhood to the west, parking lot lighting that minimizes glare onto adjacent properties and preservation of existing oak trees on the site (it is acknowledged that existing oak trees in the areas proposed for construction will be removed).

3. The applicants shall comply with the conditions of approval set forth in the attached memorandums from Tacoma Water and Environmental Services (See attachments "H" and "J")

4. The applicants shall comply with Condition #4 in the letter from McChord Air Force Base (See Attachment "I") relative to the use of measures to reduce noise levels within the proposed buildings.

6. Usual Conditions:

a. The decision set forth herein is based upon representations made and exhibits, any substantial change or deviation in such development plans, proposals, or conditions of approval imposed shall be subject to the approval of the Land Use Administrator, and may require additional permitting, public notification and comment.

b. The authorization granted herein is subject to all applicable federal, state and local laws, regulations, and ordinances. Compliance with such laws, regulations, and ordinances are conditions precedent to the approvals granted and are continuing requirements of such approvals. By accepting this approval, the applicant represents that the development and activity allowed will comply with such laws, regulations and ordinances. If, during the term of the approval granted, the development and activity permitted do not comply with such laws, regulations or ordinances, the applicant agrees to promptly bring such development or activities into compliance.

c. The permit shall become void after a period of five years after the final decision, which is either the date of the permit decision or the appeal decision, in the event no substantial construction has taken place in accordance with the plans for which the permit has been authorized.

7. Findings Adopted as Conclusions:

Any finding hereinafter stated which may be deemed a conclusion is hereby adopted as such.

DECISION

The requested Conditional Use Permit is hereby approved, subject to the conditions set forth in conclusion 5 and 6 above.

ORDERED this 29th day of March, 2005

Tom Dolan
Acting Land Use Administrator

FULL DECISION TRANSMITTED this 29th day of March, 2005 by first class mail to:

Marty Mattes, Bates Technical College, 1101 South Yakima Avenue, Tacoma, WA 98405-4895
Matt Lane, McGranahan Architects, 2111 Pacific Avenue, Suite 100, Tacoma, WA 98402
Skip Vaughn, South Tacoma Neighborhood Council, 7634 South Fife Street, Tacoma, WA 98409
Bill Velez, Department of the Air Force, 62 Civil Engineer Squadron, 555 "A" Street, McChord AFB, WA 98438-1325
Pierce County Assessor-Treasurer, 2401 South 35th St., Room 142, Tacoma, WA 98409, Attn: Barbara Stevenson

Inter-office mail:
Ryan Flynn, Environmental Services
Grant Whitley, Tacoma Water
Chris Larson, Traffic Engineering

SUMMARY OF DECISION TRANSMITTED this 29th day of March, 2005 by first class and interoffice mail to the following:

All property owners with 400 feet of the subject site
South Tacoma Neighborhood Council

Inter-office mail:
Jim Shaw, Building and Land Use Services
M.A. Fesharaki, P.E., Tacoma Power
Carl Anderson, Tacoma Fire Department
Peter Huffman, TEDD
Rich McDonald, Building Inspector
Pierce Transit, Crystal Benjamin, P.O. Box 99070, Tacoma, WA 98499-0070

PURSUANT TO RCW 36.70B.130, YOU ARE HEREBY NOTIFIED THAT AFFECTED PROPERTY OWNER(S) RECEIVING THIS NOTICE OF DECISION MAY REQUEST A CHANGE IN VALUATION FOR PROPERTY TAX PURPOSES CONSISTENT WITH PIERCE COUNTY'S PROCEDURE FOR ADMINISTRATIVE APPEAL. TO REQUEST A CHANGE IN VALUE FOR PROPERTY TAX PURPOSES YOU MUST FILE WITH THE PIERCE COUNTY BOARD OF EQUALIZATION ON OR BEFORE JULY 1ST OF THE ASSESSMENT YEAR OR WITHIN 30 DAYS OF THE DATE OF NOTICE OF VALUE FROM THE ASSESSOR-TREASURER'S OFFICE. TO CONTACT THE BOARD CALL 253-798-7415 OR <WWW.CO.PIERCE.WA.US/BOE>.

APPEAL PROCEDURES

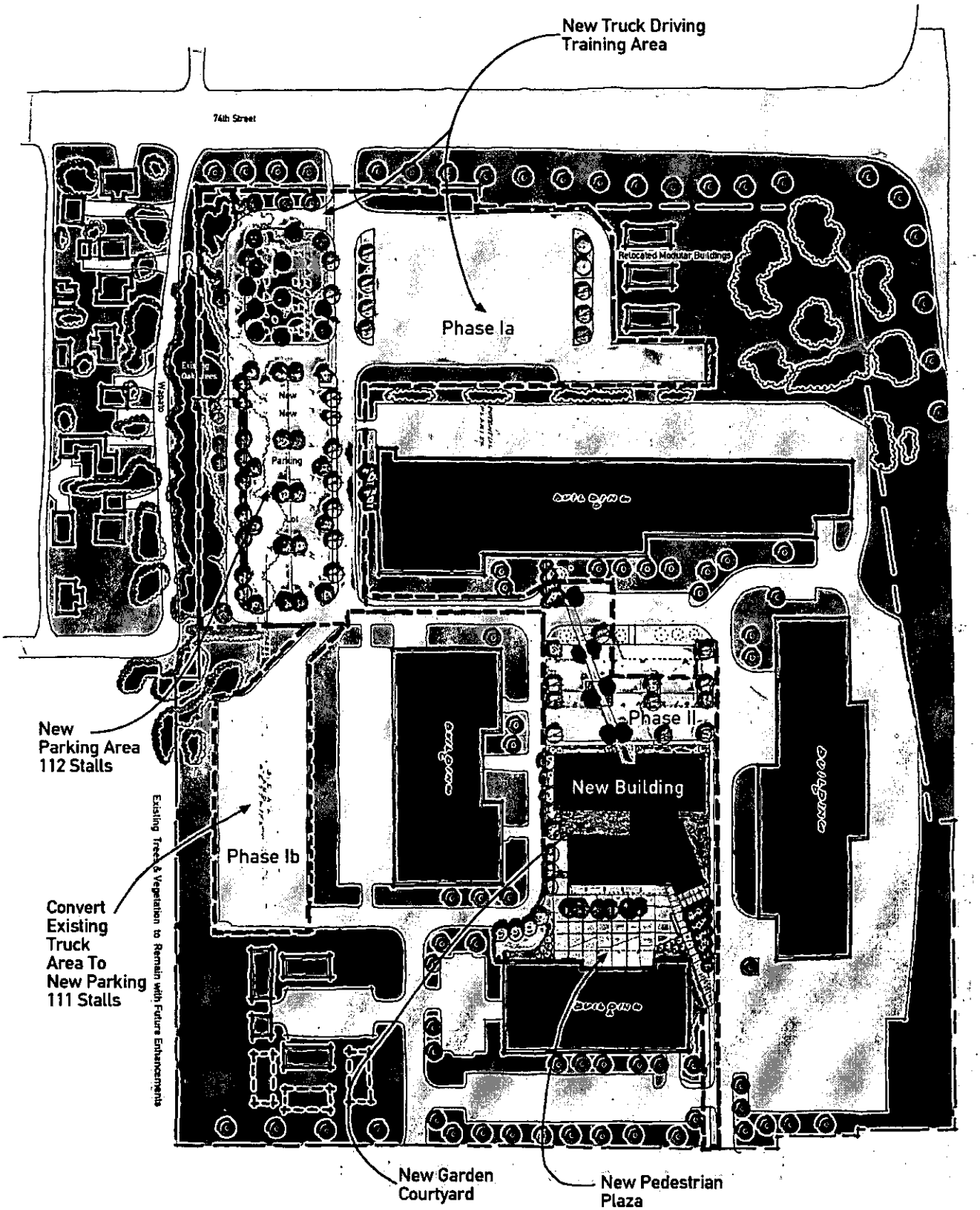
RECONSIDERATION:
Any person having standing under the ordinance governing this application and feeling that the decision of the Administrator is based on errors of procedure or fact may make a written request for review by the Administrator within fourteen (14) days of the issuance of the written order. This request shall set forth the alleged errors, and the Administrator may, after further review, take such further actions as deemed proper, and may render a revised decision. A request for RECONSIDERATION of the Land Use Administrator's decision in this matter must be filed in writing with the Building and Land Use Services Division, Room 345, Third Floor, Tacoma Municipal Building, 747 Market Street, Tacoma, WA 98402, on or before April 12, 2005.

APPEAL TO HEARING EXAMINER:
Any decision of the Land Use Administrator may be appealed by any aggrieved person or entity as defined in Section 13.05.050 of the *Tacoma Municipal Code*, within fourteen (14) days of the issuance of this decision, or within seven (7) days of the date of issuance of the Administrator's decision on a reconsideration, to appeal the decision to the Hearing Examiner.

An appeal to the Hearing Examiner is initiated by filing a Notice of Appeal accompanied by the required filing fee. Filing of the appeal shall not be complete until both the Notice of Appeal and required filing fee has been received. The Notice of Appeal must be in writing and shall contain the following:

(1) A brief statement showing how the appellant is aggrieved or adversely affected.
(2) A statement of the grounds for the appeal, explaining why the appellant believes the administrative decision is wrong.
(3) The requested relief, such as reversal or modification of the decision.
(4) The signature, mailing address and telephone number of the appellant and any representative of the appellant.

An appeal of the Land Use Administrator's decision in this matter must be filed with the Hearing Examiner's Office, Seventh Floor, Tacoma Municipal Building, on or before April 12, 2005, together with a fee of **$253.96**. THE FEE SHALL BE REFUNDED TO THE APPELLANT SHOULD THE APPELLANT PREVAIL. (Pursuant to Section 2.09.020 of the *Tacoma Municipal Code,* fees for appeals shall be waived for qualifying senior citizens and persons who are permanently handicapped who are eligible for tax exemption because of financial status.)



Site Plan

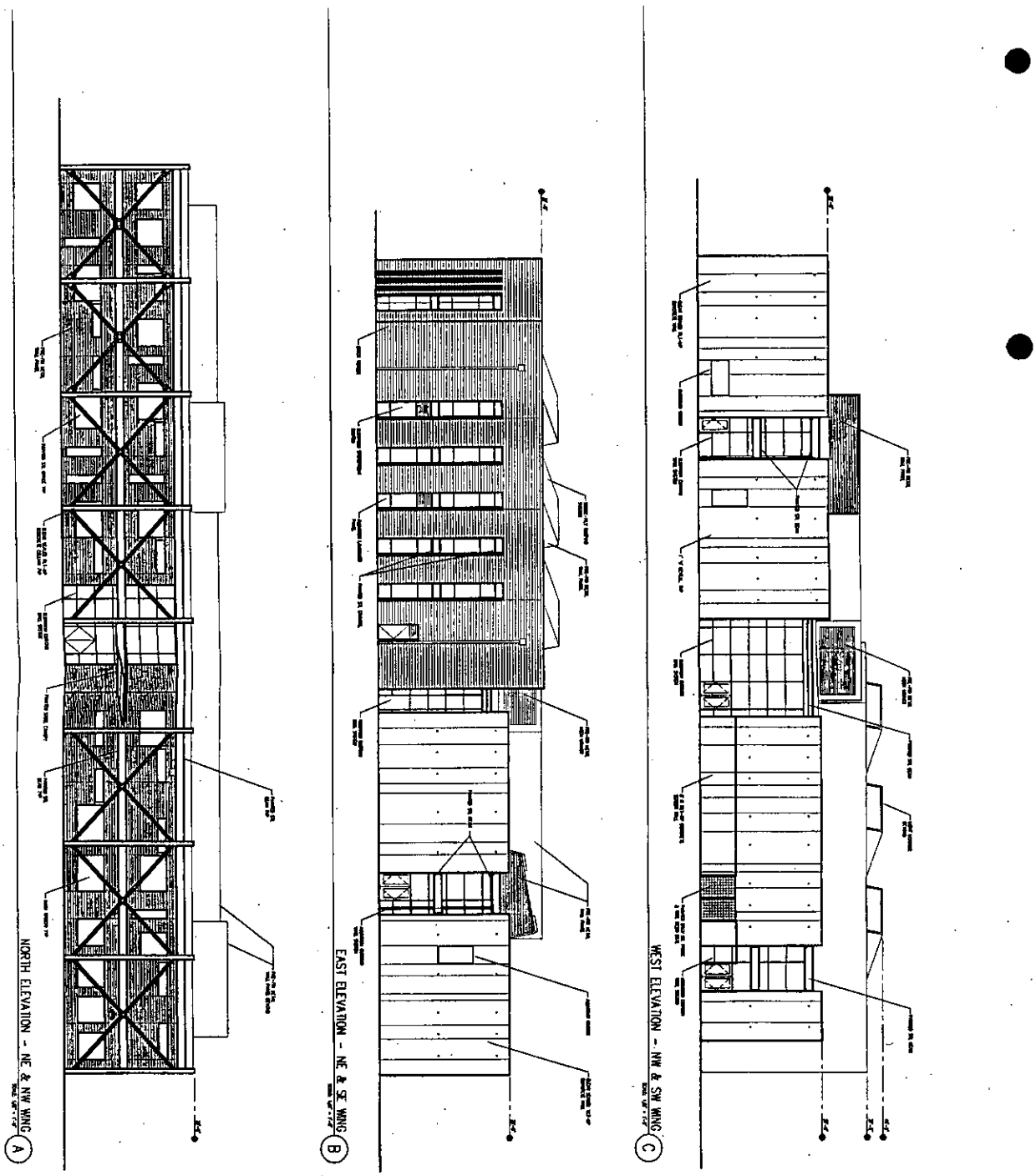
Bates Technical College
South Campus Expansion
Design Development
23 April 2004

0315.00

ATTACHMENT A

PG 13

City of Tacoma Pre-App - Conditional Use Permit
Bates Technical College Fire Services Training Center
Washington State Project 2020-213



EXTERIOR ELEVATIONS

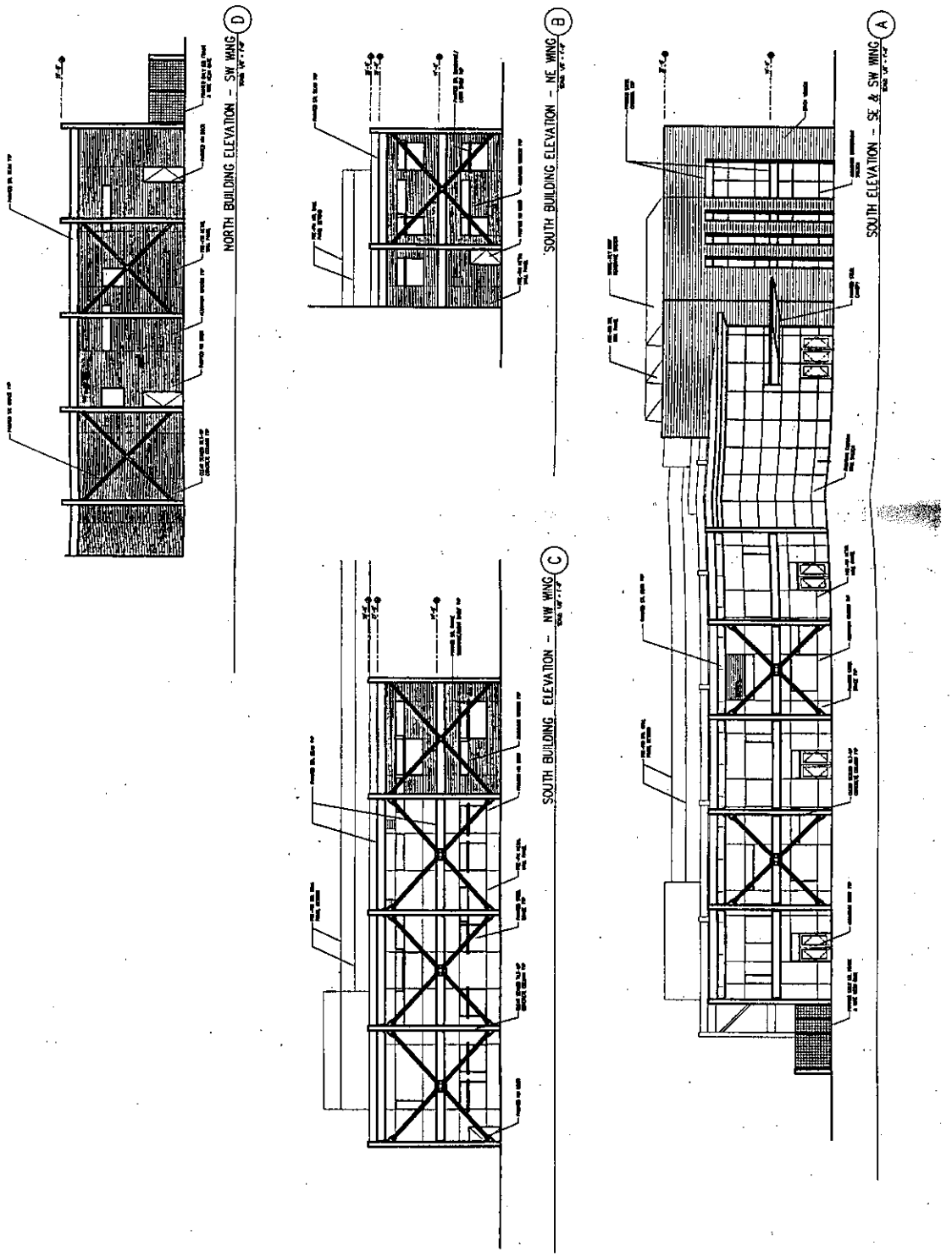
A5.01

P6 14

ATTACHMENT B

EXTERIOR ELEVATIONS

A5.02



ATTACHMENT C

July 09, 2003

Bates Technical College Conditional Use Permit Application for the City of Tacoma

Introduction
This is an application for the Conditional Use Permit by Bates Technical College for its South Campus. The purpose of this application is for the conditional-use of the site to construct a new educational building at the center of the campus as well as parking lots on the new property acquisition to the North of the Campus.

Current Use of Property
The South Campus is zoned as R2 - One Family Dwelling and is bound to the north by South 74th Street, to the East by Tacoma Mall Boulevard and to the south by South 78th Street. The property is currently used as a higher education facility to train students in vocational and technical trades which have a vital relationship to the community. Examples of these programs include: Home and Family Life, Truck Driving, Automobile Repair, Iron Working, Carpentry, Boat Building, and Fire Fighting among others. There are four primary buildings currently on the site, which together contain approximately 193,000 SF.

Proposal
Bates Technical College has recently completed a Master Plan that will facilitate and help manage the college's growth over the next ten years. Due to existing need, enrollment increases and program changes, the Bates south campus requires a new building and additional parking. This parking would be accommodated on the North of the site bordering S. 74th Street. This new parking capacity will remedy the current parking deficit that forces students, faculty, and visitors to park on city streets nearby.

The proposed building, as represented in the attached drawings, will be 40,000 SF to 45,000 SF in size depending on the final design. The building will house classrooms, offices, computer labs, a library, and other general spaces. The addition of a library on this campus will help reduce trips to and from this campus because students will no longer need to travel to the Downtown Campus for library functions.

This plan will increase safety because its revised circulation pattern reduces pedestrian/vehicular (truck-driving) conflicts. Overall, the proposal will enhance the existing site conditions by tempering the existing industrial quality with a more park-like "green" environment. For example, the proposed building would replace an existing parking lot at the "heart" of the campus. This new building will be the center hub of the campus, integrated with landscaping and an asset to the surrounding community.

Dolan, Tom

From: Larson, Chris
Sent: Friday, March 18, 2005 11:15 AM
To: Dolan, Tom
Subject: RE: Bates Technical College at South 78th and Tacoma Mall Blvd

Tom,

Yes, this driveway will be right-in and right-out only.

Thanks,

Chris E. Larson
Engineering Division
Phone: 253-591-5538
Fax: 253-591-5533
E-Mail: clarson@cityoftacoma.org <mailto:clarson@cityoftacoma.org>

-----Original Message-----
From: Dolan, Tom
Sent: Thursday, March 17, 2005 2:22 PM
To: Larson, Chris
Subject: FW: Bates Technical College at South 78th and Tacoma Mall Blvd

Chris - Are you requiring that the proposed driveway from Bate's onto South 74th Street be right in/right out only?

Tom

-----Original Message-----
From: Magoon, Jana
Sent: Thursday, March 17, 2005 2:09 PM
To: Dolan, Tom
Subject: FW: Bates Technical College at South 78th and Tacoma Mall Blvd

-----Original Message-----
From: Larson, Chris
Sent: Friday, November 19, 2004 1:54 PM
To: Magoon, Jana
Subject: RE: Bates Technical College at South 78th and Tacoma Mall Blvd

Jana,

The proposed driveway on South 74th Street can be designed to allow only right-in and right-out movements. There may be a need for installation of 'C' curbing on 74th Street, but not a large barricade.

Bates
TECHNICAL COLLEGE
FOCUSED ON YOUR FUTURE

October 25, 2004

Jana Magoon
City of Tacoma
Office of the Land Use Administrator
747 Market Street, Room 345
Tacoma, WA 98402-3701

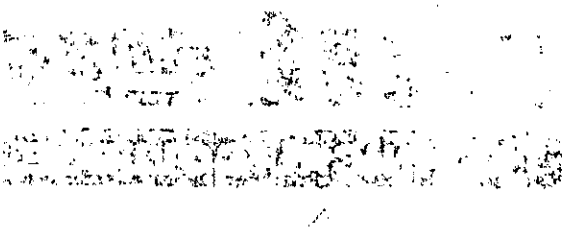
RE: Conditional Use Permit – CUP2003-00017
2201 South 78th Street

Dear Jana:

I have reviewed the comments to the public notice and have the following comments on behalf of Bates Technical College.

There was an issue raised about right turn in and out from the 74th street access road. The College plans on utilizing 74th street as a secondary ingress and egress for the campus. Signage improvements being addressed in our Signage Master Plan will direct traffic to the existing 78th street access as our main campus entry gate. The access road off of 74th street is not being sized as a major or primary access for the college. In addition, to address concerns for the potential of people to cross 74th street, I am looking at alternatives that could be incorporated into the access road entry point to further discourage crossing traffic on 74th street. I do not believe that a physical barrier constructed down the center of 74th street is best or even an appropriate means to control traffic. With entrance design, better measures of traffic control can be ensured along 74th street. Providing access control at the campus road head also eliminates costly and disruptive construction along the centerline of 74th street.

The relocated parking along the west side of our campus, toward Wapato street, will be buffered with existing trees and vegetation on the west side of the existing fence. Additionally, we are introducing shrubs and evergreen trees on the east side of the fence to the west of the parking lot. The ground elevation of the houses across Wapato Street is between two and four feet higher than the ground elevation of the parking area. These factors would eliminate any headlights from vehicles shining into windows of the houses.



Parking lot lighting is designed with side panels projecting down beyond the light elements. Light will be cast down and not out from the fixtures. The quantity of stanchions and levels of lighting are designed to minimize energy consumption, minimize light pollution, and provide an amount of light for staff and student safety.

The site design was looked at very closely on the west side of college property. A site goal included instructions to save as many Oak trees as possible. Instructions to our surveyor included locating trees. We reviewed the site location and elevations of all the trees to see what could be saved in the site development. There were no trees in the construction site boundary that met both the horizontal and vertical location requirements to save. There are no plans to remove any oak trees outside of the construction site boundary along the west property line.

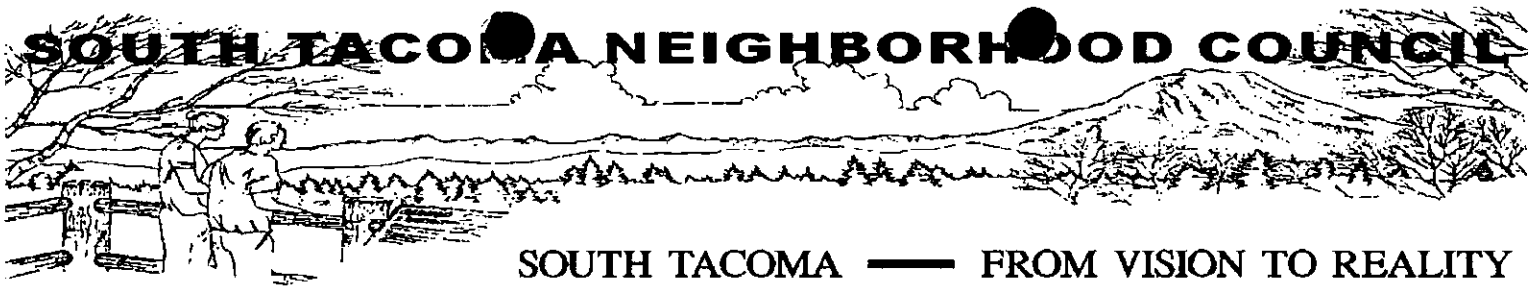
The college has been working with both the City and the South Tacoma Neighborhood Council in the development of our project. On October 20th, 2004 at the South Tacoma Neighborhood Council monthly meeting, McGranahan (the A/E), Dino (the state project manager) and myself (the owner) provided a project presentation. At that meeting we openly discussed their interests with our project. I believe that by working closely with the city and the neighborhood council we have addressed as best we can all the issues that have been discussed along the way.

If additional comment or clarification is desired please contact me.

Marty Mattes

Director of Facilities and Operations
BATES TECHNICAL COLLEGE
1101 South Yakima Ave.
Tacoma WA, 98405-4895
(253) 680-7156 office ph.
(253) 377-6159 cell ph.
2533776159@page.nextel.com text message
(253) 680-7159 fax
mmattes@bates.ctc.edu e-mail

Cc: Matt Lane
Erasmus Othieno
Bill Thomas



September 13, 2004

Janna McGoon
Building and Land Use Department
City of Tacoma
747 Market Street
Tacoma, WA 98402

Subject: Bates College Application Permit # 40000016203(CUP2003-00017)

Dear Janna:

The South Tacoma Neighborhood Council has reviewed the subject application and has several comments:

- The drawing provide with the notice did not show the driveway onto South 74th Street as right-turn in and right-turn out **only.** We believe this restrict is necessary due to the heavy traffic volumes on South 74th Street.
- We note that the location of the parking lot has been changed to relocate it next to the residential neighborhood on South Wapato Street. This lot should be buffered to reduce the noise from the associated traffic and the glare of the vehicle headlights penetrating into the adjacent housing.
- The parking lot lights should be located at basically ground level to preclude the light and glare from having an adverse impact on the adjacent neighborhood. Just orienting the lighting away from the neighborhood may not be sufficient to prevent the impact of the lighting on the neighborhood.
- The parking lot should be designed and located to minimize the impact on the stand of mature Gary Oak on the property. Gary Oak or Oregon White Oak deserves protection.

Sincerely,

Skip Vaughn

Skip Vaughn
Chair, South Tacoma Neighborhood Council
7634 South Fife
Tacoma, WA 98409
253-475-3121

Cc: Elton Gatewood

City of Tacoma Pre-App - Conditional Use Permit
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

Magoon, Jana

From: Whitley, Grant
Sent: Friday, September 12, 2003 12:11 PM
To: Magoon, Jana
Cc: Oster, Rita
Subject: Conditional Use Permit CUP 2003-00017 at 2201 South 78th Street

Conditional Use Permit CUP 2003-00017 at 2201 South 78th Street

Tacoma Water has reviewed the proposed request and has the following comments.

New water services will be installed by Tacoma Water after payment of the Service Construction Charge and the Water Main Charge. New meters will be installed by Tacoma Water after payment of the System Development Charge.

Should a fire sprinkler service and meter be required, it will be sized by the customer and installed by Tacoma Water after payment of a service construction charge.

If a new fire hydrant is required at a location with an existing water main, the hydrant will be installed by Tacoma Water after payment of an installation charge.

If existing water facilities need to be relocated or adjusted due to improvements for this proposal they will be relocated by Tacoma Water at the developer's expense.

Grant Whitley
Tacoma Water

DEPARTMENT OF THE AIR FORCE
62D CIVIL ENGINEER SQUADRON (AMC)
MCCHORD AFB, WASHINGTON 98438-1325

AUG 26 2003

MEMORANDUM FOR CITY OF TACOMA
PUBLIC WORKS DEPARTMENT
(ATTN: MS JANA MAGOON, LAND USE
ADMINISTRATION PLANNER)
747 MARKET STREET, ROOM 345
TACOMA, WA 98402

AUG 21 2003

FROM: 62 CIVIL ENGINEER SQUADRON
(ATTN: 62 CES/CEC)
555 A STREET
MCCHORD AFB, WA 98438-1325

SUBJECT: Conditional Use Permit (Yr Memo, 28 Jul 03)

1. Thank you for the opportunity to review subject proposal. The proposed site is located approximately 11,500 feet north of the McChord runway end and is situated approximately 1700-3100 feet east of the extended centerline of the McChord runway. This location lies partially within our Accident Potential Zone (APZ) II of the 1998 McChord AFB Air Installation Compatible Use Zone (AICUZ) Study.

2. The APZ II is a 3,000' wide by 7,000' long rectangle centered on the runway centerline and beginning at a point 8,000 feet from the runway end and extending to a point 15,000 feet from the end of the runway. A study of Air Force accidents occurring within 10 nautical miles of an air base between 1968 and 1985 (728 accidents) revealed that 5.0% (36 accidents) occurred in APZ II. The study also determined that these accidents had an average definable debris impact area of 5.06 acres. Furthermore, while the Day-Night Average Sound Level (DNL) is less than 65 dB, the site is situated adjacent to the extended centerline of the McChord runway and therefore exposed to frequent single-event noise levels significantly higher.

3. While Air Force guidance considers educational services incompatible in APZ II, we note the applicant's data shows the proposed school facilities additions will occur within the existing Bates Technical College area that is physically outside the APZ II imaginary boundary.

4. If the community determines that educational services must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) should be incorporated into building design and considered in individual approvals. NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, and design and use of berms and barriers can help mitigate outdoor exposure, particularly from near ground level sources. Measures that reduce outdoor noise should be used whenever practical in preference to measures which only protect interior spaces.

5. Thank you for the opportunity to comment on this proposal. We look forward to continued cooperation and coordination on development proposals in and around the McChord AFB environs. Questions may be addressed to Mr. Gaylord Higa of my Comprehensive Planning staff (62 CES/CECP), at the address indicated above, or by telephone at (253) 982-3268.

RAFAEL M. VICTORIA
Chief, Engineering Flight

Attachments
1. AICUZ Overlay
2. Table 4.2, Land Use Compatibility Guidelines

cc: 62 OSS/OSA

City of Tacoma
Public Works Department

Memorandum

TO: Jana Magoon, Building and Land Use Services Division

FROM: RAM Richard A. Meuschke, Environmental Services Engineering Division
Christopher Johnson, P.E., Environmental Services Engineering Division
RAM for CLJ

SUBJECT: Conditional Use Permit - CUP2003-00017
2201 South 78th Street – Bates Tech. College

DATE: August 6, 2003

We have the following comments on the subject Conditional Use Perimt request for the proposed construction of a new educational building:

1. Please contact the Public Works Department, Environmental Services Engineering Division at 253-591-5588 for questions regarding the following storm and sanitary sewer comments.

2. Any utility construction, relocation, or adjustment costs shall be at the applicant's expense.

3. All buildings shall be connected to the City sanitary sewer at the building construction stage. A new sidesewer and new connection to the City sanitary sewer shall be required for the proposed new building.

4. All storm drainage from roofs, driveways, access ways, and other surface drainage shall be collected on site and conveyed to the City storm system using methods and materials acceptable to the Public Works Department.

5. This project will contribute stormwater to the City's regional detention system in the Flett Creek drainage basin which is at capacity. The applicant must meet <u>one</u> of the following criteria in accordance with the City of Tacoma 2003 Stormwater Management Manual:

    - Prepare a ¼ mile downstream hydrological analysis of the City storm system . If the analysis shows the system has sufficient capacity, an in-lieu of detention fee will be offered negating the requirement for detention. The fee collected will be used to make future improvements to the City's regional Flett Creek drainage basin. The applicant must sign an *Agreement Regarding Stormwater Detention* and pay the fee before issuance of building permits prior to issuance of a grading permit.

    <u>OR</u>

    - On-site detention of stormwater shall be provided.

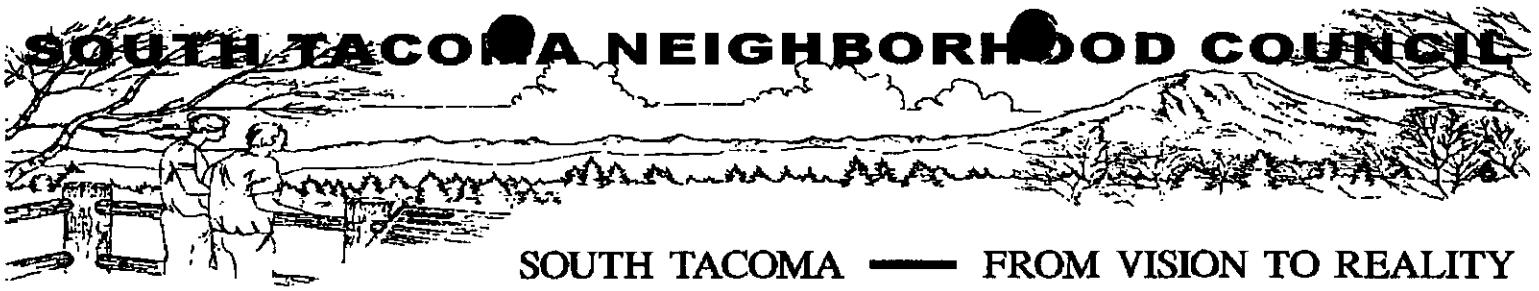
6. Projects totaling 5,000 square feet or more of effective pollution-generating impervious surface within a threshold discharge area, shall be required to construct stormwater treatment facilities. Commonly used stormwater treatment facilities include biofiltration, wet ponds/vaults, oil/water separators, and compost filters, or a combination of such devices. Due to the multitude of site

specific constraints or possibilities, the selection of the appropriate stormwater treatment facility is the responsibility of the project engineer and shall be based on Volume V, Chapter 2 of the City of Tacoma's 2003 Surface Water Management Manual.

7. No permanent structures(s) shall be erected within the public easement area(s) unless specifically approved in writing by the City of Tacoma Director of Public Works. Permanent structures shall mean any concrete foundation, concrete slab, wall, rockery, building, deck, overhanging structures, fill material, recreational sport courts, carports, portable sheds, private utilities, fences, or other site improvement that will unreasonably interfere with the need to access or construct public storm and/or sanitary sewer utilities in said easements(s). Permanent structures shall not mean improvements such as normal landscaping, asphalt paving, gravel, or other similar site improvements that do not prevent the access of men, materials, and machinery across, along, and within the said easement area. Land restoration by the City within the said easement area due to the construction, operation, inspection, replacement, repair, or maintenance of public storm and/or sanitary sewer utilities will be strictly limited to grass seed, grass sod, and/or asphalt replacement unless otherwise determined by the City of Tacoma.

CLJ:ram (CUP2003-00017 – 2201 South 78th Street – Bates Tech College.doc)

File: Environmental Services Engineering



SOUTH TACOMA — FROM VISION TO REALITY

September 11, 2003

Jana McGoon
Building and Land Use Services
Public Works Department
747 Market Street
Tacoma, WA 98402

City of Tacoma Pre-App - Conditional Use Permit
Bates Technical College Fire Services Training Center
Washington State Project 2020-213

Re: File No. CUP2003-00017
Conditional Use Permit Application; Bates Technical College
Construction of 45,000 Square Foot Educational Building
And a 455-Stall parking area.

Dear Jana:

The South Tacoma Neighborhood Council has reviewed the subject request for a Conditional Use Permit and was provided the details of the proposed development by Mr. Mattes during our August Land Use Committee meeting. Our Land Use Committee and the Neighborhood Council Board consider the construction of additional classroom facilities and parking at the Bates Technical College's South Campus will have an overall positive impact on South Tacoma, Tacoma and Pierce County. However, we have the following concerns that we believe should be addressed prior to granting the Conditional Use Permit or that should be "conditions" of that Conditional Use Permit:

- **Traffic:** Traffic on South 74th Street is excessive with the Level of Service of the intersection of South 74th and Tacoma Mall Boulevard unacceptable. The Conditional Use Permit for original construction of the Bates Technical College's South Campus precludes access to the campus via South 74th Street. While it may be possible to modify that restriction with appropriate traffic engineering efforts and traffic mitigation, traffic accessing the proposed parking lot from South 74th Street and exiting onto South 74th Street must be strictly controlled to minimize the impact. While other mitigation may be necessary, we recommend the following as a minimum:
  - **East Bound Traffic:** Traffic entering the parking lot from South 74th Street must be restricted to **"right turn only"** into the parking lot.
  - **West Bound Traffic: Traffic west bound on South 74th Street must not be allowed to enter the parking lot.** West bound-traffic should be prevented by a permanent barrier on the centerline of South 74th Street of sufficient length, and height, to preclude a left-turn entry into the parking lot. **West bound-traffic** should also be prevented from making a **"left turn in"** by construction of channeling barriers at the parking lot exit. **Both barriers must be permanent and of sufficient height to prevent both car and truck traffic from**

deliberately violating the restriction. Our experience with the Home Depot site is that the barriers at that location are too low. Both delivery and private trucks deliberately violate the restrictions at the Home Depot location and turn left over the barriers to access Interstate 5.

- **Exiting Traffic:** Traffic exiting onto South 74th Street should be **"right turn only"** with a barrier of sufficient design, and height, to prevent violators from turning left onto South 74th Street. **Left turns out** must be prevented both by the channeling design and the centerline barrier discussed earlier in preventing **"left turns in"** by west bound traffic on South 74th.

- **Landscaping:** The intersection of South 74th and Tacoma Mall Boulevard is one of the most heavily traveled entryways into South Tacoma. Members of the Arlington Residential Coalition, ARC, were deeply involved in the rezone of the Home Depot site on the northwest corner of the intersection. One of the "conditions" placed on the Home Depot rezone was the neighborhood group's involvement, and review, of the final landscape plan for the site. This partnering with the neighborhood assured the quality of the landscaping on both Home Depot's property and the adjacent WSDOT property. Continued beauty of the streetscape was assured by incorporation of irrigation in the landscaped areas.

  Local residents planted and nurtured trees on the "new" Bates' site adjacent to South 74th Street, in partnership with the City of Tacoma. They also maintained the planting strip on both South 74th Street and Tacoma Mall Boulevard for many years. The South Tacoma Neighborhood Council would like to work with the College to assure retention of the trees. We consider it appropriate that the Conditional Use Permit direct the South Tacoma Neighborhood Council review of the final landscape drawings similar to the function ARC performed in review of the Home Depot's landscaping plans.

- **Signage and Lighting:** Bates has indicated that they will install a sign on the corner of South 74th Street and Tacoma Mall Boulevard. The sign criteria should assure the design is appropriate for location adjacent to a residential neighborhood and in the entryway streetscape into our neighborhood. Normal "commercial" sign standards would be inappropriate in this location. All lighting on the property should be subdued and directed away from the adjacent neighborhood.

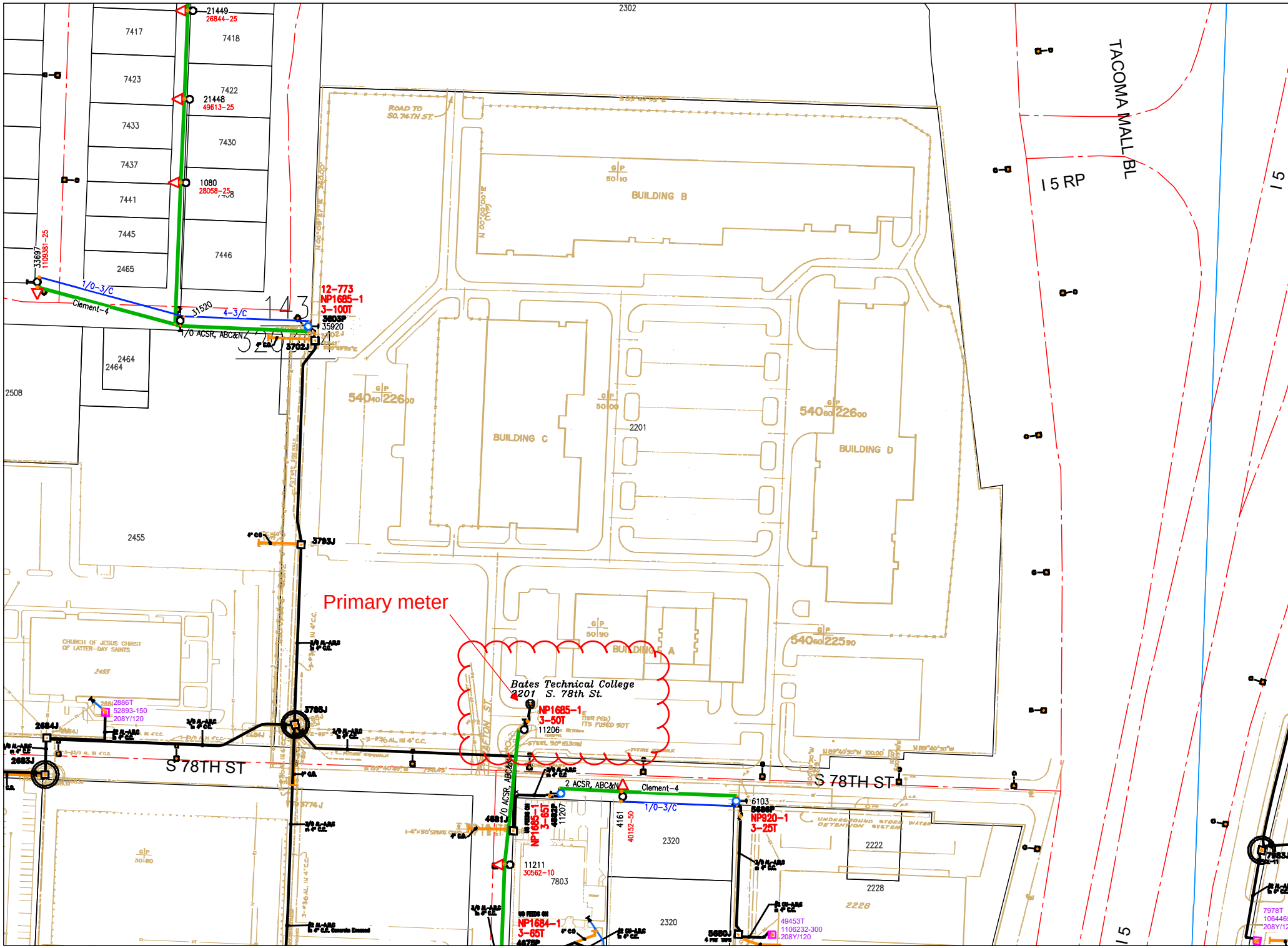
- **Buffer:** There are a number of single-family homes on South Wapato Street that front on the Bates' site and are now buffered from that site by a stand of Oregon White Oak trees. These trees are considered a threatened species and also serve as a buffer between the homes, the college and the parking lot. These trees will also help shield the homes from the lighting on the campus. All efforts should be made to retain these trees. In addition, a sketch shown at our Land Use Committee meeting depicted a building next to the fence on Wapato Street with the existing trees shown removed. The building was identified as a garage for vehicle storage. We request this building be placed elsewhere, away from the adjacent neighborhood and the Oregon White Oak trees left in place as a buffer.

We wish to reiterate that we welcome the expansion of Bates Technical College's South Campus. We have worked with Mr. Mattes in the past and believe the concerns expressed herein can be readily resolved.

Sincerely,

Skip Vaughn

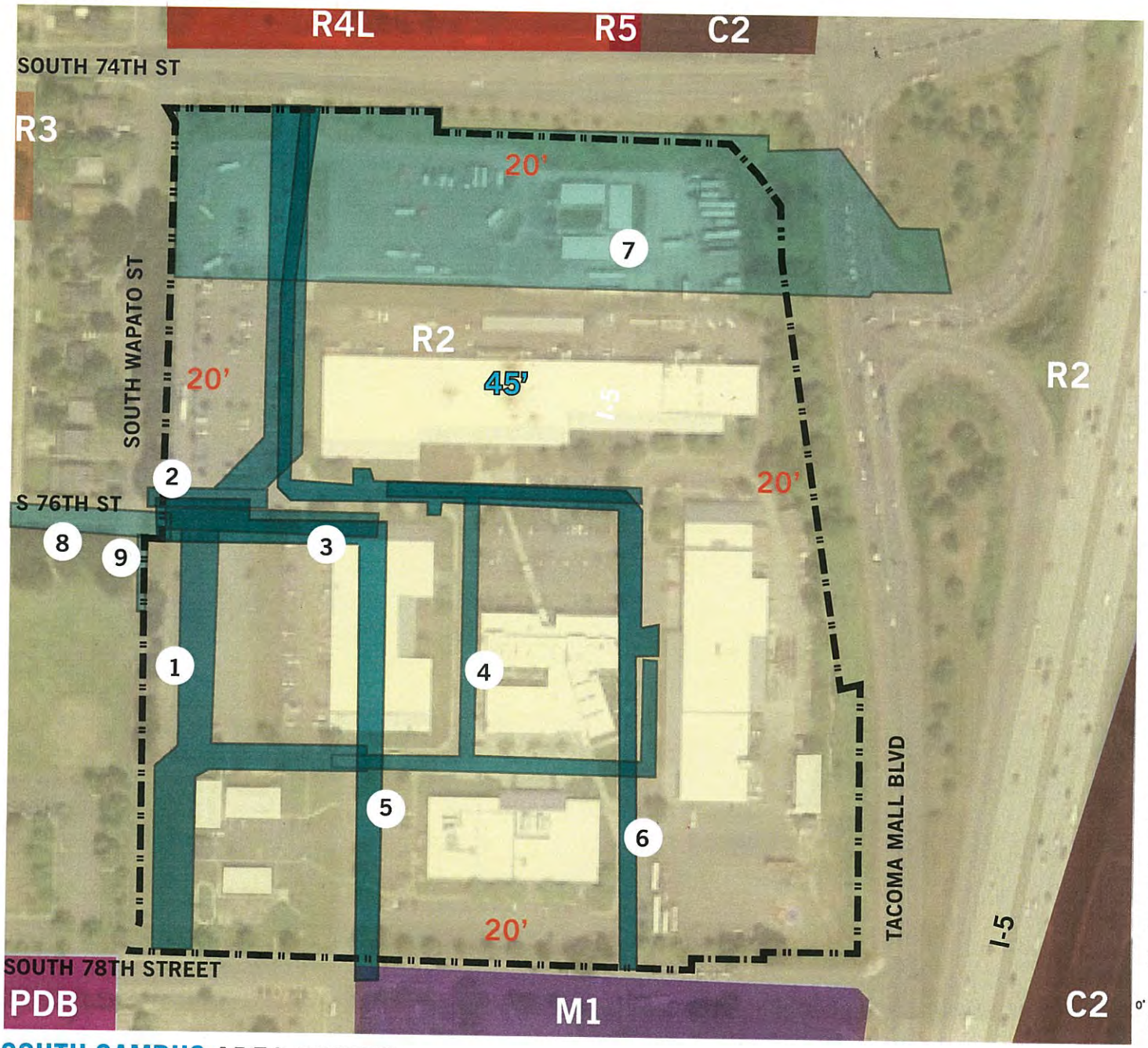
Skip Vaughn
Chair, South Tacoma Neighborhood Council
7634 South Fife
Tacoma, WA 98409
253-475-3121



City of Tacoma Pre-App - Tacoma Campus Power Map

Bates Technical College Fire Services Training Center Washington State Project 2020-213

PERKINS+WILL



SOUTH CAMPUS AREA ZONING

Legend

- R2 One Family Dwelling
- R3 Two Family Dwelling
- R4L Low Density Multiple Family
- R5 Multiple Family Dwelling
- C2 Commercial
- PDB Planned Business Development
- M1 Light Industrial
- Property Line
- Overlay 1: STGPD - South Tacoma Groundwater Protection District
- 45' Height Limit
- 20' Setbacks

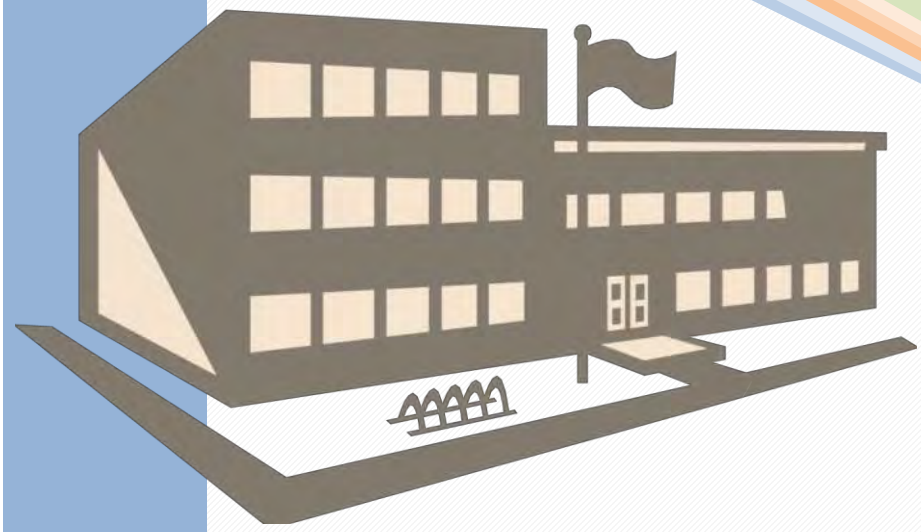
1. Easement E-3427
2. Easement E-1451
3. Easement E-2360
4. Easement E-2520
5. Easements E-200, E-279
6. Easement E-1558
7. Deed D-6956
8. Deed D-3608
9. Deed D-1308

The South Campus is zoned R2 (One-Family Dwelling). The R2 zone has 20' setbacks on all sides and the height limit is 45' for this use (per TMC 13.06.640). The easement and deed numbers can be found on the City of Tacoma maps website: http://www.govme:org/Common/gMap/MGMain.aspx.

N

0' 50' 100' 200' 400'

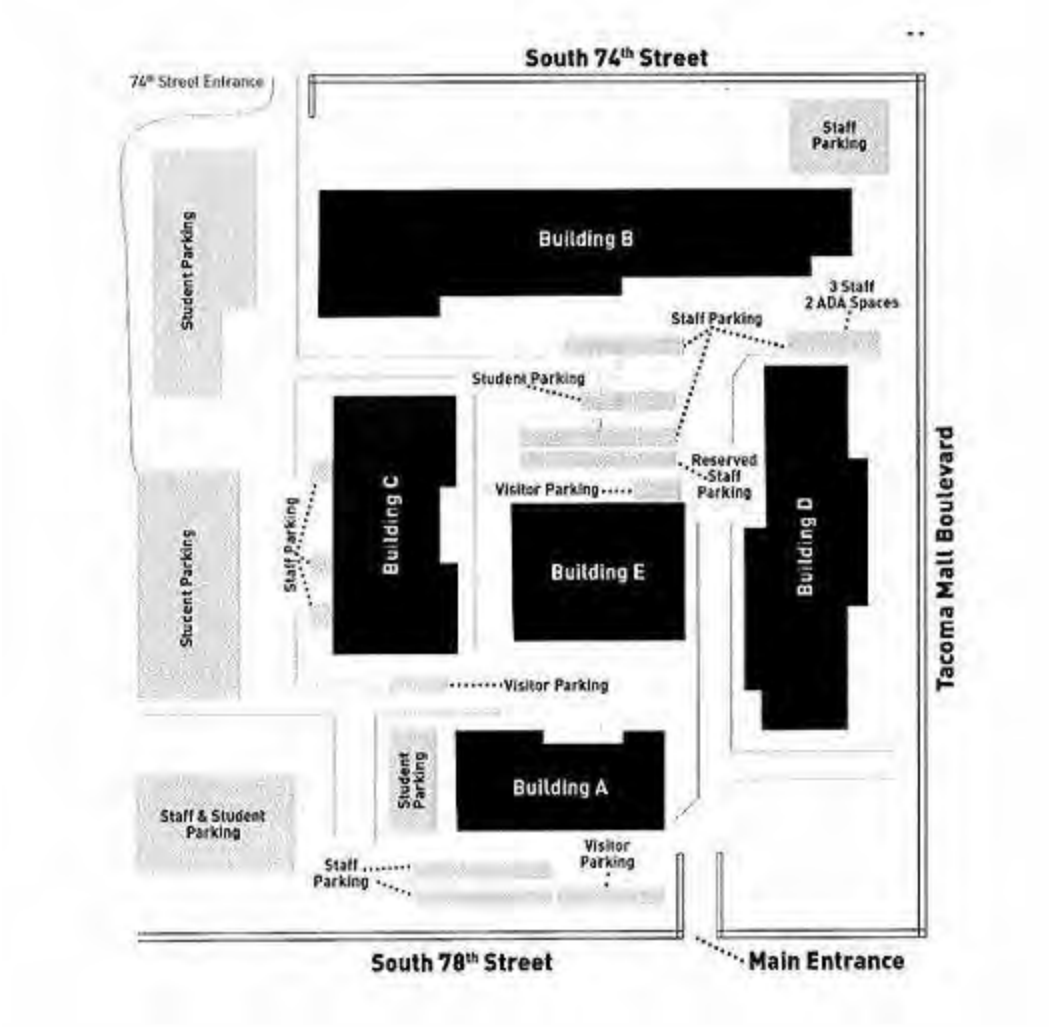
2019 FACILITY CONDITION SURVEY



Bates Technical College

SURVEY CONDUCTED BY:
Steve Lewandowski
State Board for Community
and Technical Colleges

Olympia, Washington



South Campus (280B)

BUILDING CONDITION RATING

S.C. Bldg. D (280-7) STATE UFI: A05138 South Campus (280B)

AREA: 47,040 SF BUILT: 1987 REMODELED: No PREDOMINANT USE: Vocational Arts

CONSTRUCTION TYPE: Heavy CRV/SF: $363 REPLACEMENT VALUE: $17,075,520

Primary Systems					
COMPONENT:	Structure	RATING: 1	x WEIGHT: 8.3	=	SCORE: 8.3
No signs of settlement or cracking, no abrupt vertical changes Columns, bearing walls and roof structure appears sound/free of defects					
COMMENTS:	Cast concrete; steel framing; steel joists				
COMPONENT:	Exterior Closure	RATING: 2	x WEIGHT: 8.3	=	SCORE: 16.7
Weatherproof exterior, but generally appears poorly maintained					
COMMENTS:	Concrete; stucco; metal fascia				
COMPONENT:	Roofing	RATING: 1	x WEIGHT: 10.4	=	SCORE: 10.4
Flashing and penetrations appear sound and membrane appears water- tight; drainage is positive and there are overflow scuppers					
COMMENTS:	Hypalon membrane over metal roof-2006; standing seam metal				

Secondary Systems							
COMPONENT:	Floor Finishes	RATING: 2	x	WEIGHT: 6.3	=	SCORE: 12.5	
Some wear is evident; maintenance needed							
COMMENTS:	Vinyl tile; carpet; concrete; vinyl sheet floor.						
COMPONENT:	Wall Finishes	RATING: 2	x	WEIGHT: 6.3	=	SCORE: 12.5	
Maintainable surfaces, minor maintenance is required in some areas							
COMMENTS:	Gypsum board; concrete; ceramic tile						
COMPONENT:	Ceiling Finishes	RATING: 3	x	WEIGHT: 6.3	=	SCORE: 18.8	
Some wear and tear; Minor staining or deterioration							
COMMENTS:	Lay-in tile; gypsum board; metal framing						
COMPONENT:	Doors & Hardware	RATING: 3	x	WEIGHT: 6.3	=	SCORE: 18.8	
Functional but dated							
COMMENTS:	Interior/exterior HM doors/frames; metal coiling doors						

Service Systems							
COMPONENT:	Elevators	RATING: 0	x	WEIGHT: 0	=	SCORE: 0	
No data							
COMMENTS:							
COMPONENT:	Plumbing	RATING: 2	x	WEIGHT: 8.3	=	SCORE: 16.7	
Fixtures and piping are functional; finishes require maintenance							
COMMENTS:	Copper, cast iron, steel and PVC piping; porcelain fixtures						
COMPONENT:	HVAC	RATING: 1	x	WEIGHT: 8.3	=	SCORE: 8.3	
Equipment in good condition; easily controlled; serves all required spaces; All necessary spaces are adequately ventilated; A/C provided							
COMMENTS:	AHUs w heating coils-2009; packaged HVAC units; split-system HVAC						
COMPONENT:	Electrical	RATING: 2	x	WEIGHT: 8.3	=	SCORE: 16.7	
Adequate service and distribution capacity for current/future needs; some deterioration evident							
COMMENTS:	2000amp 480/277v; UPS funded in 2009 to replace						
COMPONENT:	Lights/Power	RATING: 1	x	WEIGHT: 8.3	=	SCORE: 8.3	
Contemporary lighting with good work area illumination; ample outlets							
COMMENTS:	Ceiling mount, hanging and lay-in fluorescent lighting; metal halide						

Safety Systems						
COMPONENT:	Life/Safety	RATING: 1	x	WEIGHT: 10.4	=	SCORE: 10.4
Appears to meet current codes						
COMMENTS:						
COMPONENT:	Fire Safety	RATING: 2	x	WEIGHT: 10.4	=	SCORE: 20.9
Locally monitored detection; alarm present, but missing visual component or sprinklers						
COMMENTS:	Partial sprinklers					
COMPONENT:	Modifications	RATING: 1	x	WEIGHT: 7.3	=	SCORE: 7.3
Modifications appear to be in compliance with codes and sound construction practices; HVAC/electrical service properly provided						
COMMENTS:						

Quality Standards						
COMPONENT:	Maintenance	RATING: 1	x	WEIGHT: 7.3	=	SCORE: 7.3
Facility appears well maintained						
COMMENTS:						
COMPONENT:	Remaining Life	RATING: 1	x	WEIGHT: 6.3	=	SCORE: 6.3
Life expectancy is >20 years; minor system deterioration						
COMMENTS:	Heavy-duty construction for vocational programs					
COMPONENT:	Appearance	RATING: 2	x	WEIGHT: 6.3	=	SCORE: 12.5
Well-constructed building; average interior and exterior appearance						
COMMENTS:	Very utilitarian exterior					

Heat Loss						
COMPONENT:	Insulation	RATING: 2	x	WEIGHT: 6.3	=	SCORE: 12.5
Some insulation is up to current standards (2010 or newer), but other insulated areas or systems are not						
COMMENTS:						
COMPONENT:	Glazing	RATING: 3	x	WEIGHT: 6.3	=	SCORE: 18.8
Double glazing with aluminum/metal window frames						
COMMENTS:	Operable units					

TOTAL SCORE = 244 PREVIOUS BIENNIUM SCORE = 250
CONDITION: Adequate

Fire Service Training Center

Bates Technical College

PRE-DESIGN REPORT SUPPLEMENT

OFM Project # 40000130

March 13, 2023

Executive Summary 1.0

In the Pre-Design the college evaluated two potential sites for the new Fire Service Training Center, both viable alternatives. Alternate A considers a new academic building will be constructed on the west side of campus, portions of the existing fire service training space in Building D will be renovated and include a modest addition, while a new live fire training tower with outdoor training spaces on an expanded drill ground will be built in the location of the current drill ground.

Alternate B considers a new, combined academic and training support building, and new live training tower with outdoor training spaces. The site is located at the entrance to north campus and would provide a new "front door" while showcasing the fire training program. The north site has more physical space for future expansion of exterior training props, and room for multiple partnership training opportunities. This Alternate depends on the existing Commercial Driver License (CDL) vacating the area. At the time the Pre-Design was published in July 2020, there was no commitment to move the CDL program to another location on-campus or off-campus. Despite Alternate B being the site most desired by Bates Technical College for the Fire Service Training Center, Alternate A was selected as the Preferred Alternate due to this program conflict.

Since that time, state regulations for the CDL program have changed and their current site cannot be made compliant with these new regulations. The CDL program is required to move off campus as soon as possible. The college is partnering with DES / RES to find a suitable location to relocate the CDL program to. The necessary relocation of the CDL program presents the opportunity to switch the Preferred Alternate to Alternate B for the Fire Services Training Center project.

The Pre-Design acknowledged this preference in 3.2 Analysis of Alternates:

> *"Upcoming L&I safety training regulations indicate that the CDL program will have to be relocated independent of the Fire Service Training project, likely off-campus, however the timeframe, location, and funding for relocation is not in place at this time. For this and other reasons discussed below, Alternate A: South Campus is the Preferred Alternate.*
>
> *Should the CDL driver training program be independently relocated, and if the schedule and project budget are not impacted, the College should consider Alternate B during the design phase due to the advantages discussed below. "*

With the relocation of the CDL program off campus now being a regulatory matter, Alternate B is now Bates Technical College preferred option for Fire Services Training Center.

Analysis of Alternates 1.2

CHANGE the Preferred Alternate from Alternate A to **Alternate B.**

Advantages

Alternate B offers greater future expansion opportunities and provides a larger live fire training area for operational training exercises. The CDL program will be relocated off-site due to upcoming L&I safety requirements in the near term. Alternate B centralizes instruction and live training without the restrictions of renovating existing space in Building D.

- New 34,600 sf combined academic building/fire training support
- New 18,900 sf 5-story live fire training tower
- . The entire project can be built concurrently, with no construction phasing.
- Outdoor training spaces and expanded drill ground

Disadvantages

This option vacates space with no replacement program: Approximately 14,400 sf of space in Building D will be vacated. While this spare capacity may be useful in the future, neither the original PRR or this Predesign identify a specific use for the space.

Project, Cost, Delivery Method & Schedule 1.3

The MACC for Preferred Alternate B escalated to 2024 construction dollars is $36,059,446 with a Total Project Escalated Cost of $40,937,000 aligned with the 2023-2025 Capital Request.

- In 2019-2021, $ 2,802,000 was funded.
- No funding was allocated in the 2021-2023 biennium.
- The remaining $38,135,000 is requested in the 2023-2025 biennium.

Progressive Design/Build (PD/B) is the preferred delivery method, providing greater efficiencies in design coordination, construction sequencing & planning, integral value engineering, constructability reviews, and reduced cost.

Updated Project Schedule Summary

Alternate B – Preferred Alternate

- August 2020: Predesign Complete.
- March 2023: Pre-Design Supplement (this document) submitted.

- April – June 2023: Progressive Design Build Team Selection.
- Notice to Proceed: June 2023.
- July 2023-November 2024: Design and Construction.
- December 2024: Occupancy.

Financial Summary

An updated copy of the C-100 for Alternate B is included at the end of this document. An updated Life Cycle Cost Analysis for Alternative B, December 2022 is included at the end of this document.

Detailed Analysis of Preferred Alternate B 4.0

4.1.1 Project Proposal

- New 34,600 sf combined academic building/fire training support.
- New 18,900 sf 5-story live fire training tower with outdoor training and drill ground (same as Alternate A).
- New surface parking lot at the location of existing NW gravel area (same as Alternate A).

4.1.3 Program Features

Program features are consistent across Alternate A and Alternate B. Program area addressed in Alternate A through a blend of renovation in Building D and the construction of a smaller new academic building is consolidated into a single new facility in Alternate B.

Campus Key Plan

4.2.3 Occupancy

Occupancy count of Alternate B remains the same overall as Alternate A. The design of the 5-story training tower considered in the Pre-Design is identical in Alternate A and Alternate B.

4.3.2 Site Plan and Building Footprint (with diagrams)

Site Plans and Building Block Diagrams for Preferred Alternate B are included here for reference.

Alternate B Site Layout

Alternate B Landscape Plan

Alternate B Level 1 Floor Plan

Alternate B Level 2 Floor Plan

4.3.12 Consistency with Other Laws and Regulations

High Performance Public Buildings (Ch 39,35D RCW)
The new project will meet or exceed the requirements of LEED Silver certification, as required by RCW 39.35D.030.

Greenhouse Gas Emissions Reduction Policy (RCW 70.235.070)
The College's Sustainability Plan, with its strategy for reducing greenhouse gas emissions, is included in the Appendix. By incorporating such design features as sun shading devices, low-e high performance glazing, maximizing daylighting, LED lighting, using highly efficient HVAC equipment, and exceeding Washington Energy Code insulation requirements, the Fire Service Training project will contribute significantly to the State greenhouse gas reduction program.

Washington State Clean Buildings Performance Standard (WAC 194-50)

The college has decided to use electricity instead of natural gas for heating as a best practice and in alignment with the Governor and Legislature's preferred energy source. The Clean Buildings Performance Standard consists of ASHRAE Standard 100-2018 and state amendments to ASHRAE Standard 100-2018, WAC194-50.

Archeological or Cultural Resources
Reference the letter from the Washington State Historic Preservation Officer, located in the Appendix. An EZ-1 form will be required before construction can begin.

Americans with Disabilities Act (Executive Order 96-04)
The Fire Service Training building(s) will be designed to comply with all requirements of the Americans with Disabilities Act of 1990 and ICC A117.1, as adopted by the Washington State Building Code.

Compliance with State Planning (Ch 36.70A RCW as required by RCW 43.88.0301)
The Fire Services Training project is in alignment with the College's Master Plan and Strategic Plan.

The South Campus is listed as a Major Institutional Campus in the City of Tacoma Comprehensive Plan and supports Pierce County's plans for expanding educational opportunities and economic development.

Information required by RCW 43.88.0301(1)
The Fire Service Training Program site is located within the Urban Growth Boundary. Since the project is intended to significantly improve Bates Technical College's ability to deliver educational programs to its service area, the project will contribute to the economic development of City of Tacoma and Pierce County.

Other Codes and Regulations
The Fire Service Training project will comply with all applicable City and State codes and regulations.

The fire training facilities will comply with NFPA 1402-2019 *Standard on Facilities for Fire Training and Associated Props and WA State WAC 296-305 Safety Standards for Firefighters.*

Appendix

- **Updated C100**
- **Updated LCCM**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2022

Agency	Bates Technical College
Project Name	Fire Training Center (Alternate B)
OFM Project Number	40000130

Contact Information	
Name	Darrell Jennings
Phone Number	
Email	

Statistics			
Gross Square Feet	53,500	MACC per Gross Square Foot	$521
Usable Square Feet	44,687	Escalated MACC per Gross Square Foot	$553
Alt Gross Unit of Measure			
Space Efficiency	83.5%	A/E Fee Class	B
Construction Type	College classroom facilitie	A/E Fee Percentage	6.81%
Remodel	No	Projected Life of Asset (Years)	
Additional Project Details			
Procurement Approach	DB-Progressive	Art Requirement Applies	Yes
Inflation Rate	4.90%	Higher Ed Institution	Yes
Sales Tax Rate %	10.30%	Location Used for Tax Rate	Tacoma
Contingency Rate	5%		
Base Month (Estimate Date)	March-23	OFM UFI# (from FPMT, if available)	
Project Administered By	DES		

Schedule			
Predesign Start	July-19	Predesign End	August-20
Design Start	July-23	Design End	February-24
Construction Start	January-24	Construction End	December-24
Construction Duration	10 Months		

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Project Cost Estimate

Total Project	**$38,547,919**	Total Project Escalated	**$40,937,243**
		Rounded Escalated Total	**$40,937,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	New Approp Request 2023-2025	2025-2027	Out Years
Acquisition					
Acquisition Subtotal	$0				**$0**
Consultant Services					
Consultant Services Subtotal	$830,551				**$830,551**
Construction					
Construction Subtotal	$36,059,446				**$36,059,446**
Equipment					
Equipment Subtotal	$2,923,435				**$2,923,435**
Artwork					
Artwork Subtotal	$203,668				**$203,668**
Agency Project Administration					
Project Administration Subtotal	$293,150				**$293,150**
Other Costs					
Other Costs Subtotal	$626,993				**$626,993**
Project Cost Estimate					
Total Project	**$40,937,243**	**$0**	**$0**	**$0**	**$40,937,243**
	$40,937,000	**$0**	**$0**	**$0**	**$40,937,000**
	Percentage requested as a new appropriation		**0%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Insert Row Here

What has been completed or is underway with a previous appropriation?
Insert Row Here

What is planned with a future appropriation?
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis	$27,262			
Environmental Analysis				
Predesign Study	$218,089			
Other				
Insert Row Here				
Sub TOTAL	**$245,351**	**1.0161**	**$249,302**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$1,374,002			69% of A/E Basic Services
Other	-$1,374,002			
Insert Row Here				
Sub TOTAL	**$0**	**1.0324**	**-$1**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$0			
Geotechnical Investigation	$61,194			
Commissioning	$125,000			
Site Survey	$35,697			
Testing	$96,891			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)	$30,597			
Landscape Consultant				
Honorarium	$80,000			
Advertising	$2,550			
Traffic Analysis	$20,398			
SEPA/Land Use	$30,597			
Hazmat Testing	$20,000			
Parking Analysis	$10,199			
Elevator Consultant	$10,199			
Insert Row Here				
Sub TOTAL	**$523,322**	**1.0324**	**$540,278**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$617,305			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Bid/construction/closeout carried on Construction tab	-$617,305			
Insert Row Here				
Sub TOTAL	**$0**	**1.0660**	**$1**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$38,434			
Other				
Insert Row Here				
Sub TOTAL	**$38,434**	**1.0660**	**$40,971**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$807,107**		**$830,551**	

Green cells must be filled in by user

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$1,005,360			
G20 - Site Improvements	$1,709,785			
G30 - Site Mechanical Utilities	$488,154			
G40 - Site Electrical Utilities	$310,077			
G60 - Other Site Construction				
15.8% lost buying power Dec-17 to June-22	$555,114			
Insert Row Here				
Sub TOTAL	**$4,068,490**	**1.0449**	**$4,251,166**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Civil Consultant	$104,610			
Landscape Design	$52,305			
15.8% lost buying power Dec-17 to Jun-22	$24,793			
Insert Row Here				
Sub TOTAL	**$181,708**	**1.0449**	**$189,867**	
3) Facility Construction				
A10 - Foundations	$986,890			
A20 - Basement Construction				
B10 - Superstructure	$3,569,971			
B20 - Exterior Closure	$2,656,521			
B30 - Roofing	$766,486			
C10 - Interior Construction	$1,696,555			
C20 - Stairs	$506,831			
C30 - Interior Finishes	$1,163,738			
D10 - Conveying	$114,287			
D20 - Plumbing Systems	$940,758			
D30 - HVAC Systems	$2,255,655			
D40 - Fire Protection Systems	$280,303			
D50 - Electrical Systems	$2,079,894			
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
General Conditions / reimbursables	$820,811			
Envelope Consultant	$41,844			
Interior Design	$52,305			
Acoustic Design	$41,844			
Security Consultant	$31,383			
Audio Visual Consultant	$52,305			
Cost and Scheduling				Part of D/B services
Value Engineering Participation				Part of D/B services
Environmental Graphics / Signage	$41,844			
Lighting Consultant	$36,614			
Materials/Equip/Lab Consultant	$36,614			
Door Hardware consultant	$12,554			

LEED Services	$41,844			
Bonds & Insurance of Construction only - 2.5%	$533,802			
A/E Basic Design Services	$1,078,385			
Bid/Construction closeout	$460,007			
Fire Tower Specialist	$78,458			
15.8% lost buying power Dec-17 to Jun-22	$3,219,802			
Insert Row Here				
Sub TOTAL	**$23,598,305**	**1.0660**	**$25,155,794**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$27,848,503**		**$29,596,827**	
	$521		*$553*	*per GSF*
5) GCCM Risk Contingency				
GCCM Risk Contingency	$1,202,439			
Other				
Insert Row Here				
Sub TOTAL	**$1,202,439**	**1.0660**	**$1,281,800**	
6) GCCM or Design Build Costs				
GCCM Fee	$854,084			
Bid General Conditions	$1,067,604			
GCCM Preconstruction Services	$366,135			
Other				
Insert Row Here				
Sub TOTAL	**$2,287,823**	**1.0660**	**$2,438,820**	
7) Owner Construction Contingency				
Allowance for Change Orders	$1,392,425			
Other				
Insert Row Here				
Sub TOTAL	**$1,392,425**	**1.0660**	**$1,484,326**	
8) Non-Taxable Items				
Other	-$1,539,500			Design Build efficiencies
15.8% lost buying power Dec-17 to Jun022	-$439,504			
Insert Row Here				
Sub TOTAL	**-$1,979,004**	**1.0660**	**-$2,109,619**	
9) Sales Tax				
Sub TOTAL	**$3,167,475**		**$3,367,292**	
CONSTRUCTION CONTRACTS TOTAL	**$33,919,661**		**$36,059,446**	

Green cells must be filled in by user

Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment	$1,702,810				
E20 - Furnishings	$783,530				
F10 - Special Construction					
Insert Row Here					
Sub TOTAL	**$2,486,340**		**1.0660**	**$2,650,439**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0660**	**$0**	
3) Sales Tax					
Sub TOTAL	**$256,093**			**$272,996**	
EQUIPMENT TOTAL	**$2,742,433**			**$2,923,435**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$203,668				0.5% of total project cost for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$203,668**		**NA**	**$203,668**	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$0				
Additional Services					
BTC- Project Manager	$275,000				
Agency Project Management Additional Services	$0				
Insert Row Here					
Subtotal of Other	*$275,000*				
PROJECT MANAGEMENT TOTAL	**$275,000**		**1.0660**	**$293,150**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
DES LCCT Review Fee	$2,000				
Permit and Plan Review Fees	$523,050				
DES PDB Audit Review	$75,000				
Insert Row Here					
OTHER COSTS TOTAL	**$600,050**		**1.0449**	**$626,993**	

Green cells must be filled in by user

C-100(2022)
Additional Notes

Tab A. Acquisition

Insert Row Here

Tab B. Consultant Services

Insert Row Here

Tab C. Construction Contracts

Insert Row Here

Tab D. Equipment

E-10 Equipment - Fire Training Equipment (4) Class B (gas) Live Fire Training Props and thermal linings for (4) live fire rooms;

(2) /extractors; (1) 6,000 psi SCBA Compressor, air dryer, and (2) 4-drawer bottle fill stations; (1) SCBA/Equipment washer.

Insert Row Here

Tab E. Artwork

Insert Row Here

Tab F. Project Management

Insert Row Here

Tab G. Other Costs

Insert Row Here

Life Cycle Cost Analysis - Project Summary

Agency	
Project Title	

Existing Description	

Lease Option 1 Description	New Building Leased in Pierce County @ Market Rate

Lease Option 2 Description	

Ownership Option 1 Description	Bates Technical College-Fire Training Center Alternative A

Ownership Option 2 Description	Bates Technical College--Fire Training Center Alternate B

Ownership Option 3 Description	

Lease Options Information	**Existing Lease**	**Lease Option 1**	**Lease Option 2**
Total Rentable Square Feet	-	54,500	-
Annual Lease Cost (Initial Term of Lease)	$ -	$ 2,530,722	$ -
Full Service Cost/SF (Initial Term of Lease)	$ -	$ 46.44	$ -
Occupancy Date	n/a	8/15/23	
Project Initial Costs	n/a	$ 2,498,000	$ -
Persons Relocating	-	-	-
RSF/Person Calculated			

Ownership Information	**Ownership 1**	**Ownership 2**	**Ownership 3**
Total Gross Square Feet	54,500	53,500	-
Total Rentable Square Feet	45,166	44,687	-
Occupancy Date	12/31/24	12/31/24	
Initial Project Costs	$ -	$ -	$ -
Est Construction TPC ($/GSF)	$ 577	$ 750	$ -
RSF/Person Calculated	-	-	-

Financial Analysis of Options

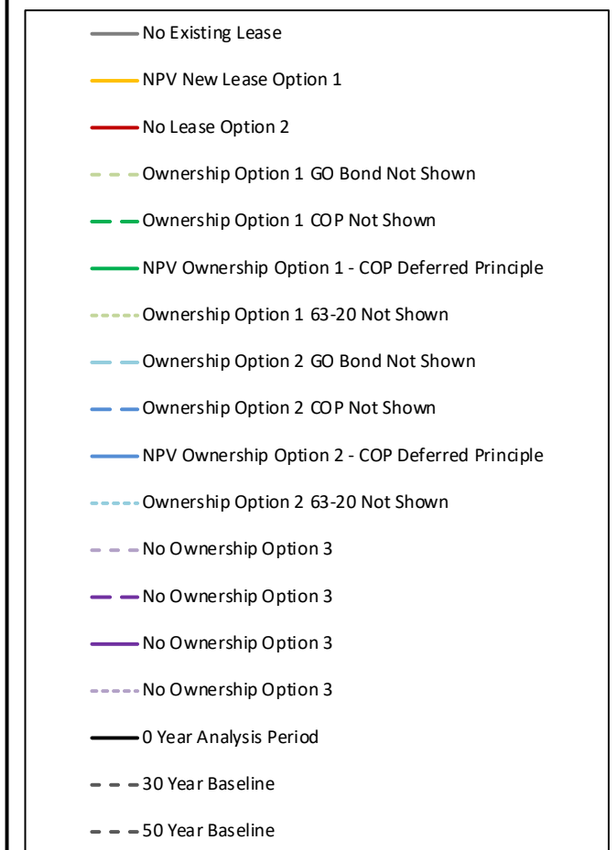
	Display Option?	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	No	No	Yes	No
	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
0	0 Year Cumulative Cash	$ -	$ -	$ -			$ -				$ -				$ -	
	0 Year Net Present Value	$ -	$ -	$ -			$ -				$ -				$ -	
	Lowest Cost Option (Analysis Period)															

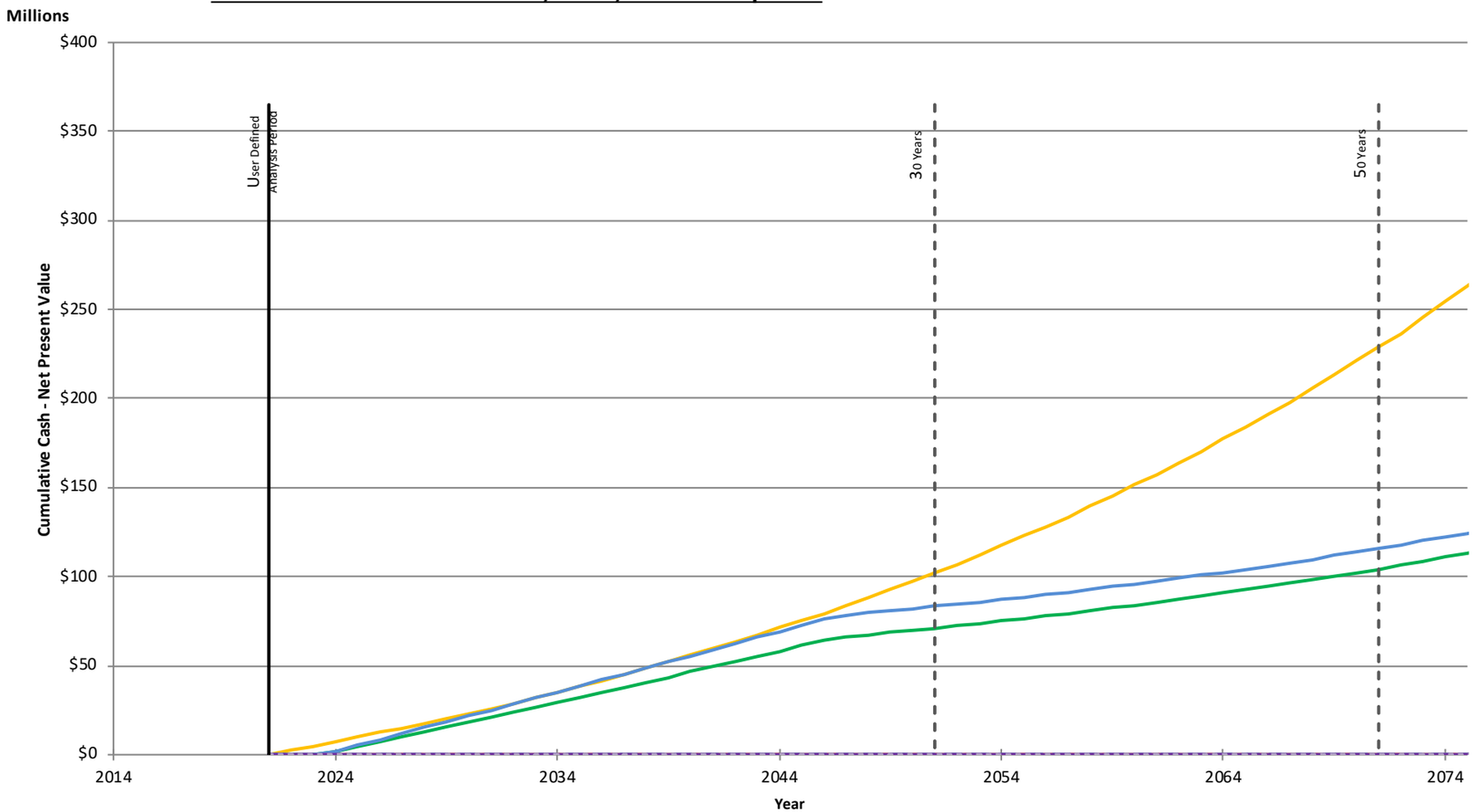
	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
30	30 Year Cumulative Cash	$ -	$ 106,643,463	$ -			$ 75,918,628				$ 89,088,209				$ -	
	30 Year Net Present Value	$ -	$ 97,205,983	$ -			$ 69,686,409				$ 81,855,946				$ -	
	Lowest Cost Option (30 Years)		**3**				**1**				**2**					

	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
50	50 Year Cumulative Cash	$ -	$ 259,945,442	$ -			$ 116,041,025				$ 128,474,416				$ -	
	50 Year Net Present Value	$ -	$ 220,523,517	$ -			$ 101,965,624				$ 113,542,882				$ -	
	Lowest Cost Option (50 Years)		**3**				**1**				**2**					

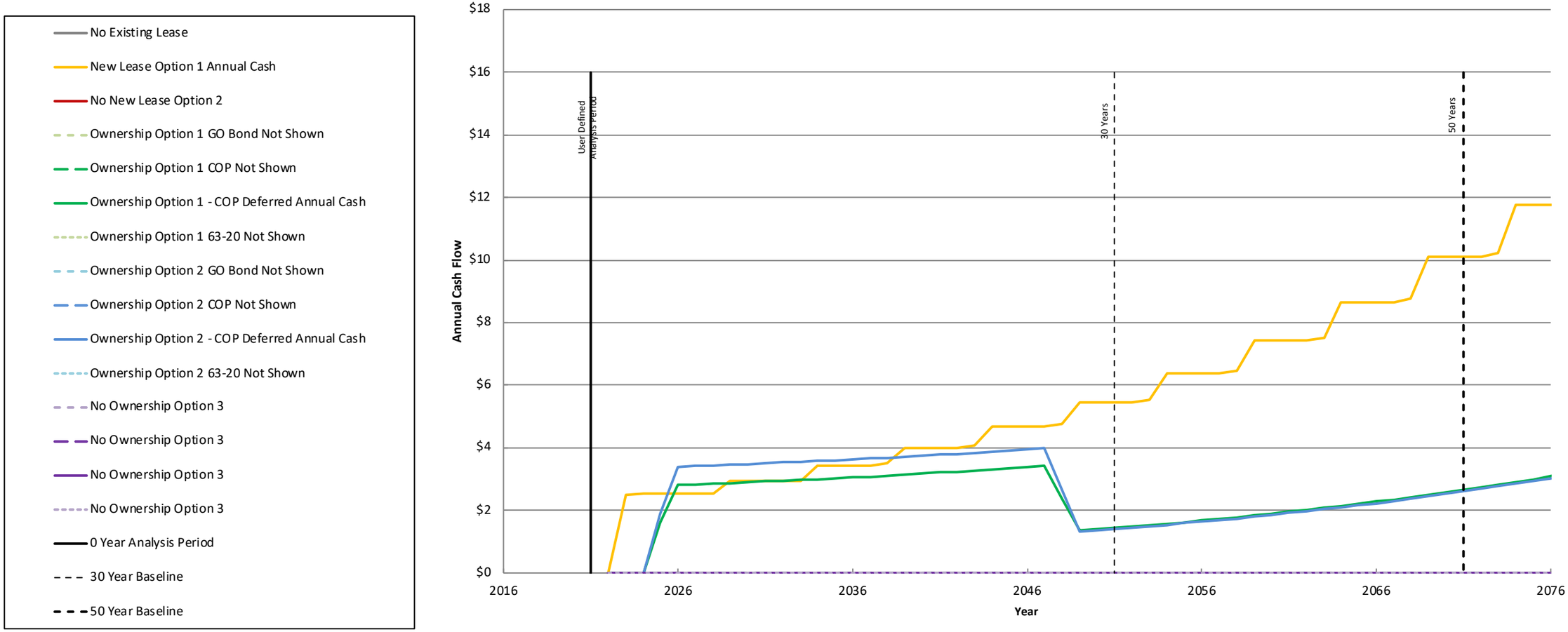
** - Defers payment on principle for 2 years while the building is being constructed. See instructions on Capitalized Interest.*

Cumulative Cash - NPV of Exist, Lease, and Own Options





Annual Cash Flow of Existing, New Lease, and Own Options



Financial Assumptions

Date of Life Cycle Cost Analysis:	
Analysis Period Start Date	8/15/21
User Input Years of Analysis	0

All assumptions subject to change to reflect updated costs and conditions.

	Lease Options			Ownership Option 1			Ownership Option 2			Ownership Option 3		
	Existing Lease	**Lease Option 1**	**Lease Option 2**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**
Inflation / Interest Rate	3.120%	3.120%	3.120%	3.540%	3.670%	3.670%	3.540%	3.670%	3.670%	3.540%	3.720%	3.720%
Discount Rate	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%
Length of Financing	N/A	N/A	N/A	25	25	25	25	25	25	25	25	25

See Financial Assumptions tab for more detailed information

COP Deferred and 63-20 Financing defer the payment on principle until construction completion.

New Lease Assumptions

Real Estate Transaction fees are 2.5% of the lease for the first 5 years and 1.25% for each year thereafter in the initial term of the lease.

Tenant Improvements are estimated at $20 per rentable square foot.

IT infrastructure is typically estimated at $350 per person.

Furniture costs are typically estimated at $500 per person and do not include new workstations.

Moving Vendor and Supplies are typically estimated at $205 per person.

Default Ownership Options Assumptions

Assumes a 2 month lease to move-in overlap period for outfitting building and relocation.

Assumes surface parking.

The floor plate of the construction option office building is 15,000 gross square feet.

The estimated total project cost for construction is $567.00 per square foot.

See the Capital Construction Defaults tab for more construction assumptions.

Lease Option 1 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

New Lease Option 1 Description	New Building Leased in Pierce County @ Market Rate

New Lease Information		
Lease Location	Tacoma	Market Area: Pierce County
Lease Square Feet Type	Rentable	
New Facility Square Feet	54,500	
New Lease Start Date	8/15/23	
SF per Person Calculated		

New Lease Costs	**Years of Term**	**Rate / SF / Year**	**Rate / Month**	**Adjusted to FS Rate**	**Total FS Rate / Month**	**Estimated FSG Market Rate**	**Estimated FSG Rate / Month**	**Real Estate Transaction Fees for Term**
Years 1 - 5	5				$ 210,894	$ 46.44	$ 210,894	$ 296,652
Years 6 - 10	5				$ 245,911	$ 54.15	$ 245,911	$ 174,589
Years								
Years								
Years								
Total Length of Lease	10							$ 471,241
Transaction Fee for first 5 Years	2.50%	*of total rent for first 5 years of term*						
Transaction Fee for Additional Years	1.25%	*of total rent for term beyond 5 years*						

Note: Real estate transaction fees calculated on base lease - not full service rate including added services and utilities.

Added Services	New Lease Operating Costs (Starting in current year)	Known Cost / SF / Year	Estimated Cost / SF / Year in 2023 - Rentable	Total Cost / Year	Cost / Month
✓	Energy (Electricity, Natural Gas)	$ -	$ 1.24	$ 67,498	$ 5,625
✓	Janitorial Services	$ -	$ 1.56	$ 85,192	$ 7,099
✓	Utilities (Water, Sewer, & Garbage)	$ -	$ 0.67	$ 36,698	$ 3,058
	Grounds	$ -	$0.00	$ -	$ -
	Pest Control	$ -	$0.00	$ -	$ -
	Security	$ -	$0.00	$ -	$ -
	Maintenance and Repair	$ -	$0.00	$ -	$ -
	Management	$ -	$0.00	$ -	$ -
	Road Clearance	$ -	$0.00	$ -	$ -
	Telecom	$ -	$0.00	$ -	$ -
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ -**	**$ 3.48**	**$ 189,388**	**$ 15,782**

Escalated to lease start date

	New Lease One Time Costs	Current Estimate	Calculated (for reference)	
*	Real Estate Transaction Fees		$ 471,241	*Per Std %*
*	Tenant Improvements	$ 1,090,000	$ 817,500	*$20 per SF*
*	IT Infrastructure	$ 519,000	$ -	
*	Furniture Costs	$ 749,000	$ -	
*	Building Security and Access Systems	$ 75,000		
*	Moving Vendor and Supplies	$ 60,000	$ -	
	Other / Incentive	$ 5,000		
	Total	$ 2,498,000	$ 1,288,741	

Biennium Budget Impacts for New Lease	Biennium Time Period Start	Finish	Existing Lease Option	New Lease Option 1	Biennium Impact:
21-23 Biennium Lease Expenditure	7/1/2021	6/30/2023	$ -	$ -	$ -
23-25 Biennium Lease Expenditure	7/1/2023	6/30/2025	$ -	$ 7,137,658	$ 7,137,658
25-27 Biennium Lease Expenditure	7/1/2025	6/30/2027	$ -	$ 5,061,445	$ 5,061,445
27-29 Biennium Lease Expenditure	7/1/2027	6/30/2029	$ -	$ 5,411,619	$ 5,411,619
29-31 Biennium Lease Expenditure	7/1/2029	6/30/2031	$ -	$ 5,901,862	$ 5,901,862

Ownership Option 1 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

*	**Project Description**	Bates Technical College-Fire Training Center Alternative A
*	**Construction or Purchase/Remodel**	Construction
*	**Project Location**	Tacoma — Market Area = Pierce County

	Statistics	
*	Gross Sq Ft	54,500
*	Usable Sq Ft	45,166
	Space Efficiency	83%
	Estimated Acres Needed	3.00
	MACC Cost per Sq Ft	$378.40
	Estimated Total Project Costs per Sq Ft	$559.66
	Escalated MACC Cost per Sq Ft	$390.21
	Escalated Total Project Costs per Sq Ft	$577.12

*	**Move In Date**	12/31/24

Interim Lease Information	**Start Date**
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced ($/SF/Year)	
One Time Costs (if double move)	

	Construction Cost Estimates (See Capital Budget System For Detail)			
		Known Costs	Estimated Costs	Cost to Use
	Acquisition Costs Total		$ -	$ -
A & E	**Consultant Services**			
	A & E Fee Percentage (if services not specified)	7.14%	7.01% Std	7.14%
	Pre-Schematic Design services	$ 214,303		
	Construction Documents			
	Extra Services	$ 602,500		
	Other Services			
	Design Services Contingency	$ 40,840		
	Consultant Services Total	$ 857,643	$ 1,374,202	$ 857,643
MACC	**Construction Contracts**			
	Site Work	$ 2,757,441		
	Related Project Costs	$ 1,854,331		
	Facility Construction	$ 16,011,278		
	MACC SubTotal	$ 20,623,050	$ 22,072,500	$ 20,623,050
	Construction Contingency (5% default)	$ 1,993,395	$ 1,031,153	$ 1,993,395
	Non Taxable Items			$ -
	Sales Tax	$ 2,579,578	$ 1,979,813	$ 2,579,578
	Construction Additional Items Total	$ 4,572,973	$ 3,010,965	$ 4,572,973
	Equipment			
	Equipment	$ 2,486,340		
	Non Taxable Items			
	Sales Tax	$ 253,607		
	Equipment Total	$ 2,739,947		$ 2,739,947
	Art Work Total	$ 114,857	$ 103,115	$ 114,857
	Other Costs			
		$ 650,000		
	Other Costs Total	$ 650,000		$ 650,000
	Project Management Total	$ 942,980		$ 942,980
	Grand Total Project Cost	**$ 30,501,450**	**$ 26,560,782**	**$ 30,501,450**

Construction One Time Project Costs			
One Time Costs	Estimate	Calculated	
Moving Vendor and Supplies		$ -	*$205 / Person in FY09*
Other (not covered in construction)			
Total	$ -	$ -	

	Ongoing Building Costs				
Added Services	New Building Operating Costs	Known Cost /GSF/ 2024	Estimated Cost /GSF/ 2024	Total Cost / Year	Cost / Month
☑	Energy (Electricity. Natural Gas)	$ -	$ 1.28	$ 69,604	$ 5,800
☑	Janitorial Services	$ -	$ 1.61	$ 87,850	$ 7,321
☑	Utilities (Water, Sewer, & Garbage)	$ -	$ 0.69	$ 37,843	$ 3,154
☑	Grounds	$ -	$ 0.07	$ 4,055	$ 338
☑	Pest Control	$ -	$ 0.14	$ 7,433	$ 619
☑	Security	$ -	$ 0.10	$ 5,406	$ 451
☑	Maintenance and Repair	$ -	$ 6.68	$ 364,238	$ 30,353
☑	Management	$ -	$ 0.58	$ 31,761	$ 2,647
☑	Road Clearance	$ -	$ 0.09	$ 4,730	$ 394
☑	Telecom	$ 0.35	$ -	$ 19,075	$ 1,590
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ 0.35**	**$ 11.25**	**$ 631,995**	**$ 52,666**

Ownership Option 2 Information Sheet

* ***Requires a user input*** | *Green Cell* = *Value can be entered by user.* | *Yellow Cell* = *Calculated value.*

*	**Project Description**	Bates Technical College--Fire Training Center Alternate B
*	**Construction or Purchase/Remodel**	Construction
*	**Project Location**	Tacoma — Market Area = Pierce County

	Statistics	
*	Gross Sq Ft	53,500
*	Usable Sq Ft	44,687
	Space Efficiency	84%
	Estimated Acres Needed	2.00
	MACC Cost per Sq Ft	$520.53
	Estimated Total Project Costs per Sq Ft	$727.64
	Escalated MACC Cost per Sq Ft	$536.77
	Escalated Total Project Costs per Sq Ft	$750.34

*	**Move In Date**	12/31/24

Interim Lease Information	**Start Date**
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced ($/SF/Year)	
One Time Costs (if double move)	

	Construction Cost Estimates (See Capital Budget System For Detail)			
		Known Costs	Estimated Costs	Cost to Use
	Acquisition Costs Total		$ -	$ -
A & E	**Consultant Services**			
	A & E Fee Percentage (if services not specified)	7.04%	6.66% Std	7.04%
	Pre-Schematic Design services	$ 245,351		
	Construction Documents	$ -		
	Extra Services	$ 523,322		
	Other Services	$ -		
	Design Services Contingency	$ 38,434		
	Consultant Services Total	$ 807,107	$ 1,855,664	$ 807,107
MACC	**Construction Contracts**			
	Site Work	$ 4,068,490		
	Related Project Costs	$ 181,708		
	Facility Construction	$ 23,598,305		
	MACC SubTotal	$ 27,848,503	$ 21,667,500	$ 27,848,503
	Construction Contingency (5% default)	$ 2,279,255	$ 2,279,255	$ 2,279,255
	Non Taxable Items	$ 1,392,425		$ 1,392,425
	Sales Tax	$ 2,780,398	$ 2,673,456	$ 2,780,398
	Construction Additional Items Total	$ 6,452,078	$ 6,452,078	$ 6,452,078
	Equipment			
	Equipment	$ 2,486,340		
	Non Taxable Items			
	Sales Tax	$ 256,093		
	Equipment Total	$ 2,742,433		$ 2,742,433
	Art Work Total	$ 203,668	$ 139,243	$ 203,668
	Other Costs			
		$ 600,050		
		$ -		
	Other Costs Total	$ 600,050		$ 600,050
	Project Management Total	$ 275,000		$ 275,000
	Grand Total Project Cost		**$ 30,114,484**	**$ 38,928,839**

Construction One Time Project Costs			
One Time Costs	**Estimate**	**Calculated**	
Moving Vendor and Supplies		$ -	*$205 / Person in FY09*
Other (not covered in construction)			
Total	$ -	$ -	

	Ongoing Building Costs				
Added Services	New Building Operating Costs	Known Cost /GSF/ 2024	Estimated Cost /GSF/ 2024	Total Cost / Year	Cost / Month
☑	**Energy (Electricity. Natural Gas)**	$ -	$ 1.28	$ 68,327	$ 5,694
☑	**Janitorial Services**	$ -	$ 1.61	$ 86,238	$ 7,186
☑	**Utilities (Water, Sewer, & Garbage)**	$ -	$ 0.69	$ 37,149	$ 3,096
☑	**Grounds**	$ -	$ 0.07	$ 3,980	$ 332
☑	**Pest Control**	$ -	$ 0.14	$ 7,297	$ 608
☑	**Security**	$ -	$ 0.10	$ 5,307	$ 442
☑	**Maintenance and Repair**	$ -	$ 6.68	$ 357,555	$ 29,796
☑	**Management**	$ -	$ 0.58	$ 31,178	$ 2,598
☑	**Road Clearance**	$ -	$ 0.09	$ 4,644	$ 387
☑	**Telecom**	$ 0.35	$ -	$ 18,725	$ 1,560
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ 0.35**	**$ 11.25**	**$ 620,399**	**$ 51,700**